Avaya™ Interactive Response
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Administration

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Contents

Administration **17**

Administration procedures **18**

Starting the Web Administration interface 20

Setting up user accounts 21

Establishing platform user accounts 21
Assigning Web Administration privileges 22
Setting up a .profile for the root user account 23

Backing up and restoring system data 23

Backing up and restoring data overview 23
Displaying the backup history 24
Displaying the available backup files 25
Displaying the default backup parameters 25
Assigning default backup parameters 25
Performing a partial backup 26
Performing a full backup 28
Scheduling a backup 29
Viewing backup file content 29
Deleting a backup file 30
Restoring data from a partial backup 31
Creating a file list for a partial backup or restore 32

Administering alarms and messages 32

Administering alarms and messages overview 33
Displaying active alarms 34
Displaying retired alarms 34
Retiring alarms 34
Displaying a message explanation 34
Adding a message destination 35
Changing the message destination 36
Removing a message destination 37
Adding a message threshold 37
Removing a message threshold 38
Changing the message priority 39
Changing the threshold period 39
Changing threshold frequencies 40
Displaying dialout configuration parameters 40
Changing the dialout configuration 40

Administering ASAI 42

Administering ASAI overview 42

Displaying ASAI channel assignments 42
Adding an ASAI channel 43
Changing an ASAI channel 43
Logging in an ASAI channel 44
Logging out an ASAI channel 45
Unassigning an ASAI channel 45
Displaying ASAI domains 46
Adding an ASAI domain 46
Changing an ASAI domain 47
Enabling an ASAI domain 47
Disabling an ASAI domain 48
Unassigning an ASAI domain 48
Assigning ASAI parameters 49
Administering ASG 50
Displaying information about an ASG user 50
Adding an ASG user 50
Removing an ASG user 51
Administering digital interfaces 51
Administering digital interfaces overview 52
Displaying ISDN system parameters 52
Assigning ISDN system parameters 52
Displaying assigned cards and protocols 53
Displaying digital interface protocol parameters 53
Assigning a digital interface protocol 53
Changing digital interface protocol parameters 55
Unassigning a digital interface protocol 56
Administering Disk Mirroring 57
Enabling Disk Mirroring 57
Disabling Disk Mirroring 58
Administering fax 58
Administering fax overview 58
Enabling fax for a digital protocol 59
Displaying the current fax header 59
Creating a fax header 59
Displaying jobs in the fax queue 61
Deleting fax jobs 61
Printing a fax 61
Administering IC Integration 63
Programming the VOX server for IC Integration 64
Administering PDS Integration 64
Installing and configuring the PDS Integration software 64
Administering the PDS/IVR Integration software 71
Dialer Administration 71
Avaya IR administration 74

Administering the CTI DIP 74
Administering CVCT for CTI 75
Administering the Avaya IR system and the switch for CTI 75
Administering the CTI DIP on Avaya IR 75
Setting up and administering a Siebel Client for CTI 76
Administering the JDBC database interface 76
Administering the JDBC database interface overview 77
Configuring a database DIP 77
Starting, stopping, restarting, and testing a DIP 78
Configuring File CDH for a local text file 78
Configuring File CDH for a local Oracle database 79
Configuring File CDH for a remote database 80
Configuring Database CDH for a local Oracle database 80
Setting up a CDH schedule 81
Deleting a CDH schedule 81
Using uploadcdh with multiple systems 82
Administering VoiceXML 83
Administration commands for VoiceXML 83
Using TTS and speech recognition languages with VoiceXML 84
Administering the speech recognition type 85
Administering the VXML log reports 85
Administering SNMP configuration 87
Setting SNMP configuration 87
Administering network services 88
Running the disableServices utility 88
Enabling a network service 89
Disabling a network service 89
Enabled and disabled services 90
Administering the Web Administration interface 90
Installing the Web Administration SSL certificate for Internet Explorer 90
Installing the Web Administration SSL certificate for Netscape 93
Administering the Web Administration session timeout 94
A word about the Tomcat server log 95
Installing the Web Administration SSL certificate for Internet Explorer 95
Administering voice equipment 98
Administering voice equipment overview 98
Displaying equipment assignments 98
Displaying passwords assigned to channels 99
Changing equipment states 99
Assigning channels to equipment groups 100
Assigning telephone numbers and passwords to channels 100
Unassigning telephone numbers from channels 101
Assigning a TAS service to channels 102
Assigning a VoiceXML service to channels 102

Assigning a VoiceXML URI to channels 103
Unassigning a service from a channel 104
Assigning a service to calling (ANI) and called (DNIS) numbers 104
Assigning a VoiceXML URI to calling (ANI) and called (DNIS) numbers 105
Unassigning a service from calling and called numbers 106
Administering Two B-Channel Transfer (TBCT) 106
Administering Two B-Channel Transfer overview 106
Assigning TBCT system parameters 107
Changing TBCT system parameters 108
Displaying TBCT card parameters 108
Assigning TBCT card parameters 109
Changing TBCT card parameters 110
Unassigning TBCT 111
Administering speech and dial pulse recognition 111
Administering speech and dial pulse recognition overview 112
Displaying speech or DPR resource status 112
Displaying the speech or DPR server status 113
Assigning a recognition type for DPR 113
Assigning a recognition type for WholeWord 114
Assigning a recognition type for a TDD modem recognition engine 114
Assigning a recognition type for Nuance and SpeechWorks recognition engines 115
Assigning a recognition type for an MRCP recognition engine 116
Changing the engine associated with a recognition type 117
Unassigning a speech or dial pulse recognition type 117
Assigning a speech or DPR server 118
Changing options for a speech or DPR server 119
Unassigning a speech or DPR server 121
Changing the speech resource state 121
Changing the speech server state 122
Changing the speech resource port state 123
Administering Proxy Text-to-Speech 123
Administering Proxy Text-to-Speech overview 124
Displaying the TTS resource status 124
Displaying the TTS server status 124
Assigning a default voice for TTS 125
Changing the default voice for TTS 126
Assigning a TTS type 126
Changing a TTS type 127
Unassigning a TTS type 127
Assigning a TTS server with a sapi engine 128
Assigning a TTS server with a Speechify or RealSpeak speech engine 129
Assigning a TTS server with an MRCP engine 129
Changing options for a TTS server 130
Unassigning a TTS server 131
Assigning a new voice to a TTS server with a Speechify or RealSpeak engine 132
Changing a TTS resource state 132
Changing a TTS server state 133

Changing a TTS resource port state 134
Administering Universal Call ID Expansion 134
Setting the Universal Call ID Network Node ID 134
Administering Voice over IP 135
Guidelines for administering VoIP 135
Procedure for administering VoIP 136
Available VoIP channels 136
Administering VoIP on the IR system 137
Configuring DEFINITY or MultiVantage for VoIP 139
Administering the voice system 141
Administering the voice system overview 141
Checking voice system status 142
Renumbering voice channels 142
Stopping and starting the voice system 142
Creating reports 143
Creating reports overview 143
Displaying VXML Log reports 143
Displaying Performance Record snapshot 144
License Configuration 144
License configuration overview 144
Configuring WebLM servers 144
Viewing licensed features 146
Rebooting the system 146
Setting up a second Network Interface Card for failover 146

Command-line administration 149

Command line overview 150
Administration commands 151
add command 153
addhdr command 154
annotate command 154
asaichan command 155
asaidom command 156
asaiparms command 157
asg_adm command 158
assign card/channel command 158
assign eqpgrpname command 159
assign_permissions command 160
assign phone command 161
assign service/startup command 162
autoreboot command 163
backup command 165
bbs command 167

ccarpt command 168
cddrpt command 169
cdsrpt command 170
checktf command 171
ckConfig command 172
copy phrase command 172
cticonfig command 173
dalarm command 175
dbconfig command 178
decode command 181
defService command 181
delbackup command 183
delete card/channel command 184
delete eqpgrp command 185
delete phone command 185
delete service/startup command 186
dip_int command 188
display assignments command 189
display card command 190
display channel command 191
display dnis command 192
display eqpgrp/group command 193
display messages command 194
display password command 200
display_permissions command 201
display servers command 201
display services command 202
dspActAlarms command 202
dspRetAlarms command 203
edExplain command 204
encode command 205
erase command 206
explain command 207
fax command 209
fax_admin command 211
faxit command 216
faxq command 219
faxremove command 221
faxrpt command 221
faxutil command 223
fixLogFile command 224
hassign command 225
hdelete command 227
hdisplay command 228
hispy command 229
hfree command 231
hlogin command 232
hlogout command 233

hnewscript command 234
hsend command 235
hspy command 236
hstatus command 238
licenseQuery 239
logCat command 241
logDstPri command 249
logEvent/logMsg command 250
logFmt command 253
logit command 255
logTest command 256
mirror_admin command 257
mkheader command 258
msgadm command 263
mode command 266
newscript command 267
nms command 268
nmsboards command 273
pkgadd command 274
pkginfo command 275
pkgrm command 277
remove command 278
renumber command 281
restback command 281
restore command 282
retireAlarms command 284
rmdb command 285
RTUquery command 287
sb_te command 287
scat command 289
sched_croncdh command 289
schedback command 290
sci command 292
scrm command 294
scsp command 295
setbkparms command 296
shmview command 297
show_sys 300
soft_disc command 302
soft_szr command 303
speech command 304
sproxyadm command 307
start_vs command 311
stop_vs command 312
sysmon command 313
tas command 314
tbct command 316
trace command 318

trarpt command....322
tts command....323
unassign_permissions command....328
vfyLogMsg command....329
voip command....330
vs_status command....333
vsdisable command....334
vsenable command....334
vxmlassign command....335
vxmldelete command....336
vxmldisplay command....337
xferdip_off command....338
xferdip_on command....338

Web Administration screens....340

Web Administration entry screen....343
Logon Screen....343
Web Administration menu....345
Web Administration and command-line equivalence....348
ASG Security Login Administration screen....352
Backup and restore screens....352
Backup and restore screens overview....353
Backup screen....354
Full Backup screen....354
Partial Backup screen....356
Backup Scheduling screen....358
Setup Backup Schedule screen....358
Delete Schedule screen....359
Delete Backup files screen....360
Backup history screen....361
Default Backup Parameters screen....361
Display default parameters screen....362
Setup Default Backup Parameters screen....362
Restore screen....364
List Available Backup Files screen....364
View Backup File Content screen....365
View backup content for directory screen....366
Backup file content screen....367
Restore file list screen....367
Set restore directory screen....368
Restore from NFS Mount Directory screen....368
Alarm administration screens....369
Alarms screen....370
Display active alarms screen....370

Display retired alarms screen 371
Retire alarms screen 371
Dialout Configuration screen 372
Display dialout parameters screen 372
Change dialout parameters screen 373
CDH scheduling screens 375
CDH Scheduling screen 375
Setup CDH Schedule screen 375
Feature Licensing screen 377
License Configurations screens overview 377
License configurations screen 377
JDBC administration screens 379
JDBC Administration - Main screen 379
JDBC administration - edit screen 381
JDBC Administration - Edit (Custom) screen 383
File CDH edit screen 385
DIP status screens 386
DIP start status screen 386
DIP stop status screen 386
DIP restart status screen 387
Message administration screens 387
Message Administration screen 387
Message Administration for Message ID screen 388
Add destination screen 389
Remove destination screen 390
Add threshold screen 391
Remove threshold screen 392
Message priority screen 393
Threshold period screen 393
VXML Log Administration screens overview 394
VXML Administration screen 394
VXML Logging Level screen 395
VXML Log File Configuration screen 397
Performance Configuration screen 397
SNMP Configuration screen 399
Voice system control 399
Renumber Voice Channels screen 399
Report Voice System Status screen 400
Start Voice System screen 400
Stop Voice System screen 401
CTI DIP administration screens 402
CTI DIP Configuration screen 402
CTI Configuration - Edit screen 403

Switch interfaces screens 404
Digital Interfaces Protocols screen 404
Display ISDN System Parameters screen 405
Assign ISDN System Parameters screen 406
Assign Card screen....409
ISDN-PRI screens....410
Loop Start screens....424
Wink Start screens....436
R2 MFC screens....442
Display Parameters screen....449
Change Parameters screen....449
Unassign Card screen 450
TBCT screens....450
VoIP screens 459
Voice equipment screens....468
Display Equipment screen 468
Display Passwords screen....470
Change State of Voice Equipment screen....471
Channels to Groups screen 471
Assign channels to equipment groups screen 472
Unassign channels from groups screen....473
Phone Number - Channel Assignment screen....474
Assign Phone Number to a Channel screen....474
Unassign Phone Number from a Channel screen 475
Assign Services to Channels screen 476
Voice Services 477
Channel Services screen....478
Number Services screen....479
Assign Number Services screen....480
ASAI administration screens 482
ASAI Administration screen 482
ASAI Channels screen....482
Display ASAI channels screen....483
Add ASAI Channel screen 484
Change ASAI Channel screen....485
Change specific ASAI channel screen....485
Login ASAI Channel screen....487
Logout ASAI Channel screen....487
Unassign ASAI Channel screen....488
ASAI Domains screen....488
Display ASAI domains screen....489
Add ASAI Domain screen 491
Change ASAI Domain screen....492
Change specific ASAI domain screen....493
Enable ASAI Domain screen 495
Disable ASAI Domain screen....495
Unassign ASAI Domain screen....496

ASAI Parameters screen 497
Fax administration screens 498
Fax Administration screen 498
Fax Header screen 498
Custom fax header screen 499
Fax Transmission Control screen 499
Speech and DPR administration screens 501
Display Speech Proxy Status screen 501
Speech Resource Status screen 501
Speech resource status display screen 502
PTTS status display screen 503
Speech Server Status screen 504
Speech Server Status for resource screen 505
Speech Proxy Administration screen 506
Change Speech State screen 506
Change Speech Resource State screen 507
Change Speech Resource Port State for resource screen 507
Change Speech Server State screen 508
Change Speech Server State for resource screen 509
Change Speech Resource Port State screen 510
Change Speech Resource Port State for type and server screen 510
Speech Recognition and DPR Configuration screen 511
Change Speech Recognition Configuration screen 512
Change Speech Recognition Server screen 513
Assign Speech Recognition or DPR Server screen 514
Assign Speech Recognition or DPR Type screen 515
Text-to-Speech Configuration screen 516
Change Text-to-Speech System Parameters screen 518
Change Text-to-Speech Configuration screen 519
Assign Text-to-Speech type screen 519
Change Text-to-Speech Server screen 520
Assign Text-to-Speech Server screen 521
Assign Text-to-Speech Voice screen 522
Change Text-to-Speech Voice screen 523
Universal Call ID Administration screen 525
Report screens 525
Reports screens overview 525
Fax report screen 526
Fax report description 527
Call Data Handling Reports screen 527
Call Classification Data Summary report screen 528
Call Classification Data Summary report description 529
Call Data Detail Report screen 529
Call Data Detail report description 530
Call Data Summary Report screen 531
Call Data Summary report description 532

Call Traffic Report screen 533
Call Traffic report description 534
Message Log Report screen 534
Explain messages screen 535
Modify Message Log Report screen 536
VXML Log Report screen 538
VXML Performance Log Report screen 540

Index 541

Administration

Administration involves configuring the Avaya IR software so that the system's resources can work together. There are two ways to administer the system: through the Web Administration interface, and through the command-line interface.

Administration procedures

This section contains step-by-step procedures for administering the Avaya Interactive Response system.

This section includes the following topics:

Starting the Web Administration interface 20

Setting up user accounts 21

Backing up and restoring system data 23

Administering alarms and messages 32

Administering ASAI 42

Administering ASG 50

Administering digital interfaces 51

Administering Disk Mirroring 57

Administering fax 58

Administering IC Integration 63

Administering PDS Integration 64

Administering the PDS/IVR Integration software 71

Administering the CTI DIP 74

Administering the JDBC database interface 76

Administering VoiceXML 83

Administering SNMP configuration 87

Administering network services 88

Administering the Web Administration interface 90

Installing the Web Administration SSL certificate for Internet Explorer9

Administering voice equipment 98

Administering Two B-Channel Transfer (TBCT) 106

Administering speech and dial pulse recognition 111

Administering Proxy Text-to-Speech 123

Administering Universal Call ID Expansion 134

Administering Voice over IP 135

Administering the voice system 141

Creating reports 143

License Configuration 144

Starting the Web Administration interface

To set up the features on Avaya IR, you can use the Web Administration interface or the command-line interface.

Note:
Avaya recommends using the Web Administration interface until you are familiar with the administration commands.

To start the Web Administration interface:

1. Start a Web browser.

   To run Netscape locally on the Avaya IR platform, from the Solaris prompt, type **netscape** and press **Enter**.

   If you are accessing Avaya IR from another computer, start the browser as you normally do on that system. This computer must be on the same data network as the Avaya IR system.

2. In the browser address field, enter **`http://`*`host id`*** where *host id* is the IP address of the Avaya IR system or the name of the of the Avaya IR system. For example, http://121.23.41.1 or http://air3, where air3 is the name of the of the Avaya IR system. The name of the Avaya IR system is specified when it is installed and set up for the first time.

3. Select **Web Administration**.

   The browser displays the Logon screen.

4. Log on to the system using an account with root or administration privileges.

   The system displays the Web Administration screen, the entry point for the Web Administration interface.

Notes:

If you have entered an incorrect logon id or password, the following error message will be displayed " **Authentication failed. Please try again. If the error persists, contact a system administrator for assistance.** "

If the Web Administration screen is not displaying correctly, click the Refresh button on the browser toolbar or re-enter the domain name.

When using the domain name or the IP address, you may need to adjust the Web browser settings to bypass the proxy server for the domain name or specific IP address of the Avaya IR server. See the online help of your Web browser for more information.

Setting up user accounts

To use the Web Administration interface to set up features on Avaya IR, you can use the root login and password, or you can set up one or more additional user accounts with the appropriate administrative privileges.

Establishing platform user accounts

Platform user accounts are required to log into the Avaya IR system. To establish user accounts, use Admintool, a graphical user interface for managing users and groups on the system.

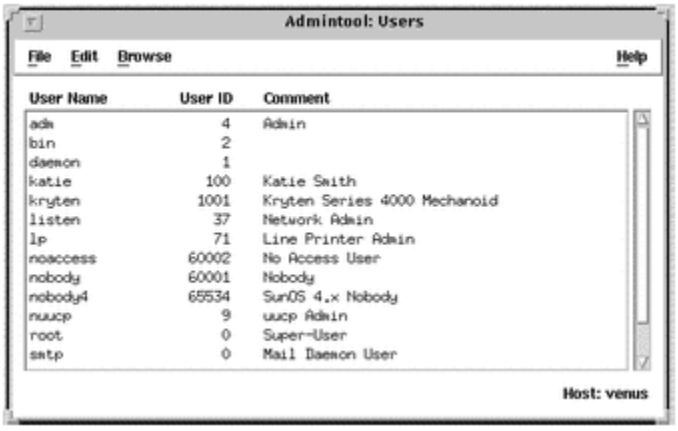
Note:

To use Admintool, you must have an X Window environment, such as Common Desktop Environment (CDE) for Sun systems or Exceed for Microsoft Windows systems. If you do not have access to an X Window environment, you can establish user accounts with the Solaris command **`useradd`** and **`groupadd`**. For more information on how to use these commands, see Sun Solaris 8 *System Administration Guide, Volume 1 or Sun Solaris 10 System Administration Guide: Basic Administration* externaldocs/System_10_Basic_Administration_Guide.pdf. These documents are available in *Avaya IR System Help* (under "Print documents") or from the Sun Web site (http://www.sun.com).

To establish user accounts on the Avaya IR platform:

1. Log in as root.
2. At the command prompt, enter **`admintool &`**

   The **Admintool** interface starts, as shown in the following figure.



3. On the Edit menu, choose **Add**.

   The system displays the Add User window.

4. Complete the Add User window with information about the new user and select **OK**.

   Consider the following points when entering data about the new user:

   — User ID numbers must be a whole number less than or equal to 2147483647. They are required for both regular user accounts and special system accounts. Although User ID numbers 0 through 99 are reserved, you can add a user with one of these numbers. However, do not use numbers 0 through 99 for regular user accounts. By definition, root always has User ID 0, daemon has User ID 1, and pseudo-user bin has User ID 2.

   — When adding a user account, you must assign a primary group for a user or accept the default group, staff (group 10). The primary group should already exist (if it does not exist, specify the group by a GID number).

   For more information user ID numbers and groups, see Sun Solaris 8 *System Administration Guide, Volume 1 or Sun Solaris 10 System Administration Guide: Basic Administration* externaldocs/System_10_Basic_Administration_Guide.pdf.

Assigning Web Administration privileges

A user account other than root must have an Avaya IR privilege of Administration or Operations to log in to Web Administration. The Operations privilege allows access to fewer Web Administration menu items than the Administration privilege. For example, a user with an Operations privilege cannot administer Backup and Restore.

To assign administrative privileges:

1. At the command prompt, enter **`assign_permissions` *`username`* `Administration`** where *username* is the user you added using the Admintool.

   The system displays:

   ```
   Assigning VIS permissions:      Administration
              for user login:      username

   Confirm (Y/N)
   ```

2. Enter **`Y`**

   The system displays:

   ```
   login:  username has been assigned VIS permissions level:
   Administration
   ```

You can now access the Web Administration interface using the new user name. See Starting the Web Administration interface on page 20 for more information.

Setting up a .profile for the root user account

If you set up a .profile for the root user account, make sure that the variable assignment string for the PATH variable begins with the following string:

$PATH

If the variable assignment string for the PATH variable does not begin with **$PATH**, the Avaya IR system may not start up correctly.

Backing up and restoring system data

This section describes how to use the Web Administration interface to backup system data, schedule a backup, and restore data from a backup.

Backing up and restoring data overview

Avaya IR R2.0 offers you the option of performing backup using an **NFS** mounted drive or a **Tape Drive**.

Note:

The **Tape Drive** option will be available to you on the **Backup** screen, only if you have a tape drive connected to the IR platform and it is set in the default backup parameters.

You can perform a full backup or a partial backup of system data, after selecting, either the **NFS** or **Tape Drive** option.

A full backup copies all IR system files, including voice response applications to a backup file. A partial backup can be performed by in three ways:

- By backing up a list of files:
- By backing up all files in a directory:
- By backing up all files that have changed in the last 1 to 90 days.

Before you can perform a partial backup, you must first perform a full backup. Avaya recommends that you perform a full backup after the initial installation of the Avaya IR

system. Avaya also recommends you stop the voice system before performing a partial backup. Before performing a partial backup of files that have changed in the last 1 to 90 days, you must stop the voice system.

System data can be restored from any backup. (This procedure assumes the system is fully operational. See Restoring the system for disaster recovery.) Full and partial backups can be performed on demand, or scheduled to run on a particular day and time.

The system used to store backup files must have NFS service available, and the backup directory must be an NFS mount point. For information about how to mount an NFS file system on a machine with a Solaris 8 update 8 operating system, see "How to Mount an NFS File System" in *System Administration Guide, Volume 1*. For information about how to mount an NFS file system on a machine with a Solaris 10 operating system, see "Accessing Network File System Topics" in *System Administration Guide: Network Services* externaldocs/System_10_Administration_Guide_Network_services.pdf. IR R2.0 is not supported on versions of Solaris operating systems, earlier than Solaris 8 update 8.

The **ulimit** size for the file option on the NFS mount directory where backup files are stored should be set to **`unlimited`** or large enough to accommodate the largest expected backup file. If the NFS mount directory is not large enough to accommodate the backup file, the backup will fail.

CAUTION:
The transfer of large backup or restore packets may slow your network performance, so you may want to perform backup or restore operations during non-business hours.

If the Avaya IR system has a local Oracle database that was not installed by Avaya, the customer should verify that Oracle environment variables have been set up as described in Setting up Oracle environment variables. If Oracle environment variables are not set up correctly, the backup process will fail.

When backup files are no longer required, delete them, using the **Delete Backup Files** screen. Clean out backup files regularly, so that only up-to-date files are stored. Deleting unwanted backup files saves disk storage space and reduces confusion if you need to restore system files.

Displaying the backup history

To display the backup history:

1. From web administration, go to the **Backup History** screen (Backup/Restore > Backup History).

   The system displays the history for full and partial backups.

Displaying the available backup files

To display a list of available backup files:

1. From web administration, go to the **Restore** screen (Backup/Restore > Restore).
2. Select **List Available Backup Files**.

   The system displays the **List Available Backup Files** screen. For information about this screen, see List Available Backup Files screen on page 364.
3. Examine and, if necessary, change the NFS Mount Directory or the tape drive where backup files are stored.

   Note:

   Files that have been backed up, and stored on a tape drive take a longer time to display than files stored on an NFS Mount Directory.
4. Select **Submit**.

   The system displays a list of available backup files.

Displaying the default backup parameters

To display the default backup parameters:

5. From web administration, go to the **Default Backup Parameters** screen (Backup/Restore > Default Backup Parameters).
6. Select **Display Default Parameters**.

   The system displays the default backup parameters.

Assigning default backup parameters

To assign the default backup parameters:

1. From web administration, go to the **Default Backup Parameters** screen (Backup/Restore > Default Backup Parameters).
2. Select **Setup Default Parameters**.

   The system displays the **Setup Default Backup Parameters** screen. For information about this screen, see Setup Default Backup Parameters screen on page 362.

3. In the **NFS Mount Directory**, **Tape Drive (Non-rewinding)**, **Days**, and **Priority** fields, specify the values that you want to be used for scheduled backups.
4. In the **Cleanup Full Backup** and **Cleanup Partial Backup** fields, specify the number of days to keep a full or partial backup file before the system automatically deletes it.
5. In the **Full Backup Alarm Days** and **Partial Backup Alarm Days** fields, specify the number of days after a successful full or partial backup before the system generates a minor alarm.
6. If the Avaya IR system has a local Oracle database, specify a user name to log into Oracle. This Oracle user account must have permission to stop and start the Oracle server.
7. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Performing a partial backup

To backup all files that have changed in the last 1 to 90 days:

1. From web administration, go to the **Backup** screen (Backup/Restore > Backup).
2. Select **Partial Backup**.

   The system displays the **Partial Backup** screen. For information about this screen, see Partial Backup screen on page 356.
3. (Optional on selecting NFS as the backup device on the **Backup** screen) In the **Backup File Title** field, specify a name for the backup file.

   If you leave this field blank, the system automatically names the backup file.
4. In the **Days** field, specify the number of days for which changed files will be backed up.
5. Examine and, if necessary, change the values in the **Priority** and **Stop the voice system before backup?** fields.
6. If the Avaya IR system has a local Oracle database, examine and, if necessary, specify or change the values in the **Stop Oracle before backup?** and **Specify a username to login to Oracle** fields.
7. Select **Submit**.

   The system displays a dialog box with the following message:

   ```
   Please check the backup status in file "/vs/data/backup.status" if
   the session times out during the backup.
   ```
8. Select **OK**.

The system displays information about the success or failure of the backup attempt.

Note:

Files that have been backed up, and stored on a tape drive take a longer time to display than files stored on an NFS Mount Directory.

To backup all files in a directory:

1. From web administration, go to the **Backup** screen (Backup/Restore > Backup).
2. Select **Partial Backup**.

   The system displays the **Partial Backup** screen. For information about this screen, see Partial Backup screen on page 356.
3. (Optional on selecting NFS as the backup device on the **Backup** screen) In the **Backup File Title** field, specify a name for the backup file.

   If you leave this field blank, the system automatically names the backup file.
4. In the **Directory** field, specify the directory to backup.
5. Examine and, if necessary, change the values in the **Priority** and **Stop the voice system before backup?** fields.
6. If the Avaya IR system has a local Oracle database, examine and, if necessary, specify or change the values in the **Stop Oracle before backup?** and **Specify a username to login to Oracle** fields.
7. Select **Submit**.

   The system displays a dialog box with the following message:

   ```
   Please check the backup status in file "/vs/data/backup.status" if
   the session times out during the backup.
   ```
8. Select **OK**.

   The system displays information about the success or failure of the backup attempt.

To backup a list of files:

1. From web administration, go to the **Backup** screen (Backup/Restore > Backup).
2. Select **Partial Backup**.

   The system displays the **Partial Backup** screen. For information about this screen, see Partial Backup screen on page 356.
3. (Optional on selecting NFS as the backup device on the **Backup** screen) In the **Backup File Title** field, specify a name for the backup file.

   If you leave this field blank, the system automatically names the backup file.

4. In the **File List** field, specify the full path name of the file that contains the list of files to backup.

   For information about creating a file that contains the list of files to backup, see Creating a file list for a partial backup or restore on page 32.

5. Examine and, if necessary, change the values in the **Priority** and **Stop the voice system before backup?** fields.
6. If the Avaya IR system has a local Oracle database, examine and, if necessary, specify or change the values in the **Stop Oracle before backup?** and **Specify a username to login to Oracle** fields.
7. Select **Submit**.

   The system displays a dialog box with the following message:

   ```
   Please check the backup status in file "/vs/data/backup.status" if
   the session times out during the backup.
   ```

8. Select **OK**.

   The system displays information about the success or failure of the backup attempt.

Performing a full backup

To perform a full backup:

1. From web administration, go to the **Backup** screen (Backup/Restore > Backup).
2. Select **Full Backup**.

   The system displays the **Full Backup** screen. For information about this screen, see Full Backup screen on page 354.

3. (Optional on selecting NFS as the backup device on the **Backup** screen) In the **Backup File Title** field, specify a name for the backup file.

   If you leave this field blank, the system automatically names the backup file.

4. Examine and, if necessary, change the value in the **Priority** field.
5. If the Avaya IR system has a local Oracle database, specify a user name to log into Oracle. This Oracle user account must have permission to stop and start the Oracle server.
6. Select **Submit**.

   The system displays a dialog box notifying you that the voice system will be stopped.

7. Select **OK**.

The system displays a dialog box with the following message:

```
Please check the backup status in file "/vs/data/backup.status" if
the session times out during the backup.
```

8. Select **OK**.

   The system displays information about the success or failure of the backup attempt.

   Note:
   Files that have been backed up, and stored on a tape drive take a longer time to display than files stored on an NFS Mount Directory.

Scheduling a backup

To schedule a full or partial backup:

1. From web administration, go to the **Backup Scheduling** screen (Backup/Restore > Backup Scheduling).
2. Select **Setup Schedule**.

   The system displays the **Setup Backup Schedule** screen. For information about this screen, see Setup Backup Schedule screen on page 358.
3. In the **Backup Type** field, select either **Full** or **Partial**.
4. In the **Minute** and **Hour** fields, specify the time that you want the backup to start.
5. In the **Days of Week** field, specify the day or days of the week that you want to run the backup.
6. Select **Submit**.

   The system displays information about the success or failure of the backup scheduling.

Viewing backup file content

To view backup file content:

1. From web administration, go to the **Restore** screen (Backup/Restore > Restore).
2. Select **View Backup File Content**.

   The system displays the **View Backup File Content** screen. For information about this screen, see View Backup File Content screen on page 365.

3. Examine and, if necessary, change the NFS Mount Directory or the tape drive where backup files are stored.
4. Select **Submit**.

   The system displays a list of available backup files.
5. Select the backup file that you want to view.
6. Select **Submit**.

   The system displays the contents of the selected backup file.

Deleting a backup file

To delete selected backup files:

1. From web administration, go to the **Delete Backup Files** screen (Backup/Restore > Delete Backup Files).

   The system displays the Delete Backup Files screen. For information about this screen, see Delete Backup Files screen on page 360.

   Note:
   If you need to change the backup directory, in the **NFS Mount Directory** field, specify a different directory and select **Refresh**.
2. Select the check box to the left of the backup file or files that you want to delete.
3. Select **Remove Selected**.

   The system deletes the selected backup files.

   Note:
   You cannot delete backup files from a tape drive. To erase files from a tape drive, you will need to format the tape drive.

To delete all backup files:

1. From web administration, go to the **Delete Backup Files** screen (Backup/Restore > Delete Backup Files).

   The system displays the Delete Backup Files screen. For information about this screen, see Delete Backup Files screen on page 360.

   Note:
   If you need to change the backup directory, in the **NFS Mount Directory** field, specify a different directory and select **Refresh**.
2. Select **Select All**.
3. Select **Remove Selected**.

The system deletes all backup files.

Note:
Backup files on a tape drive cannot be deleted. A tape needs to be erased completely using the Solaris OS command **mt**.
Example: **mt -f /dev/rmt/0n erase**

Restoring data from a partial backup

The following procedure describes how to restore data from a partial backup file. To restore data from a full backup file, see the instructions for restoring the system in the Installation section of this help system.

To restore data from a partial backup file:

1. From web administration, go to the **Restore** screen (Backup/Restore > Restore).
2. Select **Restore**.
3. Examine and, if necessary, change the NFS Mount Directory path or the tape drive path to where the backup files are stored.

   Note:
   The radio button to select between an NFS mount directory and Tape drive will only appear if the IR system has a tape drive connected to it, which is ready
4. Select **Submit**.

   The system displays the **Restore from NFS Mount Directory** screen. For information about this screen, see Restore from NFS Mount Directory screen on page 368.
5. In the **Backup File Name** field, select the backup file that you want to use to restore data.
6. (Optional) If you want to specify a list of files to restore, in the **File List** field, specify the full path of the file that contains a list of backed up files to be restored.

   For information about creating a file that contains the list of files to backup, see Creating a file list for a partial backu on page 32p or restore.

   For information about how to display a list of available backup files, see Viewing backup file content on page 29.
7. Examine and, if necessary, change the value in the **Stop the voice system before restore?** field.
8. If the Avaya IR system has a local Oracle database, specify a user name to log into Oracle. This Oracle user account must have permission to stop and start the Oracle server.
9. Select **Submit**.

The system displays a dialog box with the following message:

```
If this is the last Partial Restore, then the system needs to be
rebooted after the restore completes.
```

10. Select **OK**.

    The system displays a dialog box with the following message:

    ```
    Please check the restore status in file "/vs/data/restore.status"
    if the session times out during the backup.
    ```

11. Select **OK**.

    The system displays information about the restore process.

    Note:

    Files that have been backed up, and stored on a tape drive take a longer time to restore than files being restored from an NFS Mount Directory.

Creating a file list for a partial backup or restore

When performing a partial backup or restoring data from a partial backup, you can specify a list of files to backup or restore. To specify a a list of files to backup or restore, you must use **vi** or some other text editor to create a text file.

The text file contains a list of files to back up or restore, with one file on each line, and with the full path to each file specified. The full path of the file is relative to the root directory on the Avaya IR server, but the full path should not begin with a "/". The following are examples of lines in the text file:

```
vs/data/NMS_B2.cfg
voice1/calldata
voice1/backrest.log
```

Administering alarms and messages

This section describes how to use the Web Administration interface to administer alarms and messages.

Administering alarms and messages overview

The Avaya IR system routinely tracks, records, and reports the occurrence of events so that service personnel can troubleshoot problems. Most of this reporting is done through the writing of messages to destinations (typically log files) on the system. Some events are associated with known problems, and are reported as alarms to Avaya service personnel through the system's external modem (the alarms are dialed out).

Note:
Avaya recommends that only Avaya service personnel administer alarms and messages.

Alarms

Consider the following when administering alarms.

- When the system generates an alarm, the alarm is considered active. If you want the system to dial out the next time it generates the alarm, you must retire the alarm.
- The modem must be configured properly so that alarms can dialed out.

Messages

Consider the following when administering messages.

- A message can be assigned a priority that reflects the severity of the associated event. This priority appears in the log along with the message.
- Sometimes an abnormal frequency of events signals that there is a problem worthy of attention. You can have a special message (called a threshold message ID) sent to a destination indicating when a specific frequency (threshold frequency) has been detected for a particular event. The threshold frequency is administrable, and is defined as the number of messages (the message threshold) generated over a period of time (the threshold period).

Dialout configuration

On the **Dialout Configuration** screen, **Location 1** has been partially configured to dial INADS. When the Avaya IR system is registered with INADS, the dialout configuration for **Location 1** will be completed by INADS. **Location 2** has been partially configured to dial a pager.

Displaying active alarms

To display active alarms:

1. From web administration, go to the **Alarms** screen (Configuration Management > Alarm Administration > Alarms).
2. Select **Display active alarms**.

   The system displays information about active alarms.

Displaying retired alarms

To display retired alarms:

1. From web administration, go to the **Alarms** screen (Configuration Management > Alarm Administration > Alarms).
2. Select **Display retired alarms**.

   The system displays information about retired alarms.

Retiring alarms

To retire an alarm:

1. From web administration, go to the **Alarms** screen (Configuration Management > Alarm Administration > Alarms).
2. Select **Retire Alarms**.

   The system displays the **Retire Alarms** screen. For information about this screen, see Retire Alarms screen on page 371.
3. In the **Retire Reason** field, enter a string that describes why you are retiring the alarm (such as MAINT for maintenance).
4. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Displaying a message explanation

To display a message explanation:

1. From web administration, go to the **Message Log Report** screen (Reports > Message Log Report).
2. Select **Explain Messages**.

   The system displays the **Explain Messages** screen. For information about this screen, see Explain Messages screen on page 535.
3. In the **Message ID** field, do one of the following:

   — To select a single item (Message ID), find the item and select it.

   — To select consecutive items, select the first item, press and hold down **Shift**, and then select the last item.

   — To select non-consecutive items, press and hold down **Ctrl**, and then select each item.
4. Select **Submit**.

   The system displays an explanation of the selected message in the bottom frame of the screen.

Adding a message destination

To add a message destination:

1. From web administration, go to the **Message Administration** screen (Configuration Management > Message Administration).
2. In the **Message ID** field, select a message to administer.
3. Select **Submit**.

   The system displays the **Message Administration Menu** screen.
4. Select **Add Destination**.

   The system displays the **Add Destination** screen. For information about this screen, see Add Destination screen on page 389.
5. For each new destination:

   a) In the **Destination** field, select where you want the message to be sent by the system software.

   b) Select **Submit**.

      The system displays the new destination beside the message name in the bottom frame of the screen.
6. To choose another message:

a) Select **Cancel**.

b) Perform Steps 2 through 5 above.

Changing the message destination

Changing a message destination involves:

- Adding a destination on page 35
- Removing a destination on page 37

The following table describes the destinations where you can send messages.

Destination	Description
log	Master log
stderr	Standard error
console	/dev/console
alertPipe	Alert pipe
alarm	Alarm log
event	Event log
act	Active alarm log
mxmtr	Mxmtr pipe
trace	Trace log
admin	Administration log
maint	Maintenance log
ret	Retired alarm log
fax	Receive fax log
dev	Developer log
hist	History log
cdr	Call detail log
NO_ADD_MASTER	Developer log

Removing a message destination

To remove a message destination:

1. From web administration, go to the **Message Administration** screen (Configuration Management > Message Administration).
2. In the **Message ID** field, select a message to administer.
3. Select **Submit**.

   The system displays the **Message Administration Menu** screen.
4. Select **Remove Destination**.

   The system displays the **Remove Destination** screen. For information about this screen, see Remove Destination screen on page 390.
5. For each destination you want to remove:

   a) In the **Destination** field, select the destination you want to delete.

   b) Select **Submit**.

      The browser displays the remaining destinations beside the message name in the bottom frame of the screen.
6. To choose another message:

   a) Select **Cancel**.

   b) Perform Steps 2 through 5 above.

Adding a message threshold

To add a message threshold associated with a message ID:

1. From web administration, go to the **Message Administration** screen (Configuration Management > Message Administration).
2. In the **Message ID** field, select a message to administer.
3. Select **Submit**.

   The system displays the **Message Administration Menu** screen.
4. Select **Add Threshold**.

   The system displays the **Add Threshold** screen. For information about this screen, see Add Threshold screen on page 391.

The bottom frame of this screen displays the current configuration of the message. The configuration includes a table of message thresholds currently associated with the message ID.

5. For each threshold you want to add:

   a) In the **Threshold** field, enter the number of times the message must be generated before the Threshold Message ID is sent to the destination.

   b) In the **Threshold Message ID** field, select the threshold message ID you want associated with the threshold.

   c) Select **Submit**.

   The system displays the updated Message Thresholds table in the bottom frame of the screen.

Removing a message threshold

To remove a message threshold associated with a message ID:

1. From web administration, go to the **Message Administration** screen (Configuration Management > Message Administration).
2. In the **Message ID** field, select a message to administer.
3. Select **Submit**.

   The system displays the **Message Administration Menu** screen.

4. Select **Remove Threshold**.

   The system displays the **Remove Threshold** screen. For information about this screen, see Remove Threshold screen on page 392.

   The current configuration of the message is displayed in the bottom frame of the screen. The configuration includes a table of message thresholds currently associated with the message ID.

5. For each threshold you want to remove:

   a) In the **Threshold** field, enter the value for the threshold you want to delete.

   b) Select **Submit**.

   The system displays the updated Message Thresholds table in the bottom frame of the screen.

Changing the message priority

To change the priority of a message:

1. From web administration, go to the **Message Administration** screen (Configuration Management > Message Administration).
2. In the **Message ID** field, select a message to administer.
3. Select **Submit**.

   The system displays the **Message Administration Menu** screen.
4. Select **Message Priority**.

   The system displays the **Message Priority** screen. For information about this screen, see Message Priority screen on page 393.
5. In the **Priority** field, select a priority.
6. Select **Submit**.

   The system displays the updated Message Priority in the bottom frame of the screen.

Changing the threshold period

To change the threshold period associated with a message ID:

1. From web administration, go to the **Message Administration** screen (Configuration Management > Message Administration).
2. In the **Message ID** field, select a message to administer.
3. Select **Submit**.

   The system displays the **Message Administration Menu** screen.
4. Select **Threshold Period**.

   The system displays the **Threshold Period** screen. For information about this screen, see Threshold Period screen on page 393.

   The current configuration of the message is displayed in the bottom frame of the screen. The configuration shows the threshold period associated with the message ID.
5. In the **Type of Interval** field, select the unit of time to use for the threshold period.
6. In the **Amount of Interval** field, type the number of units of time that you want for the threshold period.

   For example: If you want a threshold period of 5 weeks, select **weeks** for the **Type of Interval** and type **5** for the **Amount of Interval**.

7. Select **Submit**.

   The system displays the updated threshold period in the bottom frame of the screen.

Changing threshold frequencies

For any given message ID, you can have the system note multiple threshold frequencies. You can do this by manipulating a list of message thresholds, and a single threshold period associated with all the entries in the list.

To manipulate the list of message thresholds, you can do one of the following:

- Add a message threshold on page 37
- Remove a message threshold on page 38

You can alter all of the threshold frequencies at once by changing the threshold period on page 39.

Displaying dialout configuration parameters

To display dialout configuration parameters:

1. From web administration, go to the **Dialout Configuration** screen (Configuration Management > Alarm Administration > Dialout Configuration).
2. Select **Display Parameters**.

   The system displays the dialout configuration parameters.

Changing the dialout configuration

To change the dialout configuration:

1. From web administration, go to the **Dialout Configuration** screen (Configuration Management > Alarm Administration > Dialout Configuration).
2. Select **Change Parameters**.

   The system displays the **Change Dialout Parameters** screen. For information about this screen, see Change Dialout Parameters screen.
3. In the **Product ID** field, enter the 10-digit Product ID.

4. In the **Trace On** field:

   — Select **yes** if you want trace activated

   — Select **no** if you do not want trace activated

5. In the **Dialout** on field:

   — Select **yes** if you want the system to dial out when the alarm is generated

   — Select **no** if you do not want the system to dial out when the alarm is generated

6. In the **Maximum Allowable Temperature** field, enter a temperature in degrees Celsius.

   The system generates an alarm when the specified temperature is reached.

7. In the **Minor Alarms Tracked** field:

   — Select **yes** if you want the system to track minor alarms

   — Select **no** if you do not want the system to track minor alarms

8. In the **Port Used** field, select the port to use to dial out.

9. Perform the following steps for each location that the system calls when an alarm is generated.

   Note:
   There are a maximum of three dialout locations. Each dialout location is associated with a group of fields on the **Change Dialout Parameters** screen.

   a) In the **Location ID** field, enter a string that identifies the dialout location.

   b) In the **Phone Number** field, enter the telephone number that the system's modem dials to connect with the modem at the dialout location.

   c) In the **Modem Speed** field, select the baud rate that the system's modem uses to connect with the modem at the dialout location.

   d) In the **Char Size** field, select the number of bits per character that the system's modem uses to encode information.

   e) In the **Parity** field, select the parity of the system's modem.

   f) In the **Dialstring** field, enter the set of commands that the system's modem uses to connect with the modem at the dialout location.

10. Select **Submit**.

    The system displays information about the success or failure of the administration attempt.

Administering ASAI

This section describes how to use the Web Administration interface to administer the ASAI feature including: administering ASAI channels, ASAI domains, and ASAI parameters.

Administering ASAI overview

ASAI channel administration maps the Avaya IR system channels to the DEFINITY switch extension numbers used by ACD splits or ACD agents.

An ASAI domain is an entity that can be controlled or monitored, such as an extension number used by an ACD split or an ACD agent, or a Vector Directory Number (VDN). The Avaya IR system supports up to 64 ASAI domains.

After ASAI channels are logged in or an ASAI domain is enabled, no manual intervention is required to bring the channels or domain back into service during recovery (for example, rebooting the switch or voice system) or if the voice system is stopped and started.

ASAI parameters specify the following:

- When the Connect event is reported to the A_Event external function in the application assigned to an ACD, VDN, or CTL type domain.
- The level of detail to be used with the trace command.
- The IP address or host name of the MAPD.
- The Node ID of the Avaya IR system as administered on the MAPD.

Displaying ASAI channel assignments

To display ASAI channel assignments:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Channels**.
3. Select **Display Channels**.

   The system displays information about ASAI channel assignments.

Adding an ASAI channel

To add an ASAI channel:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Channels**.
3. Select **Add Channel**.

   The system displays the **Add ASAI Channel** screen. For information about this screen, see Add ASAI Channel screen on page 484.
4. In the **Channel** field, type the channel number on the Avaya IR system.
5. In the **Extension** field, type the PBX extension number.
6. In the **Split/Agent Extension** field, type the ACD split number, or for an EAS environment, the Agent ID.
7. In the **Password** field, do one of the following:

   — If you specified an ACD split number for the **Split/Agent Extension** field, use the default value (none) for this field.

   — If you specified an Agent ID for the **Split/Agent Extension** field, type the password associated with the Agent ID.
8. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Changing an ASAI channel

Prerequisites

Before you can change an ASAI channel, the channel must be logged out (see Logging out an ASAI channel on page 45).

Procedure

To change an ASAI channel:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Channels**.

3. Select **Change Channel**.

   The system displays the **Change ASAI Channel** screen.

4. In the **Channel** field, select the channel number that you want to change.
5. Select **Submit**.

   The system displays the **Change ASAI Channel** screen for the channel you specified.

6. In the **Extension** field, type the PBX extension number.
7. In the **Split/Agent Extension** field, type the ACD split number, or for an EAS environment, the Agent ID.
8. In the **Password** field, do one of the following:

   — If you specified an ACD split number for the **Split/Agent Extension** field, use the default value (none) for this field.

   — If you specified an Agent ID for the **Split/Agent Extension** field, type the password associated with the Agent ID.

9. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Logging in an ASAI channel

To log in an ASAI channel:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Channels**.
3. Select **Login Channel**.

   The system displays the **Login ASAI Channel** screen.

4. In the **Channel** field, select the channel number that you want to log in.
5. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Logging out an ASAI channel

To log out an ASAI channel:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Channels**.
3. Select **Logout Channel**.

   The system displays the **Logout ASAI Channel** screen.
4. In the **Channel** field, select the channel number that you want to log out.
5. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Unassigning an ASAI channel

Prerequisites

Before you can unassign an ASAI channel, the channel must be logged out (see Logging out an ASAI ch on page 45annel).

Procedure

To unassign an ASAI channel:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Channels**.
3. Select **Unassign Channel**.

   The system displays the **Unassign ASAI Channel** screen.
4. In the **Channel** field, select the channel number that you want to unassign.
5. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Displaying ASAI domains

To display ASAI domains:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Domains**.
3. Select **Display Domains**.

   The system displays information about the assigned ASAI domains.

Adding an ASAI domain

To add an ASAI domain:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Domains**.
3. Select **Add Domain**.

   The system displays the **Add ASAI Domain** screen. For information about this screen, see Add ASAI Domain screen on page 491.
4. In the **Domain Name** field, type the name of the domain.
5. In the **Extension** field, type the PBX extension number associated with the domain.
6. In the **Service** field, select the name of the voice response application associated with the domain.
7. In the **Type** field, select one of the following:

   — **ACD** – Monitors calls to the corresponding split domain on the switch

   — **VDN** – Monitors calls to the corresponding VDN domain on the switch

   — **CTL** – Monitors calls transferred away from the voice system to destinations on the switch that are not monitored by an ACD or VDN domain.

   — **RTE** – Used to accept routing requests from the switch.
8. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Changing an ASAI domain

Prerequisites

Before you can change an ASAI domain, the domain must be disabled (see Disabling an ASAI domain on page 48).

Procedure

To change an ASAI domain:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Domains**.
3. Select **Change Domain**.

   The system displays the **Change ASAI Domain** screen. For information about this screen, see Change ASAI Domain screen on page 492.
4. In the **Domain Name** field, select the name of the domain that you want to change.
5. In the **Extension** field, type the PBX extension number associated with the domain.
6. In the **Service** field, select the name of the voice response application associated with the domain.
7. In the **Type** field, select one of the following:

   — **ACD** – Monitors calls to the corresponding split domain on the switch

   — **VDN** – Monitors calls to the corresponding VDN domain on the switch

   — **CTL** – Monitors calls transferred away from the voice system to destinations on the switch that are not monitored by an ACD or VDN domain.

   — **RTE** – Accepts Route Requests from the switch.
8. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Enabling an ASAI domain

To enable an ASAI domain:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Domains**.
3. Select **Enable Domain**.

   The system displays the **Enable ASAI Domain** screen. For information about this screen, see Enable ASAI Domain screen on page 495.
4. In the **Domain Name** field, select the name of the domain that you want to enable.
5. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Disabling an ASAI domain

To disable an ASAI domain:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Domains**.
3. Select **Disable Domain**.

   The system displays the **Disable ASAI Domain** screen. For information about this screen, see Disable ASAI Domain screen on page 495.
4. In the **Domain Name** field, select the name of the domain that you want to disable.
5. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Unassigning an ASAI domain

Prerequisites

Before you can unassign an ASAI domain, the domain must be disabled (see Disabling an ASAI domain on page 48).

Procedure

To unassign an ASAI domain:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Domains**.
3. Select **Unassign Domain**.

   The system displays the **Unassign ASAI Domain** screen. For information about this screen, see Unassign ASAI Domain screen on page 496.
4. In the **Domain Name** field, select the name of the domain that you want to unassign.
5. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Assigning ASAI parameters

To assign ASAI parameters:

1. From web administration, go to the **ASAI Administration** screen (Feature Packages > ASAI Administration).
2. Select **Parameters**.

   The system displays the **ASAI Parameters** screen. For information about this screen, see ASAI Parameters screen on page 497.
3. In the **CONNECT Event** field, select one of the following:

   — **alerting** – The CONNECT event is reported when the call rings at the agent's telephone.

   — **connected** – The CONNECT event is reported when the call is connected to the agent's telephone.
4. In the **Trace Detail** field, select one of the following:

   — **low** — Information is displayed about ASAI error and warning conditions

   — **normal** — All information displayed by the **low** setting, plus ASAI external functions (A_Callinfo, A_Tran, A_Event, and A_RouteSel)

   — **high** — All information displayed by the **low** and **normal** settings, plus call event descriptions received from the PBX
5. In the **IP Address or Host Name** field, type the IP address or host name of the MAPD.
6. In the **Node ID** field, select the Node ID (signal01 through signal08) of the Avaya IR system as administered on the MAPD.

7. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administering ASG

This section describes how to use the Web Administration interface to administer the Access Security Gateway (ASG) feature including: displaying information about, adding, or removing an ASG user.

Displaying information about an ASG user

To display information about an ASG user:

1. From web administration, go to the **ASG Security Login Administration** screen (ASG Security Administration > ASG Security Login Administration).

   The system displays the ASG Security Login Administration screen. For information about this screen, see ASG Security Login Administration screen on page 352.

2. In the **Login ID** field, type the Login ID that you want to display.
3. Select **Display**.

   If the specified Login ID is not assigned, the system displays the following message:

   ```
   User Not Found.
   ```

Adding an ASG user

Prerequisites

Before you can add an ASG user, the user must have a valid Solaris login ID.

To add an ASG user:

1. From web administration, go to the **ASG Security Login Administration** screen (ASG Security Administration > ASG Security Login Administration).

   The system displays the ASG Security Login Administration screen. For information about this screen, see ASG Security Login Administration screen on page 352.

2. In the **Login ID** field, type the Login ID that you want to add.

3. In the **Secret Key** field, type the ASG Secret Key number.
4. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Removing an ASG user

To remove an ASG user:

1. From web administration, go to the **ASG Security Login Administration** screen (ASG Security Administration > ASG Security Login Administration).

   The system displays the ASG Security Login Administration screen. For information about this screen, see ASG Security Login Administration screen on page 352.
2. In the **Login ID** field, type the Login ID that you want to remove.
3. Select **Delete**.

   The system displays information about the success or failure of the administration attempt.

Administering digital interfaces

This section describes how to use the Web Administration interface to administer digital interfaces including: displaying the current assignments, assigning, unassigning, or changing a digital interface protocol on a T1 or E1 telephony card.

In IR R2.0, support for multiple trunk protocols has been introduced. More than one protocol (PRI, R2 MFC, Loop Start, and Winkstart) can be supported on a single T1 or E1 telephony card.

On a dual T1 telephony card, two different protocols from amongst ISDN Primary Rate Interface, Loop Start, and Wink Start can be supported. On a quad T1 telephony card, four different protocols from amongst ISDN Primary Rate Interface, Loop Start, and Wink Start can be supported.

On a dual E1 telephony card, two different protocols from amongst ISDN Primary Rate Interface, Loop Start, and R2 MFC can be supported. On a quad E1 telephony card, four different protocols from amongst ISDN Primary Rate Interface, Loop Start, and R2 MFC can be supported.

In previous versions of IR, only one protocol from amongst PRI, R2MFC, Loop Start, and Winkstart could be assigned to all the trunks of a dual or quad, E1 or T1 telephony card.

Administering digital interfaces overview

Various digital interface protocols can be assigned to the T1 or E1 telephony card using the web administration interface or the command-line interface. Beginning with IR Release 1.3, a new ISDN Type, QSIG, is available for ISDN-PRI T1 and E1 interfaces.

In IR R2.0, support for multiple trunk protocols has been introduced

The following digital interface protocols can be assigned to a T1 telephony card:

- ISDN Primary Rate Interface
- Loop Start
- Wink Start

The following digital interface protocols can be assigned to an E1 telephony card:

- ISDN Primary Rate Interface
- Loop Start
- R2 MFC

Displaying ISDN system parameters

To display ISDN system parameters:

1. From web administration, go to the **Display ISDN System Parameters** screen (Configuration Management > Switch Interfaces > Digital Interfaces > System Parameters).

   The system displays the assigned ISDN parameters.

Assigning ISDN system parameters

To assign ISDN system parameters:

1. From web administration, go to the **Display ISDN System Parameters** screen (Configuration Management > Switch Interfaces > Digital Interfaces > System Parameters).

   The system displays the assigned ISDN parameters.

2. Select **Modify**.

The system displays the **Assign ISDN System Parameters** screen. For information about this screen, see Assign ISDN System Parameters screen on page 406.

3. Examine the default values and, if necessary, change them.
4. Select **Save**.

Displaying assigned cards and protocols

To display assigned card and protocols:

1. From web administration, go to the **Digital Interfaces Protocols** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Digital Interfaces Protocols).
2. Select **Display Assignments**.

   The system displays the assigned telephony cards and protocols.

Displaying digital interface protocol parameters

To display digital interface protocol parameters:

1. From web administration, go to the **Digital Interfaces Protocols** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Digital Interfaces Protocols).
2. Select **Display Parameters**.

   The system displays the **Display Digital Interface Card** screen.
3. Select the card for which you want to display parameters.
4. Select **Submit**.

   The system displays the assigned digital interface protocol parameters.

Assigning a digital interface protocol

Prerequisites

Before assigning a digital interface protocol to a telephony card, check the following:

- A T1 or E1 telephony card is installed
- A digital interface protocol has *not* been assigned to the card

Note:

In IR R2.0, support for multiple trunk protocols has been introduced. More than one protocol (PRI, R2 MFC, Loop Start, and Winkstart) can be supported on a single T1 or E1 telephony card.

Procedure

To assign a digital interface protocol to a telephony card:

1. From web administration, go to the **Digital Interfaces Protocols** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Digital Interfaces Protocols).
2. Select **Assign Card**.

   The system displays the **Assign Card - Digital Interfaces** screen.
3. Select one of the following digital interface protocols:

   — ISDN - Primary Rate Interface T1

   — ISDN - Primary Rate Interface E1

   — Loop Start T1

   — Loop Start E1

   — Wink Start T1

   — R2 MFC E1
4. Select the telephony card to which you want to assign the digital interface protocol.
5. Select **Submit**.
6. Examine the default parameter values and change any values that are not appropriate for the communications system at the far end of the channel.
7. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

See also

For information about the fields on the Assign Parameters screens, see the following:

- Assign ISDN-PRI T1 parameters screen on page 412

- Assign ISDN-PRI E1 parameters screen on page 416
- Assign Loop Start T1 parameters screen on page 426
- Assign Loop Start E1 parameters screen on page 429
- Assign Wink Start T1 parameters screen on page 438
- Assign R2 MFC E1 parameters screen on page 444

Changing digital interface protocol parameters

Prerequisites

Before changing digital interface protocol parameters, check the following:

- A digital interface protocol has been assigned to the card

Procedure

To change digital interface protocol parameters:

1. From web administration, go to the **Digital Interfaces Protocols** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Digital Interfaces Protocols).
2. Select **Change Parameters**.

   The system displays the **Change Card - Digital Interfaces** screen.
3. Select one of the following digital interface protocols:

   — ISDN - Primary Rate Interface T1

   — ISDN - Primary Rate Interface E1

   — Loop Start T1

   — Loop Start E1

   — Wink Start T1

   — R2 MFC E1
4. Select the telephony card on which you want to change the digital interface protocol parameters.
5. Select **Submit**.

6. Make the appropriate changes.
7. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

See also

For information about the fields on the Change Parameters screens, see the following:

- Change ISDN-PRI T1 parameters screen on page 419
- Change ISDN-PRI E1 parameters screen on page 422
- Change Loop Start T1 parameters screen on page 432
- Change Loop Start E1 parameters screen on page 434
- Change Wink Start T1 parameters screen on page 440
- Change R2 MFC E1 parameters screen on page 446

Unassigning a digital interface protocol

To unassign a digital interface protocol from a telephony card:

1. From web administration, go to the **Digital Interfaces Protocols** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Digital Interfaces Protocols).
2. Select **Unassign Card**.

   The system displays the **Unassign Digital Interface Card** screen.
3. Select the telephony card from which you want to unassign the digital interface protocol.
4. Select **Submit**.

   The system displays an acknowledgment message.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Administering Disk Mirroring

Customers using Sun Fire 280R, Sun Fire V240, or equivalent systems can administer the Disk Mirroring feature on their systems. This section provides the procedures for enabling and disabling Disk Mirroring.

Notes:

Disk Mirroring is not available for Sun Blade 150 or equivalent systems.

Disk Mirroring is enabled by default on complete systems (that is, systems in which both the hardware and software are purchased from Avaya). It is installed but not enabled on software-only solutions. Therefore, if you purchased the software-only solution and want to use Disk Mirroring, you must enable it manually.

Enabling Disk Mirroring

This procedure is intended primarily for customers who have purchased the Avaya IR software-only solution and want to enable Disk Mirroring for their Sun Fire 280R or Sun Fire V240 systems. It can also be used by customers who are recovering from a catastrophic situation in which they find it necessary to re-install all system software.

To enable Disk Mirroring:

1. Verify that your system is partitioned correctly (for disk partitioning requirements see Disk Mirroring feature). If it is not, you must either:

   — Repartition your system to meet these disk partitioning requirements; or

   — Use the Sun DiskSuite 4.2.1 tools to manually enable Disk Mirroring for your system (for more information, see Sun DiskSuite commands used for Disk Mirroring).

2. If you are not logged in, log in as root.
3. Install the Avaya IR software, which copies the Disk Mirroring package (AVdm) to the **/exports/optional_features** directory.
4. To verify that the Sun DiskSuite 4.2.1 tool package is installed on your system, enter **`pkginfo -l | grep -i suite`**
5. To move to the optional_features directory, enter **`cd /export/optional_features`**
6. To install the Disk Mirroring package, enter **`pkgadd -d . AVdm`**
7. Run **`mirror_admin`** setup.
8. Reboot the system.

If the system is partitioned correctly, then rebooting the system automatically starts synchronizing the two disks. It takes approximately 20 minutes for each 10 GB to copy data to the secondary (mirrored) hard disk.

Disabling Disk Mirroring

To disable Disk Mirroring:

1. If you are not logged in, log in as root.
2. To stop the voice system, enter: **`stop_vs`**
3. Enter: **`/vs/mirror/mirror_admin cleanup`**

   For more information about the this command, see mirror_admin command on page 257.

Administering fax

This section describes how to use the Web Administration interface and the command-line interface to administer the fax feature including: enabling fax, creating a fax header, displaying jobs in the fax queue, and printing a fax.

Administering fax overview

Administering the fax feature involves the following basic procedures:

1. Enabling fax for the digital protocol you are using
2. Creating a fax header
3. Displaying and deleting jobs from the fax transmission queue
4. Printing a fax that has been received

Enabling fax for a digital protocol

Enabling fax involves administering a telephony card to recognize fax as being associated with a particular digital protocol.

To enable fax on a telephony card that has already been administered:

1. From web administration, go to the **Digital Interfaces Protocols** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Digital Interfaces Protocols).
2. Select **Change Parameters**.

   The system displays the **Change Card - Digital Interfaces** screen.
3. Choose the protocol you are using.

   The system displays a **Change Parameters** screen for the specified protocol.
4. Select a **Card**.
5. Select **Submit**.

   The system displays a **Change Card** screen for the card.
6. In the **Fax Enabled?** field, select **yes**.
7. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Displaying the current fax header

To display the current fax header:

1. From web administration, go to the **Fax Administration** screen (Feature Packages > Fax Administration).
2. Select **Fax Header**.

   The system displays the **Fax Header** screen, which shows the current fax header.

Creating a fax header

A fax header is text that is automatically placed at the top of every fax page.

To use the default fax header:

1. From web administration, go to the **Fax Administration** screen (Feature Packages > Fax Administration).
2. Select **Fax Header**.

   The system displays the **Fax Header** screen. For information about this screen, see Fax Header screen on page 498.
3. In the **Fax Header** field, select **default**.
4. Select **Submit**.

   The system displays information about the current and the new fax header.
5. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

To create a custom fax header:

1. From web administration, go to the **Fax Administration** screen (Feature Packages > Fax Administration).
2. Select **Fax Header**.

   The system displays the **Fax Header** screen. For information about this screen, see Fax H on page 498eader screen.
3. In the **Fax Header** field, select **custom**.
4. Select **Submit**.
5. In the **New Custom Header Text** field, enter the text for the custom fax header.
6. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

To use no fax header:

1. From web administration, go to the **Fax Administration** screen (Feature Packages > Fax Administration).
2. Select **Fax Header**.

   The system displays the **Fax Header** screen. For information about this screen, see Fax H on page 498eader screen.
3. In the **Fax Header** field, select **none**.
4. Select **Submit**.

The system displays information about the current and the new fax header.

5. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Displaying jobs in the fax queue

To display jobs in the fax queue:

1. From web administration, go to the **Fax Administration** screen (Feature Packages > Fax Administration).
2. Select **Fax Transmission Control**.

   The system displays the **Fax Transmission Control** screen. For information about this screen, see Fax Transmission Control screen on page 499.

Deleting fax jobs

To delete fax jobs from the queue:

1. From web administration, go to the **Fax Administration** screen (Feature Packages > Fax Administration).
2. Select **Fax Transmission Control**.

   The system displays the **Fax Transmission Control** screen. For information about this screen, see Fax Transmission Control screen on page 499.
3. In the **Job ID** column, do one of the following:

   — To delete some fax jobs, select the fax jobs you want to delete.

   — To delete all fax jobs, select **Select All**.
4. Select **Remove Selected**.

   The system deletes the selected fax jobs and updates the screen, or displays a failure message.

Printing a fax

The **FAX Loading and Printing** window allows you to load a fax in the system, preview a fax, or send a fax to the printer.

To access the **FAX Loading and Printing** window:

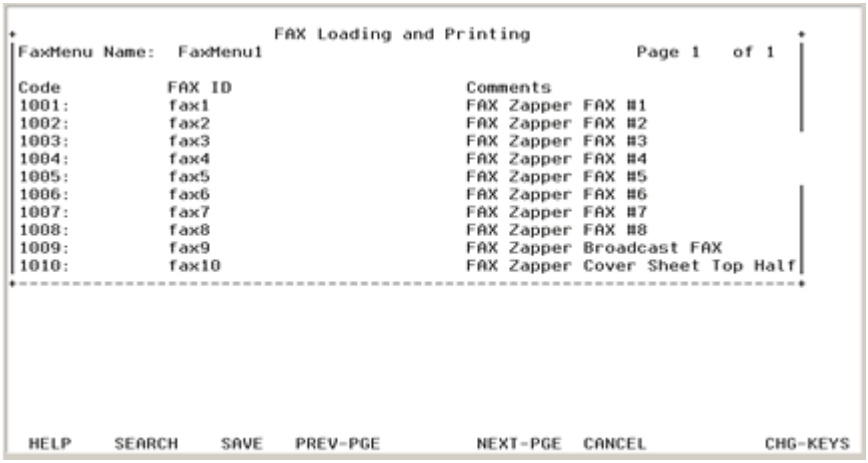
1. At the command prompt, type **fax_admin** and press **Enter**.

   The system displays the **FAX Actions** menu.

2. Select **FAX Loading and Printing**:

   ```
   > FAX Loading and Printing
   ```

   The system displays the **FAX Loading and Printing** window.



   The illustration above shows a sample of the **FAX Loading and Printing** window. The window in your system may appear differently. The columns and what they represent, however, are the same.

   The following table provides a description of the columns in this window.

Column Name	Description
FaxMenu Name	Name of the menu displayed in the window
Page	Number of pages in the menu
Code	A 4-digit identifier. The first digit may not be a zero.
FAX ID	An alphanumeric string in the form of faxN where N is a number between 1 and 999
Comments	A description of the fax, with 30 or fewer alphanumeric characters

To load a fax:

1. Press **F8** (Chg-Keys).

   The system displays the alternate set of function keys.

2. Press **F4** (FAX-ADM).

   The system displays the **Fax Administration** menu.

3. Press **F2** (Load-FX) to load the fax onto the system.

   The system displays the **Enter A FAX Channel Loading** window.

4. Enter the channel number.

   The system displays a window with the following information:
   `Load your FAX into the FAX machine and call (from your FAX machine) the extension associated with the channel you selected in the previous step.`

   `Press CANCEL to cancel the operation. After successfully loading your FAX, the confirmation window appears.`

5. Place the document you want to load into the fax machine.

6. Dial the fax channel extension.

7. Press the start button on the fax machine.

To print a fax:

1. From the FAX Administration menu, press **PRINT-FX**.

   The system displays the **Destination for PRINT** window.

2. Enter the telephone number of a fax machine to which the fax is to be printed. Valid entries are:

   — A string constant enclosed in quotes, for example, “9-6148683608”

   — The name of a field that contains a string constant.

   The following characters can be used in the Destination Number: field: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, asterisk (*), pound sign (#), comma (,), and dash (-).

3. Using a comma (,) causes a 1-second pause during dialing on lines in all equipment groups. For longer pauses, multiple commas can be used.

Administering IC Integration

This section describes how to administer the IC Integration feature.

Programming the VOX server for IC Integration

The configuration parameters for the VOX Server are described in the *Avaya Interaction Center VOX Server Programmer's Guide* externaldocs/VOX_Server_Programmers_Guide.pdf. These configuration parameters are set using the IC Manager administrative tool, as described in the *IC Administration Volume 1: Servers & Domains* externaldocs/Administration_Volume_1_Servers_&_Domains.pdf.

The only configuration parameters that must be set (all others having acceptable default settings) are those associated with the IC Manager **Vru configuration** tab. Use the **New Vru** and **New Line** options to supply the needed configuration parameters, or the Edit option to change previously entered parameters. For the Avaya IR system, the **Initiate connection to VOX** parameter should remain unchecked (the default).

Note:

VESP_DIP asks the system how many (n) channels there are, and assumes they are numbered 0 through n-1. Only the channels specified in the configuration parameters for a VOX Server are controlled by that specific VOX Server. This allows multiple VOX Servers to share an Avaya IR system by dividing up the channels.

Administering PDS Integration

Administering PDS Integration describes how to install, configure, and administer software components on both the Dialer system and the Avaya IR system.

Installing and configuring the PDS Integration software

To enable the PDS Integration feature, you must install and configure software components on both the Predictive Dialing System (PDS) and the Avaya IR system. PDS is also known as the Dialer.

Installing the integration software on the Dialer

There is no separate process for installing the PDS/IR Integration software on the Dialer system. The software for the Dialer is installed when you install the PDS software. For information about installing the PDS software, see *Product Release Notes for Avaya PDS 12.0* externaldocs/Product_Release_Notes_for_Avaya_PDS_ 12.0.pdf or *Product Release*

Notes for Service Pack 2 of Avaya PDS 12.0.
externaldocs/Product_Release_Notes_for_Service_Pack_2_of_Avaya_PDS_12.0..pdf

Configuring the integration software on the Dialer

To configure the integration files on the Dialer, make the following changes to system configuration files.

services

Verify the following entries in **/etc/services**:

```
agent        22700/tcp
ivr_conn     22800/tcp
```

master.cfg

Verify or set the following parameters in **/opt/avaya/pds/etc/master.cfg**:

- `PORTS`

  Increment the PORTS parameter by one to allow for a "dummy" inbound line for the IVR pool jobs.

- `LINEASSIGN`

  Append the following string to the end of the LINEASSIGN parameter:

  `;IVR,I=X`

  where **X** is the new value of the PORTS parameter.

- `AUTORELAGENT`

  Set AUTORELAGENT to NO.

- `INBNDSYS`

  This parameter should be set to YES because the Inbound feature has been installed. If not, have the Dialer Administrator install the Inbound feature.

- `IVR_INTEGRATION`

  This parameter should be set to YES because the Avaya IR Integration feature has been installed. If not, contact the Dialer System Administrator.

dgswitch.cfg

At the end of the "Inbound Ports" section of **/opt/avaya/pds/config/dgswitch.cfg**, add the following line:

```
N:X:1216:0::#DUMMY PORT for IVR POOL JOBS
```

Where **X** is the new value of the PORTS parameter.

Note:
This is the port assigned for use by the IVR pool jobs even though there is no physical equipment for this port. This ensures that IVR agents will take no calls while on the IVR pool job.

blend.edt

Verify or set the following parameter in **/opt/avaya/pds/config/blend.edt**:

```
IVR_POOL:Pool job for IVR agents:NO:NO:CHECKBOX:YES:OTHER:5:3:
```

Setting IVR_POOL to YES indicates that the job is a pool job for IVR agents to join when they first log on to the Dialer.

inbound.edt

Verify or set the following new parameters in **/opt/avaya/pds/config/inbound.edt**:

- `IVR_POOL:Pool job for IVR agents:NO:YES:CHECKBOX:YES:OTHER:5:3:`

  Setting IVR_POOL to YES indicates that the job is a pool job for IVR agents to join when they first log on to the Dialer.

- `IVR_ID:IVR Identifier::YES:TEXTBOX:NO:IVR:2:10:`

  This parameter specifies which IVR is to be used by the job.

- `IVR_INITSCRIPT:Initial script to run on the IVR::YES:TEXTBOX:NO:IVR:3:11:`
  (be sure is parameter is specified all in one line)

  This parameter specifies which script to run on the IVR when the agent joins a job (other than the pool job). IVR_INITSCRIPT needs to have a value set only if it is necessary to run the Agent API command SetNotifyKeyField.

- `IVR_SCRIPT:Script to run on the IVR::YES:TEXTBOX:NO:IVR:4:11:`

  This parameter specifies which script to run on the IVR when a call is passed to the agent.

  Note:
  The system administrator will set IVR_ID, IVR_SCRIPT, IVR_INITSCRIPT (if

necessary) when the administrator transfers IVR agents from the pool job to an inbound or outbound job.

outbound.edt

Verify or set the following new parameters in **/opt/avaya/pds/config/outbound.edt**:

- `IVR_ID:IVR Identifier::YES:TEXTBOX:NO:IVR:2:10:`

  This parameter specifies which IVR is to be used by the job.

- `IVR_INITSCRIPT:Initial script to run on the IVR::YES:TEXTBOX:NO:IVR:3:11:`

  This parameter specifies which script to run on the IVR when the agent joins a job (other than the pool job). IVR_INITSCRIPT needs to have a value set only if it is necessary to run the Agent API command SetNotifyKeyField.

- `IVR_SCRIPT:Script to run on the IVR::YES:TEXTBOX:NO:IVR:4:11:`

  This parameter specifies which script to run on the IVR when a call is passed to an agent.

Installing the integration software on Avaya IR

After you have installed and configured the integration software on the Dialer, you are ready to install the necessary software components on Avaya IR.

Before installing the PDS/IVR Integration software on Avaya IR, perform the following steps:

1. Make sure the Avaya IR system is set up and can receive calls.
2. Assign feature_tst to one of the channels.
3. Call the Avaya IR system.
4. Verify that the Avaya IR system picks up the call.

Gather the following information and record it on the PDS/IVR Integration Worksheet on page 69:

- Name of the Dialer machine
- IP address of the Dialer machine
- For each simulated agent:
  - — Channel number
  - — Channel extension
  - — Agent logon ID

— Agent password

You should be able to get this information from the person who installs the PDS/IVR Integration software on the Dialer or from the network administrator.

Obtaining the PDS Integration package

The PDS Integration package may already be loaded on your system.

To determine if you need to obtain the PDS Integration (AVdialer) package:

1. Login in to the Avaya IR system.
2. Type **ls /export/optional_packages** and press **Enter**.

   If the system displays **AVdialer**, you can install the package using the procedure described in Installing the PDS Integration package on page 68. If there is no AVdialer package, follow the steps below to obtain the package from Avaya.

To obtain the PDS Integration (AVdialer) package:

1. From a Web browser, go to http://support.avaya.com (http://support.avaya.com).
2. From the navigation menu (the area on the left of the browser window, under **Technical Database**), select **Call Center/CRM**.
3. From the navigation menu, select **Interactive Voice Response**.
4. From the navigation menu, select **Interactive Response**.
5. From the main display area of the browser window, select **Software Downloads**.

   The browser displays a table listing the current software downloads.
6. In the **Software Downloads** table, click the link for the PDS Integration (AVdialer) package.

   The browser displays information about the software package, including instructions for downloading, installing, and uninstalling the package.
7. Follow the download instructions, to copy the software package file from the Web site.

To install the package, see Installing the PDS Integration package on page 68.

Installing the PDS Integration package

The PDS/IVR Integration software for Avaya IR is contained in the AVdialer package. The AVdialer package is one of the optional packages included with the Avaya IR software.

To install the AVdialer package:

1. Log in to the Avaya IR system as root.

2. On the Avaya IR, add the following entries to the **/etc/services** file:

```
agent           22700/tcp       #AgentAPI
dialer_conn     22800/tcp       #dialer_connector_process
```

3. Add the following entries in the **/etc/hosts** file:

   — The name of the Dialer machine

   — The IP address of the Dialer machine

   Note:
   You should have received this information from the person who installed the Dialer or from the network administrator.

4. Verify that you have the AVdialer package. See Obtaining the PDS Integration package on page 68 for the procedure.

5. The AVdialer package requires a licensing feature password to install. To have this package installed, contact the Avaya Technical Services Organization (TSO). Refer to the Legal page (back side of title page) for information about how to contact the TSO.

PDS/IVR Integration Worksheet

For information about filling out this worksheet, see Avaya IR installation on page 67.

Dialer name			
Dialer IP address			
Simulated Agents Information			
Agent logon ID	**Agent password**	**Channel number**	**Channel extension**

Configuring the integration software on Avaya IR

After the AVdialer package has been installed, use the agt_config process and the information you recorded on the PDS/IVR Integration Worksheet on page 69 to configure the PDS Integration feature on Avaya IR.

1. Use the following command to run the agent configuration tool:

   agt_config

   This program creates the data table used by dialer_conn to spawn off sim_agt processes.

2. When agt_config asks the name of the dialer machine, enter the same name that you entered in the /**etc/hosts** file.

3. For each simulated agent to be configured, enter the following:

   — Channel number

   — Channel extension

   — Agent logon ID

   — Agent password

   Note:
   Agent logon ID and Agent password must match ones that have been configured on the Dialer.

4. After all the agent data have been configured, enter **y** to confirm the changes.

Administering the PDS/IVR Integration software

This section describes how to administer PDS/IVR Integration software on the Dialer and on the Avaya IR system.

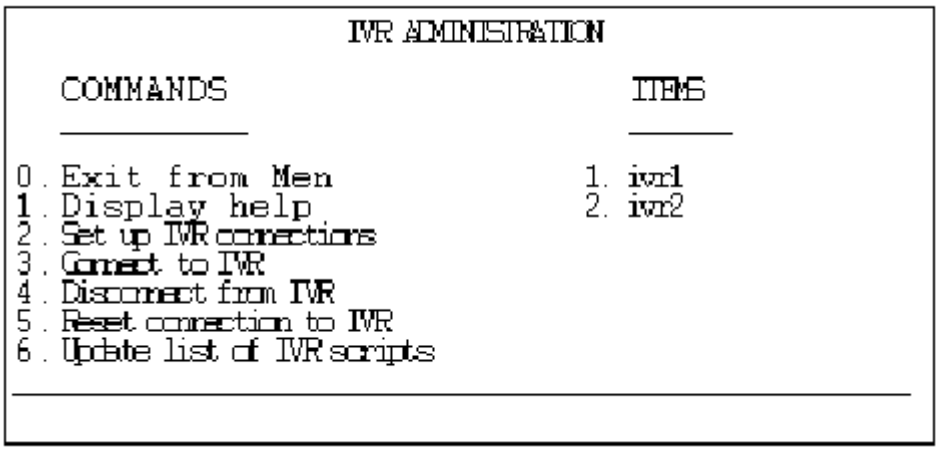
Dialer Administration

System administrators are responsible for setting up the Dialer as part of its integration with Avaya IR.

Adding IVR(s) to the Dialer

To administer the integration from the Dialer, select **IVR Administration** from the Administrator Main Menu.

The system displays the IVR Administration menu:



Command 2 "Set up IVR connections" displays a screen that specifies the IVRs that the PDS will be connecting to.

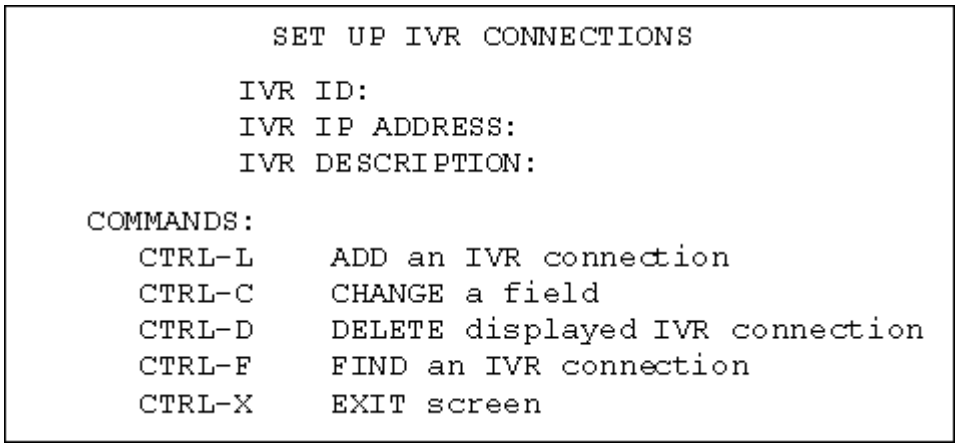
Command 3 "Connect to IVR" establishes a new connection to the selected IVR from the ITEMS list. In doing so, it connects to the IVR, starts the associated IVR pool job, and requests the IVR to send a list of scripts available to run on the IVR.

Command 4 "Disconnect from IVR" stops the associated IVR pool job and disconnects from the selected IVR in the ITEMS list.

Command 5 "Reset connection to IVR" disconnects from the selected IVR in the ITEMS list (command 4 minus stopping the pool job) and then performs command 3 for the selected IVR (minus starting the pool job).

Command 6 "Update list of IVR scripts" requests that the selected IVR in the ITEMS list send an updated list of scripts.

The Set Up IVR Connections screen allows you to add, change or delete information about the IVRs the Dialer will connect to. When you select command 2 on the IVR Administration screen, the system displays the following screen:



The top half of the screen displays the fields you use to identify IVRs you want to add, change, find, or delete. The bottom half of the screen lists the commands you can use. To use the screen, you enter the command and then enter or modify information in the fields.

To add an IVR

1. Press **CTRL-L**.
2. Enter an ID, the IP address, and a description for the IVR, pressing **RETURN** after each field.

   The ID will be used in subsequent operations on this screen and is what will be displayed in the **ITEMS** list on the IVR Administration menu.

To change an IVR

1. Press **CTRL-F**.
2. Enter an IVR ID to find the IVR you want to change.
3. When the IVR is found, go to the field you want to change (either IP address or description).
4. Press **CTRL-C**.
5. Enter the new information and press **RETURN**.

To delete an IVR

1. Press **CTRL-F**.
2. Enter an IVR ID to find the IVR you want to delete.
3. Press **CTRL-D** to delete the displayed IVR.

To save changes to IVRs

Once you have made all of the additions, changes and deletions, do the following:

1. Press **CTRL-X** to exit the screen.
2. Press **Y** or **N** at the following prompt, to either save or discard the changes you have made.

   ```
   Save changes? - (Y/N)
   ```

Creating IVR agents

IVR agents are no different than other agents that log in to the PDS, except that password aging must be disabled for the IVR agents. For information on how to create IVR agents, see the Avaya *PDS User's Guide*.

Note:
To disable password aging for the IVR agents you create, contact the PDS Technical Service Organization for assistance.

Using IVR agents

When IVR agents log on to the Dialer they, by default, join a pool job where they will take no calls. Before IVR agents can take calls, they must be transferred to a job set up to allow the use of IVR agents. IVR agents are allowed to work on inbound or outbound jobs but only if certain parameters are set on the Job Run Verification screen that displays when starting the job. Those parameters are:

- `AUTORELEASE:YES`

  This parameter specifies that the agent will automatically be placed in update mode when a customer hangs up.

- `IVR_ID:ivr_id`

  This parameter specifies which IVR is to be used by the job.

- `IVR_INITSCRIPT:init_script`

This parameter specifies which script to run on the IVR when the agent joins a job (other than the pool job). This parameter is needed only if it is necessary to run the Agent API command SetNotifyKeyField.

- `IVR_SCRIPT:script`

  This parameter specifies which script to run on the IVR when a call is passed to the agent.

Once the inbound or outbound job is started, the System Administrator or System Supervisor must transfer the IVR agents from the pool job to the job just started. This can be done from the System Supervisor menu item 4, Manage an active job.

After being transferred to the inbound or outbound job, the IVR agent can begin to take calls. The IVR agent will remain on the job until it shuts down, until the agent is manually transferred back to the pool job or until the agent logs off the Dialer because a disconnect command has been issued. If the job shuts down, the IVR agent will automatically transfer either to the next job if the job shutting down is linked to another job or back to the pool job.

Avaya IR administration

If you have added or changed the IVR agents on the PDS since you last ran the agt_config process on the Avaya IR, you will have to edit the file containing the IVR agent information and then re-run agt_config.

To make changes to the IVR agent information on the Avaya IR:

1. Open the **/vs/data/agt_data** file on the Avaya IR in a text editor, such as vi.
2. Edit the file to match the changes you made to the IVR agents on the PDS.
3. Save the changes to the file.
4. At the command line, run **agt_config -u** to update the configuration with the new information.

Administering the CTI DIP

This section describes how to administer the CTI feature including: how to configure the CTI DIP on the Avaya IR system, and setting up and administering a Siebel Client and a CVCT server for CTI.

Administering CVCT for CTI

You must administer the Avaya IR and the CentreVu Computer Telephony (CVCT) servers to make the Avaya IR a CVCT client.

To administer CVCT servers, do the following steps on each CVCT server:

1. Create a new user name for the Avaya IR system.
2. Register the user.
3. Create a device for each port of the Avaya IR system that will use CTI.

See *CentreVu Computer Telephony Release 9.1, Version 1, Telephony Services and CallVisor PC Installation* for details on how to administer the CVCT server.

Administering the Avaya IR system and the switch for CTI

Administer the Avaya IR system and the DEFINITY PBX as follows:

1. Administer the MAPD in DLG mode. See *CallVisor PC LAN over MAPD Installation, Administration, and Maintenance*, 555-230-113.
2. Administer the Avaya IR network interface card.
3. Administer the E1 or T1 telephone lines on the PBX.
4. Assign telephone numbers (or extensions) to the ports of the Avaya IR that will use CTI.
5. Administer the DEFINITY for ASAI connectivity with the CVCT server.
6. Administer the E1 and T1 lines on the Avaya IR system.

   Make telephony connections to the switch as you would for ASAI. Make digital connections between the Avaya IR system and the line side of the switch with either line side FXS T1 or line side FXS E1.
7. Administer the CTI DIP to the CVCT server on the Avaya IR system on page 75.

Administering the CTI DIP on Avaya IR

To configure a CTI DIP on Avaya IR:

1. From web administration, go to the **CTI DIP Configuration** screen (Feature Packages > CTI DIP Administration).

2. In the **Dipid** column, select the name of the Telephony Server DIP that you want to configure.

   Note:
   The name of the Telephony Server DIP is a link to the **CTI Configuration - Edit** screen.

   The system displays the CTI Configuration - Edit screen for the DIP you selected. For information about this screen, see CTI Configuration - Edit screen on page 403.

3. In the **Port number the DIP is listening on** field, examine and, if necessary, change the default port number.
4. In the **Telephony Server Hostname** field, type the LAN hostname for the telephony server.
5. In the **Telephony Server Portnumber** field, examine and, if necessary, change the telephony server port number.
6. In the **Telephony Server Username** field, type the username to use to login to the telephony server.
7. In the **Telephony Server Password** field, type the password to use to login to the telephony server.
8. In the **TLINK** field, type the telephony and switch parameter string (format: company#switchname#csta#hostname, where company is either Avaya or Lucent).
9. Select **Save**.

Setting up and administering a Siebel Client for CTI

If a Siebel client will be used, see *CentreVu ® CT Integration for SIEBEL ® eBusiness Applications (Release 1.1, Version 1.2.205) Client Installation Guide*. That guide will provide information about the related setup and administration of both the client and the CVCT server.

Administering the JDBC database interface

This section describes how to use the Web Administration interface to administer the JDBC database interface including: configuring, starting, stopping, restarting, and testing a database DIP, configuring Call Data Handler (CDH), setting up a CDH schedule, and deleting a CDH schedule.

Administering the JDBC database interface overview

The system uses database DIPs to communicate with local and remote databases. These DIPs need to be configured with information regarding where and how to access the databases. You can administer the DIP configuration from the Web Administration interface (Configuration Management > JDBC Administration), or using the **dbconfig** command.

By default, call information is stored in Call Data Handler (CDH) text files on the Avaya IR system. In Web Administration, this CDH text file is called *File CDH*. If the system has a local Oracle database, you can administer the system to store CDH records in the local Oracle database. In Web Administration, this is called *Database CDH*. You can administer both CDH configurations (File CDH and Database CDH), but only one configuration can be active.

If the Avaya IR system does not have a local Oracle database, the CDH text files can be uploaded to a remote database. The upload can be scheduled to run at a convenient (low traffic) time using a cron job.

Note:
Because enabling Database CDH for a remote database may result in heavy LAN traffic, Avaya does not recommend doing this in most cases.

Configuring a database DIP

To configure a database DIP:

1. From web administration, go to the **JDBC Administration - Main** screen (Configuration Management > JDBC Administration).
2. In the **Dipid** column, select the name of the DIP that you want to configure.

   Note:
   The name of the DIP is a link to the **JDBC Administration - Edit** screen.

   The system displays the **JDBC Administration - Edit** screen for the DIP you selected. For information about this screen, see JDBC administration - edit screen on page 381.
3. In the **Select the Database type** field, select **Oracle**, **Sybase**, **IBM DB2**, **Informix**, **Microsoft SQL Server**, or **Custom**.

   Note:
   Use the Custom configuration only if directed to do so by specific JDBC driver installation instructions. See Installing JDBC drivers.
4. In the **Enter the Informix instance name** field, type the Informix instance name.

Note:
This field is required if the **Select the Database type** field is set to **Informix**.

5. In the **Enter the DB hostname** field, type the LAN hostname for the server hosting the database.
6. In the **Enter the DB name** field, type the name of the database.
7. In the **Enter the DB port** field, type the LAN port that the database is monitoring
8. In the **Enter the DB username** field, type the user name used to access the database.
9. In the **Enter the DB password** field, type the password used to access the database.
10. In the **Enter the Connection Pool Size** field, type the maximum anticipated number of concurrent JDBC connections that the IVR implementation will use.
11. Select **Save**.

Starting, stopping, restarting, and testing a DIP

To start, stop, restart, or test a DIP:

1. From web administration, go to the **JDBC Administration - Main** screen (Configuration Management > JDBC Administration).

   The system displays the JDBC Administration - Main screen. For information about this screen, see **JDBC Administration - Main** screen on page 379.
2. In the **Dipid** column, select the radio button to the left of the DIP name.
3. Do one of the following:

   — To start (enable) a DIP, select **Start**.

   — To stop (disable) a DIP, select **Stop**.

   — To restart a DIP, select **Restart**.

   — To test a DIP, select **Test**.

   The system displays the status of the DIP.

Configuring File CDH for a local text file

To configure CDH to be stored in a local text file:

Note:
Storing CDH data in a local text file is the default configuration. You should perform the following procedure only if a Database CDH configuration is active and you want to change back to a File CDH configuration.

1. From web administration, go to the **JDBC Administration - Main** screen (Configuration Management > JDBC Administration).
2. In the **Dipid** column, select **File CDH**.

   The system displays the **JDBC Administration - Edit** screen. For information about this screen, see JDBC administration - edit screen on page 381.
3. In the **Select the database DIP that is used for uploading** field, select **none**.
4. In the **Enter the datapath to use for writing call data** field, examine and, if necessary, change the path to the CDH text file. Include the file name.
5. Select **Save**.
6. Start File CDH on page 78.

Configuring File CDH for a local Oracle database

To configure CDH to be stored in a local Oracle database:

1. From web administration, go to the **JDBC Administration - Main** screen (Configuration Management > JDBC Administration).
2. In the **Dipid** column, select **File CDH**.

   The system displays the **JDBC Administration - Edit** screen. For information about this screen, see JDBC administration - edit screen on page 381.
3. In the **Select the database DIP that is used for uploading** field, select the DIP that is configured for a local Oracle database.
4. In the **Enter the datapath to use for writing call data** field, examine and, if necessary, change the path to the CDH text file. Include the file name.
5. Select **Save**.
6. Set up a CDH schedule on page 81.

Configuring File CDH for a remote database

To configure CDH to be stored in a remote database:

1. From web administration, go to the **JDBC Administration - Main** screen (Configuration Management > JDBC Administration).
2. In the **Dipid** column, select **File CDH**.

   The system displays the **JDBC Administration - Edit** screen. For information about this screen, see JDBC administration - edit screen on page 381.
3. In the **Select the database DIP that is used for uploading** field, select the database DIP (DBDIP1 through DBDIP5) to use to upload the CDH file.
4. In the **Enter the datapath to use for writing call data** field, examine and, if necessary, change the path to the CDH text file. Include the file name.
5. Select **Save**.
6. Set up a CDH schedule on page 81.
7. If you changed the datapath in Step 4, restart the File CDH DIP on page 78.

Configuring Database CDH for a local Oracle database

To configure Database CDH for a local Oracle database:

1. From web administration, go to the **JDBC Administration - Main** screen (Configuration Management > JDBC Administration).
2. In the **Dipid** column, select **Database CDH**.

   The system displays the **JDBC Administration - Edit** screen for **Database CDH**. For information about this screen, see JDBC administration - edit screen on page 381.
3. In the **Select the Database type** field, select **Oracle**.
4. In the **Enter the DB hostname** field, type the LAN hostname for the server hosting the database.
5. In the **Enter the DB name** field, type the name of the database.
6. In the **Enter the DB port** field, type the LAN port that the database is monitoring.
7. In the **Enter the DB username** field, type the user name used to access the database.
8. In the **Enter the DB password** field, type the password used to access the database.

9. In the **Enter the Connection Pool Size** field, type the maximum anticipated number of concurrent JDBC connections that the IVR implementation will use.
10. Select **Save**.
11. Start Database CDH on page 78.

Setting up a CDH schedule

To set up a CDH schedule:

1. From web administration, go to the **CDH Scheduling** screen (Configuration Management > CDH Scheduling).

   If a CDH schedule exists, the system displays it.

2. Select **Setup Schedule**.

   The system displays the **Setup CDH Schedule** screen. For information about this screen, see Setup CDH Schedule screen on page 375.

3. In the **Minute** and **Hour** fields, specify the time that you want the CDH upload to start.
4. In the **Days of Week** field, specify the day or days of the week that you want to run the CDH upload.
5. Select **Submit**.

   The system updates the CDH scheduling information.

Deleting a CDH schedule

To delete a CDH schedule:

1. From web administration, go to the **CDH Scheduling** screen (Configuration Management > CDH Scheduling).

   If a CDH schedule exists, the system displays it.

2. Select **Delete Schedule**.

   The system displays a dialog box with the following message:

   ```
   Do you really want to delete the CDH schedule?
   ```

3. Select **OK**.

   The system deletes the CDH schedule.

Using uploadcdh with multiple systems

The **uploadcdh** program can be used to upload CDH data from multiple systems into a single database. The uploadcdh is called from the **croncdh** cron job. To use **uploadcdh** this way, do the following:

1. If the CDH database is from a CONVERSANT system, do the following to adjust the table in preparation for upload:
   - Create a backup of the database.
   - Drop all of the CDH tables from the database. The uploadcdh script will create the tables with the correct fields before it uploads the CDH data.
2. For each system that will connect to the database, create a user for the database and grant the user the following permissions:
   - Connect
   - Create tables
   - Create an index
   - Insert records
3. For each system that will connect to the database, set up the File CDH or the Database CDH configuration with the newly created username and password, as described in the following steps.
4. If you are using File CDH:
   - From the **JDBC Administration - Main** screen, click the name of the DBDIP you want to use for uploading.
   - On the **JDBC Administration - Edit** screen, configure the DBDIP and specify the newly created username and password.
   - From the **JDBC Administration - Main** screen, click **File CDH**.
   - On the **JDBC Administration - Edit** screen, select the DBDIP to use for uploading and specify the datapath for writing CDH data.
   - See Configuring File CDH for a local text file on page 78, Configuring File CDH for a local Oracle database on page 79, or Configuring File CDH for a remote database on page 80 for more information.
5. If you are using Database CDH:
   - Supply the new user and password information in the Web admin screen.

— Restart the Database CDH.

— See Configuring Database CDH for a local Oracle database on page 80 for more information.

Administering VoiceXML

This section describes how to administer the VoiceXML (VXML) feature and configure VXML log reports. For additional information related to developing, testing, and implementing VoiceXML applications, see Using VoiceXML.

Administration commands for VoiceXML

VoiceXML administration uses a combination of command-line commands or Web administration and editing of configuration files, such as the defaults.xml and default.cfg.

To manage the assignment of VoiceXML applications to channels and numbers, use the following Web administration procedures:

- Assigning a VoiceXML service to channels on page 102
- Assigning a VoiceXML URI to channels on page 103
- Unassigning a service from a channel on page 104
- Assigning a service to calling (ANI) and called (DNIS) numbers on page 104
- Assigning a VoiceXML URI to calling (ANI) and called (DNIS) numbers on page 105
- Unassigning a service from calling and called numbers on page 106

You can also use the following command-line commands to manage the assignment of VoiceXML applications to channels and numbers:

- vxmlassign on page 335
- vxmldelete on page 336
- vxmldisplay on page 337

To assign VoiceXML applications, you specify the starting page of your VoiceXML application and assign it to the appropriate channels or numbers (DNIS or ANI).

Specifying starting pages

Starting pages can be local files or they can be remote files located on the Web. Local files are referenced using a URI that begins with **file://**. Local files are located in the **/voice1/vxml/apps/*application*** directory where *application* is the name of your VoiceXML application. For example, the starting page for the **widget** application would be **file:///voice1/vxml/apps/widget/starting_page.vxml**.

Web files are referenced using a URI that begins with **http://** and can be located on any Web server that is accessible from the Avaya IR VoiceXML Interpreter. For example, the starting page for the **widget** application the Web server **voiceserver.com** would be **http://voiceserver.com/widget/starting_page.vxml**.

Using TTS and speech recognition languages with VoiceXML

Consider the following information for VoiceXML applications using Text-to-Speech (TTS) and speech recognition.

Languages

VoiceXML applications for Avaya IR work with languages determined by the speech engine and the corresponding TTS or speech recognition package:

- If using ScanSoft's SpeechWorks Speechify, see Speechify TTS packages.
- If using ScanSoft's SpeechWorks RealSpeak, see RealSpeak TTS package.
- If using ScanSoft's SpeechWorks OpenSpeech Recognition (OSR), see SpeechWorks OSR packages.
- If using an MRCP-compliant ASR engine, see MRCP ASR package.
- If using an MRCP-compliant TTS engine, see MRCP TTS package.

To make languages work with VoiceXML, apply these settings:

- For double-byte languages, or for files that have double-byte characters, set the encoding attribute in the <xml> tag to UTF-16 or UTF-8. Then save the VoiceXML document with the same setting as the <xml> tag, either UTF-16 or UTF-8 respectively.

  Note:
  If the VoiceXML application will interface with RealSpeak, set the encoding attribute and file format to UTF-16.

- For single-byte languages other than English, such as French, you must set the encoding attribute in the <xml> tag to ISO-8859-1.

If the lang attribute is set to something other than English and English is used in the prompt, the TTS engine attempts to translate the English into the specified language.

The defaults.xml file

If not otherwise specified in the VoiceXML /vs/data/vxml/defaults.xml file or in the VoiceXML application, the default TTS voice for VoiceXML is US English and female. To change the default gender to male at the system level, add the following line to the defaults.xml file:

```
<property name="promptgender" value="male"/>
```

To change the default language at the system level, modify the xml:lang property in the defaults.xml file. Note that the TTS voice administered as part of Text-to-Speech must match the defaults for VoiceXML. For example, if the VoiceXML defaults of US English and female are used, there must be a TTS voice available that is US English and female.

Note:
Changes to the xml:lang property affect both TTS and NLSR.

The xml:lang property is only valid within the defaults.xml file. To set the language for a VoiceXML document, use the xml:lang attribute of the <vxml> tag. To set the language for a specific prompt, use the xml:lang attribute of the <prompt> tag. To set the language for a specific grammar, use the xml:lang attribute of the <grammar> tag.

Changes to the defaults.xml file do not go into effect until you restart the voice system.

Administering the speech recognition type

To use natural language speech recognition (NLSR) in VoiceXML applications, you must use **OPSR4** when administering the speech recognition type. To administer speech recognition type, use either the Assign Speech Recognition Type screen in the Web Administration interface or the **sproxyadm** command with the `-r` attribute.

For more information on administering speech recognition type, see

- Assigning a speech recognition type on page 115
- sproxyadm command on page 307

Administering the VXML log reports

This section describes how to use the VXML Log Administration interface to configure and display the VXML log reports.

Configuring VXML Logging Level

To configure the VXML Logging Level:

1. From web administration, go to the **VXML Logging Level** screen (Click **Configuration Management** > **VXML Log Administration** > **VXML Administration** > **VXML Logging Level**).
2. In the **Log Level** field, select the appropriate log level for the **Module Names**. If under **Default** a log level has been selected, then that **Log Level** is displayed for all the **Module names**. For more information, see the VXML Logging Level screen. **on page 395**
3. In the **Debug Level** field, select the appropriate debug level for the **Module Names**. If under **Default** a debug level has been selected, then that **Debug Level** is displayed for all the **Module names**. For more information, see the VXML Logging Level screen. **on page 395**
4. Click **Submit.**

   The system displays a message informing you that the VXML log and debug levels have been assigned.

Configuring the VXML log files

To configure VXML log files:

1. From web administration, go to the **VXML Log File Configuration** screen (Click **Configuration Management** > **VXML Log Administration** > **VXML Administration** > **VXML Log File Configuration**).
2. In the **Log File** field, enter an appropriate log file size between 100 and 10,000 kilobytes (kb).
3. In the **Log File location** field, enter the location where you want to store the log file. For more information, see the VXML Log File Configuration screen **on page 397**
4. Click **Submit.**

   The system displays the locations where the files containing the log size and the log location have been stored.

Configuring the VXML performance record files

To configure VXML Performance Record files:

1. From Web Administration, go to the **Performance Configuration** screen (Click **Configuration Management** > **VXML Log Administration** > **VXML Administration** > **Performance Configuration**).
2. In the **File Size** field, enter an appropriate log file size between 100 and 10,000 kb.
3. In the **File location** field, enter the location where you want to store the log file.
4. In the **Time interval for snapshot field,** enter the time interval, after which you want a snapshot of the system captured. This interval should be between 15 and 1800 seconds. For more information, see the Performance Configuration screen on page 397 .
5. Select **Submit.**

   The system displays a message confirming the values that you have assigned and the locations where the files containing the log size and the log location have been stored.

Administering SNMP configuration

This section describes how to enable the SNMP feature.

Setting SNMP configuration

To configure the SNMP feature:

1. From web administration, go to the **SNMP configuration** screen (Click **Configuration Management** > **Alarm Administration** > **SNMP configuration**).

   The system displays the **SNMP configuration** screen. For information about this screen, see SNMP configuration screen on page 399.
2. In the **SNMP Enabled** field, select **Yes.**
3. Click **Submit**.

Administering network services

For security purposes, network services not needed on the Avaya IR system should be disabled. If you purchased a complete system (that is, both hardware and software) from Avaya, the appropriate services are turned on or off by default. If you purchased the software-only solution, you can run the disableServices utility on page 88 to set your network services to the preferred settings for Avaya IR.

For a more thorough discussion of network services, including which ones should be enabled or disabled and why, see the white paper, *Avaya™ Interactive Response Security* collections/print_Security_White_Paper.pdf.

However, if you purchased only the Avaya IR software, or if you have other system requirements, you can enable and disable services to meet the requirements of your site. This section explains how to administer these network services.

Note:
Be cautious when enabling or disabling network services. Some are required for Avaya IR software to function properly, while others can adversely affect system performance/behavior and weaken security on your system. For more information, see the white paper, *Avaya™ Interactive Response Security* collections/print_Security_White_Paper.pdf.

Running the disableServices utility

Avaya has provided a utility to disable unneeded network services and help harden system security. This is intended especially for those customers who purchase the Avaya IR software-only solution, but it can be used at any time to set the system to the default and preferred settings for network services. Running this utility will ensure that your system conforms to the same standards as the Avaya IR complete system solution at time of purchase.

Note:
For more information about and recommendations on disabling and enabling network services in Avaya IR systems, see the white paper, A*vaya™ Interactive Response Security* collections/print_Security_White_Paper.pdf.

To run the *disableServices* utility:

1. Log in as root if you are not already logged in.
2. At the system prompt, enter **/vs/bin/util/disableServices**

   The utility runs and sets all network services to the same state used by the complete system solution. It also generates a list of all the network services that it disabled and stores the list in the file **/voice1/disabledServices.log**.

Enabling a network service

To enable a network service:

1. Open the appropriate file.

   The file will either be **/etc/inetd.conf** or **/etc/services**. See topics in the section Enabled and disabled network services for the network services in these files.

2. Remove the comment symbol (#) from the beginning of the line that contains the name of the network service you want to enable.

3. Close the file.

4. Reboot the system.

Note:

Enabling a network service that is not required or used by the Avaya IR software can adversely affect system performance/behavior and weaken your system's security. Avaya recommends that you enable only those network services required by the Avaya IR system. For more information, see the white paper, *Avaya™ Interactive Response Security* collections/print_Security_White_Paper.pdf.

Disabling a network service

To disable a network service:

1. Open the appropriate file.

   The file will either be **/etc/inetd.conf** or **/etc/services**. See topics in the section Enabled and disabled network services for the network services in these files.

2. Add a comment symbol (#) to the beginning of the line that contains the name of the network service you want to disable.

3. Close the file.

4. Reboot the system.

Note:

Disabling a network service that is required or used by the Avaya IR software can adversely affect system performance/behavior. Avaya recommends that you disable only those network services that you are sure are not required by the

system. For more information, see the white paper, *Avaya™ Interactive Response Security* collections/print_Security_White_Paper.pdf.

Enabled and disabled services

For a complete list of the network services that Avaya recommends enabling and disabling, see the white paper, *Avaya™ Interactive Response Security* collections/print_Security_White_Paper.pdf.

Administering the Web Administration interface

This section describes how to administer the Web Administration feature including:

- Installing the Web Administration SSL certificates:
  - For Internet Explorer
  - For Netscape
- Administration of the Web administration session timeout
- Information about the Tomcat server log

Installing the Web Administration SSL certificate for Internet Explorer

The first time you open the Web Administration tool in Internet Explorer, you will receive a security alert and be prompted to install the SSL certificate. If you do not install it, you will see the alert each time you open the Web Administration tool until you do.

To install the SSL certificate for Microsoft Internet Explorer (version 5.0 or higher):

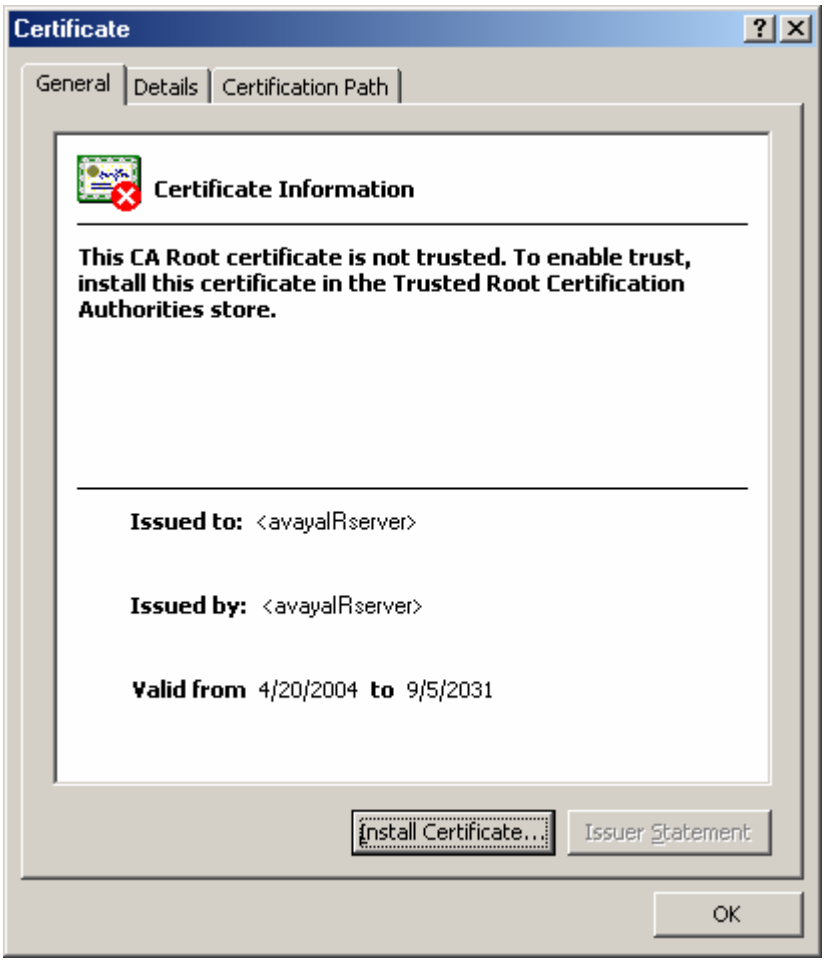
1. Open an Internet Explorer browser window.
2. In the **Address:** field, enter the fully qualified domain name of the Avaya IR server.

   The system displays the **Avaya Interactive Response** Web Administration selection page.
3. Click the **Web Administration** link.

The system displays a security alert window similar to the following:

4. Click **View Certificate**.

The system displays a Certificate window similar to the following:



where <avayaIRserver> is the domain name or IP address of the Avaya IR server.

5. Click **Install Certificate...**

   The system displays the **Certificate Import Wizard** window.

6. Click **Next**.

7. Select **Automatically select the certificate store based on the type of certificate** and then click **Next**.

8. Click **Finish**.

   The system displays a **Security Warning** dialog box that contains the question: **Do you want to install this certificate?**

9. Click **Yes**.

   The system displays a dialog box indicating that the import was successful.

Installing the Web Administration SSL certificate for Netscape

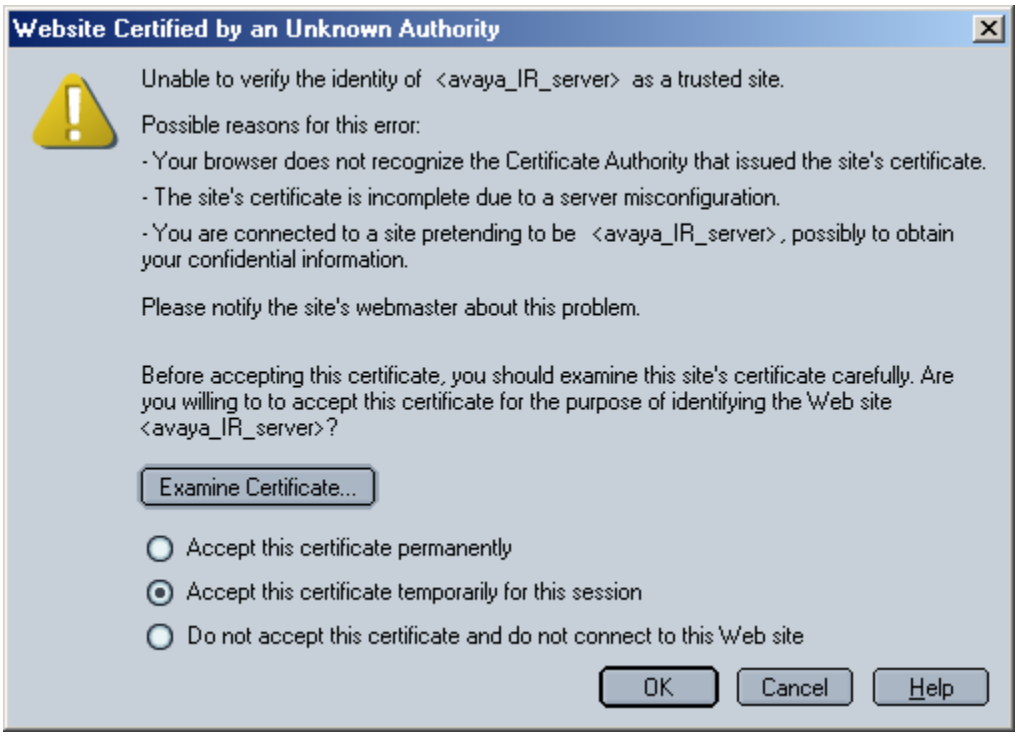
The first time you open the Web Administration tool in Netscape, you will receive a security alert and be prompted to install the SSL certificate. If you do not install it, you will see the alert each time you open the Web Administration tool until you do.

To install the SSL certificate for Netscape (version 6.2 or higher):

1. Open a Netscape browser window.
2. In the addressing area, enter the fully qualified domain name of the Avaya IR server.

   The system displays the **Avaya Interactive Response** Web Administration selection page.
3. Click the **Web Administration** link.

   The system displays a security alert window similar to the following:



4. (Optional) If you want to see detailed information about the SSL certificate, click **Examine Certificate...**
5. Select **Accept this certificate permanently**.
6. Click **OK**.

Administering the Web Administration session timeout

The Web Administration session timeout is 30 minutes by default. The session timeout can be a minimum of 5 minutes up to a maximum of 1 hour. The session timeout applies to the Avaya IR server. That is, the session timeout for the server can be one value and that applies to every Web Administration user.

Note:
If the Web Administration screen is not displaying correctly, the session may have timed out. Click the Refresh button on the browser toolbar or re-enter the domain name. Check that you have entered the domain name and not the IP address.

The session timeout can be changed by editing the file **/webadm/jakarta-tomcat-5.0.28/webapps/ROOT/WEB-INF/web.xml** whose contents are:

```
<?xml version="1.0" encoding="ISO-8859-1"?>

<!DOCTYPE web-app

    PUBLIC "-//Sun Microsystems, Inc.//DTD Web Application 2.2//EN"

    "http://java.sun.com/j2ee/dtds/web-app_2_2.dtd">

<web-app>

        <servlet>

                <servlet-name>AdmServlet</servlet-name>

                <init-param><param-name>userdir</param-name><param-
value>/webadm

/</param-value></init-param>

                <init-param><param-name>sestimeout</param-
name><param-value>1800

</param-value></init-param>

                <servlet-
class>com.avaya.ivr.admin.AdmServlet</servlet-class>

                <load-on-startup>1</load-on-startup>

        </servlet>
```

```
</web-app>
```

To change the default session timeout of 1800, change the 1800 in the file to another number. This number specifies the number of seconds before a session times out. If you specify a number that is less than 300 seconds (5 minutes), the system will change the session timeout to 5 minutes. If you specify a number that is greater than 3600 seconds (1 hour), the system will change the session timeout to 1 hour.

Note:
A session times out if no servlet access has been performed in the interval of time defined by the session timeout.

A word about the Tomcat server log

In Avaya IR Release 2.0, the Web Administration tool uses Tomcat as both the Web server and servlet engine. Tomcat periodically writes data to a log on the Avaya IR server.

Since the Tomcat server does not provide a method internally to delete old data, it continually adds to this data and will continue to do so unless cleaned up from time to time. We recommend that you check these log files on a regular basis and delete old data files when the size of the log file directory gets too large.

This file can be found at the following location:

/webadm/jakarta-tomcat-5.0.28/logs/localhost_log.<*yyyy-mm-dd*>.txt

where <*yyyy-mm-dd*> is the date of the last time time the log was written to. For example, if the last date the log was written to was May 7, 2004, then the name of the log file would be:

localhost_log.2004-05-07.txt

Installing the Web Administration SSL certificate for Internet Explorer

The first time you open the Web Administration tool in Internet Explorer, you will receive a security alert and be prompted to install the SSL certificate. If you do not install it, you will see the alert each time you open the Web Administration tool until you do.

To install the SSL certificate for Microsoft Internet Explorer (version 5.0 or higher):

1. Open an Internet Explorer browser window.

2. In the **Address:** field, enter the fully qualified domain name of the Avaya IR server.

   The system displays the **Avaya Interactive Response** Web Administration selection page.

3. Click the **Web Administration** link.

   The system displays a security alert window similar to the following:

4. Click **View Certificate**.

The system displays a Certificate window similar to the following:

where <avayaIRserver> is the domain name or IP address of the Avaya IR server.

5. Click **Install Certificate...**

   The system displays the **Certificate Import Wizard** window.

6. Click **Next**.

7. Select **Automatically select the certificate store based on the type of certificate** and then click **Next**.

8. Click **Finish**.

   The system displays a **Security Warning** dialog box that contains the question: **Do you want to install this certificate?**

9. Click **Yes**.

   The system displays a dialog box indicating that the import was successful.

Administering voice equipment

This section describes how to use the Web Administration interface to administer voice equipment including: displaying equipment assignments, changing equipment states, assigning channels to equipment groups, assigning telephone numbers to channels, assigning a service (application) to a channel, and assigning a service to calling (ANI) and called (DNIS) numbers.

Administering voice equipment overview

Channels typically have telephone numbers and services associated with them. Channels can also belong to equipment groups, allowing them to be administered together.

Services are voice response applications. You can have one or more channels run an application by assigning the application to the channels you want to run it. TAS, VoiceXML, or both types of voice response applications can be assigned to channels. For VoiceXML applications, you can assign a URI that specifies the location of the application.

If more than one channel needs to have the same configuration, an equipment group can be created that has this configuration. If you want a channel to have the configuration of an equipment group, you simply assign the channel to the group. This simplifies the administration process considerably. You can administer the group as a whole rather than administering each channel individually. When an equipment group is selected by an application, the system assigns an available channel from the group.

You can also administer one or more calling (ANI) or called (DNIS) numbers to run an application by assigning the application to the calling or called numbers you want to run it. TAS, VoiceXML, or both types of voice response applications can be assigned to calling numbers, called numbers, or both.

For VoiceXML applications, you can assign calling numbers, called numbers, or both to a VoiceXML service or to a URI that specifies the location of the application. One benefit of assigning calling or called numbers to a URI is that the application that the URI points to can be located on the Avaya IR platform or on any web server that can be accessed from the platform. If calling or called numbers are assigned to a VoiceXML service, the VoiceXML application must be located on the Avaya IR platform.

Displaying equipment assignments

To display equipment assignments:

1. From web administration, go to the **Display Equipment** screen (Configuration Management > Voice Equipment > Display Equipment).

The system displays the equipment assignments. For information about this screen, see Display Equipment screen on page 468.

Displaying passwords assigned to channels

To display passwords assigned to channels:

Note:
You must have Administration privileges to use the **Display Passwords** screen.

1. From web administration, go to the **Display Passwords** screen (Configuration Management > Voice Equipment > Display Passwords).
2. In the Channels field, specify the channels for which you want passwords displayed.

   The system displays the telephone numbers and passwords for the specified channels. For information about this screen, see Display Passwords screen on page 470.

Changing equipment states

To change equipment states:

1. From web administration, go to the **Change State of Voice Equipment** screen (Configuration Management > Voice Equipment >Equipment State).

   The system displays the **Change State of Voice Equipment** screen. For information about this screen, see Change State of Voice Equipment screen on page 471.
2. In the **New State** field, do one of the following:

   — To change the state of the voice equipment to in service, select **inserv**.

   — To change the state of the voice equipment to manual out-of-service, select **manoos**.
3. In the **Equipment** field, do one of the following:

   — To change the state of a card, select **card**.

   — To change the state of a channel, select **channel**.
4. In the **Equipment Number** field, do one of the following:

   — To change the state of a single card or channel, type a single equipment number.

   — To change the state of a consecutive range of cards or channels, type a range of equipment numbers separated by a dash.

— To change the state of a non-consecutive list of cards or channels, type a list of equipment numbers separated by commas or spaces.

— To change the state of all cards or channels, type **all**.

5. In the **Change Immediately?** field, do one of the following:

— To change the state of the equipment immediately, which will disconnect active calls, select **YES**.

— To change the state of the equipment after current calls end, select **NO**.

6. Select **Submit**.

The system displays information about the success or failure of the administration attempt.

Assigning channels to equipment groups

To assign channels to equipment groups:

1. From web administration, go to the **Channels to Groups** screen (Configuration Management > Voice Equipment > Channels to Groups).
2. Select **Assign**.

The system displays the **Assign Channels to Equipment Groups** screen. For information about this screen, see Assign channels to equipment groups screen on page 472.

3. Type one or more channel numbers in the **Channels** field.
4. Type one or more group numbers in the **Groups** field.
5. Select **Submit**.

The system displays information about the success or failure of the administration attempt.

Note:
You can reverse this process by *unassigning* a channel from a group. To do so, choose **Unassign** instead of **Assign** in Step 2 above.

Assigning telephone numbers and passwords to channels

To assign telephone numbers and passwords to channels:

Note:
You must have Administration privileges to assign passwords to channels.

1. From web administration, go to the **Phone Number - Channel Assignment** screen (Configuration Management > Voice Equipment > Phone Number).
2. Select **Assign**.

   The system displays the **Assign Phone Number to a Channel** screen. For information about this screen, see Assign Phone Number to Channel screen on page 474.
3. Type a single telephone number or a range of telephone numbers in the **Phone Number** field.
4. Type a single channel number or a range of channel numbers in the **Channel Number** field.

   Note:
   To specify a range of telephone numbers and channels, the number of channels you specify must match the number of telephone numbers you specify.
5. For station authentication on a VoIP channel, type a single password or a range of passwords in the **VoIP H.323 MultiVantage Station Password** field.

   Note:
   To specify a range of telephone numbers, channels, and passwords, the number of telephone numbers and channels you specify must match the number of passwords you specify.
6. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Unassigning telephone numbers from channels

To unassign telephone numbers from channels:

1. From web administration, go to the **Phone Number - Channel Assignment** screen (Configuration Management > Voice Equipment > Phone Number).
2. Select **Unassign**.

   The system displays the **Unssign Phone Number from a Channel** screen. For information about this screen, see Unassign Phone Number from a Channel screen on page 475.
3. Type one or more channel numbers in the **Channels** field.

4. Select **Submit**.

   The system unassigns the telephone numbers (and, if administered, the passwords for VoIP station authentication) from the specified channels and updates the screen, or displays a failure message.

Assigning a TAS service to channels

To assign a TAS service to channels:

1. From web administration, go to the **Channel Services** screen (Configuration Management > Voice Equipment > Voice Services > Channel Services).
2. Select the channels to which you want to assign a service.
3. Select **Assign Selected**.

   The system displays the **Assign Services to Channels** screen. For information about this screen, see Assign services to channels screen on page 476.
4. In the **Assign** field, select **TAS Service**.

   Note:
   The **Assign** field is displayed only if the system has the VoiceXML feature.
5. In the **Service** field, select the TAS service to handle incoming calls.
6. (Optional) In the **Startup Service** field, select the TAS service that handles special call setup procedures.
7. Verify that the **Chan** field shows the channels to which you want to assign the service.
8. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Assigning a VoiceXML service to channels

To assign a VoiceXML service to channels:

1. From web administration, go to the **Channel Services** screen (Configuration Management > Voice Equipment > Voice Services > Channel Services).
2. Select the channels to which you want to assign a service.
3. Select **Assign Selected**.

The system displays the **Assign Services to Channels** screen. For information about this screen, see Assign services to channels screen on page 476.

4. In the **Assign** field, select **VXML Service**.
5. In the **Service Name** field, select the VoiceXML service to handle incoming calls.

   Note:
   Only applications that are installed on the Avaya IR system are displayed in the **Service Name** field.

1. Verify that the **Chan** field shows the channels to which you want to assign the service.
2. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Assigning a VoiceXML URI to channels

To assign a VoiceXML URI to channels:

1. From web administration, go to the **Channel Services** screen (Configuration Management > Voice Equipment > Voice Services > Channel Services).
2. Select the channels to which you want to assign a VoiceXML URI.
3. Select **Assign Selected**.

   The system displays the **Assign Services to Channels** screen. For information about this screen, see Assign Services to Channels screen on page 476.

4. In the **Assign** field, select **VXML URI**.
5. In the **URI** field, type a URI that specifies the location of the VoiceXML application.
6. (Optional) To verify that the URI you specified is valid, select **Verify**.

   The browser opens the specified URI in a new browser window. If the URI is not valid, the browser generates an error message.

7. Verify that the **Chan** field shows the channels to which you want to assign the service.
8. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Unassigning a service from a channel

To unassign a service from a channel:

1. From web administration, go to the **Channel Services** screen (Configuration Management > Voice Equipment > Voice Services > Channel Services).
2. Select the channels from which you want to unassign a service.
3. Select **Unassign Selected**.

   The system displays a dialog box with the following message:
   `Are you sure you want to unassign the selected channels? (This will unassign the Service and Startup Service.)`
4. Select **OK**.

   The system unassigns the selected channels and updates the screen, or displays a failure message.

Assigning a service to calling (ANI) and called (DNIS) numbers

To assign a TAS or VoiceXML service to calling numbers, called numbers, or both:

1. From web administration, go to the **Number Services** screen (Configuration Management > Voice Equipment > Voice Services > Number Services).
2. Select **Assign New**.

   The system displays the **Assign Number Services** screen. For information about this screen, see Assign Number Services screen on page 480.
3. In the **Assign** field, select **TAS Service** or **VXML Service**.

   Note:
   The **Assign** field is displayed only if the system has the VoiceXML feature.
4. To assign a service to called numbers, in the **Called Numbers** field, do one of the following:

   — To specify a single called number, type the number in the left field.

   — To specify a range of called numbers, type the starting number in the left field and the ending number in the right field.

   — To specify all called numbers, type **any** in the left field.

5. To assign a service to calling numbers, in the **Calling Numbers** field, do one of the following:

   — To specify a single calling number, type the number in the left field.

   — To specify a range of calling numbers, type the starting number in the left field and the ending number in the right field.

   — To specify all calling numbers, type **any** in the left field.

6. In the **Service Name** field, select the TAS or VXML service to which you want to assign the calling and called numbers.

   Note:
   Only applications that are installed on the Avaya IR system are displayed in the **Service Name** field.

7. Select **Submit**.

Assigning a VoiceXML URI to calling (ANI) and called (DNIS) numbers

To assign a VoiceXML URI to calling numbers, called numbers, or both:

1. From web administration, go to the **Number Services** screen (Configuration Management > Voice Equipment > Voice Services > Number Services).
2. Select **Assign New**.

   The system displays the **Assign Number Services** screen. For information about this screen, see Assign Number Services screen on page 480.

3. In the **Assign** field, select **VXML URI**.
4. To assign a URI to called numbers, in the **Called Numbers** field, do one of the following:

   — To specify a single called number, type the number in the left field.

   — To specify a range of called numbers, type the starting number in the left field and the ending number in the right field.

   — To specify all called numbers, type **any** in the left field.

5. To assign a URI to calling numbers, in the **Calling Numbers** field, do one of the following:

   — To specify a single calling number, type the number in the left field.

   — To specify a range of calling numbers, type the starting number in the left field and the ending number in the right field.

— To specify all calling numbers, type **any** in the left field.

6. In the **URI** field, type a URI that specifies the location of the VoiceXML application.
7. (Optional) To verify that the URI you specified is valid, select **Verify**.

   The browser opens the specified URI in a new browser window. If the URI is not valid, the browser generates an error message.
8. Select **Submit**.

Unassigning a service from calling and called numbers

To unassign a service from calling or called numbers:

1. From web administration, go to the **Number Services** screen (Configuration Management > Voice Equipment > Voice Services > Number Services).
2. Select the row of calling and called numbers from which you want to unassign a service.
3. Select **Unassign Selected**.

   The system displays a dialog box with the following message:
   `Are you sure you want to unassign the selected number ranges?`
4. Select **OK**.

   The system unassigns the service and updates the screen.

Administering Two B-Channel Transfer (TBCT)

This section describes how to use the Web Administration interface to administer the Two B-Channel Transfer feature.

Administering Two B-Channel Transfer overview

Use the Two B-Channel Transfer screens to administer the Two B-Channel Transfer feature.

The Two B-Channel Transfer (TBCT) feature is a means for the Avaya IR system to take advantage of the Explicit Network Call Transfer operations on ISDN PRI trunks.

With the TBCT feature, a call coming into the Avaya IR system on one B (bearer) channel can be connected, within the switch, to a call that has been made by the Avaya IR system on

another B channel, and both incoming and outgoing calls on the Avaya IR system are released. Without this feature, the connection would need to be maintained within the Avaya IR system for the duration.

Assigning TBCT system parameters

To assign TBCT system parameters:

1. From web administration, go to the **Two B Channel Transfer** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Two B Channel Transfer).
2. Select **Assign Two B Channel Transfer**.

   The system displays the **Assign Two B Channel Transfer** screen.
3. Select **Assign Two B Channel System Parameters**.

   The system displays the **Assign Two B Channel System Parameters** screen. For information about this screen, see Assign TBCT System Parameters screen on page 452.
4. In the **Number of Reserved B Channels for Outgoing Calls** field, type the number of B channels that are used exclusively for outgoing calls.
5. In the **When is B Channel Transfer Invoked?** field, select one of the following:

   — **on alerting —** TBCT will be used when the system is alerted about an incoming call

   — **on answer —** TBCT will be used when the system answers an incoming call
6. In the **Error Handling Method if Transfer Fails** field, select **bridge** or **disconnect**.
7. In the **Channel Hunt Method** field, select **ascending order** or **descending order**.

   Note:
   To minimize collisions between incoming and outgoing calls, Avaya recommends that the system hunt for outgoing channels in the opposite direction from the direction the switch is using for incoming calls.
8. In the **Maximum Number of Rings for Outgoing Calls** field, type the number of rings to allow after placing an outgoing call.
9. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Changing TBCT system parameters

To change TBCT system parameters:

1. From web administration, go to the **Two B Channel Transfer** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Two B Channel Transfer).
2. Select **Change Two B Channel Transfer**.

   The system displays the **Change Two B Channel Transfer** screen.
3. Select **Change Two B Channel System Parameters**.

   The system displays the **Change Two B Channel System Parameters** screen. For information about this screen, see Change TBCT system parameters screen on page 455.
4. In the **Number of Reserved B Channels for Outgoing Calls** field, type the number of B channels that are used exclusively for outgoing calls.
5. In the **When is B Channel Transfer Invoked?** field, select one of the following:

   — **on alerting —** TBCT will be used when the system is alerted about an incoming call

   — **on answer —** TBCT will be used when the system answers an incoming call
6. In the **Error Handling Method if Transfer Fails** field, select **bridge** or **disconnect**.
7. In the **Channel Hunt Method** field, select **ascending order** or **descending order**.

   Note:
   To minimize collisions between incoming and outgoing calls, Avaya recommends that the system hunt for outgoing channels in the opposite direction from the direction the switch is using for incoming calls.
8. In the **Maximum Number of Rings for Outgoing Calls** field, type the number of rings to allow after placing an outgoing call.
9. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Displaying TBCT card parameters

To display TBCT card parameters:

1. From web administration, go to the **Two B Channel Transfer** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Two B Channel Transfer).
2. Select **Display Two B Channel Transfer**.

   The system displays the **Display Two B Channel Transfer** screen.
3. Select the card for which you want to display parameters.
4. Select **Submit**.

   The system displays TBCT parameters for the specified card.

Assigning TBCT card parameters

Prerequisites

Before assigning TBCT card parameters, check the following:

- The ISDN-PRI T1 protocol has been assigned to a telephony card with the **ISDN Type** field set to **National** or **Nortel**
- TBCT card parameters have *not* been assigned to the card

Procedure

To assign TBCT card parameters:

1. From web administration, go to the **Two B Channel Transfer** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Two B Channel Transfer).
2. Select **Assign Two B Channel Transfer**.

   The system displays the **Assign Two B Channel Transfer** screen.
3. Select the card to which you want to assign parameters.
4. Select **Submit**.

   The system displays the Assign TBCT Parameters screen for the specified card.
5. In the **Two B Channel Transfer on Trunk 1 ?** field, select **yes** or **no**.
6. In the **Two B Channel Transfer on Trunk 2 ?** field, select **yes** or **no**.
7. In the **Two B Channel Transfer on Trunk 3 ?** field, select **yes** or **no**.

   Note:
   This field displays only if the system has a quad port telephony card.
8. In the **Two B Channel Transfer on Trunk 4 ?** field, select **yes** or **no**.

Note:
This field displays only if the system has a quad port telephony card.

9. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Changing TBCT card parameters

Prerequisites

Before changing TBCT card parameters, check the following:

- TBCT card parameters have been assigned to a telephony card

Procedure

To change TBCT card parameters:

1. From web administration, go to the **Two B Channel Transfer** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Two B Channel Transfer).
2. Select **Change Two B Channel Transfer**.

   The system displays the **Change Two B Channel Transfer** screen.
3. Select the card for which you want to change parameters.
4. Select **Submit**.

   The system displays the Change TBCT Parameters screen for the specified card.
5. In the **Two B Channel Transfer on Trunk 1 ?** field, select **yes** or **no**.
6. In the **Two B Channel Transfer on Trunk 2 ?** field, select **yes** or **no**.
7. In the **Two B Channel Transfer on Trunk 3 ?** field, select **yes** or **no**.

   Note:
   This field displays only if the system has a quad port telephony card.
8. In the **Two B Channel Transfer on Trunk 4 ?** field, select **yes** or **no**.

   Note:
   This field displays only if the system has a quad port telephony card.
9. Select **Submit**.

The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Unassigning TBCT

To unassign TBCT:

1. From web administration, go to the **Two B Channel Transfer** screen (Configuration Management > Switch Interfaces > Digital Interfaces > Two B Channel Transfer).
2. Select **Unassign Two B Channel Transfer**.

   The system displays the **Unassign Two B Channel Transfer** screen.
3. Select the card from which you want to unassign TBCT.
4. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Administering speech and dial pulse recognition

This section describes how to use the Web Administration interface to administer speech and dial pulse recognition for the following types of speech resources:

- Avaya WholeWord
- Nuance
- SpeechWorks
- MRCP-compliant servers
- Dial Pulse Recognition

Administering speech and dial pulse recognition overview

Voice response applications access speech and dial pulse recognition resources using a speech recognition type. Each speech recognition type is associated with a speech recognition engine, and is assigned to one or more servers.

Notes:

For VoiceXML applications, the speech recognition type must be OPSR4.

For applications that use the TDD modem feature, the speech recognition type must be OPSR8.

So that an application can use a speech resource, you must do the following administration tasks:

1. Assign one or more speech recognition types
2. Assign each speech recognition type to one or more servers
3. Stop and restart the voice system

Displaying speech or DPR resource status

To display the speech or DPR resource status:

1. From web administration, go to the **Display Speech Proxy Status** screen (Feature Packages > Speech and DPR Administration > Display Status).
2. Select **Speech Resource Status**.

   The system displays the **Speech Resource Status** screen.
3. In the **Resource Type** field, select the resource for which you want to display status.
4. Select **Submit**.

   The system displays the status of the specified resource. For descriptions of the information that is displayed, see Speech Resource Status Display screen on page 502.

Displaying the speech or DPR server status

To display the speech or DPR server status:

1. From web administration, go to the **Display Speech Proxy Status** screen (Feature Packages > Speech and DPR Administration > Display Status).
2. Select **Speech Server Status**.

   The system displays the **Speech Server Status** screen.
3. In the **Resource Type** field, select the resource for which you want to display the server status.
4. Select **Submit**.

   The system displays the **Speech Server Status for resource type** screen.
5. In the **Server** field, select the server for which you want to display status.
6. Select **Submit**.

   The system displays the status of the specified speech or DPR server.

Assigning a recognition type for DPR

To assign a recognition type for DPR:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Speech Recognition and DPR Configuration**.

   The system displays the **Speech Recognition and DPR Configuration** screen. For information about this screen, see Speech Recognition and DPR Configuration screen on page 511.
3. If a recognition type has not been previously assigned, select **Assign New Recognition Type**, or

   If a recognition type has been previously assigned, in the **Recognition Type** field, select **Assign New**.
4. In the **Recognition Type** field, select **DPR**.

   The system automatically fills in the **Engine** field.
5. Select **Submit**.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Assigning a recognition type for WholeWord

To assign a speech recognition type for WholeWord:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Speech Recognition and DPR Configuration**.

   The system displays the **Speech Recognition and DPR Configuration** screen. For information about this screen, see Speech Recognition and DPR Configuration screen on page 511.
3. If a recognition type has not been previously assigned, select **Assign New Recognition Type**, or

   If a recognition type has been previously assigned, in the **Recognition Type** field, select **Assign New**.
4. In the **Recognition Type** field, select **WHOLEWORD**.

   The system automatically fills in the **Engine** field.
5. Select **Submit**.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Assigning a recognition type for a TDD modem recognition engine

To assign a recognition type for a TDD modem recognition engine:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Speech Recognition and DPR Configuration**.

   The system displays the **Speech Recognition and DPR Configuration** screen. For information about this screen, see Speech Recognition and DPR Configuration screen on page 511.

3. If a recognition type has not been previously assigned, select **Assign New Recognition Type**, or

   If a recognition type has been previously assigned, in the **Recognition Type** field, select **Assign New**.

4. In the **Recognition Type** field, select the speech recognition type **OPSR8**.

5. In the **Engine** field, select **other**.

   Note:
   The value that you select for the **Engine** field must be consistent with the engine that is running on the speech server.

6. Select **Submit**.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Assigning a recognition type for Nuance and SpeechWorks recognition engines

To assign a speech recognition type for Nuance and SpeechWorks recognition engines:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).

2. Select **Speech Recognition and DPR Configuration**.

   The system displays the **Speech Recognition and DPR Configuration** screen. For information about this screen, see Speech Recognition and DPR Configuration screen on page 511.

3. If a recognition type has not been previously assigned, select **Assign New Recognition Type**, or

   If a recognition type has been previously assigned, in the **Recognition Type** field, select **Assign New**.

4. In the **Recognition Type** field, select the speech recognition type (OPSR4 through OPSR9) that you want to assign.

5. In the **Engine** field, select **nuance** or **speechworks**.

   Note:
   The value that you select for the **Engine** field must be consistent with the engine that is running on the speech server.

6. Select **Submit**.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Assigning a recognition type for an MRCP recognition engine

To assign a speech recognition type for MRCP recognition engines:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Speech Recognition and DPR Configuration**.

   The system displays the **Speech Recognition and DPR Configuration** screen. For information about this screen, see Speech Recognition and DPR Configuration screen on page 511.
3. If a recognition type has not been previously assigned, select **Assign New Recognition Type**, or

   If a recognition type has been previously assigned, in the **Recognition Type** field, select **Assign New**.
4. In the **Recognition Type** field, select the speech recognition type (OPSR4 through OPSR9) that you want to assign.

   Notes:

   For VoiceXML applications, the speech recognition type must be OPSR4.

   For applications that use the TDD modem feature, the speech recognition type must be OPSR8.
5. In the **Engine** field, select **mrcp**.

   Note:

   The value that you select for the **Engine** field must be consistent with the engine that is running on the speech server.
6. Select **Submit**.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Changing the engine associated with a recognition type

Note:
The following procedure can be used only to change the speech recognition engine for recognition types OPSR4 through OPSR9. For recognition types DPR and WHOLEWORD, there is only one speech recognition engine and it cannot be changed.

To change the speech recognition engine associated with a recognition type:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Speech Recognition and DPR Configuration**.

   The system displays the **Speech Recognition and DPR Configuration** screen. For information about this screen, see Speech Recognition and DPR Configuration screen on page 511.
3. In the **Recognition Type** field, select the recognition type that you want to change.
4. Select **Change**.

   The system displays the **Change Speech Recognition Configuration** screen. For information about this screen, see Change Speech Recognition Configuration screen on page 512.
5. In the **Engine** field, select **nuance**, **speechworks**, **mrcp** or **other** (for TDD modem and recognition engines other than Nuance, SpeechWorks, and MRCP-compliant engines).

   Note:
   The value that you select for the **Engine** field must be consistent with the engine that is running on the speech server.
6. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Unassigning a speech or dial pulse recognition type

To unassign a speech or dial pulse recognition type:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Speech Recognition and DPR Configuration**.

   The system displays the **Speech Recognition and DPR Configuration** screen. For information about this screen, see Speech Recognition and DPR Configuration screen on page 511.
3. In the **Recognition Type** field, select the recognition type that you want to unassign.
4. Select **Unassign**.

   The system displays a dialog box with the following message:
   `This action will completely remove this recognition type and all servers, are you sure you want to continue?`
5. Select **OK**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Assigning a speech or DPR server

To assign a speech or DPR server:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Speech Recognition and DPR Configuration**.

   The system displays the **Speech Recognition and DPR Configuration** screen. For information about this screen, see Speech Recognition and DPR Configuration screen on page 511.
3. In the **Recognition Type** field, select the recognition type for which you want to assign a speech or DPR server.
4. Select **Assign New Server**.

   The system displays the **Assign Speech Recognition or DPR Server** screen. For information about this screen, see Assign Speech Recognition or DPR Server screen on page 514
5. In the **Server Name** field, type the name of the speech or DPR server.

   If the server is an IBM WVS, type *name*`/media`, where *name* is the server's name.
6. In the **IP Address** field, type the IP address of the speech or DPR server.

7. In the **Ports** field, type the number of ports that are available on the speech or DPR server.

   Note:
   The number you specify must be less than or equal to the number of licensed ports for speech or DPR.

8. In the **Base Port** field, do one of the following:

   — Type **554** for a speech server with an IBM WVS (Port 554 is typically used for other MRCP-compliant engines as well.)

   — Type **2345** for a speech server with a WholeWord (Avaya Recognizer) speech recognition engine

   — Type **4904** for a speech server with a SpeechWorks OSR 2.0.4 speech recognition engine

   — Type **5111** for a speech server with a TDD modem recognition engine

   — Type **7500** for a speech server with a DPR engine

   — Type a port number greater than 1024 for a speech server with a Nuance speech recognition engine

   Note:
   For a Nuance speech recognition engine, the value for the **Base Port** field must be consistent with the **RecClientPort** defined in the Nuance **npc** batch file.

9. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Repeat this procedure to assign additional servers to the same recognition type.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Changing options for a speech or DPR server

Note:
To change the server assigned to a recognition type, you must first unassign the server, then reassign it to a different recognition type.

To change the options for a speech or DPR server:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Speech Recognition and DPR Configuration**.

   The system displays the **Speech Recognition and DPR Configuration** screen. For information about this screen, see Speech Recognition and DPR Configuration screen on page 511.
3. In the **Recognition Type** field, select the recognition type for which you want to change server options.
4. On the lower part of the screen that corresponds to the server you want to change, select **Change**.

   The system displays the **Change Speech Recognition Server** screen. For information about this screen, see Change Speech Recognition Server screen on page 513
5. In the **IP Address** field, type the IP address of the speech or DPR server.
6. In the **Ports** field, type the number of ports that are available on the speech or DPR server.
7. In the **Base Port** field, do one of the following:

   — Type `554` for a speech server with an IBM WVS (Port 554 is typically used for other MRCP-compliant engines as well.)

   — Type `2345` for a speech server with a WholeWord (Avaya Recognizer) speech recognition engine

   — Type `4904` for a speech server with a SpeechWorks OSR 2.0.4 speech recognition engine

   — Type `7500` for a speech server with a DPR engine

   — Type a port number greater than 1024 for a speech server with a Nuance speech recognition engine

   Note:
   For a Nuance speech recognition engine, the value for the **Base Port** field should be consistent with the **RecClientPort** defined in the Nuance **npc** batch file.
8. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Unassigning a speech or DPR server

To unassign a speech or DPR server:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Speech Recognition and DPR Configuration**.

   The system displays the **Speech Recognition and DPR Configuration** screen. For information about this screen, see Speech Recognition and DPR Configuration screen on page 511.
3. In the **Recognition Type** field, select the recognition type for which you want to unassign the speech or DPR server.
4. On the lower part of the screen that corresponds to the server you want to unassign, select **Unassign**.

   The system displays a dialog box with the following message:
   `This action will completely remove this server, are you sure you want to continue?`
5. Select **OK**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Changing the speech resource state

To change the speech resource state:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Change Speech State**.

   The system displays the **Change Speech State** screen. For information about this screen, see Change speech state screen on page 506.
3. Select **Change Speech Resource State**.

The system displays the **Change Speech Resource State** screen. For information about this screen, see Change Speech Resource State screen on page 507.

4. In the **New State** field, select **inserv** or **manoos**.
5. In the **Resource Type** field, select the resource for which you want to change the state.
6. Examine and, if necessary, change the value in the **Change Immediately?** field.

   Note:
   If the **Change Immediately?** field is set to **YES**, calls in progress terminate immediately.

7. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Changing the speech server state

To change the speech server state:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Change Speech State**.

   The system displays the **Change Speech State** screen. For information about this screen, see Change speech state screen on page 506.

3. Select **Change Speech Server State**.

   The system displays the **Change Speech Server State** screen. For information about this screen, see Change Speech Server State screen on page 508.

4. In the **Resource Type** field, select the resource for which you want to change the server state.
5. Select **Submit**.
6. In the **New State** field, select **inserv** or **manoos**.
7. In the **Server** field, select the server whose state you want to change.
8. Examine and, if necessary, change the value in the **Change Immediately?** field.

   Note:
   If the **Change Immediately?** field is set to **YES**, calls in progress terminate immediately.

9. Select **Submit**.

The system displays information about the success or failure of the administration attempt.

Changing the speech resource port state

To change the speech resource port state:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Change Speech State**.

   The system displays the **Change Speech State** screen. For information about this screen, see Change speech state screen on page 506.
3. Select **Change Speech Resource Port State**.

   The system displays the **Change Speech Resource Port State** screen. For information about this screen, see Change Speech Resource Port State screen on page 510.
4. In the **Resource Type** field, select the resource for which you want to change the port state.
5. Select **Submit**.
6. In the **Server** field, select the server whose state you want to change.
7. In the **New State** field, select **inserv** or **manoos**.
8. Examine and, if necessary, change the value in the **Change Immediately?** field.

   Note:
   If the **Change Immediately?** field is set to **YES**, calls in progress terminate immediately.
9. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administering Proxy Text-to-Speech

This section describes how to use the Web Administration interface to administer Proxy Text-to-Speech (PTTS).

Administering Proxy Text-to-Speech overview

Voice response applications access Text-to-Speech resources using a Text-to-Speech (TTS) type. Each TTS type is associated with a TTS engine, and is assigned to one or more servers.

So that an application can use a TTS resource, you must do the following administration tasks:

1. Assign a TTS voice
2. Assign one or more TTS types
3. Assign each TTS type to one or more servers
4. Stop and start the voice system

Note:
In some cases (such as during maintenance and troubleshooting) you may want to take a particular resource out of service. In these cases you would change the speech resource state.

Displaying the TTS resource status

To display the TTS resource status:

1. From web administration, go to the **Display Speech Proxy Status** screen (Feature Packages > Speech and DPR Administration > Display Status).
2. Select **Speech Resource Status**.

   The system displays the **Speech Resource Status** screen.
3. In the **Resource Type** field, select the TTS type for which you want to display the resource status.
4. Select **Submit**.

   The system displays the status of the specified TTS type.

Displaying the TTS server status

To display the TTS server status:

1. From web administration, go to the **Display Speech Proxy Status** screen (Feature Packages > Speech and DPR Administration > Display Status).
2. Select **Speech Server Status**.

   The system displays the **Speech Server Status** screen.
3. In the **Resource Type** field, select the TTS type for which you want to display the server status.
4. Select **Submit**.

   The system displays the Speech Server Status for resource type screen.
5. In the **Server** field, select the TTS server for which you want to display status.
6. Select **Submit**.

   The system displays the status of the specified TTS server.

Assigning a default voice for TTS

Note:
Even if a voice is configured as the default voice, it must also be assigned as a voice for the TTS server in order for the voice to be used by applications. See Assigning a new voice to a TTS server with a speech engine on page 132 for more information.

To assign a default voice for TTS:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.
3. Select **Assign Default Voice**.
4. In the **Default Voice** field, type the name of a voice that is available on the TTS server.
5. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Changing the default voice for TTS

To change the default voice for TTS:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.
3. Select **Change**.
4. In the **Default Voice** field, type the name of a voice that is available on the TTS server.
5. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Assigning a TTS type

To assign a TTS type:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.
3. If a Text-to-Speech type has not been previously assigned, select **Assign New Text-to-Speech Type**, or

   If a Text-to-Speech type has been previously assigned, in the **Text-to-Speech Type** field, select **Assign New**.
4. In the **Text-to-Speech Type** field, select the TTS type that you want to assign.
5. In the **Engine** field, select **sapi**, **speechify**, **realspeak**, or **mrcp**.

   Note:
   The value that you select for the **Engine** field must be consistent with the engine that is running on the TTS server.

6. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Changing a TTS type

To change a TTS type:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.
3. In the **Text-to-Speech Type** field, select the TTS type that you want to change.
4. Select **Change**.
5. In the **Engine** field, select **sapi**, **speechify**, **realspeak**, or **mrcp**.

   Note:
   The value that you select for the **Engine** field must be consistent with the engine that is running on the TTS server.
6. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Unassigning a TTS type

To unassign a TTS type:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.

3. In the **Text-to-Speech Type** field, select the TTS type that you want to unassign.
4. Select **Unassign**.

   The system displays a dialog box with the following message:
   ```
   This action will completely remove the Text-to-Speech type, all
   servers, and all voices currently assigned. Are you sure you want
   to continue?
   ```
5. Select **OK**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Assigning a TTS server with a sapi engine

To assign a TTS server with a sapi engine:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.
3. In the **Text-to-Speech Type** field, select the TTS type for which you want to assign a server.
4. Select **Assign New Server**.

   The system displays the **Assign Text-to-Speech Server** screen. For information about this screen, see Assign TTS Server screen on page 521.
5. In the **Server Name** field, type the name of the TTS server.
6. In the **IP Address** field, type the IP address of the TTS server.
7. In the **Ports** field, type the number of ports supported on the system.
8. Select **Submit**.

   The system assigns the TTS server and displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Assigning a TTS server with a Speechify or RealSpeak speech engine

To assign a TTS server with a Speechify or RealSpeak speech engine:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.
3. In the **Text-to-Speech Type** field, select the TTS type for which you want to assign a server.
4. Select **Assign New Server**.

   The system displays the **Assign Text-to-Speech Server** screen. For information about this screen, see Assign TTS Server screen on page 521.
5. In the **Server Name** field, type the name of the TTS server.
6. In the **IP Address** field, type the IP address of the TTS server.
7. Select **Submit**.

   The system assigns the TTS server and displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Assigning a TTS server with an MRCP engine

To assign a TTS server with an MRCP engine:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.
3. In the **Text-to-Speech Type** field, select the TTS type for which you want to assign a server.

4. Select **Assign New Server**.

   The system displays the **Assign Text-to-Speech Server** screen. For information about this screen, see Assign TTS Server screen on page 521.

5. In the **Server Name** field, type the name of the TTS server.

   If the server is an IBM WVS, type *name*`/media`, where *name* is the server's name.

6. In the **IP Address** field, type the IP address of the TTS server.

7. In the **Ports** field, type the number of ports supported on the system.

8. In the **Base Port** field, type the number of base port you wish to set for the server.

   For the IBM WVS speech proxy server and the Nuance MRCP server, use `554`.

   For the Scansoft SWMS proxy server, use `4900`

9. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Repeat this procedure to assign additional servers to the same TTS type.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Changing options for a TTS server

Note:
To change the server assigned to a TTS type, you must first unassign the server, then assign a different TTS type to the server.

To change options for a TTS server:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).

2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.

3. In the **Text-to-Speech Type** field, select the TTS type for which you want to change the server.

4. On the lower part of the screen associated with the server you want to change, select **Change**.

The system displays the **Change Text-to-Speech Server** screen. For information about this screen, see Change TTS server screen on page 520.

5. In the **Server Name** field, select the name of the TTS server whose options you wish to change.
6. In the **IP Address** field, type the IP address of the TTS server.
7. In the **Ports** field, type the number of ports that are available on the TTS server. (This field applies to SAPI and MRCP TTS servers.)
8. In the **Base Port** field, type the port number used for connecting to the TTS server. (This field only applies to MRCP TTS servers.)
9. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Unassigning a TTS server

To unassign (remove) a TTS server:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.
3. In the **Text-to-Speech Type** field, select the TTS type for which you want to unassign the server.
4. On the lower part of the screen associated with the server you want to remove, select **Unassign**.

   The system displays a dialog box with the following message:
   ```
   This action will completely remove this server, are you sure you
   want to continue?
   ```
5. Select **OK**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Assigning a new voice to a TTS server with a Speechify or RealSpeak engine

Notes:

Even if a voice is configured as the default voice, it must also be assigned as a voice for the TTS server in order for the voice to be used by applications.

A voice cannot be administered for SAPI or MRCP servers.

To assign a new voice to a TTS server with a Speechify or RealSpeak engine:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Text-to-Speech Configuration**.

   The system displays the **Text-to-Speech Configuration** screen. For information about this screen, see Text-to-Speech Configuration screen on page 516.
3. In the **Text-to-Speech Type** field, select the TTS type from the drop down list.

   The system displays the **Text-to-Speech Configuration** screen for the specific TTS engine.
4. On the lower part of the screen associated with the server you want to change, select **Assign New Voice**.
5. In the **Voice Name** field, type the name of a voice that is available on the TTS server.
6. In the **Voice Ports** field, type the number of ports that are available on the TTS server.
7. In the **Voice Base Port** field, type the port number used for connecting to the TTS server.
8. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Changing a TTS resource state

To change a TTS resource state:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Change Speech State**, then select **Change Speech Resource State**.

The system displays the **Change Speech Resource State** screen. For information about this screen, see Change speech resource state screen on page 507.

3. In the **New State** field, select **inserv** or **manoos**.
4. In the **Resource Type** field, select the TTS type for which you want to change the state.
5. Examine and, if necessary, change the value in the **Change Immediately?** field.

   Note:
   If the **Change Immediately?** field is set to YES, calls in progress terminate immediately. For RealSpeak TTS, **Change Immediately?** must be set to YES.

6. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Changing a TTS server state

To change a TTS server state:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Change Speech State**, then select **Change Speech Server State**.

   The system displays the **Change Speech Server State** screen. For information about this screen, see Change Speech Server State screen on page 508.

3. In the **Resource Type** field, select the TTS type for which you want to change the server state.
4. Select **Submit**.
5. In the **New State** field, select **inserv** or **manoos**.
6. In the **Server** field, select the server for which you want to change states.
7. Examine and, if necessary, change the value in the **Change Immediately?** field.

   Note:
   If the **Change Immediately?** field is set to YES, calls in progress terminate immediately. For RealSpeak TTS, **Change Immediately?** must be set to YES.

8. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Changing a TTS resource port state

To change a TTS resource port state:

1. From web administration, go to the **Speech Proxy Administration** screen (Feature Packages > Speech and DPR Administration > Administration).
2. Select **Change Speech State**, then select **Change Speech Resource Port State**.

   The system displays the **Change Speech Resource Port State** screen. For information about this screen, see Change Speech Resource Port State screen on page 510.
3. In the **Resource Type** field, select the TTS type for which you want to change the port state.
4. Select **Submit**.
5. In the **Server** field, select the server for which you want to change states.
6. Select **Submit**.
7. In the **New State** field, select **inserv** or **manoos**.
8. In the **Port** field, select the port that you want to put into a different state.
9. Examine and, if necessary, change the value in the **Change Immediately?** field.

   Note:
   If the **Change Immediately?** field is set to YES, calls in progress terminate immediately. For RealSpeak TTS, **Change Immediately?** must be set to YES.
10. Select **Submit**.

    The system displays information about the success or failure of the administration attempt.

Administering Universal Call ID Expansion

This section describes how to use the Web Administration interface to administer the Universal Call ID Expansion feature including setting the Network Node ID.

Setting the Universal Call ID Network Node ID

To set the Universal Call ID Network Node ID:

1. From web administration, go to the **Universal Call ID Administration** screen (Feature Packages > Universal Call ID Administration).

   The system displays the Universal Call ID Administration screen. For information about this screen, see Universal Call ID Administration screen on page 525.

2. In the **Universal Call ID Network Node ID** field, type the Universal Call ID Network Node ID.

3. Select **Submit**.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Administering Voice over IP

With the Voice over IP feature, an Avaya IR system serves as an IVR adjunct that connects to a DEFINITY switch over a packet-based network. You administer VoIP through the Web administration interface or by using the **voip** command.

Guidelines for administering VoIP

Administering VoIP is similar to administering circuit-based connections, however, there are some important differences:

- Configuration parameters you set up on the DEFINITY or MultiVantage switch must match parameters for VoIP on the Avaya IR system. See Configuring DEFINITY or MultiVantage for VoIP on page 139 for more information.
- If you are using the VoIP Monitoring Manager (VMM) to monitor the audio quality of VoIP calls, configuration settings on the Avaya IR system must match those in the VoIP Monitoring Manager (VMM) application.
- IP connectivity must be present between the Avaya IR system, the DEFINITY or MultiVantage system, and the system where the VoIP Monitoring Manager application resides.

This section explains how to administer VoIP on the Avaya IR system and provides key information on configuring a DEFINITY or MultiVantage switch to interface with an Avaya IR system. Refer to the DEFINITY documentation for complete H.323 configuration procedures. Refer to the Voice over IP screens for detailed information on Web administration fields for VoIP.

Procedure for administering VoIP

To administer VoIP:

1. Configure the DEFINITY or MultiVantage system for VoIP, using ASA or another tool.

   For more information, see Configuring DEFINITY or MultiVantage for VoIP on page 139.

2. Configure the IR system, using the Web Administration interface or the **voip** command.

   For more information, see Administering Voice over IP on page 135.

3. Establish network connectivity between the IR system and the DEFINITY or MultiVantage system.

   VoIP requires an IP connection between the IR system and the DEFINITY or MultiVantage system. If you are using the VoIP Monitoring Manager (VMM) to monitor call quality, then the system running that application must be part of IP communications also.

4. Start the voice system on the IR system.

   For more information, see Stopping and starting the voice system on page 142.

5. Test connections and voice response functions.

Available VoIP channels

On the Avaya IR system, voice response applications are assigned to channels. When a call arrives on a DEFINITY or MultiVantage port, it goes to the corresponding Avaya IR channel, and the application assigned to the channel will execute. So, understanding how switch ports map to Avaya IR channels is a prerequisite to knowing which voice response applications will run for different calls.

For each incoming call, the VoIP subsystem selects the first VoIP channel that is in the INSERV state and is available. For outgoing calls, the VoIP subsystem does not select the Avaya IR channel. Instead, the call control application placing the outgoing call selects a free channel and then places the call through the VoIP subsystem.

The number of available VoIP channels is determined by:

- Number of VoIP licenses purchased.
- Card Channels parameter – maximum number of channels to use for VoIP. In IR R2.0, the maximum number of channels to use for VoIP is set to 240. In previous releases of IR, this parameter was preset to 93.

Administering VoIP on the IR system

This section explains how to administer VoIP using the Web Administration screens. You also may use the **voip** command.

Displaying VoIP Assignments

To display VoIP assignments:

1. From web administration, go to the **Voice over IP** screen (Configuration Management > Switch Interfaces > Voice over IP).
2. Select **Display Assignments**.

   The system displays a message that identifies the configured card by number.

   Note:
   To view detailed information about a VoIP card, see Displaying VoIP parameters on page 139.

Assigning a VoIP Card

To assign a VoIP card:

1. From web administration, go to the **Assign VoIP Card** screen (Configuration Management > Switch Interfaces > Voice over IP > Assign Card).

   The system displays the **Assign VoIP Card** screen. For information about this screen, see Assign VoIP card screen on page 460.
2. In the **Card** field, select the card to which you want to assign VoIP.
3. Select **Submit**.

   The system displays the the **Assign VoIP Card** screen. For information about this screen, see Assign VoIP for Card number screen on page 460.
4. In the **Card IP Address** field, specify the IP address assigned to the NIC that is used by the virtual VoIP card to connect to the packet network.
5. In the **Gatekeeper IP Address** field, specify the IP address of the Gatekeeper that is configured to accept registration requests from the virtual VoIP card.

   Note:
   If a DEFINITY or MultiVantage system is functioning as the Gatekeeper, the IP address you enter here should be IP address assigned to the Node Name that represents the C-LAN card on the **IP Node Names** form.

6. For the remaining fields, examine the default parameter values and change any values that are not appropriate for the communications system at the far end of the channel.
7. Select **Submit**.

   The system displays information about the success or failure of the administration attempt.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142). Also, you must stop and start the voice system before you can assign telephone numbers or services to VoIP channels.

Caution:
Stopping the voice system ends call processing. Stop the system when no calls or few calls are coming in. If possible, reroute calls to another Avaya IR system.

Changing VoIP Parameters

To change VoIP parameters:

1. From web administration, go to the **Change VoIP Parameters** screen (Configuration Management > Switch Interfaces > Voice over IP > Change Parameters).
2. Select the card you want from the drop-down list and select **Submit**.

   The system displays the fields containing the parameters for the selected card.
3. Make entries in any VoIP fields that you need to change.

   See the Change VoIP Parameters for Card number screen on page 463 for guidelines on completing these fields.

   If you make changes to telephone numbers for VoIP channels, go to the Assign Phone Number to Channel screen on page 474 and re-assign telephone numbers to the VoIP channels.
4. Select **Submit**.

   The system displays a message advising you that you must stop and start the voice system for the changes to take effect.
5. Stop and start the voice system at the appropriate time.

Caution:
Stopping the voice system ends call processing. Stop the system when no calls or few calls are coming in. If possible, reroute calls to another Avaya IR system.

Displaying VoIP parameters

To display VoIP parameters:

1. From web administration, go to the **Display VoIP Parameters** screen (Configuration Management > Switch Interfaces > Voice over IP > Display Parameters).
2. Select the card from the drop-down list and select **Submit**.

   The system displays all configured parameters for the selected VoIP card. On this display, you can see the Card Channels parameter. The maximum value of this parameter is 240.

Unassigning a VoIP Card

To unassign a VoIP card:

1. From web administration, go to the **Unassign VoIP Card** screen (Configuration Management > Switch Interfaces > Voice over IP > Unassign Card).
2. Select the card you want to unassign from the drop-down menu and select **Submit**.

   The system displays a message advising you that you need to stop and start the voice system for the change to take effect.
3. Stop and start the voice system at an appropriate time.

   Caution:
   Stopping the voice system ends call processing. Stop the system when no calls or few calls are coming in. If possible, reroute calls to another Avaya IR system.

Configuring DEFINITY or MultiVantage for VoIP

When configured for Voice over IP (VoIP), an Avaya DEFINITY or MultiVantage system that is enabled for Internet Protocol (IP) acts as a Gateway to the public switched telephony network (PSTN).The primary role of the switch is to convert circuit-based connections on the PSTN to and from packet-based connections that are part of an IP network with an Avaya IR system.

Requirements

Configuring a DEFINITY or MultiVantage system for VoIP requires installation of:

- The Voice over IP feature on the IR system
- The Avaya IR system must be connected to a local area network (LAN) that also supports a DEFINITY MultiVantage 1.3 with R11 system software

Configuration settings in the Avaya IR system Voice over IP screens must match those in the MultiVantage or DEFINITY IP Networking configuration screens. Additionally, limits of the VoIP WebLM licenses should be observed in order to avoid displaying inaccurate information about call handling.

Protocol

Configure the DEFINITY or MultiVantage system for IP stations, to preferably use the type 7434ND protocol.

Setting Node Names

On the **IP Node Names** form, configure an IP node name with an IP address that matches the value you enter in the Card IP Address field for the VoIP card in the Avaya IR **Assign VoIP Card** screen.

Configuring H.323 terminal connections for VoIP

To configure H.323 terminal (station) connections on DEFINITY or MultiVantage, use the **IP Networking Administration Station** form. This topic provides information on key entries. See the "IP Networking Administration" section in the *DEFINITY® Enterprise Communications Server Release 10 Administration for Network Connectivity* externaldocs/DEFINITY Enterprise Communications Server Release 10 Administration for Network Connectivity.pdf, 555-233-504, for a detailed example procedure that describes how to configure an H.323 station.

The Avaya IR system configuration for Voice over IP must match the DEFINITY or MultiVantage H.323 station configuration and vice-versa.

The following limits apply to the MultiVantage H.323 station configuration for an Avaya IR system:

- One H.323 station may be assigned to each Avaya IR VoIP channel.
- Each VoIP channel must have a phone number that maps to one of the H.323 stations on the DEFINITY or MultiVantage.
- Each Avaya IR system must be a node in a network region that uses an IP codec set that contains either the G.711 mu-law or the A-law codec.

Setting up stations

To set up VoIP stations, make the following entries on the **Station** form.

- In the **Extension** parameters for each VoIP channel, specify the phone number. Each VoIP channel must have a unique phone number.
- In the **Type** field, enter **H7434ND**
- In the **Port** field, enter **IP**
- In the **Security Code** field, enter the password (up to eight digits) for VoIP Station Authentication that matches the password administered for the same phone number on the Avaya IR system.

Administering the voice system

This section describes how to use the Web Administration interface to administer the voice system including: checking the voice system status, renumbering voice channels, stopping the voice system, and starting the voice system.

Administering the voice system overview

Checking voice system status

You can get the following information about the voice system:

- Whether the voice system is operating or not operating (*up* or *down*)
- The number of voice ports in service

Renumbering voice channels

The Renumber Voice Channels option removes all nonexistent (NONEX) circuit cards from the voice equipment table, and reorders all existing equipment. This reordering changes the channel numbers of some circuit cards. However, user-defined characteristics such as options, attributes, and script assignments, do not change. If a circuit card is found in the system that was not in the voice equipment table, it is added with default settings.

The voice channels will be renumbered after the voice system is stopped and started.

Stopping and starting the voice system

If you stop the voice system, no calls are answered by the system. Starting the voice system enables call answering and processing.

Checking voice system status

To check the voice system status:

1. From web administration, go to the **Report Voice System Status** screen (Configuration Management > System Control > Report Voice System Status).

   The system displays the voice system status.

Renumbering voice channels

To renumber voice channels:

1. From web administration, go to the **Renumber Voice Channels** screen (Configuration Management > System Control > Renumber Voice Channels).

   The system displays the Renumber Voice Channels screen. For information about this screen, see Renumber Voice Channels screen on page 399.

2. Select **Renumber**.

   The system notifies you that renumbering takes effect after the voice system is restarted.

Administration changes do not take effect until you stop and start the voice system (see Stopping and starting the voice system on page 142).

Stopping and starting the voice system

To stop the voice system:

1. From web administration, go to the **Stop Voice System** screen (Configuration Management > System Control > Stop Voice System).

   The system displays the Stop Voice System screen. For information about this screen, see **Stop Voice System** screen.

2. (Optional) Examine and, if necessary, change the value in the **Wait Time in Seconds** field.

3. Select **Submit**.

   The system displays a screen that tells you whether the voice system has stopped.

To start the voice system:

1. From web administration, go to the **Start Voice System** screen (Configuration Management > System Control > Start Voice System).

The system displays the Start Voice System screen. For information about this screen, see **Start Voice System** screen.

2. Select **Submit**.

   The system displays a screen that tells you whether the voice system has started.

Creating reports

This section describes how to use the Web Administration interface to create and display Call Data Handler (CDH), fax, Message, and VXML log reports.

Creating reports overview

The procedures in this section describe how to display CDH, fax, and Message Log reports.

Before you can display CDH reports, you must do the following:

1. Configure a database DIP to store CDH data in a local or remote database.
2. Configure Database CDH to use the database DIP in Step 1.
3. Start Database CDH and the database DIP.
4. Set up a schedule to upload CDH data to the database.

After CDH data has been uploaded to the database, you can display CDH reports.

For information about how to configure database DIPs and Database CDH, see Administering the JDBC database interface on page 76.

Displaying VXML Log reports

To display a VXML log report:

1. From web administration, go to the **VXML Log Report** screen (Reports > VXML Log Report).

   Select the option by which you want to sort the VXML logs. This option determines how the VXML logs are displayed. For information, see the VXML Log Report screen on page 538

2. Select **First 50**.

   The system displays the VXML Log Report screen.

Displaying Performance Record snapshot

To display a VXML performance log report:

1. From web administration, go to the **VXML Performance Log Report** screen (Reports > VXML Performance Log Report).

   The system displays the VXML Performance Log Report screen. For more information, see VXML Performance Log Report screen. on page 540

License Configuration

This section describes how to use the Web Adminstration interface to configure the Primary WebLM Server URL and the Secondary WebLM Server URL.

This interface has been newly introduced in Avaya IR R2.0.

License configuration overview

In Avaya IR R2.0, WebLM licensing has replaced the RIght-to-Use (RTU) licensing mechanism, implemented in earlier versions of IR.

You need to configure the **Primary WebLM server URL** and the **Secondary WebLM server URL** on the License configuration screen on page 377.

Configuring WebLM servers

To configure WebLM servers:

1. Log into **Web Administration** with your login name and password. For more information, see Starting the Web Administration interface on page 20.
2. Go to the **License Configurations** screen (Click **Configuration Management** > **License Configurations**).

3. In the **Primary WebLM Server URL** field, enter **http://host id:80/WebLM/LicenseServer** where *host id* is either the IP address of the Primary WebLM server or the name of the Primary WebLM server. For example, http://127.1.1.1:80/WebLM/LicenseServer or http://pcdev5:80/WebLM/LicenseServer. The system displays the Web Administration entry screen.
4. Click the **Test** button.
5. This button tests the connectivity between your IR client machine and the WebLM server. When this button is clicked, two windows pop up. The first window displays the URL that you have entered in the **Primary WebLM Server URL** field. If the URL information entered in the **Primary WebLM Server URL** field is correct, the Avaya WebLM version 4.0 page is displayed. If the URL information entered in the **Primary WebLM Server URL** field is incorrect, an error message is displayed.
6. The second window displays the status of connectivity between your IR client machine and the WebLM server. If a connection is unavailable between the IR client machine and the WebLM server, an error message is displayed in this window

   Note:

   The WebLM version displayed in the first window may be different from WebLM version 4.0, depending upon the version of WebLM being used.

7. In the **Secondary WebLM Server URL** field, enter **http://host id:80/WebLM/LicenseServer** where *host id* is either the IP address of the Secondary WebLM server or the name of the Secondary WebLM server. For example, http://127.1.1.4:80/WebLM/LicenseServer or http://reddev5:80/WebLM/LicenseServer.
8. Click the **Test** button.
9. This button tests the connectivity between your IR client machine and the WebLM server. When this button is clicked, two windows pop up. The first window displays the URL that you have entered in the **Secondary WebLM Server URL** field. If the URL information entered in the **Secondary WebLM Server URL** field is correct, the Avaya WebLM version 4.0 page is displayed. If the URL information entered in the **Secondary WebLM Server URL** field is incorrect, an error message is displayed.
10. The second window displays the status of connectivity between your IR client machine and the WebLM server. If a connection is unavailable between the IR client machine and the WebLM server, an error message is displayed in this window

    Note:

    The WebLM version displayed in the first window may be different from WebLM version 4.0, depending upon the version of WebLM being used.

11. In the **Response Time Out Period** field, enter any value between 10 and 30 seconds.
12. Click **Submit**. The IR system displays the following message "`License configuration updated`".

Viewing licensed features

Optional features are licensed by Avaya or its third-party vendors. You can view which features can used with either the Web Administration interface or the command-line interface.

Web Administration interface

From web administration, go to the **Feature Licensing screen** (Configuration Management > Feature Licensing).

The system displays the Feature Licensing screen. For information about this screen, see Feature Licensing screen on page 377.

Command-line interface

From the command prompt, type licenseQuery on page 239 and press **Enter**.

Rebooting the system

To reboot the system:

From the command prompt, type **shutdown -y -g60 -i6** and press **Enter**.

Note:

Please stop the voice system before shutting down your system. To shutdown the voice system from the command prompt, type **stop_vs** and press **Enter**.

Setting up a second Network Interface Card for failover

Note:

This procedure is optional and applies only to the Sun Fire V240 and Sun Fire 280R platforms.

The following procedure describes how to set up a second Network Interface Card (NIC) as a standby or failover interface in case the primary NIC fails.

The following IP addresses and device names are used in this procedure:

Primary NIC (eri0) - 135.9.84.33
Logical address for Primary NIC - 135.9.84.58
Secondary NIC (ce0) - 135.9.84.57

The three IP addresses listed above must belong to the same subnet.

To set up a second NIC for failover:

1. Install the second NIC in the Sun Fire V240 or Sun Fire 280R platform.
2. Log in as root.
3. To add the two NICs to a multipathing group, at the command prompt, enter:

   ifconfig eri0 group test

   ifconfig ce0 group test

4. To add a logical IP to the primary NIC (used to probe the network for outages), enter:

   ifconfig eri0 addif 135.9.84.58 netmask 255.255.255.0 -failover deprecated up

   You should now see the new logical interface, **eri0:1**.

5. To assign the second NIC as the standby interface, enter:

   ifconfig ce0 deprecated -failover standby

The second NIC is now set up to take over if the primary NIC fails. If you run the **ifconfig -a** command, the system displays a message that looks similar to the following:

```
lo0: flags=1000849 mtu 8232 index 1 inet 127.0.0.1 netmask
ff000000
ce0: flags=69040843 mtu 1500 index 2
        inet 135.9.84.57 netmask ffffff00 broadcast 135.9.84.255
        groupname test
        ether 0:3:ba:31:94:76
eri0: flags=1000843 mtu 1500 index 3
        inet 135.9.84.33 netmask ffffff00 broadcast 135.9.84.255
        groupname test
        ether 0:3:ba:2f:93:8b
eri0:1: flags=9040843 mtu 1500 index 3
        inet 135.9.84.58 netmask ffffff00 broadcast 135.9.84.255
```

If a failure is detected on the primary NIC, you will see the **FAILED** status for the **eri0** and **eri0:1** devices and the **INACTIVE** status will be removed from the **ce0** device. If the primary NIC recovers from the failure, the system will automatically revert back to the primary NIC (**eri0**).

Use the following procedure to preserve these settings after a system reboot:

1. Add the following lines to the **/etc/hostname.eri0** file:

   ```
   135.9.84.33 netmask 255.255.255.0 broadcast 135.9.84.255 group
   test up \

   addif 135.9.84.58 deprecated -failover netmask 255.255.255.0 up
   ```

2. Add the following lines to the **/etc/hostname.ce0** file:

   ```
   135.9.84.57 netmask 255.255.255.0 broadcast 135.9.84.255
   deprecated \

   group test -failover standby up
   ```

Command-line administration

Most administration of the Avaya IR system can be done using the command-line interface.

This section includes the following topics:

Command line overview..... 150

Administration commands..... 151

Command line overview

The command line allows you to perform most administration tasks. It is accessed by logging on to the system through a terminal session with a valid username and password.

Executing a command

To execute a command:

1. Type the command and any arguments at the command prompt.
2. Press **Enter**.

To view information about how to use a command:

1. Type the command without any arguments, or with a " -?" after the command.
2. Press **Enter**.

Using function keys

Some commands display menus that involve the use of function keys (denoted **F#**, where **#** is a function key number).

Note:

Many of the system prompts in this procedure require the use of function keys. Typically, if the function keys do not work, you can use them by pressing **Ctrl**+**F** then pressing **#** where **#** is the function key number. If the terminal type is **xterm**, use the following procedure so that the function keys will work properly:

1. Enter **export TERM=xterm**
2. Enter **export SMTERM=xterm**

Administration commands

This section provides a brief description of all commands.

This section includes the following topics:

add command 153
addhdr command 154
annotate command 154
asaichan command 155
asaidom command 156
asaiparms command 157
asg_adm command 158
assign card/channel command 158
assign eqpgrpname command 159
assign_permissions command 160
assign phone command 161
assign service/startup command 162
autoreboot command 163
backup command 165
bbs command 167
ccarpt command 168
cddrpt command 169
cdsrpt command 170
checktf command 171
ckConfig command 172
copy phrase command 172
cticonfig command 173
dalarm command 175
dbconfig command 178
decode command 181
defService command 181
delbackup command 183
delete card/channel command 184

add command

The **add** command adds a phrase to a Solaris talkfile.

Synopsis

```
add phrase phrase_number to talkfile talkfile_number from file_name
```

Description

The **add** command adds phrases to the specified talkfile that were previously extracted from another talkfile using the **copy** command. The path name for the file may be the full pathname or the relative pathname. If no path is specified, the file is created in the current directory. If you are not in the directory from which the phrase to be added is stored, give the full path name for the talkfile and the source file. If the phrase already exists, the system displays the following message:

```
Phrase phrase_number already exists in talkfile
talkfile_number
Do you want to overwrite existing phrase? (y/n)
```

If an error occurs, system messages are printed on the controller screen. The source file may be a full path name or a relative path name.

The **add** command adds a phrase to the SPEECHDIR default directory, which is **/home2/vfs/talkfiles**.

Files

The following files are associated with the **add** command:

/speech/talk/*.pl

Example

The following example shows a command that adds phrase number 275 to talkfile 25 from the phrase stored in the Solaris file phr275 in the directory **/tmp/junk**.

```
add phrase 275 to talkfile 25 from /tmp/junk/phr275
```

The following example adds phrase 104 to talkfile 18 from the phrase stored in the Solaris file phr104 in the directory **/speech/talk**.

```
add phrase 104 to talkfile 18 from /speech/talk/phr104
```

See also

- copy phrase command on page 172
- erase command on page 206

addhdr command

The **addhdr** command adds a voice or code header to a speech file.

Synopsis

```
addhdr [voice | pcm64 | adpcm32 | adpcm16 | celp16][tag]
```

Description

The **addhdr** command is a filter that adds a header to a speech file. Two mutually exclusive types of headers are supported: voice and code. A voice header identifies a file as being editable, and includes an optional identifying tag. A code header (which can be PCM64, ADPCM32, ADPCM16, SBC24, SBC16, or CELP16) identifies the way in which the file is encoded. Code headers are required on any file that is played on the voice system.

Before converting between voice and code headers, you must strip off any existing headers.

annotate command

The **annotate** command annotates the Transaction State Machine (TSM) trace stream with a message.

Synopsis

```
annotate [channel] "message"
```

Description

The **annotate** command sends a message to TSM requesting that the given message be put into TSM's trace stream. This command is useful for testing and debugging scripts.

If a channel is specified, the message is associated with the channel's trace stream. The message must be fewer than 160 characters.

The **annotate trace** message is displayed in the trace output if a trace is running when the **annotate** command is executed. If no **trace** command is running, the **annotate trace** message is discarded.

Files

Files in the **/vs/bin/tools** directory are associated with the **annotate** command.

Example

The following example shows a command that sends a message to TSM to put the message "This is test 1 for channel 1" in channel one's trace stream.

```
annotate 1 "This is a test 1 for channel 1"
```

See also

- trace command on page 318

asaichan command

The **asaichan** command is used to administer ASAI channels.

Synopsis

```
asaichan [-acilor] [-n channel_number] [-e extension]
         [-s split_agent] [-p none | password]
```

Description

Parameters for the **asaichan** command are described in the following table.

Parameter	Description
-a	Add a channel.
-c	Change channel parameters.
-i	Log in a channel.
-l	List channels.
-o	Log out a channel.
-r	Remove a channel.
-n *channel_number*	The channel number. **Values:** Any valid channel number.

-e *extension*	The extension number. **Values:** Any number from 3 to 7 digits long, or *any*.
-s *split_agent*	The split ID or agent ID. **Values:** Any number from 1 to 7 digits.
-p none | *password*	The password. **Values:** Either *none* or any string 1 to 9 characters.

See also

- ASAI feature

asaidom command

The **asaidom** command is used to administer ASAI domains.

Synopsis

```
asaidom [-acilor] [-n <name>] [-e <extension> | any]
          [-s <service>] [-t acd | vdn | ctl | rte]
```

Description

Parameters for the **asaidom** command are described in the following table.

Parameter	Description
-a	Add a domain.
-c	Change domain parameters.
-i	Enable a domain.
-l	List domains.
-o	Disable a domain.
-r	Remove a domain.
-n <*name*>	The domain name. **Values:** Any string with 1 to 6 characters.
-e <*extension*> | any	The extension number. **Values:** Any number from 3 to 7 digits, or *any*.

-s <*service*>	The name of the voice response application associated with the domain.
-t acd | vdn | ctl | rte	The domain type. **Values:** acd, vdn, ctl, rte.

See also

- ASAI feature

asaiparms command

The **asaiparms** command is used to administer ASAI parameters.

Synopsis

```
asaichan [-cl] [-e alerting | connected]

         [-i <ip address> | <host name>]

         [-n signal01 | signal02 | signal03 | signal04 | signal05 |
signal06 | signal07 | signal08]

         [-t low | normal | high]
```

Description

Parameters for the **asaichan** command are described in the following table.

Parameter	Description
-c	Change parameters.
-l	List parameters.
-e alerting | connected	When the connect event is reported. **Values:** alerting, connected.
-i <*ip address*> | <*host name*>	The IP address or host name of the MAPD.
-n signal01 through signal08	The Node ID of the Avaya IR system as administered on the MAPD. **Values:** signal01, signal02, signal03, signal04, signal05, signal06, signal07, signal08.
-t low | normal | high	The trace detail. **Values:** low, normal, high.

See also

- ASAI feature

asg_adm command

The **asg_adm** command administers the Access Security Gateway (ASG) feature.

Synopsis

```
asg_adm [-h | -? | -f ][-a user_id key access][-d user_id][-r
user_id]
```

Description

The options are described in the following table:

Option	Description
-a user_id ASG|Password|DENY [key]	Create an ASG user
-d user_id	Display ASG login *user_id*
-f	Display all ASG logins
-h	Help (displays usage)
-r user_id	Remove an ASG user

See also

- ASG feature
- Administering ASG on page 50

assign card/channel command

The **assign card** command assigns a group number to a card.

The **assign channel** command assigns a group number to a channel.

Synopsis

```
assign card card#.[port#] to [eqpgrp] group_list

assign channel chan_list to [eqpgrp] group_list
```

Description

Use the **assign card/channel** command when a system is installed, the number of channels or cards changes, applications are added or deleted, telephone numbers change, or when you want to reconfigure the system. The system uses the card and channel assignments to route an incoming call to an equipment group.

Parameters for the **assign card/channel** command are:

Parameter	Description
card#.[port#]	Specifies the card/channel number (a single card/channel number from a range of 0-255, a range of card/channel numbers in the form m-n, or *all* , for all card/channel numbers).
chan_list	A comma-separated or space-separated list of channel numbers, or a range of channel numbers in the form chan1-chan2.
eqpgrp	The equipment group number when assigning to an equipment group.
group_list	A comma-separated or space-separated list of equipment group numbers, or a range of equipment group numbers in the form group1-group2.

Note:
If you refer to a nonexistent channel or nonexistent group in this command, the command fails.

Example

The following example shows a command that assigns channels 0 through 47 to equipment group 1.

```
assign chan 0-47 to eqpgrp 1
```

See also

- delete card/channel command on page 184
- assign eqpgrpname command on page 159
- delete eqpgrp command on page 185

assign eqpgrpname command

The **assign eqpgrpname** command assigns a group name to a group number.

Synopsis

```
assign eqpgrpname grpname to group_number
```

Description

Parameters for the **assign eqpgrpname** command are described in the following table:

Parameter	Description
grpname	Name of the equipment group
group_number	A number to be associated with the group

Example

The following example executes the command to assign the group name *exchan* to group number 1.

```
assign eqpgrpname exchan to 1
```

assign_permissions command

The **assign_permissions** command assigns voice system security permissions to a user.

Synopsis

`assign_permissions` *`user_login permissions_level`*

Description

The **assign_permissions** command assigns voice system security permissions to a user. Security permissions determine which areas of the voice system the user may access. This command, along with **unassign_permissions**, determines which screens are available to a user of the Web Administration interface.

Parameters for the **assign_permissions** command are described in the following table:

Parameter	Description
user_login	Represents the user who is assigned security permissions
permissions_level	Specifies the specific security class permission to be assigned. The security classes are: • A*dministration* – Allows the user full voice system capabilities • O*perations* – Allows configuration management, feature administration, reports administration, and system monitor capabilities

Example

The following example executes the command to administration level security to a user with the user login of *brown*.

```
assign_permissions brown Administration
```

See also

- unassign_permissions command on page 328
- display_permissions command on page 201

assign phone command

The **assign phone** command assigns one or more telephone numbers and passwords to one or more channels.

Note:
You must be logged in as root to assign passwords to channels.

Synopsis

`assign phone` *`phone_range`* `to chan` *`chan_range`*

Description

Arguments for **assign phone** are described in the following table:

Argument	Description
phone_range	Telephone number or telephone number ranges in the form (phone1:phone2)
chan_range	A single channel number, a comma-separated list of channel numbers, or channel number ranges in the form (chan1-chan2).

Note:
To specify a range of telephone numbers and channels, the number of channels that you specify must match the number of telephone numbers you specify.

If you enter an **assign phone** command for a channel that is administered for VoIP Station protocol, you will be asked to enter a password for VoIP station authentication. You can enter a password that contains up to eight digits, or **`none`** (for no password).

Example

The following example assigns the telephone number 555-1234 to channel 3:

```
assign phone 5551234 to chan 3
```

The following example assigns the telephone numbers 555-1234 to 555-1236 to channels 0 through 3:

```
assign phone 5551234:5551236 to chan 0-2
```

See also

- delete phone command on page 185

assign service/startup command

The **assign service/startup** command assigns an installed service to DNIS and ANI numbers or directly to a channel.

Synopsis

```
assign service service_name [startup startup_name] to chan chan_list

assign service service_name to dnis phone_list [ani phone_list]

assign service service_name to ani phone_list [dnis phone_list]
```

Description

The **assign service/startup** command is used to assign services to either a set of channels or to DNIS and ANI numbers. Services should be assigned after the service is verified and installed, the number of channels changes, or the system is reconfigured. Use the **display services** command to see a list of valid service names.

Parameters for the **assign service/startup** command are described in the following table:

Parameter	Description
chan_list	Indicates channel numbers or channel number ranges in the form *chan1-chan2*. Use a comma or space to separate channel numbers in the list of channel numbers or ranges.
phone_list	Indicates telephone numbers or telephone number ranges in the form *phone1*:*phone2*. Use a comma or space to separate the list of telephone numbers or ranges.

Examples

The following example shows the assignment of a service stdin (standard in as an arbitrary name for a script) to channel 0.

```
assign service stdin to chan 0
```

The following example shows the assignment of a service stdout (standard out as an arbitrary name for a script) to channel 1.

```
assign service stdout to chan 1
```

The following example shows the assignment of a startup service stdout to channels 4 through 7.

```
assign startup stdout to chan 4-7
```

The following example shows the assignment of the service stdout and startup service stdin to channels 4 through 7.

```
assign startup stdin service stdout to chan 4-7
```

The following example shows the assignment of the service stdout to DNIS 5000 through 5008 and ANI any.

```
assign service stdout to dnis 5000:5008
```

The following example shows the assignment of the service stdout to DNIS 5000 through 5008 and ANI 6000.

```
assign service stdout to dnis 5000:5008 ani 6000
```

The following example shows the assignment of the service stdout to DNIS any and ANI 6000 through 9000.

```
assign service stdout to ani 6000:9000
```

The following example shows the assignment of the service stdout to DNIS 3000 and ANI 2000-3000.

```
assign service stdout to dnis 3000 ani 2000:3000
```

autoreboot command

The **autoreboot** command changes or displays the parameters associated with the automatic reboot feature.

Synopsis

autoreboot [enable | disable] [reboots *number*] [window *minutes*] [uptime *minutes*]

```
autoreboot [status | s]

autoreboot [help | h]
```

Description

The **autoreboot** command is used to change parameters associated with the automatic reboot feature and to monitor the status of these parameters.

Parameters for the **autoreboot** command are described in the following table. In the table and following discussion, the term *boot event* is used to denote an instance of the system booting itself.

Parameter	Description	Comments
enable|disable	Specifies whether to enable or disable the automatic reboot feature	Default is *enable*
reboots *number*	Specifies the number of unanticipated boot events, tolerated within the time period specified by **window**	Default is 5
window *minutes*	Specifies the time period for the **reboots** parameter	Default is 60 minutes
uptime *minutes*	Specifies the amount of time that the system must be in service before the automatic reboot feature is activated	Default is 5 minutes
status	Shows the current values of the automatic reboot parameters, plus the number of unanticipated boot events that occurred in the **window** time period preceding the most recent boot event	—

When the automatic reboot feature is enabled and activated, the system automatically boots after a Unix panic. The automatic reboot feature is activated as follows: If there were fewer boot events than unanticipated boot events during the **window *minutes*** prior to the most recent boot event, the automatic reboot feature is activated (if enabled) **uptime *minutes*** after the most recent boot event.

An unanticipated boot event is a boot event that occurs after a system crash. A system crash can be caused (for example) by a Unix panic, a system restart via RESET, or a sudden power loss.

For example, assume the automatic reboot parameters are set to their default values. A system crash occurs. The system boots at 8:00. If there were fewer than 5 unanticipated boot

events between 7:00 and 8:00, the autoreboot feature is activated as 8:05. Otherwise, it is activated at 9:00.

Example

The following example shows how the **autoreboot** command enables the automatic reboot feature and changes the **window** parameter to 2 hours.

```
autoreboot enable window 120
```

Note:
This command must be run from ksh (KORN shell).

backup command

The **backup** command lets you perform full or incremental backups on your system.

Synopsis

```
backup -c|p|h -nnfslocation|-ttapedevice [-aarchivetitle] [-
lfilelist] [-ddays ] [-Ddirectory ] [-Ppriority] [-ostop_oracle] [-
uoracle_username]
```

Description

The **backup** command does a full backup or a partial backup. The full backup, backs up all files on the system. The partial backup backs up a specific directory, a list of files, or specify number of days to look for changes.

In IR R2.0, the tapedrive backup option has been introduced.

You must stop the voice system before starting the full backup. Avaya recommends stopping the voice system before starting a partial backup. The voice system is restarted when the backup has completed (if the voice system was stopped). A full backup must be run before a partial backup can be run.

This utility can be run in the following ways:

- Using a cronjob, which runs at regular intervals
- Running the job on demand

The **backup** command has the following arguments:

Argument	Description	Comments
p|c|h	p-partial backup c-complete backup h-history of backups	Must have one of these options
-n*nfslocation*	NFS mount directory	For example: **/mnt/br**
-t*tapedevice*	Tape Drive	For example: **/dev/rmt/0n**
-a*archivetitle*	A title you can assign	Optional – any string For example: Mybackup This title is used to create a file name. In the example, the file name for the full backup is similar to: MyBackup.D042903T090700.full
-d*days*	All the files that have been changed since n days	Optional
-D*directory*	Directory to back up	Optional
-l*filelist*	Name of the file that contains a list of files to back up (see Creating a file list for a partial backup or restore on page 32)	Optional
-P*priority*	Priority at which to run the backup process	Optional Values can be *high* or *low* (default is *high*)
-o*stop_oracle*	Whether or not to stop Oracle before starting a backup	Optional Values can be 0 (do not stop Oracle; default) or 1 (stop Oracle)
-u*oracle_user*	Oracle user name	Oracle user account must have permission to stop and start the Oracle server. If *stop_oracle*=1 with no *oracle_user* specified, then backup command uses the user name set up for the default backup parameters. If no default user name is set, the backup exit.s To set up default parameters, use Web Administration or the **setbkparms** command.

See also

- restback command on page 281
- Backup and Restore feature

- Full backup screen on page 354
- Partial backup screen on page 356

bbs command

The **bbs** command reports status of the voice system Bulletin Board (BB).

Synopsis

```
bbs [-d] [-h] [-l]
```

Description

The **bbs** command displays the field values of the BB slots. This information is sent to standard out (stdout). Without any options, information is extracted only from the dynamic portion of the BB and printed in short format. Otherwise the information displayed is controlled by the following command options:

Option	Description
-d	Prints information about the dynamic portion of the BB (the default)
-h	Prints information about the hardcoded portion of the BB
-l	Generates a long listing. The system displays all fields.

The column headings and meaning of the columns in the **bbs** listing are given in the following table. In the table, the letter *l* indicates the **-l** (long) option, which causes the corresponding heading to be displayed. The *all* option means that the heading is always displayed.

Column name	Option	Description
SLT	all	The slot number
BBNAME	all	The name associated with process and slot
QKY	all	The message queue key
PID	all	The process ID
INS	all	The process instance
D	all	"YES" if process is a message-sending DIP type. Otherwise "NO."
CDATE	l	The last process creation time
WK	l	The ET work state
SKEY	l	The semaphore key associated with process and slot
QID	l	The message queue ID

RE-SPA	I	The number of respawns from last restart of the voice system
WKCNT	I	The ET work count for process

Upon successful completion, **bbs** returns an exit status of zero. Otherwise, **bbs** prints an error message on stderr and returns a non-zero exit status if the voice system is not running or, if for some other reason, it can not access the BB.

Example

The following example shows how the **bbs** command is used to print a long listing, displaying all possible fields.

```
bbs -l
```

ccarpt command

The **ccarpt** command generates a call classification data summary report.

Synopsis

```
ccarpt date

ccarpt start_date end_date
```

Description

The **ccarpt** command generates a call classification data summary report. This report is stored in standard out (stdout).

The *date*, *start_date*, and *end_date* arguments can be in the format mm/dd/yy, mm/dd/yyyy, or a weekday (for example: Monday).

Note:
If yy is less than 70, the twenty-first century is assumed.

Examples

The following example shows how the **ccarpt** command is used to generate the call classification data summary report for October 10, 2003.

```
ccarpt 10/20/03
```

The following example shows how the **ccarpt** command is used to generate the call classification data summary report from October 14 through October 20, 2003.

```
ccarpt 10/14/03 10/20/03
```

See also

- Call Classification Data Summary report screen on page 528
- Call Data Reports feature

cddrpt command

The **cddrpt** command generates a call data detail report.

Synopsis

```
cddrpt records service calldata date
```

Description

The **cddrpt** command generates the call data detail report. This report is sent to standard out (stdout). Before this report can be run, the database system must be up and running, but the voice system does not need to be up.

Parameters for the **cddrpt** command are described in the following table:

Parameter	Description	Comments
records	The number of records to be reported	Any number, a range of numbers, or *all* (indicating all records in the system)
service	The script (application) name	You can choose *all*
calldata	A flag indicating whether to include call event data or not	Valid options are either *n* for not including event data, or *y* for including event data
date	The date the data was collected in the system	Valid options are a date in mm/dd/yy or mm/dd/yyyy format, a weekday (such as Monday), or *all*

Examples

The following example shows how **cddrpt** is used to generate a call data detail report for the first 100 call data collected on date October 20, 2000 for application *balance_chk* (call event data if any is also included in the report).

```
cddrpt 100 balance_chk y 10/20/2000
```

The following example shows how **cddrpt** is used to generate a call data detail report for all call data in the system without including call event data.

```
cddrpt n
```

Error messages

```
CANNOT FIND /vs/trans/application.D OR MALLOC SPACE FOR IT
```

If you get the above message while running **cddrpt**, take the following remedial steps:

1. Make certain the **/vs/trans/ *application*.D** file exits and is current.
2. Remove unnecessary files from the **/vs/trans/** directory.

See also

- Call Data Detail Report screen on page 529
- Call Data Reports feature

cdsrpt command

The **cdsrpt** command generates a call data summary report for a specific date.

Synopsis

```
cdsrpt hours service event_data date
```

Description

The **cdsrpt** command generates the call data summary report for a date specified. The report is stored in standard out (stdout). Before this report can be run, the database system must be up and running, but the voice system does not need to be up.

Parameters for the **cdsrpt** command are described in the following table:

Parameter	Description	Comments
hours	Hour the call data was collected	0-23
service	Script (application) name	Use *all* to indicate all applications
event_data	Flag indicating whether to include call event data or not	Valid options are either *n* to not include event data, or *y* to include event data
date	Date the data was collected in the system	Use the format mm/dd/yy or mm/dd/yyyy

Examples

The following example shows how **cdsrpt** is used to generate a call data summary report for call data collected between 2 p.m. and 4 p.m. on October 20, 1993 for all applications on the system. Call event data summary is included in the report.

```
cdsrpt 14-16 y 10/20/1993
```

The following example shows how **cdsrpt** is used to generate a call data summary report for all call data collected on October 20, 1993 for the application *balance_chk*. Call event data summary is not included in the report.

```
cddrpt balance_chk n 10/20/93
```

Error messages

```
CANNOT FIND /vs/trans/application.D OR MALLOC SPACE FOR IT
```

If you get the above message while running **cdsrpt**, take the following remedial steps:

1. Make certain the **/vs/trans/*application*.D** file exists and is current.
2. Remove unnecessary files from the **/vs/trans/** directory.

See also

- Call Data Summary Report screen on page 531
- Call Data Reports feature

checktf command

The **checktf** command outputs a list of talkfiles in the voice system.

Synopsis

```
checktf [all | talkfile [talkfile ...]]
```

Description

Parameters for the **checktf** command are described in the following table:

Parameter	Description
all	Lists all talkfiles on the system
talkfile	Specifies a talkfile by number

The output of the **checktf** command includes:

- The talkfile number
- The name of the application associated with the talkfile
- The status of the talkfile, either *recorded* or *not recorded*

Example

The following command checks talkfile 103:

```
checktf 103
```

ckConfig command

The **ckConfig** command checks a config file of the type used by the logging system for correctness.

Synopsis

```
ckConfig [-e] [-v] [-s] [file...]
```

Description

Without flags, this command prints how many valid destinations were read. If any were at fault, the command prints the indices of the bad specifications.

The arguments are described in the following table:

Argument	Description
-e	Display configuration specific errors
-v	Display errors AND print the configuration after reading it
-s	Display no messages at all. The exit value is the only indication if the configuration files are okay.

copy phrase command

The **copy phrase** command copies a phrase from one Solaris talkfile to another Solaris talkfile.

Synopsis

```
copy phrase phrase_number from talkfile talkfile_number to filename
```

Description

The **copy phrase** command copies a phrase from one Solaris talkfile to another Solaris talkfile. The path name for the file may be the full path name or the relative path name. If no path is specified, the file is created in the current working directory. If you are not in the directory in which the phrase to be added is stored, be sure to give the full path name for the talkfile and source file.

Note:
Only the *root* login can copy a phrase to any of the root directories. Users without root permission can copy phrases only to directories for which they have permission, usually under their login id.

The **copy** command copies a phrase from a Solaris talkfile within the SPEECHDIR default directory (**/home2/vfs/talkfiles**) to a Solaris file.

Examples

The following example shows how the **copy phrase** command is used to copy phrase number 2 from talkfile1 to the file **/speech/talk/a.1**.

```
copy phrase 2 from talkfile 1 to /speech/talk/a.1
```

The following example shows how the **copy phrase** command is used to copy phrase number 174 from talkfile 25 to the file **/speech/talk/h.4**.

```
copy phrase 174 from talkfile 25 to /speech/talk/h.4
```

See also

- add command on page 153
- erase command on page 206

cticonfig command

The **cticonfig** command administers the configuration of a Computer Telephony Integration Data Integration Process (CTI DIP).

Synopsis

```
cticonfig
```

Description

Use the **cticonfig** command to administer the configuration of any of the following CTI DIPs:

- TSERVER1
- TSERVER2
- TSERVER3

Any of the following functions can be administered for any of the CTI DIPs listed above:

- **List configuration** – lists DIP configuration parameters
- **Add/change configuration** – adds or changes DIP configuration parameters
- **Delete configuration** – deletes DIP configuration parameters
- **Start/stop/restart DIP** – starts, stops, or restarts a DIP

The following table describes the CTI DIP configuration parameters:

Parameter	Description
Enter dip port <default is 6800>	The port monitored by the CTI DIP. The default port number is *6800*. This is the same for all the telephony servers. Unless you have another service on the system that is listening on this port, you can use the default.
Telephony server host name	The LAN host name for the telephony server. **Values:** Any string
Telephony server port number <default is 450>	The Avaya IR port used by the telephony server.
Telephony server user name	The user name you use to log in to the telephony server. **Values:** Any string
Telephony server password	The password you use to log in to the telephony server. **Values:** Any string
Enter company [LUCENT or AVAYA]	The name of the switch vendor. **Values:** LUCENT, AVAYA
Enter switch name <eg. G3_SWITCH>	The name of the switch. **Values:** Any string
Enter driver name <default: CSTA>	The name of the driver. **Values:** CSTA

Enter telephony server host name	The LAN host name for the telephony server. **Values:** Any string

dalarm command

The **dalarm** command administers dial out alarming. This command allows users to change and display the administrable parameter values in the dial out alarming configuration file.

Synopsis

```
dalarm change    [productid=productid] [trace=y|n] [dialout=y|n]
                 [maxtemp=Celsius] [track=y|n]
                 [port=ttya|ttyb]
                 [id1=ivr_id number1=phone_number
                 speed1=modem_speed [charsize1=7|8]
                 [parity1=odd|even|none][dialstring1="dial_string"]
                 ]
                 [id2=ivr_id number2=phone_number
                 speed2=modem_speed [charsize2=7|8]
                 [parity2=odd|even|none][dialstring2="dial_string"]
                 ]
                 [id3=ivr_id number3=phone_number
                 speed3=modem_speed [charsize3=7|8]
                 [parity3=odd|even|none][dialstring3="dial_string"]
                 ]


dalarm display
```

Description

The **dalarm change** command changes the administrable parameter values in the **alerterData.cfg** file and creates a backup file, **alerterData.cfg.bak**. If the configuration file does not exist, or any parameter value failed the field validation, the **dalarm change** command exits with an error message and a usage statement.

The **dalarm display** command displays the administrable parameters in the **alerterData.cfg** file. If the configuration file does not exist, the **dalarm display** command exits with an error message.

After the successful updating of the configuration file, the **dalarm change** command activates the configuration file change.

The **dalarm** configuration file contains the following administrable parameters:

Parameter	Description
isTraceOn	Indicate whether the trace is turned on or off
isDialOutOn	Indicate whether the dial out alarming is on or off
maxAllowedTemp	Maximum allowable temperature in degrees Celsius
trackMinorAlarms	Indicate whether the E_MINOR alarms are tracked
productID	INADS product ID
usingPort	Port used for dial out
dol1.id	Dial out location 1 Avaya IR server ID
dol1.no	Dial out location 1 phone number
dol1.baud	Dial out location 1 baud rate for making the serial connection
dol1.charSize	Number of bits in a character
dol1.parity	The parity
dol1.dialString	The send/response string for communicating with location 1(INADS by default)
dol2.id	Dial out location 2 Avaya IR server ID
dol2.no	Dial out location 2 phone number
dol2.baud	Dial out location 2 baud rate for making the serial connection
dol2.charSize	The number of bits in a character
dol2.parity	The parity
dol2.dialString	The send/response string for communicating with location 2 (pager by default)
dol3.id	Dial out location 3 Avaya IR server ID
dol3.no	Dial out location 3 phone number
dol3.baud	Dial out location 3 baud rate for making the serial connection
dol3.dialString	The send/response string for communicating with location 3
dol3.charSize	The number of bits in a character
dol3.parity	The parity

You can use the **dalarm change** command to administer the parameters. The following table lists the possible values for each parameter:

Configuration file parameter name	Command-line argument	Default value	Possible values	Configuration file values
isTraceOn	trace	n	n/y	no/yes

isDialOutOn	dialout	n	n/y	no/yes
maxAllowedTemp	maxtemp	40	valid degree in Celsius	valid degree in Celsius
trackMinorAlarms	track	n	n/y	no/yes
productID	productid	4000000000	a 10-digit number	a 10-digit number
usingPort	port	port1	ttya, ttyb	ttya, ttyb
dol1.id	location1	no default	Avaya IR server ID	Avaya IR server ID
dol1.no	number1	no default	phone number	phone number
dol1.baud	speed1	9600	valid modem speed	valid modem speed
dol1.charSize	charsize1	7	7, 8	7, 8
dol1.parity	parity1	odd	none, even, odd	none, even, odd
dol1.dialString	dialstring1	\datz\n\r OK\r atdt\T\n\r CONNECT\s \d\d\I so\s2	valid send/response string	valid send/response string
dol2.id	location2	no default	Avaya IR server ID	Avaya IR server ID
dol2.no	number2	no default	phone number	phone number
dol2.baud	speed2	9600	valid modem speed	valid modem speed
dol2.charSize	charsize2	7	7, 8	7, 8
dol2.parity	parity2	odd	none, even, odd	none, even, odd
dol2.dialString	dialstring2	\dATZ\n\r OK\r ATDT\T;\r OK\r \d\d\d\d\d\dA TDT\i#;\r OK\r	valid send/response string	valid send/response string
dol3.id	location3	no default	Avaya IR server ID	Avaya IR server ID
dol3.no	number3	no default	phone number	phone number
dol3.baud	speed3	19200	valid modem speed	valid modem speed
dol3.charSize	charsize3	8	7, 8	7, 8
dol3.parity	parity3	none	none, even, odd	none, even, odd

dol3.dialString	dialstring3	\dASG:ALARM:\i:\T:\I\r	valid send/response string	valid send/response string

Files

The dial-out alarming configuration file is named **alerterData.cfg** and resides in the **/vs/spool/log** directory. It contains the dial-out status, E_MINOR alarms tracking status, dial-out port used, and information of up to three dial-out locations for the Alerter process. It is delivered with the Logger/Alerter package (PRISMLOG).

See also

- Alarm administration feature
- Alarm administration screens on page 369

dbconfig command

The **dbconfig** command administers the configuration of a JDBC database Data Interface Process (DIP).

Synopsis

```
dbconfig
```

Description

Use the **dbconfig** command to administer the configuration of any of the following database DIPs:

- DBDIP1
- DBDIP2
- DBDIP3
- DBDIP4
- DBDIP5
- Database CDH
- File CDH

Any of the following functions can be administered for any of the database DIPs listed above:

- **List configuration** – lists DIP configuration parameters

- **Add/change configuration** – adds or changes DIP configuration parameters
- **Delete configuration** – deletes DIP configuration parameters
- **Test configuration** – tests a DIP configuration
- **Start/stop/restart DIP** – starts, stops, or restarts a DIP

The following table describes the database DIP configuration parameters for all database types except Custom:

Parameter	Description
Database type	The type of database you want to use. **Values:** Oracle, Sybase, IBM DB2, Informix, Microsoft SQL Server, Custom **Note:** If you select Custom, the page displays different fields, which are described in the next table.
Database host name	The LAN host name for the server hosting the database. **Values:** Any string
Database name	The name of the database. **Values:** Any string
Database port	The LAN port monitored by the database DIP. **Values:** 1-65535
Database user name	The user name used to access the database. **Values:** Any string
Database password	The password used to access the database. **Values:** Any string
Connection pool size	The maximum anticipated number of concurrent JDBC connections that the IVR implementation will use. **Values:** 1-200

The following table describes the database DIP configuration parameters for the database type of Custom:

Parameter	Description
Database port	The LAN port monitored by the database DIP. **Values:** 1-65535
Database type	The type of database you want to use. **Values:** Oracle, Sybase, IBM DB2, Informix, Microsoft SQL Server, Custom
Database user name	The user name used to access the database. **Values:** Any string
Database password	The password used to access the database. **Values:** Any string
Classname	The Java classname for the driver, such as **`com.microsoft.jdbc.sqlserver.SQLServerDriver`**.
Database URL	Enter the URL that the IR system uses to connect to the database, such as **`jdbc:microsoft:sqlserver://`*`domain_name`*`:1433;databaseName=`*`yourdatabasename`** where *`domain_name`* is the domain name for the MS SQL Server 2000 server, and *`yourdatabasename`* is the filename of the database. **Values:** Any string
Additional properties	**Values:** Any string
Connection Pool Size	The maximum anticipated number of concurrent JDBC connections that the IVR implementation will use. **Values:** 1-200
Database subtype	The database type that matches the JDBC drivers you are using. **Values:** Any string

Check connection SQL query	If you select any Database type besides Custom with a Database subtype of other, the default query displays. Accept the default by pressing the Enter key. If you select a Database type of Custom with a Database subtype of other, no default query displays. Enter a simple SQL query that will be used to test that the database connection is working properly when the database DIP is running. **Values:** Any string

decode command

The **decode** command converts ADPCM16 or ADPCM32 files to PCM64 files.

Synopsis

```
decode [adpcm32|adpcm16]
```

Description

Decode is a filter that converts ADPCM16 or ADPCM32 files to PCM64 files.

WARNING:
Coding headers should be stripped (using the **stripdhr** command) before you run the **decode** command.

See also

- addhr command on page 154
- encode command on page 205

defService command

The **defService** command defines an IRAPI service.

Synopsis

```
defService [-h] [-n] [-s servicename] [-p process] [-t P | T] [-a 0
|1 |2 |3 |4] [application]
```

Description

The **defService** command is intended to be used by IRAPI application developers to create the registration file for an IRAPI service that is necessary for assigning and deleting the service to and from a channel or DNIS or ANI. For TSM scripts, the output of the **tas** command serves as the registration file for the script.

If the **defService** command is entered with no options, **defService** prompts you for all of the necessary information. You need to respond to fewer prompts if you enter the majority of the information from the command line. The following table describes the options:

Option	Description
-h	Allows you to print the usage statement and exit
-n	Uses the default values for all options not specified on the command line. However, no defaults exist for the *process* and *application* parameters.
-s	When the application is started by the Application Dispatch (AD) process, the *IRP_SERVICE_NAME* is set to the **-s *servicename*** argument if *servicename* is non-NULL.
-t	Specifies whether the process that provides the IRAPI application *application* is a permanent (P) or transient (T) process. The default is P.
application	The setting for *IRP_SERVICE_NAME* if *servicename* is NULL (see **-s** above)

If the process that provides the IRAPI application **application** is a permanent process, **-p *process*** must be the name the process uses as an argument to *irRegister(3irAPI)*. If the process that provides the IRAPI application **application** is a transient process, **-p *process*** must be the full pathname of the process. No default exists for this option.

When the application is executed on a PRI line, the `[-a 0 |1 |2 |3 |4]` option specifies how the ANI should be supplied to the application. The valid values for this option are described in the following table:

Value for -a option	Description
0	No ANI supplied (default)
1	ANI type billing number only
2	ANI type billing number preferred
3	ANI type calling party (SID) only
4	ANI type calling party (SID) preferred

The **application** argument specifies the IRAPI application. No default exists for this argument.

Upon successful completion, the **defService** command creates the **/vs/trans/*application*.T** file.

Files

The following files are associated with the **defService** command:

/vs/trans/*.T

See also

- assign service/startup command on page 162
- delete service/startup command on page 186
- tas command on page 314

delbackup command

The **delbackup** command lets you delete old backup files.

Synopsis

`delbackup [-l|d] -n`*`nfslocation`* `-f`*`filename`*

Description

There is a **delbackup** script that runs daily to delete old backup files, and the delete backup file interval can be modified with the **setbkparms** command. This script also lets you delete specified backups. The script lists all the archives available at the specified Network File System (NFS) location.

The arguments for the **delbackup** command are described in the following table:

Argument	Description
-l	List archives available to delete
-d	Delete a specific file
nfslocation	NFS mount directory (such as: **/mnt/br**)
filename	Name of file to delete

See also

- Backup and Restore feature
- Delete backup files screen on page 360

delete card/channel command

The **delete card/channel** command removes a card or channel from a service or an equipment group.

Synopsis

```
delete card card#.[port#] from [eqpgrp] group_list

delete channel number from [eqpgrp] group_list
```

Description

The **delete card/channel** command removes a specified card or channel from a service or equipment group. The parameters for the **delete card/channel** command are described in the following table:

Parameter	Description
card#.[port#]	A single card/channel number from a range of 0-255, a range of card/channel numbers in the form m-n, or *all*, for all card/channel numbers
eqpgrp	Specify **svcgrp** when deleting from a service group or **eqpgrp** when deleting from an equipment group. If no group type is given, the **svcgrp** is assumed.
group_list	A comma-separated or space-separated list of equipment group numbers, or a range of equipment group numbers in the form group1-group2

If you want to remove all cards or channels from a equipment group, it may be easier to delete the entire equipment group than to delete channels or cards. To delete an equipment group, use the **delete eqpgrp** command.

Example

The following example deletes card 4 from service group 1.

```
delete card 4 from svcgrp 1
```

The following example deletes channels 10 through 13 from equipment group 3.

```
delete channel 10-13 from eqpgrp 3
```

See also

- delete eqpgrp command on page 185
- delete service/startup command on page 186
- assign card/channel command on page 158
- Channels to groups screen on page 471

delete eqpgrp command

The **delete eqpgrp** command removes an equipment group.

Synopsis

```
delete eqpgrp group_number
```

Description

The **delete eqpgrp** command removes an equipment group. The *group_number* argument is the equipment group list. To remove all equipment groups, use *all* as the group number.

Examples

The following example removes equipment group number 3.

```
delete eqpgrp 3
```

The following example removes all equipment groups.

```
delete eqpgrp all
```

See also

- assign card/channel command on page 158

delete phone command

The **delete phone** command unassigns one or more telephone numbers from one or more channels.

Synopsis

```
delete phone [phone_number] from chan chan_list
```

Description

Arguments for **delete phone** are described in the following table:

Argument	Description
phone_number	A single telephone number, a comma-separated or space-separated list of telephone numbers, or telephone number ranges in the form (phone1:phone2)
chan_list	A single channel number, a comma-separated or space-separated list of channel numbers, channel number ranges in the form (chan1-chan2), or *all*

Note:
After the **delete phone** command has been run on a list of channels, *chan_list*, there are no telephone numbers assigned to those channels. If a channel has a password administered for VoIP Station Authentication, the password is also deleted.

Examples

The following example unassigns a telephone number from channel 3:

```
delete phone from chan 3
```

The following example unassigns telephone number 555-2345 from channels 4, 5, and 6:

```
delete phone 5552345 from chan 4-6
```

See also

- assign phone command on page 161

delete service/startup command

The **delete service/startup** command unassigns the assignment of a service to DNIS and ANI numbers or of a service assigned directly to a channel.

Synopsis

```
delete service [service_name] [startup [startup_name]] from chan
chan_list

delete startup [startup_name] [service [service_name]] from chan
chan_list

delete service [service_name] from dnis phone_list [ani phone_list]
```

```
delete service [service_name] from ani phone_list [dnis phone_list]
```

Description

The **delete service/startup** removes the specified telephone number or channel from the group to which a script is assigned. The parameters for this command are described in the following table:

Parameter	Description
service_name	The name of the application
chan|dnis	The name of the service group
chan_list	A comma-separated or space-separated list of channel numbers or channel number ranges in the form chan1-chan2
phone_list	A comma-separated or space-separated list of telephone numbers or telephone number ranges in the form phone1:phone2

Note:
Only telephone numbers that have been assigned using the **assign service/startup** command can be deleted.

Examples

The following example deletes startup service stdout from channels 4 through 7.

```
delete startup stdout from chan 4-7
```

The following example deletes the service stdout and startup service stdin from channels 4 through 7.

```
delete startup stdin service stdout from chan 4-7
```

The following example deletes the service stdout to DNIS 5000 through 5008 and ANI any.

```
delete service stdout from dnis 5000:5008 and ANI any
```

The following example deletes the service stdout from DNIS 5000 through 5008 and ANI 6000.

```
delete service stdout from dnis 5000:5008 ani 6000
```

The following example deletes the service stdout from DNIS any and ANI 6000 through 9000.

```
delete service stdout from DNIS any and ani 6000:9000
```

The following example deletes the service stdout from DNIS 3000 and ANI 2000-3000.

```
delete service stdout from dnis 3000 ani 2000:3000
```

See also

- assign service/startup command on page 162
- display services command on page 202
- display dnis command *on page 192*

dip_int command

The **dip_int** command sends a Data Interface Process (DIP) interrupt to a script on a channel or a range of channels.

Synopsis

```
dip_int channel

dip_int channelStart-channelEnd
```

Description

The **dip_int** command sends a message or messages to the Transaction State Machine (TSM) process requesting that TSM send interrupt messages to the script running on *channel* or the range of channels *channelStart-channelEnd*. If no script is running on the channel or if TSM does not own the channel, no action is taken for the channel. The **dip_int** command does not wait for a response from TSM. Scripts running on the channel receive the EDIPINT event.

Be careful when you use this command. It may affect other applications running on the system.

Examples

The following example requests that TSM send interrupt messages to channel two.

```
dip_int 2
```

The following example requests that TSM send interrupt messages on channels one through 32.

```
dip_int 1-32
```

Return values

If the **dip_int** command is successful, a 0 value is returned. If any value other than 0 is returned, the **dip_int** command completely or partially failed.

If the **dip_int** command returns a value of 2, **dip_int** failed due to temporary condition. In this case, the user should attempt the **dip_int** command again.

See also

- soft_disc command on page 302

display assignments command

The **display assignments** command displays the services assigned to channels.

Synopsis

```
disp[lay] assignments [option] [option]
```

Description

The **display assignments** command is used to display all the services and startup services assigned to channels. The **display assignments** command options are described in the following table:

Option	Description
all	Displays information on all services. This is the default.
service_name	Displays channels assigned with a specific service
startup *startup_name*	Displays channels assigned with a specific startup service
channel *chan#*	Displays assignments for channel specified by chan#. A range of channels can be specified.

If more than one option is used, the system displays only channels that satisfy all the options given. If an invalid combination of options is given, the system displays an error message.

Examples

The following example displays information for channel 1:

```
disp assignments channel 1
```

The following example displays information for all channels that have the service *xxx* assigned:

```
disp assignments xxx
```

The following example displays information for all channels that have the startup service *xxx* assigned:

```
disp assignments startup xxx
```

See also

- Display equipment screen on page 468

display card command

The **display card** command displays information about specified cards.

Synopsis

```
disp[lay] card [option [option]]
```

Description

The **display card** command displays data about a specified card or about cards in a specified state. In the output, the physical slot number, the osindex, and the voice system card number are all the same. The output also correctly reflects which card is primary master, which is secondary master, and which cards are slave.

The **display card** command options are described in the following table.

Option	Description
all	Displays information on all cards
broken	Displays all cards in the broken state
card# [port#]	Displays information on card *card#* and on port *port#* of the specified card. All ports are shown if *port#* is not given. A range of cards may be specified in the form m-n without using the *port#* option.
foos	Displays all cards that have at least one channel in the facility out-of-service state
hwoos	Displays all cards that have at least one channel in the hardware out-of-service state
ins[erv]	Displays all cards that have at least one channel in the in-service state
irapi	Displays all cards owned by IRAPI
manoos	Displays all cards in the manual out-of-service state
mtc	Displays all cards being used by the maintenance process
netoos	Displays all cards that have at least one channel in the network out-of-service state
nms	Displays all NMS (digital telephony) cards

nonex	Displays all cards in the nonexistent state
voip	Displays all VoIP cards

If more than one option is used, only cards that satisfy all the options given are displayed. If an invalid combination of options is given, the system displays an error message.

Examples

The following example displays card information on channel 2 port 0.

```
disp card 2.0
```

The following example displays information on all cards.

```
disp card all
```

The following example displays information on all NMS cards.

```
disp card nms
```

The following example displays information on all cards in the Mtc state.

```
disp card mtc
```

The following example displays information on all VoIP cards in the Broken state.

```
disp card voip broken
```

display channel command

The **display channel** command displays channel information.

Synopsis

`disp[lay] channel` *`option`* `[option]`

`disp chan` *`option`* `[option]`

Description

The **display channel** command is used to list information at the channel level. The **display channel** command options are described in the following table:

Option	Description
all	Displays information on all channels

broken	Displays all channels in the broken state
foos	Displays all channels assigned to facility service
hwoos	Displays all channels assigned to hardware service
inserv	Displays all channels that are in service
irapi	Displays all channels owned by IRAPI
manoos	Displays all channels in the manual out-of-service state
mtc	Displays all channels being used by the maintenance process
netoos	Displays all channels assigned to network service
nonex	Displays all channels in the nonexistent state
nms	Displays all NMS (digital telephony) channels
number	Displays information about the channel specified by channel number. A range of channels may be specified in the form m-n.
service *service_name*	Displays channels assigned with a specific service
telephone *tel_number*	Displays channels with telephone numbers assigned
voip	Displays all VoIP channels

If more than one option is used, the system displays only channels that satisfy all the options given. If an invalid combination of options is given, the system displays an error message.

Examples

The following example displays information for channel 1.

```
disp channel 1
```

The following example displays information on all channels.

```
disp channel all
```

display dnis command

The **display dnis** command displays the services assigned to DNIS and ANI numbers.

Synopsis

```
disp[lay] dnis
```

Description

The **display dnis** command is used to display all the services assigned to DNIS and ANI numbers. The system also displays the called numbers and calling numbers.

Example

The following example displays information for all the services assigned to DNIS and ANI numbers:

```
disp dnis
```

display eqpgrp/group command

The **display eqpgrp/group** command displays an equipment group report.

Synopsis

`disp[lay] eqpgrp` *`group_number`*

`disp[lay] group` *`group_number`*

Description

The **display eqpgrp** command is used to list all the equipment assigned to the specified equipment group. The *group_number* is the number of the equipment group. If the group number is missing, the system displays a syntax message. If you specify *all*, the system displays every equipment group.

Examples

The following example lists all the equipment assigned to equipment group 1.

```
disp eqpgrp 1
```

The following example lists all the equipment assigned to equipment groups 2 through 20.

```
disp group 2-20
```

The following example lists all equipment assigned to all equipment groups.

```
disp eqpgrp all
```

See also

- assign card/channel command on page 158

- delete eqpgrp command on page 185

display messages command

The **display messages** command displays system error and status messages.

Synopsis

```
display messages      [-c]
                      [priority
                      admin,alarms,critical,'*C',major,'**',minor,'
                      *',events,all]
                      [start [mm/dd[/yy|yyyy]][hh:mm[:ss]]]
                      [stop [mm/dd[/yy|yyyy]][hh:mm[:ss]]]
                      [card range,T1,TR,SP,...,all]
                      [channel range,T1,TR,SP,...,all]
                      [id message ID 1,message ID 2,..., all]
                      [source TSM,VROP,SPIP,TRIP,...,all]
                              [pattern regular expression
                              search pattern enclosed within '/
                              and /' i.e., the pattern 123
                              would be specified as '/123/']

                              [number,all]
```

Description

The **display messages** command displays error and status messages that have been logged by the voice system. Various options are provided so that the display can be limited to specific types of messages. If no arguments are supplied to **display messages**, information is displayed on how to read the messages (the message format) as well as command usage. The messages are written to standard output.

Note:
See Options for display messages command on page 197 for a description of the options used with this command.

If more messages exist than can be displayed on the screen, you are prompted with

```
Press the ENTER key to see more, or enter "q" to quit.
```

If you do not wish to be prompted to press **Enter** (that is, display all of the messages at once), you may use the **-c** option.

The **priority** argument should be used to display messages with specific types of urgencies. Two groups of priorities exist: alarms and events. Alarms are messages that have been reported as *C (critical), ** (major), or * (minor) priorities. Events are all the remaining messages that have no priority, such as status messages. For example, to display the last 25 alarms, type the following:

```
display messages priority alarms 25
```

You can also display specific priorities using the *priority* option. You can specify either the name of the priority or its symbol (for example, critical or *C). To display all critical messages, type the following:

```
display messages priority critical all
```

Note:
You should use the **priority *alarm*** argument when alarms are needed, otherwise use the **priority *events*** argument. The **priority** argument must be used with this command.

Combinations of priorities can also be displayed by listing each priority separated with a comma. For example, to display the last 100 alarms messages, type the following:

```
display messages priority `*C',`**',`*'
```

where *C, **, and * must be enclosed in quotes.

All messages are displayed with two or three lines of information. Messages are separated by a blank line to ease viewing. The table below lists the system message formats along with definitions and examples. Each message displayed conforms to the format shown as follows:

```
PR DAY MON DD HH:MM:SS ZZZ YYYY SOURCE
TTTTTTTT YY UU NUM TEXT...
TEXT (Continuation if necessary.)
blank line
```

The formats are defined in the following table:

Format	Definition	Examples
PR	Priority	*C (Critical), ** (Major), * (Minor), ""(Event)
DAY	Day	Sun - Sat
MON DD	Date	Jan 1 - Dec 31
HH:MM:SS	Time	00:00:00 - 11:59:59
ZZZ	Time Zone	EST, EDT, CST...
YYYY	Year	1992,...
SOURCE	Source	TSM, VROP,...

TTTTTTTT	8 char Msg ID (Tag)	TWIP2104,...
YY	FRU Type	NM, VO, IP
UU	Unit Type	CA (Card) or CH (Channel) or – if N/A
NUM	Unit Number	000 to 999 or — if N/A
TEXT	Message Text	Varies with message (see example below); can be more than one line long.

Example

The following example is representative of the output from typing **display messages card all**:

```
 MESSAGE LOG REPORT


Pr Time                                   Source
-- ---                                   -----

   Mon Sep 30 12:16:22 2002               MTC

   MTC002   NM CA   2 (MTC_STATE_EVENT) Changed state from INSERV
to FOOS.




   Mon Sep 30 12:16:22 2002               MTC

   MTC002   IP CA  11 (MTC_STATE_EVENT) Changed state from INSERV
to FOOS.




   Mon Sep 30 12:16:24 2002               VOIP

   VOIP008 VO CA  11 (VOIP_OAMREQUEST_ERROR) Unable to process
OA&M request. Reason: Failed to read OA&M message.




   Mon Sep 30 12:16:24 2002               VOIP
```

```
   VOIP012  VO CA  11 (VOIP_ERROR) Error: DevPoll::Poll ioctl
error

            numReady=-1 errno=4

Press the ENTER key to see more, or enter q to quit
```

See also

- display messages options on page 197
- Message log report screens on page 534

Options for display messages command

The following options are available with the **display messages** command on page 194.

start

The **start** option allows you to specify a starting time for display of messages. The system displays only messages that were logged at or after the time you specify. The time can be specified by date, time, or both date and time. Using *today* is equivalent to specifying the current date. Examples of specifying the date are:

```
"May 1, 2000"

"05/01/00"

"05-01-00"
```

Examples of specifying the time are:

```
hh:mm:ss

hour=hh

min=mm

sec=ss
```

where *hh* is 0 to 23, and *mm* and *ss* can be 0 to 59.

Do not mix the hh:mm:ss format with the item==xx format. If portions of the time are not specified, the time default is 0 hours, 0 minutes, and 0 seconds.

Also, giving only the time of day indicates the current date. For example, if today is January 15, 1993, the command **display messages start "12/31 09:00"** displays all of the messages that were logged starting at 9 am on December 31, 1993. In order to display messages from a previous year, you must specify the year. The entire start date and time must be enclosed in quotes (for example, `display messages start "April 21, 1993 13:00:00"`).

If only the date is specified, the time defaults to the beginning of the day. For example, **display messages start today** displays all of the messages logged today (the day in which the command is executed).

stop

The **stop** option allows you to display messages logged up to a specific time. The date and time syntax is the same as for the **start** option. Therefore, **display messages stop today** displays all messages that were logged before today.

The **start** and **stop** options can be used together to display messages logged over a specific period of time. For example, **display messages start "May 1" stop "May 2"** displays all messages logged on May 1 of this year.

If you want the start and stop options to be the same day (for example, May 1), you must specify the hours and minutes for which you want to display messages. Otherwise, the time defaults to 00:00 for both the start and stop options and no messages are displayed.

card

The **card** option allows you to specify messages logged about a specific card or cards. For example, **display messages card 2** displays all messages logged that are associated with card 2. You can display combinations of cards. For example, **display messages card 2,3** displays messages for cards 2 and 3, and **display messages card 0-2** displays messages for cards 0, 1, and 2.

You can also use the **card** option to display messages logged regarding a specific type of card. For example, `display messages card NM` displays all messages logged pertinent to NMS cards.

channel

The **channel** option works like the **card** option. For example, **display messages channel IP** displays all messages logged pertinent to VoIP channels, whereas **display messages channel 5** displays all messages logged regarding channel 5.

Note:
The **channel** option requires an argument. Typing **display messages channel 100** attempts to display all messages pertaining to channel 100. If you want to display the last 100 messages pertaining to any channel, type **display messages channel all 100**.

Note that specifying both the **card** option and the **channel** option displays all of the specified card-related messages but, of the channels that are specified, only those that reside on the specified cards are displayed. For example, **display messages card NM channel all 100** displays the last 100 messages logged for NMS cards and NMS channels, whereas **display messages card NM channel IP** never displays any messages because it is impossible for a VoIP channel to reside on an NMS card.

id

The **id** option allows you to display specific message ids that have been logged. For example, **display messages id ADMIN001** displays all occurrences of that message. For example, **display messages id ADMIN001,ADMIN002** displays all occurrences of both messages.

source

The **source** option allows you to display messages logged by a particular system process. Some of the standard system processes are:

- Application dispatcher (AD) process
- ASRPROXYMGR process
- Call data handler (CDH) process accumulates generic call statistics and application messages
- DBINIT process
- Data interface process (DIP)
- DIO processes that are the disk input/output for VROP
- Maintenance (MTC) process runs temporary diagnostics
- NMSIP process
- Transaction state machine (TSM) process controls transactions via script execution and commands
- TTSPROXYMGR process
- Voice over IP (VOIP) process
- Voice response output process (VROP) manages speech data base and downloads speech data to VRU

For example, **display messages source NMSIP** displays all messages logged regarding NMS cards and channels, where the message was logged from the NMSIP process.

The default **source** is *all* which displays messages for every process.

pattern

The **pattern** option allows you to specify a regular expression as accepted by **logCat** *on page 241* that may appear in any part of a message. The **pattern** must be enclosed in quotes and surrounded by slashes (/). For example, `display messages pattern `/XYZ/'` provides all messages that use the pattern XYZ anywhere in the message.

Note:
The **pattern** option is case-sensitive.

number

The **number** option specifies the number of messages you want to display, or you can use the *all* value to display all messages. The command accepts a three-digit number, so you can display up to 999 messages.

Although the **number** option only allows up to 3 digits, you may have more than 999 messages logged. Therefore, you can only view up to 999 messages in the message log report with the **display messages** command. The **logCat** command with the **-t** option can be used to display all logged messages.

Note:
The default **number** is 50. If *all* or a number greater than 50 is entered, a warning message will be displayed, telling you that system performance will be degraded.

display password command

The **display password** command displays the telephone numbers and passwords assigned to channels that are administered for VoIP station protocol.

Note:
You must be logged in as root to use the **display password** command.

Synopsis

```
disp[lay] password [option]
```

Description

The **display password** command displays the telephone numbers and passwords assigned to channels that are administered for VoIP station protocol. The **display password** command options are described in the following table:

Option	Description
all	Displays information on passwords for all channels. This is the default.
channel *chan#*	Displays password for channel specified by *chan#*. A range of channels can be specified.

Examples

The following example displays the password for channel 1:

```
disp password channel 1
```

display_permissions command

The **display_permissions** command displays the current voice system security permissions for a particular user.

Synopsis

```
/vs/bin/util/display_permissions user_login
```

Description

The **display_permissions** command displays the current voice system security permissions for a particular user if any has been assigned.

The **user _login** argument represents the user for which permissions are to be displayed.

Example

The following example executes the command to display voice system security permissions for a specific user.

```
/vs/bin/util/display_permissions brown
```

See also

- unassign_permissions command on page 328
- assign_permissions command on page 160

display servers command

The **display servers** command displays the status of administered Proxy TTS servers.

Synopsis

```
display servers
```

```
disp servers
```

Description

The **display servers** command displays the status of administered Proxy TTS servers.

Example

The following example displays the status of administered Proxy TTS servers.

```
disp servers
```

display services command

The **display services** command lists all valid services or scripts.

Synopsis

```
display services
```

```
disp services
```

Description

The **display services** command lists all valid services, or scripts, on a system.

Example

The following example lists all valid services or scripts currently on the system.

```
disp services
```

dspActAlarms command

The **dspActAlarms** command lists active alarms.

Synopsis

```
dspActAlarms
```

Description

When **dspActAlarms** is executed, the information described in the following table is displayed:

Name	Description
Mod	The modem being used
Alarm Type	The type of alarm message

Location	A name that identifies the location that the system calls
Alarm Code	The number of the alarm
Pri	The priority of the alarm
Time of Alarm	The time that the alarm was generated

Example

The following example lists all active alarms.

```
dspActAlarms
```

See also

- Alarm administration feature
- Alarm administration screens on page 369
- dspRetAlarms command on page 203

dspRetAlarms command

The **dspRetAlarms** command lists retired alarms.

Synopsis

```
dspRetAlarms
```

Description

When **dspRetAlarms** is executed, the information described in the following table is displayed:

Name	Description
Mod	The modem being used
Alarm Type	The type of alarm message
Location	A name that identifies the location that the system calls
Alarm Code	The number of the alarm
Pri	The priority of the alarm
Time of Alarm	The time that the alarm was generated
Time Retired	The time that the alarm was retired
Reason	The reason for retiring the alarm. This can be any string.

Example

The following example lists all retired alarms.

```
dspRetAlarms
```

See also

- Alarm administration feature
- Alarm administration screens on page 369
- dspActAlarms command on page 202

edExplain command

The **edExplain** command edits the explanation text for one or more message tags.

Synopsis

```
edExplain {msgID} [...]
```

Description

The **edExplain** command edits the explanation text for one or more message tags.

Environment variables for the **edExplain** command are described in the following table:

Environment variable	Description
EDITOR	The program used to edit the explanation text (default: vi)
EXPLAINDIR	The root directory of the explanation texts (default: **/gendb/data/explain**)
VERBOSITY	If set to *anything*, **edExplain** runs verbosely

An explanation file is basically a clear text file. Its contents are displayed as-is to the user when this explanation is requested. If it is a primary explanation procedure (an explanation that the end-user wants to reference by name), it should begin with a line of the form:

```
<< {tag} [{tag}...] >>
```

This identifies the explanation or procedure and all its alternate names as defined in the translation file, ***$EXPLAINDIR*/translateLst**.

The **translateLst** file should be updated to include the msgID, msg string, and file name, in which the explain text can be found (usually just the msgID name). When exiting the **translateLst** file, enter **:w!** followed by **q**.

Two exceptions exist to the rule that the file contains clear text that is displayed to the user:

- Any line beginning with a pound sign (#) is considered to be an internal comment and is not displayed.
- Lines beginning with **.explain** are special directives to include explanation text in place of this line.

Example

In the following example, the first line is the SCCS identification line and is not displayed to the end user. The second line identifies the explanation. The third line describes the problem.

```
# %W% %T% %H%
<< TWIP007 TWIP_BDERR >>
.... text of explanation describing what a T1 card error means...
```

encode command

The **encode** command converts ADPCM16 or ADPCM32 files to PCM64 files.

Synopsis

```
encode [adpcm32 | adpcm16]
```

Description

The **encode** command is a filter that converts PCM64 files to ADPCM16 or ADPCM32 files.

Note:
ADPCM16 is easy to code and saves space, but does not provide good quality sound.

Strip the voice header (using **stripdhr**) before you run **encode**.

You must add appropriate code headers (using **addhdr**) before the converted file can be played on the voice system.

See also

- addhr command on page 154
- decode command on page 181

erase command

The **erase** command deletes a phrase from a Solaris talkfile.

Synopsis

```
erase phrase phrase_number from talkfile talkfile_number
```

Description

The **erase** command deletes the phrases identified by the phrase IDs from the Solaris file. The phrase number many be any of the following:

- A single phrase (for example, *1*)
- A set of phrases (for example, *1, 2, 5*)
- A range of phrases (for example, *1-5*)
- All phrases (for example, *all*)

After you enter the **erase** command, the system displays the following message, asking you to confirm the command before each phrase is erased:

```
Do you want to erase phrase phrase#? (y/n)
```

If the *all* option is used for phrases, the system prompts you only once to confirm the command:

```
Are you sure you want to erase ALL phrases from talkfile
talkfile#? (y/n)
```

If the specified phases does not exist, the system displays:

```
Phrase phrase# does not exist in talkfile talkfile#
No action taken.
```

When the system has deleted the phrase(s), the system prompt is displayed.

The **erase** command removes a phrase from the **SPEECHDIR** default directory, which is **/home2/vfs/talkfiles**.

Example

The following command erases phrase 174 from talkfile 23.

```
erase phrase 174 from talkfile 23
```

The following command erases phrases 218 through 222 and phrase 225 from talkfile 26.

```
erase phrase 218-222, 225 from talkfile 26
```

The following command erases all phrases from talkfile 29.

```
erase phrase all from talkfile 29
```

See also

- add command on page 153
- copy phrase command on page 172

explain command

The **explain** command displays online error message explanations.

Synopsis

```
explain {msgID} [...]

explain -l [{pattern}...]

explain [-d] {msgID} [...]
```

Description

The **explain** command displays on-line error message explanations. The *{msgID}* is one of the two forms of identification that comes with each message. The primary form is *{CLASS}nnn* , where *{CLASS}* is the class of messages, such as CGEN or TSM, and *nnn* is the index of the message within the class of messages. The second form, available with most messages is the mnemonic form (for example, CGEN_NOMSGQ or CGEN_MSGRCV).

If the explanation of the message fits in 24 lines and only a single explanation has been requested, it is printed without interruption. If the explanation is longer than 24 lines or more than one explanation is requested, the output is paged via the use of a paging program. Use the **-d** option to disable paging. The default paging program is **/bin/pg**.

If the **-l** option is used, **explain** looks up all messages whose *{msgID}* matches the pattern. For example, `explain -l A V` lists the names of explanations available that begin with either *A* or *V*, while `explain -l VROP` lists all explanation names available that begin with *VROP*. In other words, the *{pattern}* is anchored at the beginning of the *{msgID}* and assumes a match of anything after the pattern selected.

The **explain** command is also affected by certain environment variables. These environment variables, described in the following table, are intended for advanced users only.

Environment variable	Description	Comments
PAGER	Pager program is used if the explanation is longer than 22 lines or if more than one explanation is requested	The default is *pg*. If you do not want paging even for long explanations, use **-d** or set *PAGER=cat* to disable paging. A one line form is: `PAGER=cat explain {msgID} or explain -d {msgID}`
EXPLAINDIR	Directory in which the explanation directories are found	Default is ***${PRODUCTROOT}*/vs/data/explain**
PRODUCTROOT	Installation directory	Default is **/ (root)**
VERBOSITY	A debugging aid	A setting of *anything* causes debugging output to be generated while **explain** performs its job

The **edExplain** command allows you to add or change explanations. An explanation comes in two parts, a file containing the explanation itself, and a set of synonyms or translations that allow the **explain** command to find the file under more than one tag. To create a new explanation, you must provide both. When modifying an existing explanation, all you need to do is edit the file that contains the explanation.

The explanation file itself is an almost-clear text file of what you want the user to see when they ask for the explanation. There are two features of the file that are not plain clear text. All lines beginning with the pound sign (#) are treated as internal comments and are not output. Also lines of the form **explain *{msgID}*** have special meaning. They cause the inclusion of the explanation text specified by the *{msgID}*. This allows you to have common explanations and reference from more than one explanation.

The recommended format for an explanation procedure is:

```
# Comment and SCCS keywords

<< {msgID} [{msgID}...] >>
{text of message}
...
```

When creating a new explanation procedure, you are asked to edit the synonyms list place it in the appropriate **translateLst** file. There are instructions at the top of the file. Each non-comment line is a list of synonyms, with the right-most word on the line being the name of the file in which the text is located. For example:

```
ADM001 ADM_SYSERR
ALERT003 AL_INVALID_THRESHOLD AL_INVALID_T
```

The descriptions for ADM001 and ADM_SYSERR are found in a file named **ADM_SYSERR**. The descriptions for ALERT003 and AL_INVALID_THRESHOLD are found in a file named **AL_INVALID_T**. The second example has a truncated file name, because file names are

limited to 14 characters in most Solaris systems, and if you want to use source code control, the file name must not be longer than 12 characters. The recommended way to store an explanation is under a file name related to the mnemonic *{msgID}* rather than the {*CLASS}nnn* name, since the later is meaningless. A file name of the form ***{CLASS}nnn*** does not provide a sophisticated user with much information about the contents of the file, while the mnemonic form does. If the mnemonic is longer than 12 characters, create a shorter name related to the mnemonic that is unique within 12 characters.

There are some environment variables that affect the behavior of **edExplain**:

Environment variable	Description	Comments
EDITOR	The name of your preferred text editor	The default is *vi*
EXPLAINDIR	Directory in which the explanation directories are found	Default is ***${PRODUCTROOT}*/vs/data/explain**
PRODUCTROOT	Installation directory	Default is **/ (root)**
VERBOSITY	A debugging aid	A setting of *anything* causes debugging output to be generated while **edExplain** performs its job

Files

- **/vs/data/explain** is the directory in which explanation directories are located
- **/vs/data/explain/translateLst** is the file containing the synonym list of *{msgID}* s

See also

- edExplain command on page 204

fax command

The **fax** command allows authorized users to select one of the fax header options for the server: *none*, *default*, or *custom*.

Synopsis

```
fax header={none | default | custom customtext="header_text"}
```

Description

You can use the header and customtext parameters to administer the fax header. The following table lists the possible values for each parameter:

Parameter	Default value	Possible values
header	No default value	none, default, custom
customtext	No default – only applies if header=custom	Up to 80 character alphanumeric text that can include nms format strings %d, %p, and %P. The text must be inside quotation marks if there is any white space embedded.

Before the fax header is administered for the first time, no fax header configuration file exists. This file only exists when **header** is set to *default* or *custom*. When **header** is set to *default*, an empty **nfxheader** file is created. When **header** is set to *custom*, the **customtext** value is saved in the **nfxheader** file.

When the **nfxheader** file exists, and the authorized user executes the fax command to administer the fax header, the system prompts the user to either confirm or cancel the header file change. If the new header is *none*, the **nfxheader** file is removed. Otherwise, the content is modified accordingly.

When the **nfxheader** file does not exist, and the authorized user executes the **fax** command, there is no prompt for confirmation. If the new header is *none*, the **nfxheader** file is not created. Otherwise, the **nfxheader** is created accordingly.

Files

The fax header configuration file **nfxheader** exists when the fax header is set to default or custom. When the fax header is set to default, it is an empty file. When the fax header is set to custom, it may contain an alphanumeric string up to 80 characters long, which is used as the fax header. The NMS supported format strings that can be used in the fax header text are described in the following table:

Format string	Description
%d	Date/time string
%p	Page number
%P	Total number of pages in this fax

The **nfxheader** file is created in the ***$VS_CONFIG_DIR*** directory, or **/vs/data** if ***$VS_CONFIG_DIR*** is not defined.

Example

The command

```
   fax header=custom customtext="Page %p of %P. This is a test
header %d."
```

creates the following fax header:

```
Page 1 of 5. This is a test header THU JUL 25 10:10:48 2002.
```

See also

- Fax features
- Fax administration screens on page 498

fax_admin command

The **fax_admin** command produces a set of menus that allow you to administer the fax feature.

Synopsis

```
fax_admin
```

Description

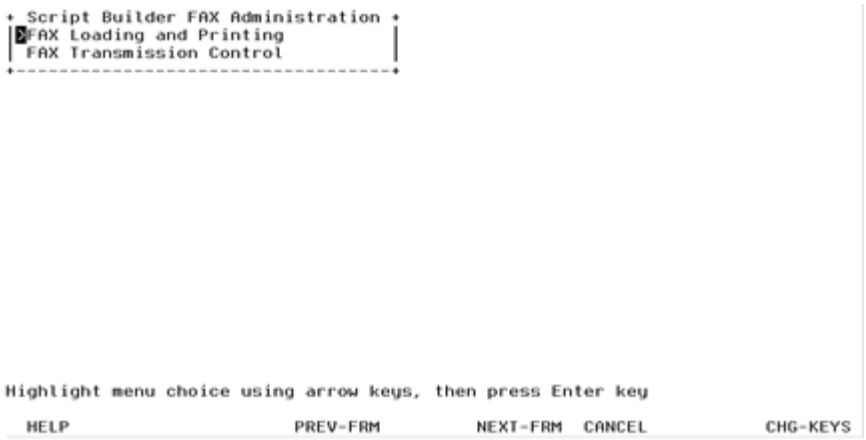
This command activates the **FAX Actions** menu, which lets you control the fax queue, load faxes into the system, and control printing of faxes.

See also

- Using the FAX Actions menu on page 212
- Fax administration screens on page 498
- Fax features

Using the FAX Actions menu

The **FAX Actions** menu is shown in the following figure:



The **FAX Actions** menu has the following options:

- FAX Loading and Printing on page 215
- FAX Transmission Control on page 212

Use your arrow keys to select a menu option, and press **Enter**.

See also

- Fax features
- Administering fax on page 58
- fax_admin command on page 211

FAX Transmission Control window

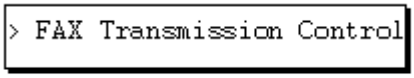
The **FAX Transmission Control** window allows you to view the list of jobs currently in the fax queue waiting for transmission. This feature also allows you to improve the performance of the system by:

- Eliminating jobs that overload the fax transmission queue and hinder system performance
- Canceling large jobs that may have been sent by mistake

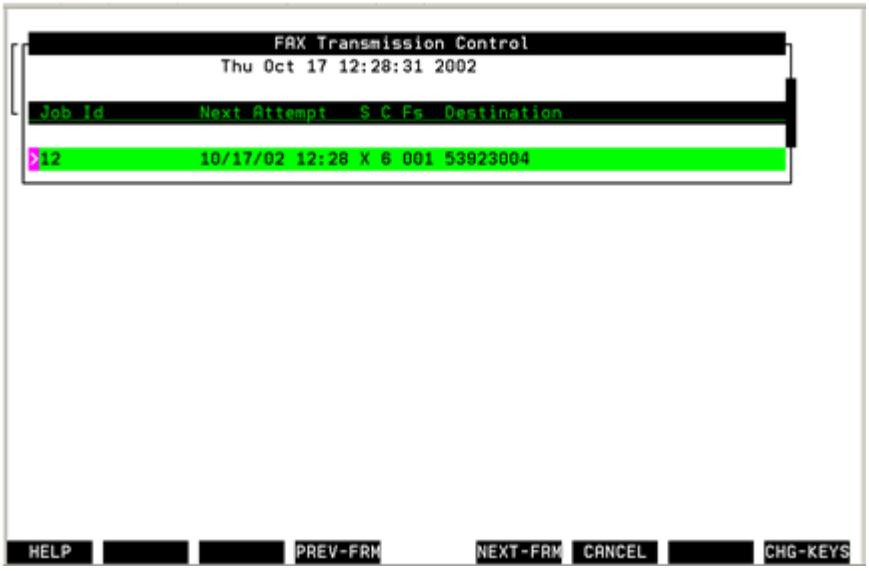
Accessing the FAX Transmission Control window

To access the **FAX Transmission Control** window:

1. From the **FAX Actions** menu, select **FAX Transmission Control**:



2. The system displays the **FAX Transmission Control** window:



The **FAX Transmission Control** window lists the details (such as time, date, and size) for every fax job in queue. The fax jobs are listed in the order in which they appear in the fax transmission queue.

The following table describes the columns on the **FAX Transmission Control** window.

Column Name	Description
Job ID	The job identification number
Date/Time Submitted	The date and time the fax request was submitted
Date/Time Next Attempted	The date and time the fax job is to be processed. This is the time specified by the application if no attempt to send the job has been made, or it is the subsequent retry attempt time if the original attempt failed.

S	The current status of the job: F — Job has failed (final failure). W — Job is waiting for a retry attempt. R — Job is ready to be processed. The outgoing call is in progress. D — Job is delayed by user (scheduled for future delivery). A — Job is waiting for an address. Destination number is not found. X — Job is transmitting the fax. P — Job is being processed. S — Job has sent the fax. f — Job process has failed.
Pgs/Snt	The number of pages submitted and the number of pages transmitted
Destination	The telephone number where the fax is to be delivered

Note:
The system does not automatically update the **FAX Transmission Control** window when new entries are added to the fax queue.

Updating the FAX Transmission Control window

1. From the **FAX Transmission Control** window, press **F6** (Cancel) to return to the **FAX Actions** menu. You may need to press **F8** (Chg-Keys) to access **CANCEL**.
2. In the **FAX actions** menu, select **FAX Transmission Control**.

   The system displays the updated fax queue.

Note:
It may be necessary to remove a fax from the queue to perform channel diagnostics or to relieve an overburdened system.

Removing a fax from the fax job queue

1. In the **FAX Transmission Control** window, select the fax to be removed.
2. Press **F2** (Remove). You may need to press **F8** (Chg-Keys) to access REMOVE.

   The system removes the selected fax.
3. Press **F6** (Cancel) repeatedly to return to the **FAX Actions** menu.

FAX Loading and Printing window

The **FAX Loading and Printing** window allows you to load a fax in the system, preview a fax, or send a fax to the printer.

To access the **FAX Loading and Printing** window:

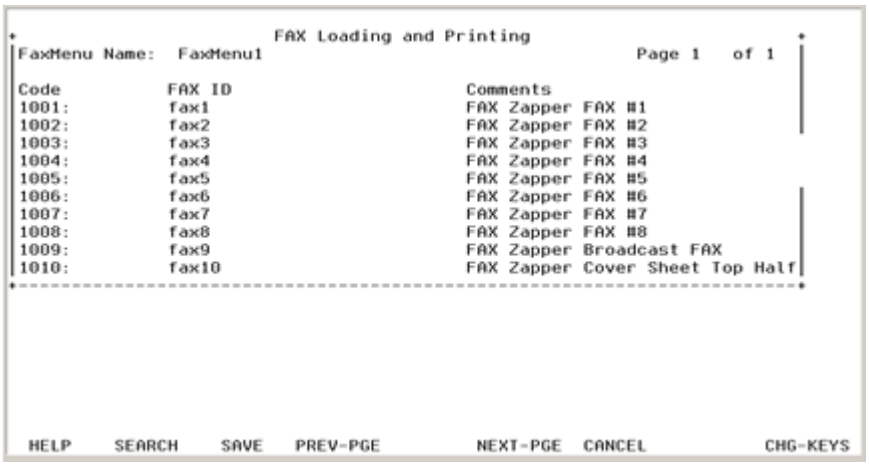
1. At the command prompt, type **fax_admin** and press **Enter**.

   The system displays the **FAX Actions** menu.

2. Select **FAX Loading and Printing**:

   ```
   > FAX Loading and Printing
   ```

   The system displays the **FAX Loading and Printing** window.



The illustration above shows a sample of the **FAX Loading and Printing** window. The window in your system may appear differently. The columns and what they represent, however, are the same.

The following table provides a description of the columns in this window.

Column Name	Description
FaxMenu Name	Name of the menu displayed in the window
Page	Number of pages in the menu
Code	A 4-digit identifier. The first digit may not be a zero.
FAX ID	An alphanumeric string in the form of faxN where N is a number between 1 and 999
Comments	A description of the fax, with 30 or fewer alphanumeric characters

To load a fax:

1. Press **F8** (Chg-Keys).

   The system displays the alternate set of function keys.

2. Press **F4** (FAX-ADM).

   The system displays the **Fax Administration** menu.

3. Press **F2** (Load-FX) to load the fax onto the system.

   The system displays the **Enter A FAX Channel Loading** window.

4. Enter the channel number.

   The system displays a window with the following information:
   ```
   Load your FAX into the FAX machine and call (from your FAX
   machine) the extension associated with the channel you selected in
   the previous step.

   Press CANCEL to cancel the operation. After successfully loading
   your FAX, the confirmation window appears.
   ```

5. Place the document you want to load into the fax machine.

6. Dial the fax channel extension.

7. Press the start button on the fax machine.

To print a fax:

1. From the FAX Administration menu, press **PRINT-FX**.

   The system displays the **Destination for PRINT** window.

2. Enter the telephone number of a fax machine to which the fax is to be printed. Valid entries are:

   — A string constant enclosed in quotes, for example, “9-6148683608”

   — The name of a field that contains a string constant.

   The following characters can be used in the Destination Number: field: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, asterisk (*), pound sign (#), comma (,), and dash (-).

   Using a comma (,) causes a 1-second pause during dialing on lines in all equipment groups. For longer pauses, multiple commas can be used.

faxit command

The **faxit** command allows you to queue or send a fax from the command line.

Synopsis

To queue a fax:

```
faxit -q -f fax_file
```

To send a fax:

```
faxit -s -n delivery_number [-t delivery_time_in_hhmm] [-i retry
interval in minutes][-c retry_count] [-T "TSI_string"] [-G
Equipment_Group]
```

To queue and send a fax:

```
faxit -S -f fax_file -n delivery_number [-t delivery_ time_in_hhmm]
[-i retry_interval_in_minutes] [-c retry_count] [-T "TSI_string"] [-
G Equipment_Group]
```

Description

The basic parameters for the **faxit** command are described in the following table:

Parameter	Description	Comments
-q	Queues a fax	—
-s	Sends a fax that is in queue	—
-S	Queues and sends a fax	—
-f *fax_file*	Specifies the name of the file you want to be queued for fax transmission	The field has the following requirements: • You can specify the entire pathname of the file, or a file name under **/usr/faxdb/FR/WORKFAX** • The file must be either in ASCII text or in TIFF Class F format • A fax loaded through the Loading and Printing Screen is in the TIFF Class F format

-n *delivery_number*	Enter the telephone number to which the fax is delivered	A total of 32 characters can be entered for the delivery number. The following characters can be used in the *FAX Delivery Number* field: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, asterisk (*), pound sign (#), comma (,), and hyphen (-). Using a comma (,) causes a 1-second pause during dialing on lines in all equipment groups. For longer pauses, multiple commas can be used. For lines in analog equipment groups, using a hyphen (-) causes a short (0.1-second) pause during dialing. The hyphen (-) cannot be used on digital (T1) lines. The pauses are useful in situations where a delay is required in the dial string, for example, when dialing out through a restricted trunk that requires a pause before input of a PIN (personal identification) number. For example, the following entry includes a 6-second delay between the dial string and the 5-digit PIN (12345): "9-6145551212, , , , , , 12345"
-t *delivery_time_in_hhmm*	Enter the time the out-of-call (as opposed to the current call) fax should be delivered	Specify a 2-digit hour (*hh*) and a 2-digit minute (*hhmm*) using the 24-hour clock, or use the string *immediate*. If it is practical, specify a fax delivery time that is outside normal business hours to reduce transmission costs.
-i *retry_interval_in_minutes*	Enter the interval (in minutes) between fax retries for a failed fax delivery	—
-c *retry_count*	Enter the number of times the fax delivery should be retried in the case of a failure	—

-T *" TSI_String "*	The user-definable "Transmitting Subscriber Identification" for Group 3 faxes. The contents of this field are printed at the top of each received page with the page number, date sent, and so on. Use this field to specify the sender's fax telephone number, company name, or other alphanumeric string. The string is also displayed on the receiving fax machine's LED screen.	The string must be contained in quotes
-G *Equipment_Group*	Enter the equipment group number to use for this action	—

See also

- Fax features

faxq command

The **faxq** command outputs a report of all FAX Actions delivery jobs currently in the system.

Synopsis

```
faxq [-t]
```

Description

A fax job is any fax waiting in the system for delivery. Completed fax jobs are not reported by the **faxq** command.

For information on completed out-of-call fax jobs only, use the **faxrpt** command or the Out of Call Fax Report.

For each fax, the **faxq** command provides the information described in the following table:

Name	Description	Comments
Job ID	The job ID returned by IRAPI or by the FAX_Send action	—

Date/Time Submitted	The date and time that the job was submitted	—
Date/Time Next Attempt	The date and time the job is to be processed. This is the time specified by the application if no attempt has been made, or the subsequent retry due time if an attempt has been made but failed.	—
Fs/Snt	The number of files submitted (Fs) and the number of files transmitted (Snt). Note that if a file has more than 66 lines, it is printed as more than one page. For example, if an out of call fax job is to print two files with each file of 95 lines, **faxq** displays 2 in this field if the fax job succeeds.	—
S	The current status of the job	S can have the following values: • **F** – The job failed (final failure) • **W** – The job is waiting to be retried • **D** – The job is delayed by the user by being scheduled for future delivery • **A** – The job is awaiting addressing because the destination number is not found • **X** – The job is being transmitted • **P** – The job is being processed • **S** – The job has been sent • **f** – The job process failed
Destination	The telephone number where the fax is to be delivered	—

You can truncate the header of this output by using the **-t** option with the **faxq** command.

See also

- faxremove command on page 221
- faxrpt command on page 221

faxremove command

The **faxremove** command removes a pending fax job from the fax queue.

Synopsis

`faxremove job_ID`

Description

The **faxremove** command removes a pending fax job from the fax queue. The *job_ID* is the positive return code received from a **Script Builder FAX_Send** action or the **faxit** command.

Example

```
faxremove 456
```

See also

faxit command on page 216

faxrpt command

The **faxrpt** command prints a report on completed or failed out-of-call faxes. It provides information that identifies each fax, including the date, time, job ID and destination number. It also indicates if transmission was successful, the number of pages transmitted, and the duration of the transmission. If transmission was unsuccessful, the report provides a reason for failure.

The report displays information from the out-of-call fax log, which contains records for the most recent 14 days that faxes were transmitted. Faxes older than 14 days may be displayed if no faxes were transmitted on some of the first 14 days.

Note:

The **faxrpt** command does not list incoming faxes or faxes sent when the delivery number is specified as CURRENT for a **FAX_Send** action. The report also does not include active fax jobs. Use the **faxq** command for information on currently queued jobs.

Synopsis

`faxrpt job_id [start_date] [end_date]`

Description

This command provides output from the same out-of-call fax log as does the Out of Call Fax Report.

The parameters for the **faxrpt** command are described in the following table:

Parameter	Description	Comments
jobID	The job ID returned by IRAPI or by the FAX_Send action, or *all*	Using *all* causes **faxrpt** to print all fax jobs in the out-of-call fax log for the date specified
start_date	The start date for which data is to be reported, in the format mm/dd/yy or mm/dd/yyyy, where mm is the month, dd is the day, and yy or yyyy is the year	If this parameter is omitted, the system uses 0 AD (a meaningless date)
end_date	The end date for which data is to be reported, in the format mm/dd/yy or mm/dd/yyyy	If a 2-digit year argument is used, the following rules apply: • If the year argument is 70 or greater, the 20th century is assumed, for example, 11/27/99 is interpreted as November 27, 1999 • If the year argument is 00 through 69, the 21st century is assumed, for example, 11/27/06 is interpreted as November 27, 2006 If this argument is omitted, the system uses today's date.

Examples

The following example prints the entire out-of-call fax log.

```
faxrpt all
```

The following example prints the entire contents of the out-of-call fax log from November 30, 1999 to the present.

```
faxrpt all 11/30/99
```

The following example outputs the entire out-of-call fax log for the month of November 1999.

```
faxrpt all 11/01/99 11/30/99
```

The following example prints the out-of-call fax log entry for job falcon2-31658.

```
faxrpt falcon2-31658
```

Note:
If a file has more than 66 lines, it is printed as more than one page. For example, if an out of call fax job is to print two files, each with 95 lines, **faxrpt** displays 4 in the *PSnt* field if the fax job succeeds.

faxutil command

The **faxutil** command merges two files to create a TIFF (Tag Image File Format) file that can be faxed.

Synopsis

```
faxutil    fax_file fax_file
           output_merged_file

           -w80|120 text_file fax_file
           output_converted_and_merged_file

           -w80|120 text_file
           output_converted_fax_file
```

Description

The **faxutil** command merges two files to create a TIFF file that can be faxed. You can merge two TIFF files, or merge one text file and one TIFF file. The TIFF files must be in the TIFF Class F (ITIF) format.

The *-w* option specifies the number of characters per line for text converted to ITIF. The value **-w120** forces the text to be converted at high resolution. When the **-w** option is not used, the system assumes that *fax_file* is in ITIF format.

When merging corresponding pages in input files, the length of a page is the longest of the two input file pages. When merging multipage input files, the output file is the length of the longer input file. The scanline merge is an inclusive-or of the black and white pixels, with black taking precedence over white.

Example

The following example converts a text file (*file1*) to ITIF format with high resolution (120) and outputs the results to the file *newfile*.

```
faxutil -w120 newfile file1
```

See also

- Fax features

fixLogFile command

The **fixLogFile** command upgrades existing logging files after a logging system update, so that data continues to be readable by **logCat**.

Synopsis

```
fixLogFile [-d] [-s {save-file} ] [-r] [-a] [-S] [-o {spec} ] [-n
{spec}][{file}...]
```

Description

When classes of logging messages are expanded, contracted, inserted, or removed, **fixLogFile** can change the index assignments of messages. When this happens, messages whose indexes changed and were logged under the previous environment become unexpandable by **logCat**. The **fixLogFile** command, given information about the previous assignments and the new assignments, upgrades logged data so that it remains expandable by **logCat**.

Each message is examined. If the class of messages appears in the new environment and still covers the index assigned to the message, a new index is assigned based on where it appears in the new environment. If the class of messages is no longer part of the message logging environment or if a class is reduced in size so that it no longer covers the index of a message, it is necessary to use one of the three options described in the following table:

Option	Description
-d	Deletes the message entirely from the logging file
-r	Demaps the message. This entails expanding the message in the old environment and creating a new logging message using the LOG_REMAP_DISCARD format so that the data is still readable in the log files, but is marked as being part of a discarded message environment. This is the default behavior.
-s *{save_file}*	Removes the message from the original logging file and saves it in the specified file, thus preserving the unique data for possible later retrieval

Normally, **fixLogFile** generates a short message about each file that it converts. The **-s** flag suppresses this output.

The **fixLogFile** command requires access to the old **o.systemLog.h** and **o.textLogFmt** files and the new **systemLog.h** file to perform its job. It expects to find these files in ***$LOGROOT*/formats**. If you use alternate sources of these files, use the **-o** and **-n** flags. Each of these flags takes a *{spec}* argument, which has the following form:

```
{dir}[,{systemLog.h}}[,{textLogFmt}]]
```

The default values for these two specifications is:

```
-o ${LOGROOT}/formats, o.systemLog.h, o.textLogFmt
-n ${LOGROOT}/formats, systemLog.h, textLogFmt
```

The *{dir}* portion specifies an alternate directory in which the [**o.**]**systemLog.h** and [**o.**]**textLogFmt** files are to be placed. If the remainder of the *{spec}* is missing, the default file names apply. If specified, the ***{*systemLog.h*}*** and ***{*textLogFmt*}*** portions specify the names of these two files as they are found in the specified ***{*dir*}***. Any section of the specification that is skipped retains its previous or default value.

You may specify a list of one or more logging files. If they are listed, each file is assumed to be a compressed logging file and is converted. The **-a** option automatically converts all of the compressed logging files found in ***${LOGROOT}*/data**. No file names can be provided if the **-a** option is specified. When the **-a** option is used, each regular file found in ***${LOGROOT}*/data** is examined to see if it is a compressed logging file. If it is not, it is ignored. If it is, it is converted.

After the files are converted, the time stamps are reapplied so they have the same date after conversion as they did before conversion.

The **fixLogFile** command only takes care of changes in classes of logging message. For example, if the class PERM was added, removed, or moved, **fixLogFile** could correctly deal with the changes to the logging files. The **fixLogFile** command does not deal with reorganizations or changes of messages within a class. Do not change the order of appearance messages or the arguments to a logging message if you expect to be able to expand the data in the future or save the previous **textLogFmt** file for the expansions.

If the conversion takes place while the logdaemon process is running, be sure to either stop and restart *logdaemon* or reinitialize it using the **reinitLog** command.

See also

- logCat command on page 241

hassign command

The **hassign** command assigns host service to host sessions.

Synopsis

```
hassign [hostsvc] host_application to session# [FTSCRT]
```

Description

The **hassign** command assigns applications to session numbers. It is necessary to use this command to associate an application with host interactions to a given logical unit (LU). One host session corresponds to one LU.

The **FTSCRT** argument is required to assign that session for file transfer. If you are using file transfer, valid session numbers are 0-31 (that is, only sessions on the first host communication card can be used for file transfer).

The **hassign** command automatically executes the host maintenance login sequence on the specified session.

If the application *appl* is currently assigned to a particular session, and a new application *new_app* is assigned to that same session, the old application *appl* is logged out and *new_app* is logged in. In other words, the application currently assigned to the session is replaced by the new application you wish to assign.

If the application *my_appl* is assigned to session 0 and you wish to assign the application *your_appl* to session 0, you must:

- hlogout the application *my_appl*
- hfree the application *my_appl*
- hlogin the application *your_appl*

If the application *my_appl* is already assigned to session 0 but the state is logged out and **hassign** is run on *my_appl* again, nothing happens. You need to run **hlogin** to log the application *my_appl* back in.

Examples

In the following examples, the user is assigning the host application *my_appl* to session 0, to session 0-19, and to all sessions (up to 64 total with 2 host communications cards installed), respectively.

```
hassign my_appl to 0


hassign my_appl to 0-19


hassign my_appl to all
```

In the following example, the user is assigned in the host application *file_trans* to session 0 for file transfer.

```
hassign file_trans to 0 FTSCRT
```

See also

- Host interface feature
- hdelete command on page 227
- hdisplay command on page 228
- hfree command on page 231
- hispy command on page 229
- hlogin command on page 232
- hlogout command on page 233
- hnewscript command on page 234
- hsend command on page 235
- hspy command on page 236
- hstatus command on page 238

hdelete command

The **hdelete** command removes host service from host sessions.

Synopsis

```
hdelete [hostsvc] host_application from [session_number | range | all]
```

Description

The **hdelete** command executes the logout sequence that is defined in the application's host session maintenance section and automatically removes the host application association from the session number. One host session corresponds to one logical unit (LU).

The **hfree** command works similarly to the **hdelete** command except that does not execute the logout sequence and should be used only when you need to release the session immediately.

Example

In the following examples, the user is unassigning the host application "my_appl" from session 0, from session 0-19, and from all sessions (up to 64 total with 2 host communications cards installed), respectively.

```
hdelete my_appl from 0
hdelete my_appl from 0-19
hdelete my_appl from all
```

See also

- Host interface feature
- hassign command on page 225
- hdisplay command on page 228
- hfree command on page 231
- hispy command on page 229
- hlogin command on page 232
- hlogout command on page 233
- hnewscript command on page 234
- hsend command on page 235
- hspy command on page 236
- hstatus command on page 238

hdisplay command

The **hdisplay** command shows host applications that have been successfully verified and installed, as well as the application assignments on the host sessions.

Synopsis

```
hdisplay [hostsvc]
```

Description

The **hdisplay** command displays the host applications that have been verified and installed on the system. The **hdisplay** command also displays the current session assignments for each host application.

Example

The following example displays the host application currently verified and installed on the system, as well as the current session assignments.

```
hdisplay
```

See also

- Host interface feature
- hassign command on page 225
- hdelete command on page 227
- hfree command on page 231
- hispy command on page 229
- hlogin command on page 232
- hlogout command on page 233
- hnewscript command on page 234
- hsend command on page 235
- hspy command on page 236
- hstatus command on page 238

hispy command

The **hispy** command captures a host interface screen and makes it available to IVR Designer.

Synopsis

`hispy n`

Description

The **hispy** command does the following for a Session ID specified by *n* (which falls in a range from 0-10):

- Display the following message and execute the **sb_te** command with the appropriate arguments to allow the user to capture any screen by entering an **Esc+B** key sequence:

  ```
  Press ENTER to start sb_te and allow interaction with session n

  USE ESC-B to CAPTURE A SCREEN  -  USE CTRL-X to exit sb_te
  ```

- Append the captured screen to the IVR Designer screen capture file **/lt/trans/sc/host_sc/appl.sc** for the application currently assigned to the specified Session ID.

Note:
If no screen capture file(s) exist, for the application, any screen captures are placed in new screen file(s) **/vs/trans/appl.vs** and, optionally, **/vs/trans/appl.nam**.

- Allow the captured screen to be used later by the application developer to define screen identifiers and fields of the screen, and use the screen in a modified version of the application to improve host call flow recovery, login, logout, or transaction processing.
- Make all features of the **sb_te** command available for navigation through host application screens, and capture screens along the way.

When finished INTERACTING/CAPTURE screens in **sb_te**, you can use the **Ctrl-X** key sequence to exit from the currently specified Session ID. The **hispy** command exits after the Last/Only Session ID is exited with the **Ctrl-X** key sequence.

The **hispy** command can be entered no matter what state an assigned Session ID is in.

When the **hispy** command is processing an assigned Session ID, the HOST DIP (**/vs/bin/vrs/agdip3270**) is not able to access the Session ID.

CAUTION:
Use caution when using **hispy** on an assigned Session ID in transaction, logging in, or logging out state.

The **hispy** command is mainly intended to help application developers debug problems with the host interface portion of voice applications. Therefore, **hispy** allows the developer full freedom to manipulate a Session ID. If such manipulation results in placing a Session ID in an *awkware/broken/confused* state, use the **hfree** and **hassign** commands to fix the problems.

The **hspy** command is available to simply display the current screen of an assigned Session ID.

Typical uses of **hispy** include:

- Capturing an UNRECOGNIZED error screen never encountered before
- Capturing screen(s) that were never encountered before until an uncommon call flow was taken by the caller
- Navigating through host application screens, capturing screens along the way, to define a recovery sequence to add to the current application
- Testing and developing host call flows during development

Example

```
hispy 5
```

See also

- Host interface feature
- hassign command on page 225
- hdelete command on page 227
- hdisplay command on page 228
- hfree command on page 231
- hlogin command on page 232
- hlogout command on page 233
- hnewscript command on page 234
- hsend command on page 235
- hspy command on page 236
- hstatus command on page 238

hfree command

The **hfree** command unconditionally releases host sessions from Script Builder host application assignments.

Synopsis

```
hfree [host_application | session_number | range | all]
```

Description

The **hfree** command releases sessions from their Script Builder application assignments. One host session corresponds to one logical unit (LU). It frees the assignment and leaves the host session on the screen it is currently. This command can be helpful in resolving a problem with a particular screen. Normally, the **hdelete** command should be used to make a session available. The **hfree** command is used commonly when problems occur on sessions and troubleshooting is needed.

Note:

The **hfree** command does not automatically log out the specified session. Use the **hdelete** command to log out a session and make the specified session available.

See also

- Host interface feature
- hassign command on page 225
- hdelete command on page 227
- hdisplay command on page 228
- hispy command on page 229
- hlogin command on page 232
- hlogout command on page 233
- hnewscript command on page 234
- hsend command on page 235
- hspy command on page 236
- hstatus command on page 238

hlogin command

The **hlogin** command runs the login sequence of a host script.

Synopsis

```
hlogin [host_application | session_number | range | all]
```

Description

The **hlogin** command invokes the login procedure that is defined in the application's host session maintenance section. This command is often used in the system's cron table to automatically log in the host as soon as it is available each day.

Note:
The session must be in the logged out state before you may execute this command.

Examples

The following example invokes the login procedures for the host application *my_appl*.

```
hlogin my_appl
```

The following example invokes the login procedures for the host applications assigned to sessions 0 through 9.

```
hlogin 0-9
```

See also

- Host interface feature
- hassign command on page 225
- hdelete command on page 227
- hdisplay command on page 228
- hfree command on page 231
- hispy command on page 229
- hlogout command on page 233
- hnewscript command on page 234
- hsend command on page 235
- hspy command on page 236
- hstatus command on page 238

hlogout command

The **hlogout** command runs the log out sequence of the host script.

Synopsis

```
hlogout [host_application | session_number | range | all]
```

Description

The **hlogout** command invokes the logout procedure that is defined in the application's host session maintenance section. This command is often used in the system's cron table in order to log off the host automatically before it goes down each night. It is a clean, convenient way to log out of the host application.

Note:
The session must be in the logged in state before you may execute this command.

This command should be performed once an application has been developed and assigned to a session to test the logout procedure.

Example

The following example invokes the log out procedure for the host application *my_appl*.

```
hlogout my_appl
```

The following example invokes the log out procedure for all session numbers.

```
hlogout all
```

See also

- Host interface feature
- hassign command on page 225
- hdelete command on page 227
- hdisplay command on page 228
- hfree command on page 231
- hispy command on page 229
- hlogin command on page 232
- hnewscript command on page 234
- hsend command on page 235
- hspy command on page 236
- hstatus command on page 238

hnewscript command

The **hnewscript** command installs a changed host script.

Synopsis

```
hnewscript host_application
```

Description

The hnewscript command updates the system memory with the newest copy of the specified host application. This can cause the host application to be logged out and logged back in

using the newly defined host maintenance. This is required to put the updated version into effect, and Script Builder automatically prompts you when the verify and install have been composed and the host maintenance has changed.

Example

The following example updates the system memory with the most current copy of the host application *my_ appl*.

```
hnewscript my_ appl
```

CAUTION:
The **hnewscript** command may temporarily prevent access to any host sessions that have been modified while they are in the process of logging out and logging back in.

See also

- Host interface feature
- hassign command on page 225
- hdelete command on page 227
- hdisplay command on page 228
- hfree command on page 231
- hispy command on page 229
- hlogin command on page 232
- hlogout command on page 233
- hsend command on page 235
- hspy command on page 236
- hstatus command on page 238

hsend command

The **hsend** command sends a file to the host via CVIS_ FTS.

Synopsis

```
hsend file=cs_file [dest=file_destination] [opt=option_list/n]
```

Description

The **hsend** command is used to send a file to the host via CVIS_ FTS. The arguments for the **hsend** command are described in the following table:

Argument	Description	Comments
file	A mandatory argument for the hsend command. The parameter is the full path name of the Solaris system file to be sent to the host.	—
dest	An optional argument, where *file_destination* is the final destination of the file at the host	If this parameter is not specified, the DESTINATION parameter value in the file **/vs/ data/ fts_ config** is used.
opt	An optional argument, where *option_list/n* is the list of option parameters or *n* (for no options)	Options must be separated by a space. If opt=n , the PARAM1, PARAM2, and PARAM3 values in the **/vs/ data/ fts_ config** file are not used. If this argument is missing (the default), the PARAM1, PARAM2, and PARAM3 values in the **/vs/ data/ fts_ config** file are used.

See also

- Host interface feature
- hassign command on page 225
- hdelete command on page 227
- hdisplay command on page 228
- hfree command on page 231
- hispy command on page 229
- hlogin command on page 232
- hlogout command on page 233
- hnewscript command on page 234
- hspy command on page 236
- hstatus command on page 238

hspy command

The **hspy** command displays a screen currently present on a specified host session.

Synopsis

```
hspy [session_number|range|all]
```

Description

The **hspy** command shows what screen currently is being presented on that specified session, a range, or all. One host session corresponds to one logical unit (LU). This information helps to isolate what screens might be involved in a problem, should one occur. This tool can help to resolve problems, but should not be the only source of problem isolation.

Example

The following example displays the screen currently be presented on session 0.

```
hspy 0
```

Output

A screen of data representing what is currently present on a host session is output by this command.

CAUTION:
This screen presents what the process that communicates with the host believes is present, but it may not be the actual screen present on that host session.

See also

- Host interface feature
- hassign command on page 225
- hdelete command on page 227
- hdisplay command on page 228
- hfree command on page 231
- hispy command on page 229
- hlogin command on page 232
- hlogout command on page 233
- hnewscript command on page 234
- hsend command on page 235
- hstatus command on page 238

hstatus command

The **hstatus** command shows the current status of the host sessions.

Synopsis

```
hstatus [host_application|session_number/range/all]
```

Description

The **hstatus** command reports the current status of the host application assigned to the associated host sessions. One host session corresponds to one logical unit (LU). The possible status states are described in the following table:

Status state	Description
Logging in	A temporary state indicating the session is in the process of logging in immediately after a manual **hassign** or **hlogin**
Logged in	This state occurs after a successful login. The session is ready to accept a transaction (the transaction base screen is reached).
Logging out	A temporary state indicating the session is in the process of logging out immediately after a manual **hlogout**
Logged out	Indicates that service is still assigned, but the session has been logged out
Recovering	Occurs if the login procedure fails, the transaction ends somewhere other than the transaction base screen, or the recovery procedure ends somewhere other than the transaction base screen
Unassigned	Indicates that service was never assigned to the session or service was assigned and later manually deleted
Not available	Indicates the session is not available for use
Free	Indicates the session was manually freed
Transaction	Indicates the session is currently involved with a transaction

This command is helpful in debugging problems with host applications and to check on the number of sessions actively involved on a call.

Example

The following example displays the current status of the host applications assigned to sessions 0 through 9.

```
hstatus 0-9
```

The following example displays the current status of all session numbers.

```
hstatus all
```

See also

- Host interface feature
- hassign command on page 225
- hdelete command on page 227
- hdisplay command on page 228
- hfree command on page 231
- hispy command on page 229
- hlogin command on page 232
- hlogout command on page 233
- hnewscript command on page 234
- hsend command on page 235
- hspy command on page 236

licenseQuery

The licenseQuery command displays the current licensing status for each feature. The licenseQuery -all command displays the current licensing status for licensed features and the number of ports available for other optional features.

Synopsis

```
licenseQuery

licenseQuery -all
```

Description

When the **licenseQuery** command is executed, a list is generated by the system with the information described in the following table:

Item	Description	Comments
Feature Type	Type of feature	Examples include: VALUE_IR_ASR_PORTS, VALUE_IR_TTS_PORTS. VALUE_IR_PORTS, VALUE_IR_SNMP
Prim Tot	Total number of Primary WebLM server ports licensed	For E1, T1 and VoIP, the total number of ports licensed on the Primary WebLM server
Prim Free	Total number of Primary WebLM server ports free	For E1, T1 and VoIP, the total number of ports free on the Primary WebLM server
Secondary Tot	Total number of Secondary WebLM server ports licensed	For E1, T1 and VoIP, the total number of ports licensed on the Secondary WebLM server
Secondary Free	Total number of Secondary WebLM server ports free	For E1, T1 and VoIP, the total number of ports free on the Secondary WebLM server
Feature Name	Full name of the feature	Examples include: Advanced Speech Recognition, Text to Speech, Digital and Voice over IP, Simple Network Management Protocol.

When the **licenseQuery -all** command is executed, a list is generated by the syetm with the information described in the following table:

Item	Description	Comments
Feature Type	Type of feature	Examples include: VALUE_IR_ASR_PORTS, VALUE_IR_TTS_PORTS. VALUE_IR_PORTS, VALUE_IR_SNMP, FAX, WW, DPR
NVRam	Number of ports licensed for the feature	For E1, T1 and VoIP, the number of channels
Prim Tot	Total number of Primary WebLM server ports licensed	For E1, T1 and VoIP, the total number of ports licensed on the Primary WebLM server
Prim Free	Total number of Primary WebLM server ports free	For E1, T1 and VoIP, the total number of ports free on the Primary WebLM server

Secondary Tot	Total number of Secondary WebLM server ports licensed	For E1, T1 and VoIP, the total number of ports licensed on the Secondary WebLM server
Secondary Free	Total number of Secondary WebLM server ports free	For E1, T1 and VoIP, the total number of ports free on the Secondary WebLM server
Feature Name	Full name of the feature	Examples include: Advanced Speech Recognition, Text to Speech, Digital and Voice over IP, Simple Network Management Protocol, Fax, Whole Word Recognition, Dial Pule Recognition

Note:

In the description field, *P implies there was an issue contacting Primary WebLM server. *S implies there was an issue contacting Secondary WebLM server. *n (where n can takevalues from 1- 8) implies there an issue with feature license . The error detail is given at the end of the output.

Files

The following file is associated with the **licenseQuery** command:

/vs/bin/util/licenseQuery.cfg

See also

- Feature licensing screen on page 377

logCat command

The **logCat** command reads the compressed logging files and outputs human-readable messages.

Synopsis

```
l          [-{t|b} lines] [-c] [-m]     # Simple
o         behaviors
g
C
a
t
```

```
[-a locant] [ -z locant]    #
Beginning and endings

[-s locant] [-q locant] [-R]    #
Selection of messages

[-P priority] [-o
{all|good|bad|comments}]

[-d data -l log-prefix |        #
Source of data

-L {cmpMsg} | file] [-r root]

[-f format] [-V]                #
Display options

[-w width] [-p continuation-prefix]

[-T textLogFmt] [-A
{s|c}:abbreviations]

[-B breakChrs] [-[U|H]]

[-v] [-D]                       #
Misc/debug options
```

Description

The **logCat** command reads in a file of compressed logging messages generated by **log** and expands them to a readable format.

The default action, with no arguments, is to list all log files of the type specified first in the Config file. For example:`logCat -d${LOGROOT}/data -l{primary-log-prefix}`. The options are described in the following table:

Option	Description
-t *lines*	Show the last lines of file
-b *lines*	Show the beginning lines of file
-v	Verbose – report information on files examined
-c	Continuously display last lines of file

-m	Meticulous time check. Normally the log file name and the creation date are used to determine the date of the file. If the creation dates have been corrupted, the -m flag causes the time stamp of the first message in each log file to be used instead of the name and modification date. This is slower than without this option, but more reliable.
-r *root*	Specify alternate *root* directory for ***textLogFmt*** file. The default is **\usr\spool\log**.
-a *locant*	Specifies the place to start printing
-z *locant*	Specifies the place to stop printing
-s *locant*	Search for specific patterns or times. There may be more than one **-s** specification.
-q *locant*	Search for specific pattern in raw unexpanded log data. This is much faster than -s for pattern searches, but only the variable portion of the log messages can be included in the search pattern. There may be more than one **-q** specification.
locant	One of two things, either a date/time stamp OR a search pattern. See Locants on page 245.
-w *width*	If lines are to be wrapped, this is the width at which the wrapping should take place. 0 means no wrapping and is the default. The width can also be supplied via the environment variable: LOGCOLUMN.
-p *continuation-prefix*	String to be appended to each continuation line. The default is no continuation prefix. The continuation prefix can also be provided via the environment variable: LOGCONTPREFIX.
-d *data*	Name of the directory to find the log files in. The data directory can be provided in the environment variable: LOGDATA. The default is: ***${LOGROOT}*/data**
-l *log-prefix*	Prefix of the log files to examine. Default: first log file in the Config file. The log-prefix can also be provided via the environment variable: LOGFILEPREFIX.
-L *cmpmsg*	If just one compressed message needs to be interpreted, the -L option can be used to pass a single compressed message to **logCat** as an argument for interpretation.
file	Explicit file to be displayed. If a hyphen (-), use standard input.
-f *format*	Format specification for printing messages. See Formats on page 247.
-V	Make control characters visible. They are printed as \X if they have a special C notation, otherwise as <NNN>, where NNN is the octal value.
-R	Specifies that search patterns in locants are being specified in the "regular" expression language, rather than in the "sh" meta-language.

-P *priority*	Selects messages by their priority. Priorities can be specified as a number or as the symbolic representations, - for E_NONE, M for E_MANUAL, * for E_MINOR, ** for E_MAJOR, and *C for E_CRITICAL. More than one -P can be specified if more than one priority is of interest. For example: -P 3 -P 4 # All E_MAJOR and E_CRITICAL messages. -P* -P *C # All E_MINOR and E_CRITICAL messages.
-o {all|good|bad|*comments*}	Display output options. By default only good messages are displayed. All comments and bad messages are skipped. Bad messages are those that cannot be expanded because the number of fields does not match the expansion format. Comments are blank lines or lines beginning with a '**#**'. Multiple items can be combined in a single -o option by separating words with commas. For example, "-o g,b,c" is equivalent to "-o a". If using **logCat** to move raw compressed messages (see the **-f "%C"** option), Avaya recommends that the **-o *comments*** be added so that comments in the input are not lost during the transfer.
-T *textLogFmt*	Specifies an alternate ***textLogFmt*** file to be used when expanding logging messages. This feature must be used carefully. The alternate ***textLogFmt*** file MUST be compatible, in terms of the number and order of fields for each message, with the **cmpLogFmt** used to log the messages.
-A {s|c}:*abbreviations*	Enable abbreviation translations using script found in the file ***abbreviations***.
-A o	Disable abbreviation translations. See description of abbreviations in Abbreviations on page 248.
-B *breakChrs*	The list of characters to be used as word separators. The default list is all white space and punctuation characters. If any abbreviations are between these characters, you must provide a modified list of break characters which excludes characters used to start abbreviations.
-U	Unhide hidden messages. This option displays all messages, including those being hidden by the **hideMsg** command.
-H	Enable the *hide* message feature. This option is used to toggle off the "-U" switch when it exists earlier on the command line or in the ***$HOME*/.logCatRC** file.
-D	Set debug flag, which causes locants to be printed at the beginning of the run and cause some statistics to be listed at the end of the run

The **logCat** command can take its options from ***$HOME*/.logCatRC**. This allows the user to tailor his or her **logCat** behavior without having to enter it on the command line each time **logCat** is used. Options in the **.logCatRC** file should be the same as they appear on the command line. The options that make most sense to put in the **.logCatRC** file are **-m -r -p -f -V -R -T -A -B -U** and **-D**.

Environment variables

Environment variables are checked whenever the related command argument is missing from the command line. If both the command argument and the environment variable are missing, the specified default is used.

The following table describes the environment variables:

Environment variable	Description	Comments
LOGROOT	The directory in which the **textLogFmt**, containing the expansion formats, is found	Also, the directory in which the **data** directory is found if LOGDATA is not specified
LOGDATA	The directory in which the log data files are to be found	The default is ***${LOGROOT}*** **/data**
LOGFORMAT	The format in which to print the log messages	The default is **%P %T %N %S:%L n%M**
LOGCOLUMN	The column at which to wrap long expansions	The default is 0, meaning do not wrap long messages
LOGCONTPREFIX	The string to be prepended to continuation lines when long lines are being wrapped	The default is no prefix
LOGFILEPREFIX	The logfile prefix to be examined when no **-l** argument is specified	If neither a **-l** argument is specified nor LOGFILEPREFIX set, the first log destination in the Config file of the type L is used

Locants

Locants may be either date/time specifications or search patterns. Dates can be any of the standard human readable forms: mm, dd, yyyy, mm/dd/yy, mm-dd-yy, and so on. The time is hh:mm:ss. It is also possible to specify the separate elements as: sec=nn, min=nn, hour=nn, mday=mm, mon=nn or mon=mmm, year=nn[nn], wday=n or wday=ddd, yday=nnn.

Dates and times are interpreted with some degree of intelligence and flexibility. A date without a time is assumed to mean *midnight* of the specified date, that is, *Oct. 11, 97* and *10/11/97* are assumed to be *10/11/97 00:00:00*. A month and a day without a year are assumed to be in the current year unless this would put it more than one month in the future, when it is assumed to be the previous year. For example, assuming that it is currently *Mar. 3, 98*, if you specify *02/15*, it is assumed to be *02/15/98*. If you specify *11/3*, it is assumed to be *11/03/97*, since *11/03/98* would put it more than one month in the future, which is unlikely to be what the user had intended. You can force the proper interpretation of any date by fully specifying it, in other words, adding the day of the month and the year.

If the *item=xxx* form is used, all elements not specified default to *, hence *wday=Sun* means all messages on any Sunday.

WARNING:
Do not mix standard format with the *item=xxx* format. The results are unpredictable.

Spaces should be enclosed in quotes, such as `-a"7/14/87 05:08:30"`. Search patterns are enclosed in forward slashes (/), with an optional repetition count following, such as -z/GEN006/2 means the second message containing *GEN006*. The repetition count has no meaning with the **-s** or **-q** locant, but does for the **-a** and **-z** locants.

You can reverse the meaning of locants by preceding them with an exclamation point (!), for example `"-s!/{pattern}/"` means everything that *does not* match the pattern. Normally **-s** and **-q** locants logically OR together if there is more than one. It is possible to AND them together be adding a plus (+) sign immediately following the s or *q* for the second and subsequent locant that is to be OR'ed together. For example: `"-s/GEN006/" "-s+!/New York/"` would mean "on messages containing GEN006, but *not* containing New York." It is also possible to apply search locants to specific fields of a message by specifying a synthetic field and an equal sign prior to the search pattern. For example: `"-s@sym@=!/LG_BADARGS/"` means all messages that aren't of type LG_BADARGS.

The search capability supports two different languages. The default language is compatible with the standard *sh* syntax and supports the meta-search constructs shown in the following table:

Construct	Description
^	Beginning of message
$	End of message
*	Any number of unspecified characters
?	A single unspecified character
[xxx]	Any character in the list xxx
[!xxx]	Any character NOT in the list xxx
chr	Normal C backslash conventions, \n \t \b \f \r \NNN \\ \[

The second search language uses the standard *regular* expression syntax. It is in effect when the **-R** flag is specified. It supports the constructs shown in the following table:

Construct	Description
^	Beginning of message
$	End of message
.	A single unspecified character

[xxx]	Any character is the list *xxx,* where *xxx* may include ranges of characters: A-Z, and so on
[^xxx]	Any character NOT in the list *xxx*
chr*	Any number of occurrences of *chr* including 0
chr+	Any number of occurrences of *chr* with a minimum of 1
chr{m,n}	From *m* to *n* occurrences of *chr*
\chr	Normal C backslash conventions, \n \t \b \f \r \NNN \\ \[
(pat)	Parentheses serve to group portions of a pattern. {pat} can be any legal pattern of its own. The asterisk (*), plus (+), and {m,n} operators can be applied to the entire grouping within the parentheses, that is, *([bB]ob)*+ means one or more occurrences of *bob* or *Bob*.

Formats

The basic format of the message can be controlled in a number of ways. The **-f** option or the LOGFORMAT environment variable specify the format using the following special sequences to specify the various parts of a message. The default format is: "%P %T %N %S:%L\n%M".

The formats are described in the following table:

Format	**Description**
%P(...)	Priority level format: %d or %s
%T(...)	Time level format: all options supported by **date** cmd. There is also an additional format, %u, which is the Unix time printed as an 8-digit hexadecimal number.
%N	Name of process
%S	Sourcefile name
%L	Line number
%M(%r[={sepChr}])	Message text. If *%r* is specified, the fields of the message are not expanded, but just entered raw. If a separator character is specified, it is placed between each raw field. If it is not specified, the *FS* character is placed between each field and a *GS* character is placed after the last field, which is just the way the fields would appear in the compressed logging files.
%C	The entire compressed message
%%	% character
\{chr}	Standard C backslash conventions

...	All other characters are printed as-is

@{synthetic-fields}@

Synthetic fields are alternate names for %P, %T, %N, %S, %L, and %M fields, but they also give access to specific fields within the %M field by name or index. The legal synthetic fields are described in the following table:

Synthetic field	Description
@index@ OR @id@ OR @i@	The absolute index of the message
@symbol@ OR @sym@ OR @s@	The symbolic name of the message
@class@ OR @c@	The class of the message
@classIndex@ OR @ci@	The index of the message within its class
@priority@ OR @pri@ OR @p@	Priority of the message in %s format
@time@ OR @t@	Equivalent to %T. These may be followed by specifiers like *.sec*, *.hour*, *.mon*, and so on, to get a specific part of the time.
@program@ OR @prog@	Equivalent to %N
@file@	Equivalent to %F
@line@	Equivalent to %L
@field@[xxx] OR @f@[xxx]	Where *xxx* is either a numerical index of the field or the symbolic name of the field
@message@ OR @msg@ OR @m@	The fully expanded message
@cmpmsg@	The original compressed message

Abbreviations

It is possible to translate common abbreviations immediately. The **-A** option controls this behavior.

Abbreviations and acronyms can be translated using a translation script. The feature is turned on with the **-A {c|s}{*abbreviations*}** option. It can be forced off, if it is enabled via the environment variable, via the **-A *a*** option.

The file **abbreviations** is the source of the translations. Translations are done in one of two forms: simple, denoted by **s**, or complex, denoted by **c**. In simple translation mode, each abbreviation found in a message is translated directly to the specified alternate form in the **abbreviations** file. In complex mode, each abbreviation found is translated into *translation* (*abbreviation*). For example, if the translation is:

```
btw "by the way"
```

and the message is:

```
btw, an error occurred
```

in simple translation mode, the message is printed as:

```
by the way, an error occurred
```

while in complex translation mode, the message is printed as:

```
by the way (btw), an error occurred
```

All translations are done by the Avaya Recognizer. If the Recognizer does not match the acronym, no translation takes place.

An abbreviations file is a file containing two word couplets. Any line beginning with '#' is ignored and all blank lines are ignored. If either the abbreviation or the translation includes white spaces, it must be enclosed in quote characters as shown in the example above.

The abbreviations capability can also be enabled by setting the environment variable: LOGABBREVIATIONS=*M*:*file*, where *M* is either *s* or *c*, and *file* is the name of the file.

logDstPri command

The **logDstPri** command creates the shared memory containing the dynamic destinations and priorities of logging messages using the *logMsg()* interface.

Synopsis

```
logDstPri [-H {dir}] [-c] [-v] [-d] [-x {cnt}] [rules]
```

Description

The **logDstPri** command reads an ASCII rules file, and sets up a shared memory segment using the information in the rules file. This is so that any process in the system using the **logMsg ()**, **vlogMsg ()**, or **logSysError ()** library calls can determine the appropriate priority and logging destinations for each message they send.

By default, the rules files are expected to appear in ***${LOGROOT}*** **/msgDst.rules**, where ***${LOGROOT}*** is **/vs/spool/log**. By default, the header files used to translate ASCII names of message indices into numbers are expected to appear in the directory ***${LOGROOT}*** **/head**. An alternate directory for the header files can be specified on the command line via the **-H** option. An alternate rules file can be specified as a file name on the command line.

After changing the rules file, Avaya recommends that you check the rules before they are put into service. The **-c** flag causes **logDstPri** to read the rules file and report any rules that are misformatted or not understood. The return value from **logDstPri** is the number of errors detected.

To see the error complaints and install the rules all at once, specify the **-v** flag. This causes the verbose complaints to be generated. The **-c** flag implies the **-v** flag.

When **logDstPri** is resetting the values in shared memory, as opposed to creating the shared memory for the first time, you can delete the old shared memory and create a new segment by specifying the **-d** flag. Do not use the **-d** flag on a running system because any process that is already using the old shared memory continues to use it even after it is *deleted*. This means that two different rules files might be in force at the same time. It may be necessary to specify the **-d** flag if a large number of new messages have been added to the rules file. Currently, **logDstPri** creates the shared memory 200 entries larger than the highest logging message index found it its rule file. This means that as long and the new rules file does not go beyond 200 entries higher than the current highest entry, everything is okay. You can alter the number of extra entries by specifying the **-x** option.

The shared memory segment is keyed off the inode of the rules file and the define symbol LDP_KEY, defined in **log/head/logDstPri.h**. The library routine **ftok({*file*} ,LDP_KEY)** is used to generate the shared memory key.

Files

The following files are associated with the **logDstPri** command:

- **${LOGROOT}** – Default is **/usr/spool/log**
- **${LOGROOT}/msgDst.rules** – The message priority and destination file
- **${LOGROOT}/head/*.h** – Header files used by the logging system

See also

- logCat command on page 241

logEvent/logMsg command

The **logEvent/logMsg** command allows shell scripts to log a specific message.

Synopsis

```
logEvent script msg dst pri srcFile srcLine [arg1 ...]
logMsg script msg srcFile srcLine [arg1 ...]
```

Description

The **logEvent/logMsg** command allows shell procedures to log messages using specific messages. This is as opposed to the **logit** command, which generates messages within the logging system, but which always uses SYSMSG as the message format for the messages it generates. The **logEvent** command emulates the **logEvent( )** library routine, while the **logMsg** command emulates the **logMsg( )** library routine.

The **logEvent** command requires a destination and a priority when it is called, and messages logged via this interface are explicitly logged to the specified destinations and at the specific priority.

The **logMsg** command does not take a destination mask or a priority. It gets these pieces of information from the logging destination and a priority shared memory maintained by the **logDstPri** command via the **/usr/spool/log/msgDst.rules** file.

Both **logEvent** and **logMsg** require that the proper number of arguments be supplied for the specified message, and that numeric arguments in the message format match pure numbers from the argument list. For example:

```
   GEN012 OUT_OF_RANGE %D<<value,D>> is out of range \ for
%s<<arg,S>> in %s<<routine,S>>.
```

This format requires that the first argument be a number, therefore,

```
   logMsg XXX LG_OUT_OF_RANGE – yes var compute
```

would fail because *yes* is not a number, while

```
   logMsg XXX LG_OUT_OF RANGE – 10 var compute
```

would not fail.

The command line arguments are described in the following table:

Argument	Description	Comments
script	Name of the shell script for which the message is being logged.	Normally, this is either **basename$0** or in ksh **${##*/}**.
msg	The symbolic name of the message, for example: LG_OUT_OF_RANGE	—
dst	The bit mask specification of where the message is sent	This is only used with the **logEvent** command. It may be a number or symbolic destinations, as specified in **msgDst.rules**. If more than one symbolic destination is specified, they should be concatenated with a plus sign (**+**), for example, `stderr+log`

pri	The priority of the message	This is only used with the **logEvent** command. It may be any of the following: • *0* (- or NONE) • *1* (M or MANUAL) • *2* (* or MINOR) • *3* (** or MAJOR) • *4* (*C or CRITICAL)
srcFile Q	The name of the file from which the **logEvent** or **logMsg** command is being issued	If you do not care, you may use a hyphen (-). Supplying the correct value is of value for debugging purposes, particularly if a script might generate at the same message from more than one place. If there are many individual functions within your script, you might find it advantageous to use the name of the function instead of the file.
srcLine	The line within the file from which the **logEvent** or **logMsg** command is being issued	If you do not care, you may use a hyphen (-). You might use **$LINENO** from the ksh environment, which is the line with the script or within a function.
arg1	For each argument required by a specific message format, one argument is required	The size and type of the argument must be appropriate: • *%s* (takes any kind of argument) • *%d %u %o %x %X* (argument must be a pure integer type number, for example: *10*, *5*, *0177*, *0x8e*) • *%f %e %g %E %G* (argument is interpreted as a pure floating point number, for example: *15*, *15.3*, *1.56E3*) • *%c* (argument must be a single character, for example: *x*, *5*, *%*)

See also

- logCat command on page 241
- logit command on page 255
- logDstPri command on page 249

logFmt command

The **logFmt** command displays and changes the parameters used to display messages and explanation texts, specifically the messages mnemonics and screen width.

Synopsis

```
logFmt [global] [display | interactive | {opt}={value}...]
```

Description

Each logging message has a class name and a mnemonic name associated with it. A class name, for example ADMIN001, is the combination of the name of the class, for example, ADMIN, and the index of the message within the class, for example, 001. The mnemonic name is a short composite string of characters that identifies the type of logging message. The mnemonic name for ADMIN001 is ADMIN_MSG. By default the mnemonic names of messages are not displayed when the **display messages** command is used to examine the logging files. If you want the mnemonic message names to appear, **logFmt** allows you to alter the system so that they either appear for everyone by default or appear for you specifically.

You can also adjust the width of the screen display. By default the screen width is set to 75 characters. If you have a wider screen, you may wish to specify that more of the screen be used to display messages.

The **logFmt** command line arguments are described in the following table:

Argument	Description	Comments
global	Modifier that causes the action specified to operate on the "global" (system wide) parameters that control the behavior of **display message**	You must be *root* if you want to change the global parameters. You can examine the global parameters without being *root*.
display	Verb that causes **logFmt** to display the current parameters	If *global* is specified, the system-wide parameters are displayed. Otherwise, your personal parameters are displayed.
defaults	Specifying *defaults* without the *global* option causes your personal preferences pertinent to mnemonics and screen width to be removed. You get the system-wide settings. Specifying *defaults* with the *global* option causes the system-wide settings to be reset so that mnemonics are off and the default screen width is 75 characters.	—

interactive	Interactively prompts for the parameters controlled by **logFmt**	Pressing **Enter** in response to any query causes the current value to be retained. The current value is displayed within square braces (*[ ]*).
mnenonics=enable	Causes mnemonics to be displayed when logging messages are examined with **display messages**	—
mnemonics=disable	Causes mnemonics to not be displayed when logging messages are examined with **display messages**	—
width=*NN*	Causes the screen width to be set, where *NN* is between 40 and 199 columns	The default setting is 75. Do not attempt to set the screen width to a value wider than your screen can actually handle, or the display is unpleasant when using **display messages**.

When mnemonics are enabled, they also show up when the **explain** command is used to examine the description of a message. Whether mnemonics are enabled or not, the mnemonic name can always be used to select an explanation using the **explain** command.

Files

/vs/data/logFmtParms – Global parameters file

***${HOME}*/.logFmtParms** – User's parameter file

/usr/spool/log/textLogFmt – Current default expansion format file

/usr/spool/log/textLogFmt.Mne – Expansion file with mnemonics

/usr/spool/log/textLogFmt.NoM – Expansion file without mnemonics

Examples

The following example enables the mnemonics. This affects only you, and overrides the system-wide setting.

```
logFmt mnemonics=enable
```

The following example sets the system wide default so that mnemonics are not displayed. Any user wishing to see mnemonics must personally enable mnemonics. You must be *root* to execute this command.

```
logFmt global mnemonics=disable
```

The following example displays the system wide settings for mnemonics and screen width.

```
logFmt global display
```

The following example sets your personal screen width to 130 characters when displaying messages using **display messages** .

```
logFmt width=130
```

See also

- display messages command on page 194
- explain command on page 207

logit command

The **logit** command logs the specified message in the logging files.

Synopsis

```
logit [-p {priority}] [-d {destinations}] message...
```

Description

The parameters for the **logit** command are described in the following table:

Parameter	Description	Comments
-p {*priority*}	Specifies the priority of the message being logged	Options are: • *none* (default) • *manual* • *minor* • *major* • *critical*

-d {*destinations*}	Specifies the destinations to which the message is to be sent	By default MASTER_LOG is always included. The destination can be specified as either a number (for example, 0x11) or as a series of symbolic names separated by a plus sign (+), using the following list: • MASTER_LOG • SYSDBH • SCREEN • SYSCONS • ALERTERMSGS

See the **config** and **/vs/spool/log/head/log.h** file for definitions. The symbolic names can be abbreviated to the shortest string that uniquely identifies one of the symbolic names.

Example

```
logit -d MASTER_LOG+ALERTERMSGS+0x40
```

logTest command

The **logTest** command reads a script of logging messages to be sent to the logdaemon and sends the messages at the specified times and as the specified process.

Synopsis

```
logTest [-s dir ] [-v] [-x] [file...]
```

Description

This command allows a repeatable sequence of messages to be sent through the logging and alerting system for test purposes.

Parameters for this command are described in the following table:

Parameter	Description	Comments
-s *dir*	Specifies the directory in which the **systemLog.h** file resides	—
-v	Increases verbosity when processing messages	—
-x	Supresses transmission to the logdaemon	Automatically implies **-v** so that something happens

The format of the messages to **logTest** is:

```
{interval} {dst} {priority} {process} {index} [arg arg...]
```

The parts of a message are described in the following table:

Message part	Description	Comments
interval	Number of seconds since the last message was logged	—
dst	Destination flag based on possible destinations specified by the **Config** and **log.h** files	Should be a numeric value, such as 0x01
priority	Priority of the message	Values range from 0 to 4
process	Name of the process to be listed as sender	—
index	Index of log message	This can be: • An absolute numeric value • A symbolic value of the form *log MODULE (index*), for example `logGEN(20)` • A symbolic form, such as the symbolic names found in the **logCLASS.h** header files, for example `SYSMSG`
arg arg ...	Arguments associated with the message	Number of arguments must match the number required by the specific log message or the resulting information in the logging data file is not expandable

Note:
To use symbolic values, **logTest** must have access to the **systemLog.h** file.

mirror_admin command

The **mirror_admin** command administers the Disk Mirroring feature.

Synopsis

```
mirror_admin setup|cleanup|repair|detach|replace
```

Description

You must stop the voice system before running the **mirror_admin** command.

Note:
The detach and replace parameters should be used only to replace a hard disk drive that has failed.

Parameters for the **mirror_admin** command are described in the following table:

Parameter	Description
setup	Verifies that the disks have identical geometries. Sets up disk mirroring by creating the state database replicas (disk configuration and state information) and configuring the submirrors. Synchronizes the primary and secondary disks by copying data from the primary disk to the secondary disk.
cleanup	Reverses the setup process by detaching and removing the submirrors and returning the disk configuration to its original (not mirrored) state.
repair	Checks the status of all submirrors and synchronizes the disks if maintenance is needed.
detach	Detaches the specified submirror. You will be asked to specify the submirror to detach after you run the `mirror_admin detach` command. This command should be used only to detach the submirrors from a failed hard disk drive.
replace	Creates default partitions on the specified disk and synchronizes the disks. You will be asked to specify the disk to replace after you run the `mirror_admin replace` command.

See also

- Disk mirroring feature

mkheader command

The **mkheader** command allocates user memory for script variables.

Synopsis

`mkheader` *`application_name`*

Description

The **mkheader** program creates an address in user memory for each script variable. This information is stored in an ***application_name* def.h** header file and is used in naming both the output file and the allocation program. The joint usage of the same header file enables the script to interact with the transaction state machine (TSM). The **-e** option specifies exact string matches.

The **mkheader** program prompts an operator to enter three types of information at the system console. The information may be entered interactively or batched together in a single file. Interactive entries are ended by entering **CTRL+D**. The system prompts for:

- Variable names
- Header file names in order of dependency
- Structure names with header file locations

When **mkheader** is entered with an argument (limited to 7 characters) for *application_name*, an ***application_name* def.h** header file is created for the output information. The **mkheader** program prompts for three types of information that it uses in producing the output file. The **mkheader** program prompts the operator for the name of one of the variables: **char**, **int**, or **short**. Note that **char** is the only variable that requires a length (default = 1). The **mkheader** program allocates space for the variables at the beginning of the allowable user memory and places this information in the newly created header file.

The **mkheader** command prompts the operator to enter header files that are needed to make the files covered in the third section compile. They should be named in the order of dependence. For example, if information in the header file **b.h** is needed by the header file **a.h**, header file **b.h** must be entered before header file **a.h**.

Full pathnames must be given. The file **mesg.h** and the structure **mbhdr** are common to all scripts and are entered automatically.

The header files can be stored in a batch file. The batch file could contain the following header files:

```
#include "/att/msgipc/dbcom.h"
#include "/att/include/shmemtab.h"
#include "/att/msgipc/tsm stop.h"
#include "/att/msgipc/cdata.h"
```

The last prompt is used for allocating the space for each structure. The operator is prompted to enter each header file name and its structure names. For each header file, the operator enters *all* (if all structures are needed) or specific structure names.

The **mkheader** command recursively allocates memory and produces ***application-name* def.h** defines for structure members that are themselves structures (except for struct mbhdr).

As a shortcut, the input for the three prompts may be stored in another file (data file) and read in each time. For example:

```
mkheader application_name < data file
```

Once the header files have been entered, mkheader writes a program called ***application_name_* aloc.c** to allocate the rest of user memory. The resulting source code is automatically compiled, using **mkheader.a** library functions, and executed. This adds the remaining structure definitions to the

***application_name* def.h** header file. TSM does not allow a script to use more than 50,000 bytes of user memory. Scripts that exceed this limit are not run when data beyond the limit are accessed.

Files

The following files are associated with the **mkheader** command:

- **/vs/bin/mkheader**
- **/vs/bin/vrs/mkheader.a**

Examples

The following are examples of the prompts and the output for the mkheader program. This example shows a user who needs some space for 20 characters, 2 integers, and a short variable. The user also needs to have space declared for a structure called dowj, which is used by the script. The header file is found in **/att/msgipc/tsmdipappl.h**.

In the example, the structure size of SZDOWJ is 16, which is automatically supplied by **mkheader**.

console input: `mkheader application_name`

```
FIRST PROMPT: Type in the variables you need space for according
to the following format:

type name [length]

Example 1: int yn
Example 2: char dg 20

(End input with CTRL-D)

Variable?: char dg 20
Variable?: int yn
Variable?: short cid
Variable?: int iom

Variable?: (CTRL-D)

SECOND PROMPT: Please enter any dependency files that the header
files in the next section will need in order to compile. Use
full path names. (End input with CTRL-D)
File name? /u/factory/file.h
File name? (CTRL-D)

THIRD PROMPT: Enter the header file name and structure names
needed to create the def.h file. Use full path names. (End
input with CTRL-D)
Header file?: /att/msgipc/tsmdipappl.h
```

```
Structures or all?: dowj
Header file?: (CTRL-D)

Compiling: application-name aloc.c
Running: application-name aloc
Output is called: application-name def.h
```

The following is the final **application-name def.h** file produced by this example.

```
/*****PRE-ALLOCATION OF USER SPACE *****/

#define DG:0
#define YN:20
#define CID:24
#define IOM:26

/***** DOWJ STRUCTURE *****/

#define DOWJ:30
#define RCODE:30
#define TIMEDATE:31
#define CATNUM:42
#define MKTSTAT:43
#define DOWHOUR:44
#define SZDOWJ:16
```

In the second example, the command line includes a data file from which the system gets the information usually entered by the users in response to system prompts.

The data file, called **data** in this example, contains the following information:

```
char name 20
int answer
short reply
^D
/att/include/shmemtab.h
^D
/att/msgipc/cdata.h
Day_pntr cdata
^D
```

The following is displayed on the screen:

```
Interactive Response% mkheader test6 < data
Type in the variables you need space for according to the
following format:
type name [length]

Example 1: int yn
Example 2: char dg 20

(End input with CTRL-D)
```

```
Variable?:
Variable?:
Variable?:
Variable?:

Please enter any dependency files that the header files in the
next section will need in order to compile.
Use full path names.
(End input with CTRL-D)

File name?: File name?:

Enter the header file names and structure names needed to create
the def.h file. Use full path names.
(End input with CTRL-D)
Header file?: List of structures or all?:Header file?:

Compiling /usr/has/another/test6_aloc.c

Running /usr/has/another/test6_aloc

Output is called /usr/has/another/test6def.h

I am now checking for any duplicate defines that will cause
problems

The following is the contents of the test6def.h file:

/******* PRE-ALLOCATION OF USER SPACE *******/

#define NAME:0
#define ANSWER:20
#define REPLY:24

/******* DAY_PNTR STRUCTURE *******/

#define DAY_PNTR 26
#define FILE_FIRST 26
#define REC_FIRST 28
#define FILE_LAST 30
#define REC_LAST 32
#define SZDAY_PNTR 8

/******* CDATA STRUCTURE *******/

#define CDATA 34
#define SCRIPT 34
#define CHAN 50
#define EQUIP 52
#define STARTTIME 54
#define STOPTIME 58
#define EV0 62
#define EV1 66
#define EV2 70
```

```
#define EV3 74
-:
-:
-:
#define EV96 446
#define EV97 450
#define EV98 454
#define EV99 458
#define SZCDATA 428
```

Make sure that all variable names are unique without respect to case because lower case letters are changed to upper case for the final output.

msgadm command

The **msgadm** command provides an interface to the Avaya IR logger and alerter administrative files.

Synopsis

`msgadm [-e] [-f [command_file|-]|command]`

Description

Commands to **msgadm** can be specified individually on the command line using the **msgadm** command, or they can be multiply specified as input from a file or standard input using the **-f** flag and a file name argument, as in `msgadm -f filename` or `msgadm -f` for file input and standard input respectively. The **-e** flag forces **msgadm** to write $EOT after completing each operation, resulting in command output to standard out.

Each command may require one or more of the arguments described in the following table:

Argument	Description	Comments
message_ID	A member of the set of system message IDs that includes all those whose message class is indexed through the **systemLog.h** file and whose mnemonics appear in a configured **log *XXX* .h** file	—
priority	A priority tag as defined with the **$priority** operator in the **/vs/spool/log/msgDst.rules** file	To see the list of priority tags configured with the system, enter **msgadm priorities**

time	A non-zero positive integer with unit suffix indicating time in seconds if suffixed by **s**, minutes if suffixed by **m**, or hours if suffixed by **h**	—
dst	The set of destination tags defined in the **/vs/spool/log/msgDst.rules** file through the **$destination** operator	To see the list of destination tags, enter **msgadm destination**. Note that only the latest destination specified in the **/vs/spool/log/msgDst.rules** file is recognized.
threshold	A non-zero positive integer that indicates a threshold value	—

The following form sets the priority of message_ID to *priority* if *message_ID* is already in the **msgDst.rules** file. If *message_ID* does not exist, an entry is created with the indicated priority and the default destinations.

```
msgadm set message_ID priority priority
```

In the following form, if **add** is specified and *message_ID* exists in the **msgDst.rules** file, a new destination entry is added to the file. If the entry does not exist, a new entry is created with the default destination plus the specified destination. The priority is set to the default priority. If *delete* is specified, *dst* is removed from the destination set for *message_ID*. The log or MASTER_LOG destination cannot be removed from a message.

```
msgadm [add|delete] message_ID destination dst
```

The following form sets the threshold window time of threshold *message_ID* to *time*. If no threshold structure has been created for *message_ID*, one is created with a threshold of 100, and threshold message is set to THR01.

```
msgadm set message_ID window time
```

The following form adds a *threshold* / *thres_message_ID* pair to the **thresh.rules** file. If no entry for *message_ID* exists, an entry is created with a threshold window of one hour.

```
msgadm add message_ID threshold threshold message
thresh_message_ID
```

In the following form, the threshold associated with *message_ID* of threshold value *threshold* is deleted. If delete is specified and *threshold* is the last threshold for *message_ID*, the entire threshold structure is removed for that message.

```
msgadm delete message_ID threshold threshold
```

The following form lists all administrative parameters associated with *message_ID* or all system messages if *all* is specified.

```
msgadm display [message_ID |all]
```

The following form outputs the default list of message priorities.

```
msgadm priorities
```

The following form outputs the default list of message destinations (since all messages are sent to the lot destination, the lot destination is omitted from the list).

```
msgadm destinations
```

The following form outputs the set of threshold messages.

```
msgadm thresholds
```

The following form makes all changes made through previous calls to **msgadm** take affect in the live logger/alerter system. If *sync* is not used, you must reboot the system to make changes take effect.

```
msgadm sync
```

The following form forces **msgadm** to read from **input_file**, or standard *in*, if the hyphen (*-*) is specified. The expected input is **msgadm** command line arguments as defined above. One complete set of command-line arguments is expected per line. Errors in the input result in no changes to the logger/alerter configuration files, regardless of where the error occurred in the input.

```
msgadm -f [input_file|-]
```

Examples

The following example sets the priority of message VROP003 to critical. The string *C is quoted to protect it from the shell.

```
msgadm set VROP003 priority '*C'
```

The following example adds a threshold of 10 with a threshold message of THR001 to the thresholding structure for the VROP003 message. It is assumed that THR001 is a valid message ID.

```
msgadm add VROP003 threshold 10 message THR001
```

The following example displays the message administration parameters associated with message TTS009:

```
   msgadm display SPIP001

Message Id: TTS009 (TTS_MGRFAIL)
Message Priority: **
Message Destinations: log|alarm|maint
```

Flag:

```
Threshold Period: 1h
Message Thresholds:
Threshold   Threshold Message Id
---------   -------------------
1000 THR003 (THRESH_MAJOR)

Action Command:

Message Text:

TTS009 - - -- (TTS_MGRFAIL) Failed to create TTS proxy manager.

Source: %s Reason: %s
```

The following example shows the use of the file input mechanism. It sets VROP003 to priority *None*, denoted by a hyphen (-), changes its destination from the alarm to the event, and removes its thresholding structures (if any exist). It sets the priority of TSM002 to "*C" (Critical), assuming "*C" is defined in the **msgDst.rules** file, and makes the changes take effect in the current environment through the *sync* directive.

```
message -f - <<!
set VROP003 priority -
delete VROP003 destination alarm
add VROP003 destination event
delete VROP003 threshold 10|
delete VROP003 threshold 100
set TSM002 priority '*C'
sync
!
```

See also

- explain command on page 207
- display messages command on page 194
- Message administration feature
- Message administration screens on page 387

mode command

The **mode** command is used to display the current mode of the system.

Synopsis

```
mode
```

Description

The **mode** command displays the current mode of the system. The mode of the system is also displayed immediately after logging into the system.

Files

The following file is associated with the **mode** command:

/vs/bin/util/mode.cfg

See also

- Web LM licensing

newscript command

The **newscript** command updates the changes to all currently assigned scripts.

Synopsis

```
newscript
```

Description

The **newscript** command notifies the TSM and CDH processes that an existing script in the **/vs/trans** directory has been changed. After **newscript** is run, TSM reloads all scripts from disk the next time it is run instead of using a copy in the system memory.

Files

/vs/bin/util/newscript

Example

The following example notifies the TSM and CDH processes that an existing application in the directory **/vs/trans** has changed.

```
newscript
```

nms command

The commands **nms assign**, **nms change**, **nms display**, and **nms unassign** let you administer digital protocols on the NMS telephony cards.

Synopsis

nms assign

```
card=<card #>
protocol=prit1|prie1|loopt1|loope1|winkt1|r2mfce1

trunks=1[,2][,3][,4]enabledchannels=<0 to 128>

priside=USER[NETWORK]

[frametype=D4|ESF|CEPT] [linecode=AMI|AMI_ZCS|B8ZS|HDB3]
[crc=0-15]

[idlecode=01010100|01010101|11111111] [length=0-655]
[fax=y|n]

[isdntype=4ess|5ess|nortel|national|ntt|etsi|qsig]

[clktrunk=1|2|3|4] [clkfallback=1|2|3|4|none]

[clksrc=NETWORK|OSC] [clkmode=STANDALONE]

[country=arg|bra|can|chl|chn|col|deu|fra|gbr|hkg|idn|ind|
irl|ita|jpn|kor|mex|mys|phl|sel|sgp|tha|usa]

[dchannel1=y|n] [dchannel2=y|n] [dchannel3=y|n]
[dchannel4=y|n]

[overlap_rcv_to=0-14] [overlap_rcv_dnis=0-30]

[mfc_did_digs=0-30] [mfc_ani_digs=0-30]

[wnk_num_digs=0-30]

[blockwaittime=millisecs]

[ccb_method=none|doubleanswer|groupIIsig8]

[wink_delay=500-1500] [wink_duration=500-2500]

[impedance=120|75]
```

nms change

```
card=<card #>

trunks=1[,2][,3][,4]

protocol=prit1|prie1|loopt1|loope1|winkt1|r2mfce1

[frametype=D4|ESF|CEPT] [linecode=AMI|AMI_ZCS|B8ZS|HDB3]
[crc=0-15]

[idlecode=01010100|01010101|11111111] [length=0-655]
[fax=y|n]

[isdntype=5ess|nortel|national|ntt|etsi|qsig]
```

[clktrunk=1|2|3|4] [clkfallback=1|2|3|4|none]

[clksrc=NETWORK|OSC] [clkmode=STANDALONE]

[country=arg|bra|can|chl|chn|col|deu|fra|gbr|hkg|idn|ind|irl|ita|jpn|kor|mex|mys|phl|sel|sgp|tha|usa]

[dchannel1=y|n] [dchannel2=y|n] [dchannel3=y|n] [dchannel4=y|n]

[overlap_rcv_to=0-14] [overlap_rcv_dnis=0-30]

[mfc_did_digs=0-30] [mfc_ani_digs=0-30]

[wnk_num_digs=0-30]

[blockwaittime=millisecs]

[ccb_method=doubleanswer|groupIIsig8|none]

[wink_delay=500-1500] [wink_duration=500-2500]

[impedance=120|75]

nms display assignments

card=<*card #*>

nms unassign card=<*card #*>

Description

The following table describes the arguments for these commands:

Argument	Description	Comments
card	A number that identifies a telephony card	—
protocol	The digital protocol used on the card	Options include: *prit1* (ISDN-PRI T1), *prie1* (ISDN-PRI E1), *loopt1* (Loop Start T1), *loope1* (Loop Start E1), and *winkt1* (Wink Start T1), and *r2mfce1 (*R2MFC) For DID and ANI, R2MFC options include: *mfc_did_digs* (anticipated number of DID digits), *mfc_ani_digs* (anticipated number of DID digits). Up to 30 digits may be specified. **Note:** Whenever possible, match the number of digits specified to the number that will actually be received. If fewer digits are received that what is specified, long pauses may occur before the call receives a response.

trunks	The number of trunks present on the telephony card.	—
enabledchannels	The number of channels that have been enabled.	Values from 0-128
priside	The side from which you want the PRI protocol to function.	Set it to user if you want your Avaya DEFINITY or MultiVantage system to behave as the network. Set it to network if you want your Avaya DEFINITY or MultiVantage system to behave as the user.
frametype	The frame format	—
linecode	A replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM)	Options include *AMI*, *AMI_ZCS*, and *B8ZS* for ISDN-PRI T1
idlecode	The code used in digital communications that represents an absence of data	Options include 11111111, 01010100, and 01010101
crc	Cyclical Redundancy Checking (CRC) is an error checking technique that is used to ensure the accuracy of digital transmissions over a communications link.	Values from 0 to 15. Applies only to ISDN-PRI E1, Loop Start E1, and R2 MFC E1. See the following table for the binary equivalent for each decimal value. The binary equivalents represent the sixteen possible values of CRC enabled or disabled for as many as four E1 trunks.
length	The length of the cable between the telephony board and the telephone network	This value should only be changed if the length is more than 200 feet or if there are transmission problems. Applies only to T1.
fax	Whether or not fax is enabled	—
isdntype	The type of the ISDN service	Applies only to ISDN-PRI T1 and E1. Options include 4ess, 5ess, nortel, national, ntt, etsi, and qsig.
clktrunk	The trunk that the card uses to set its internal clock	Options include 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).
clkfallback	The trunk that the system uses to set its internal clock if the timing source on *clktrunk* stops working	At least 2 trunks must be connected to the card, with one being the *clktrunk*. The card uses the *clktrunk* source again when that source starts working. Options include none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards).

clksrc	The origin of the telephony board's clock reference	*OSC* refers to the telephony board's oscillator, and *NETWORK* refers to the clock extracted from the telephony trunk.
clkmode	If the telephony board only controls its own clock, then the mode is *STANDALONE*.	*STANDALONE* is the only option
country	Country where the system is located	Argentina (arg), Brazil (bra), Canada (can), Chile (chl), China (chn), Colombia Telecom (col), Germany (deu), France (fra), Great Britain (gbr), Hong Kong (hkg), Indonesia (idn), India (ind), Ireland (irl), Italy (ita), Japan (jpn), Korea (kor), Mexico (mex), Malaysia (mys), Philippines (phl), Colombia Comsel (sel), Singapore (sgp), Thailand (tha), United States (usa)
dchannel1	Whether or not a data channel is available on Trunk 1	Applies only to ISDN-PRI T1 and E1.
dchannel2	Whether or not a data channel is available on Trunk 2	Applies only to ISDN-PRI T1 and E1.
dchannel3	Whether or not a data channel is available on Trunk 3	Applies only to ISDN-PRI T1 and E1.
dchannel4	Whether or not a data channel is available on Trunk 4	Applies only to ISDN-PRI T1 and E1.
overlap_rcv_to	Number of milliseconds that the system waits to answer an incoming call	Values from 0 to 14. Applies only to ISDN-PRI E1.
overlap_rcv_dnis	Expected number of DNIS digits	Values from 0 to 30. Applies only to ISDN-PRI E1.
mfc_did_digs	Number of allowable DID digits	Values from 1 to 30. Applies only to R2 MFC E1.
mfc_ani_digs	Number of allowable ANI digits	Values from 0 to 30. Applies only to R2 MFC E1.
wnk_num_digs	Number of digits for ANI/DNIS	Values from 0 to 30. Applies only to Wink Start T1.
blockwaittime		Values are expressed in millisecs.
ccb_method	Collect call blocking method	Options include: *none, doubleanswer* (double answer), *groupIIsig8* (group II signal 8). The ccb_method argument can be used only if the country argument is set to *bra* (Brazil).

wink_delay	Double answer wink delay. Number of milliseconds from when the incoming call was answered until the start of the wink (hang up or on-hook).	Values are expressed in millisecs within the range 500 to 1500. The wink_delay argument can be used only if the ccb_method argument is set to *doubleanswer*.
wink_duration	Double answer wink duration (in milliseconds).	Values are expressed in millisecs within the range 500 to 2500. The wink_duration argument can be used only if the ccb_method argument is set to *doubleanswer*.
impedance	Specifies the termination impedance for E1 lines. The value that you specify should match the impedance of the E1 trunk interface cables that are connected to the AG4040 board.	Values 120, 75. Applies only to the NMS AG4040 T1/E1 telephony card administered as ISDN-PRI E1 the with isdntype argument set to *qsig*.

The following table lists the binary equivalent and description for each decimal CRC value.

Decimal value	Binary value	Description
0	0000	CRC disabled for trunks 1, 2, 3, and 4.
1	0001	CRC enabled for trunk 1, disabled for trunks 2, 3, and 4.
2	0010	CRC enabled for trunk 2, disabled for trunks 1, 3, and 4.
3	0011	CRC enabled for trunks 1 and 2, disabled for trunks 3 and 4.
4	0100	CRC enabled for trunk 3, disabled for trunks 1, 2, and 4.
5	0101	CRC enabled for trunks 1 and 3, disabled for trunks 2 and 4.
6	0110	CRC enabled for trunk 2 and 3, disabled for trunks 1 and 4.
7	0111	CRC enabled for trunk 1, 2, and 3, disabled for trunk 4.
8	1000	CRC enabled for trunk 4, disabled for trunks 2, 3, and 4.
9	1001	CRC enabled for trunks 1 and 4, disabled for trunks 2 and 3.
10	1010	CRC enabled for trunks 2 and 4, disabled for trunks 1 and 3.
11	1011	CRC enabled for trunks 1, 2, and 4, disabled for trunk 3.
12	1100	CRC enabled for trunks 3 and 4, disabled for trunks 1 and 2.
13	1101	CRC enabled for trunks 1, 3, and 4, disabled for trunk 2.
14	1110	CRC enabled for trunks 2, 3, and 4, disabled for trunk 1.
15	1111	CRC enabled for trunks 1, 2, 3, and 4.

The **nms assign** command creates a configuration file, which is created by copying default parameters for the specified protocol to the configuration file, except for any parameters that have been entered on the command line. Any command-line parameters are copied to the configuration file. The **nms assign** command exits with a usage error if an assign is attempted for a card that already has a configuration file. If the card does not exist, the command exits with a usage error.

The **nms change** command changes configuration file parameters for the card. The protocol associated with the change command is determined from the existing configuration file for that card. If the configuration file does not exist, the change command exits with a usage error.

Note:

The **nms assign** and **nms change** commands issue an error message if you enter **y** for any of the **dchannel** arguments when using the protocol **prie1**, since NFAS is not supported for the **prie1** protocol.

The **nms display** command, with a card parameter, displays the protocol and all of the administrable fields for that protocol for the card.

The **nms unassign** command deletes the configuration file, and the backup configuration file, if any, for the specified card. (The backup configuration file, that adds **.bak** to the configuration file name, is created if one or more **nms change** commands are executed for the card after it has been assigned.)

The **nms display assignments** command displays the cards and associated protocols for every card that has a configuration file.

Files

The following file is associated with the **nms** command:

/vs/data/NMS_B*x*.cfg (where *x* is the card number)

See also

- Digital interfaces screens on page 404

nmsboards command

The **nmsboards** command reports what telephony cards are installed and what type they are (E1 or T1).

Synopsis

```
nmsboards
```

See also

- nms command on page 268
- NMS AG 4000 boards
- NMS AG 4040 boards

pkgadd command

The **pkgadd** command transfers a software package to the voice system.

Synopsis

```
pkgadd [-n] [-d device] [[-M] -R host_path] [-V fs_file][-a
admin_file][-r response] [-v] [pkg [pkg ...]]

pkgadd -s dir [-d device] [pkg [pkg ...]]
```

Description

The **pkgadd** command transfers the contents of a software package from the distribution medium or directory to the system. Used without the **-d** option, **pkgadd** looks in the default spool directory for the package (**/var/spool/pkg**). Used with the **-s** option, it reads the package to a spool directory instead of installing it.

When executed without options, **pkgadd** uses **/var/spool/pkg** (the default spool directory).

Note:
When transferring a package to a spool directory, the **-r**, **-n**, and **-a** options cannot be used.

The **pkgadd** command has the parameters described in the following table:

Parameter	Description	Comments
-a	Define an installation administration file, **admin**, to be used in place of the default administration file	The token *none* overrides the use of any **admin** file, and thus forces interaction with the user. Unless a full path name is given, **pkgadd** looks in the current directory for the file, and looks in the **/var/sadm/install/admin** directory.

-d	Install or copy a package from device	Device can be a full path name to a directory or the identifiers for peripherals. It can also be a device alias (for example, **/floppy/floppy0**).
-n	Installation occurs in non-interactive mode	The default mode is interactive. The **-n** option causes the installation to halt if any interaction is needed to complete it.
-r	Identify a file or directory that contains output from a previous pkgask session	This file supplies the interaction responses that are requested by the package in interactive mode. Response must be a full pathname. The **-r** option can be used to indicate a directory name as well as a filename.
-R	Define the full path name of a subdirectory to use as the rootpath	All files, including package system information files, are relocated to a directory tree, starting in the specified rootpath.
-s	Write the package into the directory spool instead of installing it	—

Example

The following example installs a package from a directory. The system prompts you for the name of the package you want to install.

```
pkgadd -d /export/optional_features
```

See also

- pkginfo command on page 275
- pkgrm command on page 277

- *Sun System Administration Guide, Vol. 1*. These documents are available in *Avaya IR System Help* (under "Print documents") or from the Sun Web site (http://www.sun.com).

pkginfo command

The **pkginfo** command displays software package information.

Synopsis

```
pkginfo [-q] [-pi] [-x|l] [options] [pkg ...]
```

```
pkginfo -d device [-q] [-x|l] [options] [pkg ...]
```

Description

The **pkginfo** command displays information about software packages installed on the system (with the first synopsis), or that reside on a particular device or directory (with the second synopsis).

The **pkginst** command designates a package by its instance. An instance can be the package abbreviation or a specific instance (for example, **inst.1** or **inst.beta**). All instances of package can be requested by **inst.***.

Without options, the **pkginfo** command lists the primary category, package instance, and the names of all completely installed and partially installed packages. It displays one line for each package selected.

The parameters for the **pkginfo** command are described in the following table:

Parameter	Description	Comments
-a	Specify the architecture of the package as arch	—
-c	Display packages that match the category	If more than one category is supplied, the package must match only one category in the list. The match is not case specific.
-d	Defines a device on which the software resides	Device can be an absolute directory pathname or the identifiers peripherals. The special token spool may be used to indicate the default installation spool directory (**/var/spool/pkg**).
-i	Display information for fully installed packages only	The **-p** and **-i** options are meaningless if used in conjunction with the **-d** option
-l	Specify long format, which includes all available information about the designated packages	—
-p	Display information for partially installed packages only	The **-p** and **-i** options are meaningless if used in conjunction with the **-d** option.
-q	Do not list any information	Used from a program to check whether or not a package has been installed
-r	List the installation base for relocatable packages	—

-v	Specify the version of the package as version	All compatible versions can be requested by preceding the version name with a tilde (~). Multiple white spaces are replaced with a single white space during version comparison.
-x	Designate an extracted listing of package information	The listing contains the package abbreviation, package name, package architecture (if available), and package version (if available)

Note:
The options **-q**, **-x**, and **-l** are mutually exclusive.

See also

- pkgadd command on page 274
- pkgrm command on page 277
- *Sun System Administration Guide, Vol. 1*. These documents are available in *Avaya IR System Help* (under "Print documents") or from the Sun Web site (http://www.sun.com).

pkgrm command

The **pkgrm** command removes a software package from the voice system.

Synopsis

```
pkgrm [-a admin] [-n] [[-M|-A] -R host_path] [-V fs_file] [pkg [pk]]

pkgrm -s spool [pkg [pkg ...]]
```

Description

The **pkgrm** command removes a previously installed or partially installed package from the system. A check is made to determine if any other packages depend on the one being removed. If a dependency exists, the action taken is defined in the **admin** file.

The default state for the command is in interactive mode, meaning that prompt messages are given during processing to allow the administrator to confirm the actions being taken. Non-interactive mode can be requested with the **-n** option.

The **pkgrm** command has the parameters described in the following table:

Parameter	Description	Comments
-a	Use the installation administration file, **admin**, in place of the default **admin** file	—
-n	Non-interactive mode	If there is a need for interaction, the command exits. Using this option requires that at least one package instance be named when the command is invoked.
-R	Define the full path name of a subdirectory to use as the root path	All files, including package system information files, are relocated to a directory tree starting in the specified root path
-s	Removes the specified package(s) from the directory spool	Option can also be used to specify the directory from which spooled packages are to be removed

See also

- pkgadd command on page 274
- pkginfo command on page 275
- *Sun System Administration Guide, Vol. 1*. These documents are available in *Avaya IR System Help* (under "Print documents") or from the Sun Web site (http://www.sun.com).

remove command

The **remove** command places a unit in the manual-out-of-service state.

Synopsis

```
remove unit number [immed][min_delay][-i][-n]

rem unit number [immed][min_delay][-i][-n]
```

Description

The **remove** command is removes a unit from service when its temporary state is idle. It changes the permanent state of the unit to manual-out-of-service (MANOOS). It does not remove a unit that has a temporary state of *busy*. If a unit must be interrupted immediately or appears to be stuck busy, use the **rem *unit number* immed** command.

The parameters for the **remove** command are described in the following table:

Parameter	Description	Comments
unit	Identifies the unit	Choices are *channel* or *card*
number	Specifies the channel or card number, a range of channel or card numbers in the form *m-n*, or *all* (for all the channel or card numbers)	Card numbers are in the form *card#[.port#]*, where *port#* is a port of *card#*. If *port#* is not given, all ports of the card specified are removed. If no card number or channel number is given, the system displays a syntax message.
-n	Disables prompting from the system that asks you whether to wait until a conflict has been resolved (see the *-i* option below) or to terminate the request to remove	—
-i	Enables secondary command registration	If diagnostics are being run, this option allows the removing of another card. If **-i** is used and another maintenance command is being run, the request to **remove card** is blocked and a message is printed to the screen. If **-i** is not used and any maintenance command is being run, the request to **remove card** is blocked and a message is printed to the screen. If the command is permitted to run, a check is made to see if the command is in conflict with another. If a conflict exists and **-n** is not used, the user is asked whether to wait until the conflict is resolved or to terminate the request. If diagnostics are executing on-line tests and a conflict is detected, the **remove card** command is blocked. If diagnostics are executing off-line tests and a conflict is detected, the user is asked whether to wait until the conflict is resolved or to terminate the request to remove.
immed	Removes a card or channel even if it is in use	Active calls are likely to be dropped when this option is specified. This option is necessary when the card or channel must be removed from service as soon as possible, and you are willing to terminate any active calls. You may also want to use this option to get control of a channel that is stalled and not providing useful service.

min_delay	Use to avoid waiting for channels to be granted	This option applies to **remove chan** and **remove card** requests that are removing network interface channels (for example, T1). This option specifies to minimize the delay in removing channels from service by not waiting for the channel to be granted. This option speeds up execution of the **remove** command, especially when a large number of channels are currently active. When using this option, you must display the status of the channels with the **display card** command to determine when they are in the MANOOS state. This option can be used with or without the **immed** option and improves the response time in either case.

CAUTION:
Removing a large number of channels from service with the **min_delay** option may cause momentary load problems on the switch.

To delete out of the command, press **Delete**. If this does not stop the command, you may need to press **CTRL** and backslash simultaneously. If, while running **remove**, you wish to stop the command, a message similar to the following may appear:

```
At the user's request, administration of the following cmd(s) has
been interrupted.

CARD NUMBERS: card numbers

To assure proper operation of the identified card(s), run
diagnostics at the earliest opportunity.
```

When **remove** is stopped, you should run diagnostics on all cards being administered to ensure they are returned to a fully functional state.

Example

The following example removes card 0 from service.

```
rem card 0
```

The following example removes channels 0 through 2 and channel 4 from service.

```
rem channel 0-2,4
```

The following example removes all cards from service.

```
rem card all
```

renumber command

The **renumber** command renumbers the voice channels.

Synopsis

```
renumber
```

Description

The **renumber** command assigns new numbers to each of the voice channels. This renumbering takes effect only after the voice system has been stopped and restarted.

WARNING!
If the channel renumbering changes any channel numbers assigned to the AVAYAVXI service, use the **vxmlassign** command to make a corresponding change to the channel-to-service assignment.

See also

- stop_vs command on page 312
- start_vs command on page 311

restback command

The **restback** command lets you restore a backup.

Synopsis

```
/vs/bin/util/restback [-ap] -nnfslocation|-ttapedrive [-ffilename]
[-Iarchiveindex] [-lfilelist] [-ostop_oracle] [-uoracle_user]
```

Description

The **restback** command restores files from a backup. The command can perform a full restore (only as disaster recovery) or can restore a filelist of files. If no filelist is entered, a complete backup file is restored (unless the backup file has extension of **.full**).

The following table shows arguments for this command:

Argument	Description	Comments
ap	**-a** – List archives available to restore from **-p** – Print contents of an archive	Optional
nfslocation	NFS mount directory	Example: **/mnt/br**
tapedrive	Tape Drive	Example: **/dev/rmt/0n**
filename	Backup archive file name. This option will only be used with a Network File System restore.	Example: **restback -n/mnt/br -fpusvfire2.D011006 T031044**
archiveindex	Location of the archive on the tape. This option will only be used with the tape.	Example: **restback -t /dev/rmt/0n -l1**
filelist	Name of the file that contains a list of files to back up (see Creating a file list for a partial backup or restore on page 32)	Optional
stop_oracle	**1** – Stop Oracle before restoring files **0** – Do not stop Oracle before restoring files	Optional
oracle_user	User name to log into Oracle. This Oracle user account must have permission to stop and start the Oracle server.	Optional

See also

- Backup and Restore feature
- Restore screens on page 352

restore command

The **restore** command restores a unit to the in-service state.

Synopsis

```
restore card number [immed] [-i] [-n]

restore channel number [immed] [-i] [-n]
```

Description

The **restore** command is used to change the permanent state of a unit from manual-out-of-service (MANOOS) to in service (INSERV). The specified unit is placed in the INSERV state unconditionally, unless its current state is not MANOOS.

The parameters for the **restore** command are described in the following table:

Parameter	Description	Comments
number	Specifies the channel or card number, a range of channel or card numbers in the form m-n, a comma-separated list, or *all* (for all the channel or card numbers)	Card numbers are in the form card#[.port#] where *port#* is a port of *card#*. If *port#* is not given, all ports of the card specified are restored. If no card number or channel number is given, the system displays a syntax message.
immed	Restores a card even if it is in use	—
-i	Enables secondary command registration	If T1 diagnostics are being run, this option allows restoring of another card to be performed. If **-i** is used and another maintenance command is being run (**remove**, **detach**, **attach**, **restore**, **diagnose**), the request to **restore card** is blocked and a message is printed to the screen. If **-i** is not used and any maintenance command is being run, the request to **restore card** is blocked and a message is printed to the screen.
-n	Disables prompting from the system that asks whether to wait until a conflict has been resolved (see the **-i** option above) or to terminate the request to restore	If the command is permitted to run, a check is made to see if the command is in conflict with another. If a conflict exists and **-n** is not used, the user is asked whether to wait until the conflict is resolved or to terminate the request. If diagnostics are executing on-line tests and a conflict is detected, the **restore** command is blocked. If diagnostics are executing off-line tests and a conflict is detected, the user is asked whether to wait until the conflict is resolved or to terminate the request to restore.

To stop the command, press **Delete**. If this does not stop the command, you may need to press **CTRL** and backslash (\ ) simultaneously. If, while running restore, you wish to stop the command, a message similar to the following may be displayed:

```
At the user's request, administration of the following cmd(s) has
been interrupted.
```

```
CARD NUMBERS: card numbers

To assure proper operation of the identified card(s), run
diagnostics at the earliest opportunity.
```

Avaya recommends that when **restore** is aborted, you run diagnostics on all cards being administered to ensure they are returned to a fully functional state.

Example

The following example restores card 0 to service.

```
restore card 0
```

The following example restores channels 0, 1 and 5 to service.

```
restore channel 0-1,5
```

The following example restores all cards to service.

```
restore card all
```

See also

- remove command on page 278
- Equipment state screen on page 471

retireAlarms command

The **retireAlarms** command lets you deactivate all alarms.

Synopsis

```
retireAlarms -r "reason" ALL
```

Description

This command lets you retire all alarms. You need to enter a description of the *reason* for the alarm.

Note:
This command also runs in interactive mode.

See also

- Alarm administration feature

- Alarms screens on page 369

rmdb command

The **rmdb** command displays the state of the resource manager (RM) and modifies the debug levels.

Synopsis

```
rmdb [-l][-U][-s][-u] [-d [range]][-g [range]][-f [range]][-c
[range]][-C [range]][-T [range]][-P [range]][-q [range] [-m][-S][-
D][-i interval][-v][-tL levelMask][-tA levelMask] [-tc channel] [-tC
channel]
```

Description

The **rmdb** displays the state of the resource manager and modifies the debug levels. The valid syntax for ranges is as follows:

```
value [-value] [, value] | [value-value]*
```

Specifying a value an odd number of times indicates it is displayed. Specifying a value an even number of times indicates it is not displayed. For example, `7-10,9` displays the items associated with values 7, 8, and 10. The 9th entry is excluded because it is specified two times.

The **rmdb** command accepts the following arguments:

Argument	Description	Comments
-l	Takes the rmLOCK while sampling data structures. This ensures that the sample is internally consistent. However, if the RM data structures are left in a locked state, this causes the rmdb to block until they are unlocked. (Leaving the rm data structures locked is a system fault).	Other processes that attempt to use the RM data structures are temporarily blocked until **rmdb** completes its query
-U	Releases rmLOCK unconditionally	—
-s	Prints the values of the RM parameters and debug variables	—
-u	Prints function's usage statistics	—
-d	Prints device table entries by device number	—

-g	Prints out group lists (by index in the group table)	—
-f	Prints out the function table (by index in the function table)	—
-c	Prints out the card table (by card # in the card table)	—
-C	Prints out the channel table (by channel number)	—
-T	Prints out the channel touch-tone queues (by channel #)	—
-P	Prints out channel profiles (by channel #)	—
-q	Prints the message queue table entries by qkey	—
-m	Prints message headers and contents for message queues identified with the **-q** option	This option is available only to *root*
-S	Prints the timeslot table	—
-D	Audits the dynamic resources structures	—
-i	Repeats the display, with a sleep interval of the specified number of seconds between samples	—
-v	Dumps the visit execution profile	—

The **-tL *levelMask*** argument sets the trace level mask. Supported masks are:

Mask	**Value**
RM_TL_ERROR	0x1
RM_TL_GENERAL	0x2
RM_TL_ENTEREXIT	0x4

The **-tA *levelMask*** argument sets the trace area mask. Supported masks are:

Mask	**Value**
RM_TA_TIMER	0x1
RM_TA_RESOURCE	0x2
RM_TA_INPUT	0x4
RM_TA_PROFILE	0x8
RM_TA_MTC	0x10

RM_TA_MSG	0x20
RM_TA_INTERNAL	0x40

The **-tc *channel*** argument sets the trace channel low end.

The **-tC *channel*** argument sets the trace channel high end.

RTUquery command

The **RTUquery** command displays the current Right-to-Use (RTU) licenses for each feature.

Note:

For IR R2.0, this command has been replaced by the licenseQuery command. This command is only valid for systems earlier than Release 1.3.

Synopsis

```
RTUquery
```

Description

When the **RTUquery** command is executed, a list is generated by the system with the information described in the following table:

Item	Description	Comments
Feature Type	Type of feature	Examples include: VoIP, PTTS, Avaya Recognizer, Fax
RTU Value	Number of ports licensed for the feature	For VoIP, the number of channels
Feature Name	Full name of the feature	—

See also

- Feature licensing screen on page 377

sb_te command

The **sb_te** command invokes the 3270 Terminal Emulator.

Synopsis

```
sb_te session_number
```

Description

The **sb_te** command is used to invoke the 3270 terminal emulator and interact as a terminal to a host. This is used to first prove that a host communications link has been established. It can also be helpful in verifying that there have not been any changes to the host application screens. Sometimes changes can occur on the host end that are not passed down to the voice system end. The *session_number* chosen must be released from the host interface process before invoking **sb_te**. This can be accomplished by stopping the custom data interface process (DIP) for non-Script Builder applications or by using the **hdelete** command for Script Builder applications.

Sessions are mapped to logical unit (LU) numbers, with sessions numbered from 0 to 127 mapped to LUs that are numbered from 2 to 128. For example, session number 0 corresponds to the first LU number specified in the Configure Host Link screen for Link 0, while session number 1 corresponds to the second LU number in the Host Configure Link screen. LUs are configured dynamically. However, it is possible that LU's on a single connection may be non-contiguous.

A range of session numbers (for example, 5-38) can be specified to sequentially emulate each session in turn. Press **CTRL+Y** to emulate the next session in the specified range. The **CTRL+Y** command may only be used for multiple sessions.

If a session is not specified, the system assumes the value *all* for sessions 0-63 for both cards in a two card installation. If the first session the first card is not configured, **sb_te** automatically proceeds to the first session on the next card. For example, if session 0 on card 0 is specified and that session is not configured, the system displays a failure message and the **sb_te** command proceeds to the first session on card 1.

Example

The following example invokes the 3270 terminal emulator for card 0 and session 0.

```
sb_te 0
```

The next example invokes the 3270 terminal emulator for sessions 35-40 for card 1.

```
sb_te 35-40
```

See also

- Host interface feature
- hdelete command on page 227

scat command

The **scat** command transfers application source files from floppy disks to the Avaya IR system.

Synopsis

```
scat [-o] application_name
```

Description

The arguments for this command are described in the following table:

Argument	Description
-o	This option overwrites any files with matching filenames without warning you
application_name	The name of the application

Example

The following example demonstrates how to transfer the files for an application named **acct_bal** from floppy disks to a target system and overwrite files with matching filenames without warning:

```
scat -o acct_bal
```

See also

- sci command on page 292
- scrm command on page 294

sched_croncdh command

The **sched_croncdh** command manages the **uploadcdh** cron job.

Synopsis

```
sched_croncdh minute hour days_of_week

sched_croncdh -l

sched_croncdh -d
```

Description

A cron job (**uploadcdh**) uses a database DIP of your choosing to upload the data in the Call Data Handler (CDH) files to a database and erases the CDH files, thus preserving hard drive space on the platform. This cron job can be scheduled using the **sched_croncdh** command.

The time of the week that **uploadcdh** runs is set using the following variables:

Variable	Description	Comments
minute	Minute that the cron job runs	0-59
hour	Hour that the cron job runs	0-23
days_of_week	Days of the week that the cron job runs	0-6, all (0=Sunday, 6=Saturday, all=every day) You can specify one or more days to run the cron job. To specify more than one day, use a comma-separated list or a dash-separated range. Examples: 1-3 backs up on Monday, Tuesday, and Wednesday. 1,3 backs up on Monday and Wednesday.

In addition to setting the *minute*, *hour*, and *days_of_week*, you can use the **-l** option to list the current schedule, or use the **-d** option to remove the current schedule for **uploadcdh**.

Example

The following command runs **uploadcdh** at 12:15 a.m. every Sunday:

```
sched_croncdh 15 0 0
```

See also

- Call Data Reports feature
- JDBC administration screens on page 379

schedback command

The **schedback** command lets you create a cron job to do backups.

Synopsis

```
/vs/bin/util/schedback -pcld minute(0-59) hour(0-23) days of week(0-6)
```

Description

The arguments of the **schedback** command are described in the following table:

Argument	Description	Comments
pcld option	**p**-schedule a partial backup **c**-schedule a complete backup **l**-list backups that are scheduled **d**-use with the p or c option to delete the current partial backup schedule or to delete the current complete backup schedule	Must have one of these options
minute	Minute of the hour to start the backup	0-59
hour	Hour of the day to start the backup	0-23
days_of_week	Days of the week to run backup	0-6, 0=Sunday You can specify one or more days to run the backup. To specify more than one day, use a comma-separated list or a dash-separated range. Examples: *1-3* backs up on Monday, Tuesday, and Wednesday. *1,3* backs up on Monday and Wednesday.

Only one full backup and one partial backup may be scheduled at any one time. If you schedule a full backup, such as the following, any previously scheduled full backup is removed from crontab.

```
schedback –c 15 2 0
```

Examples

The following example performs a full backup at 12:15 am every Sunday.

```
/vs/bin/util/schedback -c 15 0 0
```

The following example performs a partial backup at 7:30 pm Monday through Saturday.

```
/vs/bin/util/schedback -p 30 19 1-6
```

The following example prints a listing of current backups scheduled.

```
/vs/bin/util/schedback -l
```

The following example shows the deletion of any complete backup that is currently scheduled.

```
/vs/bin/util/schedback -cd
```

The following example deletes any partial backup that is currently scheduled.

```
/vs/bin/util/schedback -pd
```

Files

/vs/data/backrest.rc is the default file associated with **schedback**

See also

- Backup and Restore feature
- Backup scheduling screens on page 352

sci command

The **sci** (Service Creation Install) command installs an application and application resources on the Avaya IR system.

Synopsis

```
sci [-O | -T | -I] [-t] application_name
```

Description

The arguments described in the following table are accepted by the **sci** command.

Argument	Description	Comments
-O	Overwrites resources on the target system with matching names without warning you	Examples of resources affected by this option include: database tables, host definitions, speech pools, and speech recognition grammars
-T	Uses existing resources, where resources with matching names exist on the target system	Operates without warning you
-I	Prompts the user when there are file name conflicts before either overwriting resources or using existing resources	The default if no option is entered as part of the command

-t	Turns off tracing for Trace Variables nodes	—
application_name	The name of the application	—

Note:
You may use either **-O**, **-T**, or **-I**, but no more than one at a time.

Restarting the database DIP

If you are installing database tables as part of the application installation and using the interactive mode (**-I** option), the **sci** tool asks if you want to restart the database data interface process (DIP). In the interactive mode, do the following:

- If all of the tables are completely new tables, or if you have not changed the table schema for any of the tables, select **No**.
- If you have changed the table schema on any existing table since the application using it has been run, and tables have been accessed in that application, select **Yes**.

CAUTION:
If you select *Yes* to restart the database DIP, any calls fail that attempt to access a database for that application while the database DIP is being restarted. For this reason, if possible plan to restart the database DIP at a time when call volume is low.

Examples

To install an application named **acct_bal** using the resources that exist on the target system, and to turn off tracing for Trace Variables nodes, enter:

```
sci -T -t acct_bal
```

To install an application named **acct_bal**, overwrite the resources on the target system, and to leave tracing on for Trace Variables nodes, enter:

```
sci -O acct_bal
```

Files

During the **sci** installation process, a file named **install.log** is produced. The purpose of the install.log file is to provide developers and support personnel with information about the installation and compilation of a IVR Designer application. Although the **install.log** file displays error messages from Oracle, TAS, and other CONVERSANT or Avaya IR software, it does not provide any explanation about the cause of, or solution for, the error. For information about causes of and solutions for errors, see the error message documentation for your system.

See also

- scsp command on page 295
- scrm command on page 294

scrm command

The **scrm** command removes an application and application resources from the Avaya IR system.

Synopsis

```
scrm -[d | i | s | t | a] application_name
```

Description

You may use any combination of these options:

Option	Description
-d	Removes local database tables
-i	Removes installed files
-s	Removes speech files
-t	Removes transaction files
-a	Removes all files associated with the application

The name of the application is *application_name*.

Examples

The following command removes all database and speech files from an application named **acct_bal**:

```
scrm -ds acct_bal
```

The following command removes all files associated with an application named **acct_bal**:

```
scrm -a acct_bal
```

See also

- sci command on page 292

scsp command

The **scsp** command imports (or removes) a recorded speech file to (or from) the Avaya IR system.

Synopsis

`scsp [-o] [-r] application_name phrase_list_filename`

Description

The **scsp** command imports or removes the recorded speech file to or from the Avaya IR system. It accepts the arguments described in the following table:

Argument	Description	Comments
-o	Overwrite files with a matching file name without warning the user	When transferring an application with a name matching an application that already exists on the Avaya IR system, Avaya recommends that you first remove the old application files using the **scrm** command on the Avaya IR system
-r	Remove the recorded speech file from the application	—
application_name	The name of the application	—
phrase_list_filename	The file name of the recorded speech phrase list file	Required because an application may have multiple phrase list files

Note:

You must define a phrase list file for your recorded speech and generate it using the Code Generation tool. This assigns it a **.pl** extension. The floppy disk with the professionally recorded speech must also contain a file called **Backup.pl** that contains the phrase list for the speech. This phrase list should be the same as the one you generated in your application.

Also, the actual recorded speech must be in files formatted with the phrase number and a **.phr** extension (for example, **1000.phr**). A file called **Sequence** must contain the number of floppies in the set, with the last floppy containing the word LAST. After all the phrases are copied from the floppy disk, if there is a **.pl** file in **/speech/talk** that matches what was copied in, the speech is loaded into the talkfile.

Examples

The following command imports a recorded speech file named *greeting* into an application named *acct_bal*, without being prompted if the Avaya IR system already has a speech file with that name:

```
scsp -o acct_bal greeting
```

The following command removes a recorded speech file named *greeting* from an application named *acct_bal*:

```
scsp -r acct_bal greeting
```

See also

- sci command on page 292

setbkparms command

The **setbkparms** command lets you set up default parameters for performing a backup.

Synopsis

`/vs/bin/util/setbkparms -n`*`nfslocation`* `[-d`*`days`*`] [-P`*`priority`*`] [-F`*`cleanup_full`*`] [-c`*`cleanup_partial`*`] [-A`*`alarmdays_full`*`] [-a`*`alarmdays_partial`*`] [-u`*`oracle_username`*`]`

Description

The default parameters for a backup include the following:

Parameter	Description	Comments
-n*nfslocation*	The directory on the Network File System where the backup file goes	—
-d*days*	The number of days' worth of files that is backed up (counting the present day)	—
-p*priority*	Whether the backup process should have a low or high priority compared to other processes	—
-F*cleanup_full*	How many days between deletions of full backup files	—

-c*cleanup_partial*	How many days between deletions of partial backup files	—
-A*alarmdays_full*	How many days after a full backup is performed that a minor alarm is placed in the log	Use **never** if you do not want any alarms generated.
-a*alarmdays_partial*	How many days after a partial backup is performed that a minor alarm is placed in the log	Use **never** if you do not want any alarms generated.
-u*oracle_username*	Oracle user name	Oracle user account must have permission to stop and start the Oracle server.

See also

- Backup and Restore feature
- Backup screens on page 352

shmview command

The **shmview** command is used to display internal shared memory segments maintained by the IRAPI and run time systems.

Synopsis

```
shmview          [-h] | [-?]

shmview          [-g] [-t] [-b] [-d] [-D] [-E] [-f] [-m] [-p] [-
                 k]
                 [-rchans] [-vchans] [-pchans] [-bchans] [-
                 memsize]
                 [-sysmon] [-e [egrplist]] [-a [chanlist]] [-c
                 [cardlist]]
                 [-C [chanlist]] [-F filename] [-s bufList] [-S
                 bufList]
                 [-v filename] [-i interval] [-M [SysResList]]
```

Description

Options for the **shmview** command are as follows:

Option	Description
-g	Displays the Global Parameter Data

-t	Displays the Trace Control Structure
-b	Displays the Trace Buffers
-d	Displays the Device Table
-D	Displays the AD DNIS/ANI Active List
-E	Displays the Event Monitor Table
-f	Displays the AD DNIS/ANI Free List
-m	Displays the Monitor Map Table
-p	Displays the SWIN Service Provider Table
-k	Displays all Shared Memory Keys in hex
-rchans	Displays the real channels on the system
-vchans	Displays the virtual channels on the system
-pchans	Displays the purchased channels on the system
-bchans	Displays the busy channels on the system
-memsize	Displays the amount of memory on the system
-sysmon	Displays the sysmon snapshot data
-e egrplist	Displays the Equipment Groups
-a chanlist	Displays the AD Channel Table for channels *chanlist*
-c cardlist	Displays the Card Table for cards *cardlist*
-C chanlist	Displays the Channel Table for channels *chanlist*
-F filename	Displays devtbl entries from a *devtbl* named file
-s bufList	Displays VROP speech buffer control data
-S bufList	Displays VROP speech buffer control data and contents
-v filename	Displays VROP speech buffer control data for filename
-i interval	Displays every interval seconds
-M ServerList	Displays the System Server Table for ServerList

Example

The following example shows the global parameters structure.

```
shmview -g

                Global Parameters Structure

     ------------------------------------------------------

                        IRP Valid = VALID (0xcafe)
```

```
       Dnis Wait Retries = 2
 Analog Loss Compensation = 0
Digital Loss Compensation = 0
 Background Output Volume = 33
        Virtual Channels = 0
       AD Read-Only Flag = 0
  Xfer Sec Read-Only Flag = 0
  Number of Trace Buffers = 4000
         Non-AD Channels =
        AD Channel Table = /vs/data/ad_channel_table
       AD DNIS/ANI Table = /vs/data/ad_dnisani_table
        Xfer Allow Table = /vs/data/xfer_allow_table
         Xfer Deny Table = /vs/data/xfer_deny_table
        Speech Directory = /home2/vfs/talkfiles
   AD DNIS/ANI Table size = 1500 (only used for creation)
    Xfer Allow Table size = 0 (only used for creation)
     Xfer Deny Table size = 0 (only used for creation)
          Max. SWTTS DIOs = 0
             Message Max. = 20480
                Idle Hunt = 0
    TipRing Glare Timeout = 5
  TipRing Ignore TT Glare = 0
     DTMF Connection Tone = C
  DTMF Disconnection Tone = D
      Max. Event Monitors = 5
```

```
                RM PROFILE_SIZE = 6000
              Release Talk Slot = 1
               Static Timeslots = 1
                 Log Event Mask = 0x0
           UCID Network Node Id. = 1234
                 CPU Card Number = 31
         Default Play/Code Algo = UNKNOWN ALGORITHM (-1) (-1)
                 DSP Voice Type = -1
                   DSP TTS Type = -1
                DSP Echocan Type = -1
                    DSP CCA Type = 2
                    DSP FAX Type = 4
               DSP Wholeword Type = -1
                DSP Flexword Type = -1
          Number Translation Flag = 0
        Transfer Restriction Flag = 1
          Incall Restriction Flag = 2
         Outcall Restriction Flag = 1
             Proxy Resource Cards = 0x0
```

show_sys

The **show_sys** command allows you to retrieve configuration and administration information from customer sites.

Synopsis

```
show_sys [-h -t -v]
```

Description

Entering the command, **show_sys**, by itself, produces a complete output of the program to a file **scan.out** in your current directory. The file is a readable file and may be downloaded, printed, or viewed with an editor.

Note:
If a file named **scan.out** already exists, it is overwritten.

The options for the **show_sys** command are described in the following table:

Option	Description	Comments
-h	Produces a help screen	—
-t	Gathers previous seven days of traffic reports	—
-v	Executes the program with output sent to the screen	You may redirect the output to a file or allow the screen to scroll to capture the output to a terminal emulator

The following information can be retrieved with the **show_sys** command:

- Solaris version machine type
- Installed software
- Memory
- Configuration of hard disk(s)
- Free space in Solaris file system
- Tunable parameter changes
- Free space in swap
- Free space in speech file system
- Free space in Oracle database
- Oracle database tables
- Directory files in **/oracle/dbs**
- Cron information for root
- Local/remote database information
- ASP driver (speech card) version
- DNIS information (if T1s are present)
- T1 card information (if T1s are present)

- Device Information
- SAR Snapshot
- Parallel Printer Information
- UUCP information
- Devices file
- Permissions file
- Systems file
- Analog transfer parameters
- Installed cards
- Parameter file(s) for assigned applications
- Databases used in each application
- Status of Host LUs
- CCA report for the previous week
- Call data report for a specific day of the previous week
- Traffic report for a specific day of the previous week

Example

```
show_sys
```

soft_disc command

The **soft_disc** command sends a disconnect to a script on a channel or channels.

Synopsis

`soft_disc` *`channelStart`*`[-channelEnd]`

Description

The **soft_disc** command sends a message or messages to the Transaction State Machine (TSM) process requesting that the script running on *channelStart* or the range of channels *channelStart-channelEnd* be sent interrupt messages. If no script is running on the channel, or if TSM does not own the channel, no action is taken for the channel.

The **soft_disc** command waits for a response from TSM. When it exits, TSM has acted on all the requests for all the channels by sending disconnects to the scripts or rejecting the requests. Scripts running on the channel receive the ESOFTDISC event.

Return values

If the **soft_disc** is successful, a 0 value is returned. If any value other than 0 is returned, the **soft_disc** command completely or partially failed. If **soft_disc** returns a value of 2, the **dip_int** command failed due to temporary condition. In this case, the user should attempt the **dip_int** command again.

Example

The following example requests that TSM send interrupt messages to channel 2.

```
soft_disc 2
```

The following example requests that TSM send interrupt messages to channels 1 through 32.

```
soft_disc 1-32
```

See also

dip_int command on page 188

soft_szr command

The **soft_szr** command starts a script on a channel.

Synopsis

`soft_szr` *`channelStart`*`[-channelEnd]` *`script`*

Description

The **soft_szr** command can be used to start a script on a channel. The **soft_szr** command sends a message to the Transaction State Machine (TSM) process requesting that a script be started on a channel. If the channel is in use, the script is not started. **Soft_szr** waits for a response from TSM. When **soft_szr** exits, TSM has either accepted the request and started the script or rejected the request.

There are two arguments to the **soft_szr** command: *channel* and *script* . The *channel* argument specifies the channel (*channelStart*) or range of channels (*channelStart-channelEnd*) on which you want to start the script. The *script* argument specifies the script to be started. The script does not have to be in the table of assigned scripts.

The channel numbers must be valid and the channels must not be busy, and the channels must be in the inserv state. If you specify a channel that is busy, the command fails. If you specify a range of channels and one or more of the channels is busy, the command seizes the idle channels but fails for the busy channels.

Return values

If the **soft_szr** command is successful, a 0 value is returned. If any value other than 0 is returned, the **soft_szr** command completely or partially failed. If the **soft_szr** command returns a value of 2, the **soft_szr** command failed due to temporary condition. In this case, the user should attempt executing the **dip_int** command again.

Example

The following example starts the script **sodapop** on channels 0 through 4.

```
soft_szr 0-4 sodapop
```

The following example starts the script **test1** on channel 10.

```
soft_szr 10 test1
```

speech command

The **speech** command associates servers with speech recognition engines, and sets up how the system interacts with them.

Synopsis

speech assign rectype=OPSR4|OPSR5|OPSR6|OPSR7|OPSR8|OPSR9
engine=nuance|speechworks|mrcp|other

rectype=WHOLEWORD
engine=avaya

rectype=DPR
engine=avayaDPR

rectype=OPSR4|OPSR5|OPSR6|OPSR7|OPSR8|OPSR9
|WHOLEWORD|DPR

	server=<*name*> ip=<*server ip address*> ports=1-<*number of licensed ports*> baseport=1-65000 For IBM WVS servers, the name must be specified as <***name*/media**>. For MRCP servers (including IBM WVS), the baseport is typically set to 554.
speech change	rectype=OPSR4|OPSR5|OPSR6|OPSR7|OPSR8|OPSR9 engine=nuance|speechworks|mrcp|other rectype=WHOLEWORD engine=avaya rectype=DPR engine=avayaDPR rectype=OPSR4|OPSR5|OPSR6|OPSR7|OPSR8|OPSR9 |WHOLEWORD|DPR server=<*name*> [ip=<*server ip address*>] [ports=1-<*number of licensed ports*>] [baseport=1-65000] For IBM WVS servers, the name must be specified as <***name*/media**>. For MRCP servers (including IBM WVS), the baseport is typically set to 554.
speech display	rectype=OPSR4|OPSR5|OPSR6|OPSR7|OPSR8|OPSR9 |WHOLEWORD|DPR [server=<*name*>] For IBM WVS servers, the name must be specified as <***name*/media**>.
speech unassign	rectype=OPSR4|OPSR5|OPSR6|OPSR7|OPSR8|OPSR9 |WHOLEWORD|DPR [server=<*name*>] For IBM WVS servers, the name must be specified as <***name*/media**>.

Description

The **speech assign** command creates a configuration file for the specified speech recognition type (**rectype**). You can either assign an engine to a **rectype**, or you can assign a server to a **rectype**.

You can enter either the first type of assign or the second type of assign. The parameters from the two types of assign commands cannot be mixed. All parameter values are validated against the allowable parameter values. After a successful validation, all parameters are saved in a configuration file, which is associated with the **rectype** (such as **OPSR4.cfg**).

The **speech assign** command exits with an error message and the usage statement under the following circumstances:

- Any required parameter is missing
- Any parameter value failed the validation
- The configuration file for the specified **rectype** already exists
- The parameters from the two types of assigns are mixed. For example, you cannot assign a server parameter with an engine parameter.
- The server is already assigned
- A server is assigned to a **rectype** that is not already assigned

The **speech change** command changes the configuration file parameter values for the specified **rectype** or **rectype** and **server**. It creates a backup configuration file. If the configuration file does not exist for the **rectype** or **rectype** and **server**, or any parameter value failed the field validation, the **speech change** command exits with an error message and the usage statement.

The **speech display** command displays the associated configuration file parameters for the specified **rectype** or **rectype** and **server**. If the configuration file does not exist for the **rectype** or the **server** does not exist for the **rectype**, the **speech display** command exits with an error message and the usage statement.

The **speech unassign** command deletes the configuration file, and the backup configuration file (if any) for the specified **rectype** if a **rectype** is entered as the only parameter. If a **rectype** and **server** are entered, the server information is removed from the **rectype**'s configuration file. If the configuration file does not exist for the **rectype** or the **server** does not exist for the **rectype**, the **speech unassign** command exits with an error message and the usage statement.

After the successful execution of **speech assign**, **speech change**, and **speech unassign** commands, an informational message is displayed to advise the user to stop and restart the voice system to activate the configuration file change.

The options for this command are described in the following table:

Option	Description	Comments
rectype	The speech recognition or DPR type	OPSR4|OPSR5|OPSR6|OPSR7|OPSR8|OPSR9|WHOLEWORD|DPR
engine	The speech recognition engine	nuance|speechworks|avaya|avayaDPR|mrcp|other
server	DNS name for the server	For IBM WVS servers, the name must be specified as <*name*/**media**>.
ip	IP address of the server	—
ports	Number of ports supported on the system	Depends on the number of purchased ports. Total cannot exceed 240 for the Sun Fire 280R and Sun Fire V240, or 120 for the Sun Blade 150.
baseport	Starting port number	Valid values are 1-65000. For MRCP servers (including IBM WVS), the baseport is typically set to 554.

See also

- start_vs command on page 311
- stop_vs command on page 312
- Speech and DPR administration screens on page 501

sproxyadm command

The **sproxyadm** command is used to administer proxy speech resources.

Synopsis

```
/vs/bin/sproxyadm  -r resource_type -c state -f state -s name -p
port -d -D debug_level -Tseconds –v
```

Description

The **sproxyadm** command is used to change the state of a given proxy speech resource or a set of resources of a given resource type. It maybe used also to display information about the state of resource(s).

Options are described in the following table:

Option	Description	Comments
-r *resource_type*	The type of speech resource being used	Normally required. Resource types include: • ALL – may be used for -d and –D options • DPR • WHOLEWORD • OPSR4 • OPSR5 • OPSR6 • OPSR7 • OPSR8 • OPSR9 • TTS**X** where **X** is 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9
-c *state*	Used to “change” the state of an entire Speech Proxy resource or a Server or a single port	Optional. The state can be: • MANOOS • INSERV
-f *state*	Forces the change	Valid states are INSERV or MANOOS.
-d	Displays a proxy resource	Optional
-D *debug level*	Sets the debug level flags that affects trace and log output	Optional
-p *port*	Sets a port number to be operated on	Only this port is affected. Note that this option requires both the **-r** and **-s** options to specify the proxy resource server being operated on. [default = all ports]
-s *name*	The name assigned to a speech proxy server	Optional. The **-r** option is required to indicate which resource the server is associated with. [default = all servers] For IBM WVS servers, the name must be specified as <*name*/**media**>.
-T *seconds*	The number of seconds allowed for the Proxy Process to respond to the request	Optional. [default = 20 seconds]
-v	Verbose mode	Optional. [default = off]

The report fields displayed in the **-d** option are described in the following table:

Field	Description	Comments
RESOURCE	Name of the resource	Normally matches what is specified with the **-r** command line option
PORTS AVAILABLE	Number of ports (connections) that the proxy server supports	—
PORT	One of a list of available ports that information is displayed for	—
STATE	The state of a proxy speech resource	May apply to the entire resource type, a server, or a single port. The state can be: • BROKEN • MANOOS • INSERV • FOOS
SERVER	The DNS name administered to the Speech Proxy Server	—
IP ADDRESS	The IP address administered to the Speech Proxy Server	—
STATUS	The state of the server (see STATE above)	—
CHAN	The channel number being used for the connection.	If a channel is not attached to the port, this field displays *N/A.* This field is not displayed for systems with MRCP speech servers.
REMOTE	The socket number of the speech server that is receiving data from the system	This field is not displayed for systems with MRCP speech servers.
PROCESSING	Indicates what type of processing is being performed by the speech resource	May be either the language or voice tag in the case of text to speech, or the grammar for speech recognition resources. This field is not displayed for systems with MRCP speech servers.

Examples

Displaying speech recognition proxy speech resource types

The following example displays all speech recognition proxy speech resource types.

```
sproxyadm –r SR –d
```

This results in the following output:

```
RESOURCE: SR    PORTS AVAILABLE: 3

SERVER: server1 IP: 35.7.50.74    STATUS: INSERV
------------------------------------------------------------------------
PORT      STATE CHAN  REMOTE      PROCESSING
------------------------------------------------------------------------
1     INSERV    21    7877        OPSR4
2   MANOOS            7877
3   INSERV      45    7877        FRUIT
```

When the MRCP feature has been instaled, the command displays output similar to the following:

```
RESOURCE: OPSR4 SUMMARY  PORTS AVAILABLE: 3

  SERVER: server1     IP: 35.7.50.74
  PORT CAPACITY:  3     PORTS AVAILABLE: 3
------------------------------------------------------------------------
PORT      STATE CHAN
------------------------------------------------------------------------
0   INSERV      N/A
1   INSERV      N/A
2   INSERV      N/A
```

Placing resources in a MANOOS state

This command places all servers of the specified resource type into MANOOS (“MANual Out of Service”) state:

```
sproxyadm  –r OPSR4 –c manoos
```

This command puts all ports on a speech server supporting the specified resource type into MANOOS state.

```
sproxyadm –r OPSR4 –s recog1 –c manoos
```

This command places port 1 on the server of the specified resource type into MANOOS state:

```
sproxyadm –r OPSR4 –s recserve1 –p1 –c manoos
```

Placing resources in an INSERV state

This command places all servers of the specified resource type into INSERV (“In Service”) state:

```
sproxyadm  -r OPSR4 –c inserv
```

This command puts all ports on a speech server supporting the specified resource type into INSERV state:

```
sproxyadm -r OPSR4 –s recog2 –c inserv
```

This command places port 24 on the server of the specified resource type into INSERV state:

```
sproxyadm -r OPSR4 –s recog2 -p24 –c inserv
```

See also

- Speech Proxy Administration screen on page 506

start_vs command

The **start_vs** command brings the system up to a fully operational state.

Synopsis

```
start_vs
```

Description

The **start_vs** command returns the voice system software to fully operational state. If you use the **stop_vs** command to stop the system, you should use the **start_vs** command to start it again. The **start_vs** also should be used if the system was rebooted or powered down after **stop_vs** was used, or if the system is not administered to automatically start the voice system when it has been rebooted.

The **start_vs** command checks to see if the user stopped the system with the **stop_vs** command. The **start_vs** command places all cards placed in the manual-out-of-service (MANOOS) state with the **stop_vs** command in the in-service (INSERV) state.

Note:
You must be logged on to the system console as *root* to use the **start_vs** command.

Example

The following example starts the voice system software:

```
start_vs
```

See also

- stop_vs command on page 312
- vs_status command on page 333
- vsenable command on page 334
- vsdisable command on page 334

stop_vs command

The **stop_vs** command gracefully stops the voice system software.

Synopsis

```
stop_vs [time_out][-n]
```

Description

The **stop_vs** command gracefully stops the voice system software. If the system is receiving calls, **stop_vs** waits for approximately 3 minutes before it unconditionally stops the software. By waiting, the system allows callers to finish their transactions. The **stop_vs** command disables incoming call recognition on all cards to prevent them from being reactivated by an incoming call.

The **time_out** option is the time to wait before the voice system is stopped. The default value for this option is 180 seconds. The **-n** option prompts you with a message that another maintenance command (**restore**, **remove**, **attach**, **detach**, **diagnose**) is being performed. It asks if you wish to continue or to terminate the **stop_vs** command. The **stop_vs** command terminates another maintenance command in progress when initiated. The default value for this option is *Yes*.

If you use **stop_vs** to stop the system, you should use **start_vs** to reactivate it. If you use **stop_vs** to stop the software and reboot the system, be sure to execute **start_vs** after logging in as *root* (unless the system is administered to automatically start the voice system upon reboot). This ensures that the system is returned to the state it was in before it was booted.

If an active host link is established, the **stop_vs** command checks the LUs and logs out the application(s). The command waits up to 60 seconds (6 series of 10 seconds each), and continues stopping the voice system.

Example

The following example stops the voice system software:

```
stop_vs
```

See also

- start_vs command on page 311
- vs_status command on page 333
- vsenable command on page 334
- vsdisable command on page 334

sysmon command

The **sysmon** command executes a program that monitors incoming telephone lines and the associated cards to see that they are functional.

Synopsis

```
sysmon [refresh_rate]
```

Description

The **sysmon** command verifies that each incoming telephone line and its associated card are functional. Before initializing the test, locate a touch-tone telephone close to the system controller and get a telephone number to be used for dialing into the system. Use the **assign channel** command to assign to a group any channels you want to test. Use the **assign service/startup** command to assign a script to the same group.

Once the channels and service are assigned, enter the **sysmon** command. The resulting display shows all channels and their current states. The system refreshes the displayed information every 5 seconds by default.

The optional argument ***refresh_rate*** is a number that specifies the frequency in seconds to refresh the displayed information.

Example

The following example shows the current state of the system channels and refreshes the displayed information every 4 seconds.

```
sysmon 4
```

See also

- assign card/channel command on page 158

- assign service/startup command on page 162

tas command

The **tas** command executes the Transaction Assembler (TAS) program to assemble script instructions.

Synopsis

```
tas [-c][-d][-e][-Iinclude_dir][-Ttalk_dir][-U name][-Dname[=def]][-
H][-ooutfile][-ttas_preprocessor][-u size][-p][-w]infile
```

Description

The **tas** command is used to assemble script instructions recorded in an input file (*infile*) of the form **application-name .t**. It produces an executable file (*outfile*) of the form ***application-name* .T** , which is stored in a table as a list of executable script instructions.

The **-e** option requires exact string matches for speech phrases.

The arguments must be in the order given above for the command to work properly. The directory search specified by the arguments are: **-I** (include directory) and **-T** (talk directory).

Note:
No space is allowed between the **-I** and **-T** flags and their pathnames, but space is allowed after the **-e** flag. The **-I** option to **tas** is interpreted by **cpp(1)**.

The remaining arguments are described in the following table:

Argument	Description	Comments
-U*name*	Remove any initial definition of name	Note that *name* is a reserved symbol that is predefined by the particular preprocessor. This option is interpreted by **cpp(1)**.
-D*name* and -D *name=def*	Define *name* with value *def* as if by a #define	If no *def* is given, *name* is defined with value 1. The **-D** option has lower precedence than the **-U** option. If the same name is used in both a **-U** option and a **-D** option, the name is undefined regardless of the order of the options. This option is interpreted by **cpp(1)**.
-H	Print, one per line on standard error, the path names of included files	This option is interpreted by **cpp(1)**

-ooutfile	Name of the output file	Default is **out.T**

Note that the maximum number of literals per script allowed by the **tas** command is 450. If there are more than 450 literals in a script, the system displays the error message `literal table overflow`. Additional limitations enforced by the **tas** command are (whichever occurs first in a list file):

- 1,000 phrases
- 4,000 words
- 40,000 characters

If more phrases are needed by an application, use multiple list files and tfile instructions within the script.

If your script contains a large number of define statements, **tas** may report messages such as the following during compilation:

```
script.t: 1068: too much defining
```

Here, **script.t** is the script source file, and *1068* is the line in which the define appears. The limit to the number of define statements that a script may have depends on the number of defined macros and their size. If this type of message appears, reduce the number of define statements in your script.

Files

/vs/bin/tas

Example

```
tas example.t
```

The program includes applicable header files and replaces literal definitions with corresponding numbers to produce an assembled version of the script. The assembled code is stored on disk under the label **example.T** . The unassembled instructions are found in the file **/var/applN/trans/example.t**.

```
tas example.t -I/var/include -T/var/speech
```

In addition to performing the same functions described for the previous example, **tas** checks the files in **/var/include** when processing include statements and the file in **/var/speech** when processing T-file statements.

tbct command

The **tbct** command administers the Two B-Channel Transfer feature.

Synopsis

```
tbct assign          numchan=number of reserved B Channels for
                     outgoing calls
                     [transfer=alerting|answer]
                     [fail=bridge|disconnect]
                     [hunt=ascend|descend]
                     [maxrings=1-20]
                     card=card #
                     trunk1=y|n trunk2=y|n trunk3=y|n trunk4=y|n

tbct change          [numchan=number of reserved B Channels for
                     outgoing calls]
                     [transfer=alerting|answer]
                     [fail=bridge|disconnect]
                     [hunt=ascend|descend]
                     [maxrings=1-20]
                     card=card #
                     [trunk1=y|n] [trunk2=y|n] trunk3=y|n
                     trunk4=y|n

tbct display         card=card #

tbct unassign        card=card #
```

Description

The **tbct assign** command creates a configuration file at **/vs/data** named **tbct.cfg**.

The system-wide parameters **numchan**, **transfer**, **fail**, **hunt**, and **maxrings** must be assigned before any card parameters may be assigned. The **tbct assign** command exits with a usage error if an assignment of the system parameters is attempted a second time, that is if **tbct** already has a configuration file. The **tbct assign** command exits with a usage error if an assignment of parameters for a particular card is attempted a second time.

Card parameters can only be assigned for NMS cards that are assigned to the ISDN PRI T1 protocol *isdntype* of nortel or national. If an assignment is attempted for a card that is not

assigned to the ISDN PRI T1 protocol with *isdntype* of *nortel* or *national*, the command exits with a usage error.

The **tbct change** command, with a card parameter, changes configuration file parameters for TBCT for that card. If the configuration file does not exist or the card is not already defined in the configuration file, the change command exits with a usage error.

The **tbct display** command, with a card parameter, displays the TBCT parameters for that card.

The **tbct unassign** command deletes the configuration file and the backup configuration file, if any.

Note:
The backup configuration file that adds **.bak** to the configuration file name is created if one or more **tbct change** commands are executed after **tbct assign**.

When Two B-Channel Transfer is administered for the first time, a configuration file is created in the **/vs/data** directory. The configuration file is used by maintenance software when the voice system is initialized so that Two B-Channel Transfer (**tbct**) can be configured using the parameters defined in the configuration file.

You can use the **tbct assign** or **tbct change** commands to administer the parameters. The following table lists the possible values for each parameter:

Argument	Description	Comments
card	A number that identifies a telephony card	Options include valid NMS card numbers
trunk1	Whether or not trunk1 for card x (x is the card number) allows the TBCT feature	
trunk2	Whether or not trunk2 for card x (x is the card number) allows the TBCT feature	
trunk3 (quad cards only)	Whether or not trunk3 for card x (x is the card number) allows the TBCT feature	
trunk4 (quad cards only)	Whether or not trunk4 for card x (x is the card number) allows the TBCT feature	
numchan	Number of B-channels to reserve for outgoing calls	You can reserve 0 through the number of b-channels (0-190)
transfer	When to invoke the B-channel transfer	Options include alerting and answer. Default is answer.

fail	Error handling method to invoke if the B-channel transfer fails	Options include bridge and disconnect. Default is bridge.
hunt	Channel hunt method	Options include ascend and descend. Default is ascend.
maxrings	Number of rings to allow after placing an outgoing call	Options include 1 to 20.

See also

- Two B-Channel Transfer feature
- Two B-Channel Transfer screens on page 451
- Administering Two B-Channel Transfer on page 106

trace command

The **trace** command outputs trace messages to standard output, while the system is taking calls, for specified processes and channels.

This information may be useful for debugging applications and DIPs.

Synopsis

```
trace [process_name]...[chan chan_range]...[card card#]...[area
area_range][level level_range][date][nodate][lbolt][tracelog |
startlog]...[sleep sleep_time]
```

Description

The **trace** command prints trace messages to the standard output device (stdout) according to specified options. Executing trace also causes trace output to be logged to the trace shared memory buffer or to the trace log.

When trace is specified with *process_name*, all process-specific trace messages from *process_name* are printed. Process-specific trace messages are printed regardless of which channels the specified process may own or on which processes are operating, unless the -a option is specified.

When trace is specified with **chan** or **card** options, all channel-specific messages, from any process are printed. The **card** option is applicable only to network interface cards (that is, cards that have channels). The **card** option is a special case of the channel option.

Note:
The process and channel/card arguments can work together using the **-a** option.

For example, the command **trace -a chan 0 level all area all TSM** will print trace messages for the process TSM and channel 0.

If the **-a** option is not used, a combination of the *process_name* variable and **chan** options prints trace messages from both the *process_name* variable and **chan** options. These options act collectively rather than selectively.

If the **-a** option is used, a combination of the *process_name* variable and **chan** options prints trace messages that are logged in the process and are for the specified channels.

If **area** is specified, only the process or channel messages associated with **area** are printed. The **area** option is, therefore, selective. Areas may be integers ranging from 1 to 32. Areas 1 through 16 are available for user applications. The voice system reserves areas 17 through 32.

The **trace *area*** arguments are described in the following table:

Argument	Description
AS (area 17)	Trace advanced service operations such as TTS and speech recognition
EM (area 18)	Trace event management operations
IN (area 19)	Trace caller input operations including touchtone and speech recognition
PM (area 20)	Trace parameter management operations
RM (area 21)	Trace resource management operations
SE (area 22)	Trace script execution. This includes trace entries made implicitly by Script Builder applications and through tas(1) scripts via the **trace(3TSM)** command.
ST (area 23)	Trace call and application initialization and completion operations
TS (area 24)	Trace telephony service operations
VS (area 25)	Trace voice code and play operations
ER (area 26)	Trace error processing operations
IL (area 27)	Trace internal library operations
SI (area 28)	Trace script instructions. Every TSM script instruction displays a trace message.
AD (area 29)	Trace administration operations
BM (area 30)	Trace bus management operations
OT (area 32)	Trace old trace instructions. All old trace messages are placed in this area.

ALL (area 1-32)	Trace all areas

The default, if *area* is omitted, is *all* areas except *SI* (area 28). Trace areas may also be specified numerically with lists and ranges. For example, the following is legal:

```
trace chan 5 area 1-7,10,TS
```

A *level* argument may also be specified. Levels range from 1 through 32, where level 1 indicates the least amount of detail and level 32 indicates the greatest level of detail. Levels may be specified as a single number, comma-separated list, or ranges. The current internal voice system levels in use (levels 17 through 32) may be identified through mnemonics. A complete list of area and level mnemonics can be displayed by executing the **`trace`** command with no arguments. The current voice system levels (areas 1 through 32) are described in the following table:

Argument	Description
U (levels 1-16)	Trace all user levels
AE (level 17)	Trace internal application error messages
AG (level 18)	Trace internal application general messages
AX (level 19)	Trace internal application enter/exit messages
A (levels 17-19)	Trace all internal application levels
FE (level 20)	Trace user-callable function error messages
FG (level 21)	Trace user-callable function general messages
FX (level 22)	Trace user-callable function enter/exit messages
F (levels 20-22)	Trace all user-callable function levels
PE (level 23)	Trace process interface function error messages
PG (level 24)	Trace process interface function general messages
PX (level 25)	Trace process interface function enter/exit messages
P (levels 23-25)	Trace all process interface function levels
IE (level 26)	Trace error processing operations
IG (level 27)	Trace internal library operations
IX (level 28)	Trace script instructions. Every TSM script instruction displays a trace message.
I (levels 26-28)	Trace script instructions. Every TSM script instruction is displayed.
RH (level 29)	Trace RM Helper function enter/exit messages
RE (level 30)	Trace RM Helper function error messages
RG (level 31)	Trace RM Helper function general messages
RX (level 32)	Trace RM function enter/exit messages
R (levels 29-32)	Trace all RM Helper and RM function messages

S (level 17-32)	Trace all IRAPI system levels
ALL (levels 1-32)	Trace all levels

The default, if level is omitted, is levels U, A, AE, FE, PE, IE, and RE. Trace levels may also be specified numerically with lists and ranges.

If the **tracelog** option is specified, all trace messages are logged to the trace log file and sent to stdout. If **startlog** is specified, tracing is done to the trace log but no trace output is sent to stdout.

Trace messages may be printed with or without the date and time when they are generated. The **date** option is set by default and prints the date and time of trace messages. If the **nodate** option is specified, the date and time will not print. If the tracelog or startlog option is specified, the date and time are always printed for entries in the trace log file.

With the **lbolt** option, you can activate a counter that starts with 0 when the system boots, and is incremented every 1/100th of a second.

If the **sleep** argument is specified, trace sleeps ***sleep_time*** milliseconds between reading the trace buffer. The default is 200 milliseconds.

The **trace stop** command clears any active trace settings, ensuring that no trace output is generated to the trace log.

By default, all trace messages are saved in a trace shared memory buffer. The trace buffer is a circular buffer. If trace messages are written to the trace buffer faster than the **trace** command can read them, eventually the trace buffer overflows and trace messages are lost. When this happens, trace prints the message `TRACE: ***** LOST XXX RECORDS`, where *XXX* is the number of trace messages lost. Two ways to minimize the number of trace messages lost exists:

Use the **sleep** argument of the **trace** command to decrease the time that trace sleeps between reading the buffer (default *sleep_time* = 200 ms).

Increase the size of the trace buffer by adding or modifying the line `TRACE_BUFFER_SIZE=X` in the **/vs/data/irAPI.rc** file, where X is the number of messages that the trace buffer can hold (default = 40000). Increasing the value of X should reduce the chance of losing trace messages.

If you change the size of the trace buffer, you must stop and restart the voice system (**stop_vs** and **start_vs**). Otherwise, you are not able to run **trace**.

Files

- **/usr/spool/log/data/trace***
- **/vs/data/irAPI.rc**

Examples

Examples of valid level lists and ranges are shown in the following table:

Level list or range	Description
1,2	Trace levels at 1 and 2
1-4,FE	Trace at levels 1, 2, 3, 4, and 20
all	Trace at levels 1-32

Note:
Levels are not hierarchically inclusive. That is, level 3 does not imply that tracing at levels 1 and 2 also occurs, which could be achieved by using a range starting from 1. For example, *1-3* for levels 1, 2, and 3.

Note that a user input (touchtone and speech recognition) log can be implemented by the following **trace** command:

```
trace chan all area IN level F
```

trarpt command

The **trarpt** command generates a call traffic report.

Synopsis

`trarpt hours summarize date`

Description

The **trarpt** command generates a call traffic report. Information in this traffic report includes the number of calls coming in to the system during a specified time period, average holding time, and the percentage of time the channel was occupied for a certain hour. This report is sent to standard out (stdout). Before this can be done, the database system must be up and running, but the voice system does not need to be up.

The parameters for the **trarpt** command are described in the following table:

Parameter	Description	Comments
hours	Specifies the hours in which the traffic data was collected	Valid options can be single number, or a range between 0 to 23 (with 0 representing midnight and 23 representing 11 p.m.), or *all*

summarize	Indicates a traffic report or a traffic summary report to be generated	If the option is *n*, the report provides information on the total traffic volume for each channel in one-hour increments. If the option is *y*, the report is a summary report that provides information on the total traffic volume for each channel for the whole period specified in the **hours** parameter.
date	Specifies the date the data was collected in the system	This parameter can be in the format mm/dd/yy or mm/dd/yyyy

Examples

The following example generates a traffic summary report for data collected on date August 24, 1998 between 8 a.m. and 5 p.m. on multiple entries per channel.

```
trarpt 8-17 y 08/24/1998
```

The following example generates a traffic report for data collected on date August 24, 1993, with one entry per channel.

```
trarpt n 08/24/1998
```

See also

- Call classification data summary report screens on page 528
- Call Data Reports feature

tts command

This command allows users to assign, change, display, and unassign values to the Proxy Text-to-Speech (PTTS) configuration files.

Synopsis

tts assign defaultvoice=<*default_voice_name*>

ttstype=TTS0|TTS1|TTS2|TTS3|TTS4|TTS5|TTS6|TTS7|TTS8|TTS9

engine=sapi|speechify|realspeak|mrcp

When engine=sapi, use the following to assign a new server:
ttstype=TTS0|TTS1|TTS2|TTS3|TTS4|TTS5|TTS6|TTS7|TTS8|TTS9

server=<*name*> ip=<*server ip address*> ports=1-<*number of licensed ports*>

When engine=speechify, use the following to assign a new server:
ttstype=TTS0|TTS1|TTS2|TTS3|TTS4|TTS5|TTS6|TTS7|TTS8|TTS9

server=<*name*> ip=<*server ip address*>

When engine=mrcp and the server is an IBM WVS, use the following to assign a new server:
ttstype=TTS0|TTS1|TTS2|TTS3|TTS4|TTS5|TTS6|TTS7|TTS8|TTS9

server=<*name*>**/media**> ip=<*server ip address*>

Use the following to assign a new voice to a server:
server=<*name*> voice=<*voice name*>
voiceports=1-<*number of licensed ports*>
voicebaseport=1-65000

For IBM WVS servers, the name must be specified as <name/media>. For MRCP servers (including IBM WVS), the baseport is typically set to 554.

tts change

defaultvoice=**<***default voice name***>**

ttstype=TTS0|TTS1|TTS2|TTS3|TTS4|TTS5|TTS6|TTS7|TTS8|TTS9

engine=sapi|speechify|realspeak|mrcp

When engine=sapi, use the following to change a server:
ttstype=TTS0|TTS1|TTS2|TTS3|TTS4|TTS5|TTS6|TTS7|TTS8|TTS9

server=<*name*> ip=<*server ip address*> ports=1-<*number of licensed ports*>

	When engine=speechify, use the following to change a server: ttstype=TTS0|TTS1|TTS2|TTS3|TTS4|TTS5|TTS6|TTS7|TTS8|TTS9 server=<*name*> ip=<*server ip address*> When engine=mrcp and the server is an IBM WVS, use the following to assign a new server: ttstype=TTS0|TTS1|TTS2|TTS3|TTS4|TTS5|TTS6|TTS7|TTS8|TTS9 server=<*name*>**/media** ip=<*server ip address*> Use the following to make a change to a voice: server=<*name*> voice=<*voice name*> voiceports=1-<*number of licensed ports*> voicebaseport=1-65000 For IBM WVS servers, the name must be specified as <*name*>**/media**. For MRCP servers (including IBM WVS), the baseport is typically set to 554.
tts display	ttstype=TTS0|TTS1|TTS2|TTS3|TTS4|TTS5|TTS6|TTS7|TTS8|TTS9 [server=**<***name***>**] [voice=**<***voice_name***>**] For IBM WVS servers, the name must be specified as <*name*>**/media**.
tts unassign	ttstype=TTS0|TTS1|TTS2|TTS3|TTS4|TTS5|TTS6|TTS7|TTS8|TTS9 [server=**<***name***>**] [voice=**<***voice_name***>**] For IBM WVS servers, the name must be specified as <*name*>**/media**.

Description

The **tts assign** command creates and populates configuration files with parameters. There are four types of assigns that can be done, and each type changes files as described in the following table:

Assign type (tts assign**...)**	**File activity**
defaultvoice	Also creates the **TTS.cfg** file. The **defaultvoice** parameter applies to all TTS types (**ttstype**).

ttstype engine	Also creates the **TTS#.cfg** file, where **#** is the **ttstype** number 0-9. This assign works only after the **TTS.cfg** file has been created by doing the **tts assign** with the **defaultvoice** parameter.
ttstype server	Modifies the **TTS#.cfg** file, where # is the **ttstype** number 0-9
ttstype server voice	Modifies the **TTS#.cfg** file, where # is the **ttstype** number 0-9

You can only enter one of the four types of assign commands at a time. The parameters from the four types of assign commands cannot be mixed. All parameter values are validated against the allowable parameter values. After a successful validation, all parameters are saved in the relevant configuration file.

The parameters for these commands are described in the following table:

Parameter	Description	Comments
defaultvoice	Default voice name if application does not provide a voice name	Valid voice name
ttstype	Text-to-Speech type	TTS0, TTS1, TTS2, TTS3, TTS4, TTS5, TTS6, TTS7, TTS8, TTS9
engine	Type of TTS engine	sapi|speechify|realspeak|mrcp
server	DNS name for the server	Valid DNS name For IBM WVS servers, the name must be specified as <*name*/**media**>.
ip	IP address of the server or DNS name for the server	Valid IP address or DNS name
ports	The number of ports supported on a server with a sapi or mrcp engine	1-number of licensed ports
baseport	Starting port number	1-65000 For MRCP servers, the baseport is typically set to 554.
voice	Voice name	Valid voice name
voiceports	Number of ports supported for this voice	1-number of licensed ports
voicebaseport	Starting port number	1-65000

The **tts assign** command exits with an error message and the usage statement under the following circumstances:

- Any required parameter is missing
- Any parameter value failed the validation

- The configuration file already exists in the case of assigning the **defaultvoice** or the **ttstype** with **protocol** and **configfile**
- The server is already assigned to the TTS type
- The parameters from the four types of assigns are mixed.
- The voice is already assigned to the TTS type and server

The **`tts change`** command changes the specified configuration file parameter values for the specified tts type (**ttstype**), **ttstype** and **server**, or **ttstype**, **server**, and **voice**. It creates a backup configuration file. The change command exits with an error message and the usage statement if:

- The configuration file does not exist for the **ttstype** or **ttstype/server** or **ttstype/server/voice**
- Any parameter value failed the field validation

The **`tts display`** command displays the associated configuration file parameters for the specified **ttstype**, **ttstype/server**, or **ttstype/server/voice**. If the configuration file does not exist for the **ttstype**, the server does not exist for the **ttstype**, or the voice does not exist for the **ttstype/server**, the **`tts display`** command exits with an error message and the usage statement.

The **`tts unassign`** command deletes the configuration file – and the backup configuration file (if any) – for the specified **ttstype**, if a **ttstype** is entered as the only parameter. If a **ttstype** and **server** are entered, the server information is removed from the configuration file. If a **ttstype**, **server**, and **voice** are entered, the voice information is removed from the configuration file. If the configuration file does not exist for the **ttstype**, the server does not exist for the **ttstype**, or the **voice** does not exist for the **ttstype/server**, the **`unassign`** command exits with an error message and the usage statement.

After the successful execution of **`tts assign`**, **`tts change`**, and **`tts unassign`** commands, an informational message is displayed to advise you to stop and restart the voice system to activate the configuration file change.

Files

Two types of **`tts`** configuration files get created when a **`tts assign`** is done. The **TTSproto.cfg** configuration file is installed with the AVttsprxy package. The following table describes the files:

File	Description	Comments
TTS.cfg	Configuration file	This file is created when the **`tts assign defaultvoice=`*`default voice name`*** command is executed

ttstype.cfg	Configuration file	This file is created when the **tts assign ttstype=ttstype engine=sapi|speechify|realspeak|mrcp** command is executed
TTSproto.cfg	Configuration file	This file is installed with the AVttsprxy package

All of the **tts** configuration files that are created with the **tts assign** command or installed with the AVttsprxy package are located in the **/vs/sproxy/cfg** directory.

See also

- Proxy Text-to-Speech feature
- Text-to-Speech configuration screens on page 516

unassign_permissions command

The **unassign_permissions** command removes voice system security permissions for a specific user.

Synopsis

```
unassign_permissions user_login
```

Description

The **unassign_permissions** command removes voice system security permissions for a specific user.

The *user_login* argument represents the user for which voice system permissions are to be removed. The user login still exists. However, the user will not be able to access the voice system.

Example

The following example executes the command to remove voice system security permissions.

```
unassign_permissions brown
```

See also

- display_permissions command on page 201
- assign_permissions command on page 160

vfyLogMsg command

The **vfyLogMsg** command verifies the information associated with a specific logging message format.

Synopsis

`vfyLogMsg` *`msgnum`*

Description

The **vfyLogMsg** command, given a message number or symbolic message name, recomposes the message format from the information stored in the **cmpLogFmt** files.

Note:
You cannot use the **vfyLogMsg** command to look up a message format for a message class that you have just created, but not yet installed.

The *msgnum* argument can be in any of the formats listed in the following table:

Format	Comments
Absolute message number	The absolute message number would be if you were examining compressed logging files with an editor, for example, *238*
Symbolic name	The symbolic name is found in the associated **log*{CLASS}* .h** header file, for example, **SYSMSG**
Message class/relative index in class pair *logGEN(2)* or *GEN.2*	This format can be specified in two ways: *logGEN(2)* or *GEN.2.* Two forms exist because the log{*CLASS*}(*index*) form must be enclosed in quotes when used from the command line because `(` and `)' are shell meta-characters, and this is difficult to type.

The output of the **vfyLogMsg** command contains up to five different types of information about the message format, discussed in the following table:

Type of information	Comments
Interpretations of the message number	The first block of information contains the three interpretations of the message number
Restored message format	The second block of information includes the restored message format without any SQL field names that might have been specified in the original format
SQL field name information	This information is the SQL field name information as specified in the original format. One description line exists for each argument on the machine.

Current message priority	The fourth block of information describes the current priority assigned to this message in that shared memory and the destination bit mask. This block of information is available only if the logging destination/priority shared memory exists on the machine.
Description of each destination bit	The fifth block of information describes each destination bit specified in the destination bit mask, starting with the lowest order bit

Example

```
vfyLogMsg 238
```

See also

- logCat command on page 241
- logDstPri command on page 249

voip command

The command line command **voip** is created for Voice over IP (VoIP) administration. This command allows users to assign, change, display, and unassign values to the VoIP configuration file.

Synopsis

Valid options for `voip` are:

```
assign                  card=6-15 ip=<card ip address>
                        gkip=<gatekeeper ip address> [gkpt=0-65535]
                        [name=<card name>] [en=y|n]
                        [lrtp=0-65535][hrtp=0-65535]
                        [rtcp=y|n] [rip=<rtcp monitor ip address>]
                        [rpt=0-65535]
                        [pkt=10|20|30|40|50|60] [auth=y|n]
                        [cmName=CM name] [maxChans=max chans]
                        [cmVersion=2.0|3.0] [MediaEncryption=0|1]

change                  card=6-15 ip=<card ip address>
                        [gkip=<gatekeeper ip address>][gkpt=0-65535]
                        [name=<card name>] [en=y|n]
                        [lrtp=0-65535] [hrtp=0-65535]
```

	[rtcp=y[n][rip=<*rtcp monitor ip address*>]
	[rpt=0-65535]
	[pkt=10|20|30|40|50|60][auth=y|n]
	[cmName=*CM name*] [maxChans=*max chans*]
	[cmVersion=2.0|3.0] [MediaEncryption=0|1]
display	assignments
	card=6-15
unassign	card=6-15

Description

The **voip assign** command creates a configuration file for the specified card. The required parameters are *card*, *ip*, and *gkip*. All parameter values are validated against the allowable parameter values. After a successful validation, all parameters are saved in a configuration file, which is associated with the administered card.

The **voip assign** command exits with an error message and the usage statement under the following circumstances:

- Any required parameter is missing
- Any parameter value failed validation
- The configuration file for the specified card already exists
- A VoIP card is already administered
- The parameter **rtcp** is set to **y** without specifying a valid **rip** parameter

The **voip change** command changes the specified configuration file parameter values for the specified card and creates a backup configuration file. If the configuration file does not exist, or any parameter value failed the field validation, the change command exits with an error message and the usage statement.

The **voip display** command with the card parameter displays the associated configuration file parameters for the specified card. If the configuration file does not exist, the display command exits with an error message and the usage statement.

The **voip unassign** command deletes the configuration file, and the backup configuration file, if any, for the specified card.

The **voip display assignments** command displays all the administered cards.

After the successful execution of **voip assign**, **voip change**, and **voip unassign** commands, an informational message is displayed telling you to stop and restart the voice system to activate the configuration file change.

Arguments and options for **voip** are described in the following table:

Argument	Description	Comments
card	A number corresponding to a virtual "card" used for VoIP	A number between **6** and **15.**
ip	IP address of the IR system	This parameter identifies the network interface card (NIC) that should be used to connect to the packet network. If the Avaya IR system interfaces with a DEFINITY or MultiVantage system, the IP address you enter here should be the same as the one you specify for the IR system on the **IP Node Names** form.
gkip	The IP address of the MultiVantage C-LAN card	If a DEFINITY or MultiVantage system is functioning as the Gatekeeper, the IP address you enter here should be IP address assigned to the Node Name that represents the C-LAN card on the **IP Node Names** form.
name	A unique name for the card	Up to 9 characters
en	Indicates whether the card associated with the configuration file is set to handle calls	The default value is y (yes).
hrtp	The highest UDP port to be used for RTP communication	This can be a value between **0** and **65535**.
lrtp	The lowest UDP port to be used for RTP communication	This can be a value between **0** and **65535**. Look for a range of free ports. The **9000** -**10000** range is usually free.
pkt	The RTP packet payload size in milliseconds for outgoing calls	This can be **10**, **20**, **30**, **40**, **50**, or **60**.
rtcp	Enables sending copies of RTCP packets to a VoIP Monitoring Manager for monitoring of audio quality	If set to n (no), copies of RTCP packets are not generated by the VoIP card.
rip	The IP address of the RTCP monitor to which copies of RTCP packets should be sent	—
rpt	The port used by the RTCP monitor to receive copies of the RTCP packets	This can be a value between **0** and **65535**.
auth	This field controls VoIP station authentication with the Gatekeeper.	This value can be set to yes or no.

cmName	A unique name upto 20 characters long.	The default name is in the CM# format, where # represents the card number that is being configured.
maxChans	The number of ports that you want to assign to the card that is being configured.	This field can accept 1 to 3 digit values. The default value is **93**.
cmVersion	The version of Avaya Communication Manager that you are currently using.	Select the correct version number (**2.0** or **3.0)** from the drop-down list.
MediaEncryption	This field controls the encryption of VoIP media signaling streams.	This value can be set to Disabled or Enabled (**0 or 1)**. The default value should be **0**

See also

- Voice over IP feature
- Administering Voice over IP on page 135
- Voice over IP screen on page 459

vs_status command

The **vs_status** command displays information about the status of the voice system.

Synopsis

```
vs_status
```

Description

When **vs_status** is executed, the following information is displayed by the system:

- Whether the voice system is up (enabled) or down (disabled)
- The number of voice ports in service

See also

- start_vs command on page 311
- stop_vs command on page 312
- vsenable command on page 334
- vsdisable command on page 334

vsdisable command

The **vsdisable** command disables the automatic restarting of the voice system.

Synopsis

```
vsdisable
```

Description

The **vsdisable** command is used to prevent the voice system from being started when the system is rebooted. Running **vsdisable** allows you to log in to the system before the voice system is started. The voice system may be started manually at any time with the **start_vs** command.

See also

- vsenable command on page 334
- start_vs command on page 311
- stop_vs command on page 312
- vs_status command on page 333

vsenable command

The **vsenable** command enables the automatic starting of the voice system at when the system is rebooted.

Synopsis

```
vsenable
```

Description

When the **vsenable** command is run, Solaris system files are modified to allow the voice system to be automatically started when the system is rebooted. By default, the voice system is installed with the automatic startup enabled. If there were any non-fatal problems during installation, the voice system is still installed but it has not enabled for automatic startup at system reboot. After the installation problems have been cleared, use **vsenable** to enable automatic voice system startup at reboot.

See also

- vsenable command on page 334
- start_vs command on page 311
- stop_vs command on page 312
- vs_status command on page 333

vxmlassign command

The **vxmlassign service/uri** commands assign a VoiceXML service installed on the platform or a service located at the specified URI to DNIS and ANI numbers or directly to one or more channels.

Synopsis

```
vxmlassign service app_name to chan chan_list

vxmlassign service app_name to dnis phone_list ani phone_list

vxmlassign service app_name to ani phone_list dnis phone_list

vxmlassign uri uri to chan chan_list

vxmlassign uri uri to dnis phone_list ani phone_list

vxmlassign uri uri to ani phone_list dnis phone_list
```

Description

The **vxmlassign service/uri** commands are used to assign VoiceXML services to either one or more channels or to DNIS and ANI numbers. Services should be assigned after the service has been verified and installed, the number of channels changes or the system is reconfigured. Use the **vxmldisplay** commands to see a list of valid service names.

Parameters for the **vxmlassign service/uri** commands are described in the following table:

Parameter	Description
app_name	The name of the application to be assigned
uri	The name of the URI to be assigned
chan_list	Comma or space separated list of channel numbers or channel number ranges in the form (chan1-chan2)

phone_list	Comma or space separated list of phone numbers or phone number ranges in the form (phone1:phone2)

Example

The following example could be used to assign the **vxmlFeatureTest** URI to channels for testing:

```
   vxmlassign uri file:///vs/data/vxml/vxmlFeatureTest.vxml to chan
0-23
```

See also

- vxmldelete command on page 336
- vxmldisplay command on page 337

vxmldelete command

The **vxmldelete service/uri** commands unassign the assignment of a VoiceXML service to DNIS and ANI numbers or of a service assigned directly to a channel.

Synopsis

```
vxmldelete service app_name from chan chan_list

vxmldelete service app_name from dnis phone_list ani phone_list

vxmldelete service app_name from ani phone_list dnis phone_list

vxmldelete uri uri from chan chan_list

vxmldelete uri uri from dnis phone_list ani phone_list

vxmldelete uri uri from ani phone_list dnis phone_list
```

Description

The **vxmldelete service/uri** commands delete the phone numbers or channels from assignment to the VoiceXML service.

Parameters for the **vxmldelete service/uri** commands are described in the following table:

Parameter	Description
app_name	The name of the application to be deleted

uri	The name of the URI to be deleted
chan_list	Comma or space separated list of channel numbers or channel number ranges in the form (chan1-chan2)
phone_list	Comma or space separated list of phone numbers or phone number ranges in the form (phone1:phone2)

Example

The following example could be used to remove URI or file assignments:

```
vxmldelete uri from chan 0-23
```

See also

- vxmlassign command on page 335
- vxmldisplay command on page 337

vxmldisplay command

The **vxmldisplay** commands display the VoiceXML services assigned to channels, DNIS, ANI, or telephone numbers.

Synopsis

```
vxmldisplay assignments

vxmldisplay dnis

vxmldisplay ani

vxmldisplay services

vxmldisplay chan chan_list

vxmldisplay phone_list
```

Description

The **vxmldisplay** commands are used to display the VoiceXML services assigned to calling numbers (ANI), called numbers (DNIS), telephone numbers, and channels.

The parameters for the **vxmldisplay chan** command are *chan_list* , which is a comma or space-separated list of channel numbers or channel number ranges in the form (chan1-chan2), and *phone_list*, which is a comma or space-separated list of telephone numbers or telephone number ranges in the form (phone1:phone2).

Example

The following example displays VoiceXML information for channels 8 to 16:

```
vxmldisplay chan 8-16
```

See also

- vxmlassign command on page 335
- vxmldelete command on page 336

xferdip_off command

The **xferdip_off** command deactivates the bridging capability.

Synopsis

```
xferdip_off
```

Description

The **xferdip_off** command deactivates the bridging capability. If the xferdip is running, this command stops it.

See also

xferdip_on command on page 338

xferdip_on command

The **xferdip_on** command activates the bridging capability.

Synopsis

```
xferdip_on
```

Description

The **xferdip_on** command activates the bridging capability. If the voice system is running, this command starts the xferdip.

See also

xferdip_off command on page 338

Web Administration screens

This section describes the screens that make up the Web Administration interface. Each topic typically contains an overview of the screen and one or more of the following:

- Option descriptions
- Field descriptions
- Button descriptions
- Links to related administration procedures

Note:
Screen names are capitalized if the names are used in the screens, and not capitalized if they are just descriptive of the screens. For example, Default Backup Parameters screen on page 361 refers to a screen with a title of the same name. Restore file list screen on page 367 refers to a screen that lists archive files but has no title.

This section includes the following topics:

Web Administration entry screen 343
Logon Screen 343
Web Administration menu 345
Web Administration and command-line equivalence 348
ASG Security Login Administration screen 352
Backup and restore screens 352
Alarm administration screens 369
CDH scheduling screens 375
Feature Licensing screen 377
License Configurations screens overview 377
JDBC administration screens 379
Message administration screens 387
VXML Log Administration screens overview 394
SNMP Configuration screen 399
Voice system control 399
CTI DIP administration screens 402
Switch interfaces screens 404
Voice equipment screens 468
ASAI administration screens 482
Fax administration screens 498
Speech and DPR administration screens 501
Universal Call ID Administration screen 525
Report screens 525

Web Administration entry screen

The **Web Administration entry** screen is the first screen that you see. It provides several options:

- **Web Administration** takes you to the Web Administration login page.
- **WebLM Primary Server** takes you to the WebLM primary server license administration page
- **WebLM Secondary Server** takes you to the WebLM secondary server license administration page.
- **Help** takes you to the online Help system.
- **Vonetix** lets you configure Vonetix software (this option appears only if Vonetix software is installed on the system).

Logon Screen

The **Logon** screen is the screen that you see, after you select **Web Administration** on the **Web Administration entry** screen.

Field description

Field	Description
Logon id	Enter the user id of the IR system. This user id is the same id that you use to log into the IR system. **Example**: root, mark, sherna
Password	Enter the password of of the system machine. This password is the same password that you use to log into the IR system. If you have entered an incorrect password, an error message appears. This message states " **Authentication failed. Please try again. If the error persists, contact a system administrator for assistance. "** **Example:** monKey, uFw1

Button descriptions

Button	Description
Logon	Displays the Web Administration screens.

Web Administration menu

The Web Administration menu lets you navigate to the major Web Administration screens, which are described in the following table.

Menu item	Description
ASG Security Administration **ASG Security Login Administration**	View and add ASG users
Backup/Restore **Backup**	Perform a full backup or a partial backup
Backup Scheduling	View, create, and delete backup schedules
Delete Backup Files	View and remove backup files
Backup History	View information about recent backups
Default Backup Parameters	View and set up default settings for backup schedules, file locations and the priority of the backup process
Restore	View backup file information and restore backups onto the system
Configuration Management Alarm Administration **Alarms**	View active and retired alarms and deactivate alarms sent to remote locations
Dialout Configuration	Set up transmission of alarms to remote locations
CDH Scheduling	View, create, or delete the schedule for uploading CDH files to a database
Feature Licensing	View licenses by feature
JDBC Administration	Configure, activate, or deactivate database DIPs
Message Administration	View and set conditions for system message reporting
VXML Log Administration	View, configure and set conditions for VXML log administration
System Control **Renumber Voice Channels**	Reorder the sequence of channels in the voice equipment table
Report Voice System Status	View number of ports in service and channel status
Start Voice System	Activate all channels
Stop Voice System	Deactivate all channels
Switch Interfaces **Digital Interfaces**	View and configure T1 and E1 protocols, and change their assignment to cards

Two B Channel Transfer	View and configure the Two B-Channel Transfer parameters, and change their assignment to cards
Voice over IP	View and configure Voice over IP parameters, and change their assignment to cards
Voice Equipment **Display Equipment**	View the maintenance states and configuration of channels on each card
Equipment State	Change the maintenance states of cards and channels
Channels to Groups	Change the assignments of channels to equipment groups
Phone Number	Change the assignments of telephone numbers and passwords (for VoIP) to channels
Display Passwords	View the passwords associated with channels that are assigned the VoIP station protocol.
Voice Services **Channel Services**	Change the assignments of services to channels
Number Services	Change the assignments of services to telephone numbers
Feature Packages **ASAI Administration**	View and modify the ASAI channels, domains, and parameters
CTI DIP Administration	Configure, activate and deactivate the telephony servers used by the CTI DIP
Fax Administration	Change the fax headers and the control transmission of messages
Speech and DPR Administration **Display Status**	View the status of speech or Dial Pulse Recognition resources and servers
Administration	Configure and change the states of resources and servers used with speech recognition, DPR, and Text-to-Speech
Universal Call ID Administration	Change the network node ID for Universal Call ID
Reports **Fax Report**	View the out-of-call fax report
Call Data Handling Reports	View the following reports: Call Classification Data Summary, Call Data Detail, Call Data Summary, Call Traffic
Message Log Report	View information about and filter messages displayed in the Message Log Report

VXML Log Report	View VXML logs by the following parameters: time stamp, channel id, level, module, channel id and level, channel id and level and module information, message text.
Performance Log Snapshot	View the VXML performance log report

Web Administration and command-line equivalence

The following table lists Web Administration menu items and the command-line command associated with each item.

Web Administration screen	Associated command-line command
ASG Security Administration ASG Security Login Administration	asg_adm
Backup/Restore Backup Full Backup Partial Backup	backup
Backup/Restore Backup Scheduling Setup Schedule Delete Schedule	schedback
Backup/Restore Delete Backup Files List Available Backup Files Delete Backup File	restback delbackup
Backup/Restore Backup History	backup
Backup/Restore Default Backup Parameters Display Default Parameters Setup Default Parameters	setbkparms
Backup/Restore Restore List Available Backup Files View Backup File Content Restore	restback
Configuration Management Alarm Administration Alarms	dspActAlarms dspRetAlarms retireAlarms
Configuration Management Alarm Administration Dialout Configuration	dalarm
Configuration Management Feature Licensing	RTUquery
Configuration Management JDBC Administration	dbconfig

Configuration Management Message Administration	msgadm
Configuration Management System Control Renumber Voice Channels	renumber
Configuration Management System Control Report Voice System Status	vs_status
Configuration Management System Control Start Voice System	start_vs
Configuration Management System Control Stop Voice System	stop_vs
Configuration Management Switch Interfaces Digital Interfaces	nms
Configuration Management Switch Interfaces Digital Interfaces Two B Channel Transfer	tbct
Configuration Management Switch Interfaces Voice over IP	voip
Configuration Management Voice Equipment Display Equipment	display card
Configuration Management Voice Equipment Equipment State	restore remove
Configuration Management Voice Equipment Channels to Groups	assign channel delete channel
Configuration Management Voice Equipment Phone Number	assign phone delete phone
Configuration Management Voice Equipment Display Passwords	display password
Configuration Management Voice Equipment Voice Services Channel Services	assign service display assignments delete service

Configuration Management Voice Equipment Voice Services Number Services	assign service display dnis delete service
Feature Packages ASAI Administration	asaichan asaidom asaiparms
Feature Packages CTI DIP Administration	cticonfig
Feature Packages Fax Administration Fax Actions	fax_admin
Feature Packages Fax Administration Fax Header	fax
Feature Packages Speech and DPR Administration Display Status	sproxyadm
Feature Packages Speech and DPR Administration Administration Change Speech State	sproxyadm
Feature Packages Speech and DPR Administration Administration Speech Recognition and DPR Configuration	speech
Feature Packages Speech and DPR Administration Administration Text-to-Speech Configuration	tts
Feature Packages Universal Call ID Administration	putswtsysp UCIDNODENUMBER getUcidNode
Reports Fax Report	faxrpt
Reports Call Data Handling Reports Call Classification Data Summary Report	ccarpt
Reports Call Data Handling Reports Call Data Detail Report	cddrpt
Reports Call Data Handling Reports Call Data Summary Report	cdsrpt

Reports Call Data Handling Reports Call Traffic Report	trarpt
Reports Message Log Report Modify Message Log Report Update Message Log Report	display messages
Reports Message Log Report Explain Messages	explain

ASG Security Login Administration screen

Use this screen to administer the Access Security Gateway (ASG) feature.

Field descriptions

Field	Description
Login ID	Identification of anyone who will either administer the system or dial in remotely to access the system. **Values:** Any string
Secret Key	The user's ASG secret key number in the system. **Values:** A 20-digit string, using only the digits 0 through 7. The digits in the string can be in any order except: • The right-most digit must be a zero (0) • The nineteenth digit must be an even octal

Button descriptions

Button	Description
Submit	Adds a new user
Display	Displays information about the user identified by **Login ID**
Delete	Deletes the user identified by **Login ID**
Reset	Sets the fields to their default values

Administration procedures

• Administering ASG on page 50

Backup and restore screens

This section describes the screens that are used to administer the Backup and Restore feature.

Backup and restore screens overview

Avaya IR R2.0 offers you the option of performing backup using an NFS mounted drive or a Tape Drive.

Note:

The **Tape Drive** option will be available to you on the **Backup** screen, only if you have a tape drive connected to the IR platform and it is set in the default backup parameters.

You can perform a full backup or a partial backup of system data, after selecting either the NFS or the Tape Drive option.

Backing up and restoring data involves:

- Performing either a full backup or a partial backup of data
- Scheduling a backup
- Deleting backup files (available only for NFS mounted drive)
- Copying backed up data onto the system ("restoring" the data)

Although backups can be performed at any time, Avaya recommends that you perform a full backup after the initial installation.

A full backup copies all IR system files, including voice response applications to a backup file. A partial backup can be performed by in three ways:

- By backing up a list of files:
- By backing up all files in a directory:
- By backing up all files that have changed in the last 1 to 90 days.

Before you can perform a partial backup, you must first perform a full backup. Avaya also recommends you stop the voice system before performing a partial backup. Before performing a partial backup of files that have changed in the last 1 to 90 days, you must stop the voice system.

CAUTION:
The transfer of large backup images may have a negative impact on your network performance.

Backup screen

Use this screen to select the device that you want to use to perform a full backup or a partial backup.

Option descriptions

Option	Description
NFS	Selects the NFS mounted drive
Tape Drive	Selects the tape drive

Note:

The **Tape Drive** option will be available to you on the **Backup** screen, only if you have a tape drive connected to the IR platform and it is set in the default backup parameters.You can do a full backup or a partial backup of system data, after selecting either the NFS or Tape Drive option.

Option descriptions

Option	Description
Full Backup	Displays the Full Backup screen on page 354
Partial Backup	Displays the Partial Backup screen on page 356

Button descriptions

Button	Description
Help	Displays the system help files

Administration procedures

- Performing a full backup on page 28
- Performing a partial backup on page 356
- Performing a partial backup on page 26

Full Backup screen

Use this screen to set up and perform a full backup of system data.

Field descriptions

Field	Description
NFS Mount Directory	The Network File System mount directory where the backup file is stored. **Values:** Path to a mounted directory. Defaults to the NFS mount directory set in the default backup parameters. **Example:** /mnt/br
Tape Drive	The tape drive where the backup file is stored. **Values:** Path to a tape drive connected to the IR platform. " The non-rewinding option to specify the tape drive path should be present in this path. This means that the drive name must have an **n** in the specified path. Defaults to the tape drive are set in the default backup parameters. **Example:** /dev/mnt/0n
Backup File Title	(Optional) A description of the backup file. Used as part of the backup file name. **Values:** Any string less than or equal to 50 characters in length. **Example:** MyBackup This title is used to create a file name. In the example, the file name for the full backup is similar to: **MyBackup.D042903T090700.full** If no Backup File Title is entered, a file title is created by the system.
Priority	The priority of the backup process compared to other processes. **Values:** low, high.

Note:

In the above field, either NFS Mount Directory or Tape Drive will be displayed, depending upon the backup device you have selected on the Backup screen on page 354.

Button descriptions

Button	Description
Submit	Performs the full backup
Reset	Sets the fields to their default values

Cancel	Displays the Backup screen on page 354
Help	Displays the system help files

Administration procedures

- Performing a full backup on page 28

Partial Backup screen

This screen is used to set up and perform a partial backup of system data.

Field descriptions

Field	Description
NFS Mount Directory	The Network File System mount directory where the backup file is stored. **Values:** Path to an existing directory. Defaults to the NFS mount directory set in the default backup parameters. For example: /mnt/br
Tape Drive	The tape drive where the backup file is stored. **Values:** Path to a tape drive connected to the IR platform. " The non-rewinding option to specify the tape drive path should be present in this path. This means that the drive name must have an **n** in the specified path. Defaults to the tape drive are set in the default backup parameters. **Example:** /dev/mnt/0n
Backup File Title	(Optional) A description of the backup file. Used as part of the backup file name. **Values:** Any string less than or equal to 50 characters in length. **Example:** MyBackup This title is used to create a file name. In the example, the file name for the partial backup is similar to: **MyBackup.D042903T090700.incr** If no Backup File Title is entered, a file title is created by the system.

Days	The number of days that files are backed up (counting the present day). **Values:** 1-90 For example, the most recent day is entered as *1*, and the most recent two days are entered as *2.* Note that if this field is filled in, nothing can be entered for **Directory** or **File List**.
Directory	The directory to back up. **Values:** Any path If this field is filled in, nothing can be entered for **Days** or **File List**.
File List	The file that contains a list of backed-up files. **Values:** Full path The File List is a text file that must be edited from a terminal. Note that if this field is filled in, nothing can be entered for **Days** or **Directory**.
Priority	The priority of the backup process compared to other processes. **Values:** low, high
Stop the voice system before backup?	Choice to automatically stop the voice system before a backup. **Values:** yes, no Avaya recommends the *yes* option for partial backups.
Enter an Oracle username with permissions to start/stop Oracle	The user name for logging in to Oracle. This Oracle user account must have permission to stop and start the Oracle server. **Values:** Any string. **Note:** This field only appears if Oracle is installed locally on the Avaya IR system.

Note:

In the above field, either NFS Mount Directory or Tape Drive will be displayed, depending upon the backup device you have selected on the Backup screen on page 354

Button descriptions

Button	Description
Submit	Performs the partial backup
Reset	Sets the fields to their default values

Cancel	Displays the Backup screen on page 354

Administration procedures

- Performing a partial backup on page 26

Backup Scheduling screen

Use this screen to display screens that can be used to create or delete a backup schedule.

The bottom of the screen displays the current backup schedule.

Option descriptions

Option	Description
Setup Schedule	Displays the Setup Schedule screen on page 358
Delete Schedule	Displays the Delete Schedule screen on page 359

Administration procedures

- Scheduling a backup on page 29

Setup Backup Schedule screen

Use this screen to create a schedule for a backup.

The bottom of the screen displays the current backup schedule.

Option descriptions

Option	Description
NFS	Selects the NFS mounted drive
Tape Drive	Selects the tape drive

Note:

In the above field, either NFS Mount Directory or Tape Drive will be displayed, depending upon the backup device you have selected on the Backup screen on page 354. .

Field descriptions

Field	Description
Backup Type	The type of backup you want to schedule. **Values:** partial, full
Minute	The minute of an hour you want to schedule a backup to run. **Values:** 00-59
Hour	The hour of the day that the backup is scheduled to run. **Values:** 00-23
Days of Week	The day or days of the week you want the backup to run. **Values:** Day of week (*Monday*, *Tuesday*, and so on) Select multiple sequential days by using the **Shift+Left** mouse button. Select multiple non-sequential days by using the **Ctrl+Left** mouse button.

Button descriptions

Button	Description
Submit	Creates the backup schedule. The new schedule is displayed on the screen.
Reset	Sets the fields to their default values
Cancel	Displays the Backup Scheduling screen on page 358

Administration procedures

- Scheduling a backup on page 29

Delete Schedule screen

Use this screen to delete a backup schedule.

The current backup schedule is displayed on the bottom of the screen.

Field descriptions

Field	Description
Backup to be Deleted	Type of backup. **Values:** partial backup, full backup

Button descriptions

Button	Description
Submit	Deletes the backup schedule selected in the **Backup to be Deleted** field. The updated schedule is displayed on the screen.
Reset	Sets the fields to their default values
Cancel	Displays the Backup Scheduling screen on page 358

Administration procedures

- Scheduling a backup on page 29

Delete Backup files screen

Use this screen to delete specific backup files from a current list of backup files in an NFS mount directory.

Note:

Backup files on a tape drive cannot be deleted. A tape needs to be erased completely using the Solaris OS command **mt**.

Example: **mt -f /dev/rmt/0n erase**

Field descriptions

Field	Description
Backup File	The name of the backup file. **Values:** A full path.
Date	The date that the file was created
Time	The time of day that the file was created
Type	The type of backup. **Values:** partial, full

NFS Mount Directory	The directory on the Network File System where backup files are stored. **Values:** Path to a mounted directory. Defaults to the NFS mount directory set in the default backup parameters. **Example:** /backup

Button descriptions

Button	Description
Select All	Selects all files in the file list
Unselect All	Selects no files in the file list. Button is only available after **Select All** is selected.
Refresh	Updates the file list
Remove Selected	Removes selected files in the file list

Administration procedures

- Deleting a backup file on page 30

Backup history screen

Use this screen to view the dates and times for the most recent full ("complete") backups and partial backups.

Default Backup Parameters screen

Use this screen to either display default backup parameters or to display a screen where these parameters can be set.

Default backup parameters determine where and when backups are performed, as well as how many system resources are used compared to other system activities.

Option descriptions

Option	Description
Display Default Parameters	Display the Display default parameters screen on page 362
Setup Default Parameters	Display the Setup Default Backup Parameters screen on page 362

Administration procedures

- Displaying the default backup parameters on page 25
- Assigning default backup parameters on page 25

Display default parameters screen

This screen displays the values of the default backup parameters.

Parameter descriptions

Parameter	Description
LOCATION	The Network File System mount directory where the backup files are stored
TAPE_DRIVE	The tape drive where the back up files are stored
DAYS	The number of days that files are backed up, including the present day
PRIORITY	The priority of the backup process compared to other processes
CLEANUP_FULL	The number of days to keep a full backup file before deleting it
CLEANUP_INCR	The number of days to keep a partial backup file before deleting it
ALARMDAYS_FULL	The number of days after the last successful full backup is performed that a minor alarm is placed in the log
ALARMDAYS_INCR	The number of days after the last successful partial backup is performed that a minor alarm is placed in the log
ORACLE_USER	The username for logging in to Oracle

Administration procedures

- Displaying the default backup parameters on page 25

Setup Default Backup Parameters screen

Use this screen to set the values of default parameters for performing backups.

Field descriptions

Field	Description
NFS Mount Directory	The Network File System mount directory where the backup file is stored. **Values:** Any path. **Example:** \mnt
Tape Drive	The tape drive where the backup file is stored. **Values:** Path to a tape drive connected to the IR platform. Defaults to the tape drive are set in the default backup parameters. **Example:** /dev/rmt/0n
Days	(Optional) The number of days that files are backed up, including the present day. **Values:** 1-90. For example, the most recent day is entered as 1, and the most recent two days are entered as 2.
Priority	The priority of the backup process compared to other processes. **Values:** low, high.
Cleanup Full Backup	The number of days to keep a full backup file before deleting it **Values:** Any positive integer, or *never.*
Cleanup Partial Backup	The number of days to keep a partial backup file before deleting it **Values:** Any positive integer, or *never.*
Full Backup Alarm Days	The number of days after the last successful full backup is performed that a minor alarm is placed in the log. **Values:** Any positive integer, or *never.*
Partial Backup Alarm Days	The number of days after the last successful partial backup is performed that a minor alarm is placed in the log. **Values:** Any positive integer, or *never.*
Enter an Oracle username with permissions to start/stop Oracle	The user name for logging in to Oracle. This Oracle user account must have permission to stop and start the Oracle server. **Values:** Any string.

Button descriptions

Button	Description
Submit	Updates the default parameters
Reset	Sets all fields to default values
Cancel	Displays the Default Backup Parameters screen on page 361

Administration procedures

- Assigning default backup parameters on page 25

Restore screen

Use this screen to access other screens from which you can:

- Find out about existing backup files
- Use backup files to restore system data

Option descriptions

Option	Description
List Available Backup Files	Displays the List Available Backup Files screen on page 364
View Backup File Content	Displays the View Backup File Content screen on page 365
Restore	Displays the Set restore directory screen on page 368

Administration procedures

- Displaying the available backup files on page 25
- Viewing backup file content on page 29
- Restoring data on page 31

List Available Backup Files screen

Use this screen to set the directory to list available backup files.

Field description

Field	Description
NFS Mount Directory	Selects the Network File System mount directory where the backup files are stored.
Tape Drive	Selects the tape drive where the backup files are stored.
NFS Mount Directory / Tape Drive	The Network File System mount directory or the tape drive where the backup files are stored. **Values:** Any path. Defaults to the NFS mount directory or the tape drive, whose path is set in the default backup parameters. Note that the NFS directory must be mounted. **Example:** /backup

Button descriptions

Button	Description
Submit	Displays the Restore file list screen on page 367
Reset	Sets the field to its default value
Cancel	Displays the Restore screen on page 364

Administration procedures

- Displaying the available backup files on page 25

View Backup File Content screen

Use this screen to choose the directory that contains the backup files you want to use for restoring system data.

Field description

Field	Description
NFS Mount Directory	Selects the Network File System mount directory where the backup files are stored.
Tape Drive	Selects the tape drive where the backup file is stored.

NFS Mount Directory / Tape Drive	The Network File System mount directory or the tape drive where the backup files are stored. **Values:** Any path. Defaults to the NFS mount directory or the tape drive, whose path is set in the default backup parameters. Note that the NFS directory must be mounted. **Example:** /backup

Button descriptions

Button	Description
Submit	Displays the View backup content for directory screen on page 366
Reset	Sets the field to its default value
Cancel	Displays the Restore screen on page 364

Administration procedures

- Viewing backup file content on page 29

View backup content for directory screen

Use this screen to choose the backup file whose content you want to view.

Field description

Field	Description
Backup File Name	The name of a backup file in the NFS mount directory. **Values:** File names in a drop-down list box **Example:** server1.D050203T123300.incr The extensions of the files in the list identify whether they were generated during partial or full backups: • **.incr** files were generated during partial backups • **.full** files were generated during full backups

Button descriptions

Button	Description
Submit	Displays the Backup File Content screen on page 367
Reset	Sets the field to its default value
Cancel	Displays the View Backup File Content screen on page 365

Administration procedures

- Viewing backup file content on page 29

Backup file content screen

This screen lists the contents of the backup file selected in the View Backup File Content screen on page 365.

Each item in the list is the full path to a file as it would appear on the system.

For example, *vs/bin/util/addhdr* refers to a file *addhdr* that was in the system's vs/bin/util/ directory when it was backed up. When the contents of the backup file are restored to the system, the addhr file is placed in the system's vs/bin/util/ directory.

Restore file list screen

This screen is a list of all the available backup files in an NFS mount directory (specified on the List available backup files screen on page 364).

The extensions of the files in the list identify whether they were generated during partial or full backups:

- **.incr** files were generated during partial backups
- **.full** files were generated during full backups

Administration procedures

- Displaying the available backup files on page 25

Set restore directory screen

Use this screen to identify the directory that contains the backup file that you will use to restore system data.

Field description

Field	Description
NFS Mount Directory	The Network File System mount directory where the backup files are stored. **Values:** Any path **Example:** /backup Note that the directory must be mounted.
Tape Drive	The tape drive where the backup file is stored. **Values:** Path to a tape drive connected to the IR platform. Defaults to the tape drive are set in the default backup parameters. **Example:** /dev/mnt/0n

Button descriptions

Button	Description
Submit	Displays the Restore from directory screen on page 368
Reset	Sets the field to its default value
Cancel	Displays the Restore screen on page 364

Administration procedures

- Restoring data on page 31

Restore from NFS Mount Directory screen

Use this screen to identify which files to restore on the system and to initiate the restoring of the files.

Field descriptions

Field	Description
Backup File Name	The name of the file used to restore data. **Values:** Valid file names are listed in a drop-down list box.
File List	The file that contains a list of backed up files to be restored. **Values:** Full path to the file. The File List is a text file that must be edited from a terminal.
Stop the voice system before restore?	Choice to automatically stop the voice system before restoring data. **Values:** no, yes Avaya recommends *yes*.
Enter an Oracle username with permissions to start/stop Oracle	The user name for logging in to Oracle. This Oracle user account must have permission to stop and start the Oracle server. **Values:** Any string. **Note:** This field only appears if Oracle is installed locally on the Avaya IR system.

Button descriptions

Button	Description
Submit	Restores files to the system
Reset	Sets the field to its default value
Cancel	Displays the Set restore directory screen on page 368

Administration procedures

- Restoring data on page 31

Alarm administration screens

This section describes the screens that are used to administer alarms and change the dial-out configuration.

Alarms screen

Use this screen to access screens that display or retire alarms.

Option descriptions

Option	Description
Display active alarms	Displays the Display active alarms screen on page 370
Display retired alarms	Displays the Display retired alarms screen on page 371
Retire alarms	Displays the Retire alarms screen on page 371

Administration procedures

- Displaying active alarms on page 34
- Displaying retired alarms on page 34
- Retiring alarms on page 34

Display active alarms screen

Use this screen to view information about alarms that are still active.

Column descriptions

Column	Description
Mod	The module being used
Alarm Type	The type of alarm
Location	The equipment location (if applicable)
Alarm Code	The number of the alarm
Pri	The priority of the alarm
Time of Alarm	The time that the alarm was generated

Administration procedures

- Displaying active alarms on page 34

Display retired alarms screen

Use this screen to view information about alarms that have been retired.

Column descriptions

Column	Description
Mod	The module being used
Alarm Type	The type of alarm
Location	The equipment location (if applicable)
Alarm Code	The number of the alarm
Pri	The priority of the alarm
Time of Alarm	The time that the alarm was generated
Time Retired	The time that the alarm was retired
Reason	The reason that the alarm was retired

Administration procedures

- Displaying retired alarms on page 34

Retire alarms screen

Use this screen to retire alarms.

Field description

Field	Description
Retire Reason	A description of the reason for retiring alarms. **Values:** Any string

Button descriptions

Button	Description
Submit	Retires alarms
Reset	Sets the field to its default value
Cancel	Displays the Alarms screen on page 370

Administration procedures

- Retiring alarms on page 34

Dialout Configuration screen

Use this screen to either display or modify dialout parameters. Dialout parameters determine how and why the system uses its external modem to transmit alarm messages.

Option descriptions

Option	Description
Change Parameters	Displays the Change dialout parameters screen
Display Parameters	Displays the Display dialout parameters screen on page 372

Administration procedures

- Changing the dialout configuration on page 40
- Displaying dialout configuration parameters on page 40

Display dialout parameters screen

Use this screen to view the values of the dialout parameters.

Parameter descriptions

Parameter	Description
Product Id	The INADS product ID
Trace	The state of the trace function (enabled=*yes*, disabled=*no*)
Dialout	The state of the dialout function (enabled=*yes*, disabled=*no*)
Maxtemp	The maximum allowable temperature (in degrees Celsius)
Track	The tracking of minor alarms
Port	The port used by the system to dial out

Dialout Location	The arbitrary designation of a location to be called
Id	The name of the location that the system calls
Number	The telephone number that the system calls
Speed	The baud rate of the modem
Charsize	The number of bits in a character
Parity	The parity of the modem
Dialstring	The string that contains instructions for modem behavior

Administration procedures

- Displaying dialout configuration parameters on page 40

Change dialout parameters screen

Use this screen to change the values of the dialout parameters.

Field descriptions

Field	Description
Product ID	The INADS product ID. **Values:** A 10-digit number. The default is 4000000000. This field is automatically updated when the product is registered with INADS.
Trace on?	The state of the trace function. **Values:** enabled=*yes*, disabled=*no.*
Dialout on?	The state of the dialout function. **Values:** enabled=*yes*, disabled=*no.*
Maximum Allowable Temperature	The temperature, in degrees Celsius, above which the system calls a dialout location. **Values:** Integer. **Example:** 45.
Minor Alarms Tracked?	The tracking of minor alarms. **Values:** no, yes.

Port Used	The port used when dialing out. **Values:** ttya, ttyb
Location ID	The name of the location that the system calls. **Values:** Any string.
Phone Number	The telephone number that the system calls. **Values:** Allowable characters are: *0-9*, **(**, **)**, **#**, *****, **.**, [blank],-. **Example:** (303)555-5555
Modem Speed	The baud rate of the modem. **Values:** 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 76800, 115200, 153600, 230400, 307200, 460800.
Char Size	The number of bits in a character. **Values:** 7, 8.
Parity	The parity of the modem. **Values:** even, odd, none.
Dialstring	The dialstring to use when using the modem. **Values:** A string of standard Hayes AT modem commands, which include the following: • \n — insert a newline character • \r — insert a carriage return • \p — pause 1 second • \d — delay 2 seconds • \i — insert the dial out location identifier • \I — insert the inads formatted string • \T — insert the dial out location telephone number • \s — insert a space **Example:** \date0q0\n\r OK\r atdt\T\n\r CONNECT\s \d\d\I so\s2 Default dialstrings are to INADS for Dialout Location 1, and to a pager for Dialout Location 2.

Button descriptions

Button	Description
Submit	Changes the dialout parameters
Reset	Sets fields to their default values
Cancel	Displays the Dialout Configuration screen on page 372

Administration procedures

- Changing the dialout configuration on page 40

CDH scheduling screens

This section describes the screens that are used to schedule the uploading of CDH data to a local or remote database.

CDH Scheduling screen

Use this screen to either delete the croncdh schedule or access a screen that sets up the schedule. You can view the current croncdh schedule at the bottom of the screen.

Option descriptions

Option	Description
Setup Schedule	Displays the Setup CDH Schedule screen on page 375
Delete Schedule	Prompts you to confirm deletion. If you select **OK**, the system deletes the CDH schedule and updates the screen.

Administration procedures

- Setting up a CDH schedule on page 81
- Deleting a CDH schedule on page 81

Setup CDH Schedule screen

Use this screen to set up and create the schedule for running croncdh.

Field descriptions

Field	Description
Minute	The minute of the hour that croncdh runs. **Values:** 0-59
Hour	The hour of the day that croncdh runs. **Values:** 0-23
Day of Week	The day of the week that croncdh runs. **Values:** all, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday Select multiple sequential days by using the **Shift+Left** mouse button. Select multiple non-sequential days by using the **Ctrl+Left** mouse button.

Button descriptions

Button	Description
Submit	Sets the schedule and updates the screen
Reset	Sets fields to their default values
Cancel	Displays the CDH Scheduling screen on page 375

Administration procedures

- Setting up a CDH schedule on page 81

Feature Licensing screen

Use this screen to view the features that you are licensed to use.

Column descriptions

Column	Description
Feature Type	The type of feature
Lic Value	The number of ports licensed for the feature. For Digital interfaces and VoIP, this is the number of channels.
Feature Name	The name of the feature

Administration procedures

- Viewing licensed features on page 146

License Configurations screens overview

This section describes the screen that is used to configure licensing information.

License configurations screen

Use this screen to administer the Primary WebLM Server URL and the Secondary WebLM Server URL.

Field descriptions

Field	Description
Primary WebLM Server URL	The IP address of the Primary WebLM server or the name of the Primary WebLM server **Values:** IP address of the Primary WebLM server or the name of the Primary WebLM server, followed by :80/WebLM/LicenseServer **Example:** http://127.1.1.1:80/WebLM/LicenseServer or http://pcdev5:80/WebLM/LicenseServer

Secondary WebLM Server URL	The IP address of the Secondary WebLM server or the name of the Secondary WebLM server **Values:** IP address of the secondary WebLM server or the name of the Secondary WebLM server ., followed by :80/WebLM/LicenseServer **Example:** http://127.1.1.2:80/WebLM/LicenseServer or http://retgdev8:80/WebLM/LicenseServer
Response Timeout Period	The response timeout period in seconds of the WebLM server **Values:** Any numeric value between 10 - 30, both inclusive. **Example:** 10, 25

Button descriptions

Button	Description
Test	This button tests the connectivity between your IR client machine and the WebLM server. When this button is clicked, two windows pop up. The first window tests the connectivity between your IR IR client machine and the WebLM server.This window displays the URL that you have entered in the **Primary WebLM Server URL** or **Secondary WebLM Server URL** field. If the URL information entered in the **Primary WebLM Server URL** or **Secondary WebLM Server URL** field is correct, the Avaya WebLM version 4.0 page is displayed. If a connection is unavailable between your IR client machine and the WebLM server, an error message is displayed in this window. The second window tests the connectivity between the IR R2.0 platform and the WebLM server. If a connection is available between your IR R2.0 platform and the WebLM server, the Avaya WebLM version 4.0 page is displayed. If a connection is unavailable between the IR platform and the WebLM server, an error message is displayed in this window. The WebLM version displayed in the first window and the second window may be different from WebLM version 4.0, depending upon the version of WebLM being used.
Submit	Configures the URL of the Primary WebLM Server and Secondary WebLM Server, as set in the field above
Reset	Sets the fields to their default values

Help	Displays the help file

Administration procedures

- License configuration on page 144

JDBC administration screens

This section describes the screens that are used to administer the JDBC interface. The JDBC interface exchanges data between databases and the system.

JDBC Administration - Main screen

Use this screen to:

- Access screens that configure and test Database (DB) DIPs
- View the status of DB DIPs
- Access the screen that configures and tests the Database Call Data Handler (Database CDH) DIP
- Access the screen that configures the uploading of database information to CDH files ("File CDH")
- Start, stop, restart, or test a DB DIP
- Start, stop, restart, or test Database CDH
- Start, stop, or restart File CDH

Column descriptions

Column	Description
Dipid	The names of the DIPs. The DIP name is a hyperlink to one of the following screens: • A JDBC administration - edit screen on page 381 for each DB DIP • A JDBC Administration - Edit (Custom) screen on page 383 for DB DIPs that have the database type of Custom • The File CDH edit screen on page 385 for File CDH Radio buttons are used to select the DIPs operated on by the buttons below the table.
Dip Status	The status of the DIP, which is either *running* or *not running*.
Dip Configuration	The configuration of the DIP. **Example:** (dipport=6500, dbtype=Oracle, dbhostname=Hostname, dbport=7, dbname=DBname, dbusername=Username, connpoolsize=5, ccq=SELECT SYSDATE FROM DUAL)

Button descriptions

Button	Description
Start	Starts the selected DIPs
Stop	Stops the selected DIPs
Restart	Restarts the selected DIPs
Test	Tests a selected DIP and displays the associated edit screen

Administration procedures

- Configuring a database DIP on page 77
- Configuring File CDH for a local text file on page 78
- Configuring File CDH for a local Oracle database on page 79
- Configuring File CDH for a remote database on page 80
- Configuring Database CDH for a local Oracle database on page 80

- Starting, stopping, restarting, and testing a DIP on page 78

JDBC administration - edit screen

Use this screen to configure and test a Database DIP.

Field descriptions

Field	Description
Is this a local dip?	The location of the DIP relative to the platform. **Values:** Displays *yes* if the DIP is on the platform, *no* if it is not on the platform. The value of this field is always *yes*.
DIP ID	The name of the DIP. **Values:** DBDIP1, DBDIP2, DBDIP3, DBDIP4, DBDIP5, CDH This is a value set by the system.
Select the port number the DIP is listening on (default)	The LAN port monitored by the DIP. **Values:** 0-65535 This field is required.
Select the Database type	The type of database you want to use. **Values:** Oracle, Sybase, IBM DB2, Informix, Microsoft SQL Server, or Custom. **Note:** If you select Custom, the page displays different fields, which are described in JDBC Administration - Edit (Custom) screen on page 383.
Enter the Informix instance name	The instance name if Informix is the database type. **Values:** Any string. This field cannot be empty if Informix is the database type.
Enter the DB hostname	The LAN hostname for the server hosting the database. **Values:** Any string. This field is required.

Enter the DB name	The name of the database. **Values:** Any string. This field is required.
Enter the DB port	The LAN port that the database is monitoring. **Values:** 0-65535 This field is required.
Enter the DB username	The username used to access the database. **Values:** Any string This field is required.
Enter the DB password	The password used to access the database. **Values:** Any string. This field is required.
Enter the Connection Pool Size	The maximum anticipated number of concurrent JDBC connections that the Avaya IR system will use. **Valid Values:** 1-200 **Recommended Values:** 5-10 (for the Sun Blade 150) 5-20 (for the Sun Fire V240 or 280R) This field is required.

Button descriptions

Button	Description
Main	Displays the JDBC Administration - Main screen on page 379.
Save	Saves the DIP configuration and displays the JDBC Administration - Main screen on page 379.
Test	Tests the DIP and displays the DB Dip test screen.
Delete	Deletes the DIP configuration.

Administration procedures

- Configuring a database DIP on page 77
- Configuring File CDH for a local text file on page 78
- Configuring File CDH for a local Oracle database on page 79
- Configuring File CDH for a remote database on page 80

- Configuring Database CDH for a local Oracle database on page 80

JDBC Administration - Edit (Custom) screen

Use this screen to configure and test a Custom Database DIP.

Field descriptions

Field	Description
DIP ID	The name of the DIP. **Values:** DBDIP1, DBDIP2, DBDIP3, DBDIP4, DBDIP5, CDH This is a value set by the system.
The port number the DIP is listening on (default)	The LAN port monitored by the DIP. **Values:** 0-65535 This field is required.
Database type	The type of database you want to use. **Values:** Oracle, Sybase, IBM DB2, Informix, Microsoft SQL Server, or Custom.
DB username	The username used to access the database. **Values:** Any string This field is required.
DB password	The password used to access the database. **Values:** Any string. This field is required.
Classname	The Java classname for the driver, such as **`com.microsoft.jdbc.sqlserver.SQLServerDriver`**. This field is required.

Database URL	Enter the URL that the Avaya IR system uses to connect to the database, such as **jdbc:microsoft:sqlserver://*domain_name*:1433;databaseName=*yourdatabasename*** where *domain_name* is the domain name for the MS SQL Server 2000 server, and *yourdatabasename* is the filename of the database. This field is required.
Additional properties	This field can be left blank.
Connection Pool Size	The maximum anticipated number of concurrent JDBC connections that the Avaya IR system will use. **Values:** 1-200 **Recommended Values:** 5-10 (for the Sun Blade 150) 5-20 (for the Sun Fire V240 or 280R) This field is required.
Database subtype	The database type that matches the JDBC drivers you are using.
Check connection SQL query	This field displays when the Database subtype is set to **other.** Enter a simple SQL query that will be used to test that the database connection is working properly when the database DIP is running.

Button descriptions

Button	Description
Main	Displays the JDBC Administration - Main screen on page 379.
Save	Saves the DIP configuration and displays the JDBC Administration - Main screen on page 379.
Test	Tests the DIP and displays the DB Dip test screen.
Delete	Deletes the DIP configuration.

Administration procedures

- Configuring a database DIP on page 77
- Configuring File CDH for a local text file on page 78
- Configuring File CDH for a local Oracle database on page 79
- Configuring File CDH for a remote database on page 80
- Configuring Database CDH for a local Oracle database on page 80

File CDH edit screen

Use this screen to set up how data from CDH files are stored in a database when the croncdh cron job is run.

Field descriptions

Field	Description
Select the database DIP to use for uploading	The DIP that is used by croncdh to upload data from CDH files to a database. **Values:** none, CDH, DBDIP1, DBDIP2, DBDIP3, DBDIP4, DBDIP5 If you choose *none*, croncdh does not upload data to a database. If you choose *CDH*, croncdh uses the database configuration for the Database CDH DIP to upload the data from the CDH files to a database. The Database CDH DIP does not have to be running in order for croncdh to upload the files.
Enter the datapath to use for writing call data	The directory that contains the CDH files. Subdirectories are created that are associated with each day (beginning at midnight). **Values:** Any path **Example:** /voice1/calldata

Button descriptions

Button	Description
Main	Displays the JDBC Administration - Main screen on page 379

Save	Saves the File CDH configuration and displays the JDBC Administration - Main screen on page 379

Administration procedures

- Configuring File CDH for a local text file on page 78
- Configuring File CDH for a local Oracle database on page 79
- Configuring File CDH for a remote database on page 80

DIP status screens

The system displays a status screen when a DIP is started, stopped, restarted, or tested.

DIP start status screen

Use this screen to display information about the success of starting a DIP.

Button description

Button	Description
Main	Displays the screen that lists the DIPs

DIP stop status screen

Use this screen to display information about the success of stopping a DIP.

Button description

Button	Description
Main	Displays the screen that lists the DIPs

DIP restart status screen

Use this screen to display information about the success of restarting a DIP.

Button description

Button	Description
Main	Displays the screen that lists the DIPs

Message administration screens

This section describes the screens that are used to administer system messages.

Message Administration screen

Use this screen to choose which message to administer.

Field description

Field	Description
Message ID	The message identifier. **Values:** Listed in drop-down list box. See Alarms and log messages

Button descriptions

Button	Description
Submit	Displays the Message Administration for Message ID screen on page 388
Reset	Sets the field to its default value

Administration procedures

- Administering alarms and messages on page 32

Message Administration for Message ID screen

Use this screen to access screens that enable the following tasks:

- Adding or removing a new destination to or from the current list of destinations for the message
- Modifying the priority of the message
- Modifying the message threshold period

At the bottom of the screen you can view all the parameters associated with the message.

Option descriptions

Option	Description
Add Destination	Displays the Add destination screen on page 389
Remove Destination	Displays the Remove destination screen on page 390
Add Threshold	Displays the Add threshold screen on page 391
Remove Threshold	Displays the Remove threshold screen on page 392
Message Priority	Displays the Message priority screen on page 393
Threshold Period	Displays the Threshold period screen on page 393

Administration procedures

- Adding a message destination on page 35
- Removing a message destination on page 37
- Changing the message destination on page 36
- Adding a message threshold on page 37
- Removing a message threshold on page 38
- Changing the alarm threshold on page 40
- Changing the alarm priority on page 39
- Changing the threshold period on page 39

Add destination screen

Use this screen to create a list of locations where the message is displayed or written by the system.

Field description

Field	Description
Destination	The location where the message should be sent. **Values:** Listed in the drop-down list box See destination descriptions in the following table.

The following table describes the destinations where you can send messages.

Destination	Description
log	Master log
stderr	Standard error
console	/dev/console
alertPipe	Alert pipe
alarm	Alarm log
event	Event log
act	Active alarm log
mxmtr	Mxmtr pipe
trace	Trace log
admin	Administration log
maint	Maintenance log
ret	Retired alarm log
fax	Receive fax log
dev	Developer log
hist	History log
cdr	Call detail log
NO_ADD_MASTER	Developer log

Button descriptions

Button	Description
Submit	Adds the destination to the list of destinations for the message, and displays the updated list in the bottom frame of the screen
Reset	Sets **Destination** to its default value
Cancel	Displays the Message Administration screen on page 387

Administration procedures

- Adding a message destination on page 35

Remove destination screen

Use this screen to remove items from a list of locations where the message is displayed or written by the system.

Field description

Field	Description
Destination	The location where the message should be sent. **Values:** Listed in the drop-down list box See destination descriptions in the following table.

The following table describes the destinations where you can send messages.

Destination	Description
log	Master log
stderr	Standard error
console	/dev/console
alertPipe	Alert pipe
alarm	Alarm log
event	Event log
act	Active alarm log
mxmtr	Mxmtr pipe

trace	Trace log
admin	Administration log
maint	Maintenance log
ret	Retired alarm log
fax	Receive fax log
dev	Developer log
hist	History log
cdr	Call detail log
NO_ADD_MASTER	Developer log

Button descriptions

Button	Description
Submit	Adds the destination to the list of destinations for the message, and displays the updated list in the bottom frame of the screen
Reset	Sets **Destination** to its default value
Cancel	Displays the Message Administration screen on page 387

Administration procedures

- Removing a message destination on page 37

Add threshold screen

Use this screen to set up and enable threshold notification.

Field descriptions

Field	Description
Threshold	The number of messages that must be generated by the system within the threshold period (set on the Threshold period screen on page 393) for threshold notification to occur. **Values:** Any integer greater than zero.

Threshold Message ID	The information that the system writes in the log to indicate that the threshold has been reached. **Values:** THRESH001(THRESH_INFO), THRESH002 (THRESH_MINOR), THRESH003 (THRESH_MAJOR), THRESH004 (THRESH_CRITICAL) Only one Threshold Message ID can be associated with a given threshold. The Threshold Message ID is used to indicate the severity of the problem that caused the messages to be generated.

Button descriptions

Button	Description
Submit	Assigns the **Threshold** to the **Threshold Message ID**, enables threshold notification and updates the screen
Reset	Sets fields to their default values
Cancel	Displays the Message Administration screen on page 387

Administration procedures

- Adding a message threshold on page 37

Remove threshold screen

Use this screen to disable threshold notification for a given threshold.

Field description

Field	Description
Threshold	The number of messages generated by the system within a given period of time. **Values:** Any integer greater than zero. The Threshold is associated with a Threshold Message ID. See the Add threshold screen on page 391.

Button descriptions

Button	Description
Submit	Disables threshold notification for the threshold and updates the screen
Reset	Sets the field to its default value
Cancel	Displays the Message Administration screen on page 387

Administration procedures

- Removing a message threshold on page 38

Message priority screen

Use this screen to set the priority that is associated with the message.

Field description

Field	Description
Priority	The urgency level of the message. **Values:** None, * (for minor), ** (for major), **C* (for critical)

Button descriptions

Button	Description
Submit	Sets the priority of the message and updates the screen
Reset	Sets the field to its default value
Cancel	Displays the Message Administration screen on page 387

Administration procedures

- Changing the message priority on page 39

Threshold period screen

Use this screen to set the *threshold period*. The system uses the threshold period to determine the conditions for threshold notification.

Field descriptions

Field	Description
Amount of Interval	The number of units of time (specified by **Type of Interval**) that determine the threshold period. **Values:** Any integer greater than or equal to zero
Type of Interval	The unit of time used to determine the threshold period. **Values:** weeks, days, hours, minutes, seconds

Button descriptions

Button	Description
Submit	Changes the threshold period and updates the screen
Reset	Sets fields to their default values
Cancel	Displays the Message Administration screen on page 387

Administration procedures

- Changing the threshold period on page 39

VXML Log Administration screens overview

This section describes the screens that are used to administer VXML Log administration.

VXML Administration screen

In Avaya IR R2.0, you have the option to configure VXML Administration parameters.

Use this section to access the screens that display or control the configuration of VXML Administration parameters.

Option descriptions

Option	Description
VXML Logging Level	Displays the VXML Logging Level screen on page 395
VXML Log File Configuration	Displays the VXML Log File Configuration screen **on page** 397
Performance Configuration	Displays the Performance Configuration screen on page 397

Button descriptions

Button	Description
Help	Displays the system help file

Administration procedures

- Using VXML Log Administration on page 85

VXML Logging Level screen

Use this screen to configure the VXML logging level parameters. These parameters are logical modules of the AVB.

Option descriptions

Option	Description
Module name	The names of the logical modules of the AVB
Log Level	The groups into which log levels are classified
Debug Level	The level of detail required for debug logs generated

Note:

Avaya recommends that you turn your **Log level** to **error**, and **Debug level** to **off**. Logs of a very high verobsity affect system performance, especially under heavy system load conditions and are best avoided.

Field descriptions

Field	Description
Interpreter	This logical module of the AVB performs parsing and interpretation of VXML scripts.
JSI	This logical module of the AVB called Java Script Intepreter performs interpretation of embedded java scripts in VXML scripts.
Prompt	This logical module of the AVB performs audio playback and TTS operations.
Recognition	This logical module of the AVB performs speech recognition and recording activities.
Telephony	This logical module of the AVB performs telephony related operations.
Client	This logical module of the AVB is the base directory for a VoiceXML interpreter application. The subdirectories compile object code to this directory.
Platform	This logical module of the AVB encompasses the functionality of the Prompt, Recognition, and Telephony modules.
Object	This logical module of the AVB is used to extend the VXML functionality.The Avaya VXML Intepreter uses it to call a TAS application from within a VXML application.
Inet	This logical module of the AVB is responsible for fetching VoiceXML documents, prompts and URI grammar. It is the interface for web server access and web caching though libwww.

Button descriptions

Button	Description
Submit	Sets the logging level parameters of the logical modules of the AVB
Reset	Sets the fields to their default values
Cancel	Displays the VXML Administration screen on page 394
Help	Displays the system help files

Administration procedures

- Configuring VXML logging Level on page 86

VXML Log File Configuration screen

Use this screen to configure the VXML log file parameters.

Field descriptions

Field	Description
Log file size	The size of the log file in kb required to be generated **Values:** Any value between 100 and 10,000 kilobytes (KB) **Example:** 480, 6789
Number of files	The number of VXML log files that you want to create **Values:** Any value between 10 - 100 **Example:** 20
Log file location	The location where you want to store the log file **Values:** Path to the log file location **Example:** /mnt/hg

Button descriptions

Button	Description
Submit	Stores the field values configured
Reset	Sets the fields to their default values
Help	Displays the system Help files

Administration procedures

- Configuring VXML Log Files on page 86

Performance Configuration screen

Use this screen to configure the VXML performance configuration parameters.

Field descriptions

Field	Description
File size	The size of the log file in kilobytes (KB) required to be generated **Values:** Any numeric value between 100 and10,000 KB **Example:** 480, 6789
Number of files	The number of Performance log files that you want to create **Values:** Any value between 10 - 100 **Example:** 20
File location	The location where you want to store the log file **Values:** Path to the log file location **Example:** /mnt/hg
Time interval for snapshot	The interval after which you want a performance snapshot of the system to be captured **Values:** Any numeric value between 5 and 60 minutes **Example:** 9, 45

Button descriptions

Button	Description
Submit	Stores the field values configured
Reset	Sets the fields to their default values
Help	Displays the system help files

Administration procedures

- Configuring VXML Performance Record Files on page 87

SNMP Configuration screen

Use this screen to enable or disable the SNMP feature.

Field descriptions

Field	Description
SNMP Enabled	The status of SNMP in the IR system **Values:** Listed in the drop-down list box **Example:** Yes, No

Button descriptions

Button	Description
Submit	Submits the SNMP status selected in the drop-down list box.
Reset	Sets the SNMP status field to their default values
Help	Displays the Help file

Administration procedures

- SNMP configuration

Voice system control

This section describes the screens that are used to administer system control functions including: renumbering voice channels, reporting on the voice system status, stopping the voice system, and starting the voice system.

Renumber Voice Channels screen

The **Renumber Voice Channels** option removes all nonexistent (NONEX) circuit cards from the voice equipment table, and reorders all existing equipment. This reordering changes the channel numbers of some circuit cards. However, user-defined characteristics such as options, attributes, and script assignments do not change. If a card is discovered in the system that is not in the voice equipment table, it is added in its correct position with default settings.

WARNING!
Any options or script assignments that were made to NONEX cards and their channels are permanently lost. Also, if the channel renumbering changes any channel numbers assigned to the AVAYAVXI service, use the **Channel services** screen to make a corresponding change to the channel-to-service assignment. When you choose to renumber voice channels, a warning is displayed and you are given the option of continuing with the procedure or returning to the menu.

The actual renumbering of the voice channels occurs the next time that the voice system is stopped and restarted.

Button description

Button	Description
Renumber	Instructs the system to renumber cards and channels when the voice system is restarted

Administration procedures

- Renumbering voice channels on page 142

Report Voice System Status screen

Use this screen to view the status of the voice system.

Item descriptions

Item	Description
Voice System	The operational state of the voice system. **Values:** Up (operational), Down (not operational)
Number of Voice Ports in Service	The number of voice ports that are in service (in the INSERV state)

Administration procedures

- Checking voice system status on page 142

Start Voice System screen

Use this screen to start or restart the voice system.

When this process is invoked, all channels that were deactivated when you stopped the voice system are returned to service in the maintenance state they had when the voice system was last running.

Button description

Button	Description
Submit	Starts the voice system

Administration procedures

- Stopping and starting the voice system on page 142

Stop Voice System screen

Use this screen to stop the voice system by taking all system channels out of service with the option to wait for in-progress calls to end. You usually stop the voice system when you are performing some type of routine service such as backup or restore. When the system is stopped, the CPU does the following:

- Places the entire system in the idle state when all lines are free
- Saves internal system tables
- Turns off voice system processes

From this screen you can program a period of time for the system to wait before stopping the voice system.

The system waits the time you specified for calls to end and stops the voice system. If there is no call in progress, the voice system stops immediately.

After the wait period, stopping the voice system takes approximately 2 to 3 minutes to complete.

Field description

Field	Description
Wait Time in Seconds	The number of seconds for the system to wait before stopping the voice system. **Values:** Any integer 60-600.

Button descriptions

Button	Description
Submit	Waits for the time specified then stops the voice system
Reset	Sets the field to its default value

Administration procedures

- Stopping and starting the voice system on page 142

CTI DIP administration screens

This section describes the screens that are used to administer the CTI DIP.

CTI DIP Configuration screen

Use this screen to:

- Access screens to edit the CTI DIP configurations
- Start, stop, or restart the telephony servers

Column descriptions

Column	Description
Dipid	The names of the Avaya CT telephony servers Hyperlinks can be selected to display a CTI configuration - edit screen on page 403 for each telephony server. Radio buttons are used to select the telephony servers operated on by the buttons below the table.
Dip Configuration	The configuration of the telephony server **Example:** *hostname=Hostname, tserverport=450, username=Myusername, tlink=Tlink*

Button descriptions

Button	Description
Start	Starts the CTI DIP and displays the DIP Start Status screen on page 386
Stop	Stops the CTI DIP and displays the DIP Stop Status screen on page 386
Restart	Restarts the CTI DIP and displays the DIP Restart Status screen on page 387

Administration procedures

- Administering the CTI DIP on page 74

CTI Configuration - Edit screen

Use this screen to determine how the CTI DIP with interact with a telephony server.

Field descriptions

Field	Description
Port number the DIP is listening on	The port monitored by the CTI DIP The default port number is *6800*. This is the same for all the telephony servers. Unless you have another service on the system that is listening on this port, you can use the default.
Telephony Server Hostname	The LAN hostname for the telephony server
Telephony Server Portnumber	The Avaya IR port used by the telephony server
Telephony Server Username	The username you use to log in to the telephony server
Telephony Server Password	The password you use to log in to the telephony server
TLINK	Telephony and switch parameter string (format: ***company#switchname#csta#hostname***, where *company* is either *Avaya* or *Lucent*)

Button descriptions

Button	Description
Main	Displays the CTI DIP administration screen on page 402
Save	Changes the configuration and displays the CTI DIP administration screen on page 402
Delete	Deletes the configuration and displays the CTI DIP administration screen on page 402

Administration procedures

- Administering the CTI DIP on Avaya IR on page 75

Switch interfaces screens

This section describes the screens that are used to administer telephony and Voice over IP (VoIP) interfaces.

Digital Interfaces Protocols screen

Use this screen to access screens that display or control the configuration of cards to handle specific digital telephone protocols.

Option descriptions

Option	Description
System Parameters	Displays the Display NMS parameters screen on page 405
Display Assignments	Displays the Display Assignments screen on page 432
Assign Card	Displays the Assign Card screen on page 409
Change Parameters	Displays the Change parameters screen on page 449
Display Parameters	Displays the Display parameters screen on page 449
Unassign Card	Displays the Unassign card screen on page 450

Administration procedures

- Assigning a digital interface protocol on page 53
- Displaying digital interface protocol parameters on page 53
- Changing digital interface protocol parameters on page 55
- Unassigning a digital interface protocol on page 56

Display ISDN System Parameters screen

Use this screen to display ISDN system parameters. These parameters apply only to ISDN-PRI digital interfaces.

Field descriptions

Field	Description
ISDN Interworking Message Type	Displays one of the following values: • ALERTING • PROGRESS
ISDN Called Party Numbering Plan	Displays one of the following values: • 0x0 Unknown • 0x1 ISDN/Telephony • 0x3 Data • 0x4 Telex • 0x8 National • 0x9 Private
ISDN Called Party Numbering Type	Displays one of the following values: • 0x0 Unknown • 0x1 International • 0x2 National • 0x3 Network Specific • 0x4 Subscriber • 0x6 Abbreviated

ISDN Calling Party Numbering Plan	Displays one of the following values: • 0x0 Unknown • 0x1 ISDN/Telephony • 0x3 Data • 0x4 Telex • 0x8 National • 0x9 Private
ISDN Calling Party Numbering Type	Displays one of the following values: • 0x0 Unknown • 0x1 International • 0x2 National • 0x3 Network Specific • 0x4 Subscriber • 0x6 Abbreviated

Button descriptions

Button	Description
Modify	Displays the Assign ISDN System Parameters screen on page 406
Refresh	Updates displayed information
Help	Displays the system help files

Administration procedures

- Displaying ISDN system parameters on page 52

Assign ISDN System Parameters screen

Use this screen to assign ISDN system parameters. These parameters apply only to ISDN-PRI digital interfaces.

Field descriptions

Field	Description
ISDN Interworking Message Type	The ISDN interworking message type can be one of the following: • **ALERTING** - The telephone of the called party is ringing. This is the default value. • **PROGRESS** - A call is in progress
ISDN Called Party Numbering Plan	The ISDN called party numbering plan can be one of the following: • **0x0 Unknown** - Used when the user or network has no knowledge of the type of number. The called party number is organized according to the network numbering plan. This is the default value. • **0x1 ISDN/Telephony** - ISDN/Telephony numbering plan according to ITU-T Recommendation E.164 • **0x3 Data** - Data numbering plan according to ITU-T Recommendation X.121 • **0x4 Telex** - Telex numbering plan according to ITU-T Recommendation F.69 • **0x8 National** - National standard numbering plan • **0x9 Private** - Private numbering plan

ISDN Called Party Numbering Type	The ISDN called party numbering type can be one of the following: • **0x0 Unknown** - Used when the user or network has no knowledge of the type of number. The called party number is organized according to the network numbering plan. This is the default value. • **0x1 International** - Prefix or escape digits shall not be included. For the definition of International, see ITU-T Recommendation I.330. • **0x2 National** - Prefix or escape digits shall not be included. For the definition of National, see ITU-T Recommendation I.330. • **0x3 Network Specific** - Indicates an administration/service number specific to the serving network, for example, a number used to access an operator • **0x4 Subscriber** - Prefix or escape digits shall not be included. For the definition of Subscriber, see ITU-T Recommendation I.330. • **0x6 Abbreviated** - Support for this code is network dependent. The number provided is a shorthand representation of the complete number in the specified numbering plan as supported by the network.
ISDN Calling Party Numbering Plan	The ISDN calling party numbering plan can be one of the following: • **0x0 Unknown** - Used when the user or network has no knowledge of the type of number. The calling party number is organized according to the network numbering plan. This is the default value. • **0x1 ISDN/Telephony** - ISDN/Telephony numbering plan according to ITU-T Recommendation E.164 • **0x3 Data** - Data numbering plan according to ITU-T Recommendation X.121 • **0x4 Telex** - Telex numbering plan according to ITU-T Recommendation F.69 • **0x8 National** - National standard numbering plan • **0x9 Private** - Private numbering plan

ISDN Calling Party Numbering Type	The ISDN calling party numbering type can be one of the following: • **0x0 Unknown** - Used when the user or network has no knowledge of the type of number. The calling party number is organized according to the network numbering plan. This is the default value. • **0x1 International** - Prefix or escape digits shall not be included. For the definition of International, see ITU-T Recommendation I.330. • **0x2 National** - Prefix or escape digits shall not be included. For the definition of National, see ITU-T Recommendation I.330. • **0x3 Network Specific** - Indicates an administration/service number specific to the serving network, for example, a number used to access an operator • **0x4 Subscriber** - Prefix or escape digits shall not be included. For the definition of Subscriber, see ITU-T Recommendation I.330. • **0x6 Abbreviated** - Support for this code is network dependent. The number provided is a shorthand representation of the complete number in the specified numbering plan as supported by the network.

Button descriptions

Button	Description
Save	Saves the specified ISDN parameters
Reset	Sets fields to their default values
Cancel	Displays the Display ISDN System Parameters screen on page 405

Administration procedures

- Assigning ISDN system parameters on page 52

Assign Card screen

Use this screen to access screens that prompt you for a card to assign to a specific digital protocol.

Option descriptions

Option	Description
ISDN-Primary Rate Interface (PRI) T1	Displays the Assign ISDN-PRI T1 screen on page 410
ISDN-Primary Rate Interface (PRI) E1	Displays the Assign ISDN-PRI E1 screen on page 414
Loop Start T1	Displays the Assign Loop Start T1 screen on page 424
Loop Start E1	Displays the Assign Loop Start E1 screen on page 428
Wink Start T1	Displays the Assign Wink Start T1 screen on page 436
R2MFC E1	Displays the Assign R2 MFC E1 screen on page 442

Administration procedures

- Assigning a digital interface protocol on page 53

ISDN-PRI screens

This section describes Web Administration screens that are used to assign or change the ISDN-PRI protocol.

Assign ISDN-PRI T1 screen

Use this screen to choose a card to assign to the ISDN-PRI T1 digital interface.

In IR R2.0, you have the option of maintaining multiple protocols on the same NMS board. You can perform this operation by assigning multiple protocols on the same NMS board.

Field description

Field	Description
Card	The number corresponding to an unassigned T1 card. **Values:** Shown in drop-down list box

Trunk 1	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the PRI protocol to this trunk, select the checkbox corresponding to Trunk 1. If this trunk has been assigned a different protocol and you want to assign the PRI protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** PRI
Trunk 2	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the PRI protocol to this trunk, select the checkbox corresponding to Trunk 2. If this trunk has been assigned a different protocol and you want to assign the PRI protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** PRI
Trunk 3	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the PRI protocol to this trunk, select the checkbox corresponding to Trunk 3. If this trunk has been assigned a different protocol and you want to assign the PRI protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** PRI
Trunk 4	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the PRI protocol to this trunk, select the checkbox corresponding to Trunk 4. If this trunk has been assigned a different protocol and you want to assign the PRI protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** PRI

Button descriptions

Button	Description
Submit	Displays the Assign ISDN-PRI T1 parameters screen on page 412
Reset	Sets field to its default value
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Assign ISDN-PRI T1 parameters screen

Use this screen to configure the ISDN-PRI T1 protocol for the card.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** D4, ESF.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** AMI, AMI_ZCS, B8ZS.
Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101.
Length	The length of the cable in feet between the telephony board and the telephone network. **Values:** 0-655. This value is an integer. It should only be changed if the length is more than 200 feet or if there are transmission problems.
Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).

Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Trunk** stops working. **Values:** none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards).
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no.
ISDN Type	The supplier of ISDN service. **Values:** 5ESS, 4ESS, Nortel, National, NTT INS-1500, QSIG.
D Channel on Trunk 1	The availability of a data channel on Trunk 1. **Values:** yes.
D Channel on Trunk 2	The availability of a data channel on Trunk 2. **Values:** yes, no.
D Channel on Trunk 3	The availability of a data channel on Trunk 3 (quad port cards only). **Values:** yes, no.
D Channel on Trunk 4	The availability of a data channel on Trunk 4 (quad port cards only). **Values:** yes, no.
Country	The country in which the Avaya IR system is located. **Values:** Japan, United States.
Enabled Channels	The number of channels that have been enabled. **Values:** 0-96

PRI Side	The side from which you want the PRI protocol to function. Set it to user if you want your Avaya DEFINITY or MultiVantage system to behave as the network. Set it to network if you want your Avaya DEFINITY or MultiVantage system to behave as the user. **Values:** USER, NETWORK

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Assign ISDN-PRI E1 screen

Use this screen to choose a card to assign to the ISDN-PRI E1 digital interface.

In IR R2.0, you have the option of maintaining multiple protocols on the same NMS board. You can perform this operation by assigning multiple protocols on the same NMS board.

Field description

Field	Description
Card	The number corresponding to an unassigned E1 card. **Values:** Shown in drop-down list box

Trunk 1	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the PRI protocol to this trunk, select the checkbox corresponding to Trunk 1. If this trunk has been assigned a different protocol and you want to assign the PRI protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** PRI
Trunk 2	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the PRI protocol to this trunk, select the checkbox corresponding to Trunk 2. If this trunk has been assigned a different protocol and you want to assign the PRI protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** PRI
Trunk 3	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the PRI protocol to this trunk, select the checkbox corresponding to Trunk 3. If this trunk has been assigned a different protocol and you want to assign the PRI protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** PRI
Trunk 4	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the PRI protocol to this trunk, select the checkbox corresponding to Trunk 4. If this trunk has been assigned a different protocol and you want to assign the PRI protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** PRI

Button descriptions

Button	Description
Submit	Displays the Assign ISDN-PRI E1 parameters screen on page 416
Reset	Sets field to its default value
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Assign ISDN-PRI E1 parameters screen

Use this screen to configure the ISDN-PRI E1 protocol for the card.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** CEPT.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** HDB3.
Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101.
CRC	Cyclical Redundancy Checking (CRC) is an error checking technique that is used to ensure the accuracy of digital transmissions over a communications link. To enable CRC for one or more E1 trunks, select the check boxes for the appropriate E1 trunks.
Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).

Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR. *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Source** stops working. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no.
Wait time before answer	The number of milliseconds that the system waits to answer an incoming call. **Values:** 0-14.
Expected number of DNIS digits	The number of DNIS digits that the system expects to receive. **Values:** 0-30.
ISDN Type	The type of ISDN service. **Values:** ETSI, QSIG.
D Channel on Trunk 1	The availability of a data channel on Trunk 1. **Values:** yes.
D Channel on Trunk 2	The availability of a data channel on Trunk 2. **Values:** yes.
D Channel on Trunk 3	The availability of a data channel on Trunk 3 (quad port cards only). **Values:** yes, no.
D Channel on Trunk 4	The availability of a data channel on Trunk 4 (quad port cards only). **Values:** yes, no.
Impedance	Applies only to the NMS AG4040 T1/E1 telephony card administered as ISDN-PRI E1 with the ISDN Type field set to *QSIG*. **Values:** 120 Ohm, 75 Ohm.

Enabled Channels	The number of channels that have been enabled. **Values:** 0-128
PRI Side	The side from which you want the PRI protocol to function. Set it to user if you want your Avaya DEFINITY or MultiVantage system to behave as the network. Set it to network if you want your Avaya DEFINITY or MultiVantage system to behave as the user. **Values:** USER, NETWORK

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Change ISDN-PRI T1 screen

Use this screen to choose a card whose ISDN-PRI T1 digital interface parameters you want to change.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box
Trunk	The number corresponding to an available trunk. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change ISDN-PRI T1 parameters screen on page 419
Reset	Sets field to its default value
Cancel	Displays the Change Parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Change ISDN-PRI T1 parameters screen

Use this screen to configure the ISDN-PRI T1 protocol for the card.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** D4, ESF.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** AMI, AMI_ZCS, B8ZS.
Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101.
Length	The length of the cable in feet between the telephony board and the telephone network. **Values:** 0-655. This value is an integer. It should only be changed if the length is more than 200 feet or if there are transmission problems.
Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).

Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR. *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Trunk** stops working. **Values:** none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards).
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no.
ISDN Type	The supplier of ISDN service. **Values:** 5ESS, 4ESS, Nortel, National, NTT INS-1500, QSIG.
D Channel on Trunk 1	The availability of a data channel on Trunk 1. **Values:** yes.
D Channel on Trunk 2	The availability of a data channel on Trunk 2. **Values:** yes, no.
D Channel on Trunk 3	The availability of a data channel on Trunk 3 (quad port cards only). **Values:** yes, no.
D Channel on Trunk 4	The availability of a data channel on Trunk 4 (quad port cards only). **Values:** yes, no.
Country	The country in which the Avaya IR system is located. **Values:** Japan, United States.
Enabled Channels	The number of channels that have been enabled. **Values:** 0-128

PRI Side	The side from which you want the PRI protocol to function. Set it to user if you want your Avaya DEFINITY or MultiVantage system to behave as the network. Set it to network if you want your Avaya DEFINITY or MultiVantage system to behave as the user. **Values:** USER, NETWORK

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Change parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Change ISDN-PRI E1 screen

Use this screen to choose a card whose ISDN-PRI E1 digital interface parameters you want to change.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box
Trunk	The number corresponding to an available trunk. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change ISDN-PRI E1 screen on page 421
Reset	Sets field to its default value

Cancel	Displays the Change Parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Change ISDN-PRI E1 parameters screen

Use this screen to configure the ISDN-PRI E1 protocol for the card.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** CEPT.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** HDB3.
Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101.
CRC	Cyclical Redundancy Checking (CRC) is an error checking technique that is used to ensure the accuracy of digital transmissions over a communications link. To enable CRC for one or more E1 trunks, select the check boxes for the appropriate E1 trunks.
Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (dual port cards); 1, 2, 3, 4 (quad port cards).
Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR. *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.

Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Source** stops working. **Values:** none, 1, 2 (dual port cards); none, 1, 2, 3, 4 (quad port cards).
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no.
Wait time before answer	The number of milliseconds that the system waits to answer an incoming call. **Values:** 0-14.
Expected number of DNIS digits	The number of DNIS digits that the system expects to receive. **Values:** 0-30.
ISDN Type	The type of ISDN service. **Values:** ETSI, QSIG.
D Channel on Trunk 1	The availability of a data channel on Trunk 1. **Values:** yes.
D Channel on Trunk 2	The availability of a data channel on Trunk 2. **Values:** yes.
D Channel on Trunk 3	The availability of a data channel on Trunk 3 (quad port cards only). **Values:** yes.
D Channel on Trunk 4	The availability of a data channel on Trunk 4 (quad port cards only). **Values:** yes.
Impedance	Applies only to the NMS AG4040 T1/E1 telephony card administered as ISDN-PRI E1 with the ISDN Type field set to *QSIG*. **Values:** 120 Ohm, 75 Ohm.
Enabled Channels	The number of channels that have been enabled. **Values:** 0-128

PRI Side	The side from which you want the PRI protocol to function. Set it to user if you want your Avaya DEFINITY or MultiVantage system to behave as the network. Set it to network if you want your Avaya DEFINITY or MultiVantage system to behave as the user. **Values:** USER, NETWORK

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Change parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Loop Start screens

This section describes Web Administration screens that are used to assign or change the Loop Start protocol.

Assign Loop Start T1 screen

Use this screen to choose a card to assign to the Loop Start T1 digital interface.

In IR R2.0, you have the option of maintaining multiple protocols on the same NMS board. You can perform this operation by assigning and unassigning multiple protocols on the same NMS board.

Field description

Field	Description
Card	The number corresponding to an unassigned T1 card. **Values:** Shown in drop-down list box

Trunk 1	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Loop Start protocol to this trunk, select the checkbox corresponding to Trunk 1. If this trunk has been assigned a different protocol and you want to assign the Loop Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** LOOP
Trunk 2	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Loop Start protocol to this trunk, select the checkbox corresponding to Trunk 2. If this trunk has been assigned a different protocol and you want to assign the Loop Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** LOOP
Trunk 3	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Loop Start protocol to this trunk, select the checkbox corresponding to Trunk 3. If this trunk has been assigned a different protocol and you want to assign the Loop Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** LOOP
Trunk 4	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Loop Start protocol to this trunk, select the checkbox corresponding to Trunk 4. If this trunk has been assigned a different protocol and you want to assign the Loop Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** LOOP

Button descriptions

Button	Description
Submit	Displays the Assign Loop Start T1 parameters screen on page 426
Reset	Sets field to its default value
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Assign Loop Start T1 parameters screen

Use this screen to configure the Loop Start T1 protocol for the card.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** D4, ESF.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** AMI, AMI_ZCS, B8ZS.
Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101 **Note:** If channels are not recognized as off-hook even though the voice system has stopped, change the Idle Code to 11111111. This is a known issue with DS1 connectivity to MultiVantage S8300.
Length	The length of the cable in feet between the telephony board and the telephone network. **Values:** 0-655. This value is an integer. It should only be changed if the length is more than 200 feet or if there are transmission problems.

Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).
Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR. *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Trunk** stops working. **Values:** none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards).
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no.
Country and Region	The country or region in which the Avaya IR system is located. **Values:** Hong Kong, Japan, United States.
Enabled Channels	The number of channels that have been enabled. **Values:** 0-128

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Assign Loop Start E1 screen

Use this screen to choose a card to assign to the Loop Start E1 digital interface.

In IR R2.0, you have the option of maintaining multiple protocols on the same NMS board. You can perform this operation by assigning multiple protocols on the same NMS board.

Field description

Field	Description
Card	The number corresponding to an unassigned E1 card. **Values:** Shown in drop-down list box
Trunk 1	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Loop Start protocol to this trunk, select the checkbox corresponding to Trunk 1. If this trunk has been assigned a different protocol and you want to assign the Loop Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** LOOP
Trunk 2	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Loop Start protocol to this trunk, select the checkbox corresponding to Trunk 2. If this trunk has been assigned a different protocol and you want to assign the Loop Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** LOOP
Trunk 3	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Loop Start protocol to this trunk, select the checkbox corresponding to Trunk 3. If this trunk has been assigned a different protocol and you want to assign the Loop Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** LOOP

Trunk 4	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Loop Start protocol to this trunk, select the checkbox corresponding to Trunk 4. If this trunk has been assigned a different protocol and you want to assign the Loop Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** LOOP

Button descriptions

Button	Description
Submit	Displays the Assign Loop Start E1 parameters screen on page 429
Reset	Sets field to its default value
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Assign Loop Start E1 parameters screen

Use this screen to configure the Loop Start E1 protocol for the card.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** CEPT.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** HDB3.

Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101. **Note:** If channels are not recognized as off-hook even though the voice system has stopped, change the Idle Code to 11111111. This is a known issue with DS1 connectivity to MultiVantage S8300.
CRC	Cyclical Redundancy Checking (CRC) is an error checking technique that is used to ensure the accuracy of digital transmissions over a communications link. To enable CRC for one or more E1 trunks, select the check boxes for the appropriate E1 trunks.
Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).
Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR. *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Trunk** stops working. **Values:** none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards)
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no
Country	The country that the system is in. **Values:** Brazil, Canada, Germany, France, Great Britain, Ireland, Italy, Korea, Mexico, United States
Enabled Channels	The number of channels that have been enabled. **Values:** 0-128

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Change Loop Start T1 screen

Use this screen to choose a card whose Loop Start T1 digital interface parameters you want to change.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box
Trunk	The number corresponding to an available trunk. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change Loop Start T1 parameters screen on page 432
Reset	Sets field to its default value
Cancel	Displays the Change parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Display Assignments screen

Use this screen to display the protocol that is assigned to each digital interface card.

Column descriptions

Column	Description
Card	The number that identifies a card
Protocol	The digital protocol assigned to the card

Administration procedures

- Displaying assigned cards and protocols on page 53

Change Loop Start T1 parameters screen

Use this screen to configure the Loop Start T1 protocol for the card.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** D4, ESF.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** AMI, AMI_ZCS, B8ZS.
Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101. **Note:** If channels are not recognized as off-hook even though the voice system has stopped, change the Idle Code to 11111111. This is a known issue with DS1 connectivity to MultiVantage S8300.
Length	The length of the cable in feet between the telephony board and the telephone network. **Values:** 0-655. This value is an integer. It should only be changed if the length is more than 200 feet or if there are transmission problems.

Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).
Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR. *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Trunk** stops working. **Values:** none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards).
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no
Country and Region	The country or region in which the Avaya IR system is located. **Values:** Hong Kong, Japan, United States.
Enabled Channels	The number of channels that have been enabled. **Values:** 0-128

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Change parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Change Loop Start E1 screen

Use this screen to choose a card whose Loop Start E1 digital interface parameters you want to change.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box
Trunk	The number corresponding to an available trunk. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change Loop Start E1 parameters screen on page 434
Reset	Sets field to its default value
Cancel	Displays the Change parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Change Loop Start E1 parameters screen

Use this screen to configure the Loop Start E1 protocol for the card.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** CEPT.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** HDB3.

Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101. **Note:** If channels are not recognized as off-hook even though the voice system has stopped, change the Idle Code to 11111111. This is a known issue with DS1 connectivity to MultiVantage S8300.
CRC	Cyclical Redundancy Checking (CRC) is an error checking technique that is used to ensure the accuracy of digital transmissions over a communications link. To enable CRC for one or more E1 trunks, select the check boxes for the appropriate E1 trunks.
Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).
Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR. *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Trunk** stops working. **Values:** none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards).
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no.
Country	The country that the system is in. **Values:** Brazil, Canada, Germany, France, Great Britain, Ireland, Italy, Korea, Mexico, United States.

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Change parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Wink Start screens

This section describes Web Administration screens that are used to assign or change the Wink Start protocol.

Assign Wink Start T1 screen

Use this screen to choose a card to assign to the Wink Start T1 digital interface.

In Avaya IR R2.0, you have the option of maintaining multiple protocols on the same NMS board. You can perform this operation by assigning multiple protocols on the same NMS board.

Field description

Field	Description
Card	The number corresponding to an unassigned T1 card. **Values:** Shown in drop-down list box

Trunk 1	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Wink Start protocol to this trunk, select the checkbox corresponding to Trunk 1. If this trunk has been assigned a different protocol and you want to assign the Wink Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** WINK
Trunk 2	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Wink Start protocol to this trunk, select the checkbox corresponding to Trunk 2. If this trunk has been assigned a different protocol and you want to assign the Wink Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** WINK
Trunk 3	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Wink Start protocol to this trunk, select the checkbox corresponding to Trunk 3. If this trunk has been assigned a different protocol and you want to assign the Wink Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** WINK
Trunk 4	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the Wink Start protocol to this trunk, select the checkbox corresponding to Trunk 4. If this trunk has been assigned a different protocol and you want to assign the Wink Start protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** WINK

Button descriptions

Button	Description
Submit	Displays the Assign Wink Start T1 parameters screen on page 438
Reset	Sets field to its default value
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Assign Wink Start T1 parameters screen

Use this screen to configure the Wink Start T1 protocol for the card.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** D4, ESF.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** AMI, AMI_ZCS, B8ZS.
Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101.
Length	The length of the cable in feet between the telephony board and the telephone network. **Values:** 0-655. This value is an integer. It should only be changed if the length is more than 200 feet or if there are transmission problems.
Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards)

Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR. *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Trunk** stops working. **Values:** none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards)
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no.
Number of digits for ANI/DNIS	The maximum number of allowable digits for ANI or DNIS. **Values:** 0-30.
Enabled Channels	The number of channels that have been enabled. **Values:** 0-128

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Change Wink Start T1 screen

Use this screen to choose a card whose Wink Start T1 digital interface parameters you want to change.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box
Trunk	The number corresponding to an available trunk. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change Wink Start T1 parameters screen on page 440
Reset	Sets field to its default value
Cancel	Displays the Change parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Change Wink Start T1 parameters screen

Use this screen to configure the Wink Start T1 protocol for the card.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** D4, ESF.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** AMI, AMI_ZCS, B8ZS.
Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101.

Length	The length of the cable in feet between the telephony board and the telephone network. **Values:** 0-655. This value is an integer. It should only be changed if the length is more than 200 feet or if there are transmission problems.
Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).
Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR. *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Trunk** stops working. **Values:** none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards).
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no.
Number of digits for ANI/DNIS	The maximum number of allowable digits for ANI or DNIS. **Values:** 0-30.
Enabled Channels	The number of channels that have been enabled. **Values:** 0-128

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Change parameters screen on page 449

Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

R2 MFC screens

This section describes Web Administration screens that are used to assign or change the R2 MFC protocol.

Assign R2 MFC E1 screen

Use this screen to choose a card to assign to the R2 MFC E1 digital interface.

In IR R2.0, you have the option of maintaining multiple protocols on the same NMS board. You can perform this operation by assigning multiple protocols on the same NMS board.

Field description

Field	Description
Card	The number corresponding to an unassigned T1 card. **Values:** Shown in drop-down list box
Trunk 1	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the R2 MFC protocol to this trunk, select the checkbox corresponding to Trunk 1. If this trunk has been assigned a different protocol and you want to assign the R2 MFC protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** R2MFC

Trunk 2	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the R2 MFC protocol to this trunk, select the checkbox corresponding to Trunk 2. If this trunk has been assigned a different protocol and you want to assign the R2 MFC protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information **Values:** R2MFC
Trunk 3	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the R2 MFC protocol to this trunk, select the checkbox corresponding to Trunk 3. If this trunk has been assigned a different protocol and you want to assign the R2 MFC protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** R2MFC
Trunk 4	If this trunk has been assigned a protocol, then it is displayed as greyed out. If you want to assign the R2 MFC protocol to this trunk, select the checkbox corresponding to Trunk 4. If this trunk has been assigned a different protocol and you want to assign the R2 MFC protocol to this trunk you need to unassign the card. See the Unassign Digital interface card screen on page 473 for more information. (This trunk is only applicable for quad port cards) **Values:** R2MFC

Button descriptions

Button	Description
Submit	Displays the Assign R2 MFC E1 parameters screen on page 444
Reset	Sets field to its default value
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Assign R2 MFC E1 parameters screen

Use this screen to assign R2 MFC E1 protocol parameters.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** CEPT.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** HDB3.
Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101.
CRC	Cyclical Redundancy Checking (CRC) is an error checking technique that is used to ensure the accuracy of digital transmissions over a communications link. To enable CRC for one or more E1 trunks, select the check boxes for the appropriate E1 trunks.
Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).
Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR. *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Trunk** stops working. **Values:** none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards).

Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no.
Country	The country in which the system is located. **Values:** Argentina, Brazil, Chile, China, Colombia Telecom, Colombia ComSel, India, Indonesia, Korea, Malaysia, Mexico, Philippines, Singapore, Thailand.
Number of DID digits	The number of allowable DID digits. **Values:** 1-30.
Number of ANI digits	The number of allowable ANI digits. **Values:** 0-30.
Collect Call Block Method	The method the system uses to block incoming collect calls. The **Collect Call Block Method** field is available only if the **Country** field is set to *Brazil*. **Values:** none (default), Double Answer, Group II signal 8.
Wink Delay	The amount of time (in milliseconds) from when the incoming call was answered until the start of the wink (hang up or on-hook). The **Wink Delay** field is available only if the **Collect Call Block Method** field is set to *Double Answer*. **Values:** 500-1500. The default value is 1000.
Wink Duration	The duration of the wink (in milliseconds). The **Wink Duration** field is available only if the **Collect Call Block Method** field is set to *Double Answer*. **Values:** 500-2500. The default value is 2000.
Impedance	Applies only to the NMS AG4040 T1/E1 telephony card administered as ISDN-PRI E1 with the ISDN Type field set to **QSIG.** **Values:** 120 Ohm, 75 Ohm.
Enabled Channels	The number of channels that have been enabled. **Values:** 0-128

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system

Reset	Sets fields to their default values
Cancel	Displays the Assign Card screen on page 409
Help	Displays the system help files

Administration procedures

- Assigning a digital interface protocol on page 53

Change R2 MFC E1 screen

Use this screen to choose a card whose R2 MFC E1 digital interface parameters you want to change.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box
Trunk	The number corresponding to an available trunk. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change R2 MFC E1 parameters screen on page 446
Reset	Sets field to its default value
Cancel	Displays the Change parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Change R2 MFC E1 parameters screen

Use this screen to change the R2 MFC E1 protocol parameters.

Field descriptions

Field	Description
Frame Type	The frame format. **Values:** CEPT.
Line Code	The replacement for strings of consecutive zeros in data transmission using pulse code modulation (PCM). **Values:** HDB3.
Idle Code	The code used in digital communications that represents an absence of data. **Values:** 11111111, 01010100, 01010101.
CRC	Cyclical Redundancy Checking (CRC) is an error checking technique that is used to ensure the accuracy of digital transmissions over a communications link. To enable CRC for one or more E1 trunks, select the check boxes for the appropriate E1 trunks.
Clock Trunk	The trunk that the board uses for its internal clock reference. **Values:** 1, 2 (for dual port cards); 1, 2, 3, 4 (for quad port cards).
Clock Source	The origin of the board's clock reference. **Values:** NETWORK, OSCILLATOR *NETWORK* refers to the clock extracted from the trunk, *OSCILLATOR* refers to the board's oscillator.
Clock Mode	The control of the board's clock. **Values:** STANDALONE. The board controls its own clock.
Clock Fallback Trunk	The trunk that the system uses to set its internal clock if the timing source on the **Clock Trunk** stops working. **Values:** none, 1, 2 (for dual port cards); none, 1, 2, 3, 4 (for quad port cards).
Fax Enabled?	The availability of fax with the protocol. **Values:** yes, no.

Country	The country that the system is in. **Values:** Argentina, Brazil, Chile, China, Colombia Telecom, Colombia ComSel, India, Indonesia, Korea, Malaysia, Mexico, Philippines, Singapore, Thailand.
Number of DID digits	The number of allowable DID digits. **Values:** 1-30.
Number of ANI digits	The number of allowable ANI digits. **Values:** 0-30.
Collect Call Block Method	The method the system uses to block incoming collect calls. The **Collect Call Blocking Method** field is available only if the **Country** field is set to Brazil. **Values:** none (default), Double Answer, Group II signal 8.
Wink Delay	The amount of time (in milliseconds) from when the incoming call was answered until the start of the wink (hang up or on-hook). The **Wink Delay** field is available only if the **Collect Call Block Method** field is set to *Double Answer*. **Values:** 500-1500. The default value is 1000.
Wink Duration	The duration of the wink (in milliseconds). The **Wink Duration** field is available only if the **Collect Call Block Method** field is set to *Double Answer*. **Values:** 500-2500. The default value is 2000.
Enabled Channels	The number of channels that have been enabled. **Values:** 0-128

Button descriptions

Button	Description
Submit	Assigns the card to the protocol and prompts the user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Change parameters screen on page 449
Help	Displays the system help files

Administration procedures

- Changing digital interface protocol parameters on page 55

Display Parameters screen

Use this screen to choose a card whose digital interface parameters you want to view.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Displays the parameters for the card
Reset	Sets field to its default value
Cancel	Displays the Digital Interfaces screen on page 404
Help	Displays the system help files

Administration procedures

- Displaying digital interface protocol parameters on page 53

Change Parameters screen

Use this screen to access screens that prompt you for a card whose digital protocol parameters you want to change.

Option descriptions

Option	Description
ISDN-Primary Rate Interface (PRI) T1	Displays the Change ISDN-PRI T1 screen on page 418
ISDN-Primary Rate Interface (PRI) E1	Displays the Change ISDN-PRI E1 screen on page 421
Loop Start T1	Displays the Change Loop Start T1 screen on page 431

Loop Start E1	Displays the Change Loop Start E1 screen on page 434
Wink Start T1	Displays the Change Wink Start T1 screen on page 439
R2MFC E1	Displays the Change R2 MFC E1 screen on page 446

Administration procedures

- Changing digital interface protocol parameters on page 55

Unassign Card screen

Use this screen to choose a card you want to unassign from its digital protocol.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Unassigns the card and displays an informational message to stop and restart the voice system
Reset	Sets field to its default value
Cancel	Displays the Digital Interfaces screen on page 404

Administration procedures

- Unassigning a digital interface protocol on page 56

TBCT screens

This section describes Web Administration screens that are used to administer the Two B-Channel Transfer feature.

Two B Channel Transfer screen

Use this screen to access screens that are used to administer Two B-Channel Transfer (TBCT) system parameters and card parameters.

Option descriptions

Option	Description
Assign Two B Channel Transfer	Displays the Assign TBCT screen on page 451
Change Two B Channel Transfer	Displays the Change TBCT screen on page 455
Display Two B Channel Transfer	Displays the Display TBCT screen on page 452
Unassign Two B Channel Transfer	Displays the Unassign TBCT screen on page 458

Administration procedures

- Administering Two B-Channel Transfer on page 106

Assign Two B Channel Transfer screen

Use this screen to access screens that:

- Assign a card's trunks to Two B-Channel Transfer (TBCT).
- Configure TBCT for the entire system

Option descriptions

Option	Description
Assign Two B Channel Transfer System Parameters	Displays the Assign TBCT system parameters screen on page 452
Assign Two B Channel Transfer Card Parameters	Displays the Assign TBCT card parameters screen on page 453

Administration procedures

- Assigning TBCT system parameters on page 107
- Assigning TBCT card parameters on page 109

Display Two B Channel Transfer screen

Use this screen to choose the card whose Two B-Channel (TBCT) information you want to view.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Displays information about TBCT as administered on the card
Reset	Sets field to its default value
Cancel	Displays the Two B Channel Transfer screen on page 451

Administration procedures

- Displaying TBCT card parameters on page 108

Assign Two B Channel Transfer System Parameters screen

Use this screen to configure the operation of Two B-Channel Transfer (TBCT).

Field descriptions

Field	Description
Number of Reserved B Channels for Outgoing Calls	The number of B channels that are used exclusively for outgoing calls. **Values:** Any positive integer between one and half the number of B-channels on the system
When is B Channel Transfer Invoked?	The condition under which TBCT will be used (when the system is either alerted about an incoming call, or when it answers an incoming call). **Values:** on alerting, on answer

Error Handling Method if Transfer Fails	The action the system takes if a transfer fails. **Values:** bridge, disconnect Staying bridged involves maintaining a voice connection between the incoming and outgoing calls and waiting for one of the parties to disconnect. Disconnecting the outgoing call returns an error to the application and logs a system alarm event. Note that staying bridged uses more of the call system's capacity.
Channel Hunt Method	The order that the system uses to hunt for available channels when placing an outgoing call. **Values:** ascending order, descending order To minimize collisions between incoming and outgoing calls, Avaya recommends that the system hunt for outgoing channels in the opposite direction from the direction the switch is using for incoming calls.
Maximum Number of Rings for Outgoing Calls	The number of rings to allow after placing an outgoing call. **Values:** 1-20

Button descriptions

Button	Description
Submit	Assigns system parameters and notifies user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Assign TBCT screen on page 451

Administration procedures

- Assigning TBCTsystem parameters on page 107

Assign Two B Channel Transfer Card Parameters screen

Use this screen to choose a card whose trunks you want to assign to Two B-Channel Transfer (TBCT).

Field description

Field	Description
Card	The number corresponding to a card that is assigned to the ISDN PRI T1 protocol and is of ISDN type Nortel or National. The card is not already assigned with TBCT parameters. **Values:** Shown in drop-down list box.

Button descriptions

Button	Description
Submit	Displays the Assign TBCT card parameters for trunks screen on page 454
Reset	Sets field to its default value
Cancel	Displays the Assign TBCT screen on page 451

Administration procedures

- Assigning TBCT card parameters on page 109

Assign Two B Channel Transfer card parameters for trunks screen

Use this screen to assign the card's trunks to Two B-Channel Transfer (TBCT).

Field descriptions

Field	Description
Two B Channel Transfer on Trunk 1	The assignment of Trunk 1 to TBCT. **Values:** yes, no.
Two B Channel Transfer on Trunk 2	The assignment of Trunk 2 to TBCT. **Values:** yes, no.
Two B Channel Transfer on Trunk 3	The assignment of Trunk 3 to TBCT (quad cards only). **Values:** yes, no.
Two B Channel Transfer on Trunk 4	The assignment of Trunk 4 to TBCT (quad cards only). **Values:** yes, no.

Button descriptions

Button	Description
Submit	Assigns the trunks and notifies the user that they are assigned
Reset	Sets fields to their default values
Cancel	Displays the Assign TBCT screen on page 451

Administration procedures

- Assigning TBCT card parameters on page 109

Change Two B Channel Transfer screen

Use this screen to access screens that:

- Change the assignment of trunks to Two B-Channel Transfer (TBCT) on a card
- Change the system configuration of TBCT

Option descriptions

Option	Description
Change Two B Channel Transfer System Parameters	Displays the Change TBCT system parameters screen on page 455
Change Two B Channel Transfer Card Parameters	Displays the Change TBCT card parameters screen on page 457

Administration procedures

- Changing TBCT system parameters on page 108
- Changing TBCT card parameters on page 110

Change Two B Channel Transfer System Parameters screen

Use this screen to change the operation of Two B-Channel Transfer (TBCT).

Field descriptions

Field	Description
Number of Reserved B Channels for Outgoing Calls	The number of B channels that are used exclusively for outgoing calls. **Values:** Any positive integer between one and half the number of B-channels on the system
When is B Channel Transfer Invoked?	The condition under which TBCT will be used (when the system is either alerted about an incoming call, or when it answers an incoming call). **Values:** on alerting, on answer
Error Handling Method if Transfer Fails	The action the system takes if a transfer fails. **Values:** bridge, disconnect Staying bridged involves maintaining a voice connection between the incoming and outgoing calls and waiting for one of the parties to disconnect. Disconnecting the outgoing call returns an error to the application and logs a system alarm event. Note that staying bridged uses more of the call system's capacity.
Channel Hunt Method	The order that the system uses to hunt for available channels when placing an outgoing call. **Values:** ascending order, descending order To minimize collisions between incoming and outgoing calls, Avaya recommends that the system hunt for outgoing channels in the opposite direction from the direction the switch is using for incoming calls.
Maximum Number of Rings for Outgoing Calls	The number of rings to allow after placing an outgoing call. **Values:** 1-20

Button descriptions

Button	Description
Submit	Assigns system parameters and notifies user to stop and restart the voice system
Reset	Sets fields to their default values
Cancel	Displays the Change TBCT screen on page 455

Administration procedures

- Changing TBCT system parameters on page 108

Change Two B Channel Transfer Card Parameters screen

Use this screen to choose the card whose Two B-Channel (TBCT) trunk assignments you want to change.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change TBCT Trunk Assignments screen on page 457
Reset	Sets field to its default value
Cancel	Displays the Change TBCT screen on page 455

Administration procedures

- Changing TBCT card parameters on page 110

Change Two B Channel Transfer Trunk Assignments screen

Use this screen to change the assignment of the card's trunks to Two B-Channel Transfer (TBCT).

Field descriptions

Field	Description
Two B Channel Transfer on Trunk 1	The assignment of Trunk 1 to TBCT. **Values:** yes, no.
Two B Channel Transfer on Trunk 2	The assignment of Trunk 2 to TBCT. **Values:** yes, no.

Two B Channel Transfer on Trunk 3	The assignment of Trunk 3 to TBCT (quad cards only). **Values:** yes, no.
Two B Channel Transfer on Trunk 4	The assignment of Trunk 4 to TBCT (quad cards only). **Values:** yes, no.

Button descriptions

Button	Description
Submit	Assigns the trunks and notifies the user that they are assigned
Reset	Sets fields to their default values
Cancel	Displays the Change TBCT screen on page 455

Administration procedures

- Changing TBCT card parameters on page 110

Unassign Two B Channel Transfer screen

Use this screen to unassign a card from Two B-Channel (TBCT). This disables TBCT on the card.

Field description

Field	Description
Card	The number corresponding to a card. **Values:** Shown in drop-down list box

Button descriptions

Button	Description
Submit	Unassigns the card
Reset	Sets field to its default value
Cancel	Displays the Two B Channel Transfer screen on page 451

Administration procedures

- Unassigning TBCT on page 111

VoIP screens

This section describes Web Administration screens that are used to administer the Voice over IP feature.

Voice over IP screen

Use this screen to select options for configuring the Voice over IP subsystem. Administering Voice over IP (VoIP) is similar to administering other switch interfaces. However, with VoIP, you assign, unassign, display, and change parameters for a *virtual* card, rather than for an actual card installed in the Avaya IR system. The terms "card" and "channel" are used in the Web Administration interface for familiarity and ease of understanding.

Option descriptions

Option	Description
Display Assignments	Displays the Display VoIP assignments screen on page 459
Assign Card	Displays the Assign VoIP card screen on page 460
Change Parameters	Displays the Change VoIP parameters screen on page 463
Display Parameters	Displays the Display VoIP parameters screen on page 466
Unassign Card	Displays the Unassign VoIP card screen on page 468

Administration procedures

- Administering VoIP on the IR system on page 137

Display VoIP Assignments screen

When you select this screen, the system displays a message that identifies the configured VoIP card or cards by number. The message is similar to the one that follows.

```
The configured VoIP cards are:

11
```

To view detailed information about a VoIP card, go to the Display VoIP Parameters on page 139 screen.

Assign VoIP Card screen

Use this screen to assign VoIP to unassigned card numbers from 6 to 15.

Field descriptions

Field	Description
Card	The card number used by the virtual VoIP card. **Values:** Select from the numeric range of 6 to 15 in the drop-down list.

Button descriptions

Button	Description
Submit	Saves changes
Reset	Clears the fields on the screen
Cancel	Exits screen without saving changes
Help	Displays the system help files

Administration procedure

Assigning a VoIP Card on page 137

Assign VoIP for Card number screen

Use this screen to assign configuration parameters to a virtual VoIP card. The parameters you assign here enable communications between the VoIP subsystem and the:

- Packet network
- DEFINITY or MultiVantage system

To administer VoIP, you should have a good understanding of DEFINITY and MultiVantage system administration.

Field descriptions

Field	Description
Card Name	A unique name for the card. **Values:** Type a name limited to nine characters in length.

Card Enabled	This field controls call processing. If set to yes, the virtual VoIP card instance will process calls. Otherwise, all calls on VoIP channels will be rejected. **Values:** yes or no. Set to yes.
Card IP Address	The IP address assigned to the NIC that should be used by the virtual VoIP card to connect to the packet network. Multi-homed Avaya IR machines will have more than one IP address. **Values:** This parameter identifies the network interface card (NIC) that should be used to connect to the packet network. If the Avaya IR system interfaces with a DEFINITY or MultiVantage system, the IP address you enter here should be the same as the one you specify for the IR system on the **IP Node Names** form.
Gatekeeper IP Address	The IP address of the Gatekeeper that is configured to accept registration requests from the virtual VoIP card. **Values:** If a DEFINITY or MultiVantage system is functioning as the Gatekeeper, the IP address you enter here should be IP address assigned to the Node Name that represents the C-LAN card on the **IP Node Names** form.
H.323 Gatekeeper Port	The UDP port that the Gatekeeper uses to accept registration requests. **Values: Usually set to 1719.**
Low RTP Port	The lowest UDP port on the Avaya IR system to be used for RTP communication. **Values:** The range is 0 through 65535. Look for a range of free ports. The 9000-10000 range is usually free.
High RTP Port	The highest UDP port on the Avaya IR system to be used for RTP communication. **Values:** The range is 0 through 65535. Look for a range of free ports. The 9000-10000 range is usually free.
RTP Packet Size	The RTP packet payload size in milliseconds for outgoing calls. **Values:** 10, 20, 30, 40, 50, or 60.
RTCP Monitor Enabled	Enables sending copies of RTCP packets to a VoIP Monitoring Manager for monitoring of audio quality. **Values:** Set to yes to enable; set to no to disable.
RTCP Monitor IP Address	The IP address of the RTCP monitor to which copies of RTCP packets should be sent. **Values:** IP address identified for this purpose.

RTCP Monitor Port	The UDP port used by the RTCP monitor to receive copies of the RTCP packets. **Values:** The range is 0 through 65535.
Station Authentication Enabled?	This field controls VoIP station authentication with the Gatekeeper. If this field is set to yes, passwords must be assigned to VoIP channels on the Avaya IR system and to the corresponding stations on the Gatekeeper. The Avaya IR uses these passwords to register with the Gatekeeper. If this field is set to no, Avaya IR does not use passwords to register with the Gatekeeper. **Values:** Set to yes to enable; set to no to disable.
Avaya CM name	A unique name upto 20 characters long. The default name is in the CM# format, where # represents the card number that is being configured. **Values:** CM8, CM9, BMD
Number of Ports	The number of ports that you want to assign to the card that is being configured. This field can accept 1 to 3 digit values. The default value is 93. **Values:** 6, 36, 216
Avaya CM version	The version of Avaya Communication Manager that you are currently using. Select the correct version number from the drop-down list. **Values:** 2.0, 3.0
Media Encryption	This field controls the encryption of VoIP media signaling streams. The default value is Disabled **Values:** Enabled, Disabled

Button descriptions

Button	Description
Submit	Saves changes
Reset	Clears the fields on the screen
Cancel	Exits screen without saving changes
Help	Displays the system help files

Administration procedure

- Assigning a VoIP Card on page 137
- Assigning telephone numbers and passwords to channels on page 100

Change VoIP Parameters screen

Use this screen to select the VoIP virtual card for which you want to change parameters.

Field descriptions

Field	Description
Card	The card number used by the virtual VoIP card. **Values:** Select from the numeric range in the drop-down list.

Button descriptions

Button	Description
Submit	Saves changes
Reset	Clears the fields on the screen
Cancel	Exits screen without saving changes
Help	Displays the system help files

Administration procedures

- Changing VoIP Parameters on page 138

Change VoIP Parameters for Card screen

Use this screen to change configuration parameters for a virtual VoIP card. The connections you set up between a DEFINITY or MultiVantage system and a VoIP subsystem are H.323 MultiVantage station connections.

To administer VoIP, you should have a good understanding of DEFINITY and MultiVantage system administration.

Field descriptions

Field	Description
Card Name	A unique name for the card. **Values:** Type a name limited to nine characters in length.
Card Enabled	This field controls call processing. If set to yes, the virtual VoIP card instance will process calls. Otherwise, all calls on VoIP channels will be rejected. **Values:** yes or no. Set to yes.

Card IP Address	The IP address assigned to the NIC that should be used by the virtual VoIP card to connect to the packet network. Multi-homed Avaya IR machines will have more than one IP address. **Values:** This parameter identifies the network interface card (NIC) that should be used to connect to the packet network. If the Avaya IR system interfaces with a DEFINITY or MultiVantage system, the IP address you enter here should be the same as the one you specify for the IR system on the **IP Node Names** form.
H.323 Gatekeeper IP	The IP address of the Gatekeeper that is configured to accept registration requests from the virtual VoIP card. **Values:** If a DEFINITY or MultiVantage system is functioning as the Gatekeeper, the IP address you enter here should be IP address assigned to the Node Name that represents the C-LAN card on the **IP Node Names** form.
H.323 Gatekeeper Port	The UDP port that the Gatekeeper uses to accept registration requests. **Values:** Usually set to 1719.
RTP Low Port	The lowest UDP port on the Avaya IR system to be used for RTP communication. **Values:** The range is 0 through 65535. Look for a range of free ports. The 9000-10000 range is usually free.
RTP High Port	The highest UDP port on the Avaya IR system to be used for RTP communication. **Values:** The range is 0 through 65535, and must be higher than the RTP Low Port value. Look for a range of free ports. The 9000-10000 range is usually free.
RTP Packet Size	The RTP packet payload size in milliseconds for outgoing calls. **Values:** 10, 20, 30, 40, 50, or 60.
RTCP Monitor Enabled?	Enables sending copies of RTCP packets to a VoIP Monitoring Manager for monitoring of audio quality. **Values:** Set to yes to enable; set to no to disable.
RTCP Monitor IP Address	The IP address of the RTCP monitor to which copies of RTCP packets should be sent. **Values:** IP address identified for this purpose.
RTCP Monitor Port	The UDP port used by the RTCP monitor to receive copies of the RTCP packets. **Values:** The range is 0 through 65535.

Station Authentication Enabled?	This field controls VoIP station authentication with the Gatekeeper. If this field is set to yes, passwords must be assigned to VoIP channels on the Avaya IR system and to the corresponding stations on the Gatekeeper. The Avaya IR uses these passwords to register with the Gatekeeper. If this field is set to no, Avaya IR does not use passwords to register with the Gatekeeper. **Values:** Set to yes to enable; set to no to disable.
Avaya CM name	A unique name upto 20 characters long. The default name is in the CM# format, where # represents the card number that is being configured. **Values:** CM8, CM9, BMD
Number of Ports	The number of ports that you want to assign to the card that is being configured. This field can accept one to three digit values. The maximum number of ports that can be configured is 240. **Values:** 6, 36, 216
Avaya CM version	The version of Avaya Communication Manager that you are currently using. Select the correct version number from the drop-down list. **Values:** 2.0, 3.0
Media Encryption	This field controls the encryption of VoIP media signaling streams. The default value is Disabled **Values:** Enabled, Disabled

Button descriptions

Button	Description
Submit	Saves changes
Reset	Clears the fields on the screen
Cancel	Exits screen without saving changes
Help	Displays the system help files

Administration procedures

- Changing VoIP Parameters on page 138
- Assigning telephone numbers and passwords to channels on page 100

Display VoIP Parameters screen

Use this screen to select the VoIP virtual card for which you want to display parameters.

Field descriptions

Field	Description
Card	The card number used by the virtual VoIP card. **Values:** Select from the numeric range in the drop-down list.

Button descriptions

Button	Description
Submit	Saves changes
Reset	Clears the fields on the screen
Cancel	Exits screen without saving changes
Help	Displays the system help files

Administration procedures

- Displaying VoIP Parameters on page 139

VoIP Parameters Display screen

Use this screen to display configuration parameters for the selected VoIP card.

Parameter descriptions

Parameter	Description
Card	Displays the card number used by the virtual VoIP card.
Card Name	Displays the card name.
Card Enabled	If set to y, the virtual VoIP card instance will process calls. Otherwise, all calls on VoIP channels will be rejected.

Card IP Address	Displays the IP address assigned to the NIC used by the virtual VoIP card to connect to the packet network. Multi-homed Avaya IR machines will have more than one IP address. If the Avaya IR system interfaces with a DEFINITY or MultiVantage system, the IP address here should be the same as the one you specified for the IR system on the DEFINITY or MultiVantage **IP Node Names** form.
Card Channels	Displays the number of ports assigned to the card.
CM Name	Displays the name assigned to the Avaya Communication Manager.
CM Version	Displays the version of Avaya Communication Manager being used.
H323 Station Media Encryption Enabled	Displays the status of media encryption of VoIP signaling streams. 1 represents media encryption has been enabled and 0 represents media encryption has been disabled
Gatekeeper IP Address	The IP address of the Gatekeeper that is configured to accept registration requests from the virtual VoIP card. If a DEFINITY or MultiVantage system is functioning as the Gatekeeper, the IP address here should be the IP address assigned to the Node Name that represents the C-LAN card on the **IP Node Names** form in the DEFINITY or MultiVantage system.
H.323 Gatekeeper Port	Displays the UDP port that the Gatekeeper uses to accept registration requests. Usually set to 1719.
Low RTP Port	Displays the lowest UDP port on the Avaya IR system used for RTP communication.
High RTP Port	Displays the highest UDP port on the Avaya IR system used for RTP communication.
RTP Packet Size	Displays the RTP packet payload size in milliseconds for outgoing calls.
RTCP Monitor	Enables sending copies of RTCP packets to a VoIP Monitoring Manager. If set to y, monitoring is enabled. If set to n, monitoring is disabled.
RTCP Monitor IP	Displays the IP address of the RTCP monitor to which copies of RTCP packets are sent.
RTCP Monitor Port	Displays the UDP port used by the RTCP monitor to receive copies of the RTCP packets.
H.323 Station Authentication Enabled	If set to y, VoIP station authentication is enabled. If set to n, VoIP station authentication is disabled.
H.323 Station Product ID	Displays the Avaya IR Product ID that is used for VoIP station authentication.

H.323 Station Version ID	Displays the version of VoIP station authentication.

Administration procedures

- Displaying VoIP parameters on page 139

Unassign VoIP Card screen

Use this screen to unassign configuration parameters currently assigned to a VoIP virtual card.

Field descriptions

Field	Description
Card	The card number used by the virtual VoIP card. **Values:** Select from the numeric range in the drop-down list.

Button descriptions

Button	Description
Submit	Saves changes
Reset	Sets the field to its default value
Cancel	Exits screen without saving changes
Help	Displays the system help files

Administration procedures

- Unassigning a VoIP Card on page 139

Voice equipment screens

This section describes the screens that are used to administer voice equipment including: changing the state of equipment and assigning applications, phone numbers, and channels to groups.

Display Equipment screen

Use this screen to view information about a card.

Item and column descriptions

Item or column	Description
CARD	The card whose information is being displayed
STATE	The equipment states, listed below, indicate to the voice system whether or not a voice circuit card or voice channel is ready and able to perform the job required of it, which includes receiving calls and processing speech. The following is a description of the different maintenance states for voice equipment: • *MANOOS* (manual out-of-service) — Indicates that the circuit card or channel has been taken out of service with a command issued manually. (Note that E1 (CAS) channels 0 and 16 are used for framing and signaling, respectively. They will always display as *MANOOS* even when the circuit card is in service and cannot be changed to *INSERV*.) • *INSERV* (in service) — Indicates that the circuit card or channel is in service and able to carry a transaction. • *FOOS* (facility out-of-service) — Indicates that the circuit card or channel has been taken out of service by the voice system because the link to the switch is out of service (not physically connected, switch down, and so on). • *BROKEN* (broken) — Indicates that the circuit card or channel did not pass the diagnostics and has been taken out of service by the system. Channels are placed in the broken state by the system. An administrator cannot change a channel to the broken state. • *HWOOS* (hardware out-of-service) — Indicates that the circuit card or channel is out of service due to one or more of its dependencies being out of service, broken, or not physically connected. • *NETOOS* (network out-of-service) — Indicates that the system is ready for the channel to go *INSERV*, but is waiting for the network switch to also be ready for the channel to be *INSERV*. Channels may freeze in this state if the switch is not ready for the channel to be *INSERV*.
CLASS	The type of card
O.S. INDEX	The card number
NAME	The name of the associated circuit board
OPTIONS	The active circuit board options
FUNCTION	The function being performed by the card
TRUNK	The trunk used for the channel
PORT	The port number

CHAN	The number of the channel
SERVICE-NAME	The name of the service that handles the incoming call
PHONE	The telephone number assigned to the channel. If the channel is administered for VoIP station protocol and a password is assigned, an asterisk (*) is added to the end of the displayed telephone number, for example 12345*.
GROUP	The equipment group or groups
OPTS	The active circuit board options (see OPTIONS above)
PROTOCOL	The protocol used by the channel

Administration procedures

- Displaying equipment assignments on page 98

Display Passwords screen

Use this screen to display the telephone numbers and passwords (for VoIP station authentication) associated with one or more channels.

Note:
You must have Administration privileges to use the Display Passwords screen.

Field descriptions

Field	Description
Channels	A single channel number, comma or space separated list of channel numbers or channel number ranges, or *all*.

Button descriptions

Button	Description
Submit	Displays the telephone numbers and passwords associated with the specified channels.
Reset	Sets fields to their default values.

Administration procedures

- Displaying passwords assigned to channels on page 99

Change State of Voice Equipment screen

Use this screen to change the voice equipment state by putting a card or channel in service or out of service.

Field descriptions

Field	Description
New State	The state you want the voice equipment to be in. **Values:** inserv, manoos
Equipment	The type of voice equipment. **Values:** card, channel
Equipment Number	The numbers of the voice equipment whose state you want to change. **Values:** A single number, a range of numbers, a list of numbers separated by commas or spaces, or *all*
Change Immediately?	The timing of the state change. **Values:** YES, NO If you enter *YES*, active calls on the specified equipment are disconnected abruptly. If you enter *NO*, the state is changed after all current calls end. The changes may not be displayed immediately if you use the *NO* value.

Button descriptions

Button	Description
Submit	Changes the equipment state and displays a status message
Reset	Sets fields to their default values

Administration procedures

- Changing equipment states on page 99

Channels to Groups screen

Use this screen to access screens that:

- Assign channels to equipment groups
- Unassign channels from equipment groups

Option descriptions

Option	Description
Assign	Displays the Assign channels to equipment groups screen on page 472
Unassign	Displays the Unassign channels to groups screen on page 473

Administration procedures

- Assigning channels to equipment groups on page 100

Assign channels to equipment groups screen

Use this screen to assign channels to equipment groups.

Field descriptions

Field	Description
Channels	The channels to assign. **Values:** A single number (0-512), a range in the form (chan1-chan2), or a comma-separated list **Example:** 1,3,7
Groups	The equipment group or groups. **Values:** A single number (0-31), a range in the form (group1-group2), or a comma-separated list **Example:** 5-7

Button descriptions

Button	Description
Submit	Assigns the channels and displays the result
Reset	Sets fields to their default values

Cancel	Displays the Channels to Groups screen on page 471

Administration procedures

- Assigning channels to equipment groups on page 100

Unassign channels from groups screen

Use this screen to unassign channels from equipment groups.

Field descriptions

Field	Description
Channels	The channels to unassign. **Values:** A single number (0-512), a range in the form (chan1-chan2), or a comma-separated list **Example:** 1,3,7
Groups	The equipment group or groups. **Values:** A single number (0-31), a range in the form (group1-group2), or a comma-separated list **Example:** 5-7

Button descriptions

Button	Description
Submit	Unassigns the channels and displays the result
Reset	Sets fields to their default values
Cancel	Displays the Channels to Groups screen on page 471

Administration procedures

- Assigning channels to equipment groups on page 100

Phone Number - Channel Assignment screen

Use this screen to access screens that do the following:

- Assign telephone numbers to channels
- Unassign a telephone number from a channel

Option descriptions

Option	Description
Assign	Displays the Assign Phone Number to Channel screen on page 474
Unassign	Displays the Unassign Phone Number from a Channel screen on page 475

Administration procedures

- Assigning telephone numbers and passwords to channels on page 100

Assign Phone Number to a Channel screen

Use this screen to assign telephone numbers and VoIP station authentication passwords to channels.

Note:
You must have Administration privileges to assign VoIP station authentication passwords to channels.

Field descriptions

Field	Description
Phone Number	The telephone number or numbers to assign. **Values:** One or more telephone numbers with up to 7 digits **Example:** 5551212

Channel	The channel number or numbers that the telephone number or numbers are associated with. **Note:** To specify a range of telephone numbers and channels, the number of channels you specify must match the number of telephone numbers you specify. **Values:** One or more channel numbers (0-512) **Example:** 5
VoIP H.323 MultiVantage Station Password	The password associated with the channel for VoIP station authentication. **Note:** To specify a range of passwords, the number of passwords you specify must match the number of telephone numbers and the number of channels you specify. **Values:** One or more passwords of up to 8 digits, or none (for no password).

Button descriptions

Button	Description
Submit	Assigns the telephone number and displays the result
Reset	Sets fields to their default values
Cancel	Displays the Phone number - channel assignment screen on page 474

Administration procedures

- Assigning telephone numbers and passwords to channels on page 100

Unassign Phone Number from a Channel screen

Use this screen to unassign telephone numbers from channels.

Field description

Field	Description
Channels	A single channel number (0-512), a comma-separated or space-separated list of channel numbers, channel number ranges in the form (chan1-chan2), or *all* **Example:** 5

Button descriptions

Button	Description
Submit	Unassigns the telephone number or numbers and displays the result
Reset	Sets field to its default value
Cancel	Displays the Phone number - channel assignment screen on page 474

Administration procedures

- Unassigning telephone numbers from channels on page 101

Assign Services to Channels screen

Use this screen to assign services or URIs to channels.

Field descriptions

Field	Description
Assign	The type of service. **Values:** TAS Service, VXML Service, VXML URI.
Service	The TAS service that handles incoming calls. **Values:** Listed in the drop-down list box.
Startup Service	The TAS service that handles calls requiring special call setup procedures. **Values:** Listed in the drop-down list box.

To Chan(s)	The channels that the VXML services or VXML URIs are assigned to. **Values:** A single channel number, comma or space separated list of channel numbers, or channel number ranges in the form (chan1-chan2).

Button descriptions

Button	Description
Submit	Assigns the services and displays the updated Channel services screen on page 478
Reset	Sets fields to their default values
Cancel	Does not save entered data and displays the Channel services screen on page 478
Help	Displays the system help files

Administration procedures

- Assigning a TAS service to channels on page 102
- Assigning a VoiceXML service to channels on page 102
- Assigning a VoiceXML URI to channels on page 103
- Unassigning a service from a channel on page 104

Voice Services

Use these screens to administer the following services:

- Channel services
- Number services

Administration procedures

- Assigning a TAS service to channels on page 102
- Assigning a VoiceXML service to channels on page 102
- Assigning a VoiceXML URI to channels on page 103
- Unassigning a service from a channel on page 104

- Assigning a service to calling (ANI) and called (DNIS) numbers on page 104
- Assigning a VoiceXML URI to calling (ANI) and called (DNIS) numbers on page 105
- Unassigning a service from calling and called numbers on page 106

Channel Services screen

Use this screen to:

- Select channels to assign services to
- Display services that are assigned to channels
- Select channels to unassign services from

Column descriptions

Column	Description
Select	The check box to select a channel
Chan	The channel number
Service/URI	The service or URI that handles incoming calls
Type	The type of service
Startup Service/URI	The service or URI that handles calls requiring special call setup procedures
Type	The type of startup service or URI

Field descriptions

Field	Description
Channel Range	The range of channels to view. **Values:** Groups 0 to a number based on the existing channels (188 maximum). The **Display *N* channels** field determines the size of each group.
Display *N* channels	The number of channels to view. **Values of *N*:** all, 10, 25, 50, 100, 150

Button descriptions

Button	Description
< Prev	Displays previous *N* channels
Next >	Displays the next *N* channels
Select All	Selects all visible channels
Unselect All	Selects no visible channels, unassigns startup service, and updates channel data. Button is active if any channels are selected.
Assign Selected	Displays the Assign services to channels screen on page 476
Unassign Selected	Unassigns services from selected channels
Refresh	Updates displayed information

Administration procedures

- Assigning a TAS service to channels on page 102
- Assigning a VoiceXML service to channels on page 102
- Assigning a VoiceXML URI to channels on page 103
- Unassigning a service from a channel on page 104

Number Services screen

Use this screen to specify a service (application) to use for incoming calls on the called number (DNIS) or to specify a calling number (ANI).

The voice system sends an incoming call to a service. The service answers the call based on the best match between the called number and calling numbers of the call, and the list of ranges of called numbers and calling numbers of the services installed on the system.

Column descriptions

Column	Description
Select	The check box to select the service or URI
Called Numbers: From	The first telephone number in a range that a caller calls (DNIS) to reach the service. If the called number is in the range, the service is activated.

Called Numbers: To	The last telephone number in a range that a caller calls (DNIS) to reach the service. If the called number is in the range, the service is activated.
Calling Numbers: From	The first telephone number in a range that a caller calls from (ANI) to reach the service. If the calling number is in the range, the service is activated.
Calling Numbers: To	The last telephone number in a range that a caller calls from (ANI) to reach the service. If the calling number is in the range, the service is activated.
Service / URI	The service or URI handling incoming calls
Type	The type of service or URI

Button descriptions

Button	Description
Unselect All	Unselects all services
Assign New	Displays the Assign number services screen on page 480
Unassign Selected	Unassigns selected services and updates the table
Refresh	Updates the information in the table

Administration procedures

- Assigning a service to calling (ANI) and called (DNIS) numbers on page 104
- Assigning a VoiceXML URI to calling (ANI) and called (DNIS) numbers on page 105
- Unassigning a service from calling and called numbers on page 106

Assign Number Services screen

Use this screen to assign a service or URI to ranges of called and calling numbers.

Field descriptions

Field	Description
Assign	The type of service. **Values:** TAS Service, VXML Service, VXML URI
Called Numbers	The range of numbers that callers dial (DNIS) to reach the service. The number of digits must match those that the switch provides. The first column contains a single number, the word any, or the first number in the range. The second column contains the last number in the range. To specify the single number 6148604876, enter 6148604876 in column 1 and leave column 2 blank. To specify any number, enter any in column 1 and leave column 2 blank. To specify a range 5554876-5555210, enter 5554876 in column 1 and 5555210 in column 2.
Calling Numbers	The telephone numbers that the caller must call from to reach the service.
Service Name or URI	The name of the service (for TAS and VML services) or URI (for VXML URI). Service names are provided in a drop-down box. URIs must be typed.

Button descriptions

Button	Description
Submit	Assigns the numbers to the service and displays the Number services selection screen on page 479
Reset	Sets fields to their default values
Cancel	Displays the Number services selection screen on page 479
Verify	(Used for a URI) Verifies that the URI is a valid Internet-accessible address.

Administration procedures

- Assigning a service to calling (ANI) and called (DNIS) numbers on page 104
- Assigning a VoiceXML URI to calling (ANI) and called (DNIS) numbers on page 105
- Unassigning a service from calling and called numbers on page 106

ASAI administration screens

This section describes the screens that are used to administer the ASAI feature.

ASAI Administration screen

Use this screen to access screens that administer ASAI channels, domains, and parameters.

Option descriptions

Option	Description
Channels	Displays the Channels screen on page 482
Domains	Displays the Domains screen on page 488
Parameters	Displays the Parameters screen on page 497

Administration procedures

- Administering ASAI on page 42

ASAI Channels screen

Use this screen to access screens that administer ASAI channels.

Option descriptions

Option	Description
Display Channels	Displays the Display ASAI channels screen on page 483
Add Channel	Displays the Add ASAI Channel screen on page 484
Change Channel	Displays the Change ASAI Channel screen on page 485
Login Channel	Displays the Login ASAI Channel screen on page 487
Logout Channel	Displays the Logout ASAI Channel screen on page 487

Unassign Channel	Displays the Unassign ASAI Channel screen on page 488

Administration procedures

- Displaying ASAI channel assignments on page 42
- Adding an ASAI channel on page 43
- Changing an ASAI channel on page 43
- Logging in an ASAI channel on page 44
- Logging out an ASAI channel on page 45
- Unassigning an ASAI channel on page 45

Display ASAI channels screen

Use this screen to view information about ASAI channels.

Column descriptions

Column Name	Description
CHANNEL	Telephony channel number on the voice system
EXTENSION	The PBX extension number corresponding to one of the analog agent lines
SPLIT/AGT	Displays one of the following: • The split number of the ACD split if the channel operates as an extension in the ACD split • The Agent ID of the Logical Agent if the channel is logged in as a logical agent in an EAS environment
PASSWORD	The password for the Logical Agent ID
LOGIN	*Yes* represents channel login for ACD split. If *No*, ACD does not deliver any calls to this channel.
STATUS	The channel maintenance state

Administration procedures

- Displaying ASAI channel assignments on page 42

Add ASAI Channel screen

Use this screen to add an ASAI channel.

Field descriptions

Field	Description
Channel	The telephony channel number on the voice system. **Values:** A single number in the range 0-512.
Extension	The PBX extension number corresponding to one of the analog agent lines. **Values:** A number 3 to 7 digits in length.
Split/Agent Extension	Specify one of the following: • The split number of the ACD split if the channel operates as an extension in the ACD split • The Agent ID of the Logical Agent if the channel is logged in as a logical agent in an EAS environment **Values:** The split number is a maximum of 7 digits. Agent ID is a number included in the extension numbers assigned to the dial plan of the MultiVantage PBX. The Agent ID is unique and must not match a physical extension, split extension, or other extension number administered in the MultiVantage PBX. Note that MultiVantage logins operate either as ACD extensions or Agent IDs, and a mixed environment of ACD and EAS is not permitted by the MultiVantage PBX.
Password	The password for the Agent ID. **Values:** A maximum of 9 characters, or **none**, which indicates that no channel password is used. The channel password must match the password for the corresponding Agent ID.

Button descriptions

Button	Description
Submit	Adds the ASAI channel and displays information about the channel
Reset	Sets fields to their default values
Cancel	Displays the ASAI Channels screen on page 482

Administration procedures

- Adding an ASAI channel on page 43

Change ASAI Channel screen

Use this screen to choose the channel whose ASAI parameters you want to change.

Field descriptions

Field	Description
Channel	The telephony channel number on the voice system. **Values:** A single number in the range 0-512.

Button descriptions

Button	Description
Submit	Displays the Change specific ASAI channel screen on page 485
Reset	Sets field to its default value
Cancel	Displays the ASAI Channels screen on page 482

Administration procedures

- Changing an ASAI channel on page 43

Change specific ASAI channel screen

Use this screen to change ASAI parameters for a channel.

Field descriptions

Field	Description
Extension	The PBX extension number corresponding to one of the analog agent lines. **Values:** A number 3 to 5 digits in length.
Split/Agent Extension	Specify one of the following: • The split number of the ACD split if the channel operates as an extension in the ACD split • The Agent ID of the Logical Agent if the channel is logged in as a logical agent in an EAS environment **Values:** Split number is a 9-digit number. Agent ID is a number included in the extension numbers assigned to the dial plan of the MultiVantage PBX. The Agent ID is unique and must not match a physical extension, split extension, or other extension number administered in the MultiVantage PBX. Note that MultiVantage logins operate either as ACD extensions or Agent IDs, and a mixed environment of ACD and EAS is not permitted by the MultiVantage PBX.
Password	The password for the Agent ID. **Values:** A 9-character string. A dash indicates no channel password used. The channel password must match the password for the corresponding Agent ID.

Button descriptions

Button	Description
Submit	Changes parameters for the ASAI channel and displays information about the channel
Reset	Sets fields to their default values
Cancel	Displays the Change ASAI Channel screen on page 485

Administration procedures

- Changing an ASAI channel on page 43

Login ASAI Channel screen

Use this screen to log in to an ASAI channel.

Field descriptions

Field	Description
Channel	The telephony channel number on the voice system. **Values:** A single number in the range 0-512.

Button descriptions

Button	Description
Submit	Logs in the ASAI channel, enabling the channel to receive calls from the ACD, and displays information about the channel.
Reset	Sets field to its default value.
Cancel	Displays the ASAI Channels screen on page 482.

Administration procedures

- Logging in an ASAI channel on page 44

Logout ASAI Channel screen

Use this screen to log in to an ASAI channel.

Field descriptions

Field	Description
Channel	The telephony channel number on the voice system. **Values:** A single number in the range 0-512.

Button descriptions

Button	Description
Submit	Logs out the ASAI channel, preventing the ACD from delivering calls to it, and displays information about the channel.
Reset	Sets field to its default value.
Cancel	Displays the ASAI Channels screen on page 482.

Administration procedures

- Logging out an ASAI channel on page 45

Unassign ASAI Channel screen

Use this screen to unassign an ASAI channel.

Field descriptions

Field	Description
Channel	The telephony channel number on the voice system. **Values:** A single number in the range 0-512.

Button descriptions

Button	Description
Submit	Unassigns the ASAI channel and displays information about the channel
Reset	Sets field to its default value
Cancel	Displays the ASAI Channels screen on page 482

Administration procedures

- Unassigning an ASAI channel on page 45

ASAI Domains screen

Use this screen to access screens that administer ASAI domains.

Option descriptions

Option	Description
Display Domains	Displays the Display ASAI domains screen on page 489
Add Domain	Displays the Add ASAI Domain screen on page 491
Change Domain	Displays the Change ASAI Domain screen on page 492
Enable Domain	Displays the Enable ASAI Domain screen on page 495
Disable Domain	Displays the Disable ASAI Domain screen on page 495
Unassign Domain	Displays the Unassign ASAI Domain screen on page 496

Administration procedures

- Displaying an ASAI domain on page 46
- Adding an ASAI domain on page 46
- Changing an ASAI domain on page 47
- Enabling an ASAI domain on page 47
- Disabling an ASAI domain on page 48
- Unassigning an ASAI domain on page 48

Display ASAI domains screen

Use this screen to display information about ASAI domains.

Column descriptions

Column	Description
NAME	The domain name
TYPE	The domain type for the voice system
EXT	The extension

SERVICE	The application name that services the domain, and can be assigned to any type of domain (ACD, VDN, and so on). SERVICE can be one of the following, depending on the domain type: • ACD/VDN domains – If the application, ACD or VDN, directs calls to the voice system telephony channel, you must enter the special service VIS. VIS service provides the ability to start voice scripts on the tip/ring channels based on the DNIS. It also provides the ability for those voice scripts to use the A_Callinfo and A_Tran action. The service can be assigned to multiple ACD or VDN domains. All channels that are administered as agents must be members of at least one ACD or VDN domain. • CTL domains – The SERVICE must be monitoring • RTE domains – The SERVICE must be routing
STATUS	The domain maintenance state, shown as one of the following: • broken (broken) – A virtual channel could not be allocated for the service assigned to this domain • foos (facility out-of-service) – The ASAI digital link is not operating • initing (initializing) – The service assigned to the domain is failing initialization • inserv (in service) – The domain is ready to receive call information from the switch • manoos (manual out-of-service) – The domain has not been placed into service • netoos (network out-of-service) – The ASAI link is up, but attempts to receive call information from the switch are failing

Administration procedures

• Displaying an ASAI domain on page 46

Add ASAI Domain screen

Use this screen to add an ASAI domain. The Avaya IR system supports up to 64 ASAI domains.

Field descriptions

Field	Description
Domain Name	The name of the domain
Extension	The telephone extension associated with the domain. Must enter *any* for calls transferred to any destination not already monitored by another domain, or one of the following, depending on the domain type: • ACD switch extension – Corresponding ACD split switch extension being monitored. • VDN switch extension – Corresponding VDN switch extension being monitored. • CTL extension – Extension for which calls are being transferred by a voice system channel using the *A_Tran* action and processed by the CTL domain. Extension must correspond to an extension used in the *Destination* field of the *A_Tran* action used by an application assigned to the ASAI channel. • RTE extension – Extension that limits the processing of route requests based on the extension dialed. Only route requests for the specified extension are processed.
Service	The application name that services the domain, and can be assigned to any type of domain.

Type	The domain type for the voice system. **Values:** Must be one of the following: • ACD – Monitors calls to the corresponding split domain on the switch • VDN – Monitors calls to the corresponding VDN domain on the switch • CTL – Monitors calls transferred away from the voice system (by a voice script using the *A_Tran* action) to destinations on the switch that are not monitored by an ACD or VDN domain (for example, monitor calls transferred using *A_Tran* to miscellaneous extensions). CTL domains are defined only by the voice system and do not correspond to any domain on the switch. • RTE – Accepts Route Requests from the switch. RTE domains are defined by only the voice system and do not correspond to any domain on the switch.

Button descriptions

Button	Description
Submit	Adds the domain and displays domain information
Reset	Sets fields to their default values
Cancel	Displays the ASAI Domains screen on page 488

Administration procedures

- Adding an ASAI domain on page 46

Change ASAI Domain screen

Use this screen to choose the name of the domain whose parameters you want to change.

Field description

Field	Description
Domain Name	The name of the domain **Values:** See drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change specific ASAI domain screen on page 493
Reset	Sets the field to its default value
Cancel	Displays the ASAI Domains screen on page 488

Administration procedures

- Changing an ASAI domain on page 47

Change specific ASAI domain screen

Use this screen to change parameters for an ASAI domain.

Field descriptions

Field	Description
Extension	The telephone extension associated with the domain Must enter *any* for calls transferred to any destination not already monitored by another domain, or one of the following, depending on the domain type: • ACD switch extension – Corresponding ACD split switch extension being monitored. • VDN switch extension – Corresponding VDN switch extension being monitored. • CTL extension – Extension for which calls are being transferred by a voice system channel using the *A_Tran* external function and processed by the CTL domain. Extension must correspond to an extension used in the *Destination* field of the *A_Tran* external function used by an application assigned to the ASAI channel. • RTE extension – Extension that limits the processing of route requests based on the extension dialed. Only route requests for the specified extension are processed.

Service	The application name that services the domain, and can be assigned to any type of domain (ACD, VDN, and so on) **Values:** SERVICE can be one of the following, depending on the domain type: • ACD/VDN domains – If the application, ACD or VDN, directs calls to the voice system telephony channel, you must enter the special service VIS. VIS service provides the ability to start voice scripts on the tip/ring channels based on the DNIS. It also provides the ability for those voice scripts to use the A_Callinfo and A_Tran external functions. The service can be assigned to multiple ACD or VDN domains. All channels that are administered as agents must be members of at least one ACD or VDN domain. • CTL domains – The SERVICE must be monitoring • RTE domains – The SERVICE must be routing
Type	The domain type for the voice system **Note:** For the VIS service, do not assign domain types CTL or RTE. **Values:** Must be one of the following: • ACD – Monitors calls to the corresponding split domain on the switch • VDN – Monitors calls to the corresponding VDN domain on the switch • CTL – Monitors calls transferred away from the voice system (by a voice script using the *A_Tran* external function) to destinations on the switch that are not monitored by an ACD or VDN domain (for example, monitor calls transferred using *A_Tran* to miscellaneous extensions). CTL domains are defined only by the voice system and do not correspond to any domain on the switch. • RTE – Accepts Route Requests from the switch. RTE domains are defined by only the voice system and do not correspond to any domain on the switch.

Button descriptions

Button	Description
Submit	Changes the domain parameters and displays domain information
Reset	Sets fields to their default values
Cancel	Displays the Change ASAI Domain screen on page 492

Administration procedures

- Changing an ASAI domain on page 47

Enable ASAI Domain screen

Use this screen to enable an ASAI domain.

Field descriptions

Field	Description
Domain Name	The name of the domain you want to enable. **Values:** See drop-down list box

Button descriptions

Button	Description
Submit	Enables the domain and displays domain information
Reset	Sets field to its default value
Cancel	Displays the ASAI Domains screen on page 488

Administration procedures

- Enabling an ASAI domain on page 47

Disable ASAI Domain screen

Use this screen to disable an ASAI domain.

Field descriptions

Field	Description
Domain Name	The name of the domain you want to disable. **Values:** See drop-down list box

Button descriptions

Button	Description
Submit	Disables the domain and displays domain information
Reset	Sets field to its default value
Cancel	Displays the ASAI Domains screen on page 488

Administration procedures

- Disabling an ASAI domain on page 48

Unassign ASAI Domain screen

Use this screen to unassign an ASAI domain.

Field descriptions

Field	Description
Domain Name	The name of the domain you want to unassign. **Values:** See drop-down list box

Button descriptions

Button	Description
Submit	Unassigns the domain and displays domain information
Reset	Sets field to its default value
Cancel	Displays the ASAI Domains screen on page 488

Administration procedures

- Unassigning an ASAI domain on page 48

ASAI Parameters screen

Use this screen to change ASAI parameters.

Field descriptions

Field	Description
CONNECT Event	The event that identifies when the Connect event is reported to the A_Event external function in a script assigned to an ACD, VDN, or CTL type domain **Values:** alerting, connected.
Trace Detail	The level of detail to be used with the **`trace`** command. **Values:** low, normal, high The settings are defined as follows: • *low* — Information displayed about ASAI error and warning conditions • *normal* — All information displayed by the Low setting, plus ASAI external functions (that is, A_Callinfo, A_Tran, A_Event, and A_RouteSel) • *high* — All information displayed by the *low* and *normal* settings, plus call event descriptions received from the PBX
IP Address or Host Name	The IP address or host name of the MAPD **Values:** A valid IP address.
Node ID	The Node ID of the Avaya IR system as administered on the MAPD **Values:** signal01, signal02, signal03, signal04, signal05, signal06, signal07, signal08.

Button descriptions

Button	Description
Submit	Changes the parameters and displays parameter information
Reset	Sets fields to their default values

Cancel	Displays the ASAI Administration screen on page 482

Administration procedures

- Assigning ASAI parameters on page 49

Fax administration screens

This section describes the screens that are used to administer fax.

Fax Administration screen

Use this screen to access screens that administer fax.

Option descriptions

Option	Description
Fax Header	Displays the Fax Header screen on page 498
Fax Transmission Control	Displays the Fax Transmission Control screen on page 499
Fax Loading and Printing	Displays a dialog box that advises using the **`fax_admin`** command

Administration procedures

- Administering Fax on page 58

Fax Header screen

Use this screen to create or assign a header to use for faxes.

Field descriptions

Field	Description
Fax Header	The type of header to use with outgoing faxes **Values:** none, default, custom

Button descriptions

Button	Description
Submit	If the **Fax Header** is *custom*, the system displays the Custom fax header screen on page 499. Otherwise, **Fax Header** is displayed and **Submit** must be clicked again for the change to take effect.
Reset	Sets fields to their default values

Administration procedures

- Displaying the current fax header on page 59
- Creating a fax header on page 59

Custom fax header screen

Use this screen to create a custom fax header.

Field description

Field	Description
New Custom Header Text	The text of the custom fax header **Values:** Any string

Button descriptions

Button	Description
Submit	Changes the fax header and displays it
Reset	Sets the field to its default value
Cancel	Displays the Fax Header screen on page 498

Administration procedures

- Creating a fax header on page 59

Fax Transmission Control screen

Use this screen to view and remove fax jobs in queue.

Column descriptions

Column	Description
Job Id	The job identification number
Next Attempt	The date and time the fax job is to be processed. This is the time specified by the application if no attempt to send the job has been made, or it is the subsequent retry attempt time if the original attempt failed.
Status	The current status of the job: **F** — Job has failed (final failure) **Waiting For Retry** — Job is waiting for a retry attempt **Ready** — Job is ready to be processed. The outgoing call is in progress. **D** — Job is delayed by user (scheduled for future delivery) **A** — Job is waiting for an address. Destination number is not found. **Transmitting** — Job is transmitting the fax **P** — Job is being processed **S** — Job has sent the fax **f** — Job process has failed
Retry Count	The number of attempts to send the fax
Files Submitted	The number of files to be sent
Destination	The telephone number where the fax is to be delivered

Button descriptions

Button	Description
Select All	Selects all fax jobs
Unselect All	Selects no fax jobs
Remove Selected	Removes selected fax jobs
Refresh	Updates the screen
Back	Displays previous screen

Administration procedures

- Deleting a fax on page 61

Speech and DPR administration screens

This section describes the web administration screens that are used to administer Text-to-Speech (TTS), speech recognition, and Dial Pulse Recognition (DPR).

Display Speech Proxy Status screen

Use this screen to access screens that display speech server and resource status.

Option descriptions

Option	Description
Speech Resource Status	Displays the Speech resource status screen on page 501
Speech Server Status	Displays the Speech server status screen on page 504

Administration procedures

- Displaying the speech resource status on page 112
- Displaying the speech server status on page 113

Speech Resource Status screen

Use this screen to choose the resource type whose status you want to view.

Field description

Field	Description
Resource Type	The name of the resource **Values:** See drop-down list box

Button descriptions

Button	Description
Submit	Displays: • The Speech resource status display screen on page 502 for speech resources • The PTTS status display screen on page 503 for Proxy Text-to-Speech resources
Reset	Sets the field to its default value
Cancel	Displays the Display Speech Proxy Status screen on page 501

Administration procedures

- Displaying the speech resource status on page 112
- Displaying the speech server status on page 113

Speech resource status display screen

Use this screen to view the status of a speech or DPR resource.

When MRCP is *not* installed, this screen displays the following: fields:

Field descriptions

Field	Description
RESOURCE	The type of resource
PORTS AVAILABLE	The number of available ports
SERVER	The name assigned to a speech or DPR server
IP	The IP address of the server
STATUS	The maintenance state of the server
PORT	The port number
STATE	The maintenance state of the port
CHAN	The channel that is running a speech or DPR resource
REMOTE	The socket number of the speech or DPR server that is receiving data from the system
PROCESSING	The voice application that is running

When MRCP *is* installed, this screen displays the following: fields:

Field descriptions

Field	Description
RESOURCE	The type of resource
PORTS AVAILABLE	The number of available ports
SERVER	The name assigned to a speech or DPR server
IP	The IP address of the server
STATE	The maintenance state of the port
PORT CAPACITY	The number of ports assigned for this resource
PORTS AVAILABLE	The number of ports not currently serving application needs

Administration procedures

- Displaying speech or DPR resource status on page 112

PTTS status display screen

Use this screen to view the status of a Proxy Text-to-Speech resource.

When MRCP is *not* installed, this screen displays the following:

Column descriptions

Column	Description
RESOURCES	The type of resource
Default Voice	The name used for the voice typically provided by the voice response application
PTTS	The name of the resource
SERVER	The name assigned to a speech proxy server
PORT_AVAIL	The number of available ports
VOICE_TAG	The name of the voice used by the application
LANGUAGE	The language being used
PORT	The port number
STATE	The maintenance state of the port
CHAN	The channel that is running a speech resource

REMOTE	The socket number of the speech server that is receiving data from the system
PROCESSING	The voice application that is running

When MRCP *is* installed, this screen displays the following:

Column descriptions

Column	Description
RESOURCES	The type of resource
Default Voice	The name used for the voice typically provided by the voice response application
ALL-SERVERS SUMMARY PORTS AVAILABLE	The number of available ports on all of the servers supporting the resource
SERVER	The name assigned to the server
IP	The IP address of the server
STATE	The maintenance state of the server
PORT CAPACITY	The number of ports assigned for this resource
PORTS AVAILABLE	The number of ports not currently serving application needs
PORT	The port number
STATE	The maintenance state of the port
CHAN	The channel that is running a speech resource

Administration procedures

- Displaying the TTS resource status on page 124

Speech Server Status screen

Use this screen to choose the resource type for the server whose status you want to view.

Field description

Field	Description
Resource Type	The name of the resource **Values:** See drop-down list box

Button descriptions

Button	Description
Submit	Displays the Speech server status for resource screen on page 505
Reset	Sets the field to its default value
Cancel	Displays the Display Speech Proxy Status screen on page 501

Administration procedures

- Displaying the TTS server status on page 124
- Displaying the speech or DPR resource status on page 112

Speech Server Status for resource screen

Use this screen to choose the server whose status you want to view.

Field description

Field	Description
Server	The name of the server. **Values:** See drop-down list box

Button descriptions

Button	Description
Submit	Displays the Speech resource status display screen on page 502
Reset	Sets the field to its default value
Cancel	Displays the Speech server status screen on page 504

Administration procedures

- Displaying the speech or DPR server status on page 113

Speech Proxy Administration screen

Use this screen to access screens that administer speech recognition, DPR, and Proxy Text-to-Speech.

Option descriptions

Option	Description
Change Speech State	Displays the Change speech state screen on page 506
Speech Recognition and DPR Configuration	Displays the Speech recognition and DPR configuration screen
Text-to-Speech Configuration	Displays the Text-to-Speech configuration screen on page 516

Administration procedures

- Administering Proxy-Text-to-Speech on page 123
- Administering speech recognition on page 111

Change Speech State screen

Use this screen to access screens that change the states of speech resources, speech servers, and speech resource ports.

Option descriptions

Option	Description
Change Speech Resource State	Displays the Change Speech Resource State screen on page 507
Change Speech Server State	Displays the Change Speech Server State screen on page 508
Change Speech Resource Port State	Displays the Change Speech Resource Port state on page 510

Administration procedures

- Changing the speech resource state on page 121
- Changing the speech server state on page 121
- Changing the speech resource port state on page 123

Change Speech Resource State screen

Use this screen to change the maintenance state of a resource type.

Field descriptions

Field	Description
New State	The state you want the speech resource to be in **Values:** inserv, manoos Options are similar to the voice equipment states with the same names.
Resource Type	The label that refers to all ports dedicated to a specific speech engine **Values:** See drop-down list box.
Change Immediately	Should the state change be initiated immediately? **Values:** NO, YES If you select *YES*, calls in progress terminate immediately.

Button descriptions

Button	Description
Submit	Changes the state of the speech resource
Reset	Sets fields to their default values
Cancel	Displays the Change Speech State screen on page 506

Administration procedures

- Changing the speech resource state on page 121

Change Speech Resource Port State for resource screen

Use this screen to select the server for changing the resource port state.

Field descriptions

Field	Description
Server	The name of the server **Values:** See drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change Speech Resource Port State for type and server screen on page 510
Reset	Sets the field to its default value
Cancel	Displays the Change Speech Resource Port State screen on page 510

Administration procedures

- Administering Proxy-Text-to-Speech on page 123
- Administering speech and dial pulse recognition on page 111

Change Speech Server State screen

Use this screen to set the speech resource type for the server whose state you want to change.

Field descriptions

Field	Description
Resource Type	The name of the resource **Values:** See drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change Speech Server State for resource screen on page 509
Reset	Sets field to its default value
Cancel	Displays the Change Speech State screen on page 506

Administration procedures

- Changing the speech server state on page 121

Change Speech Server State for resource screen

Use this screen to change the maintenance state for the server.

Field descriptions

Field	Description
New State	The state to which you want to change the speech resource **Values:** inserv, manoos Options are similar to the voice equipment states with the same names.
Server	The name assigned to a speech proxy server
Change Immediately	Should the state change be initiated immediately? **Values:** NO, YES If *YES*, calls in progress terminate immediately.

Button descriptions

Button	Description
Submit	Changes the speech server state
Reset	Sets fields to their default values
Cancel	Displays the Change Speech Server State screen on page 508

Administration procedures

- Changing the speech server state on page 121

Change Speech Resource Port State screen

Use this screen to set the resource type for changing the resource port state.

Field descriptions

Field	Description
Resource Type	The name of the resource **Values:** See drop-down list box

Button descriptions

Button	Description
Submit	Displays the Change Speech Resource Port State for resource screen on page 507
Reset	Sets the field to its default value
Cancel	Displays the Change Speech State screen on page 506

Administration procedures

- Administering Proxy-Text-to-Speech on page 123
- Administering speech and dial pulse recognition on page 111

Change Speech Resource Port State for type and server screen

Use this screen to change the maintenance state of a speech or DPR resource port.

Field descriptions

Field	Description
New State	The state you want the speech or DPR resource to be in **Values:** inserv, manoos Options are similar to the voice equipment states with the same names.
Port	The port whose state you want to change. **Values:** See drop-down list box. Depends on the number of administered server ports.
Change Immediately	Should the state change be initiated immediately? **Values:** NO, YES If *YES*, calls in progress terminate immediately.

Button descriptions

Button	Description
Submit	Changes the port state
Reset	Sets fields to their default values
Cancel	Displays the Change Speech Resource Port State for resource screen on page 507

Administration procedures

- Administering Proxy-Text-to-Speech on page 123
- Administering speech and dial pulse recognition on page 111

Speech Recognition and DPR Configuration screen

Use this screen to assign and configure recognition types.

Field descriptions

Field	Description
Recognition Type	The type of speech recognition being used **Values:** See drop-down list box
Engine	The speech engine

Button descriptions

Button	Description
Assign New Recognition Type	Displays the Assign Speech Recognition or DPR Type screen on page 515
Refresh	Updates fields
Back	Displays the previous screen
Change (Recognition Type)	Displays the Change Speech Recognition Configuration screen on page 512
Unassign (Recognition Type)	Removes the recognition type and all associated servers
Assign New Server	Displays the Assign Speech Recognition or DPR Server screen on page 514
Change (Server)	Displays the Change Speech Recognition Server screen on page 513
Unassign (Server)	Removes the server

Administration procedures

- Administering speech and dial pulse recognition on page 111

Change Speech Recognition Configuration screen

Use this screen to change the speech or DPR engine associated with a recognition type.

Field descriptions

Field	Description
Recognition Type	The label that refers to all ports dedicated to a specific speech or DPR engine **Values:** OPSR4, OPSR5, OPSR6, OPSR7, OPSR8, OPSR9, WHOLEWORD, DPR **Note:** For VoiceXML applications the speech recognition type must be OPSR4. For TDD modem applications the speech recognition type must be OPSR8.
Engine	The speech or DPR engine **Values:** nuance, speechworks, mrcp, other (for OPSR4 through OPSR9); Avaya Recognizer (for WHOLEWORD);Avaya Dial Pulse Recognizer (for DPR)

Button descriptions

Button	Description
Submit	Changes the configuration and displays the updated Speech Recognition and DPR Configuration screen on page 511
Reset	Sets fields to currently assigned values
Cancel	Displays the Speech Recognition and DPR Configuration screen on page 511

Administration procedures

- Changing the engine associated with a recognition type on page 117

Change Speech Recognition Server screen

Use this screen to reconfigure the speech or DPR recognition server.

Field descriptions

Field	Description
Recognition Type	The label that refers to all ports dedicated to a specific speech or DPR engine **Values:** See drop-down list box.

Server Name	The name assigned to a speech or DPR server
IP Address	The IP address of the server
Ports	The number of ports supported on the system
Base Port	The starting port number **Values:** An integer between 1 and 65000. For OSR 2.0, the Base Port should be **4904**. For MRCP, the Base Port should be **554**. For DPR, the Base Port should be **7500**. For TDD modem, the Base Port should be **5111**. For WHOLEWORD, the Base Port should be **2345**.

Button descriptions

Button	Description
Submit	Changes the server and updates the Speech Recognition and DPR Configuration screen on page 511
Reset	Sets fields to currently assigned values
Cancel	Displays the Speech Recognition and DPR Configuration screen on page 511

Administration procedures

- Changing a speech or DPR server on page 119

Assign Speech Recognition or DPR Server screen

Use this screen to assign and configure a speech recognition or DPR server.

Field descriptions

Field	Description
Recognition Type	The label that refers to all ports dedicated to a specific speech or DPR engine **Values:** See drop-down list box.

Engine	The MRCP speech engine currently being used. **Values:** mrcp-scansoft, mrcp-nuance, mrcp-ibm, mrcp-other
Server Name	The name assigned to a speech or DPR server. For MRCP, the name must be in the form of <*name*/**media**>
IP Address	The IP address of the server
Ports	The number of ports supported on the system
Base Port	The starting port number. **Values:** An integer between 1 and 65000. For OSR 2.0, the Base Port should be **4904**. For MRCP, the Base Port should be **554**. For DPR, the Base Port should be **7500**. For TDD modem, the Base Port should be **5111**. For WHOLEWORD, the Base Port should be **2345**.

Button descriptions

Button	Description
Submit	Changes the server and updates the Speech Recognition and DPR Configuration screen on page 511
Reset	Sets fields to their default values
Cancel	Displays the Speech Recognition and DPR Configuration screen on page 511

Administration procedures

- Assigning a speech or DPR server on page 118

Assign Speech Recognition or DPR Type screen

Use this screen to assign a speech recognition or DPR type to a speech engine.

Field descriptions

Field	Description
Recognition Type	The label that refers to all ports dedicated to a specific speech or DPR engine **Values:** OPSR4, OPSR5, OPSR6, OPSR7, OPSR8, OPSR9, WHOLEWORD, DPR **Note:** For VoiceXML applications the speech recognition type must be OPSR4. For Tdd modem applications the speech recognition type must be OPSR8.
Engine	The speech or DPR engine **Values:** nuance, speechworks, mrcp, other (for OPSR4 through OPSR9); Avaya Recognizer (for WHOLEWORD);Avaya Dial Pulse Recognizer (for DPR)

Button descriptions

Button	Description
Submit	Assigns the speech recognition type and displays the updated Speech Recognition and DPR Configuration screen on page 511 with a request to stop and restart the voice system.
Cancel	Displays the Speech Recognition and DPR Configuration screen on page 511

Administration procedures

- Assigning a speech recognition type on page 115
- Assigning DPR as a recognition type on page 113

Text-to-Speech Configuration screen

Use this screen to administer the Proxy Text-to-Speech (TTS) feature. The order and presence of these fields may vary slightly, depending on the Text-to-Speech Type.

Field descriptions

Field	Description
Default Voice	The name used for the voice (typically provided by the voice response application)
Text-to-Speech Type	The label that refers to all ports that are dedicated to a specific TTS engine
Engine	The TTS engine
Server Name	The name assigned to the TTS server
IP Address	The IP address of the TTS server **Note:** Do not guess at the IP Address. Validate the IP Address before you click Change. An incorrect IP Address may cause TTS to fail.
Voice Name	(applies to Speechify, RealSpeak, and MRCP engines) The name of the voice **Note:** This field and the voice names are case-sensitive.
Ports	(applies to SAPI engines) The number of ports supported on the system or the number of ports available for voice (Speechify or RealSpeak engine)
Base Port	(applies to Speechify, RealSpeak, and MRCP engines) The port for connecting to the TTS server For MRCP, the Base Port should be **554**.

Button descriptions

Button	Description
Change (Default Voice)	Displays Change Text-to-Speech System Parameters screen on page 518
Change (Text-to-Speech Type)	Displays Change Text-to-Speech Configuration screen on page 519
Unassign (Text-to-Speech Type)	Unassigns TTS type, servers and voices
Assign New Server	Displays the Assign TTS Server screen on page 521
Change (Server)	Displays the Change TTS server screen on page 520
Unassign (Server)	Unassigns the server

Assign New Voice	Displays the Assign TTS voice screen on page 522 (does not apply to SAPI)
Change (Voice)	Displays the Change TTS voice screen on page 523 (does not apply to SAPI)
Unassign (Voice)	Unassigns the voice (does not apply to SAPI)
Refresh	Updates the information on the screen
Back	Display the previous screen

Administration procedures

- Administering Proxy-Text-to-Speech on page 123

Change Text-to-Speech System Parameters screen

Use this screen to change the default voice for Proxy Text-to-Speech.

Field description

Field	Description
Default Voice	The name used for the voice (typically provided by the voice response application)

Button descriptions

Button	Description
Submit	Changes the voice and displays the updated Text-to-Speech configuration screen on page 516
Reset	Sets the field to its default value
Cancel	Displays the Text-to-Speech configuration screen on page 516

Administration procedures

- Changing the default voice for TTS on page 126

Change Text-to-Speech Configuration screen

Use this screen to change the Text-to-Speech type.

Field descriptions

Field	Description
Text-to-Speech Type	The label for all ports dedicated to a specific Text-to-Speech engine. **Values:** Assigned TTS types in the range TTS1-TTS9.
Engine	The Text-to-Speech engine. **Values:** sapi, speechify, realspeak, and mrcp.

Button descriptions

Button	Description
Submit	Changes the TTS type and displays the updated Text-to-Speech configuration screen on page 516
Reset	Sets the field to its default value
Cancel	Displays the Text-to-Speech configuration screen on page 516

Administration procedures

- Changing a TTS type on page 127

Assign Text-to-Speech type screen

Use this screen to assign a Text-to-Speech type.

Field descriptions

Field	Description
Text-to-Speech Type	The label for all ports dedicated to a specific Text-to-Speech engine. **Values:** TTS0-TTS9 (currently assigned TTS types do not appear in the list).

Engine	The Text-to-Speech engine. **Values:** sapi, speechify, realspeak, and mrcp.

Button descriptions

Button	Description
Submit	Changes the TTS type and displays the updated Text-to-Speech configuration screen on page 516
Cancel	Displays the Text-to-Speech configuration screen on page 516

Administration procedures

- Assigning a TTS type on page 126

Change Text-to-Speech Server screen

Use this screen to change the Text-to-Speech server.

Field descriptions

Field	Description
Text-to-Speech Type	The label that refers to all ports dedicated to a specific Text-to-Speech engine. **Values:** See drop-down text box
Engine	The Text-to-Speech engine
Server Name	The name assigned to a Text-to-Speech server For MRCP, the name must be in the form of <*name*`/media`>
IP Address	The IP address of the server **Note:** Do not guess at the IP Address. Validate the IP Address before you click Change. An incorrect IP Address may cause TTS to fail.
Ports	(SAPI engine only) The number of ports available to TTS

Button descriptions

Button	Description
Submit	Assigns the server and displays the updated Text-to-Speech configuration screen on page 516
Reset	Sets fields to their default values
Cancel	Displays the Text-to-Speech configuration screen on page 516

Administration procedures

- Changing a TTS server on page 130

Assign Text-to-Speech Server screen

Use this screen to assign a new Text-to-Speech server.

Field descriptions

Field	Description
Text-to-Speech Type	The label that refers to all ports dedicated to a specific Text-to-Speech engine. **Values:** See drop-down text box
Engine	The MRCP Text-to-Speech engine currently being used. **Values:** mrcp-ibm, mrcp-scansoft, mrcp-nuance, mrcp-other
Server Name	The name assigned to a Text-to-Speech server For MRCP, the name must be in the form of <*name*`/media`>
IP Address	The IP address of the server **Note:** Do not guess at the IP Address. Validate the IP Address before you click Change. An incorrect IP Address may cause TTS to fail.
Ports	(SAPI engine only) The number of ports available to TTS

Button descriptions

Button	Description
Submit	Assigns the server and displays the updated Text-to-Speech configuration screen on page 516
Reset	Sets fields to their default values
Cancel	Displays the Text-to-Speech configuration screen on page 516

Administration procedures

- Assigning a TTS server with a sapi engine on page 128
- Assigning a TTS server with an MRCP engine on page 129
- Assigning a TTS server with a Speechify or RealSpeak speech engine on page 129

Assign Text-to-Speech Voice screen

Use this screen to assign a new Text-to-Speech voice.

Field descriptions

Field	Description
Text-to-Speech Type	The label that refers to all ports dedicated to a specific Text-to-Speech engine. **Values:** See drop-down list box
Engine	The Text-to-Speech engine
Server Name	The name assigned to a Text-to-Speech server
Voice Name	The name of the voice
Voice Ports	The number of ports assigned with voice
Voice Base Port	The port used for connection to the speech server. For MRCP, the Voice Base Port should be **554**.

Button descriptions

Button	Description
Submit	Assigns the new voice and displays the updated Text-to-Speech configuratio on page 516n screen
Reset	Sets fields to their default values
Cancel	Displays the Text-to-Speech configuration screen on page 516

Administration procedures

- Assigning a new voice to a TTS server with a speech engine on page 132

Change Text-to-Speech Voice screen

Use this screen to change the Text-to-Speech voice.

Field descriptions

Field	Description
Text-to-Speech Type	The label that refers to all ports dedicated to a specific Text-to-Speech engine. **Values:** See drop-down list box
Engine	The Text-to-Speech engine
Server Name	The name assigned to a Text-to-Speech server
Voice Name	The name of the voice
Voice Ports	The number of ports assigned with voice
Voice Base Port	The port used for connection

Button descriptions

Button	Description
Submit	Assigns the new voice and displays the updated Text-to-Speech configuratio on page 516n screen
Reset	Sets fields to their default values
Cancel	Displays the Text-to-Speech configuration screen on page 516

Administration procedures

- Changing the default voice for TTS on page 126

Universal Call ID Administration screen

Use this screen to change the Universal Call ID Network Node ID.

Field descriptions

Field	Description
Universal Call ID Network Node ID	The value used to uniquely identify the Avaya IR system within a DEFINITY Enterprise Communication System (ECS) Call Center. Each node (DEFINITY ECS, Avaya IR, and so on) must have a distinct UCID Network Node ID. **Values:** NONE, 1-32767 Use NONE if the node is not administered with a node number. The recommended range for Avaya IR systems is 10000 to 19999.

Button descriptions

Button	Description
Submit	Changes the UCID node
Reset	Set the field to its default value

Administration procedures

- Setting the UCID Network Node ID on page 134

Report screens

This section describes the screens that are used to create and display reports.

Reports screens overview

Reports are collections of information that include call histories and system status messages.

To print information displayed in a frame, use one of the following procedures.

From Internet Explorer:

1. Right-click a point inside the frame, and select **Print** from the drop-down menu. The browser displays the **Print** dialog box.

2. Verify that the selections in the dialog box are correct, and click **OK**.

From Netscape:

1. Click a point inside the frame.

2. Choose File > Print from the browser menu. The browser displays the **Print** dialog box.

3. Under **Print Frames**, select **The selected frame**.

4. Verify that the other selections in the dialog box are correct, and click **OK**.

Fax report screen

Use this screen to view information about out-of-call faxes.

Column descriptions

Column	Description
Date	The date the fax job completed
Time	The time the fax job completed
Job ID	The *JobID* is the **Return Field** value associated with the fax transmission for non-CURRENT deliveries in the definition for the FAX_Send action.
PSnt	The number of pages transmitted
Dur.	The amount of time (mm:ss) elapsed during the last try of the transmission
Destination	The FAX delivery number specified for the FAX_Send action
Status	The status of the fax transmission: *Failed*, *Sent*, or *Cancelled*
Cause	If the transmission was successful or cancelled, this field is blank. If the transmission failed, this field contains an explanation for the failure.

Administration procedures

- Displaying Fax reports

Fax report description

The Fax report displays the following information:

Column name	Description
Date	Date the fax job completed
Time	Time the fax job completed
Job ID	A string identifying the fax job. The **JobID** is the **Return Field** value associated with the fax transmission for non-CURRENT deliveries in the definition for the FAX_Send action.
PSnt	Number of pages transmitted
Dur.	The amount of time (mm:ss) elapsed during the last transmission attempt
Destination	The FAX delivery number specified for the FAX_Send action.
Status	Status of the fax transmission: **Failed**, **Sent**, or **Cancelled**.
Cause	If the transmission was successful or cancelled, this field is blank. If the transmission failed, this field contains an explanation for the failure.

Call Data Handling Reports screen

Use this screen to access screens that set up reports about calls.

Option descriptions

Option	Description
Call Classification Data Summary Report	Displays the Classification Data Summary report screen on page 528
Call Data Detail Report	Displays the Call Data Detail Report screen on page 529
Call Data Summary Report	Displays the Call Data Summary Report screen on page 531

Call Traffic Report	Displays the Call Traffic Report screen on page 533

Administration procedures

- Creating reports on page 143

Call Classification Data Summary report screen

Use this screen to specify the range of dates for information in a Call Classification Data Summary Report.

Field descriptions

Field	Description
Start Date	The first date of records you want to display. **Values:** This date is of the format *mm/dd/yyyy* or *mm/dd/yy* and cannot be more than seven days in the past. If you do not specify the year, the current year will be used.
End Date	The last date of records you want to display. **Values:** This date is of the format *mm/dd/yyyy* or *mm/dd/yy* and cannot be in the future. If you do not specify the year, the current year will be used.

Button descriptions

Button	Description
Submit	Displays the report.
Reset	Sets fields to their default values.
Cancel	Displays the Call Data Handling Reports screen on page 527.

Administration procedures

- Displaying Call Classification Data Summary reports

Call Classification Data Summary report description

The Call Classification Data Summary report displays the following information:

Column name	Description
Dialed Number	Specifies the dialed telephone number from the transfer attempt. Telephone numbers have a 16-digit maximum, however only 12 digits are displayed in the report. Longer numbers are truncated and displayed with an asterisk (*).
Total	Specifies the total transfer attempts to connect to the *Dialed Number*. This number is the sum of *Failed*, *Unclass*, and *Class* attempts.
Failed	Specifies the number of transfer attempts that failed because no dial tone or no energy was detected. This number corresponds to call dispositions equal to *1*, *2*, *3*, *4*, *E*, or *p*.
Unclass	Specifies the number of blind transfer attempts. This number corresponds to call dispositions equal to *X*.
Class	Specifies the number of intelligent transfer attempts. These are either Full CCA or Intelligent attempts. This number corresponds to call dispositions not equal to *1*, *2*, *3*, *4*, *E*, *p*, or *X*.
Answer	Specifies the number of transfer attempts that were answered. This number corresponds to call dispositions equal to *A*.
Busy	Specifies the number of transfer attempts that were busy. This number corresponds to call dispositions equal to *B*.
Ring	Specifies the number of transfer attempts that rang with no answer. This number corresponds to call dispositions equal to *N*.
Other	Specifies the number of times the network is busy and cannot complete a call (fast busy). This number corresponds to call dispositions F, H, T, or a recognized SIT.
Total	Specifies the sums of each column.
Percent	Specifies the percentage of the *Total*.

Call Data Detail Report screen

Use this screen to set up and view a Call Data Detail Report.

Field descriptions

Field	Description
Number of Records	Specifies the number of most recent records to include in the report. **Values:** A number, range of numbers, or *all*
Service Name	Specifies the service (application) associated with the call data. **Values:** See drop-down list box.
Include Call Event Data	Specifies the inclusion of call event data in the report. **Values:** Yes, No If call event data does exist for a particular call record, the information appears immediately after the record entry on the report.
Date	Specifies the date to which you want to limit the report information. **Values:** *Date* Use the format *mm/dd/*yyyy or *mm/dd/*yy for month, day, and year. If you do not specify a year, the system uses the current year.

Button descriptions

Button	Description
Submit	Displays the Call Data Detail Report on page 530.
Reset	Sets fields to their default values.
Cancel	Displays the Call Data Handling Reports screen on page 527.

Administration procedures

- Displaying Call Data Detail reports

Call Data Detail report description

The Call Data Detail report displays the following information:

Column name	Description
Record	Specifies the database record number of each call made to the voice system.
Channel	Specifies the channel on which the call was made.
Start	Specifies the time and date the call began. If multiple applications (services) were invoked during the call, the first line of the display shows the time and date the call began, and subsequent lines for the call show the time and date that each application began.
Duration	Specifies the length of the call in seconds. If multiple applications were invoked during the call, the first line of the display for the call shows the total length of all applications in the call, and subsequent lines for the call show the length of each application invoked in the call.
Service	Specifies the application (service) associated with the call. If multiple applications were invoked during the call, the first line of the display for the call (the summary line) is blank, and subsequent lines for the call show each application invoked in the call.

Call Data Summary Report screen

Use this screen to set up and view a Call Data Summary Report.

Field descriptions

Field	Description
Hours	Specifies the hours for which you want report information. **Values:** The valid range is 0-23, with *0* representing midnight and *23* representing 11 p.m. Choose *all* for the entire 24-hour period. If you enter a range between 9 and 16, the system displays call data for calls made between 9 a.m. and 5 p.m.
Service Name	The service name limits the report to a particular service (application). The default is *all* to have the report display call data for all services.

Include Call Event Data	Specifies the inclusion of call event data in the report. **Values:** yes, no If call event data does exist for a particular record, the information appears immediately after the record entry on the report.
Date	Specifies the date to which you want to limit the report information. **Values:** Use the format *mm/dd/*yyyy or *mm/dd/*yy for month, day, and year. If you do not specify a year, the system uses the current year.

Button descriptions

Button	Description
Submit	Displays the Call Data Summary Report on page 532.
Reset	Sets fields to their default values.
Cancel	Displays the Call Data Handling Reports screen on page 527.

Administration procedures

- Displaying Call Data Summary reports

Call Data Summary report description

The Call Data Summary report displays the following information:

Column name	Description
Period	Time, in hourly increments, when calls were made to the voice system.
Service	Service (application) associated with a group of calls made during the specified time.
Average Hold Time	Average duration of a call for the specified time in minutes and seconds.
Usage	Total number of calls for the specified time.
Event Description	Name of the call data field

Event No	Identifying number for each call data message.
Count	If the event is a numeric field, *Count* is the total value of all calls for this event during the period. If the event is a non-numeric field, *Count* is the total number of all calls during the period.

Call Traffic Report screen

Use this screen to set up and display a Call Traffic Report.

Field descriptions

Field	Description
Hours	Specifies the hours for which you want report information **Values:** The valid range is 0-23, with *0* representing midnight and *23* representing 11 p.m. Use *all* for no limit. If you enter a range between 9 and 16, the system displays call data for calls made between 9 a.m. and 5 p.m. For the default, *all*, the system displays call data for the entire 24-hour period.
Summarize	The option to use a summary or include all data in the report **Values:** yes, no For the default, *No*, the system displays the Traffic Report instead of the Traffic Summary Report. The two reports are described below: • The Traffic Summary report provides information on the total traffic volume for each channel for the range of hours specified • The Traffic Report provides traffic volume for each channel in one hour increments, starting and ending with the hours specified

Date	The date to which you want to limit the report information **Values:** Use the format *mm/dd/*yyyy or *mm/dd/*yy for month, day, and year. If you do not specify a year, the system uses the current year.

Button descriptions

Button	Description
Submit	Displays the Call Traffic Report on page 534.
Reset	Sets fields to their default values.
Cancel	Displays the Call Data Handling Reports screen on page 527.

Administration procedures

- Displaying Call Traffic reports

Call Traffic report description

The Call Traffic report displays the following information:

Column name	Description
Channel	The channel that handled the call.
Period	The time period when system traffic is monitored.
Calls	The number of calls made during the indicated time period.
Average Hold Time	Average duration of a call for the specified time, in minutes and seconds
%Occ	Percentage of occupancy (that is, the proportion of the hour that the channel was in use)

Message Log Report screen

Use this screen to access screens that explain, modify, or update system messages. You can also view the current Message Log Report (on the bottom frame of the screen).

Option descriptions

Option	Description
Explain Messages	Displays the Explain messages screen on page 535.
Modify Message Log Report	Displays the Modify Messages Log Report screen on page 536.
Update Message Log Report	Updates the display on this screen.

Administration procedures

- Displaying the Message Log report
- Changing the Message Log report
- Updating the Message Log report

Explain messages screen

Use this screen to select a message ID for which you want an explanation.

Field description

Field	Description
Message ID	The unique name for a message in the system **Values:** See the list box. To select consecutive items (Message IDs), select the first item, press and hold down **Shift**, and then select the last item. To select non-consecutive items, press and hold down **Control**, and then select each item.

Button descriptions

Button	Description
Submit	Displays the message explanations in the bottom frame of the screen.
Reset	Sets the field to its default value.
Cancel	Displays the Message Log Report screen on page 534.

Administration procedures

- Displaying a message explanation on page 34

Modify Message Log Report screen

Use this screen to modify the system messages that are reported.

Field descriptions

Field	Description
Message ID	The unique name for a message in the system **Values:** See the list box. To select consecutive items (Message IDs), select the first item, press and hold down **Shift**, and then select the last item. To select non-consecutive items, press and hold down **Control**, and then select each item.
Priority	The priority classification of error messages **Values:** See the list box. To select consecutive items (priorities), select the first item, press and hold down **Shift**, and then select the last item. To select non-consecutive items, press and hold down **Control**, and then select each item. The priority codes are defined as follows: • **C* (critical) indicates the problem is interrupting service. Immediate action is needed • ** (major) indicates a potentially serious problem that should be fixed soon • * (minor) indicates no immediate action is necessary, but the system condition should be monitored • - (none) indicates no error. This is for informational purposes only.

Source	The software process source to include in the report Enter *all* to include all software process sources (this is the default). Messages are divided into subgroups according to the software process that generates them. Possible sources include: • ASRPROXYMGR process • Call data handler (CDH) process accumulates generic call statistics and application messages • DBINIT process • Data interface process (DIP), such as DIP7 • Maintenance (MTC) process runs temporary diagnostics • NMSIP process • Transaction state machine (TSM) process controls transactions via script execution and commands • TTSPROXYMGR process • Voice over IP (VOIP) process • Voice response output process (VROP_TNG) manages speech data base and downloads speech data to VRU
Card	The cards whose data is included in the report Enter a single circuit card number, multiple circuit card numbers separated by commas, or a card type (such as *NM* for NMS cards or *VO* for VoIP cards) to limit the display to specific circuit cards. There is no default value. If you specify *all*, the display is limited to messages about voice system circuit cards only. Card types are not validated by the system.
Start Time	The start time for the message search (the time of the first entry to be displayed) Use the format MM/DD HH:MM for month, day, hour, and minute. For example, entering *02/05 10:00* indicates that you want to search entries that occurred on February 5 after 10 a.m.

Stop Time	The stop time for the message search (the time of the last message to be displayed) Use the format MM/DD HH:MM for month, day, hour, and minute. **Note:** If you specify a stop time, you must specify all in the Number of Messages to be Displayed field.
Number of Messages to be Displayed	The number of messages in the report Enter a single number from *1* to *999*, or *all* to specify the number of most recent entries to be displayed. If you enter *all* , the report displays all entries maintained by the log. If you enter *5*, the voice system searches all records and displays only the five most recent entries that match the specified start and stop time, and source. If you enter a number greater than 50, the system displays a warning that the command will affect system performance. You can either submit the request or cancel it.

Button descriptions

Button	Description
Save	Runs the **logCat** command.
Reset	Sets fields to their default values.
Cancel	Displays the Message Log Report screen on page 534.

Administration procedures

- Updating the Message Log report

VXML Log Report screen

Use this screen to access screens that modify the manner in which VXML log messages are displayed in the VXML log report. You can also view the current VXML log report (displayed on the bottom frame of the screen).

Option descriptions

Option	Description
Time Stamp	Each log message in the VXML log report is sorted in alphabetical order of its own time stamp.
Channel id	Each log message in the VXML log report is sorted in alphabetical order of its own channel id.
Level	Each log message in the VXML log report is sorted using the log level and the debug level configured on the VXML Logging Level screen. on page 395 The messages are displayed in alphabetical order of the log level and debug level.
Module	Each log message in the VXML log report is sorted in alphabetical order of the module name configured on the VXML Logging Level screen. on page 395
Channel id & Level	Each log message in the VXML log report is sorted using the channel id, log level, and debug level configured on the VXML Logging Level screen. on page 395 The messages are sorted first by channel id and then by the logging level.
Channel id & Level & Module	Each log message in the VXML log report is sorted using the channel id, log level, debug level, and the module name configured on the VXML Logging Level screen. on page 395 The messages are sorted first by channel id, then by logging level, and then by the module name.
Message Text	Each log message in the VXML log report is sorted in alphabetical order of the message text in the log message and then displayed in the VXML log report.

Button descriptions

Button	Description
First 50	Displays the first 50 log messages
Prev 50	Displays the previous 50 log messages
Next 50	Displays the next 50 log messages
Last 50	Displays the last 50 log messages

Help	Displays the system help files

Adminstration procedures

- Displaying VXML Log Reports on page 143

VXML Performance Log Report screen

Use this screen to display the VXML performance log report (displayed on the bottom frame of the screen). The report is displayed on the basis of the following VXML parameters:

- Active channels
- Active calls
- VXML fetch count
- Audio fetch count
- Grammar fetch count
- Cache hits
- URL hits
- Failed calls
- Successfully completed calls
- Memory usage
- CPU usage

Button descriptions

Button	Description
First 50	Displays the first 50 log messages
Prev 50	Displays the previous 50 log messages
Next 50	Displays the next 50 log messages
Last 50	Displays the last 50 log messages
Help	Displays the system help files

Administration Procedures

- Displaying the VXML Performance Log Report on page 144

Index

A

A word about the Tomcat server log • 95
Abbreviations • 244, 248
Add ASAI Channel screen • 43, 482, 484
Add ASAI Domain screen • 46, 489, 491
add command • 153, 173, 207
Add destination screen • 35, 388, 389
Add threshold screen • 37, 388, 391, 392
addhdr command • 154, 181, 205
Adding a message destination • 35, 36, 388, 390
Adding a message threshold • 37, 40, 388, 392
Adding an ASAI channel • 43, 483, 485
Adding an ASAI domain • 46, 489, 492
Adding an ASG user • 50
Adding IVR(s) to the Dialer • 71
Administering alarms and messages • 32, 387
Administering alarms and messages overview • 33
Administering ASAI • 42, 482
Administering ASAI overview • 42
Administering ASG • 50, 158, 352
Administering CVCT for CTI • 75
Administering digital interfaces • 51
Administering digital interfaces overview • 52
Administering Disk Mirroring • 57
Administering fax • 58, 212, 498
Administering fax overview • 58
Administering IC Integration • 63
Administering network services • 88
Administering PDS Integration • 64
Administering Proxy Text-to-Speech • 123, 506, 508, 510, 511, 518
Administering Proxy Text-to-Speech overview • 124
Administering SNMP configuration • 87
Administering speech and dial pulse recognition • 111, 506, 508, 510, 511, 512
Administering speech and dial pulse recognition overview • 112
Administering the Avaya IR system and the switch for CTI • 75
Administering the CTI DIP • 74, 403
Administering the CTI DIP on Avaya IR • 75, 404
Administering the JDBC database interface • 76, 143
Administering the JDBC database interface overview • 77
Administering the PDS/IVR Integration software • 71
Administering the speech recognition type • 85
Administering the voice system • 141
Administering the voice system overview • 141
Administering the VXML log reports • 85, 395
Administering the Web Administration interface • 90
Administering the Web Administration session timeout • 94
Administering Two B-Channel Transfer (TBCT) • 106, 318, 451
Administering Two B-Channel Transfer overview • 106
Administering Universal Call ID Expansion • 134
Administering voice equipment • 98
Administering voice equipment overview • 98
Administering Voice over IP • 135, 136, 333
Administering VoiceXML • 83
Administering VoIP on the IR system • 137, 459
Administration • 17
Administration commands • 151
Administration commands for VoiceXML • 83
Administration procedures • 18
Alarm administration screens • 178, 203, 204, 285, 369
Alarms screen • 370, 371
annotate command • 154
ASAI Administration screen • 482, 498
ASAI administration screens • 482
ASAI Channels screen • 482, 485, 487, 488
ASAI Domains screen • 482, 488, 492, 493, 495, 496
ASAI Parameters screen • 49, 482, 497
asaichan command • 155
asaidom command • 156
asaiparms command • 157
ASG Security Login Administration screen • 50, 51, 352
asg_adm command • 158
Assign Card screen • 404, 409, 412, 414, 416, 418, 426, 427, 429, 431, 438, 439, 443, 446
assign card/channel command • 158, 185, 193, 313
Assign channels to equipment groups screen • 100, 472
assign eqpgrpname command • 159
Assign ISDN System Parameters screen • 53, 406
Assign ISDN-PRI E1 parameters screen • 55, 416
Assign ISDN-PRI E1 screen • 410, 414
Assign ISDN-PRI T1 parameters screen • 54, 412
Assign ISDN-PRI T1 screen • 410
Assign Loop Start E1 parameters screen • 55, 429
Assign Loop Start E1 screen • 410, 428
Assign Loop Start T1 parameters screen • 55, 426
Assign Loop Start T1 screen • 410, 424
Assign Number Services screen • 104, 105, 480
assign phone command • 161, 186
Assign Phone Number to a Channel screen • 101, 138, 474
Assign R2 MFC E1 parameters screen • 55, 443, 444
Assign R2 MFC E1 screen • 410, 442
assign service/startup command • 162, 183, 188, 314
Assign Services to Channels screen • 102, 103, 476, 479
Assign Speech Recognition or DPR Server screen • 118, 512, 514
Assign Speech Recognition or DPR Type screen • 512, 515
Assign Text-to-Speech Server screen • 128, 129, 130, 517, 521
Assign Text-to-Speech type screen • 519
Assign Text-to-Speech Voice screen • 518, 522

Assign Two B Channel Transfer card parameters for trunks screen • 454
Assign Two B Channel Transfer Card Parameters screen • 451, 453
Assign Two B Channel Transfer screen • 451, 453, 454, 455
Assign Two B Channel Transfer System Parameters screen • 107, 451, 452
Assign VoIP Card screen • 137, 460
Assign VoIP for Card number screen • 137, 459, 460
Assign Wink Start T1 parameters screen • 55, 438
Assign Wink Start T1 screen • 410, 436
assign_permissions command • 160, 201, 328
Assigning a default voice for TTS • 125
Assigning a digital interface protocol • 53, 405, 410, 412, 414, 416, 418, 426, 427, 429, 431, 438, 439, 443, 446
Assigning a new voice to a TTS server with a Speechify or RealSpeak engine • 125, 132, 523
Assigning a recognition type for a TDD modem recognition engine • 114
Assigning a recognition type for an MRCP recognition engine • 116
Assigning a recognition type for DPR • 113, 516
Assigning a recognition type for Nuance and SpeechWorks recognition engines • 85, 115, 516
Assigning a recognition type for WholeWord • 114
Assigning a service to calling (ANI) and called (DNIS) numbers • 83, 104, 478, 480, 481
Assigning a speech or DPR server • 118, 515
Assigning a TAS service to channels • 102, 477, 479
Assigning a TTS server with a sapi engine • 128, 522
Assigning a TTS server with a Speechify or RealSpeak speech engine • 129, 522
Assigning a TTS server with an MRCP engine • 129, 522
Assigning a TTS type • 126, 520
Assigning a VoiceXML service to channels • 83, 102, 477, 479
Assigning a VoiceXML URI to calling (ANI) and called (DNIS) numbers • 83, 105, 478, 480, 481
Assigning a VoiceXML URI to channels • 83, 103, 477, 479
Assigning a VoIP Card • 137, 460, 462
Assigning ASAI parameters • 49, 498
Assigning channels to equipment groups • 100, 472, 473
Assigning default backup parameters • 25, 362, 364
Assigning ISDN system parameters • 52, 409
Assigning TBCT card parameters • 109, 451, 454, 455
Assigning TBCT system parameters • 107, 451, 453
Assigning telephone numbers and passwords to channels • 100, 462, 465, 474, 475
Assigning Web Administration privileges • 22
autoreboot command • 163
Available VoIP channels • 136
Avaya IR administration • 74

B

Backing up and restoring data overview • 23
Backing up and restoring system data • 23
Backup and restore screens • 282, 292, 297, 352
Backup and restore screens overview • 353
backup command • 165
Backup file content screen • 367
Backup history screen • 361
Backup Scheduling screen • 358, 359, 360
Backup screen • 354, 355, 356, 357, 358
bbs command • 167

C

Call Classification Data Summary report description • 529
Call Classification Data Summary report screen • 169, 323, 527, 528
Call Data Detail report description • 530
Call Data Detail Report screen • 170, 527, 529
Call Data Handling Reports screen • 527, 528, 530, 532, 534
Call Data Summary report description • 532
Call Data Summary Report screen • 171, 527, 531
Call Traffic report description • 534
Call Traffic Report screen • 528, 533
ccarpt command • 168
cddrpt command • 169
CDH Scheduling screen • 375, 376
CDH scheduling screens • 375
cdsrpt command • 170
Change ASAI Channel screen • 482, 485, 486
Change ASAI Domain screen • 47, 489, 492, 495
Change dialout parameters screen • 40, 372, 373
Change ISDN-PRI E1 parameters screen • 56, 422
Change ISDN-PRI E1 screen • 421, 449
Change ISDN-PRI T1 parameters screen • 56, 419
Change ISDN-PRI T1 screen • 418, 449
Change Loop Start E1 parameters screen • 56, 434
Change Loop Start E1 screen • 434, 450
Change Loop Start T1 parameters screen • 56, 431, 432
Change Loop Start T1 screen • 431, 449
Change Parameters screen • 404, 419, 421, 422, 424, 431, 433, 434, 436, 440, 441, 446, 448, 449
Change R2 MFC E1 parameters screen • 56, 446
Change R2 MFC E1 screen • 446, 450
Change specific ASAI channel screen • 485
Change specific ASAI domain screen • 493
Change Speech Recognition Configuration screen • 117, 512
Change Speech Recognition Server screen • 120, 512, 513
Change Speech Resource Port State for resource screen • 507, 510, 511
Change Speech Resource Port State for type and server screen • 508, 510
Change Speech Resource Port State screen • 123, 134, 506, 508, 510
Change Speech Resource State screen • 122, 133, 506, 507
Change Speech Server State for resource screen • 508, 509

Change Speech Server State screen • 122, 133, 506, 508, 509
Change Speech State screen • 121, 122, 123, 506, 507, 508, 510
Change State of Voice Equipment screen • 99, 284, 471
Change Text-to-Speech Configuration screen • 517, 519
Change Text-to-Speech Server screen • 131, 517, 520
Change Text-to-Speech System Parameters screen • 517, 518
Change Text-to-Speech Voice screen • 518, 523
Change Two B Channel Transfer Card Parameters screen • 455, 457
Change Two B Channel Transfer screen • 451, 455, 456, 457, 458
Change Two B Channel Transfer System Parameters screen • 108, 455
Change Two B Channel Transfer Trunk Assignments screen • 457
Change VoIP Parameters for Card screen • 138, 463
Change VoIP Parameters screen • 459, 463
Change Wink Start T1 parameters screen • 56, 440
Change Wink Start T1 screen • 439, 450
Changing a TTS resource port state • 134
Changing a TTS resource state • 132
Changing a TTS server state • 133
Changing a TTS type • 127, 519
Changing an ASAI channel • 43, 483, 485, 486
Changing an ASAI domain • 47, 489, 493, 495
Changing digital interface protocol parameters • 55, 405, 419, 421, 422, 424, 431, 433, 434, 436, 440, 442, 446, 449, 450
Changing equipment states • 99, 471
Changing options for a speech or DPR server • 119, 514
Changing options for a TTS server • 130, 521
Changing TBCT card parameters • 110, 455, 457, 458
Changing TBCT system parameters • 108, 455, 457
Changing the default voice for TTS • 126, 518, 524
Changing the dialout configuration • 40, 372, 375
Changing the engine associated with a recognition type • 117, 513
Changing the message destination • 36, 388
Changing the message priority • 39, 388, 393
Changing the speech resource port state • 123, 506
Changing the speech resource state • 121, 506, 507, 509
Changing the speech server state • 122
Changing the threshold period • 39, 40, 388, 394
Changing threshold frequencies • 40, 388
Changing VoIP Parameters • 138, 463, 465
Channel Services screen • 477, 478
Channels to Groups screen • 185, 471, 473
Checking voice system status • 142, 400
checktf command • 171
ckConfig command • 172
Command line overview • 150
Command-line administration • 149
Configuring a database DIP • 77, 380, 382, 385
Configuring Database CDH for a local Oracle database • 80, 83, 380, 383, 385
Configuring DEFINITY or MultiVantage for VoIP • 135, 136, 139
Configuring File CDH for a local Oracle database • 79, 82, 380, 382, 385, 386
Configuring File CDH for a local text file • 78, 82, 380, 382, 385, 386
Configuring File CDH for a remote database • 80, 82, 380, 382, 385, 386
Configuring H.323 terminal connections for VoIP • 140
Configuring the integration software on Avaya IR • 70
Configuring the integration software on the Dialer • 65
Configuring the VXML log files • 86, 397
Configuring the VXML performance record files • 87, 398
Configuring VXML Logging Level • 86, 396
Configuring WebLM servers • 144
copy phrase command • 154, 172, 207
Creating a fax header • 59, 499
Creating a file list for a partial backup or restore • 28, 31, 32, 166, 282
Creating IVR agents • 73
Creating reports • 143, 528
Creating reports overview • 143
CTI Configuration - Edit screen • 76, 402, 403
CTI DIP administration screens • 402
CTI DIP Configuration screen • 402, 404
cticonfig command • 173
Custom fax header screen • 499

D

dalarm command • 175
dbconfig command • 178
decode command • 181, 205
Default Backup Parameters screen • 340, 361, 364
defService command • 181
delbackup command • 183
Delete Backup files screen • 30, 184, 360
delete card/channel command • 159, 184
delete eqpgrp command • 159, 185, 194
delete phone command • 162, 185
Delete Schedule screen • 358, 359
delete service/startup command • 183, 185, 186
Deleting a backup file • 30, 361
Deleting a CDH schedule • 81, 375
Deleting fax jobs • 61, 500
Dialer Administration • 71
Dialout Configuration screen • 372, 375
Digital Interfaces Protocols screen • 404, 449, 450
DIP restart status screen • 387, 403
DIP start status screen • 386, 403
DIP status screens • 386
DIP stop status screen • 386, 403
dip_int command • 188, 303
Disable ASAI Domain screen • 48, 489, 495
Disabling a network service • 89
Disabling an ASAI domain • 47, 48, 489, 496
Disabling Disk Mirroring • 58
Display active alarms screen • 370
Display ASAI channels screen • 482, 483

Display ASAI domains screen • 489
display assignments command • 189
Display Assignments screen • 404, 432
display card command • 190
display channel command • 191
Display default parameters screen • 361, 362
Display dialout parameters screen • 372
display dnis command • 188, 192
display eqpgrp/group command • 193
Display Equipment screen • 99, 190, 468
Display ISDN System Parameters screen • 404, 405, 409
display messages command • 194, 197, 255, 266
Display Parameters screen • 404, 449
display password command • 200
Display Passwords screen • 99, 470
Display retired alarms screen • 370, 371
display servers command • 201
display services command • 188, 202
Display Speech Proxy Status screen • 501, 502, 505
Display Two B Channel Transfer screen • 451, 452
Display VoIP Assignments screen • 459
Display VoIP Parameters screen • 459, 466
display_permissions command • 161, 201, 328
Displaying a message explanation • 34, 536
Displaying active alarms • 34, 370
Displaying ASAI channel assignments • 42, 483
Displaying ASAI domains • 46, 489, 490
Displaying assigned cards and protocols • 53, 432
Displaying dialout configuration parameters • 40, 372, 373
Displaying digital interface protocol parameters • 53, 405, 449
Displaying equipment assignments • 98, 470
Displaying information about an ASG user • 50
Displaying ISDN system parameters • 52, 406
Displaying jobs in the fax queue • 61
Displaying passwords assigned to channels • 99, 470
Displaying Performance Record snapshot • 144, 540
Displaying retired alarms • 34, 370, 371
Displaying speech or DPR resource status • 112, 501, 502, 503, 505
Displaying TBCT card parameters • 108, 452
Displaying the available backup files • 25, 364, 365, 367
Displaying the backup history • 24
Displaying the current fax header • 59, 499
Displaying the default backup parameters • 25, 362
Displaying the speech or DPR server status • 113, 501, 502, 505
Displaying the TTS resource status • 124, 504
Displaying the TTS server status • 124, 505
Displaying VoIP Assignments • 137
Displaying VoIP parameters • 137, 139, 459, 466, 468
Displaying VXML Log reports • 143, 540
dspActAlarms command • 202, 204
dspRetAlarms command • 203

E

edExplain command • 204, 209
Enable ASAI Domain screen • 48, 489, 495
Enabled and disabled services • 90
Enabling a network service • 89
Enabling an ASAI domain • 47, 489, 495
Enabling Disk Mirroring • 57
Enabling fax for a digital protocol • 59
encode command • 181, 205
erase command • 154, 173, 206
Establishing platform user accounts • 21
explain command • 207, 255, 266
Explain messages screen • 35, 535

F

Fax Administration screen • 498
Fax administration screens • 211, 498
fax command • 209
Fax Header screen • 60, 498, 499
FAX Loading and Printing window • 212, 215
Fax report description • 527
Fax report screen • 526
Fax Transmission Control screen • 61, 498, 499
FAX Transmission Control window • 212
fax_admin command • 211, 212
faxit command • 216, 221
faxq command • 219
faxremove command • 220, 221
faxrpt command • 220, 221
faxutil command • 223
Feature Licensing screen • 146, 241, 287, 377
File CDH edit screen • 380, 385
fixLogFile command • 224
Formats • 243, 247
Full Backup screen • 28, 167, 354

G

Guidelines for administering VoIP • 135

H

hassign command • 225, 228, 229, 231, 232, 233, 234, 235, 236, 237, 239
hdelete command • 227, 229, 231, 232, 233, 234, 235, 236, 237, 239, 288
hdisplay command • 227, 228, 231, 232, 233, 234, 235, 236, 237, 239
hfree command • 227, 228, 229, 231, 233, 234, 235, 236, 237, 239
hispy command • 227, 228, 229, 232, 233, 234, 235, 236, 237, 239
hlogin command • 227, 228, 229, 231, 232, 234, 235, 236, 237, 239
hlogout command • 227, 228, 229, 231, 232, 233, 235, 236, 237, 239
hnewscript command • 227, 228, 229, 231, 232, 233, 234, 236, 237, 239
hsend command • 227, 228, 229, 231, 232, 233, 234, 235, 237, 239
hspy command • 227, 228, 229, 231, 232, 233, 234, 235, 236, 239

hstatus command • 227, 228, 229, 231, 232, 233, 234, 235, 236, 237, 238

I

Installing and configuring the PDS Integration software • 64
Installing the integration software on Avaya IR • 67, 69
Installing the integration software on the Dialer • 64
Installing the PDS Integration package • 68
Installing the Web Administration SSL certificate for Internet Explorer • 90, 95
Installing the Web Administration SSL certificate for Netscape • 93
ISDN-PRI screens • 410

J

JDBC Administration - Edit (Custom) screen • 380, 381, 383
JDBC administration - edit screen • 77, 79, 80, 380, 381
JDBC Administration - Main screen • 379, 382, 384, 385, 386
JDBC administration screens • 78, 290, 379

L

License Configuration • 144, 379
License configuration overview • 144
License configurations screen • 144, 377
License Configurations screens overview • 377
licenseQuery • 146, 239
List Available Backup Files screen • 25, 364, 367
Locants • 243, 245
logCat command • 199, 225, 241, 250, 252, 330
logDstPri command • 249, 252, 330
logEvent/logMsg command • 250
logFmt command • 253
Logging in an ASAI channel • 44, 483, 487
Logging out an ASAI channel • 43, 45, 483, 488
Login ASAI Channel screen • 482, 487
logit command • 252, 255
Logon Screen • 343
Logout ASAI Channel screen • 482, 487
logTest command • 256
Loop Start screens • 424

M

Message Administration for Message ID screen • 387, 388
Message Administration screen • 266, 387, 390, 391, 392, 393, 394
Message administration screens • 387
Message Log Report screen • 197, 534, 535, 538
Message priority screen • 39, 388, 393
mirror_admin command • 58, 257
mkheader command • 258
mode command • 266
Modify Message Log Report screen • 535, 536
msgadm command • 263

N

newscript command • 267
nms command • 268, 274
nmsboards command • 273
Number Services screen • 479, 481

O

Obtaining the PDS Integration package • 68, 69
Options for display messages command • 194, 197

P

Partial Backup screen • 26, 27, 167, 354, 356
PDS/IVR Integration Worksheet • 67, 69, 70
Performance Configuration screen • 87, 395, 397
Performing a full backup • 28, 354, 356
Performing a partial backup • 26, 354, 358
Phone Number - Channel Assignment screen • 474, 475, 476
pkgadd command • 274, 277, 278
pkginfo command • 275, 278
pkgrm command • 275, 277
Printing a fax • 61
Procedure for administering VoIP • 136
Programming the VOX server for IC Integration • 64
PTTS status display screen • 502, 503

R

R2 MFC screens • 442
Rebooting the system • 146
remove command • 278, 284
Remove destination screen • 37, 388, 390
Remove threshold screen • 38, 388, 392
Removing a message destination • 36, 37, 388, 391
Removing a message threshold • 38, 40, 388, 393
Removing an ASG user • 51
renumber command • 281
Renumber Voice Channels screen • 142, 399
Renumbering voice channels • 142, 400
Report screens • 525
Report Voice System Status screen • 400
Reports screens overview • 525
restback command • 166, 281
restore command • 282
Restore file list screen • 340, 365, 367
Restore from NFS Mount Directory screen • 31, 368
Restore screen • 364, 365, 366, 368
Restoring data from a partial backup • 31, 364, 368, 369
Retire alarms screen • 34, 370, 371
retireAlarms command • 284
Retiring alarms • 34, 370, 372
rmdb command • 285
RTUquery command • 287
Running the disableServices utility • 88

S

sb_te command • 287

scat command • 289
sched_croncdh command • 289
schedback command • 290
Scheduling a backup • 29, 358, 359, 360
sci command • 289, 292, 294, 296
scrm command • 289, 294
scsp command • 294, 295
Security • 50, 51, 352
Set restore directory screen • 364, 368, 369
setbkparms command • 296
Setting Node Names • 140
Setting SNMP configuration • 87
Setting the Universal Call ID Network Node ID • 134, 525
Setting up a .profile for the root user account • 23
Setting up a CDH schedule • 79, 80, 81, 375, 376
Setting up a second Network Interface Card for failover • 146
Setting up and administering a Siebel Client for CTI • 76
Setting up stations • 140
Setting up user accounts • 21
Setup Backup Schedule screen • 29, 358
Setup CDH Schedule screen • 81, 375
Setup Default Backup Parameters screen • 25, 361, 362
shmview command • 297
show_sys • 300
SNMP Configuration screen • 87, 399
soft_disc command • 189, 302
soft_szr command • 303
Speech and DPR administration screens • 307, 501
speech command • 304
Speech Proxy Administration screen • 311, 506
Speech Recognition and DPR Configuration screen • 113, 114, 115, 116, 117, 118, 120, 121, 511, 513, 514, 515, 516
Speech resource status display screen • 112, 502, 505
Speech Resource Status screen • 501
Speech Server Status for resource screen • 505
Speech Server Status screen • 501, 504, 505
sproxyadm command • 85, 307
Start Voice System screen • 400
start_vs command • 281, 307, 311, 313, 333, 334, 335
Starting the Web Administration interface • 20, 23, 144
Starting, stopping, restarting, and testing a DIP • 78, 79, 80, 81, 381
Stop Voice System screen • 401
stop_vs command • 281, 307, 312, 333, 334, 335
Stopping and starting the voice system • 54, 56, 59, 107, 108, 110, 111, 114, 115, 116, 117, 118, 119, 121, 125, 126, 127, 128, 129, 130, 131, 132, 135, 136, 138, 142, 401, 402
Switch interfaces screens • 273, 404
sysmon command • 313

T

tas command • 183, 314
tbct command • 316
TBCT screens • 450
Text-to-Speech Configuration screen • 125, 126, 127, 128, 129, 130, 131, 132, 328, 506, 516, 518, 519, 520, 521, 522, 523
Threshold period screen • 39, 388, 391, 393
trace command • 155, 318
trarpt command • 322
tts command • 323
Two B Channel Transfer screen • 318, 451, 452, 458

U

Unassign ASAI Channel screen • 483, 488
Unassign ASAI Domain screen • 49, 489, 496
Unassign Card screen • 404, 450
Unassign channels from groups screen • 411, 415, 425, 428, 429, 437, 442, 443, 472, 473
Unassign Phone Number from a Channel screen • 101, 474, 475
Unassign Two B Channel Transfer screen • 451, 458
Unassign VoIP Card screen • 459, 468
unassign_permissions command • 161, 201, 328
Unassigning a digital interface protocol • 56, 405, 450
Unassigning a service from a channel • 83, 104, 477, 479
Unassigning a service from calling and called numbers • 83, 106, 478, 480, 481
Unassigning a speech or dial pulse recognition type • 117
Unassigning a speech or DPR server • 121
Unassigning a TTS server • 131
Unassigning a TTS type • 127
Unassigning a VoIP Card • 139, 468
Unassigning an ASAI channel • 45, 483, 488
Unassigning an ASAI domain • 48, 489, 496
Unassigning TBCT • 111, 458
Unassigning telephone numbers from channels • 101, 476
Universal Call ID Administration screen • 135, 525
Using IVR agents • 73
Using the FAX Actions menu • 211, 212
Using TTS and speech recognition languages with VoiceXML • 84
Using uploadcdh with multiple systems • 82

V

vfyLogMsg command • 329
View backup content for directory screen • 366
View Backup File Content screen • 29, 364, 365, 367
Viewing backup file content • 29, 31, 364, 366, 367
Viewing licensed features • 146, 377
Voice equipment screens • 468
Voice over IP screen • 333, 459
Voice Services • 477
Voice system control • 399
voip command • 330
VoIP Parameters Display screen • 466
VoIP screens • 459
vs_status command • 312, 313, 333, 334, 335
vsdisable command • 312, 313, 333, 334
vsenable command • 312, 313, 333, 334, 335
VXML Logging Level screen • 86, 395, 539
VXML Administration screen • 394, 396

VXML Log Administration screens overview • 394
VXML Log File Configuration screen • 86, 395, 397
VXML Log Report screen • 143, 538
VXML Performance Log Report screen • 144, 540
vxmlassign command • 83, 335, 337, 338
vxmldelete command • 83, 336, 338
vxmldisplay command • 83, 336, 337

W

Web Administration and command-line equivalence • 348
Web Administration entry screen • 343
Web Administration menu • 345
Web Administration screens • 340
Wink Start screens • 436

X

xferdip_off command • 338, 339
xferdip_on command • 338