



Avaya™ Interactive Response
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Migration

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Migrating from a CONVERSANT platform to an Avaya IR 2.0 platform

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Contents

Migration	6
Migrating from a CONVERSANT platform to an Avaya IR 2.0 platform.....	6
Overview of CONVERSANT to Avaya IR migration	6
Installing the CONVERSANT to Avaya IR migration package.....	8
Pre-migration phase	8
Migration phase	15
Post-migration phase.....	19
Upgrading from a previous Avaya IR release to Avaya IR R 2.0 on the same platform	24
Overview of software upgrade on the same hardware platform	24
Upgrading the IR software on the same platform	25
Migrating between Avaya IR platforms	45
Overview of migration between platforms.....	45
Installing the Avaya IR migration package.....	46
Saving the configuration	47
Migrating data	48
Restoring the configuration.....	50
Index.....	53

Migration

The information in this section defines the processes and tools needed to successfully migrate applications and data from V6.1, V7, V8, or R9 CONVERSANT platforms (MAP40, MAP40P, MAP100, MAP100P, or UCS1000) or from Avaya IR R1.0, R1.2, R1.2.1, or R1.3 platforms to the Avaya IR R2.0 platform using a LAN connection.

The migration process differs, depending on the source and target platforms for the migration.

This section includes the following topics:

Migrating from a CONVERSANT platform to an Avaya IR 2.0 platform 6

Upgrading from a previous Avaya IR release to Avaya IR R 2.0 on the same platform 24

Migrating between Avaya IR platforms..... 45

Migrating from a CONVERSANT platform to an Avaya IR 2.0 platform

This section provides an overview of the steps involved in migrating data and applications from a CONVERSANT platform to an Avaya IR Release 2.0 platform.

Overview of CONVERSANT to Avaya IR migration

The basic steps you perform to migrate from a CONVERSANT platform to an Avaya IR R2.0 platform are listed below, organized by phases (pre-migration, migration, post-migration). See the identified topics for detailed procedures.

Begin by downloading the mavscan.tar file from the support.avaya.com web site onto the CONVERSANT platform and install the file to obtain the tools. (See [Installing the](#)

CONVERSANT-to-Avaya IR migration package on page 8.) Then proceed with the three following phases:

Pre-migration

1. Run the scanit tool on the CONVERSANT platform to identify applications that use features that are not supported on the Avaya IR platform. (See Running scanit on page 11.)
2. If any unsupported features have been identified, make the appropriate changes to the applications.

Migration

1. Use the tar_it utility to package directories and files that need to be moved to the Avaya IR platform. (See Migrating data on page 16.)
Make sure that you include all host screen files. (See Migrating host screen files on page 18.)
2. Use FTP or a similar mechanism to transfer the generated tar file from the Migration Step 1 to the Avaya IR platform.
3. Use the `tar` command to copy the archive files to their respective locations on the Avaya IR platform. (See Migrating data on page 16.)
4. Use Avaya IVR Designer to migrate any Voice@Work or Avaya IVR Designer applications. (See Migrating applications on page 18.)

Post-migration

1. Use FTP to transfer the do_speech script from the CONVERSANT platform to the Avaya IR platform.
2. Run the do_speech script to convert any ADPCM32 files to G.711 format. (See Converting custom speech on page 20.)
3. Convert any host screen capture files. (See Converting host interface screen capture files on page 22.)
4. Using Web Administration, set up the configuration for all the required features.
5. Recompile any IRAPI applications.

The libraries to include when compiling IRAPI applications have changed. For more information, see Introduction to the IRAPI.

Installing the CONVERSANT to Avaya IR migration package

The migration tools and all related files for migrating from a CONVERSANT platform to an Avaya IR platform are delivered to the customer CONVERSANT system as a .tar file named **mavscan.tar**, which includes the following files:

- **scanit** - Command to scan existing applications for unsupported features
- **tar_it** - Command to assist in packaging directories and files
- **do_speech** - Command to convert ADPCM32 files to G.711 format
- Other files used by **scanit**

The package is available for download from the support.avaya.com Web site.

To unpack and install the tools that will scan the CONVERSANT system:

1. Copy the **mavscan.tar** file to a directory where the tool will run.
2. On the command line, enter **tar xvf mavscan.tar** to unpack and install the tool in the current working directory.

Installing the tool populates the current directory with the scripts and supporting utilities needed to run the migration tools.

Pre-migration phase

The purpose of the pre-migration phase is to use the **scanit** tool to determine the scope of the migration (by identifying changes required to the applications that will be moved from a CONVERSANT platform to an Avaya IR platform).

Overview of pre-migration phase

The pre-migration phase for migrating from a CONVERSANT platform to an Avaya IR platform includes the use of the evaluation tool (**scanit**), resulting in a log of the evaluation results and a plan of action for each possible result. The evaluation does the following:

- Scans the existing CONVERSANT system data, including the following:
 - Core Applications (Voice@Work, IVR Designer, Script Builder, IRAPI)
 - Utilities and tools

- Custom external functions
- Recorded speech (prompts)
- Host screen files
- Identifies any features or commands on the pre-migration platform that are not supported on the Avaya IR platform and logs the results.
- Includes a plan of action for each item identified by the evaluation tool. The plan of action for unsupported features or commands varies based on the items identified by the evaluation tool.

These activities prepare the customer data for the migration to the targeted platform. For example:

- If speech files are found, they must be converted using the **do_speech** utility.
- If an application has unsupported features, (for example, Brook Trout external functions), manual intervention is required.

Unsupported features or commands identified by the **scanit** tool can be addressed by:

- Manual changes made to the application
- Execution of a process to update the application
- Exclusion of the application from the data to be migrated to the Avaya IR platform

After reviewing the action plans, customers may update the applications to change or remove the unsupported features or may contact their ISV to assist with this process.

If a Script Builder application requires updates, update the application on the CONVERSANT platform and then move it to the Avaya IR platform. You cannot update Script Builder applications on the Avaya IR platform because the Script Builder development tool is not supported on the Avaya IR platform.

Pre-migration scanning tool (scanit)

scanit is the primary data gathering tool used to identify and quantify the changes required in the applications on the source CONVERSANT platform.

scanit should not be confused with the SCAN tool that is run by Avaya services. The SCAN tool captures an entire CONVERSANT configuration (boards, licensing information, and so on). **scanit** is dedicated to applications and data and complements the SCAN tool.

Tokens

scanit looks at application source files for occurrences of code that are out of compliance with the new Avaya IR release. These occurrences are referred to as tokens.

scanit provides the ability to assign a weighted value for each token type. This weighted value is used to symbolize the complexity of the work required to replace the token. The complexity values may be used to determine hours of work. As with all other parameters in the scanning tool, these values can be edited and changed in a configuration file. (See Customizing scanit on page 14.)

Default file extensions

scanit allows the user to configure the files to be scanned based on their file extensions. The default extension types are:

- **.c** for C source files including IRAPI and header files
- **.sh** for shell files, including Oracle SQL commands
- **.t** for TAS scripts and external functions
- **.prg** for Script Builder program files

scanit searches for files from a root directory by the above extensions. It searches in one pass, starting from the specified root directory and continuing downward into all subordinate subdirectories for all source files.

Specifying files to scan

In addition to searching for files by extension type, **scanit** can be configured to specifically look at particular files, regardless of extension type. The input list of files can be a set of files residing anywhere on the system. The user-supplied file list provides an option for the user to specify an explicit *file type* for each file. This allows the user the flexibility to input files to the tool that may not be readily identifiable by their extension type, and therefore would not be found in a standard search.

An example of an unsupported token would be **IRD_FLEXWORD**, which is a value that can be supplied to the `irSetParam` family of functions in IRAPI. If this token is found in a source file on a system being migrated to the Avaya IR system, the tool flags the parameter, identifies the file and line number, and logs this information into the log file.

scanit reporting

scanit generates a report in the form of a log file that identifies where unsupported tokens are found in the customer source code. The tool also provides a set of summary log file reports that include a list of files with specific token locations and total summaries of individual tokens found.

The log files from **scanit** are a primary input to determining the work effort involved in the migration to an Avaya IR platform. Actual effort estimates require analysis of the log files created from the pre-migration tool and are expected to be made by an experienced developer, an ISV, or Avaya professional services.

Setting up an input file for scanit

The main purpose of **scanit** is to scan for tokens in the application source. The tool is designed to scan the source code of custom user-written applications and look for things not supported in Avaya IR.

scanit does not take any command-line parameters. It prompts interactively for the user to enter a directory from which to search for source files. It also allows the user to supply an input file. The user must provide an input file or specify the directory to search.

The following example shows the format of an input file for the scanit tool. The input file includes a list of specific files the tool should scan.

```
TYPE t
/test/your.t
/tools/my.t
TYPE c
/tools/test/my.c
TYPE sh
/tools/test/hirunner
```

Note:

You must list all files of the same type after the TYPE declaration. Valid types are c, t, sh, nam, and prg. These types correspond to C source/IRAPI, TAS, shell, screen capture, and Script Builder program file, respectively.

Listing specific files has an advantage over searching directories for unspecified files because, with specific listing, the tool is explicitly told the type for each file. With the directory search option, the tool can determine the file type only through the file extension. For example, if the tool is given only a directory to search and this directory contains extensionless shell files, those shell files, without the *.sh* extension, will not be discovered and will be ignored by the tool. If the specific shell files are listed in an input file, the shell files will be examined by the tool.

Running scanit

1. Type **scanit** at the command prompt to start the tool.

Verify that you are in the directory where **scanit** was loaded.

Note:

scanit outputs a large amount of information that scrolls by quickly. To capture the output in a file for future reference, use the **tee** or **script** utilities to capture the output. (For example, **scanit |tee file_name**)

The system responds with:

```
Scan Script Builder applications on this system?  
[y or n, default y]
```

2. Press **Enter** to accept the default.

Accepting the default causes **scanit** to find all of the Script Builder program files to be scanned.

The system displays the following prompt:

```
Enter file name of source file list.  
<h for help, or CR to continue>
```

3. Enter the name of the input file that specifies the files to be scanned. (See Setting up an input file for scanit on page 11.)

As **scanit** reads the input file, it checks to see if the listed source files exist. It then captures the list of files to scan and displays the following prompt:

```
You may also enter directories to search.  
You will be reprompted for each directory
```

```
Enter a directory name  
<h for help, or CR to continue>
```

4. Enter the name of the directory where the scan should begin.

The response to this prompt should be the root directory of the application path. You do not need to supply a directory if all of the applications to be scanned are specified in the input file.

This prompt is repeated after the system searches for files in the given directory and sub directories. You can scan additional source trees if all applications are not in the same directory tree.

5. Enter more directories, or press **Enter** to continue.

The system displays the following message:

```
The following source files will be scanned  
press return to continue
```

```
[List of files found .....]
```

```
Press return to begin scanning.
```

scanit displays a summary of all the files to be scanned. This is the list of files discovered as a result of all the previous queries.

6. Press **Enter**.

As it begins scanning, **scanit** displays a series of processing messages. When the scanning process is complete, it displays the following message.

```
Application scanning now complete.
Results can be found in the directory /current_directory/results
```

7. Press **Enter**.

The results of the scan are put into a results directory created from the current working directory where **scanit** is running.

Scanning Results

scanit creates a directory named **results**, with the following log information:

- **source_outages.timestamp.file_type**

For every source file type (c, h, sh, t, nam, and prg), **scanit** lists the files where obsolete tokens were found. The following file is an example of the output:

```
/vs/examples/IRAPI/util_fcns.c
token name vsprintf found at line 79      vsprintf(mbuf, fmt, args);
token name getpid found at line 148      srand(getpid());
token name srand found at line 148      srand(getpid());
token name rand found at line 401      reg[1] = rand();
token name ctime found at line 463      strcpy(tbuf,
ctime(&reg[1]));
token name ctime found at line 466      irQTraceP(chan, TEE, TAREA,
vfntstr( "%s: ctime = %s", fnName, tbuf ));
/vs/examples/IRAPI/test.c
token name signal found at line 22 #include <signal.h>
token name printf found at line 56 if (sgno == SIGTERM) {
printf("caught sigterm \n"); }
```

- **tokensummary.timestamp.file_type**

For every source file type (c, h, sh, t, nam, and prg), **scanit** creates a summary file. The following file is an example of the output:

Token Name	Occurrences	Rate	Cost
I_ENOOP	1	2	2
ctime	2	0	0
exit	23	1	23
fprintf	90	1	90
getpid	1	0	0
printf	5	1	5
rand	1	0	0
send	1	5	5
srand	1	0	0
vsprintf	1	5	5
irFlash	1	1	1

Totals	127		131

The **Rate** field represents an educated guess at how much work will be involved in fixing the application, based on the weighted value of the token. The **Cost** field is the number of **Occurrences** times the **Rate**.

- **token_information.file_type**

This is a static file, copied into the results area when **scanit** is installed. It gives a short textual explanation for every token and describes the Avaya IR issue.

Customizing scanit

scanit can be customized by adding tokens to the existing types or by adding new token types.

Adding tokens

Every token type has a file that lists all the tokens for which to scan. The default token files delivered with the tool are:

- **tokens_c** for IRAPI and C language tokens
- **tokens_t** for TAS language and external function tokens
- **tokens_sh** for anything that can appear in a shell script
- **tokens_prg** for Script Builder text files before they are converted into .t files

To add a new token for which to scan:

1. Add a new line with the new token to the end of the file corresponding to its type.

For example, if IRAPI function irFPlay were found to have a problem, and needed to be flagged by **scanit**, you would update the **tokens_c** file (IRAPI calls are found in C

programs). The format of tokens_c files is a simple three column file that has the following format:

NAME: *token weight*

where NAME is fixed text and *token* and *weight* are required variables.

2. Update the token_information file (the file that contains a problem description for every token) for that file type.

Note:

When adding new tokens do not leave any blank lines at the bottom of the token_type file.

Adding new token types

To add a new type:

1. Identify a new type identifier.

For example, if you need to scan java source files, **java** might be a logical new type identifier.

2. Add the new type to the ext_type file in the installed tool directory.
3. Create a tokens_new_type file, and populate it with tokens.

Use the same format as the other token type files.

Create a token_information.type file with resolutions and descriptions for each new token in the tokens_new_type file.

Migration phase

During the migration phase, you prepare data for migration and transfer the data to the new platform.

Overview of migration phase

The migration phase includes data conversion and data transport activities. Data must be transported between platforms using a LAN connection and FTP or Solaris file sharing. Upgrade procedures and activities for pre-migration and migration occur on the originating platform.

Avaya-supplied Enhance Basic Speech (EBS), IRAPI commands, DIPs, TAS scripts, and standard external functions are not migrated because they are a part of the base Avaya IR software.

Migrating data

You can move data using the `tar_it` utility that is part of the migration package, or you can set up file sharing between the platforms.

Creating an input file for `tar_it`

To specify the files to be transferred with the `tar_it` command, you can create a file that contains a list of the files and directories to be moved. The file should contain, each on a separate line, the directories and file name to be included. An example of an input file is:

```
/export/myarea  
/voicel/trace.lop  
/tmp/example.c
```

Transferring data with the `tar_it` utility

The `tar_it` utility is delivered with both of the migration tool packages to assist with the movement of custom files and data to the target Avaya IR platform. To archive files:

1. Run `tar_it` from the command prompt.

The `tar_it` utility prompts for the name of the file containing a listing of the directories and files to be put into a `tar` archive.

Note:

To capture a list of the files being archived, substitute the command `tar_it | tee file_name`.

2. Press **Enter** to use the default directories or enter the name of the file that lists the directories and files to archive.

If you choose the default, the following directories are used:

```
/att/trans/sb  
/speech/talk  
/usr/add-on
```

The `tar_it` utility displays the directories to be archived and asks for confirmation prior to creating the archive. Custom external functions, which are stored in the `/vs/bin/ag/lib` directory, are not included in the default archive. You can specify them in an input file or transfer them directly.

PDS Integration configuration information is saved in various files, so it is not archived. You must reconfigure PDS Integration after migration.

3. Press **Enter** to confirm.

The `tar_it` utility lists all files discovered and puts them into an archive.

When all files are archived the **tar_it** utility responds with the following message:

```
You may now transfer /voice1/file_identifier.tar to target machine.
Execute tar xvf file_identifier.tar to unpack on the target machine.
Please note there is no protection from overwriting existing
files.
```

4. Transfer the files across the network using an **ftp** command.

If you need to move individual files, an NFS mount between platforms might be more appropriate. For instructions on setting up NFS, see [File sharing with Solaris Systems](#) on page 17, on page 50.

5. Run the command **tar xvf file_identifier.tar** on the target platform to copy all the files in the archive onto the target system.

The system creates new directories if needed and overwrites files on the target system if they are duplicated in the archive.

File sharing with Solaris Systems

You can use the following set of commands to set up file sharing between legacy SCO platforms and Solaris platforms:

1. On the legacy SCO platform, enter the following command:

```
cp /etc/dfs/dfstab /etc/dfs/dfstab.bak
echo "share -F nfs /export" >> /etc/dfs/dfstab
sh /etc/init.d/nfs stop
sh /etc/init.d/nfs start
```

2. Mount the SCO shared directory on the Solaris platform by running the following command on the Solaris platform:

```
mount -F nfs SCO Machine Name: /export /mnt
```

In the above example, the directory "/export" is shared out from the SCO system and mounted to the directory "/mnt" on the Solaris system.

3. After the desired files are copied over (using the **cp** command), run the following commands on the SCO platform to remove the sharing:

```
unshare -F nfs /export
mv /etc/dfs/dfstab.bak /etc/dfs/dfstab
```

Note:

On an Avaya IR R1 system, the above instructions can be reversed to share out a directory from the Solaris system and mount it on a SCO system. But in Avaya IR R1.2, this is not possible. Directories can be shared out only from a SCO system and mounted on to the Solaris system.

Migrating host screen files

During the migration phase, make sure that you move all **.sc** and **.nam** supported host screen files from CONVERSANT platforms to the Avaya IR platform. After you transfer the files to the Avaya IR platform, convert them to run on the Avaya IR platform. For more information, see [Converting host interface screen capture files](#) on page 22.

Migrating applications

You can migrate Script Builder or IVR Designer applications between platforms.

Migrating Script Builder applications

You can migrate Script Builder applications from CONVERSANT systems to Avaya IR systems.

To migrate Script Builder applications to the Avaya IR system:

1. Use FTP to transfer the applications from the source CONVERSANT system to the target Avaya IR system.
2. Run the Script Builder Install script to compile each application using the following command:

```
/vs/bin/ag/install application name
```

3. Execute each Script Builder application.

Modifications to the Script Builder applications must be made while they are located on the CONVERSANT system. Script Builder applications can be executed but not modified on the Avaya IR system.

Migrating Script Builder applications that use the **vesp_dip.t** external function

The **vesp_dip.t** external function no longer requires applications to define the **vespbuf** variable that was required in previous Script Builder applications. For this reason, the following steps must be performed for Script Builder applications that use the **vesp_dip.t** external function and the **vespbuf** variable:

1. Use FTP to transfer the **vesp_dip.t** external function from the **vs/bin/ag/lib** directory on the Avaya IR system to the **vs/bin/ag/lib** directory on the V8 or R9 CONVERSANT system. If this directory does not exist, it must be created.
2. Use FTP to transfer the **vesp_dip.h** and **vespdipi.h** header files from the **vs/bin/ag/lib/dip** directory on the Avaya IR system to the **vs/bin/ag/lib/dip** directory on the V8 or R9 CONVERSANT system. If this directory does not exist, it must be created.

3. Run **verify *application name*** on the V8 or R9 CONVERSANT system.
4. Use FTP to transfer the application to the Avaya IR system.
5. Run **/vs/bin/ag/install *application name*** on the Avaya IR system.
6. Execute the Script Builder application.
7. Assign the application to the appropriate channel or channels.

Migrating IVR Designer applications

You can migrate Voice@Work or IVR Designer applications from CONVERSANT platforms to Avaya IR platforms.

To update applications to IVR Designer and migrate them to the Avaya IR platform:

1. Download the IVR Designer software to the PC.
2. Open the application to be migrated.

The software automatically updates the application, if necessary.
3. Generate source code for the application using the **Code Generation** process. Select the Avaya IR platform as the target platform.

This prepares the application to execute on the Avaya IR platform.

4. Transfer the updated application to the target Avaya IR platform by completing the following steps:
 - a) Select **Application Transfer**.
 - b) Set the Application Transfer options to identify the type of transfer and the correct target platform.
 - c) Select the files to move to the target platform and click **Transfer**.

If you use the default option when you use the **tar_it** utility to migrate the data, any recorded speech files are transferred with the data.

5. Install the application on the target Avaya IR platform and assign the application to a channel or channels.

The application now resides on the Avaya IR platform.

Post-migration phase

The post-migration process involves validating and updating data and applications that were migrated to the Avaya IR platform.

Overview of post-migration phase

In the post-migration phase, you verify that migrated components have reached the target platform without any errors. To do this, you should verify that applications compile without errors, and you should place calls to test the call flows. You should also update custom speech files and migrated Voice@Work, IVR Designer, and IRAPI applications. IRAPI applications migrated to the new platform must be compiled with a new library. For more information, see Introduction to the IRAPI.

The bulk of post-migration work includes:

- Restoring the configuration (for Avaya IR R1.0, R1.2, R1.2.1, or R1.3 to Avaya IR R2.0 migrations)
- Updating custom speech files (for CONVERSANT to Avaya IR migrations)
- Debugging and fixing applications
- Designing and implementing work-arounds for obsolete features
- Resolving database connectivity issues
- Testing applications

Most of these tasks cannot readily be automated or even captured in a repeatable process. This phase of migration involves mostly custom work, which can be performed by Avaya professional services, an ISV, or the customer.

Converting custom speech

Speech conversion to G.711 takes place after all the speech files are moved from the CONVERSANT platform and located on the Avaya IR platform. An automated speech conversion tool (**do_speech**) locates the speech files that were moved and partially converted during the migration phase, and completes the conversion to G.711 format. The tool determines the location of the speech files, using a log file placed on the Avaya IR system during the migration phase.

The speech conversion tool generates a report on converted files, and reports any errors.

To convert the speech files:

1. Transfer the **do_speech** utility, provided with the migration scanning tool, to the target Avaya IR system.
2. Run the command **do_speech**.

The **do_speech** utility prompts for a directory where the speech files are located.

3. Enter the directory where the speech files are located.

When it is finished running, the utility creates a log file in the current directory (for example, **speechlog.06-19-02:133205**).

The log file contains data in the following format:

```
TYPE: pcm64 File Name: /voicel/vfs/talkfiles/619/41 Bytes: 31304
TYPE: pcm64 File Name: /voicel/vfs/talkfiles/619/42 Bytes: 40512
TYPE: pcm64 File Name: /voicel/vfs/talkfiles/619/43 Bytes: 29760
TYPE: pcm64 File Name: /voicel/vfs/talkfiles/619/44 Bytes: 34368
TYPE: pcm64 File Name: /voicel/vfs/talkfiles/619/45 Bytes: 26184
TYPE: pcm64 File Name: /voicel/vfs/talkfiles/619/46 Bytes: 25672
TYPE: pcm64 File Name: /voicel/vfs/talkfiles/619/47 Bytes: 28232
TYPE: pcm64 File Name: /voicel/vfs/talkfiles/619/48 Bytes: 88168
TYPE: pcm64 File Name: /voicel/vfs/talkfiles/619/49 Bytes: 13368
Total Bytes Converted = 4192200
```

Every converted file is reported and logged. The utility overwrites the legacy Conversant ADPCM files with Avaya IR G.711 format.

Note:

Non-speech files are generally ignored, but it is good practice to make sure that only custom legacy speech files are in the directory.

Specifying charset for Proxy Text-to-Speech

On CONVERSANT systems, TAS applications using Proxy Text-to-Speech (TTS) had no way to specify the **charset** to be used by the Speechify TTS Engine. An alternative was to modify the `/vs/data/spwkts.srvs` file to specify this parameter. Changes to the `/vs/data/spwkts.srvs` file were not carried forward during migration.

If these applications are transferred to an Avaya IR system, use Web Administration to set up the Speechify server name, IP address, and remote connection port. Also, use the **Proxylang** and **Proxyvoice** external functions in the application to specify the **charset** to be used by the Speechify TTS engine.

Converting applications that use libspp.so

In Avaya IR Release 2.0, most libspp.so functions have been replaced by IRAPI functions. If you are using any libspp.so functions in applications you are migrating to IR, you must rewrite the application to use the IRAPI equivalent listed below before recompiling on the IR platform:

libspp.so Function	IRAPI Equivalent
db_init	irRegister
db_pr	irTrace

db_put	irTrace
mesgrcv	irWCheck
mesgsnd	irPostEvent
startup	irRegister
VStartup	irRegister
VStoQkey	irGetQkey

Converting host interface screen capture files

When you migrate an existing IVR Designer, Voice@Work, or Script Builder application that uses the Cleo host interface, from a CONVERSANT platform to an Avaya IR platform, you must convert the screen capture files for the application before they can be used within the Avaya IR environment.

Running the conversion utility

The conversion of host interface screen capture files is required before the host application can be used on the Avaya IR platform by any of the following programs:

- IVR Designer
- Cleo **screen_capture** utility for capturing host screens on the Avaya IR system
- Cleo **hispy** utility that provides interactive navigation and screen capture of IVR Designer or Script Builder host screens on the Avaya IR platform

To run the Conversion utility, enter the following command at the command prompt:

cleo_conv *application*

where *application* is the name of the IVR Designer or Script Builder application.

The **cleo_conv** utility creates the following files:

IVR Designer files

/vs/data/host/appl.sc	V8 formatted screen capture file
/vs/data/host/appl.nam	V8 formatted screen capture name file
/vs/data/host/appl.sc.mav	Avaya IR formatted screen capture file
/vs/data/host/appl.nam.mav	Avaya IR formatted screen capture name file
/vs/data/host/appl.sc.org	Original screen capture file
/vs/data/host/appl.nam.org	Original screen capture name file

Script Builder files:

/att/trans/sb/appl/appl.sc	V8 formatted screen capture file
/att/trans/sb/appl/appl.sc.mav	Avaya IR formatted screen capture file
/att/trans/sb/appl/appl.sc.org	Original screen capture file

Note:

The appl.sc and appl.nam files are converted to V8 format on the Avaya IR system, even if they are being migrated from a V6 or V7 system.

Returning files to the original version

Cleo also provides the utility **cleo_convback** to return screen capture files that have been updated or created on an Avaya IR system to their original V6, V7, or V8 system.

To return screen capture files to V6, V7, or V8 format, use the following command at the command prompt:

cleo_convback *application n*

where *application* is the name of the IVR Designer or Script Builder application and *n* is the destination CONVERSANT system version (6, 7, or 8)

The **cleo_convback** utility converts the current Avaya IR capture files and creates the following files:

IVR Designer files:

/vs/data/host/appl.sc.Vn	Vn (where n is 6, 7, or 8) formatted screen capture file
/vs/data/host/appl.nam.Vn	Vn (where n is 6, 7, or 8) formatted screen capture name file

Script Builder files:

/att/trans/sb/appl/appl.sc.Vn	Vn (where n is 6, 7, or 8) formatted screen capture file
-------------------------------	--

Using other Cleo utilities

Once you migrate screen capture files from an existing CONVERSANT platform (V6, V7, or V8) and convert them with the **cleo_conv** utility, the Cleo **screen_capture** and **hispy** utility programs use the Avaya IR formatted files (suffix of .sc).

These Cleo utilities also update the V8 formatted screen capture files (no suffix), whenever a change is made to the Avaya IR formatted files. IVR Designer always has access to the latest screen capture files on the Avaya IR platform.

When you use the Cleo **screen_capture** utility to create new screen capture files or update screen capture files on the Avaya IR platform, the screen capture files have the .sc extension.

The Cleo **screen_capture** utility creates or updates the V8 formatted screen capture files (no suffix) when it exits, so the IVR Designer system has access to the latest screen capture files in the V8 format.

Upgrading from a previous Avaya IR release to Avaya IR R 2.0 on the same platform

This section describes the process for upgrading the Avaya IR R1.0, R1.2, R1.2.1, or R1.3 software to IR R2.0 software on the same hardware platform. Contact the Avaya Services organization to perform the upgrade from IR R1.0, R1.2, R1.2.1, or R1.3 to IR R2.0.

Overview of software upgrade on the same hardware platform

The basic steps for upgrading the IR R1.0, R1.2, R1.2.1, or R1.3 software to IR R2.0 software on the same hardware platform are included below. See the identified topics for detailed procedures.



Important:

The tsc and craft login home directories are removed during migration from R1.0, R1.2, R1.2.1, or R1.3 to R2.0. To preserve the contents of these directories, back up the /export/home/tsc and /export/home/craft directories before beginning the migration process.

1. Insert the CD-ROM labeled *AVAYA IR Installation and Upgrade - CD 1* into the CD-ROM drive.

Note:

For migration from IR R1.0, R1.2, R1.2.1, or R1.3, please ensure that the operating system has been upgraded to Solaris 8 update 8 or Solaris 10.

2. Run the **upgrade** program to remove all Avaya software. (See Upgrading the IR software on the same platform on page 25.)

The **upgrade** program saves the existing configuration, removes all Avaya packages, reloads Avaya packages, and restores the configuration.

3. Recompile all Avaya IVR Designer and IRAPI applications to ensure that they continue to execute successfully.

The libraries to include when compiling IRAPI applications have changed. For more information, see Introduction to the IRAPI.

Upgrading the IR software on the same platform

The time required to upgrade from Avaya IR R1.0, R1.2, R1.2.1, or R1.3 to Avaya IR R2.0 on the same platform is approximately 1 hour, 30 minutes.



Important:

The tsc and craft login home directories are removed during an upgrade from R1.0, R1.2, R1.2.1, or R1.3 to IR R2.0. To preserve the contents of these directories, back up the /export/home/tsc and /export/home/craft directories before beginning the upgrade process.

Before beginning the upgrade process, verify that all call traffic has been directed away from the Avaya IR system or that it is all right for the voice system to be stopped during the upgrade process.

Avaya recommends that you perform a full system backup before beginning the upgrade process.

The following section describes the steps required to upgrade from Avaya IR R1.0, R1.2, R1.2.1, or R1.3 to Avaya IR R2.0 on the same platform with:

- Solaris 8 update 8 O.S. on page 25
- Solaris 10 O.S. on page 31

Upgrading to IR R2.0 on the same platform, with Solaris 8 update 8 O.S.

To upgrade from Avaya IR R 1.0, R 1.2, R 1.2.1, or R 1.3 to Avaya IR R2.0 with Solaris 8 update 8 OS on the same platform (Sun Blade 150 or Sun Fire 280R), perform the following steps:



Important:

The tsc and craft login home directories are removed during an upgrade from R 1.0, R 1.2, R 1.2.1, or R 1.3 to IR R2.0. To preserve the contents of these directories, back up the /export/home/tsc and /export/home/craft directories before beginning the upgrade process.

Before beginning the upgrade process, verify that all call traffic has been directed away from the Avaya IR system or that it is all right for the voice system

to be stopped during the upgrade process.

Avaya recommends that you perform a full system backup before beginning the upgrade process.

1. Log in as root.
2. To stop the voice system, run the following command:
3. To run the upgrade process from *AVAYA IR R 2.0 Installation and Upgrade - CD 1*, at the command prompt, enter the following command:

stop_vs

/cdrom/cdrom0/upgrade

The system displays the following message:

```
IR UPGRADE UTILITY
```

```
-----
```

The IR system will be upgraded to version 2.0.

1> It is strongly recommended that you take a full backup before you proceed with this upgrade.

2> If you are going to upgrade to IR 2.0 for Solaris 8, then you MUST have the latest Solaris patch cluster

(certified by Avaya) installed on your system.

3> If you are going to upgrade to IR 2.0 for Solaris 8, please make sure that the OS version is Solaris 8 update 8.

4> IR 2.0 no longer follows the RTU mechanism for licensing. Instead, WebLM is used for licensing the features.

Please ensure that you have obtained a license file for IR 2.0.

Would you like to:

- 1> Upgrade IR, and the OS should be kept at Solaris 8 Update 8
- 2> Upgrade IR, and the OS should be upgraded to Solaris 10
- 3> Quit upgrade utility

Enter your choice:

Choose option 1 for upgrading to IR on Solaris 8 Update 8. After that, a prompt to bring the system to single user mode will be displayed.

4. When prompted, confirm that you want to shut down to single user mode by entering y and pressing **Enter**.

The system begins to shut down and warns that you must enter the root password to continue.

5. When prompted, type the root password and press **Enter**.
6. Press **Enter** to accept the terminal type, or enter the correct terminal type.
7. At the command prompt, enter the following command:

/vs/bin/upgrade

- If you are upgrading from Avaya IR R1.0 and Vonetix software is installed, the upgrade process displays the following message and exits:

```
The upgrade process has detected the Vonetix package is
currently installed on the Avaya IR R1.0 system. The vntx354d
package needs to be removed to continue the upgrade process.
Exiting ...
```

The specified Vonetix software must be removed before running the upgrade process again.

- If you are upgrading from Avaya IR R1.0 and Cleo software is installed, the upgrade process displays the following message and exits:

```
The upgrade process has detected the Cleo package is currently
installed on the Avaya IR R1.0 system. The cleosna and cleotn
packages need to be removed to continue the upgrade process.
Exiting ...
```

The specified Cleo software must be removed before running the upgrade process again.

- If you are upgrading from Avaya IR R1.x, the upgrade process checks for the current version of Vonetix. If the version is 3.6.6 or below, the following message is displayed:

```
The upgrade process has detected the Vonetix software is
currently installed on the system. The existing version
(3.6.5) is not the latest.
```

```
Please contact Gold Systems in order to update your Vonetix
software to the latest version. (www.goldsys.com)
```

```
Would you like to continue with IR upgrade without upgrading
the existing Vonetix version? (yes/no)
```

Instead of 3.6.5, the version of Vonetix currently installed will be displayed. Enter **y** to continue with IR upgrade. Entering **n** will quit IR upgrade. The Vonetix software is available from the IR R2.0 CD-ROM set, in case Vonetix upgrade is required.

- If the AVosr111 or AVspwkasr package is installed, the system displays the following message:

```
The upgrade process has found the AVosr111 (AVspwkasr) package
installed on the system. Avaya IR R2.0 does not support this
package. Choose one of the following options:
```

```
[1] Upgrade to AVosr114
```

```
[2] Upgrade to AVosr204
```

```
[3] Skip OSR upgrade and continue
```

```
[4] Abort
```

```
Enter selection:
```

8. Enter a number in the range 1 - 4.

Notes:

If you choose option 1 or 2, the speech proxy server should have a software version that is compatible with the software version installed on the Avaya IR system.

If you choose option 4, you will exit from the upgrade program.

If the AVspwktts TTS package is installed, the system displays the following message:

```
The upgrade process has found the AVspwktts TTS package
installed on the system. Avaya IR R2.0 does not support this
package. Choose one of the following options:
```

- ```
[1] Upgrade to AVspw215

[2] Upgrade to Avspw301

[3] Skip TTS upgrade and continue

[4] Abort
```

```
Enter selection:
```

9. Enter a number in the range 1 - 4.

**Notes:**

If you choose option 1 or 2, the TTS proxy server should have a software version that is compatible with the software version installed on the Avaya IR system.

If you choose option 4, you will exit from the upgrade program.

If you chose option 1, 2, or 3 for steps 11 and 13, the system displays the following message:

```
Please place the CD titled AVAYA IR R2.0 Installation and
Upgrade - CD 1 in the CD drive and press enter when ready.
```

10. Press **Enter** to continue.

The system prompts with the default file to be used to save the configuration.

11. Press **Enter** to accept the default or specify a different file name.

The system saves the configuration. For a list of the configuration information that is saved, see [Saving the configuration](#) on page 47.

**Note:**

If you choose to specify a different file name, Avaya recommends that you place the file in the export directory because other directories may be modified during the upgrade process. You will not be allowed to use the /tmp directory.

If AVasai is installed on the system, the system prompts you to restart the voice system.

12. Answer **n** to not restart the voice system after the AVasai package is uninstalled.

13. If NMS is installed on the system, confirm that you want to remove the listed packages.

The system removes the Avaya packages and installs the AVval package. The upgrade process copies the optional packages into the /export/optional\_features directory. The system displays the following message:

```
Put the CD labeled AVAYA IR R2.0 Installation and Upgrade - CD
2 into drive. Press enter when ready.
```

14. Insert the CD-ROM labeled *AVAYA IR R2.0 Installation and Upgrade - CD 2* into the CD-ROM drive and press **Enter**.

More Sun and Avaya packages are installed. Adobe licensing information is displayed and accepted automatically, and base packages are copied into the /export/optional\_features directory.

**Notes:**

If the AVvoicxml package is being installed, you will be asked about keeping the older configuration files. Enter **y** for all the questions.

If the AVasai package is being installed, you will be asked to enter the LAN destination (IP or hostname) for link (definity), the MAPD Node ID, and the protocol discriminator for User to User Information.

CD-ROM 2 will be ejected automatically when it is no longer needed.

15. When prompted, press **Enter** to accept the default file that contains the configuration information, or specify the file name used to save the configuration.

If a version of Vonetix that is earlier than version 3.6.5 is installed, you are informed that the latest version of Vonetix is available from the IR 1.3 CD-ROM set. See the Vonetix Client Media CD-ROM for instructions on installing Vonetix.

The system shuts down and reboots automatically.

**Note:**

All upgrade-related messages are sent to the following log file:  
/var/sadm/install/logs/upgrade.log

16. Use Web Administration to check the configuration and make any corrections.

**Notes:**

The following packages were removed from IR R1.2 and later releases:

AVmaint  
AVmtce  
AVprsmlog  
AVvs

The following packages are new in IR R1.2:

AVdm (used on the Sun Fire 280R only)  
AVir

The following packages were removed from IR R1.2.1 and later releases:

AVosr111

AVxferdip

The following packages are new in IR R1.2.1:

AVval

AVxfer (replaces the AVxferdip package)

AVdm (used on the Sun Fire 280R and Sun Fire V240)

The following package was removed from IR R1.3 and later releases:

AVosr114

The following packages are new in IR R1.3:

AVmrcpasr

AVmrcptts

The following packages are new in IR R2.0:

AVlm

AVweblm

## Upgrading to IR R2.0 on the same platform, with Solaris 10 O.S.

Upgrading from Avaya IR R 1.0, R 1.2, R 1.2.1, or R 1.3 to Avaya IR R 2.0 with Solaris 10 OS on the same platform (Sun Blade 150 or Sun Fire 280R) consists of 3 steps:

1. Removing older packages from the IR system on page 32
2. Upgrading to Solaris 10 OS and to IR R2.0 software.



### **Important:**

The tsc and craft login home directories are removed during an upgrade from R 1.0, R 1.2, R 1.2.1, or R 1.3 to IR R2.0. To preserve the contents of these directories, back up the /export/home/tsc and /export/home/craft directories before beginning the upgrade process.

Before beginning the upgrade process, verify that all call traffic has been directed away from the Avaya IR system or that it is all right for the voice system to be stopped during the upgrade process.

Avaya recommends that you perform a full system backup before beginning the upgrade process.

## Removing old packages from the IR system

To upgrade from Avaya IR R 1.0, R 1.2, R 1.2.1, or R 1.3 to Avaya IR R 2.0, with Solaris 10 OS, on the same platform (Sun Blade 150 or Sun Fire 280R), you first need to remove the older packages from IR. Please perform the following steps:



### Important:

The tsc and craft login home directories are removed during an upgrade from R 1.0, R 1.2, R 1.2.1, or R 1.3 to IR R2.0. To preserve the contents of these directories, back up the /export/home/tsc and /export/home/craft directories before beginning the upgrade process.

Before beginning the upgrade process, verify that all call traffic has been directed away from the Avaya IR system or that it is all right for the voice system to be stopped during the upgrade process.

Avaya recommends that you perform a full system backup before beginning the upgrade process.

1. Log in as root.
2. To stop the voice system, run the following command:

**stop\_vs**

3. To run the upgrade process from *AVAYA IR R2.0 Installation and Upgrade - CD 1*, at the command prompt, enter the following command:

**/cdrom/cdrom0/upgrade**

The system displays the following message:

```
IR UPGRADE UTILITY
```

```

```

The IR system will be upgraded to version 2.0.

1> It is strongly recommended that you take a full backup before you proceed with this upgrade.

2> If you are going to upgrade to IR 2.0 for Solaris 8, then you MUST have the latest Solaris patch cluster

(certified by Avaya) installed on your system.

3> If you are going to upgrade to IR 2.0 for Solarit 8, please make sure that the OS version is Solaris 8 update 8.

4> IR 2.0 no longer follows the RTU mechanism for licensing. Instead, WebLM is used for licensing the features.



Please ensure that you have obtained a license file for IR 2.0.

Would you like to:

- 1> Upgrade IR, and the OS should be kept at Solaris 8 Update 8
- 2> Upgrade IR, and the OS should be upgraded to Solaris 10
- 3> Quit upgrade utility

Enter your choice:

Choose option 2, to upgrade IR on Solaris 10 O.S. After that, a prompt to bring the system to single user mode will be displayed.

4. When prompted, confirm that you want to shut down to single user mode by entering **y** and pressing **Enter**.
5. When prompted, type the root password and press **Enter**.
6. Run the **upgrade cleanup** command
7. Please place the CD titled AVAYA IR 2.0 Installation & Upgrade - CD 1 in the CD drive and press **Enter**.
8. Enter the name of the file (with the absolute path) in which to save the AVmigr configuration, and press **Enter**. The default path is **/export/config.xml**

### Upgrading to Solaris 10 O.S. and upgrading to IR R2.0 platform software

After you have run the upgrade cleanup command to remove older packages from you IR system, you need to upgrade your O.S. In order to upgrade to Solaris 10 O.S., you need to perform the following steps:

1. At the OK prompt, enter **boot cdrom - install**
2. The system displays messages indicating that it is resetting itself and rebooting from the CD-ROM2. Complete the steps described in the following table install Solaris 10 O.S.

| Step | System prompt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Action                                      |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 1    | <p>The Solaris Installation Program</p> <p>The Solaris installation program is divided into a series of short sections where you'll be prompted to provide information for the installation. At the end of each section, you'll be able to change the selections you've made before continuing.</p> <p>About navigation...</p> <ul style="list-style-type: none"><li>- The mouse cannot be used</li><li>- If your keyboard does not have function keys, or they do not respond, press ESC; the legend at the bottom of the screen will change to show the ESC keys to use for navigation.</li></ul> | Press <b>F2</b> to acknowledge the screen.  |
| 2    | <p>Identify This System</p> <p>On the next screens, you must identify this system as networked or non-networked, and set the default time zone and date/time.</p> <p>If this system is networked, the software will try to find the information it needs to identify your system; you will be prompted to supply any information it cannot find.</p> <p>To begin identifying this system, press F2.</p>                                                                                                                                                                                             | Press <b>F2</b> to acknowledge the screens. |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                               |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 3 | <p>Network Connectivity</p> <p>Specify Yes if the system is connected to the network by one of the Solaris or vendor network/communication Ethernet cards that are supported on the Solaris CD.</p> <p>See your hardware documentation for the current list of supported cards.</p> <p>Specify No if the system is connected to a network/communication card that is not supported on the Solaris CD, and follow the instructions listed under Help.</p> <p>Networked</p> <p>-----</p> <p>[X] Yes</p> <p>[ ] No</p> | Select <b>Yes</b> and press <b>F2</b> .                                       |
| 4 | <p>Configure Multiple Network Interfaces</p> <p>Multiple network interfaces have been detected on this system. Specify all of the network interfaces you want to configure.</p> <p>Note: You must choose at least one interface to configure.</p> <p>Network interfaces</p> <p>-----</p> <p>[X] bge0</p> <p>[ ] bge1</p> <p>[ ] bge2</p> <p>[ ] bge3</p>                                                                                                                                                            | Select <b>bge0</b> as one of the interface to configure and press <b>F2</b> . |

## Contents

|   |                                                                                                                                                                                                                                                                                                                                                                              |                                                                    |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 5 | <p>DHCP for bge0</p> <p>Specify whether or not this network interface should use DHCP to configure itself. Choose Yes if DHCP is to be used, or No if the network interface is to be configured manually.</p> <p>NOTE: DHCP support will not be enabled, if selected, until after the system reboots.</p> <p>Use DHCP for bge0</p> <p>-----</p> <p>[ ] Yes</p> <p>[X] No</p> | Select <b>No</b> and press <b>F2</b>                               |
| 6 | <p>Host Name for bge0</p> <p>Enter the host name which identifies this system on the network. The name must be unique within your domain; creating a duplicate host name will cause problems on the network after you install Solaris.</p> <p>A host name must have at least one character; it can contain letters, digits, and minus signs (-).</p>                         | Enter a Host name for <b>bge0</b> . For example, <b>irv240dev4</b> |

|    |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                 |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7  | <p>IP Address for bge0</p> <p>Enter the Internet Protocol (IP) address for this network interface. It must be unique and follow your site's address conventions, or a system/network failure could result.</p> <p>IP addresses contain four sets of numbers separated by periods (for example 129.200.9.1).</p> <p>IP address for bge0<br/>135.27.152.141</p> | <p>Enter an IP address for <b>bge0</b>. For example, <b>irv240dev4</b></p>                                                                                                                                                                                                                      |
| 8  | <p>System part of a subnet</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>                                                                                                                                                                                                                                                         | <p>Select whether your system is part of a subnet and press <b>F2</b>.</p> <p>If you choose <b>Yes</b>, the system prompts you for the subnet mask. In this case, enter the subnet mask and press <b>F2</b>.</p>                                                                                |
| 9  | <p>Netmask for bge0</p> <p>On this screen you must specify the netmask of your subnet. A default netmask is shown; do not accept the default unless you are sure it is correct for your subnet. A netmask must contain four sets of numbers separated by periods (for example 255.255.255.0).</p>                                                             | <p>Enter the subnet mask and press <b>F2</b>. For <b>255.255.255.0</b></p>                                                                                                                                                                                                                      |
| 10 | <p>Enable IPv6</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>                                                                                                                                                                                                                                                                     | <p>Select <b>No</b> and press <b>F2</b>.</p> <p><b>IMPORTANT:</b><br/>IPv6 is not supported in this release.</p> <p>After a short wait (approximately 30 seconds), the system displays the network information you entered similar to the example shown in the following row in this table.</p> |

## Contents

|     |                                                                                                                                                         |                                                                                                                                                                                                                                                                                                       |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11  | Host name: <i>host</i><br>IP address: <i>IP address</i><br>System part of a subnet: <i>Yes</i><br>Netmask: <i>subnet mask</i><br>Enable IPv6: <i>No</i> | Review the information to make sure it is accurate and press <b>F2</b> to continue. If the information is not correct, press <b>F4</b> and correct the information, starting with the Networked question.                                                                                             |
| 12  | Configuring default router<br><br>Enter default router IP address (ex. 192.1.7.254) or 'none':                                                          | Enter the IP address of the default router (if applicable).<br><br>The system verifies the default router. This activity takes a few minutes.                                                                                                                                                         |
| 13  | Configure Kerberos Security<br>[ ] Yes<br>[ ] No                                                                                                        | Choose <b>No</b> and press <b>F2</b> .<br><br><b>IMPORTANT:</b><br>Kerberos Security is not supported in this release.                                                                                                                                                                                |
| 14  | Confirm the following information. If it is correct, press F2; to change any information, press F4.<br><br>Configure Kerberos Security: No              | Press <b>F2</b> to confirm.                                                                                                                                                                                                                                                                           |
| 15  | Name service<br><br>[ ] NIS+<br>[ ] NIS<br>[ ] DNS<br>[ ] LDAP<br>[ ] None                                                                              | Select your name service and press <b>F2</b> .<br><br>Although this is specific to your site, the most common selection is <b>DNS</b> . If you selected <b>DNS</b> , the system displays the series of messages to set up the DNS name service as shown in rows 19a, 19b, 19c, and 19d of this table. |
| 16a | Domain name:                                                                                                                                            | Enter the domain name and press <b>F2</b> .                                                                                                                                                                                                                                                           |
| 16b | Server's IP address:<br>Server's IP address:<br>Server's IP address:                                                                                    | You can enter up to three IP addresses for DNS servers. Type the IP address and press <b>Enter</b> to move to the next field. When finished, press <b>F2</b> .                                                                                                                                        |
| 16c | Search domain:<br>Search domain:<br>Search domain:<br>Search domain:<br>Search domain:<br>Search domain:                                                | You can enter up to six search domains. Type the search domain and press <b>Enter</b> to move to the next field. When finished, press <b>F2</b> .<br><br>The system displays the information you entered, similar to the example shown in the following row in this table.                            |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                      |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16d | <p>Name service: DNS<br/> Domain name: domain.com<br/> Server address(es): 127.0.0.1<br/> Search domain(s):<br/> search.domain.com</p>                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Review the information to make sure it is accurate and Press <b>F2</b> to continue. If the list is not correct, press <b>F4</b> and correct the information, starting with the domain name prompt.</p> <p>After the system accepts your name service information, it displays a series of messages requesting information about the time zone for the system.</p> |
| 17  | <p>- Time Zone</p> <p>On this screen you must specify your default time zone. You can specify a time zone in three ways: select one of the continents or oceans from the list, select other - offset from GMT, or other - specify time zone file.</p> <p>To make a selection, use the arrow keys to highlight the option and press Return to mark it [X].</p> <p>Continents and Oceans</p> <p>[ ] Africa<br/> [X] Americas<br/> [ ] Antarctica<br/> [ ] Arctic Ocean<br/> [ ] Asia<br/> [ ] Atlantic Ocean<br/> [ ] Australia<br/> [ ] Europe<br/> [ ] Indian Ocean</p> | <p>Select the region for the system and press <b>F2</b>.</p> <p>The system displays a menu for selecting the time zone for the region you selected. The example in the following row of this table shows the time zones for the United States.</p>                                                                                                                   |

## Contents

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                           |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| 18 | <p>Country or Region</p> <p>To make a selection, use the arrow keys to highlight the option and press Return to mark it [X].</p> <p>Countries and Regions</p> <p>[X] United States</p> <p>[ ] Anguilla</p> <p>[ ] Antigua &amp; Barbuda</p> <p>[ ] Argentina</p> <p>[ ] Aruba</p> <p>[ ] Bahamas</p> <p>[ ] Barbados</p> <p>[ ] Belize</p> <p>[ ] Bolivia</p> <p>[ ] Brazil</p> <p>[ ] Canada</p> <p>[ ] Cayman Islands</p> <p>[ ] Chile</p> | Select your country and press <b>F2</b> . |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|



|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                             |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 19 | <p>- Time Zone</p> <p>To make a selection, use the arrow keys to highlight the option and press Return to mark it [X].</p> <p>Time zones</p> <p>[ ] Eastern Time</p> <p>[ ] Eastern Time - Michigan - most locations</p> <p>[ ] Eastern Time - Kentucky - Louisville area</p> <p>[ ] Eastern Time - Kentucky - Wayne County</p> <p>[ ] Eastern Standard Time - Indiana - most locations</p> <p>[ ] Eastern Standard Time - Indiana - Crawford County</p> <p>[ ] Eastern Standard Time - Indiana - Starke County</p> <p>[ ] Eastern Standard Time - Indiana - Switzerland County</p> <p>[ ] Central Time</p> <p>[ ] Central Time - Michigan - Wisconsin border</p> <p>[ ] Central Time - North Dakota - Oliver County</p> <p>[X] Mountain Time</p> <p>[ ] Mountain Time - south Idaho &amp; east Oregon</p> | <p>Select the time zone for the system and press <b>F2</b>.</p>                                                                                                                                                                                                                                                                                                                                             |
| 20 | <p>Date and time: <i>date time</i></p> <p>Year (4 digits): <i>year</i></p> <p>Month (1-12) : <i>month</i></p> <p>Day (1-31) : <i>day</i></p> <p>Hour (0-23) : <i>hour</i></p> <p>Minute (0-59) : <i>minute</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Verify that these values for year, month, day, hour, and minute are correct. If any values need to be changed, position the cursor in the appropriate field and type the correct value. Press <b>Enter</b> to move between field. When finished, press <b>F2</b>.</p> <p>The system displays the time zone information you entered, similar to the example shown in the following row in this table.</p> |

## Contents

|    |                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                              |
|----|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 21 | Time zone: US/Mountain<br>Date and time: 2002-07-03<br>10:38:00 | <p>Review the information to make sure it is accurate and press <b>F2</b> to continue. If the information is not correct, press <b>F4</b> and correct the information, starting with the Region prompt.</p> <p>The system installs the system software and configures the network. This takes a few minutes. When completed, the system displays the prompt as shown in the following row in this table:</p> |
|----|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

After you complete the above steps, the Solaris Interactive Installation screens appear. Complete the steps described in the following table to complete your upgrade to Solaris 10 O.S. software

| Step | System prompt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Action                                                                    |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 1    | <p>On the following screens, you can accept the defaults or you can customize how Solaris software will be installed by:</p> <ul style="list-style-type: none"> <li>- Selecting the type of Solaris software to install</li> <li>- Selecting disks to hold software you've selected</li> <li>- Selecting unbundled products to be installed with Solaris</li> <li>- Specifying how file systems are laid out on the disks</li> </ul> <p>After completing these tasks, a summary of your selections (called a profile) will be displayed.</p> <p>There are two ways to install your Solaris software:</p> <ul style="list-style-type: none"> <li>- "Standard" installs your system from a standard Solaris Distribution. Selecting "Standard" allows you to choose between initial install and upgrade, if your system is upgradable.</li> <li>- "Flash" installs your system from one or more Flash Archives.</li> </ul> | Select <b>Standard</b> and press <b>F2</b> to continue.                   |
| 2    | <p>Eject a CD/DVD Automatically?</p> <p>During the installation of Solaris software, you may be using one or more CDs/DVDs. You can choose to have the system eject each CD/DVD automatically after it is installed or you can choose to manually eject each CD/DVD.</p> <p>[X] Automatically eject CD/DVD<br/>[ ] Manually eject CD/DVD</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Select <b>Automatically eject CD/DVD</b> and press <b>F2</b> to continue. |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                     |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 3 | <p>Reboot After Installation?</p> <p>After Solaris software is installed, the system must be rebooted. You can choose to have the system automatically reboot, or you can choose to manually reboot the system if you want to run scripts or do other customizations before the reboot. You can manually reboot a system by using the <code>reboot(1M)</code> command.</p> <p><input type="checkbox"/> Auto Reboot<br/> <input checked="" type="checkbox"/> Manual Reboot</p> | <p>Select <b>Manual Reboot</b> and press <b>F2</b> to continue.</p> |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|

**Note:**

You will have to complete the installation of the Solaris Operating system, after you complete the above steps. During the installation of Solaris 10 O.S., ensure that when you are selecting the geographic regions for which support should be installed (Select the geographic regions for which support should be installed) North America is selected, besides other geographic regions for which you may want to install support. Also ensure that while selecting the initial locale to be used after the system has been installed (Select the initial locale to be used after the system has been installed), `POSIX C ( C )`, is selected. This helps avoid problems with speech (MRCP feature) functionality. Having `POSIX C ( C )` selected as the initial locale also helps avoid potential problems in JDBC

Complete Solaris 10 O.S. installation using the 4 Solaris 10 software and Solaris 10 package C.Ds. After you have completed upgrading to Solaris 10 O.S., the system reboots.

After rebooting type **/export/upgrade install**

Now perform the following steps:

1. Insert the CD labeled *AVAYA IR R2.0 Installation and Upgrade CD1* into drive, and press **Enter**

Installation of the *AVAYA IR R2.0 Installation and Upgrade CD1* is complete, when the following message appears

Avaya IR packages on this disk have been installed. Contents of the AVAYA IR R2.0 Installation and Upgrade CD1 have been installed.

Put the CD labeled AVAYA IR R2.0 Installation and Upgrade CD2 into drive. Press enter when ready

2. Insert the CD labeled *AVAYA IR R2.0 Installation and Upgrade CD2* into drive, and press **Enter**

Installation of the *AVAYA IR R2.0 Installation and Upgrade CD2* is complete, when the following message appears

The Avaya IR packages on this disk have been installed.  
Contents of the AVAYA IR R2.0 Installation and Upgrade CD2 have been installed.

3. Enter the name of the file (with the absolute path) that contains the configuration information, and press **Enter**.

*/export/config.xml* is the default path.

---

## Migrating between Avaya IR platforms

This section describes the process for migrating data and applications between the following platforms:

- From a Sun Blade 150 Avaya IR R1.0 platform to a Sun Fire V240 Avaya IR R2.0 platform
- From a Sun Blade 150 Avaya IR R1.2 platform to a Sun Fire V240 Avaya IR R2.0 platform
- From a Sun Blade 150 Avaya IR R1.2.1 platform to a Sun Fire V240 Avaya IR R2.0 platform
- From a Sun Blade 150 Avaya IR R1.3 platform to a Sun Fire V240 Avaya IR R2.0 platform
- From a Sun Fire 280R Avaya IR R1.0 platform to a Sun Fire V240 Avaya IR R2.0 platform
- From a Sun Fire 280R Avaya IR R1.2 platform to a Sun Fire V240 Avaya IR R2.0 platform
- From a Sun Fire 280R Avaya IR R1.2.1 platform to a Sun Fire V240 Avaya IR R2.0 platform
- From a Sun Fire 280R Avaya IR R1.3 platform to a Sun Fire V240 Avaya IR R2.0 platform

---

## Overview of migration between platforms

The basic steps involved in migrating data and applications between platforms are included below. See the identified topics for detailed procedures.

1. Download the AVmigr for IR R2.0 migration package from the support.avaya.com web site onto the Avaya IR R1.0, R1.2, R1.2.1, or R1.3 platform and install it using the **pkgadd** command. (See [Installing the Avaya IR migration package](#) on page 46.)
2. Run the **save\_conf** command to save the configuration of the current platform to a single XML file. (See [Saving the configuration](#) on page 47.)
3. Use the **tar\_it** utility to package directories and files that need to be moved to the Avaya IR R2.0 platform. (See [Migrating data](#) on page 16.)

Speech and application files can be included because they do not require conversion when moved between IR platforms.

4. Make sure that all the required Solaris OS and Avaya software is installed on the Sun Fire 280R or Sun Fire V240 Avaya IR R2.0 platform.
5. Verify that all the required RTU licenses have been migrated and configured on the WebLM servers associated with the Sun Fire 280R or the Sun Fire V240 Avaya IR R2.0 platform. For IR R2.0, the licensing mechanism has changed from RTU to WebLM. Contact the Avaya Services organization to perform the transitioning of your RTU licenses to WebLM.
6. Use FTP or a similar mechanism to transfer the generated tar file from the previous step to the Avaya IR R2.0 platform.
7. Copy the archive files to their respective locations on the Avaya IR R2.0 platform. (See [Migrating data](#) on page 16.)
8. Run the **restore\_conf** command to restore the configuration from the previously saved XML file. (See [Restoring the configuration](#) on page 50.)
9. Ensure that the voice system is up and running.
10. Verify through Web Administration that all the required features have been configured correctly.
11. If any discrepancies are found, correct them manually.
12. Recompile all Avaya IVR Designer and IRAPI applications to ensure that they continue to execute successfully.

**Note:**

The libraries to include when compiling IRAPI applications have changed. For more information, see Introduction to the IRAPI.

---

## Installing the Avaya IR migration package

The migration tools and all related files for migration from an Avaya IR R1.0, R1.2, R1.2.1, or R1.3 platform to an Avaya IR R2.0 platform are delivered to the customer system in a typical Solaris package format. The package includes the following files:

- **config.jar** - Java classes to save the configuration to and restore the configuration from a single XML file
- **tar\_it** - Command to use to package directories and files
- **save\_conf, restore\_conf** - Shell scripts to launch the Java classes to save and restore the configuration
- **Xerces.jar, jdom.jar** - Required jar files for migration commands
- **Readme** - Text file with migration instructions

The AVmigr for IR R2.0 package is available for download from the support.avaya.com web site.

Use the **pkgadd** command to install the package.

---

## Saving the configuration

The **save\_conf** utility is delivered as part of the base software and in the migration package for Avaya IR R2.0. This tool can be used to save the configuration of an already configured Avaya IR system. It cannot be used to save the configuration of a CONVERSANT system.

To save the configuration, run **save\_conf** from the command line.

The configuration information for the following modules is saved to a single XML file:

- NMS, digital card configuration
- VOIP, Voice over IP configuration
- NLSR, natural language speech recognition configuration
- WholeWord, Whole Word speech recognition configuration
- TTS, proxy text-to-speech configuration
- JDBC, database interface configuration
- ASAI, adjunct/switch application interface configuration
- CTI, computer telephony interface configuration
- VXML, VoiceXML configuration
- TBCT, two B-channel transfer configuration
- FAX, fax configuration
- ALERTER, logging configuration

The saved configuration includes most of the information configured using Web Administration. It does *not* include the following information:

- Channel and telephone number assignments
- Passwords assigned to VoIP channels
- Backup parameters and schedule
- Call Data Handler (CDH) schedule
- Changes made to Alarm Messages
- Universal Call ID (UCID) assignment
- PDS Integration configuration information

Because the information listed above is not saved, you should record this information before performing an upgrade or migration. You must re-administer or reconfigure the items listed above after the upgrade or migration.

For IR R2.0, the licensing mechanism has changed from RTU to WebLM. Contact the Avaya Services organization to perform the transitioning of your RTU licenses to WebLM.

---

## Migrating data

You can move data using the `tar_it` utility that is part of the migration package, or you can set up file sharing between the platforms.

### Creating an input file for `tar_it`

To specify the files to be transferred with the `tar_it` command, you can create a file that contains a list of the files and directories to be moved. The file should contain, each on a separate line, the directories and file name to be included. An example of an input file is:

```
/export/myarea
/voice1/trace.lop
/tmp/example.c
```

### Transferring data with the `tar_it` utility

The `tar_it` utility is delivered with both of the migration tool packages to assist with the movement of custom files and data to the target Avaya IR platform. To archive files:



1. Run **tar\_it** from the command prompt.

The **tar\_it** utility prompts for the name of the file containing a listing of the directories and files to be put into a **tar** archive.

**Note:**

To capture a list of the files being archived, substitute the command **tar\_it | tee file\_name**.

2. Press **Enter** to use the default directories or enter the name of the file that lists the directories and files to archive.

If you choose the default the following directories are used:

**/att/trans/sb**  
**/speech/talk**  
**/usr/add-on**

The **tar\_it** utility displays the directories to be archived and asks for confirmation prior to creating the archive. Custom external functions, which are stored in the **/vs/bin/ag/lib** directory, are not included in the default archive. You can specify them in an input file or transfer them directly.

PDS Integration configuration information is saved in various files, so it is not archived. You must reconfigure PDS Integration after migration.

3. Press **Enter** to confirm.

The **tar\_it** utility lists all files discovered and puts them into an archive.

When all files are archived the **tar\_it** utility responds with the following message:

You may now transfer **/voice1/file\_identifier.tar** to target machine.  
 Execute **tar xvf file\_identifier.tar** to unpack on the target machine.  
 Please note there is no protection from overwriting existing files.

4. Transfer the files across the network using an **ftp** command.

If you need to move individual files, an NFS mount between platforms might be more appropriate. For instructions on setting up NFS, see [File sharing with Solaris Systems](#) on page 50.

5. Run the command **tar xvf file\_identifier.tar** on the target platform to copy all the files in the archive onto the target system.

The system creates new directories if needed, and overwrites files on the target system if they are duplicated in the archive.

## File sharing with Solaris Systems

You can use the following set of commands to set up file sharing between legacy SCO platforms and Solaris platforms:

1. On the legacy SCO platform, enter the following command:

```
cp /etc/dfs/dfstab /etc/dfs/dfstab.bak
echo "share -F nfs /export" >> /etc/dfs/dfstab
sh /etc/init.d/nfs stop
sh /etc/init.d/nfs start
```

2. Mount the SCO shared directory on the Solaris platform by running the following command on the Solaris platform:

```
mount -F nfs SCO Machine Name: /export /mnt
```

In the above example, the directory "/export" is shared out from the SCO system and mounted to the directory "/mnt" on the Solaris system.

3. After the desired files are copied over (using the **cp** command), run the following commands on the SCO platform to remove the sharing:

```
unshare -F nfs /export
mv /etc/dfs/dfstab.bak /etc/dfs/dfstab
```

**Note:**

On an Avaya IR R1 system, the above instructions can be reversed to share out a directory from the Solaris system and mount it on a SCO system. For Avaya IR R1.2, R1.2.1, R1.3, and R2.0 this is not possible. Directories can be shared out only from a SCO system and mounted on to the Solaris system.

---

## Restoring the configuration

You can use the **restore\_conf** tool to restore the configuration of an Avaya IR system from a single XML file. The XML file that contains the configuration must be specified when prompted by the tool.

To restore the configuration, run **restore\_conf** from the command line.

When restoring the NMS configuration, the **restore\_conf** tool performs a check to see if the current number and type of NMS boards installed in the system matches those of the system on which the configuration was originally saved. If they do not match, the NMS configuration is not restored and an error message is displayed.

The **restore\_conf** tool also performs a check on the IP address before restoring the VoIP configuration. If the IP address of the machine on which the configuration was saved is different from the IP address of the machine on which the configuration is being restored, the VoIP configuration is not restored and an error message is displayed.

The format and some of the parameters in the configuration files for TTS, NLSR and VoIP modules have changed in the Avaya IR R2.0 system. To compensate for this change, when a configuration from an Avaya IR R1.0, R1.2, R1.2.1, or R1.3 system is being restored on an Avaya IR R2.0 system, the **restore\_conf** tool automatically maps to the new parameters and creates the configuration files accordingly.



# Index

## A

- Adding new token types • 15
- Adding tokens • 14

## C

- Converting applications that use libspp.so • 21
- Converting custom speech • 7, 20
- Converting host interface screen capture files • 7, 18, 22
- Creating an input file for tar\_it • 16, 48
- Customizing scanit • 10, 14

## D

- Default file extensions • 10

## F

- File sharing with Solaris Systems • 17, 49, 50

## I

- Installing the Avaya IR migration package • 46
- Installing the CONVERSANT to Avaya IR migration package • 7, 8

## M

- Migrating applications • 7, 18
- Migrating between Avaya IR platforms • 45
- Migrating data • 7, 16, 46, 48
- Migrating from a CONVERSANT platform to an Avaya IR 2.0 platform • 6
- Migrating host screen files • 7, 18
- Migrating IVR Designer applications • 19
- Migrating Script Builder applications • 18
- Migrating Script Builder applications that use the vesp\_dip.t external function • 18
- Migration • 6
- Migration phase • 15

## O

- Overview of CONVERSANT to Avaya IR migration • 6
- Overview of migration between platforms • 45
- Overview of migration phase • 15
- Overview of post-migration phase • 20
- Overview of pre-migration phase • 8
- Overview of software upgrade on the same hardware platform • 24

## P

- Post-migration phase • 19
- Pre-migration phase • 8
- Pre-migration scanning tool (scanit) • 9

## R

- Removing old packages from the IR system • 31, 32
- Restoring the configuration • 46, 50
- Returning files to the original version • 23
- Running scanit • 11
- Running the conversion utility • 22

## S

- Saving the configuration • 29, 46, 47
- scanit reporting • 10
- Scanning Results • 13
- Setting up an input file for scanit • 7, 11, 12
- Specifying charset for Proxy Text-to-Speech • 21
- Specifying files to scan • 10

## T

- Tokens • 10
- Transferring data with the tar\_it utility • 16, 48

## U

- Upgrading from a previous Avaya IR release to Avaya IR R 2.0 on the same platform • 24
- Upgrading the IR software on the same platform • 24, 25
- Upgrading to IR R2.0 on the same platform, with Solaris 10 O.S. • 25, 31
- Upgrading to IR R2.0 on the same platform, with Solaris 8 update 8 O.S. • 25
- Upgrading to Solaris 10 O.S. and upgrading to IR R2.0 platform software • 31, 33
- Using other Cleo utilities • 23