Using IP Office System Status

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Contents

Part 1: System Status 8
Chapter 1: System Status Application 9
New in this release 9
Installing the Application 9
Assigning Security Settings 11
Starting System Status 11
The Menu Bar 12
Button Bar 13
Navigation Panel 17
Chapter 2: Snapshots 18
Taking a Snapshot 18
Viewing a Snapshot 20
Opening a Configuration 21
Part 2: Status Menus 22
Chapter 3: System 23
System Hardware Details 25
Memory Cards 26
Hard Disks 28
Expansion Modules 29
Control Unit 29
Extension Ports 30
Trunk Ports 30
H.323 Extensions 31
Avaya IP Phones 31
Unregistered IP Phones 32
SIP Extensions 32
Avaya SIP Endpoints 32
Standard SIP Endpoints 33
IP DECT Systems 33
IP DECT System 34
SIP Application Servers 36
SIP Application Server 36
SIP DECT Base Stations 36
Base Station 37
UC Modules 38
Unified Communications Module Status 39
VoIP Trunks 40
VoIP Security 40
Quarantined Phones 41

Blacklisted Extensions..... 42
Blacklisted Addresses..... 43
Chapter 4: Alarms..... 47
Last System Restart..... 48
Alarm History..... 49
Configuration Alarms..... 50
Service Alarms..... 50
Logon Failure Due to User ID/Password..... 52
Feature Key Server Connection Failure..... 53
Resources Not Available..... 53
Trunk Alarms Summary..... 53
Alarms..... 54
24-Hour Performance History..... 56
Link Alarms..... 57
Call Quality of Service..... 58
Quality of Service Alarms..... 60
Security..... 60
TLS..... 61
SRTP..... 62
Chapter 5: Extensions..... 64
Extension Summary..... 65
Extension Status..... 65
Chapter 6: Trunks..... 70
Status (Analog Trunk)..... 70
Status (Digital Trunk)..... 73
Status (H.323 Trunk)..... 75
Status (SIP Trunk)..... 78
Line Protocols..... 82
Trace..... 82
Utilization Summary..... 83
Alarms..... 85
Alarms..... 85
24-Hour Performance History..... 87
Line Testing..... 88
Chapter 7: Active Calls..... 91
Abandoned Calls..... 92
Reduced Active Calls..... 94
Call Details..... 95
Conference Details..... 97
Call Information..... 98
Originator Information..... 98
Destination Information..... 99
Call Target/Routing Information..... 101

Call States (Extension)..... 102
Call States (Trunk)..... 103
Callback and Returning Calls..... 104
Chapter 8: Resources..... 106
Time..... 108
Licenses..... 109
Networked Licenses..... 110
Directory..... 110
Control Unit Audit..... 112
Chapter 9: Voicemail..... 115
Mailboxes..... 116
Chapter 10: IP Networking..... 117
IP Routes..... 117
Ping..... 118
IPV6 Routes..... 119
Tunnels..... 120
SSL VPN..... 121
Outdialer..... 122
Chapter 11: Locations..... 124
Locations..... 124
Part 3: Tracing and Troubleshooting..... 126
Chapter 12: Tracing..... 127
Using Traces for Troubleshooting..... 127
Chapter 13: Call Traces..... 128
Announcements..... 128
Chapter 14: Extension Traces..... 132
Incoming Outside Call..... 132
Extension Button Selection..... 134
Call Disconnected by Internal User..... 137
Call Disconnected by Outside Caller..... 139
Chapter 15: Trunk Traces..... 140
Tracing Incoming Calls on Analog Lines..... 140
Chapter 16: Hunt Group..... 142
Hunt Group Calls Sent to Voicemail..... 142
Answered Hunt Group Call..... 143
Hunt Group Queued Call Sent to Voicemail..... 144
Call Being Abandoned..... 145
Hunt Group Call Overflowing..... 146
Chapter 17: Troubleshooting..... 148
ISDN Calls Cutting Off..... 148
Delay between Analog Line and Extension..... 149

Expansion Units Constantly Rebooting..... 150
User Receives Busy When Calling..... 150
SCN VoIP Calls Echo or Have Poor Speech Quality..... 151
Phone User Unable to Dial Out..... 151
PRI Line is Out of Service..... 152
Part 4: Further Help..... 153
Chapter 18: Additional Help and Documentation..... 154
Additional Manuals and User Guides..... 154
Getting Help..... 154
Finding an Avaya Business Partner..... 155
Additional IP Office resources..... 155
Training..... 156

Part 1: System Status

Chapter 1: System Status Application

This document describes how to navigate and access the features available in the System Status Application. The System Status Application is an application for monitoring the operation of an IP Office system.

Related links

New in this release on page 9
Installing the Application on page 9
Assigning Security Settings on page 11
Starting System Status on page 11
The Menu Bar on page 12
Button Bar on page 13
Navigation Panel on page 17

New in this release

For IP Office Release 11.1 FP1, System Status Application supports the following enhancements:

- **Customer Operations Manager Access**

  Access to IP Office subscription mode systems is supported via Customer Operations Manager.

Related links

System Status Application on page 9

Installing the Application

You can launch System Status directly from the IP Office system, see Starting System Status on page 11. However, it is also possible to install a local copy of the application onto a Windows PC. This allows you to perform actions such as viewing previously captured system snapshot without needing to first connect to a system.

- Avaya supply the full IP Office admin suite as a download from the Avaya support at https://support.avaya.com.

- Users of Customer Operations Manager can download the installer from the **Applications | IP Office Admin** menu.
- Users of Server Edition web manager can download the installer from the **Platform View | App Center** menu.

In addition to Manager, the Admin suite includes options to install the following applications:

- **System Monitor** This is a tool for system installers and maintainers. Interpreting the information output by System Monitor requires detailed data and telecoms knowledge.
- **System Status Application** This is a Java application that can be used to monitor the status of the system such as extension, trunks and other resources. It displays current alarms and most recent historical alarms.
  - The System Status Application requires Java to also be installed on the PC. It is not installed by the admin suite installer. This can be the run-time edition (JRE) or developers kit (JDK). The application has been tested with Oracle and Azul Zulu versions of Java. The presence of Java can be tested using the command `java -version`.

Procedure

1. Unzip the downloaded IP Office administration suite file. If installing from the Admin DVD, insert the DVD and when the page is displayed click on the link for the Admin suite. This will open a file window showing the installation files for the suite.
2. Locate and right-click on the `setup.exe` file. Select **Run as Administrator**.
3. Select the language you want to use for the installation process. This does not affect the language used by Manager when it is run. Click **Next >**.
4. If an upgrade menu appears, it indicates that a previous installation has been detected. Select **Yes** to upgrade the existing installed applications.
5. If required select the destination to which the applications should be installed. We recommend that you accept the default destination. Click **Next >**.
6. The next screen is used to select which applications in the suite should be installed. Clicking on each will display a description of the application. Click on the ▼ next to each application to change the installation selection. When you have selected the installations required, click **Next >**.
7. The applications selected are now ready to be installed. Click **Next >**.
8. Following installation, you will be prompted whether you want to run Manager. Selecting **Yes** runs Manager.
9. On some versions of Windows, you may be required to restart the PC. Allow this to happen if required.

Related links

System Status Application on page 9

Assigning Security Settings

Rights Group Configuration

Access to a system using System Status is controlled by that system's security settings. By default, the Administrator account has System Status access. For full details of configuring security settings, refer to the IP Office Manager documentation.

By default that is done by making the service user a member of the **Rights Group** called **System Status**. The rights group has the following settings enabled.

Setting	Description
System Status Access	This is the basic setting to allow System Status to connection to show system status information.
Read All Configuration	If selected, the System Status connection is able to include a copy of the system configuration in snapshots.
System Control	If selected, the System Status connection is able to use buttons in System Status that affect the system operation, for example, restarting IP telephones.

Service Configuration

The output from the system to System Status is provided by the System Status Interface service. The **Service Security Level** of this service controls whether it can be accessed using more secure and/or unsecure connections.

Related links

System Status Application on page 9

Starting System Status

About this task

There are a number of ways to start System Status. For example, you can launch it from IP Office Manager or IP Office Web Manager. The methods depend on whether you launch System Status installed locally on the PC or from the system.

To start System Status:

Procedure

1. Use one of the following methods to start System Status:
   - **To start a locally installed PC copy:** Click the Windows **Start** icon and select **Programs | IP Office | System Status**. To do this from within the IP Office Manager application, select **File | Advanced | System Status**.
   - **To start the system's copy in a web browser**: Using a browser, enter the IP address of the system. The web page should show details of the system and a number of links. Select the **System Status** link. This method does not work if the IP Office has **Avaya HTTP Clients Only** enabled.

- **To start the system's copy in IP Office Web Manager**: The method depends on the operating mode of the system:
  - IP Office Server Edition: Browse to https://:7070 where is the system's IP address. On the **Solution** page, click the ☰ icon next to the system details and select **Launch SSA**.
  - IP Office Basic Edition: Browse to https://:8443 where is the system's IP address. Click **Monitoring** and select **System Status**.

2. The **Logon** menu appears with the **Online** tab selected. The **Offline** tab is used to select and view a previously saved snapshot file. See Snapshots on page 18.

Setting	Description
Control Unit IP Address	Enter the IP address of the system or use the drop down to select a previously used address.
Services Base TCP Port	This is the port used for the connection to the system when Websocket connection is not selected (see below). This should match the Services Base TCP Port setting of the system, set in its security settings. The default is 50804.
HTTP Port	This is the port used for the connection to the system when Websocket connection is selected (see below). The default is 8443.
Local IP Address	Default = Automatic. This option appears when starting a locally installed copy of System Status. If the PC has more than one IP address assigned to its network card or multiple network cards, you can select which address the application uses.
User Name	Enter a user name and password. By default, these match the settings of a system service user configured for access to the system. See Assigning Security Settings on page 11.
Password	
Auto Reconnect	If selected, the application automatically attempts to reconnect using the same settings if connection to the system is lost.
Secure Connection	Use an encrypted TLS connection to the system. If selected and the system is not configured for secure access, System Status offers to reattempt connection using unsecure access instead. See Assigning Security Settings on page 11.
Websocket Connection	When selected, a websocket connection on HTTP is used.

3. Once all the details are set, click **Logon**.

Related links

System Status Application on page 9

The Menu Bar

From the menu bar, you can select the following options:

Name	Description
Help	This option opens the application help.
LogOff	This option logs off the connected system and displays the logon menu.
Exit	This option closes the application.
About	This option displays the application version. To close, click **OK**.
Snapshot	This option saves the status of the system to a file. System Status can view saved snapshot files.

Related links

System Status Application on page 9

Button Bar

Depending on the screen, the following options may appear in the button bar:

Button	Description
Abandoned Calls	The Active Calls screen splits to display a list of incoming calls on a trunk where the caller disconnected before the call was first answered.
Absolute Time	Applies to the 24-Hour Performance History. Each line shows the actual time in 24-hour clock format at which the reported 15-minute period started.
Activate Backup Server	Transfer voicemail server operation to the configured backup voicemail server.
Alarm History	Display the alarm history details
Allow Registration	Allow handset registration on the selected SIP DECT base station.
Back	Returns to the previous screen.
Backup System Files	Backup the files in the systems /primary folder to the /backup folder.
Change Admin State	Change the state of the selected trunk between out of service and in service.
Call Details	Displays call details for the selected call, trunk or trunk channel.
Cancel Shutdown	Cancel the graceful shutdown of the selected SIP trunk if not completed. If the trunk has completed the graceful shutdown, select Force Into Service.
Clear	Clears the selected alarms. If the alarm is still active (red) it remains but with the occurrences count reset to 1.
Clear Abandoned Calls	Clears the list of all abandoned calls. This updates the date and time and enables the logging of further abandoned calls.
Clear Alarm History	Clear the historical alarms displayed.
Clear All	Clears all listed historical alarms that are no longer active. Note that any alarms still active (red) remain but with the occurrences count reset to 1.

Table continues…

Button	Description
Clear All Dynamic Locations	Third-party applications can use the system's location API to dynamically set the location of extensions. This button clears the dynamic location information currently held for all extension.
Clear Boot Flags	IP500 V2 only. During system booting various flags are set indicating from which source the system booted, etc. Occasionally it may be required to clear those flags.
Clear Dynamic Location	Third-party applications can use the system's location API to dynamically set an extension's location. This button clears the dynamic location information currently held for the extension.
Clear In Fallback	Clear the currently selected SSL VPN service's fallback status.
Close Location API	Close the dynamic extension location API.
Conference Details	Available for calls in a conference. Displays the conference details
Conflicts	Displays any conflicts with directory entries on other systems if in a multi-site network.
Copy System Card	This option is available for IP500 V2 control units fitted with a System SD and Optional SD card. When selected, the system copies the contents of the System SD card to the Optional SD card. Note that this process can take several hours.
Details	This button displays additional information. See System Hardware Details on page 25.
Disconnect	Clears the current call. The button cannot stop alerting calls on Loop Start, T1 Loop Start and T1 Ground Start lines.
Format	This option is available for IP500 V2 memory cards. When selected, the system formats the card, erasing all existing contents.
Force Into Service	Take the selected SIP trunk out of 'Out of Service' (OOS) status.
Force Out of Service	Force the selected SIP trunk into 'Out of Service' (OOS) status. This immediately disconnects any current calls on the trunk.
Full Details	Resume the full display of Active Calls from the reduced active calls state .
Graceful Shutdown	Cause the selected SIP trunk to block any additional calls and go into Out of Service (OOS) state when all current calls on the trunk have ended.
Inject Error	Insert an error into the digital trunk during a loopback test.
Membership	Display the users who are members of the selected hunt group.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Ping	Perform a Ping action from the selected interface (system, line or extension) and display the results. See Ping on page 118.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Refresh	Updates the screen. This button appears on screens that do not update automatically.

Table continues…

Button	Description
Relative Time	Applies to the 24-Hour Performance History. When selected, for each line, the time value indicates how far into the 15-minute interval the line occurs. For example, 3 minutes appears as 00:03.
Remove	Remove the currently selected entry from the list. This removes any blocking currently applied to that entry.
Remove All	Remove all the current entries from the list. This removes any blocking currently applied to those entries.
Renew Licenses	Force the system to immediately revalidate its license entitlements rather than waiting for the next automatic check.
Reregister	This option can be used to force Avaya IP phones to reregister without restarting.
Reset Base	Reset (reboot) the selected SIP DECT base station.
Reset Base to Default	Reset the selected SIP DECT base station to its factory default settings.
Reset Base Admin Pass	Reset the selected SIP DECT base station's administration password.
Reset Handset	Reset the selected SIP DECT handset.
Reset All Handsets	Reset all handsets registered to the selected SIP DECT base station.
Restart	This option can be used to force Avaya H.323 IP phones to restart. When the phone restarts, they checking their current firmware against that available on the configured file server. We recommend that only small groups of up to 15 phones restart at any time. Attempting to restart larger numbers of phones can cause System Status to appear to frozen.
Reset	Resets all utilization counters (number of calls and total duration) for the displayed trunk to 0.
Reset Trunk	Reset the selected digital trunk.
Restores System Files	Restore the files from the /backup folder to the /primary folder. You must restart the system for it to use the restored files.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.
Select	Show details for the currently selected item.
Set In Fallback	Set the currently selected SSL VPN service into fallback status.
Show Blanks	Applies to 24-Hour Performance History. Show any 0 error values as blanks.
Show Zeros	Applies to 24-Hour Performance History. Show any 0 error values as zeros.
Shutdown	Memory card. Shuts down the services provided by the memory card, including embedded voicemail. Once shutdown, the system switches of the card LED and you can safely remove the card.

Table continues…

Button	Description
Shutdown	Unified Communications Module. Stop the services provided by the Unified Communications Module and then shutdown the module. However, you must not physically remove the module until you have done a full system shutdown.
Shutdown System	Shutdown the system either for a period of time after which it automatically restarts or until manually restarted.
Start Test	Start loopback testing on the trunk. You can only start testing when the Whole Line is set to Out of Service. When testing starts, the test results appear below the list of channels. During the test, the button label and function changes to Stop Test.
Start Up	Restart a shutdown memory card or Unified Communications Module.
Stop Test	Stop loopback testing on the selected trunk. The button label and function changes to Start Test.
Summary	Return to the **System Hardware Summary** menu. See System on page 23.
Switch to Backup Node	Switch the IP DECT system to the backup system.
Switch to Primary Node	Switch the selected IP DECT user back to the primary system.
Synchronize	Used for the ACCS SIP application server. Causes a manual synchronization of the agents between the application server and the telephone system.
Test Alarm	Request the IP Office system to send a test alarm.
Test Location API	Test the location API by requesting the dynamic extension location information.
Trace	Starts a trace of the rows selected. System Status displays a trace for each call associated with the selected trunk or extension. See Trace on page 82.
Trace All	Starts a trace for the whole trunk group or extension. System Status displays a trace for all calls associated with the trunk or extension. See Trace on page 82.
Trace Clear	Clears the trace and continues tracing.
Unregister Handset	Unregister the select SIP DECT handset from the base station.
Unregister All Handsets	Unregister all the handsets from the selected SIP DECT base station.
Unsubscribe	Force an IP DECT extension to unsubscribe.
USB Boot	Instructs the Unified Communications Module to start up and boot from a bootable USB memory key if present. Requires the Unified Communications Module to be shutdown first.

Related links

System Status Application on page 9

Navigation Panel

The navigation panel displays a list of items on which you can select to display related information. To view more options, expand the structure by clicking + next to the feature.

To view summary and specific details in the **Information Panel**:

- **Summary** – To view summary information, click a feature in the navigation panel. For example, when you click Extensions, System Status displays the Extension Summary screen.
- **Specific** – To view detailed information, double-click a feature in the navigation panel to display a list of items and then click an item to view specific details in the information panel. For example, double-click Extensions to display a list of extensions and then click an extension to view the Extension Status screen.

Related links

System Status Application on page 9

Chapter 2: Snapshots

Taking a snapshot allows you to capture the System Status details to a file. You can then use System Status to view the saved snapshot.

There are two types of snapshot file:

- **Snapshot only**

  This type of snapshot captures the current status details shown by System Status.

- **Continuous log**

  This type of snapshot captures the system's status details over a period of time. It requires System Status to be left running for the period of logging.

Either type of snapshot can also include a copy of the system configuration. You can use IP Office Manager to open the snapshot file to view that configuration.

Related links

Taking a Snapshot on page 18
Viewing a Snapshot on page 20
Opening a Configuration on page 21

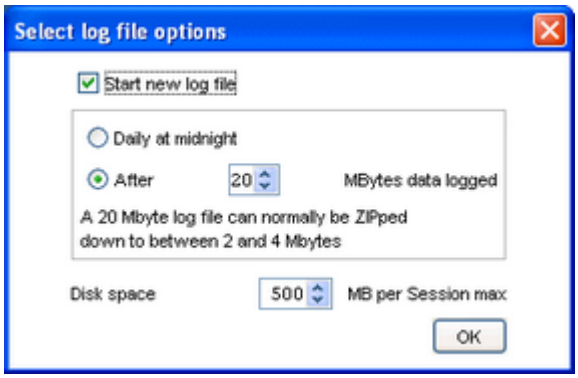
Taking a Snapshot

About this task

To take a snapshot

Procedure

1. From System Status, click **Snapshot** in the menu bar.
2. Select the type of snapshot:

Setting	Description
Include switch configuration	If selected, the snapshot includes a copy of the system's configuration. • After taking the snapshot, in addition to viewing the snapshot in system status, you can open the snapshot in IP Office Manager to examine the system configuration. See Opening a Configuration on page 21. • To use this option, the account used to log in to System Status must have Read All Configuration enabled (see Assigning Security Settings on page 11).
Snapshot only	If selected, after clicking **OK**, System Status requests where you want to save the snapshot file. This creates a snapshot file with a `.ssh` file extension.
Continuous log	This creates a snapshot file with a `.slo` file extension. If selected, after clicking **OK**, System Status displays the logging options menu.  **Figure 1: Snapshot Logging Settings** Note that with continuous logging, you must leave System Status running and cannot use it for other activities without first stopping the logging.

3. Select the settings required and click **OK**. System Status requests where you want to save the snapshot file or files.
4. If **Continuous log** was selected, the logging menu is displayed. Selecting **LogOff** ends logging and closes System Status.

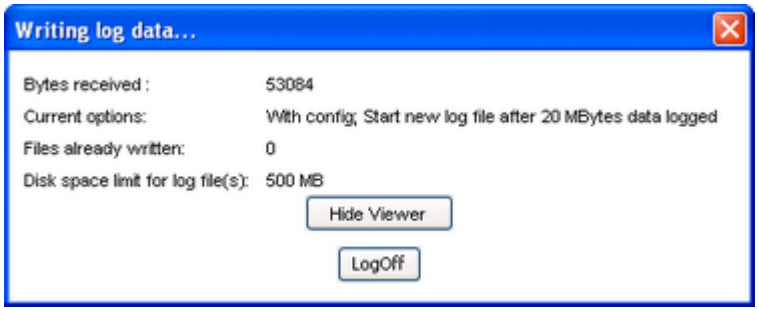


Figure 2: Logging Menu

Related links

Snapshots on page 18

Viewing a Snapshot

About this task

You can use System Status to view previously saved snapshots. While viewing a snapshot, the **Properties** and **Close** menu options replace **Snapshot** and **LogOff**. The **Properties** option shows who took the snapshot and when.

Before you begin

Note that when viewing a snapshot, controls relating to live information capture such as **Refresh**, and controls that alter the system state such as **Clear Alarm History**, are not available.

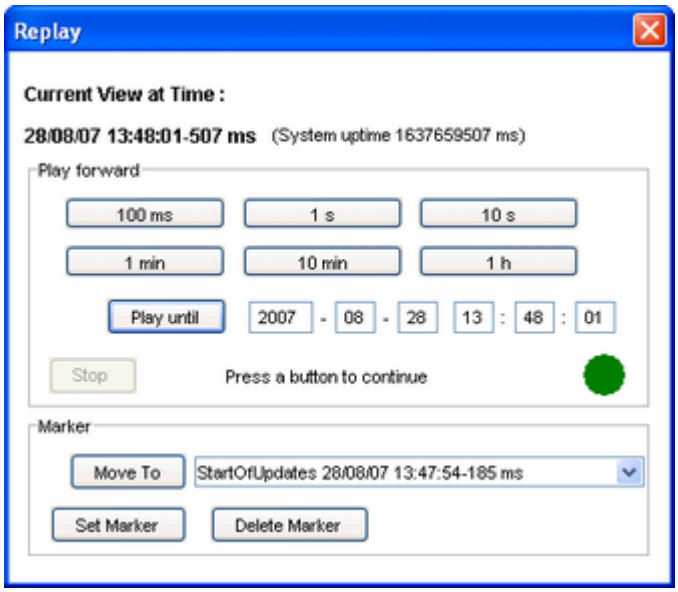


Figure 3: The Snapshot Playback Menu

To open a snapshot

Procedure

1. From the **Logon** menu, click the **Offline** tab:
2. Click **Select a file...**.
3. Locate the saved snapshot SSH or SLO file and click **Open** to display the file.
4. For snapshot log file, the menu bar option **Replay** displays a menu for controlling the playback of the log file.

Related links

Snapshots on page 18

Opening a Configuration

About this task

If the snapshot file includes a copy of the system configuration, you can use IP Office Manager to view that configuration.

Procedure

1. Start IP Office Manager.
2. Select **File** > **Offline** > **Open File...**.
3. In the **Files of type** drop-down list, select **Snapshot Files (*.ssh, *.slo)**
4. Browse to the location of the saved snapshot file.
5. Select the file and click **Open**.

Related links

Snapshots on page 18

Part 2: Status Menus

Chapter 3: System

Path: System

When you first log on, System Status displays the **System Hardware Summary** screen. This screen details information about the system and the various installed cards and modules. The information varies depending on the type of system.

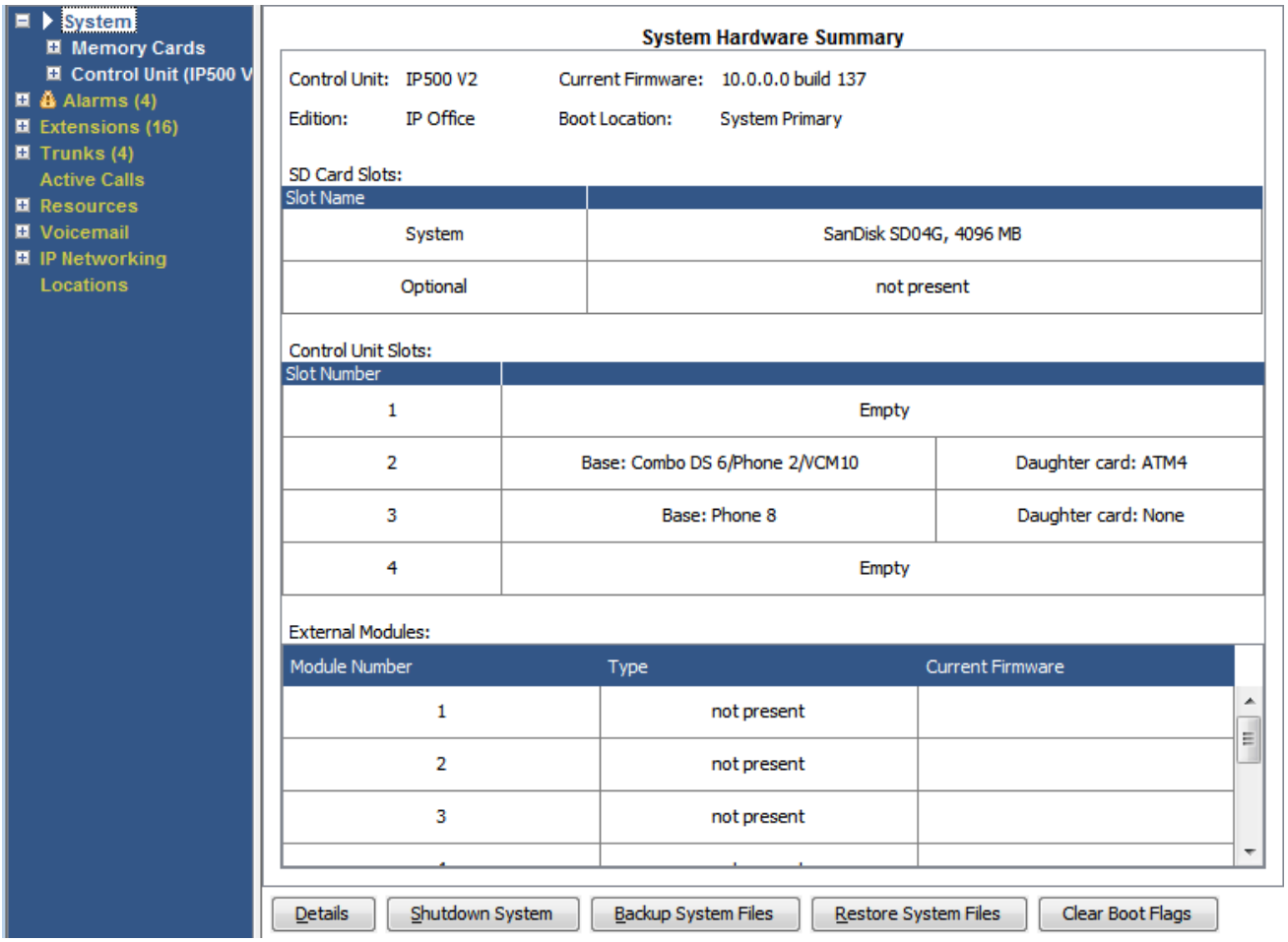


Figure 4: IP500 V2 System Summary

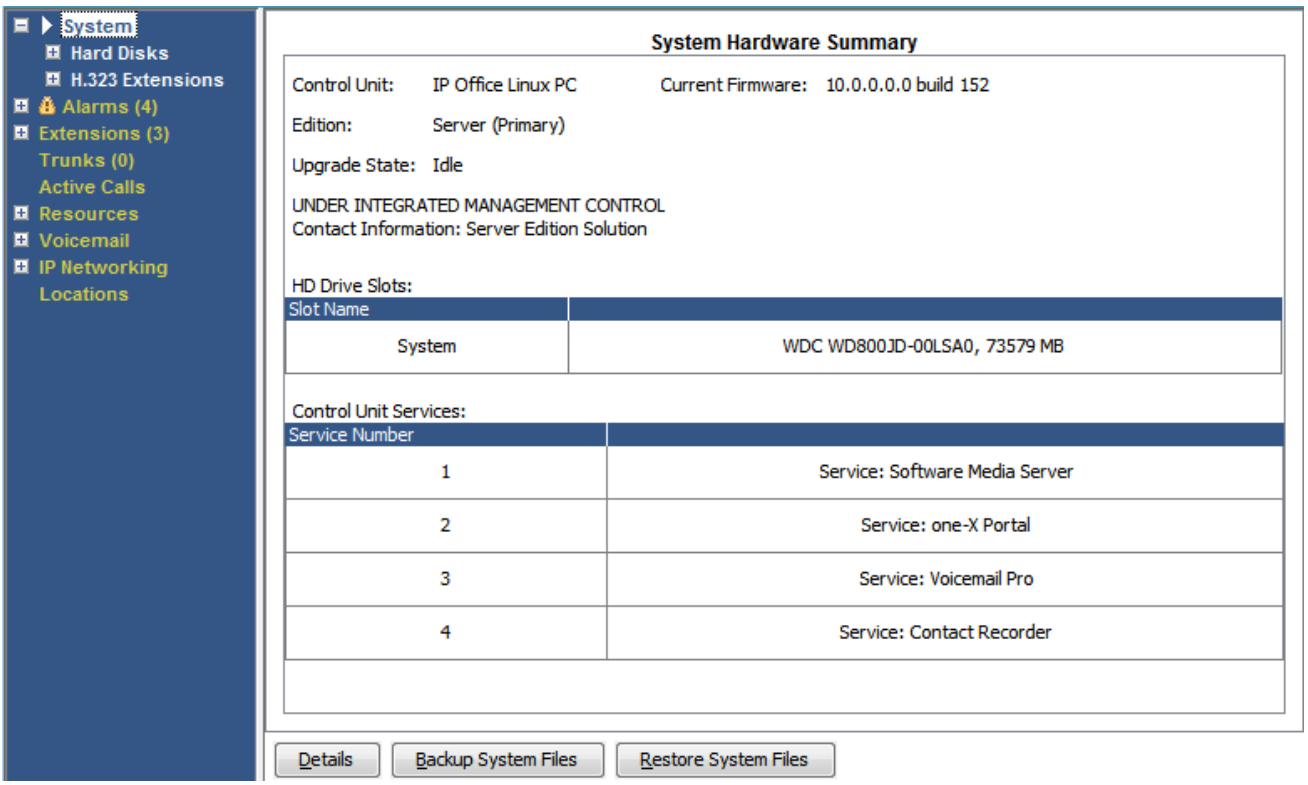


Figure 5: Linux-based System Summary

Buttons

The following buttons can appear on this screen:

Button	Description
Summary	Return to the **System Hardware Summary** menu. See System on page 23.
Shutdown System	Shutdown the system either for a period of time after which it automatically restarts or until manually restarted.
Backup System Files	Backup the files in the systems /primary folder to the /backup folder.
Clear Boot Flags	IP500 V2 only. During system booting various flags are set indicating from which source the system booted, etc. Occasionally it may be required to clear those flags.

Related links

System Hardware Details on page 25
Memory Cards on page 26
Hard Disks on page 28
Expansion Modules on page 29
Control Unit on page 29
H.323 Extensions on page 31
SIP Extensions on page 32
IP DECT Systems on page 33

SIP Application Servers on page 36
SIP DECT Base Stations on page 36
UC Modules on page 38
VoIP Trunks on page 40
VoIP Security on page 40

System Hardware Details

Path: System

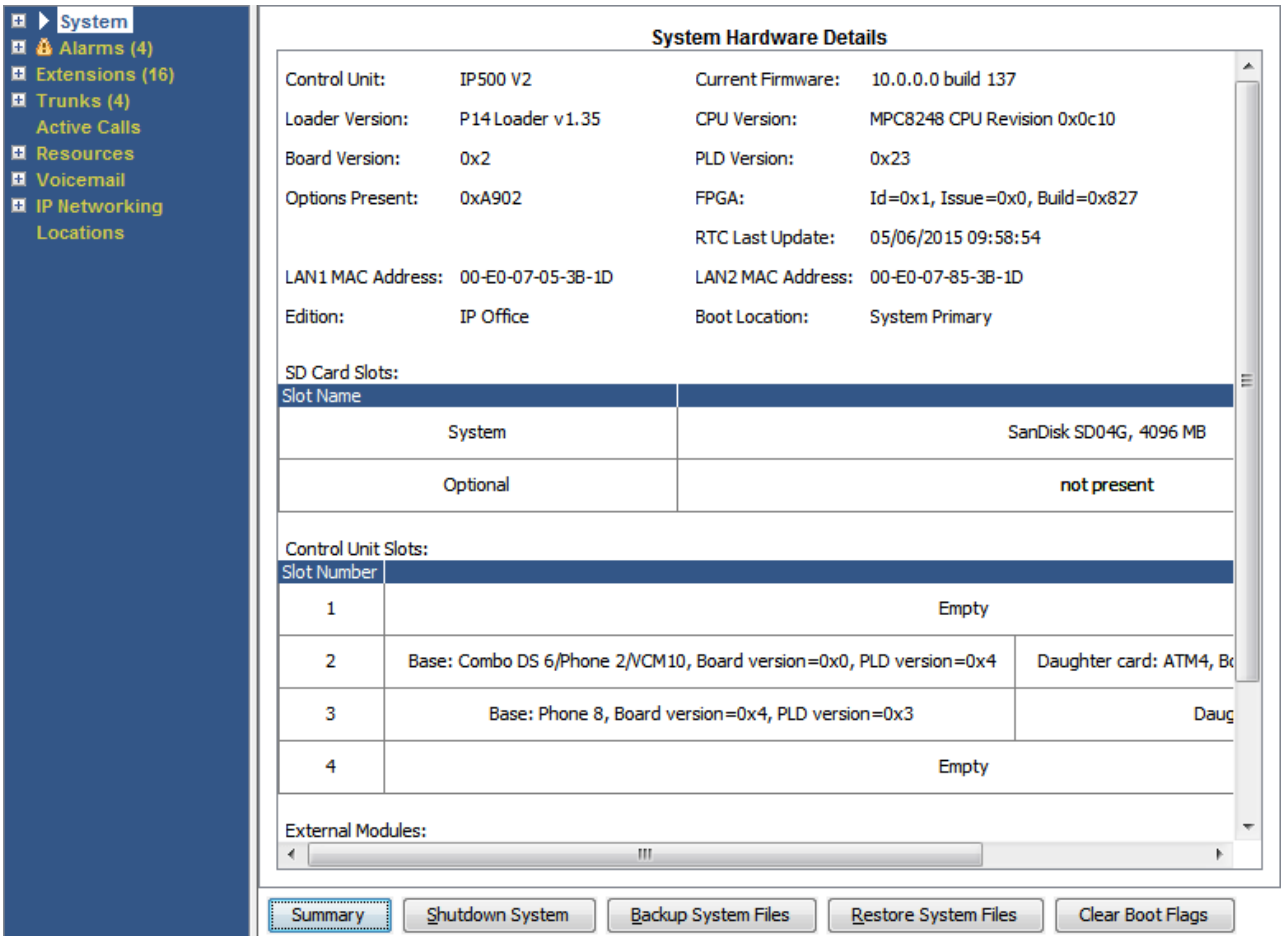


Figure 6: IP500 V2 System Details

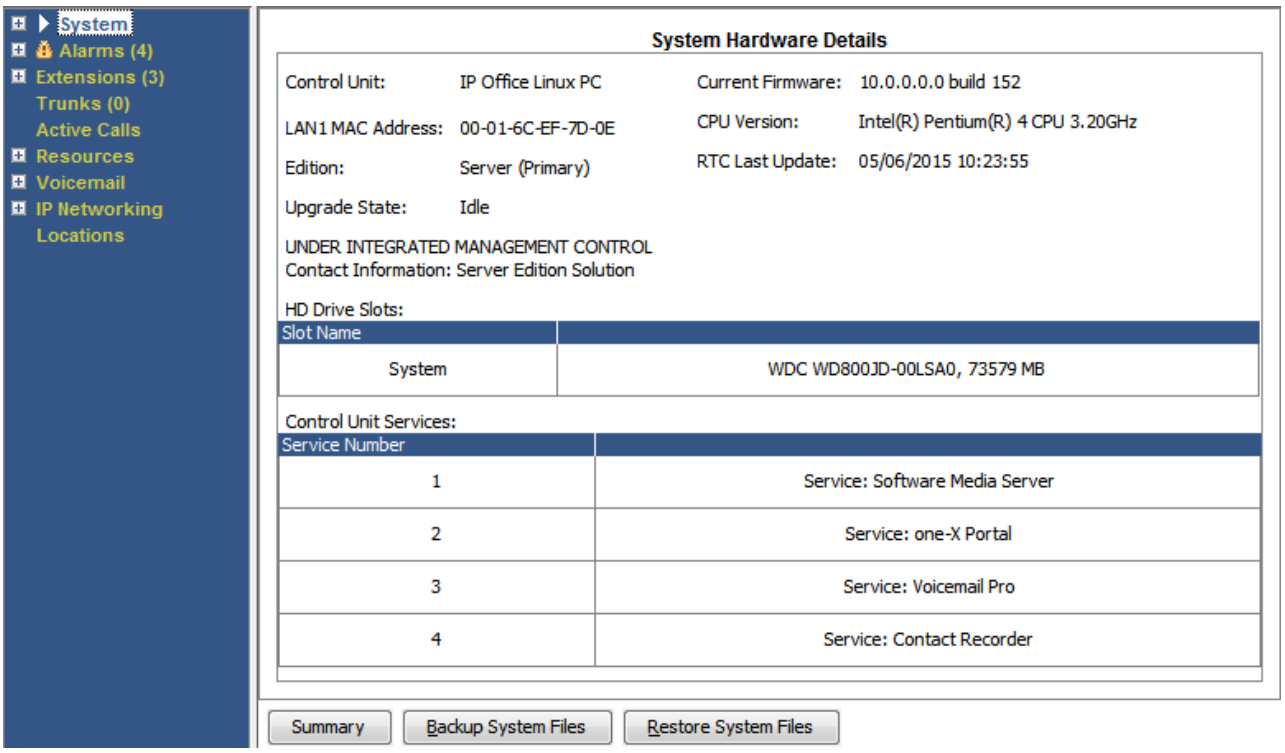


Figure 7: Linux-based System Details

Buttons

The following buttons can appear on this screen:

Button	Description
Summary	Return to the **System Hardware Summary** menu. See System on page 23.
Shutdown System	Shutdown the system either for a period of time after which it automatically restarts or until manually restarted.
Backup System Files	Backup the files in the systems /primary folder to the /backup folder.
Clear Boot Flags	IP500 V2 only. During system booting various flags are set indicating from which source the system booted, etc. Occasionally it may be required to clear those flags.

Related links

System on page 23

Memory Cards

Path: System > Memory Cards

You can select this screen on systems where the control unit is fitted with an additional memory card or cards.

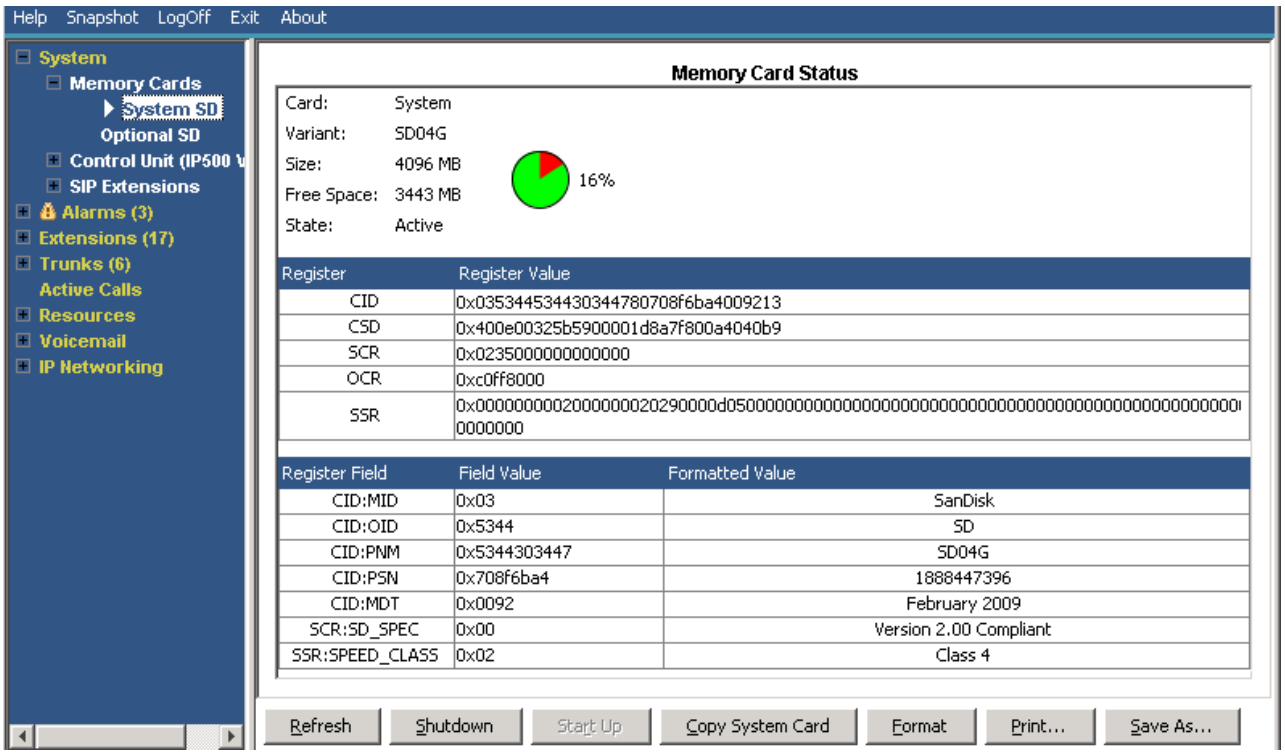


Figure 8: System SD Status Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Refresh	Updates the screen. This button appears on screens that do not update automatically.
Shutdown	Memory card. Shuts down the services provided by the memory card, including embedded voicemail. Once shutdown, the system switches of the card LED and you can safely remove the card.
Start Up	Restart a shutdown memory card or Unified Communications Module.
Copy System Card	This option is available for IP500 V2 control units fitted with a System SD and Optional SD card. When selected, the system copies the contents of the System SD card to the Optional SD card. Note that this process can take several hours.
Format	This option is available for IP500 V2 memory cards. When selected, the system formats the card, erasing all existing contents.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

System on page 23

Hard Disks

Path: System > Hard Disks

System Status shows this option for Linux-based systems. It allows selection of a system hard disk to display details of that disk.

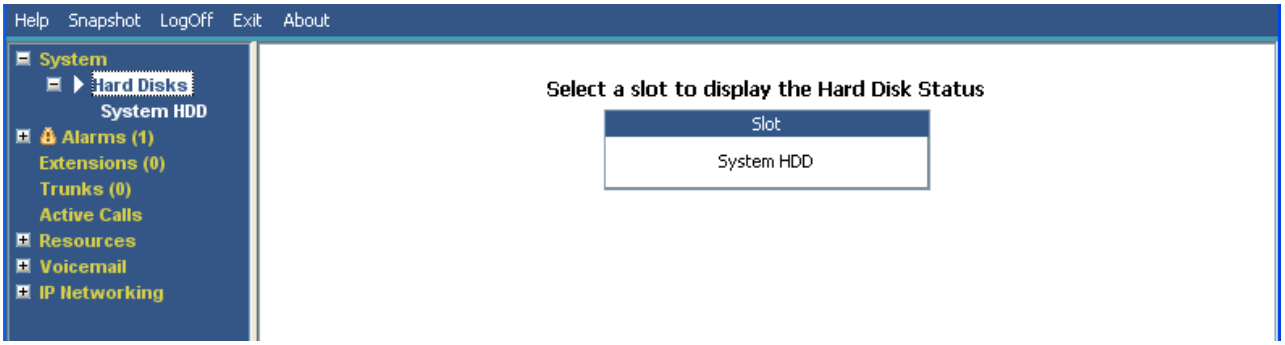


Figure 9: System Hard Disks

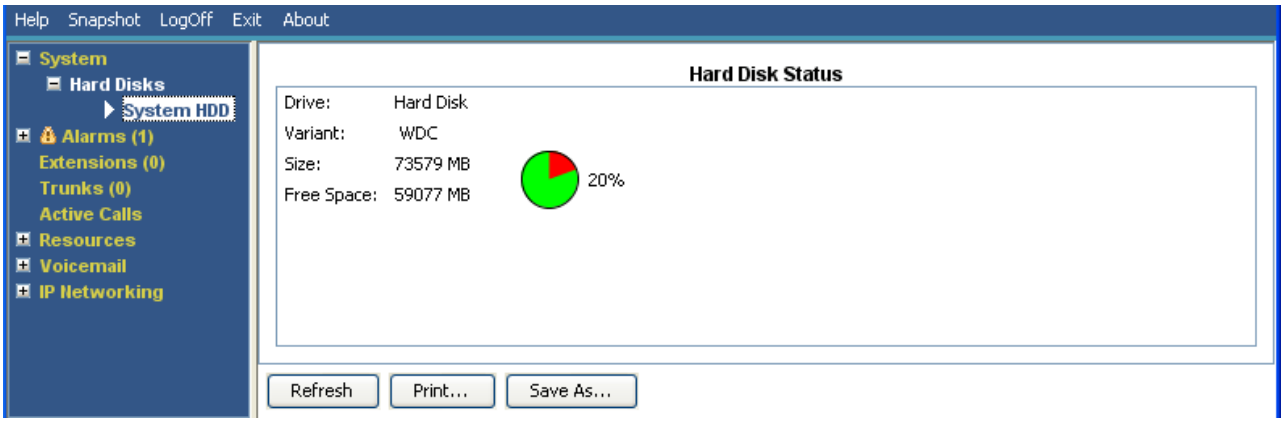


Figure 10: System Hard Disk

Buttons

The following buttons can appear on this screen:

Buttons	Description
Refresh	Updates the screen. This button appears on screens that do not update automatically.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

System on page 23

Expansion Modules

Path: System > Expansion Modules

This screen lists the external expansion modules installed in the system. To view details of an individual port, use the navigation pane or select the port and click **Select**.

Buttons

The following buttons can appear on this screen:

Buttons	Description
Select	Show details for the currently selected item.

Related links

System on page 23

Control Unit

Path: System > Control Unit

This screen shows the devices installed in the control unit ports. The number of available ports and the types of devices will vary according to the type of control unit. Select a device to display information on it.

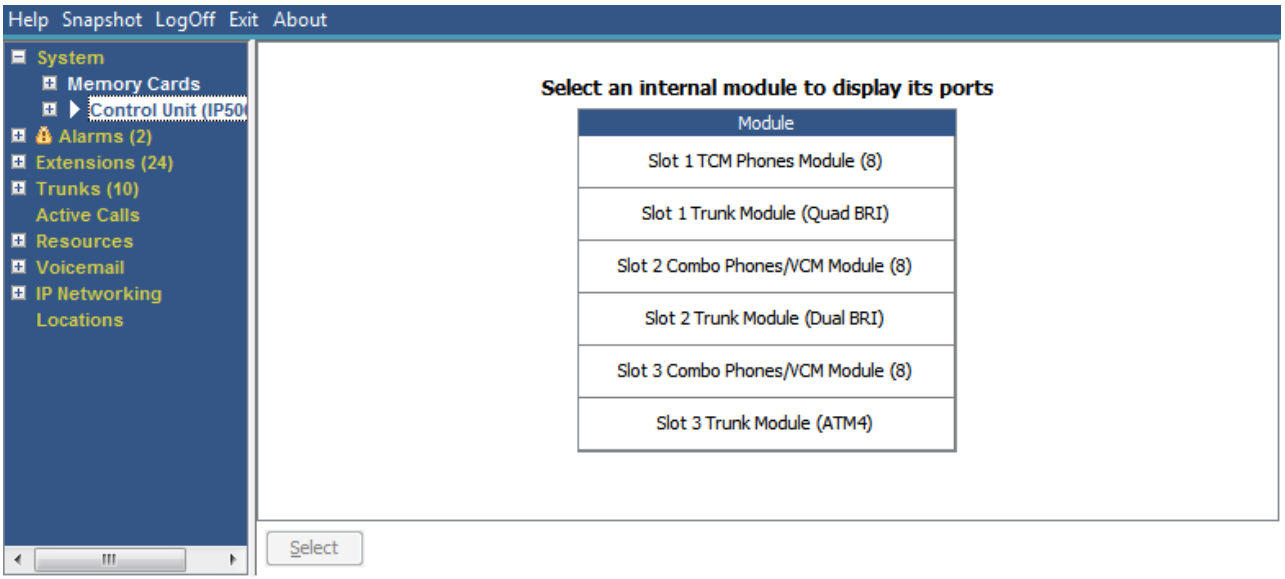


Figure 11: The Control Unit Menu

Buttons

The following buttons can appear on this screen:

Buttons	Description
Select	Show details for the currently selected item.

Related links

System on page 23
Extension Ports on page 30
Trunk Ports on page 30

Extension Ports

Path: System > **Control Unit** > **Slot**

Path: System > **Expansion Modules** > **Module** > **Port**

This screen shows the individual ports on the selected device in a control unit slot. The number of available ports and the types of devices will vary according to the type of control unit.

Buttons

The following buttons can appear on this screen:

Button	Description
Select	Show details for the currently selected extension. See Extension Status on page 65.

Related links

Control Unit on page 29

Trunk Ports

Path: System > **Control Unit** > **Slot**

Path: System > **Expansion Modules** > **Module** > **Port**

Select a port to display data for digital trunks. The number of available ports and the types of devices will vary according to the type of control unit.

Buttons

The following buttons can appear on this screen:

Button	Description
Select	Show details for the currently selected trunk. See Status (Analog Trunk) on page 70, Status (Digital Trunk) on page 73, Status (H.323 Trunk) on page 75 or Status (SIP Trunk) on page 78.

Related links

Control Unit on page 29

H.323 Extensions

Path: System > H.323 Extensions

This screen lists the different types of H.323 IP telephones connected to the system. To see further details, use the navigation pane or select the type of phones required and click **Select**.

Buttons

The following buttons can appear on this screen:

Buttons	Description
Select	Show details for the currently selected item.

Related links

System on page 23
Avaya IP Phones on page 31
Unregistered IP Phones on page 32

Avaya IP Phones

Path: System > H.323 Extensions > Avaya IP Phones

This menu displays a list of the Avaya H.323 IP phones registered with the system. Double-clicking on an extension displays the extension status . Alternatively, select the extension and then click on the **Select** button.

Buttons

The following buttons can appear on this screen:

Button	Description
Select	Show details for the currently selected extension. See Extension Status on page 65.
Reregister	This option can be used to force Avaya IP phones to reregister without restarting.
Restart	This option can be used to force Avaya H.323 IP phones to restart. When the phone restarts, they checking their current firmware against that available on the configured file server. We recommend that only small groups of up to 15 phones restart at any time. Attempting to restart larger numbers of phones can cause System Status to appear to frozen.

Related links

H.323 Extensions on page 31

Unregistered IP Phones

Path: System > **H.323 Extensions** > **Unregistered IP Phones**

This menu displays known H.323 extensions that are currently unregistered. This menu is supported from Release 10.1.

- It may take several minutes for a previously registered extension to become listed as unregistered.
- Unregistered does not include temporary extensions (those that only exist as dynamic extensions whilst registered rather than as configured extension entries).
- DECT extensions don't show as unregistered.
- No extension status screen is available for unregistered extensions.
- Centralized branch extensions show as unregistered during normal operation.

Note:

Unregistered extensions cannot display extension status.

Related links

H.323 Extensions on page 31

SIP Extensions

Path: System > **SIP Extensions**

This screen lists the different types of SIP telephones connected to the system. To see further details, use the navigation pane or select the type of phones required and click **Select**.

Buttons

The following buttons can appear on this screen:

Buttons	Description
Select	Show details for the currently selected item.

Related links

System on page 23
Avaya SIP Endpoints on page 32
Standard SIP Endpoints on page 33

Avaya SIP Endpoints

Path: System > **SIP Extensions** > **Avaya SIP Endpoints**

This menu displays a list of the Avaya SIP phones registered with the system. Double-clicking on an extension displays the extension status. Alternatively, select the extension and then click on the **Select** button.

Buttons

The following buttons can appear on this screen:

Button	Description
Select	Show details for the currently selected extension. See Extension Status on page 65.
Reregister	This option can be used to force Avaya IP phones to reregister without restarting.

Related links

SIP Extensions on page 32

Standard SIP Endpoints

Path: System > SIP Extensions > Standard SIP Endpoints

This menu displays a list of the non-Avaya SIP phones registered with the system. Double-clicking on an extension displays the extension status. Alternatively, select the extension and then click on the **Select** button.

Buttons

The following buttons can appear on this screen:

Button	Description
Select	Show details for the currently selected extension. See Extension Status on page 65.
Reregister	This option can be used to force Avaya IP phones to reregister without restarting.

Related links

SIP Extensions on page 32

IP DECT Systems

Path: System > IP DECT Systems

This menu displays details of the IP DECT systems connected to the system.

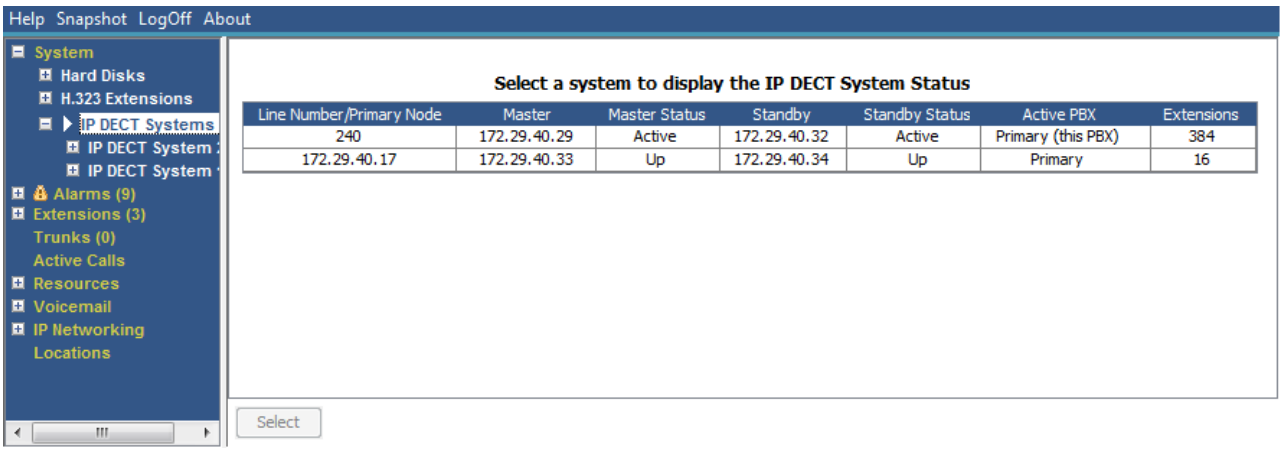


Figure 12: The IP DECT Systems Menu

Buttons

The following buttons can appear on this screen:

Buttons	Description
Select	Show details for the currently selected item.

Related links

System on page 23
IP DECT System on page 34

IP DECT System

Path: System > IP DECT Systems > IP DECT System

This menu displays details of a selected IP DECT system. Double-clicking on an extension displays the extension status. Alternatively, select the extension and then click on the **Select** button.

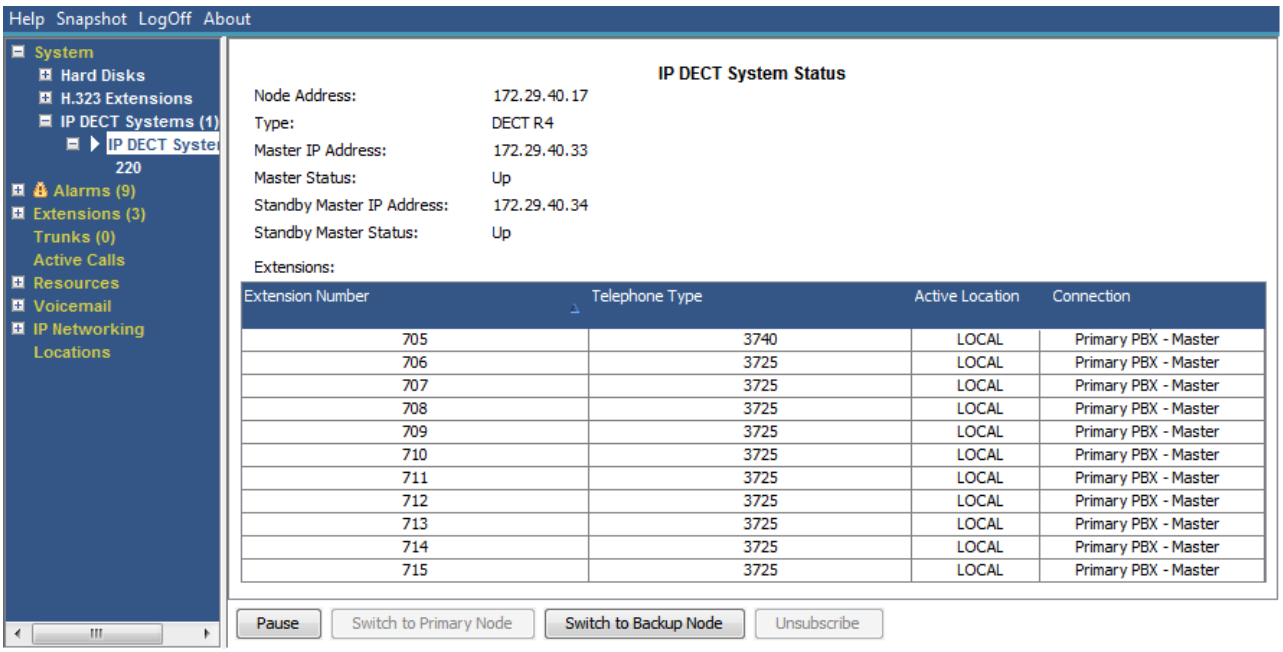


Figure 13: The IP DECT System Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Select	Show details for the currently selected extension. See Extension Status on page 65.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Select	Show details for the currently selected extension. See Extension Status on page 65.
Switch to Backup Node	Switch the IP DECT system to the backup system.
Switch to Primary Node	Switch the selected IP DECT user back to the primary system.

Related links

IP DECT Systems on page 33

SIP Application Servers

Path: System > SIP Application Servers

This menu displays details of the SIP application servers connected to the system.

Buttons

The following buttons can appear on this screen:

Buttons	Description
Select	Show details for the currently selected item.

Related links

System on page 23
SIP Application Server on page 36

SIP Application Server

Path: System > SIP Application Servers > Application Server

This menu displays details of the SIP application server connected to the system.

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Synchronize	Used for the ACCS SIP application server. Causes a manual synchronization of the agents between the application server and the telephone system.

Related links

SIP Application Servers on page 36

SIP DECT Base Stations

Path: System > SIP DECT Base Stations

This menu lists the D100 SIP base stations configured on the IP Office system using SIP DECT lines.

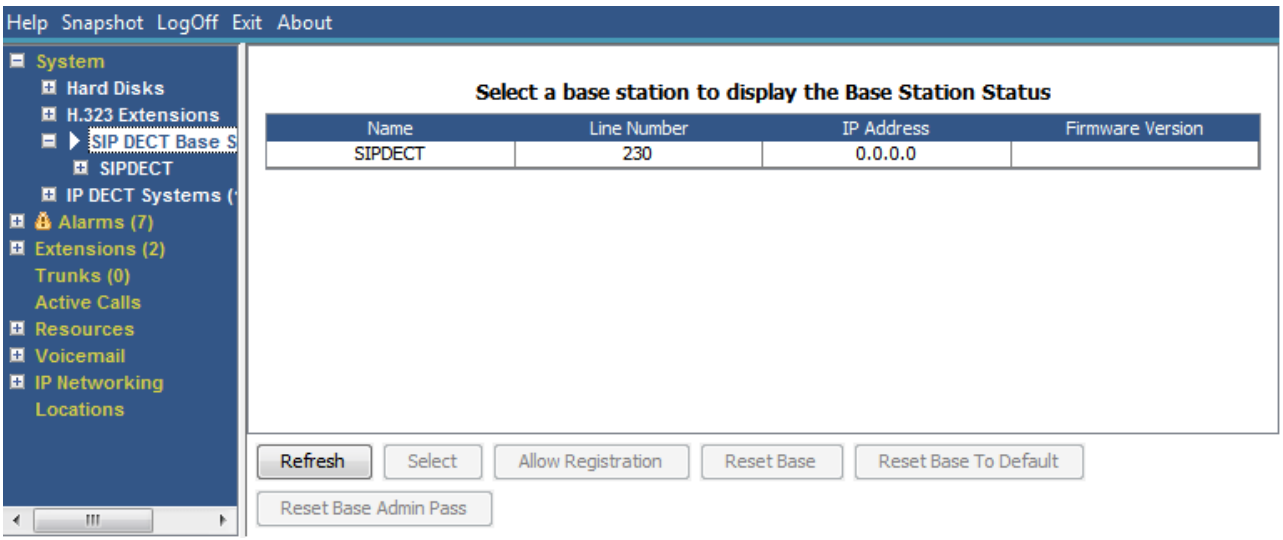


Figure 14: SIP Base Stations Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Refresh	Updates the screen. This button appears on screens that do not update automatically.
Select	Show details for the currently selected item.
Allow Registration	Allow handset registration on the selected SIP DECT base station.
Reset Base to Default	Reset the selected SIP DECT base station to its factory default settings.
Reset Base Admin Pass	Reset the selected SIP DECT base station's administration password.

Related links

System on page 23
Base Station on page 37

Base Station

Path: System > SIP DECT Base Stations > Base Station

This menu lists information for the select SIP DECT base station.

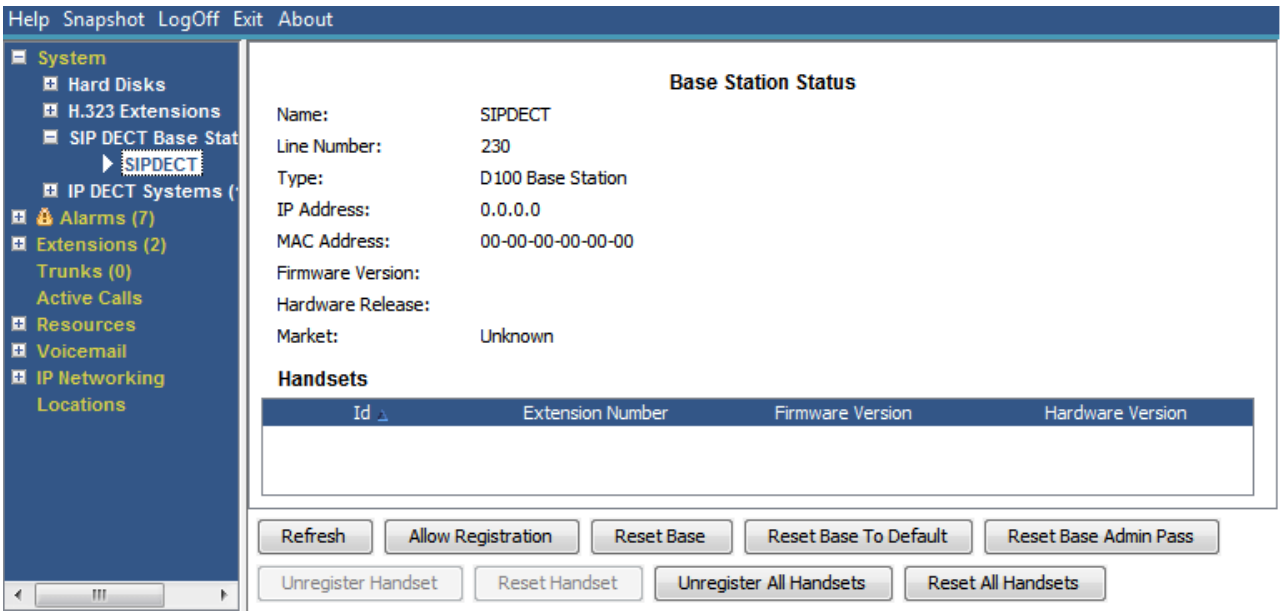


Figure 15: SIP DECT Base Station Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Allow Registration	Allow handset registration on the selected SIP DECT base station.
Reset Base	Reset (reboot) the selected SIP DECT base station.
Reset Base to Default	Reset the selected SIP DECT base station to its factory default settings.
Reset Base Admin Pass	Reset the selected SIP DECT base station's administration password.
Reset Handset	Reset the selected SIP DECT handset.
Reset All Handsets	Reset all handsets registered to the selected SIP DECT base station.
Unregister Handset	Unregister the select SIP DECT handset from the base station.
Unregister All Handsets	Unregister all the handsets from the selected SIP DECT base station.

Related links

SIP DECT Base Stations on page 36

UC Modules

Path: System > UC Modules

This menu displays a list of Unified Communications Modules installed in the system.

Figure 16: UCM Modules

Buttons

The following buttons can appear on this screen:

Buttons	Description
Select	Show details for the currently selected item.

Related links

System on page 23
Unified Communications Module Status on page 39

Unified Communications Module Status

Path: System > UC Modules > UC Module

This menu displays details of the selected Unified Communications Module and its current status. For the Unified Communications Module V2 the status messages match the LED indicators on the front of the module.

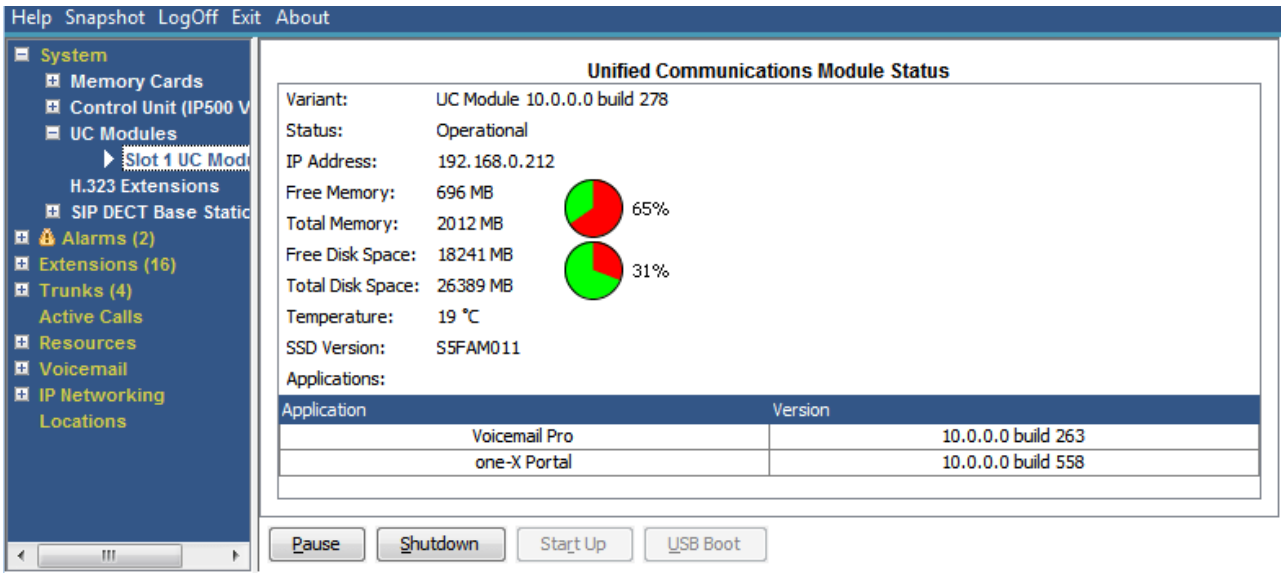


Figure 17: UCM Module Status

For details of the status messages and the correspond module LEDs, see the *Installing and Maintaining the Unified Communications Module* manual.

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Start Up	Restart a shutdown memory card or Unified Communications Module.
USB Boot	Instructs the Unified Communications Module to start up and boot from a bootable USB memory key if present. Requires the Unified Communications Module to be shutdown first.

Related links

UC Modules on page 38

VoIP Trunks

Path: System > VoIP Trunks

This screen lists the VoIP trunks configured within the system. To view details of an individual trunk, use the navigation pane or select the port and click **Select**.

Buttons

The following buttons can appear on this screen:

Button	Description
Select	Show details for the currently selected trunk. See Status (H.323 Trunk) on page 75 or Status (SIP Trunk) on page 78.

Related links

System on page 23

VoIP Security

Path: System > VoIP Security

These menus are supported in Release 10.1 onwards.

Buttons

The following buttons can appear on this screen:

Buttons	Description
Select	Show details for the currently selected item.

Related links

System on page 23
Quarantined Phones on page 41
Blacklisted Extensions on page 42
Blacklisted Addresses on page 43

Quarantined Phones

Path: System > VoIP Security > Quarantined Phones

This menu displays phones that have previously been registered but are now blocked from re-registering because another phone has subsequently registered using the same registration parameters. This blocked state is called 'quarantined'. This menu is supported from Release 10.1.

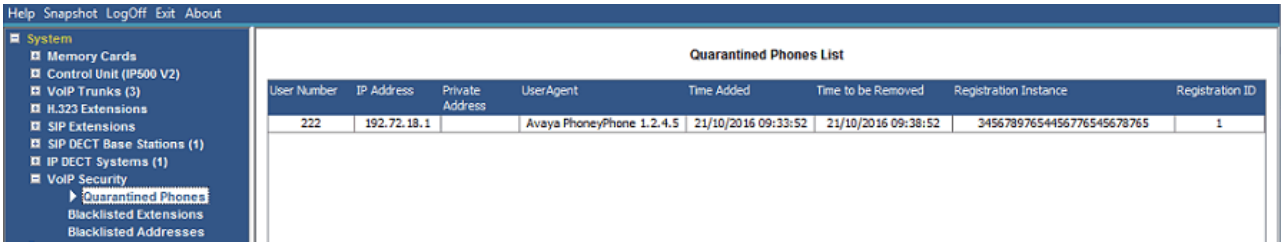


Figure 18: Quarantined Phones

For example, when a user who has an already registered SIP phone registers another SIP phone using the same parameters, their previous phone may automatically attempt to reregister itself. In that case, even though the previous phone is presenting correct registration details, its registration is blocked and it is quarantined.

The default quarantine time is 5 minutes. However, if the phone keeps on trying to reregister, its quarantine time is extended. Most phones eventually cease attempting to automatically re-register.

Quarantining is treated separately from blacklisting since the phone has been previously registered with correct authentication parameters.

Columns

Name	Description
User Number	The extension number.
IP Address	The phone's public IP address.
Private Address	The phone's private IP address.
User Agent	The device type string. This can help identify the phone type.
Time Added	The date and time when phone was added to the quarantined phones list.
Time to be Removed	The current date and time when the phone will be removed from the quarantined phones list. This will extend if the phone attempts to re-register again before this time.

Table continues…

Name	Description
Registration Instance	For SIP phones, the protocol parameter used during registration. This can be useful to distinguish between simultaneous phones where whilst 'roaming' and changing the IP address the instance remains fixed.
Registration ID	This is a unique number generated for each device making registration requests.

Buttons

The following buttons can appear on this screen:

Buttons	Description
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Refresh	Updates the screen. This button appears on screens that do not update automatically.
Remove	Remove the currently selected entry from the list. This removes any blocking currently applied to that entry.
Remove All	Remove all the current entries from the list. This removes any blocking currently applied to those entries.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

VoIP Security on page 40

Blacklisted Extensions

Path: System > VoIP Security > Blacklisted Extensions

This menu displays extensions that have attempted to register using the wrong password. Eventually the extension becomes blocked after 5 failed registration attempts within a 10 minute period. Whilst blocked, further registration attempts are ignored even if they use the correct password. This menu is supported from Release 10.1.

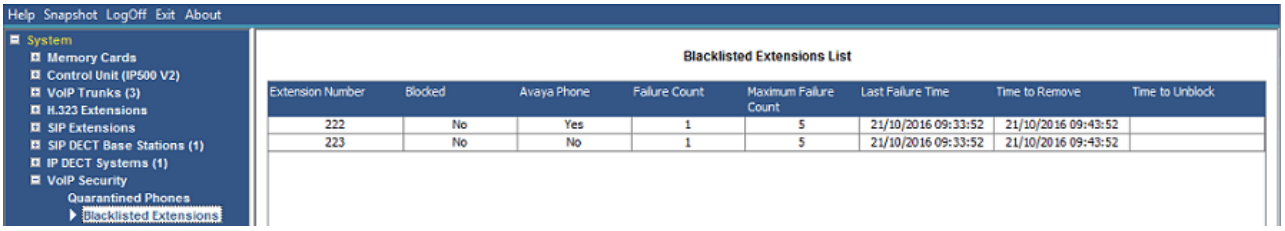


Figure 19: Blacklisted Extensions

The default blocking time is 10 minutes. However, for non-Avaya phones, if the extension continues to attempt to register during this period its blocking time is extended.

When an extension becomes blocked the system also generates an alarm in System Status and adds an entry to its audit log. A system alarm is also generated and can be output using any of the configurable system alarm routes (SMTP, SNMP, Syslog).

Note that the IP address of a phone attempting to register can also become blocked, see Blacklisted Addresses on page 43. A phone may also be blocked from registering if it has become quarantined.

Columns

Name	Description
Extension Number	The extension number.
Blocked	Indicates whether the extension is now blocked from registering after exceeding the number of failed registration attempts.
Avaya Phone	Indicates whether the extension is recognized as being an Avaya phone.
Failure Count	The number of registration attempt failures.
Maximum Failure Count	The number of registration failures at which the extensions will become/ became blocked.
Last Failure Time	The date and time of the last failed registration attempt.
Time to Remove	The date and time at which the extension, if not blocked, will be removed from the blacklist if there are no further failed registration attempts.
Time to Unblock	The date and time at which the blocked extension will be unblocked and removed from the blacklist. For non- Avaya phones this will extend if the extension attempts to re-register again before this time. Note that it may take several minutes for a blacklisted extension to be removed from the displayed list.

Buttons

The following buttons can appear on this screen:

Buttons	Description
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Refresh	Updates the screen. This button appears on screens that do not update automatically.
Remove	Remove the currently selected entry from the list. This removes any blocking currently applied to that entry.
Remove All	Remove all the current entries from the list. This removes any blocking currently applied to those entries.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

VoIP Security on page 40

Blacklisted Addresses

Path: System > VoIP Security > Blacklisted Addresses

This menu displays IP addresses that are currently blacklisted by the system. Blacklisting is typically applied after 10 failed access attempts, see below, in 10 minutes. The IP address then remains blacklisted for 10 minutes from the last failed access attempt.

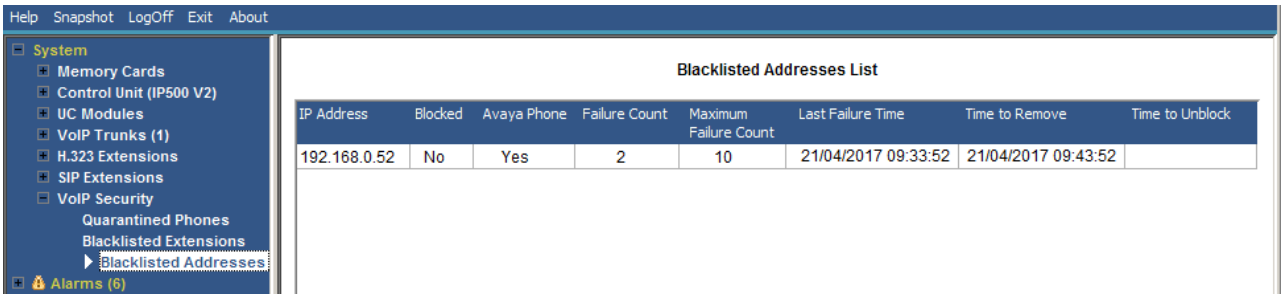


Figure 20: The Blacklisted Address Menu

When an address becomes blocked, the system also generates an alarm in System Status and adds an entry to its audit log. A system alarm is also generated and can be output using any of the configurable system alarm routes (SMTP, SNMP, Syslog).

Note that the extension number of a phone attempting to register can also become blocked, see Blacklisted Extensions on page 42.

An IP address can become blacklisted for the following reasons:

Extension Registration Blacklisting

An extension that has repeatedly attempted to register an non-existing extension or to register an existing extension with the wrong password. Whilst blacklisted, further registration attempts are ignored even if they use the correct parameters. Note that the extension number of a phone attempting to register can also become blocked, see Blacklisted Extensions on page 42.

The use of IP address blacklisting can be disabled though the addition of the NoUser Source Number `B_DISABLE_HTTP_IPADDR`.

Application Blacklisting

An application trying to connection on port 443 or 8443 has repeatedly entered the wrong password. That can apply, for example, to web manager, system status and system monitor connections. Whilst blacklisted, further connected attempts are ignored.

The use of IP address blacklisting can be disabled though the addition of the NoUser Source Number `B_DISABLE_HTTP_IPADDR`.

SIP Invite Blacklisting

Repeated SIP invites to an unregistered extension.

The use of SIP Invite blacklist can be disabled through the addition of the NoUser source number `B_DIS_UNREG_SIP_INVITE`.

Excessive SIP Traffic Blacklisting

IP address blacklisting can be applied when the number of SIP messages (all types) from the same address exceeds a set rate. The default rate is 100,000 messages in 100 milliseconds. Unlike the options above, this blacklisting can only be manually removed.

The following NoUser source numbers can be used to alter the use of SIP traffic blacklisting:

- `B_RATE_DISABLE` disables the functionality (Default = enabled)
- `B_RATE_HIGH_LIMIT=X` where X is the number of SIP messages allowed within the time threshold. Default = 500, minimum = 1, maximum = 100,000.
- `B_RATE_HIGH_THRESH=Y` where Y is the time threshold in milliseconds. Default = 100, minimum = 100, Maximum = 300,000 (5 minutes).

Name	Description
IP Address	The blacklisted IP address.
Blocked	Indicates whether the source IP address is now blocked from registering after exceeding the number of failed registration attempts.
Avaya Phone	Indicates whether the source is recognized as being an Avaya phone.
Failure Count	The number of registration attempt failures.
Maximum Failure Count	The number of registration failures at which the IP address will become/ became blocked.
Last Failure	The date and time of the last failed registration attempt.
Time to Remove	The date and time at which the extension, if not blocked, will be removed from the blacklist if there are no further failed registration attempts.
Time to Unblock	The date and time at which the blocked extension will be unblocked and removed from the blacklist. For non- Avaya phones this will extend if the extension attempts to re-register again before this time.
Protocol	The connection protocol being used by the phone or application that is now blocked. For example; H323, SIP or HTTP. SIP-Message Limiter is displayed for SIP message blacklisting. In this case, the blacklisting is not automatically removed but can be removed manually.
Client Name	The client name of the blocked application.

Buttons

The following buttons can appear on this screen:

Buttons	Description
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Refresh	Updates the screen. This button appears on screens that do not update automatically.
Remove	Remove the currently selected entry from the list. This removes any blocking currently applied to that entry.
Remove All	Remove all the current entries from the list. This removes any blocking currently applied to those entries.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

VoIP Security on page 40

Chapter 4: Alarms

The system records alarms for each device error. It records the number of alarm occurrences and the date and time of the last occurrence. System Status lists the alarms by category and by trunk. Trunk alarms have a separate count for each trunk type and each particular trunk.

System Status distinguishes between the following alarm types:

- **Active** – Current alarms display in red with a symbol. When the alarm is no longer active, it changes to black.
- **Historic** – Alarms no longer occurring display in black. The system keeps up to 50 historic alarms. If the system discards any historic alarms due to memory limitations, it keeps a count of the number of discards and the corresponding number of occurrences, shown as **Lost Alarms**.
  - You can clear alarms using the **Clear** or **Clear All** buttons. However, active alarms remain in the list.
  - The system does not preserve alarms during a system reboot.

About this task

To view the alarms in a specific category:

Procedure

1. In the navigation panel, click + next to **Alarms**.
2. System Status displays the alarm categories followed by the number of alarms.
   - **Last System Restart**
   - **Configuration**

     Shows alarms caused by potential problems with the system configuration.
   - **Service**

     Shows alarms for internal services such as licenses, music on hold, network clock, etc.
   - **Trunks**

     Shows a summary table of the trunks and trunk alarms. You can expand the trunk alarms to display alarms for individual trunks.
   - **Link**

     Shows alarms for non-trunk links to the system such as extensions and expansion modules.

3. To view a specific alarm, click the alarm or trunk type.

Related links

[Last System Restart](#) on page 48
[Configuration Alarms](#) on page 50
[Service Alarms](#) on page 50
[Trunk Alarms Summary](#) on page 53
[Link Alarms](#) on page 57
[Call Quality of Service](#) on page 58
[Security](#) on page 60

Last System Restart

This screen list details of the last system restart.

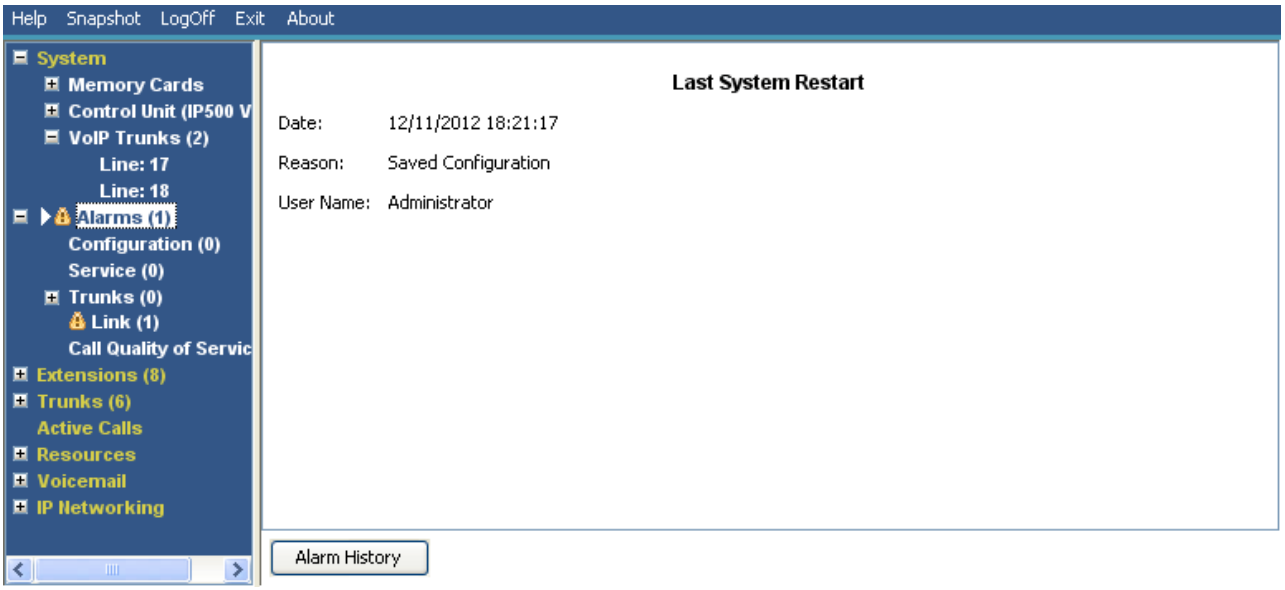


Figure 21: Alarms Menu

Information Displayed

Information	Description
Date	The date and time the system last restarted.
Reason	Why the system restarted
User Initiated	An administrator used IP Office Manager or similar to reboot the system. System Status displays the administrator account name.

Table continues…

Information	Description
Saved Configuration	An administrator saved a configuration change requiring a system reboot. System Status displays the administrator account name.
Software Upgrade	The software upgrade has caused a reboot.
Normal Power-up	The switch has restarted after power outage.
Abnormal Termination	The switch restarted for another reason. System Status displays a stack trace.

Buttons

The following buttons can appear on this screen:

Button	Description
Alarm History	Display the alarm history details

Related links

[Alarms](#) on page 47
[Alarm History](#) on page 49

Alarm History

System Status displays this screen when the **Alarm History** button is pressed.

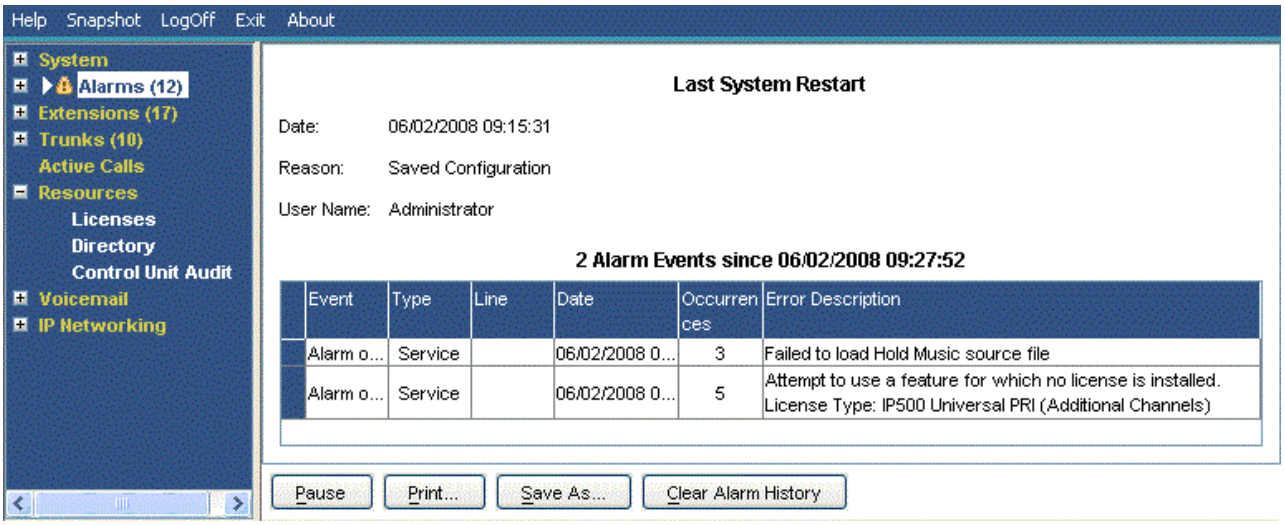


Figure 22: Alarms History Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.

Table continues…

Button	Description
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.
Clear Alarm History	Clear the historical alarms displayed.

Related links

Last System Restart on page 48

Configuration Alarms

This screen displays configuration alarms. These are alarms arising from configuration errors found during system operation. For example:

- Incoming call routes to a Voicemail Pro start point that does not exist.
- Small Community Network duplicate numbers.
- Calls arriving on a line for the routing is invalid.

These configuration errors do not necessarily match the errors listed by IP Office Manager.

Related links

Alarms on page 47

Service Alarms

The Service Alarm screen shows service error. System Status displays current alarms in red and updates the alarms in real time.

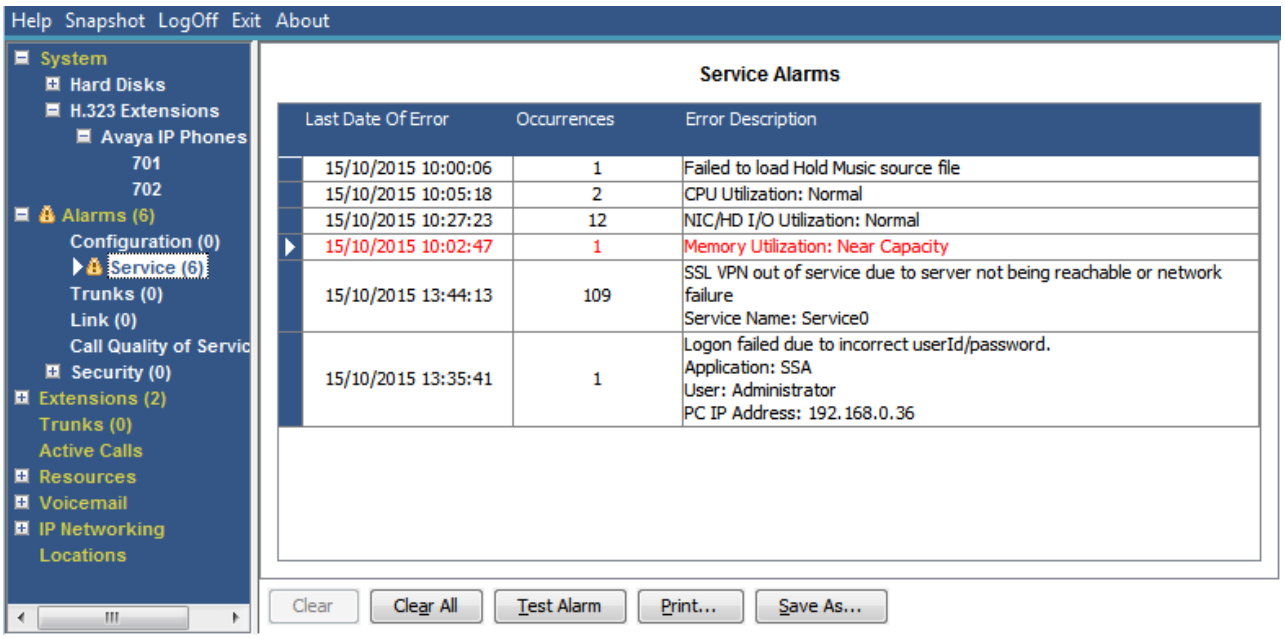


Figure 23: The Service Alarms Menu

Information Displayed

Information	Description
Last Date of Error	The last time the particular error occurred.
Occurences	How many times the alarm has occurred since the system last restarted or System Status last cleared the alarms.
Error Description	A description of the error that caused the alarm.

Buttons

The following buttons can appear on this screen:

Button	Description
Clear	Clears the selected alarms. If the alarm is still active (red) it remains but with the occurrences count reset to 1.
Clear All	Clears all listed historical alarms that are no longer active. Note that any alarms still active (red) remain but with the occurrences count reset to 1.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.
Test Alarm	Request the IP Office system to send a test alarm.

Related links

Alarms on page 47
Logon Failure Due to User ID/Password on page 52

Feature Key Server Connection Failure on page 53
Resources Not Available on page 53

Logon Failure Due to User ID/Password

This type of alarm details failed attempts to access the system.

Alarm	Description
Manager	This type of alarm occurs for a failed attempt to connect the IP Office Manager application to the system.
Monitor	This type of alarm occurs for a failed attempt to connect the System Monitor application to the system.
User	This type of alarm occurs for a failed user login.
Voicemail Box	This type of alarm occurs for a failed access attempt to a voicemail box.
Voicemail System	This type of alarm occurs for a failed attempt by a voicemail server to connect to the system. The system security settings can require the voicemail server to use a particular security password for connection.
SNMP	This type of alarm occurs if a management system attempts to execute an SNMP request using the wrong community string.
H.323 Extension	This type of alarm occurs if an invalid extension or passcode is been entered on the telephone during registration.
RAS	A dial-in user attempted to connect with the wrong password.
System Status	A login has been attempted from System Status with an invalid user ID or password.

If an alarm has additional information, System Status displays the following:

- Logon failed due to incorrect userId/password.
- Application: YYYYYYYYY
- Additional information

The table below lists the additional information displayed for each login alarm type.

Logon Failure	Information
IP Office Manager	Operator name and the IP address of the PC running IP Office Manager
Monitor	IP address of the PC running Monitor
User	User number and name
Voicemail Box	User number and name
Voicemail System	IP address of PC running voicemail
SNMP	IP address of the host attempting SNMP access
H.323 Extension	User and extension number attempted
RAS	RAS user name
System Status	User name and the IP address of the host running System Status

Related links

Service Alarms on page 50

Feature Key Server Connection Failure

If the system cannot connect to the Feature Key Server, System Status displays the following:

"The system was unable to connect to the Feature Key Server."

Feature Key Server IP Address: XXX.XXX.XXX.XXX

Related links

Service Alarms on page 50

Resources Not Available

This type of alarm occurs when the system denies a request to access a resource because there are no resources available. System Status displays: "The following system resources are all in use"

The table below lists the additional information displayed for each login alarm type:

Resource	Data Line
VCM	-
Modem Channels	-
Data Channels	-
Conference Channels	-
Outgoing Trunk Group*	Outgoing Group ID: XX (XX will indicate the Outgoing Group ID)
Voicemail Channels	-
Voicemail Storage	"Voicemail Storage Nearly Full" or "Voicemail Storage Full"

Note:

This occurs when all the lines associated with a particular short code have calls on them.

Related links

Service Alarms on page 50

Trunk Alarms Summary

This screen displays a summary of the trunks in the system and the number of alarms for each. Double-click a line to display its individual trunk alarms.

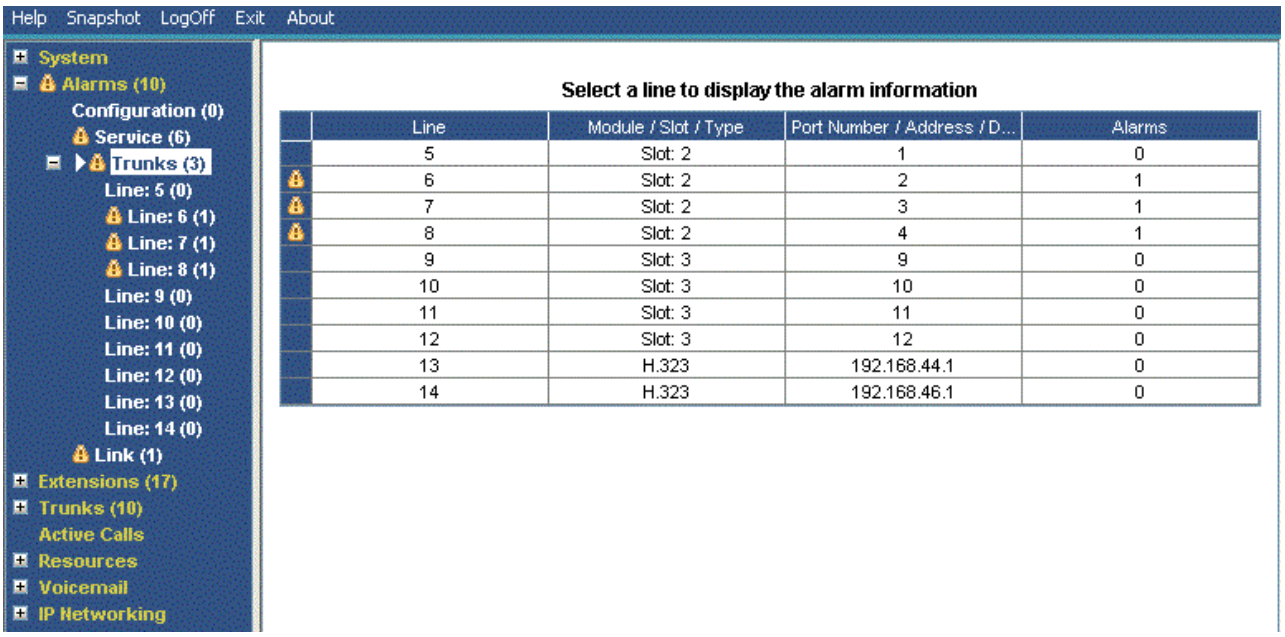


Figure 24: Trunk Alarms Summary

Buttons

The following buttons can appear on this screen:

Button	Description
Select	Show details for the currently selected item.
Alarm History	Display the alarm history details
24-Hour Performance History	This tab provides a 24-hour view of errors that occur on the line. If no errors have occurred within the last 24-hours, the table displays either zero or blank values.

Related links

Alarms on page 47
Alarms on page 54
24-Hour Performance History on page 56

Alarms

Information Displayed

Information	Description
Last Date of Error	The last time the error that caused a particular alarm occurred.
Occurrences	How many times the alarm has occurred since the system restarted or you last cleared the alarm.

Error Description

The table below details a description of the error that caused the alarm:

Error	Description
Insufficient DID Digits	A user can administer routes based on DID digits by using the MSN routing form. On this form, the user administers how many digits are expected (the Presentation Digits field). If a call is received and the number of digits received do not match the number in the Presentation Digits field, the following is displayed: There was a mismatch in the number of DID digits. • Expected number of digits: XX • Digits Received: YYYYY
Incoming Call on Outgoing Trunk	On T1/PRI and analog lines, the direction for each channel can be administered to be incoming, outgoing or both. If the channel is outgoing and an incoming call arrives on the channel, the following is displayed: An incoming call arrived on the channel configured for Outgoing calls only. • Channel Number: XX (for digital lines) • Port Number: XX (for analog lines)
Trunk Went Out of Service	If the trunk is not administered to be out of service but goes down, the following is displayed: Trunk out of service.
Red Alarm Active on Trunk	When a T1/PRI trunk reports a red alarm, System Status displays Red Alarm. A red alarm indicates lost synchronization.
Blue Alarm Active on Trunk	When a T1/PRI trunk reports a blue alarm, System Status displays Blue Alarm. A blue alarm indicates a signal failure.
Yellow Alarm Active on Trunk	When a T1/PRI trunk reports a yellow alarm, System Status displays Yellow Alarm. A yellow alarm indicates a transmission problem.
Loss of Signal on Trunk	This alarm indicates loss of signal from a trunk.
Caller ID not received	For analog loop start trunks set to ICLID, this alarm indicates that the system did not receive any CLI.
Seize Failure	This alarm indicates that the system did not detect loop current when trying to seize the trunk.
Response Failure	The system generates this alarm when it sends a TCP Sync to the remote end of an H.323 trunk and does not receive an acknowledgment and when it sends an INVITE over a SIP trunk which times out. No response to IP trunk call request. IP Trunk Line Number: xxx Remote end IP address: yyy.yyy.yyy.yyy

Buttons

The following buttons can appear on this screen:

Button	Description
Clear	Clears the selected alarms. If the alarm is still active (red) it remains but with the occurrences count reset to 1.
Clear All	Clears all listed historical alarms that are no longer active. Note that any alarms still active (red) remain but with the occurrences count reset to 1.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

[Trunk Alarms Summary](#) on page 53

24-Hour Performance History

Path: Trunks > Lines > Line > 24-Hour Performance History

The first line in the table displays the current 15-minute interval. Subsequent lines display the last 24-hours divided into 15-minute intervals. Fewer lines appear if the system has been running for less than 24-hours.

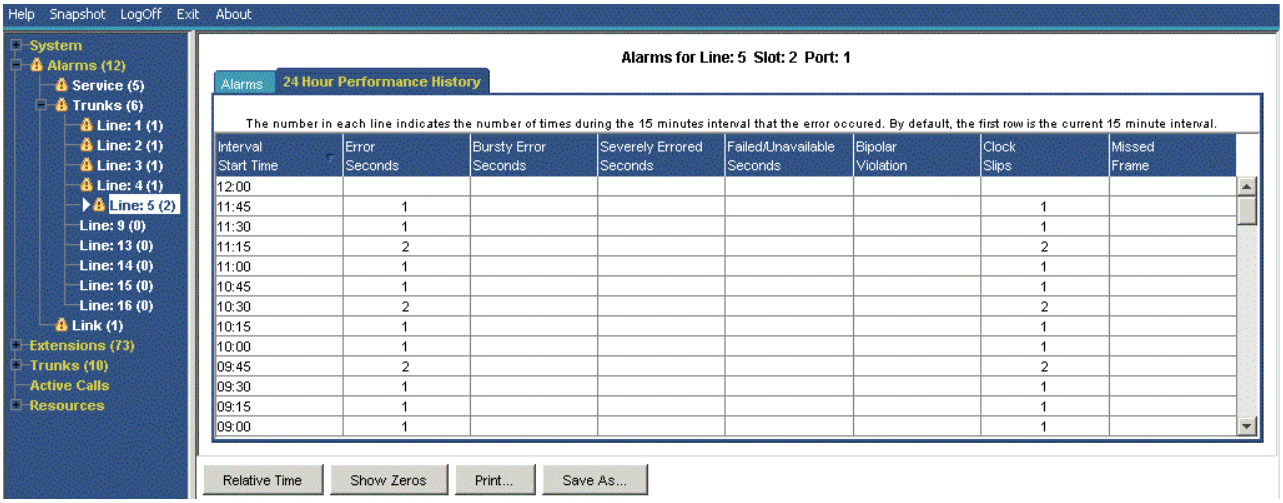


Figure 25: 24-Hour Performance History

Buttons

The following buttons can appear on this screen:

Button	Description
Absolute Time	Applies to the 24-Hour Performance History. Each line shows the actual time in 24-hour clock format at which the reported 15-minute period started.

Table continues…

Button	Description
Relative Time	Applies to the 24-Hour Performance History. When selected, for each line, the time value indicates how far into the 15-minute interval the line occurs. For example, 3 minutes appears as 00:03.
Show Blanks	Applies to 24-Hour Performance History. Show any 0 error values as blanks.
Show Zeros	Applies to 24-Hour Performance History. Show any 0 error values as zeros.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Trunk Alarms Summary on page 53
Alarms on page 85

Link Alarms

This screen shows alarms for non-trunk devices linked to the control unit such as expansion modules and extension devices. Current alarms appear in red.

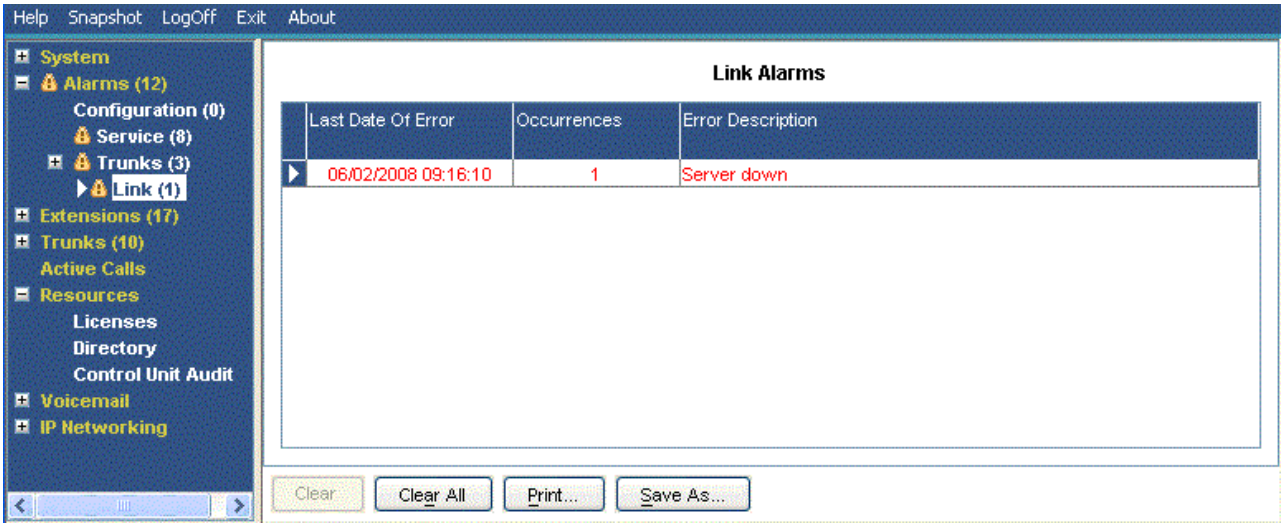


Figure 26: The Link Alarms Menu

Information Displayed

Button	Description
Last Date of Error	The last time the error that caused a particular alarm occurred.

Table continues…

Button	Description
Occurrences	How many times the alarm has occurred since the control unit was last restarted.
Error Description	A description of the error that caused the alarm.

Buttons

The following buttons can appear on this screen:

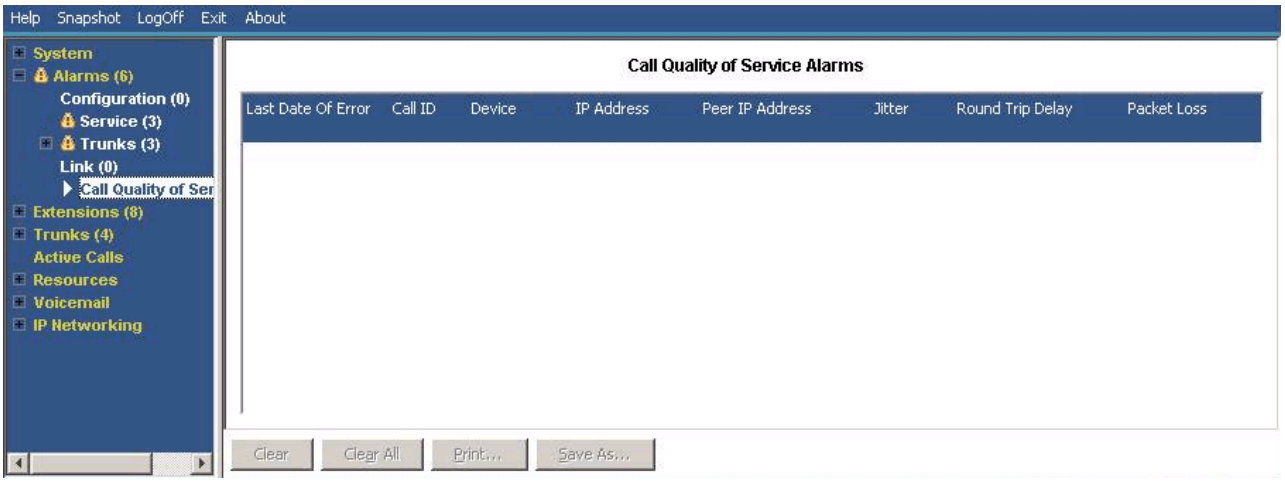
Button	Description
Clear	Clears the selected alarms. If the alarm is still active (red) it remains but with the occurrences count reset to 1.
Clear All	Clears all listed historical alarms that are no longer active. Note that any alarms still active (red) remain but with the occurrences count reset to 1.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Alarms on page 47

Call Quality of Service

System Status can display QoS measurements for calls on external IP trunks. You can also enabled QoS reporting and alarms for extensions.



The QoS measurements shown by SSA are not full end-to-end call quality measurements. Whilst they can indicate potential problems, more accurate assessment requires the use of network monitoring tools such as Wireshark. Problem escalation to Avaya require a full network

assessment as QoS issues can arise from a range of network factors other than the IP Office system.

When enabled, System Status displays QoS statistics for calls made by H323 IP extensions (1600, 4600, 5600 and 9600 Series) registered to the system. It also displays QoS statistics for other extension types when their call involves a VCM channel. The QoS information for the extension's current call appears in the Extension Status screen.

In the system configuration, you can configure alarm thresholds for jitter (default 20ms), round trip delay (default 350ms) and packet loss (default 0.5%). If a call exceeds any threshold, an alarm occurs reporting the device and call involved and the maximum values of the QoS measurements during the call.

Measure	Description
Round Trip Delay	Default = 350 msec. Less than 160ms is high quality. Less than 350ms is good quality. Any higher delay is noticeable by those involved in the call. Depending on the codec used, some delay stems from the signal processing: G711 = 40ms, G723a = 160ms, G729 = 80ms.
Jitter	Default =20 msec. Jitter is a measure of the variance in the time for different voice packets in the same call to reach the destination. Excessive jitter will become audible as echo.
Packet Loss	Default = 0.5%. Excessive packet loss will be audible as clipped words and may also cause call setup delays.

Buttons

The following buttons can appear on this screen:

Button	Description
Clear	Clears the selected alarms. If the alarm is still active (red) it remains but with the occurrences count reset to 1.
Clear All	Clears all listed historical alarms that are no longer active. Note that any alarms still active (red) remain but with the occurrences count reset to 1.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Alarms on page 47
Quality of Service Alarms on page 60

Quality of Service Alarms

IP Office supports Quality of Service (QoS) monitoring for extensions. System Status displays the current quality of service for a call on the extension's Extension Status form. It displays the information for Avaya H323 IP phones registered with the system. It also displays information for other extension when their call involves a VCM channel.

The thresholds for quality of service alarms are set within the system configuration. Separate thresholds are set for Round Trip Delay (default 350ms), Jitter (default 20ms) and Packet Loss (0.5%). At the end of a call segment that exceeds any of the thresholds, the system outputs a QoS alarm containing details of the call and the maximum value of each of QoS measurement during the call.

Call Quality of Service Alarms

Last Date Of Error	Occurrences	Error Description
23/01/2009 10:05:21	1	Call Id: 1, IP Address: 192.168.42.111, Peer IP Address: 192.168.42.8, Extension Number: 293, Jitter: 2500, Round Trip Delay: 789000, Packet Loss: 1230
23/01/2009 10:05:21	1	Call Id: 1, IP Address: 192.168.42.8, Peer IP Address: 192.168.42.111, Extension Number: 300, Jitter: 0, Round Trip Delay: 789000, Packet Loss:

For calls held or parked and then resumed, separate QoS alarms are output for each segment of the call. If the call involves several extensions, the system outputs separate alarms for each extension.

The QoS measurements shown by SSA are not full end-to-end call quality measurements. Whilst they can indicate potential problems, more accurate assessment requires the use of network monitoring tools such as Wireshark. Problem escalation to Avaya require a full network assessment as QoS issues can arise from a range of network factors other than the IP Office system.

Related links

Call Quality of Service on page 58

Security

This menu provides a summary of the number of security alarms for different connections to the system. Double click on one of the alarms types to display more details.

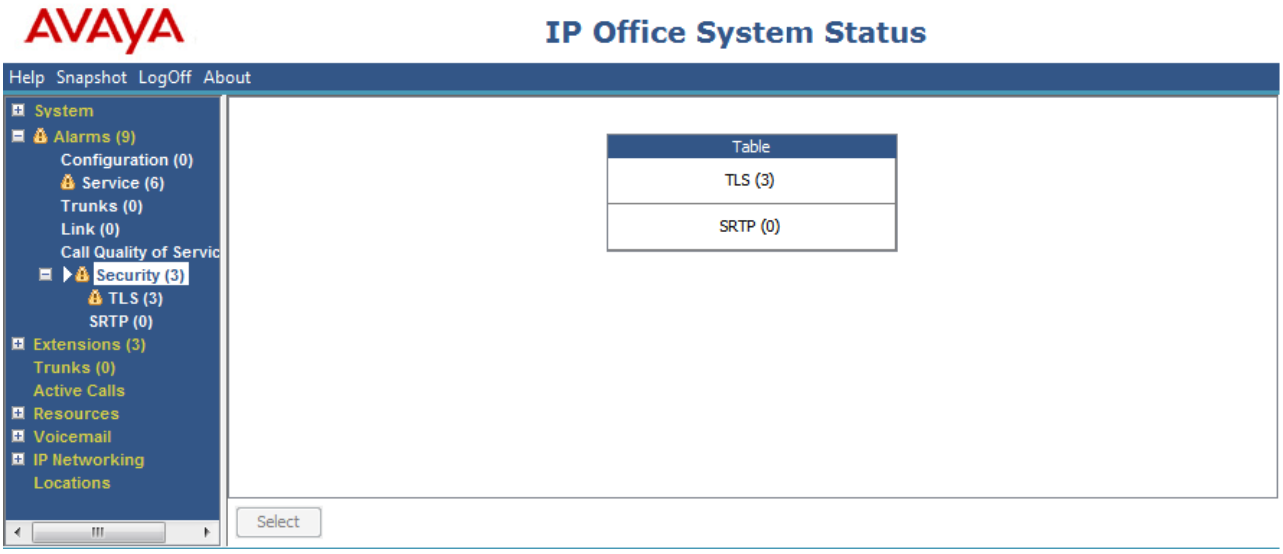


Figure 27: The Security Alarms Menu

Buttons

The following buttons can appear on this screen:

Buttons	Description
Select	Show details for the currently selected item.

Related links

Alarms on page 47
TLS on page 61
SRTP on page 62

TLS

This menu displays the TLS alarms that have occurred on connections to the system.

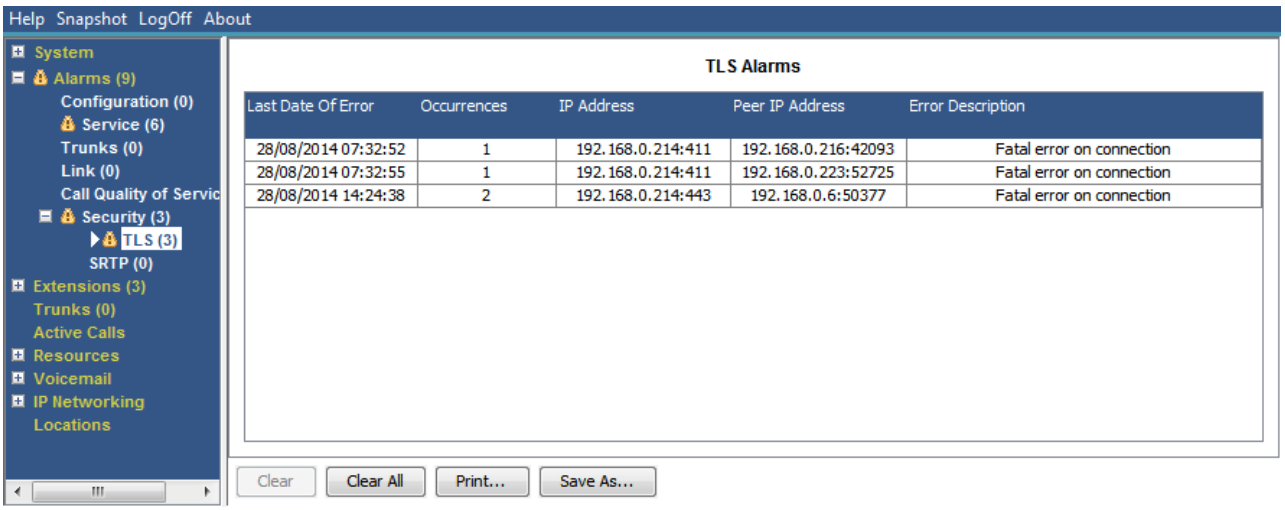


Figure 28: The TLS Alarms Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Clear	Clears the selected alarms. If the alarm is still active (red) it remains but with the occurrences count reset to 1.
Clear All	Clears all listed historical alarms that are no longer active. Note that any alarms still active (red) remain but with the occurrences count reset to 1.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Security on page 60

SRTP

This menu displays any STRP alarms that have occurred.

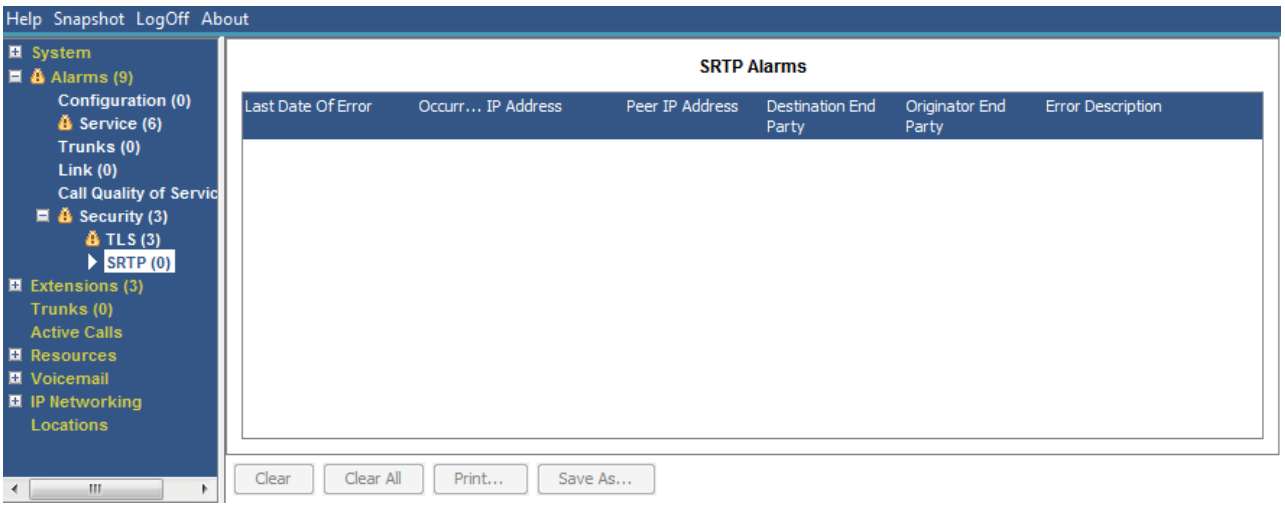


Figure 29: The SRTP Alarms Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Clear	Clears the selected alarms. If the alarm is still active (red) it remains but with the occurrences count reset to 1.
Clear All	Clears all listed historical alarms that are no longer active. Note that any alarms still active (red) remain but with the occurrences count reset to 1.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Security on page 60

Chapter 5: Extensions

You can access information on the status of a specific extension by doing one of the following:

- Via a port that is associated with an analog or digital extension.
- By selecting an H.323 extension.
- By double-clicking **Extensions** and then selecting a specific extension from the navigation panel.
- By double-clicking an extension from the **Extension Summary** screen.

System Status uses the following method to indicate the port used by an analog or digital extension:

- If the extension is on the control unit, the designation is Control Unit followed by either Phone Port X (where X is the port number) or DS Port X (where X is the port number 1-8).
- If the extension is on an expansion module, the designation is Module XX (where XX is the port number 1-12) followed by Port X (where X is the port number 1-30).

For example:

Extension: 201	Control Unit	DS Port: 1
Extension: 231	Slot: 4	Port: 7
Extension: 271	Module: 4	Port: 1

The port number will always match any number printed against the physical port connector.

For H.323 extensions, the designation is the home user's extension number, the IP address of the extension and the MAC address (only shown if the system and the phone are on the same subnet). For example:

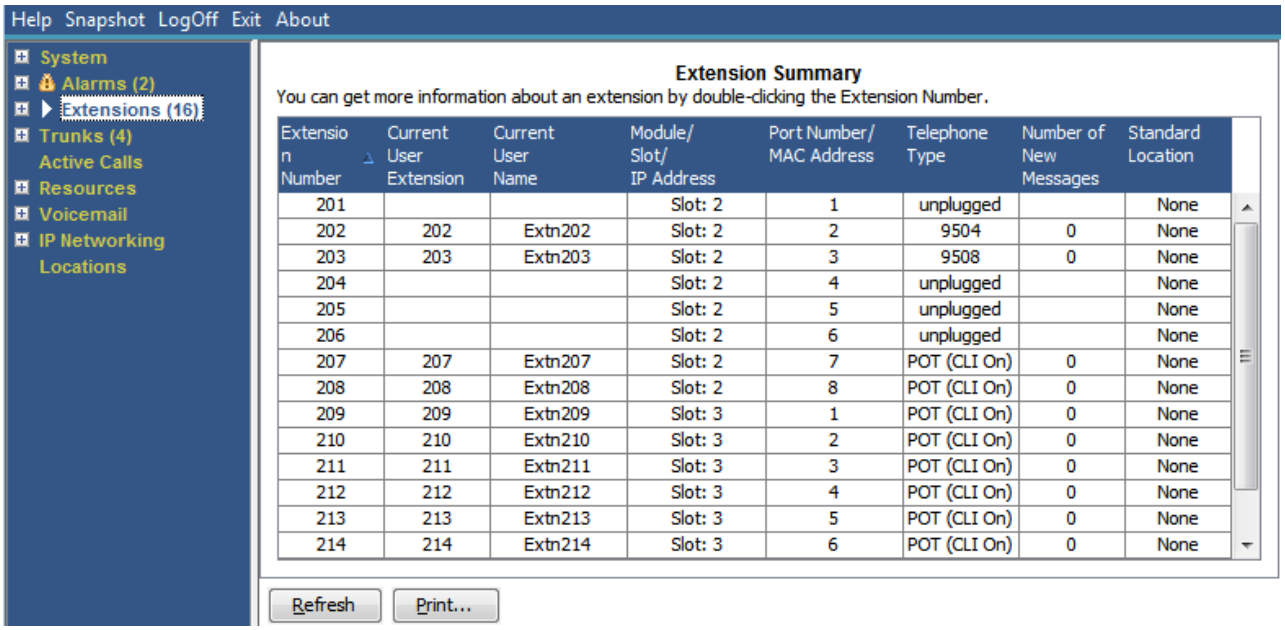
Extension:	IP Address:	MAC Address:
371	192.168.44.2	AA:AA:AA:AA:AA:AA

Related links

[Extension Summary](#) on page 65
[Extension Status](#) on page 65

Extension Summary

The Extension Summary screen displays all extensions in the system. For detailed information about an extension, double-click a specific extension number to display the Extension Status screen.



Extension Number	Current User Extension	Current User Name	Module/ Slot/ IP Address	Port Number/ MAC Address	Telephone Type	Number of New Messages	Standard Location
201			Slot: 2	1	unplugged		None
202	202	Extn202	Slot: 2	2	9504	0	None
203	203	Extn203	Slot: 2	3	9508	0	None
204			Slot: 2	4	unplugged		None
205			Slot: 2	5	unplugged		None
206			Slot: 2	6	unplugged		None
207	207	Extn207	Slot: 2	7	POT (CLI On)	0	None
208	208	Extn208	Slot: 2	8	POT (CLI On)	0	None
209	209	Extn209	Slot: 3	1	POT (CLI On)	0	None
210	210	Extn210	Slot: 3	2	POT (CLI On)	0	None
211	211	Extn211	Slot: 3	3	POT (CLI On)	0	None
212	212	Extn212	Slot: 3	4	POT (CLI On)	0	None
213	213	Extn213	Slot: 3	5	POT (CLI On)	0	None
214	214	Extn214	Slot: 3	6	POT (CLI On)	0	None

Figure 30: Extension Summary Menu

Buttons

The following buttons can appear on this screen:

Buttons	Description
Refresh	Updates the screen. This button appears on screens that do not update automatically.
Print...	Prints all information available in the current screen (including any information currently scrolled off).

Related links

Extensions on page 64

Extension Status

This screen provides specific details on a selected extension. The information and controls displayed varies depending on the type of extension.

Information Displayed

Information	Description
Extension Number	The default extension number for this telephone.
Module/Slot/IP Address	Module number, slot details, or IP address.
Private IP Address	For an extension connected via NAT, indicates the private IP address.
Port/MAC Address	Port number or MAC address of the control unit.
Active Location	The current location of the extension set in the system configuration or determined by the location API.
Gatekeeper	The current gatekeeper with which the extension is registered.
Telephone Type	The telephone model.
Firmware Version	The firmware version reported by the telephone device.
Media Stream	Indicates whether the extension is configured to use **RTP** or **SRTP**. **Best Effort** indicates that it is configured to use SRTP if possible but otherwise fallback to RTP.
Layer 4 Protocol	Indicate whether the extension is set to use **TCP** or **TLS**.
Current User Extension Number	The extension of the user currently logged into the telephone.
Current User Name	The name of the user currently logged into the telephone.
Forwarding	Set to **Off** or any of the following options: • **Forward Unconditional** + Number • **Forward On Busy** + Number • **Forward On No Answer** + Number • **Follow Me** + Number
Twinning	Set as **Off** or to one of the following options: • **Twinned as Primary with** + Secondary User Name/Number • **Twinned as Secondary with** + Primary User Name/Number • **Twinned to External Number** + External Number •
Do Not Disturb	Indicates whether the user has do not disturb enabled.
Message Waiting	The current status of the extension user's message waiting indicator.
Number of New Messages	The number of new messages for the current user. This does not include hunt group messages.
Phone IP Office Manager Type	Indicates the type of Phone Manager for configured for the extension user.

Table continues…

Information	Description
Quality of Service Fields	The following addition items are available for calls by Avaya H323 phones and for other extension types when their current call uses a VCM channel. See Call Quality of Service on page 58. • **Packet Loss Fraction** • **Jitter** • **Round Trip Delay** • **Connection Type** • **Codec** • **Remote Media Address**
Call Information Table	The information displayed in the table depends on whether the extension has call appearances. For an extension without call appearances (e.g. T3, softphone, third party H.323 or analog), the table shows as many rows as there are currently calls, or a single row if the phone is idle. The following appears for a telephone with call appearances: • **Button Number** – The number associated with the button on the telephone, if applicable. • **Button Type** – Call, Line, Bridged or Cover Appearance button, if applicable. • **Call Ref** – Call reference, assigned by the system and associated with the line in use. When a trace is in progress, any calls on the trunk will show **(i)** next to the Call Ref. If you select Call Details while a trace is in progress, the screen remains unchanged and a pop-up window appears which contains details about the selected call. The pop-up shows the state of the call at the time of selection and does not update. See Trace on page 82. • **Current State** – The current state of the call associated with the button. See Call States (Extension) on page 102. • **Time in State** – Reset to zero each time there is a state change. • **Caller ID or Dialed Digits** – The information displayed depends on the call direction. - **Incoming Calls** – The Caller ID name and number. System Status displays None if the system received no caller ID. - **Outgoing Calls** – The digits sent to the central office.
Direction of Call	Displays the call as either **Incoming** or **Outgoing**.

Other Party on Call

Contains one of the following:

Where Call was Originated/Answered	Displayed Value
User	User name and number

Table continues…

Where Call was Originated/Answered	Displayed Value
VoiceMail Call flow	Start Point name
Voicemail Box	Voicemail - user name or hunt group name of the mailbox
Data Service	RAS - service name
Conference	Conference name
Trunk	Line ID/URI Group/Channel number
Park Slot	Park Slot - when the other end has parked the call
Announcement	Announcement - the hunt group associated with the announcement number
Hunt Group	Hunt Group - name and number when a call is in a hunt group queue (not alerting)

Buttons

The following buttons can appear on this screen:

Button	Description
Back	Returns to the previous screen.
Call Details	Displays call details for the selected call, trunk or trunk channel.
Clear All Dynamic Locations	Third-party applications can use the system's location API to dynamically set the location of extensions. This button clears the dynamic location information currently held for all extension.
Reregister	This option can be used to force Avaya IP phones to reregister without restarting.
Restart	This option can be used to force Avaya H.323 IP phones to restart. When the phone restarts, they checking their current firmware against that available on the configured file server. We recommend that only small groups of up to 15 phones restart at any time. Attempting to restart larger numbers of phones can cause System Status to appear to frozen.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Ping	Perform a Ping action from the selected interface (system, line or extension) and display the results. See Ping on page 118.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Trace	Starts a trace of the rows selected. System Status displays a trace for each call associated with the selected trunk or extension. See Trace on page 82.
Trace All	Starts a trace for the whole trunk group or extension. System Status displays a trace for all calls associated with the trunk or extension. See Trace on page 82.

Table continues…

Button	Description
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.
Unsubscribe	Force an IP DECT extension to unsubscribe.

Related links

Extensions on page 64

Chapter 6: Trunks

Path: Trunks

This screen shows a list of the trunks installed and configured in the system.

Buttons

The following buttons can appear on this screen:

Button	Description
Select	Show details for the currently selected trunk. See Status (Analog Trunk) on page 70, Status (Digital Trunk) on page 73, Status (H.323 Trunk) on page 75 or Status (SIP Trunk) on page 78.

Related links

Status (Analog Trunk) on page 70
Status (Digital Trunk) on page 73
Status (H.323 Trunk) on page 75
Status (SIP Trunk) on page 78
Line Protocols on page 82
Trace on page 82
Utilization Summary on page 83
Alarms on page 85
Line Testing on page 88

Status (Analog Trunk)

Path: Trunks > Lines > Line

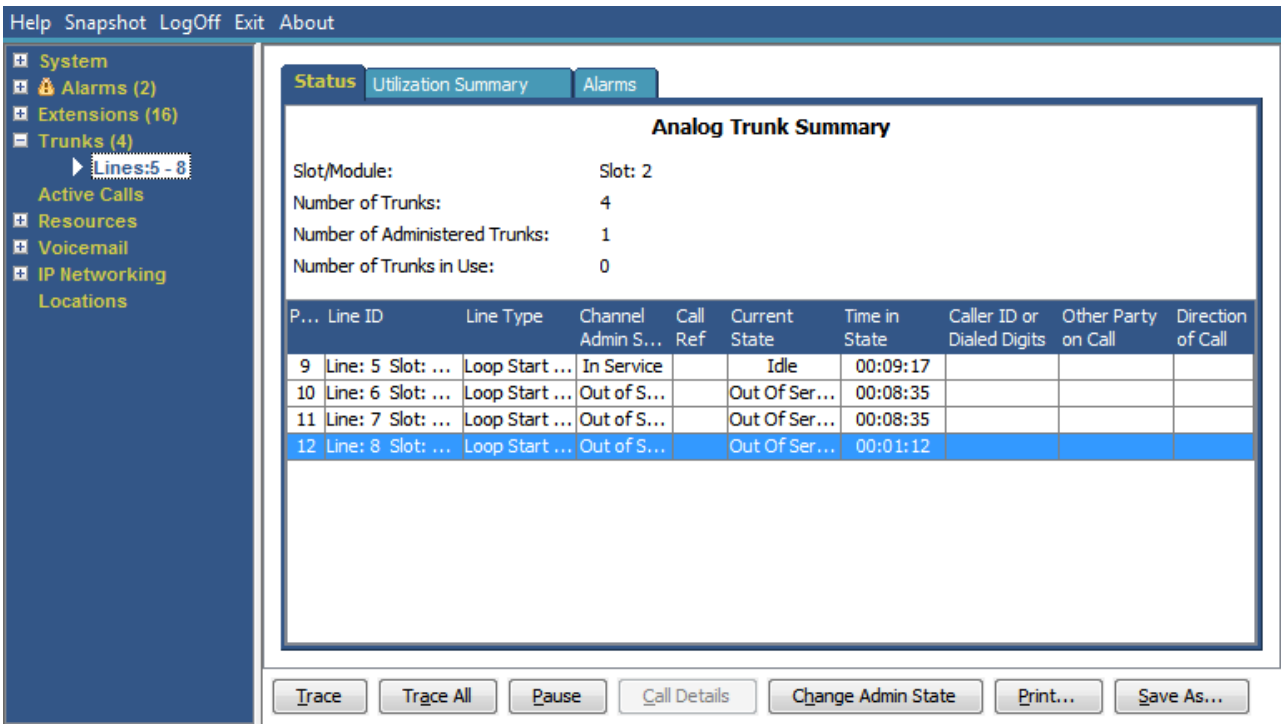


Figure 31: Trunk Status (Analog Trunk)

Information Displayed

System Status displays the following information under the Status tab:

Name	Description
Slot/Module	Slot or module number.
Number of Trunks	Total number of trunks.
Number of Administered Trunks	Number of channels configured as in service.
Number of Trunks in Use	-
Ports Table	See the *Ports* table below.
Direction of Call	Displays the call as either **Incoming** or **Outgoing**.
Other Party on Call	See the *Other Party on Call* table below.

Ports Table

This table displays the following details:

Element	Description
Port	The port number.
Line ID	The line, module, and port number.

Table continues…

Element	Description
Line Type	The type of line protocol
Call Ref	Call reference, assigned by the system and associated with the line in use. When a trace is in progress, any calls on the trunk will show **(i)** next to the Call Ref. If you select Call Details while a trace is in progress, the screen remains unchanged and a pop-up window appears which contains details about the selected call. The pop-up shows the state of the call at the time of selection and does not update. See Trace on page 82.
Current State	The current state of the call associated with the button. See Call States (Trunk) on page 103.
Time in State	Reset to zero each time there is a state change.
Caller ID or Dialed Digits	The information displayed depends on the call direction. • Incoming Calls – The Caller ID name and number. System Status displays **None** if the system received no caller ID. • Outgoing Calls – The digits sent to the central office.

Other Party on Call

Contains one of the following:

Where Call was Originated/Answered	Displayed Value
User	User name and number
VoiceMail Call flow	Start Point name
VoiceMail Box	Voicemail - user name or hunt group name of the mailbox
Data Service	RAS - service name
Conference	Conference name
Trunk	Line ID/URI Group/Channel number
Park Slot	Park Slot - when the other end has parked the call
Announcement	Announcement - the hunt group associated with the announcement number
Hunt Group	Hunt Group - name and number when a call is in a hunt group queue (not alerting)

Buttons

The following buttons can appear on this screen:

Button	Description
Call Details	Displays call details for the selected call, trunk or trunk channel.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.

Table continues…

Button	Description
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Trace	Starts a trace of the rows selected. System Status displays a trace for each call associated with the selected trunk or extension. See Trace on page 82.
Trace All	Starts a trace for the whole trunk group or extension. System Status displays a trace for all calls associated with the trunk or extension. See Trace on page 82.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Trunks on page 70

Status (Digital Trunk)

Path: Trunks > Lines > Line

Access this menu by clicking **Trunks** on the navigation panel. Alternatively, click **System** and then **Control Unit** and double-click the line.

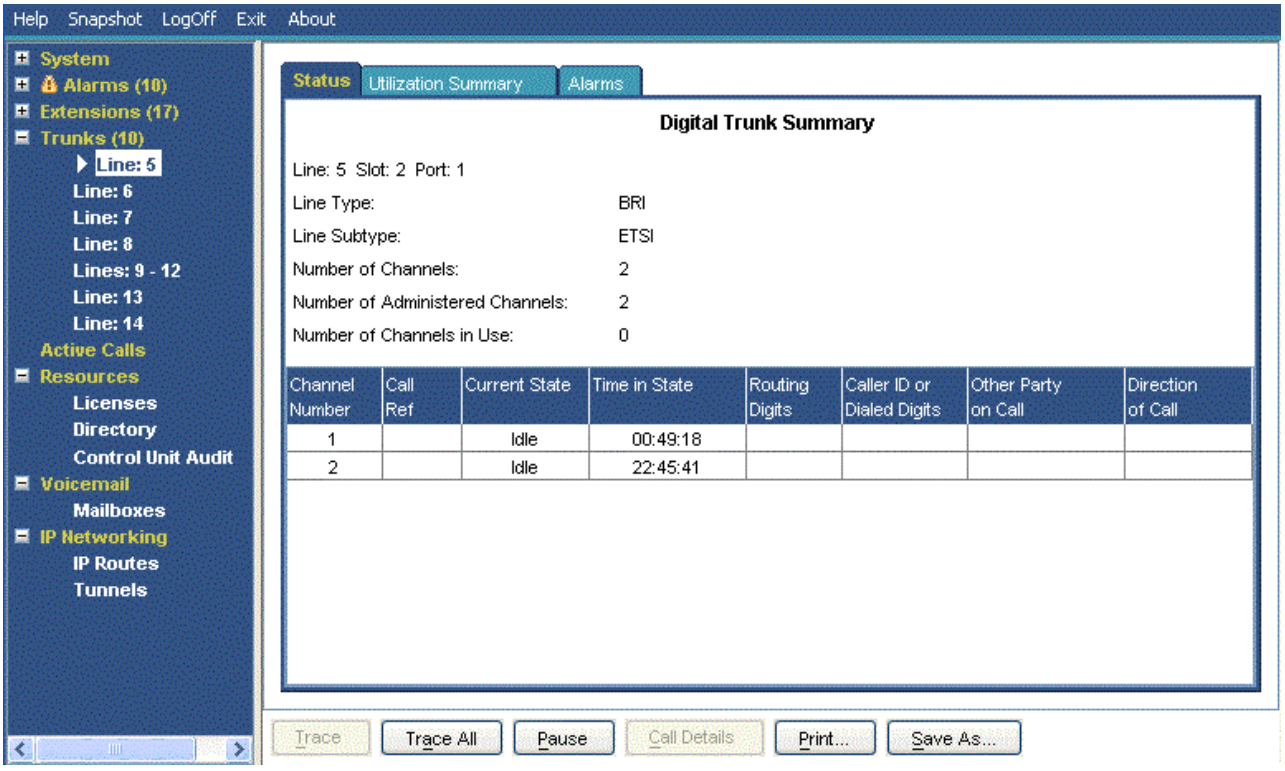


Figure 32: Trunk Status (Digital Trunk)

Information Displayed

Name	Description
Line/Slot/Port	The line, slot and port number.
Line Type	See Line Protocols on page 82.
Line Subtype	See Line Protocols on page 82.
Number of Channels	The number of channels the trunk supports.
Number of Administered Channels	The number of channels configured as in service.
Number of Channels in Use	The number of channels currently in use.
Channels Table	See the *Channels* table below.
Other Party on Call	See the *Other Party on Call* table below.
Direction of Call	Displays the call as either **Incoming** or **Outgoing**.

Channels Table

This table displays the following details:

Element	Description
Channel Number	Click on the row to view details of the call.
Call Ref	Call reference, assigned by the system and associated with the line in use. When a trace is in progress, any calls on the trunk will show **(i)** next to the Call Ref. If you select Call Details while a trace is in progress, the screen remains unchanged and a pop-up window appears which contains details about the selected call. The pop-up shows the state of the call at the time of selection and does not update. See Trace on page 82.
Current State	The current state of the call associated with the button. See Call States (Trunk) on page 103.
Time in State	Reset to zero each time there is a state change.
Routing Digits	The directed inward dialed digits that are sent by the central office.
Caller ID or Dialed Digits	The information displayed depends on the call direction. • **Incoming Calls** – The Caller ID name and number. System Status displays **None** if the system received no caller ID. • **Outgoing Calls** – The digits sent to the central office.

Other Party on Call

Contains one of the following:

Where Call was Originated/Answered	Displayed Value
User	User name and number

Table continues…

Where Call was Originated/Answered	Displayed Value
VoiceMail Call flow	Start Point name
VoiceMail Box	Voicemail - user name or hunt group name of the mailbox
Data Service	RAS - service name
Conference	Conference name
Trunk	Line ID/URI Group/Channel number
Park Slot	Park Slot - when the other end has parked the call
Announcement	Announcement - the hunt group associated with the announcement number
Hunt Group	Hunt Group - name and number when a call is in a hunt group queue (not alerting)

Buttons

The following buttons can appear on this screen:

Button	Description
Call Details	Displays call details for the selected call, trunk or trunk channel.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Trace	Starts a trace of the rows selected. System Status displays a trace for each call associated with the selected trunk or extension. See Trace on page 82.
Trace All	Starts a trace for the whole trunk group or extension. System Status displays a trace for all calls associated with the trunk or extension. See Trace on page 82.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Trunks on page 70

Status (H.323 Trunk)

Path: Trunks > Lines > Line

Access this menu by clicking **Trunks** on the navigation panel. Alternatively, click **System** and then **Control Unit** and double-click the line.

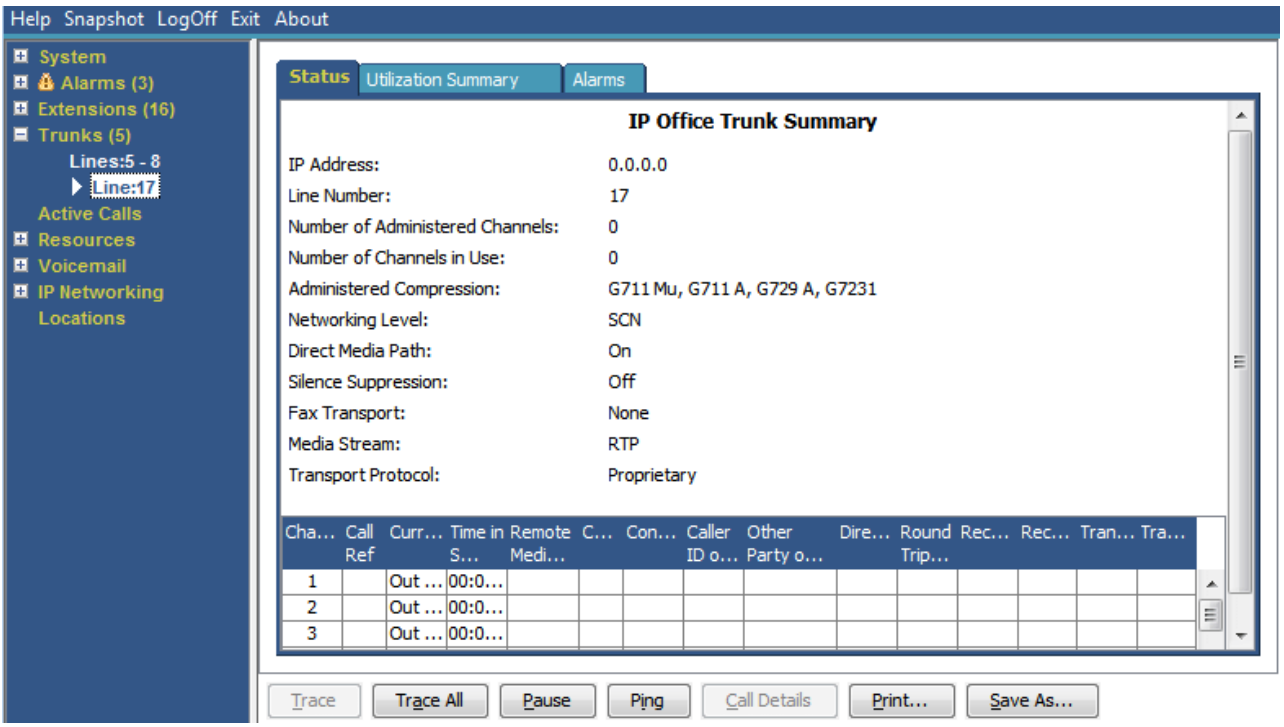


Figure 33: Trunk Status (H.323 Trunk)

Information Displayed

Name	Description
IP Address	The gateway IP address from the VoIP form.
Line Number	Defined in the system configuration.
Number of Administered Channels	Number of channels from the VoIP line tab.
Total Channels in Use	Total of all the channels that have associated call references.
Administered Compression	The compression mode from the VoIP form.
Small Community Networking	The menu displays one of the following: • If not configured, the menu displays **Disabled**. • If configured and the other end responds, the menu displays **Up**. • If configured but the other end does not respond, the menu displays **Down**.
Direct Media Path	Either **On** or **Off**.
Enable Faststart	Either **On** or **Off**.
Silence Suppression	Either **On** or **Off**.
Channels Table	See the *Channels Table* table.

Channels Table

This table displays the following details:

Element	Description
Channel Number	Click on the row to view details of the call.
Call Ref	Call reference, assigned by the system and associated with the line in use. When a trace is in progress, any calls on the trunk will show **(i)** next to the Call Ref. If you select Call Details while a trace is in progress, the screen remains unchanged and a pop-up window appears which contains details about the selected call. The pop-up shows the state of the call at the time of selection and does not update. See Trace on page 82.
Current State	The current state of the call associated with the button. See Call States (Trunk) on page 103.
Time in State	Reset to zero each time there is a state change.
RTP IP Address from Connection	IP address of the remote end of the RTP Media Stream.
CODEC	Available via H.323 message and may change throughout the call.
Connection Type	Either **DirectMedia**, **RTP Relay** or **VCMs**.
Caller ID or Dialed Digits	The information displayed depends on the call direction. • **Incoming Calls** – The Caller ID name and number. System Status displays **None** if the system received no caller ID. • **Outgoing Calls** – The digits sent to the central office.
Other Party on Call	See the *Other Party on Call* table.
Direction of Call	Displays the call as either **Incoming** or **Outgoing**.
Quality of Service (QoS)	Normal data packets can prevent or delay voice data from getting across the link, causing unacceptable speech quality. System Status provides the following information. The system calculates the statistics as defined in RFC 1889. • **Round Trip Delay** • **Receive Jitter** • **Transmit Jitter** • **Receive Packet Loss** • **Transmit Packet Loss**

Other Party on Call

Contains one of the following:

Where Call was Originated/Answered	Displayed Value
User	User name and number

Table continues…

Where Call was Originated/Answered	Displayed Value
VoiceMail Call flow	Start Point name
VoiceMail Box	Voicemail - user name or hunt group name of the mailbox
Data Service	RAS - service name
Conference	Conference name
Trunk	Line ID/URI Group/Channel number
Park Slot	Park Slot - when the other end has parked the call
Announcement	Announcement - the hunt group associated with the announcement number
Hunt Group	Hunt Group - name and number when a call is in a hunt group queue (not alerting)

Buttons

The following buttons can appear on this screen:

Button	Description
Call Details	Displays call details for the selected call, trunk or trunk channel.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Trace	Starts a trace of the rows selected. System Status displays a trace for each call associated with the selected trunk or extension. See Trace on page 82.
Trace All	Starts a trace for the whole trunk group or extension. System Status displays a trace for all calls associated with the trunk or extension. See Trace on page 82.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Trunks on page 70

Status (SIP Trunk)

Path: Trunks > Lines > Line

System Status displays the configured and free SIP Channel license count in the top of the SIP trunk screen. In addition, where the SIP Trunk requires registration, the status of the primary and secondary registration appear in the summary section of the Trunk Status Screen for the SIP trunk.

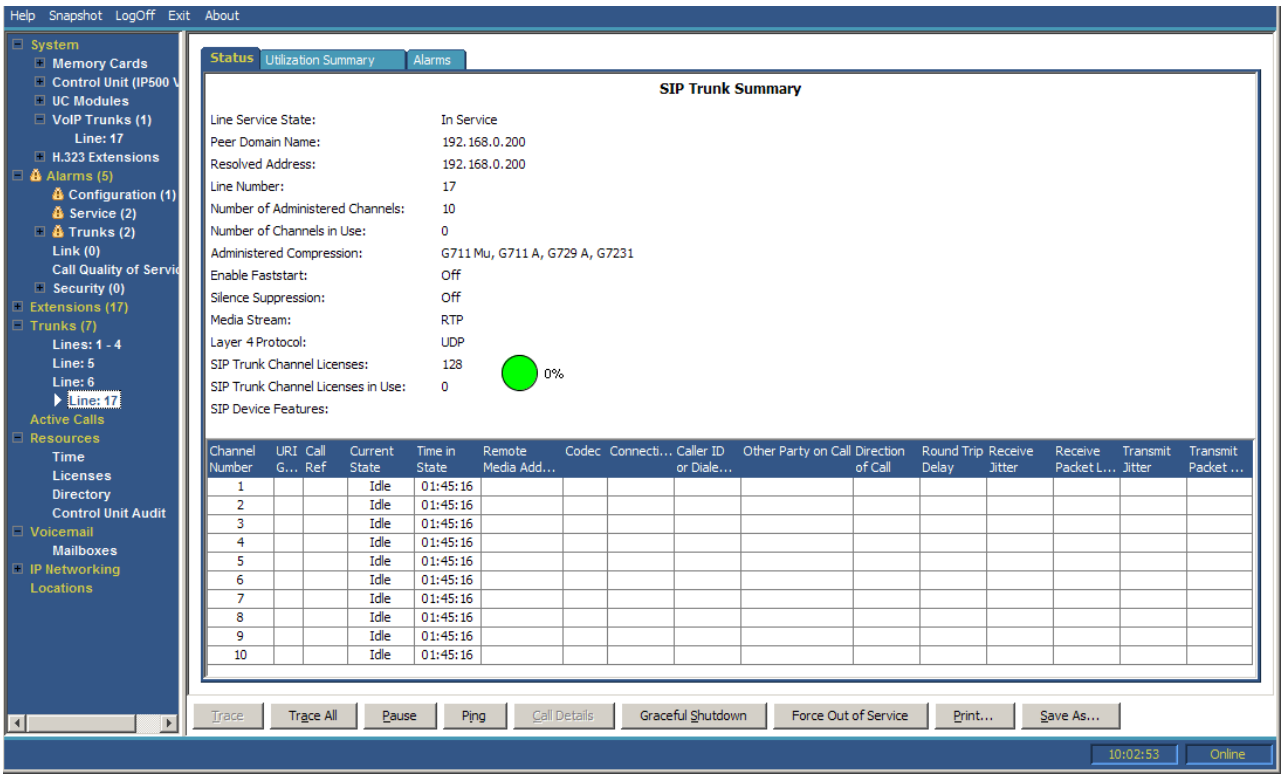


Figure 34: Trunk Status (SIP Trunk)

Information Displayed

Information	Description
Peer Domain Name	The name of the service from the line form.
Gateway Address	Gateway IP address from the VoIP form.
Line Number	Defined in the system configuration.
Number of Administered Channels	Number of channels from the VoIP line tab.
Total Channels in Use	Total of all the channels that have associated call references.
Administered Compression	The compression mode from the VoIP form.
Silence Suppression	Either **On** or **Off**.
Channels Table	See the *Channels Table* table.

Channels Table

This table displays the following details:

Element	Description
Channel Number	Click on the row to view details of the call.
URI Group	The URI Group via which the system routed the call in or out of the trunk. If there is no **Call Ref**, the URI Group is blank.
Call Ref	Call reference, assigned by the system and associated with the line in use. When a trace is in progress, any calls on the trunk will show **(i)** next to the Call Ref. If you select Call Details while a trace is in progress, the screen remains unchanged and a pop-up window appears which contains details about the selected call. The pop-up shows the state of the call at the time of selection and does not update. See Trace on page 82.
Current State	The current state of the call associated with the button. See Call States (Trunk) on page 103.
Time in State	Reset to zero each time there is a state change.
IP Address from Connection	**DirectMedia** (H.323 only), **RTP Relay** or **VCMs**.
CODEC	Available via H.323 message and may change throughout the call.
Connection Type	Either **RTP Relay** or **VCMs**.
Caller ID or Dialed Digits	The information displayed depends on the call direction. • **Incoming Calls** – The Caller ID name and number. System Status displays **None** if the system received no caller ID. • **Outgoing Calls** – The digits sent to the central office.
Other Party on Call	See the *Other Party on Call* table.
Direction of Call	Displays the call as either **Incoming** or **Outgoing**.
Quality of Service (QoS)	Normal data packets can prevent or delay voice data from getting across the link, causing unacceptable speech quality. System Status provides the following information. The system calculates the statistics as defined in RFC 1889. • **Round Trip Delay** • **Receive Jitter** • **Transmit Jitter** • **Receive Packet Loss** • **Transmit Packet Loss**

Other Party on Call

Contains one of the following:

Where Call was Originated/Answered	Displayed Value
User	User name and number
VoiceMail Call flow	Start Point name

Table continues…

Where Call was Originated/Answered	Displayed Value
VoiceMail Box	Voicemail - user name or hunt group name of the mailbox
Data Service	RAS - service name
Conference	Conference name
Trunk	Line ID/URI Group/Channel number
Park Slot	Park Slot - when the other end has parked the call
Announcement	Announcement - the hunt group associated with the announcement number
Hunt Group	Hunt Group - name and number when a call is in a hunt group queue (not alerting)

Buttons

The following buttons can appear on this screen:

Button	Description
Call Details	Displays call details for the selected call, trunk or trunk channel.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Trace	Starts a trace of the rows selected. System Status displays a trace for each call associated with the selected trunk or extension. See Trace on page 82.
Trace All	Starts a trace for the whole trunk group or extension. System Status displays a trace for all calls associated with the trunk or extension. See Trace on page 82.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.
Ping	Perform a Ping action from the selected interface (system, line or extension) and display the results. See Ping on page 118.
Graceful Shutdown	Cause the selected SIP trunk to block any additional calls and go into Out of Service (OOS) state when all current calls on the trunk have ended.
Cancel Shutdown	Cancel the graceful shutdown of the selected SIP trunk if not completed. If the trunk has completed the graceful shutdown, select Force Into Service.
Force Into Service	Take the selected SIP trunk out of 'Out of Service' (OOS) status.
Force Out of Service	Force the selected SIP trunk into 'Out of Service' (OOS) status. This immediately disconnects any current calls on the trunk.

Related links

Trunks on page 70

Line Protocols

The following table displays the protocols for digital and analog lines:

Line Type	Line Sub Type	Channel Protocols
E1, **T1**, **E1-R2**	QSigA, QSigB, ETSI, ETSI CHI	Same as Line Sub Type
E1-R2	Mexico, Brazil, Argentina, China, Korea, India, Philippines, None	R2 DID, R2 Loop Start, R2 DOD, R2 DIOD, TIE Immediate Start, TIE Automatic, TIE Delay, TIE Wink, WAN, Out of Service
T1, **J1**	N/A	Loop Start, Ground Start, E & M Tie, E & M DID, E & M Switched 56, DID, Clear Channel 64
J1	N/A	N/A
PRI	AT&T	Call by Call, Software Defined Network, Megacom WATS, Megacom 800, Wats, Accunet, Private Line, AT&T Multiquest, ETN, I800, ILDS
PRI	Sprint	No Service, None
PRI	WorldCom	No Service, None
PRI	Local Telco	No Service, None
PRI	ETSI, AusT013	ETSI, AusT013
BRI	ETSI/NTT, S-Bus	N/A
Ground Start	N/A	N/A
Loop Start	With Caller ID, No Caller ID	N/A

Related links

Trunks on page 70

Trace

Path: Trunks > **Lines** > **Line** > **Trace**

When a trace is in progress, any calls on the trunk show **(i)** next to its **Call Ref**. If you select **Call Details** while a trace is in progress, the screen remains unchanged and a pop-up window appears which contains details about the selected call. The pop-up shows the state of the call at the time of selection and does not update.

Buttons

The following buttons can appear on this screen:

Button	Description
Call Details	Displays call details for the selected call, trunk or trunk channel.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Trace	Starts a trace of the rows selected. System Status displays a trace for each call associated with the selected trunk or extension. See Trace on page 82.
Trace All	Starts a trace for the whole trunk group or extension. System Status displays a trace for all calls associated with the trunk or extension. See Trace on page 82.
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.
Ping	Perform a Ping action from the selected interface (system, line or extension) and display the results. See Ping on page 118.

Related links

Trunks on page 70

Utilization Summary

Path: Trunks > Lines > Line > Utilization Summary

The menu provides a usage history for each trunk. Counts reset either when you click the **Reset** button or when the system reboots.

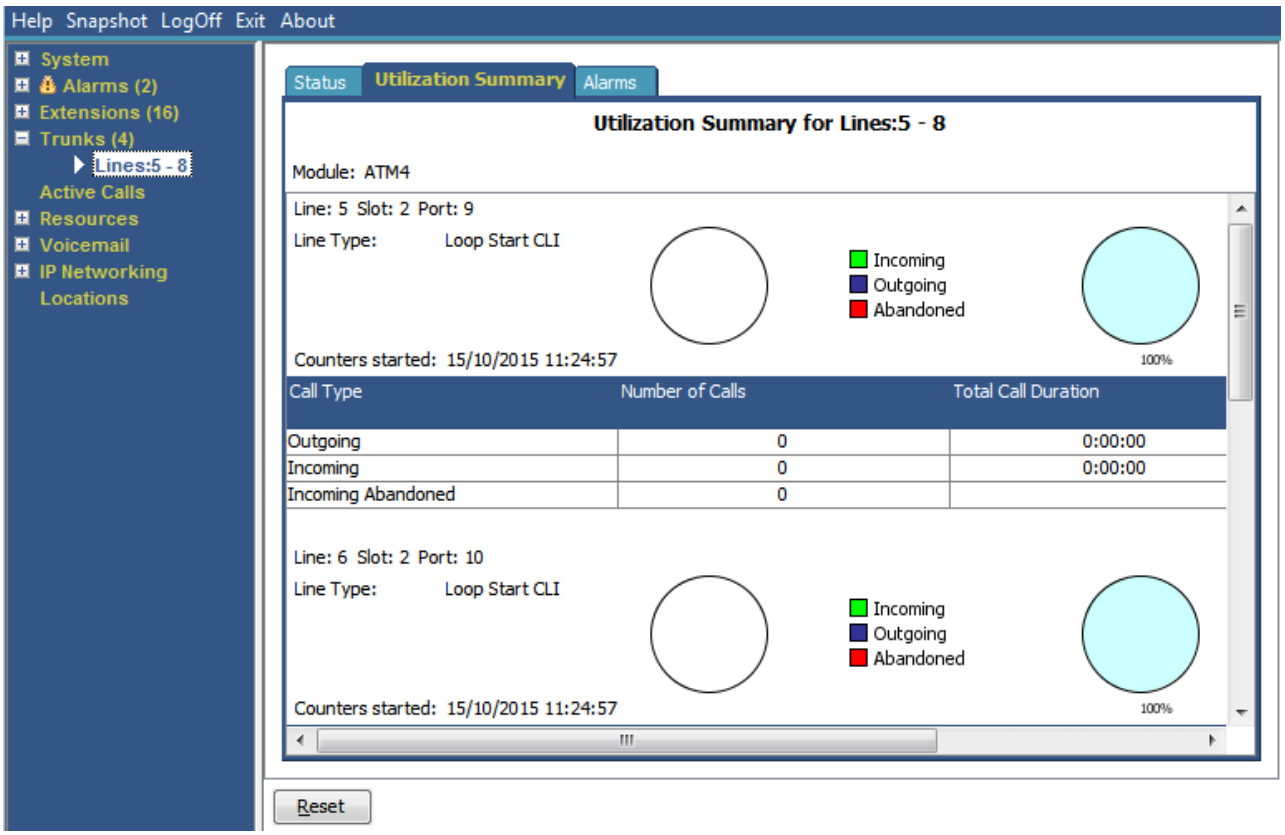


Figure 35: Trunk Utilization Menu

Name	Description
Module	Type of trunk module.
Line	Line ID.
Line Type	See Line Protocols on page 82.
Line Sub Type	See Line Protocols on page 82.
Counters Started	Date and time the counts began.
Calls Table	**Call Type** • **Outgoing** – The count of all Outgoing calls. • **Incoming** – The count of Incoming calls, excludes Incoming Abandoned calls. • **Incoming Abandoned** – Calls where the caller disconnected before the system or a user answered the call. Abandoned calls have a blank **Total Call Duration**.
Number of Calls	Total number of calls by call type.
Total Call Duration	Hours, minutes and seconds format. For outgoing calls, measured from the call start. For incoming calls, measured from call answer.
Total Ring Time	Hours, minutes and seconds format.

Buttons

The following buttons can appear on this screen:

Button	Description
Reset	Resets all utilization counters (number of calls and total duration) for the displayed trunk to 0.

Related links

Trunks on page 70

Alarms

The Trunk Alarm screen contains an entry for each trunk. There is always an entry in the navigation panel for each trunk regardless of whether it has alarms.

The screen displays two tabs for digital trunks:

- **Alarms** – Current alarms appear in red on the Alarm tab.
- **24-Hour Performance History** – This tab provides a 24-hour view of errors that occur on the line. If no errors have occurred within the last 24-hours, the table displays zero or blank values.

Related links

Trunks on page 70
Alarms on page 85
24-Hour Performance History on page 56

Alarms

Path: Trunks > Lines > Line > Alarms

Information Displayed	Description
Last Date of Error	The last time the error that caused a particular alarm occurred.
Occurrences	How many times the alarm has occurred since the system restarted or you last cleared the alarm.

Error Description

The table below details a description of the error that caused the alarm

Error	Description
Insufficient DID Digits	A user can administer routes based on DID digits by using the MSN routing form. On this form, the user administers how many digits are expected (the Presentation Digits field). If a call is received and the number of digits received do not match the number in the Presentation Digits field, the following is displayed: • There was a mismatch in the number of DID digits • Expected number of digits: XX • Digits Received: YYYYY
Incoming Call on Outgoing Trunk	On T1/PRI and analog lines, the direction for each channel can be administered to be incoming, outgoing or both. If the channel is outgoing and an incoming call arrives on the channel, the following is displayed: • An incoming call arrived on the channel configured for Outgoing calls only. • Channel Number: XX (for digital lines) • Port Number: XX (for analog lines)
Trunk Went Out of Service	If the trunk is not administered to be out of service but goes down, the following is displayed: Trunk out of service.
Red Alarm Active on Trunk	When a T1/PRI trunk reports a red alarm, System Status displays **Red Alarm**. A red alarm indicates lost synchronization.
Blue Alarm Active on Trunk	When a T1/PRI trunk reports a blue alarm, System Status displays **Blue Alarm**. A blue alarm indicates a signal failure.
Yellow Alarm Active on Trunk	When a T1/PRI trunk reports a yellow alarm, System Status displays **Yellow Alarm**. A yellow alarm indicates a transmission problem.
Loss of Signal on Trunk	This alarm indicates loss of signal from a trunk.
Caller ID not received	For analog loop start trunks set to ICLID, this alarm indicates that the system did not receive any CLI.
Seize Failure	This alarm indicates that the system did not detect loop current when trying to seize the trunk.
Response Failure	The system generates this alarm when it sends a TCP Sync to the remote end of an H.323 trunk and does not receive an acknowledgement and when it sends an INVITE over a SIP trunk which times out. • No response to IP trunk call request. • IP Trunk Line Number: xxx • Remote end IP address: yyy.yyy.yyy.yyy

Buttons

The following buttons can appear on this screen:

Buttons	Description
Clear Alarm History	Clear the historical alarms displayed.
Clear All	Clears all listed historical alarms that are no longer active. Note that any alarms still active (red) remain but with the occurrences count reset to 1.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Alarms on page 85

24-Hour Performance History

Path: Trunks > Lines > Line > 24-Hour Performance History

The first line in the table displays the current 15-minute interval. Subsequent lines display the last 24-hours divided into 15-minute intervals. Fewer lines appear if the system has been running for less than 24-hours.

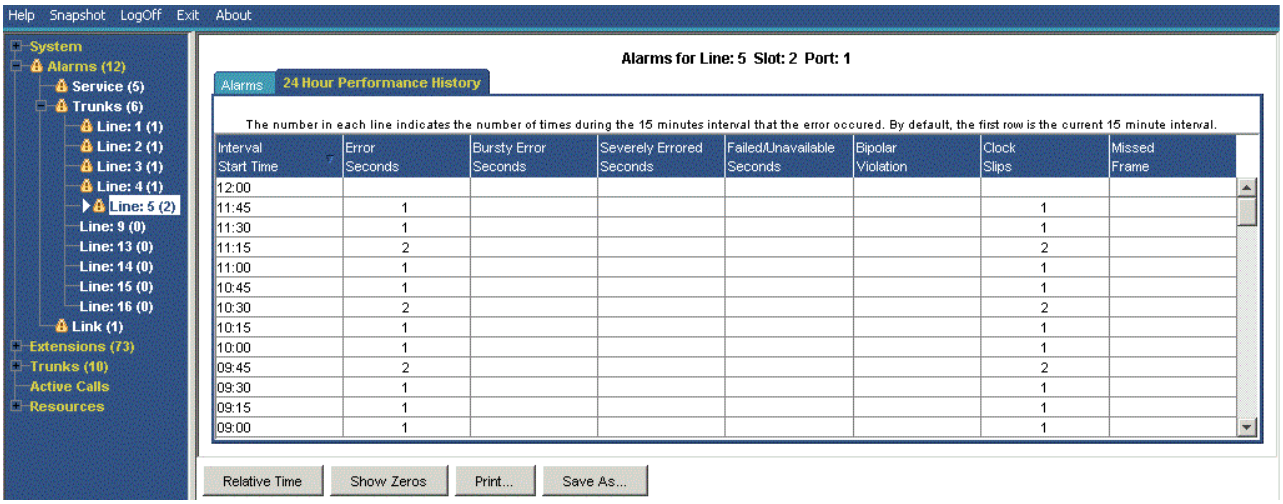


Figure 36: 24-Hour Performance History

Buttons

The following buttons can appear on this screen:

Button	Description
Absolute Time	Applies to the 24-Hour Performance History. Each line shows the actual time in 24-hour clock format at which the reported 15-minute period started.
Relative Time	Applies to the 24-Hour Performance History. When selected, for each line, the time value indicates how far into the 15-minute interval the line occurs. For example, 3 minutes appears as 00:03.

Table continues…

Button	Description
Show Blanks	Applies to 24-Hour Performance History. Show any 0 error values as blanks.
Show Zeros	Applies to 24-Hour Performance History. Show any 0 error values as zeros.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Trunk Alarms Summary on page 53
Alarms on page 85

Line Testing

Path: Trunks > Lines > Line > Line Testing

You can use this screen to perform loop back testing on a digital trunk.

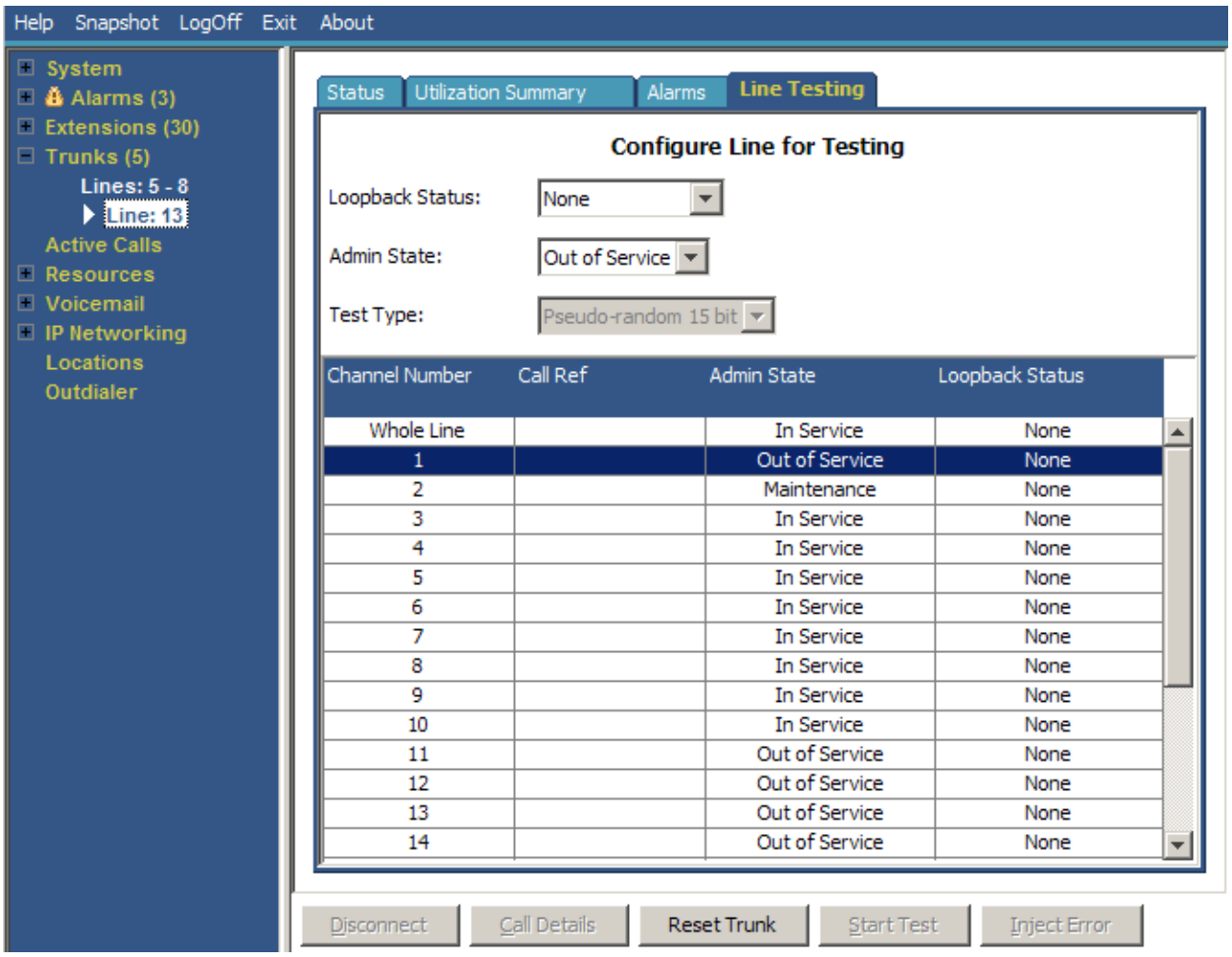


Figure 37: Line Testing Menu

Information Displayed	Description
Loopback Status	You can use this drop-down to show and set the type of loopback applied to the currently selected channel or channels. The options are None, Payload, Line and Line (Anti Jitter).
Admin State	You can use this drop-down to show and set the **Admin State** of the currently selected channel or channels. • Changes made using System Status only apply to the channel whilst running System Status. They do not override the system configuration settings. • To perform loopback testing, select **Whole Line** and set the **Admin State** to **Out of Service**. The changes applies to all channels. • Selecting **Whole Line** and setting the **Admin State** back to **In Service** returns the status of each channel back to their current configuration settings.
Test Type	You can use this drop-down to select the type of loopback testing used. The options are **Pseudo-random 15 bit** or **Pseudo-random 20-bit**.

The table lists the individual channels provided by the trunk. Selecting a particular channel allows you to change the change the settings of the channel and perform loopback testing on that channel. The Whole Line row allows you to perform the same action on all the channels at the same time.

Information	Description
Channel Number	The individual channel number.
Call Ref	The call reference of the current call on the channel.
Admin State	The admin status of the individual channel. See above.
Loopback Status	The loopback status of the individual channel. See above.

Buttons

The following buttons can appear on this screen:

Button	Description
Call Details	Displays call details for the selected call, trunk or trunk channel.
Disconnect	Clears the current call. The button cannot stop alerting calls on Loop Start, T1 Loop Start and T1 Ground Start lines.
Inject Error	Insert an error into the digital trunk during a loopback test.
Reset Trunk	Reset the selected digital trunk.
Start Test	Start loopback testing on the trunk. You can only start testing when the Whole Line is set to Out of Service. When testing starts, the test results appear below the list of channels. During the test, the button label and function changes to Stop Test.
Stop Test	Stop loopback testing on the selected trunk. The button label and function changes to Start Test.

Related links

Trunks on page 70

Chapter 7: Active Calls

The Active Calls screen provides a summary of all the calls in the system. From the navigation panel, click Active Calls:

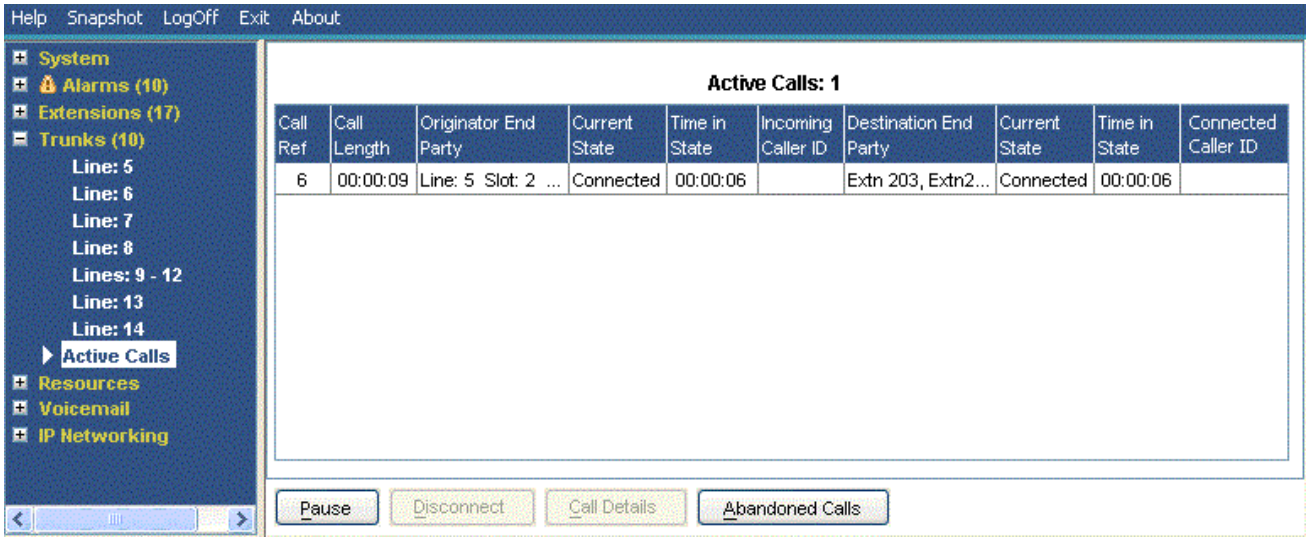


Figure 38: The Active Calls Menu

Information Displayed	Description
Call Ref	Call reference for incoming trunks, assigned by the system and associated with the line in use.
Call Length	Total length of the call.
Originator End Party	Trunk or 'Currently At' information. See Call Details on page 95. • Current State – The originator's current state. See Call States (Extension) on page 102. • Time in State – The originator's time in state. Reset to zero every time there is a state change. • Incoming Caller ID – The caller name and number.

Table continues…

Information Displayed	Description
Destination End Party	Trunk or 'Currently At' information. See Call Details on page 95. • **Current State** – The destination's current state. See Call States (Extension) on page 102. • **Time in State** – The destination's time in state. Reset to zero every time there is a state change. • **Connected Caller ID** – For outgoing trunks only. The connected caller name and number.

Buttons

The following buttons can appear on this screen:

Button	Description
Call Details	Displays call details for the selected call, trunk or trunk channel.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Call Details	Displays call details for the selected call, trunk or trunk channel.
Abandoned Calls	The Active Calls screen splits to display a list of incoming calls on a trunk where the caller disconnected before the call was first answered.

Related links

Abandoned Calls on page 92
Reduced Active Calls on page 94
Call Details on page 95
Conference Details on page 97
Call Information on page 98

Abandoned Calls

Clicking the Abandoned Calls button whilst viewing the Active Calls screen, splits the screen to include a list of abandoned calls below the list of active calls. The abandoned calls table lists incoming calls where the caller disconnected before any answer.

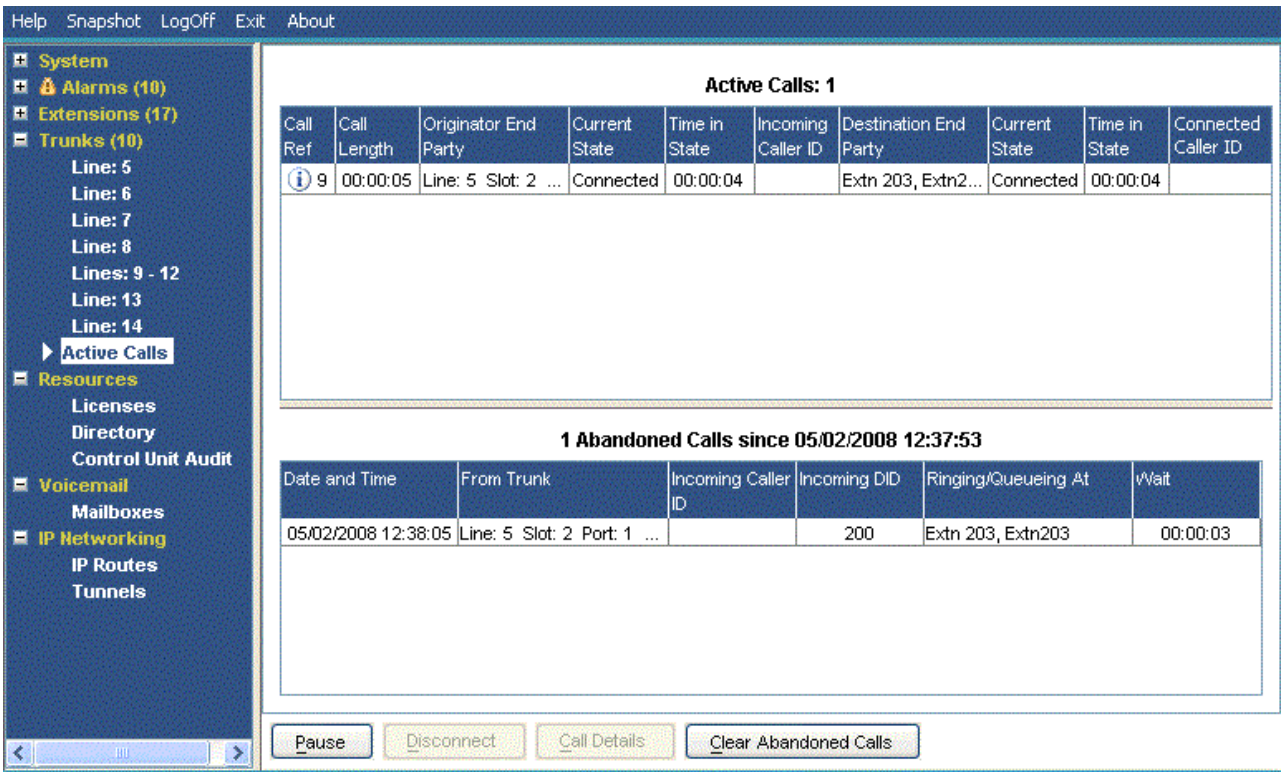


Figure 39: Abandoned Calls Display

Information Displayed

The following information appears for abandoned calls that occur after clicking the **Abandoned Calls** button.

Field	Description
Date and Time	Date and time the call started.
From Trunk	The line/channel information about the calling party.
Incoming Caller ID	The name and/or number as shown in the Active Calls list.
Incoming DID	The number as displayed in the Call Details screen. See Call Details on page 95.
Ringing/Queuing At	The alerting parties (if any) on the call at the time of disconnection. Otherwise (if the call was in a queue), the hunt group name.
Wait	The call duration until disconnection occurred.

Buttons

The following buttons can appear on this screen:

Button	Description
Call Details	Displays call details for the selected call, trunk or trunk channel.

Table continues…

Button	Description
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Clear Abandoned Calls	Clears the list of all abandoned calls. This updates the date and time and enables the logging of further abandoned calls.
Disconnect	Clears the current call. The button cannot stop alerting calls on Loop Start, T1 Loop Start and T1 Ground Start lines.

Related links

Active Calls on page 91

Reduced Active Calls

If you are viewing the Active Calls information for a heavily loaded system (using a communications link with insufficient bandwidth or running System Status with insufficient CPU power), System Status automatically reduces the amount of information displayed to accommodate the high call rate.

When the call initiation/setup rate has reduced, click the Full Details button to resume the full display. If you want to view active calls during a high load, use the snapshot facility to obtain a view of the system.

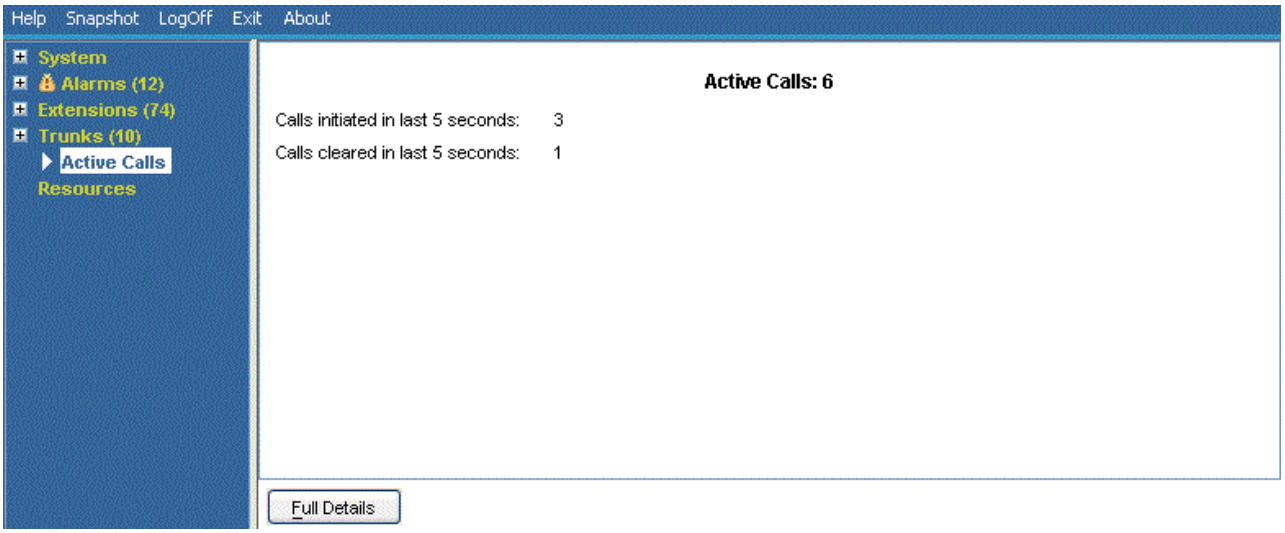


Figure 40: Reduced Calls Display

Buttons

The following buttons can appear on this screen:

Button	Description
Full Details	Resume the full display of Active Calls from the reduced active calls state .

Related links

Active Calls on page 91

Call Details

You can access the Call Details screen using the following method:

- Select a current call in the **Active Calls** screen.
- Click **Extensions** and then click the relevant extension.
- Click **System** and then **Control Unit** and double-click a line.

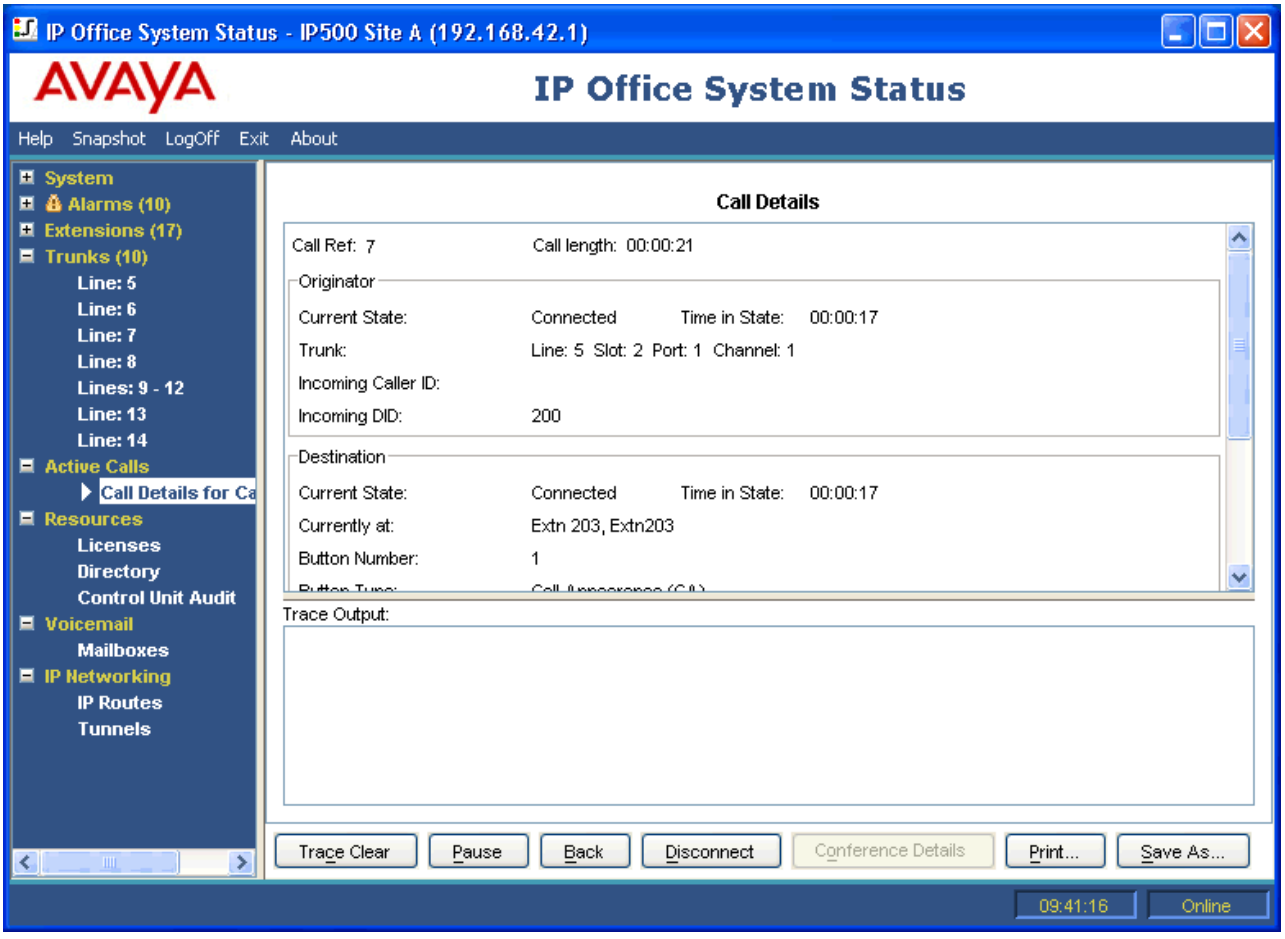


Figure 41: Call Details Menu

Information Displayed

Information	Description
Call Ref	Call reference assigned by the system and associated with the line in use.
Call Length	Total length of the call. For further details, see the following sections: • Originator Information on page 98 • Destination Information on page 99 • Call Target/Routing Information on page 101 • Conference Details on page 97 • Call States (Extension) on page 102 • Call States (Trunk) on page 103 • Callback and Returning Calls on page 104
Trace Output	The bottom section of the screen contains trace information and a scroll bar, enabling you to view the trace. Tracing enables you to view details of specific calls and is useful for problem solving. For more information, see Trace on page 82.

Notes

- The names shown for voicemail destinations are those supplied by the system to voicemail during connection. The information does not update for any subsequent changes, for example logging in to another mailbox.
- A call that is both alerting/queuing and listening to an announcement will indicate information about both.

Buttons

The following buttons can appear on this screen:

Button	Description
Trace Clear	Clears the trace and continues tracing.
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Back	Returns to the previous screen.
Disconnect	Clears the current call. The button cannot stop alerting calls on Loop Start, T1 Loop Start and T1 Ground Start lines.
Conference Details	Available for calls in a conference. Displays the conference details

Table continues…

Button	Description
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Active Calls on page 91

Conference Details

For a call in a conference, clicking the Conference Details button shows all connected calls in the conference and other conference information.

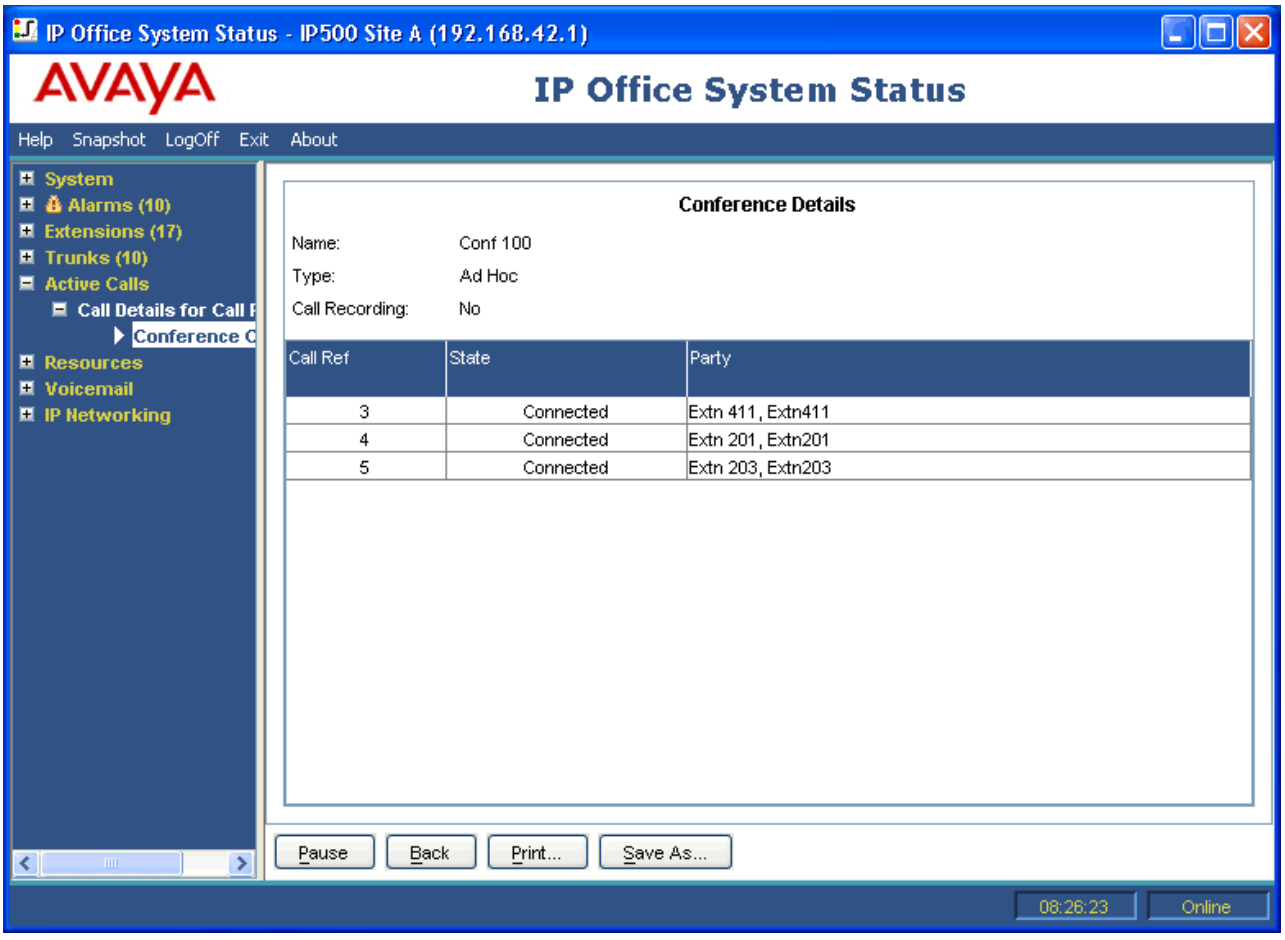


Figure 42: Conference Details Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Back	Returns to the previous screen.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

Active Calls on page 91

Call Information

The following information can be displayed for different types of calls.

Related links

Active Calls on page 91
Originator Information on page 98
Destination Information on page 99
Call Target/Routing Information on page 101
Call States (Extension) on page 102
Call States (Trunk) on page 103
Callback and Returning Calls on page 104

Originator Information

The originator information varies depending on whether the originating end is a trunk or not.

Originating End is a Trunk

Includes all incoming calls on analog, dialog, or VoIP trunks.

Field	Description
Trunk	Includes fixed line number, URI group (SIP lines) and channel (for digital and VoIP lines).
Current State and Time in State	See Call States (Extension) on page 102.
Incoming Caller ID	The caller ID name and number.
Incoming DID	The incoming DID digits (when applicable).
Codec	Selected via H.323/SIP messages and may change during the call.
VoIP Trunk (H.323, SCN or SIP)	The system calculates these statistics as defined in RFC 1889. • Round Trip Delay • Receive Jitter • Transmit Jitter • Receive Packet Loss • Transmit Packet Loss

Originating End is not a Trunk

Field	Description
Current State and Time in State	The state of the call associated with the button.
Currently At	• **Users** – The user name and number. For multi-line sets, the button number and button type. • **Voicemail Call flow** – For calls originated by voicemail, System Status shows no call flow name. • **Data Service** – The service name. • **Park Slot** – The park slot number. • **Conference** – The conference number. • **Multicast** – Multicast. • **Dialed Digits** – The digits that were dialed by the user. • **Codec (if applicable)** – Selected via H.323/SIP messages and may change during the call.

Related links

Call Information on page 98

Destination Information

The information displayed depends on whether the destination is a trunk or not.

Destination End is a Trunk

Includes the following types of calls that involve trunks:

- Call to an outside number from the switch
- Voicemail Pro calling an outside number (for a callback)
- External forwarding
- SCN call

Information	Description
Trunk Used	Includes fixed line number, URI group (SIP lines) and channel (for digital and VoIP lines).
Current State and Time of State	The state of the call associated with the button.
Digits sent to Central Office	Shows the digits that the system sent to the central office or the To: URL, sent in the INVITE for a SIP trunk.
Caller ID sent from Central Office	Some central offices send the connected Caller ID rather than who was called.
Codec	Selected via H.323/SIP messages and may change during the call.
VoIP Trunk (H.323, SCN or SIP)	The system calculates these statistics as defined in RFC 1889. • Round Trip Delay • Receive Jitter • Transmit Jitter • Receive Packet Loss • Transmit Packet Loss

Destination End is not a Trunk

The state of the call associated with the button.

Information	Description
Group of Users	For paging and some hunt group calls, listed by user name and number. For a call alerting or connected to both users and SCN trunks, System Status lists all.
User	The user name and number. For multi-line sets, System Status shows the button number and button type.
Voicemail Call flow	The call flow name.
AutoAttendant	The string Automated Attendant followed by the Automated Attendant number is listed.
Park Slot	The park slot and park slot number/name.
Mailbox	The mailbox and mailbox name.
Voicemail Announcement	This will be Announcement plus the group/username and the announcement number.

Table continues…

Information	Description
Conference	The conference name. See Conference Details on page 97.
RAS	The user name.
Hunt Group Queue	The hunt group name and number when a call is in a hunt group queue but not alerting.
Codec	Selected via H.323/SIP messages and may change during the call.

Related links

Call Information on page 98

Call Target/Routing Information

Name	Description
RTP Connection Type	If applicable, **DirectMedia**, **RTPRelay** or **VCM**.
Shortcode Matched	This value is shown if the call was originally targeted to a shortcode. It shows the shortcode matched, the short code feature and the short code type (eg. system, user, etc).
Original Target	This value indicates the type of the original call target followed by specific details of the target. For example: • **Destination is a User** – The text **Extn** followed by the user name or extension number. • **Destination is a Hunt Group** – The text **Group** followed the hunt group name or extension number. • **Destination is an embedded Automated Attendant** – The text **Automated Attendant** followed by the auto attendant number.
Call Recording	Indicates whether call recording is in progress.
Call Redirected to a Twin	Indicates whether the call used twinning.
Call Routed Across SCN Trunk	Yes or No. Set to Yes only when the call becomes connected.
Retargeting Count	The number of times the system retargeted the call. Retargeting means that the current destination stops alerting and system sends the call to a new destination.
Transfer Count	The number of times a call has been transferred.
Redirecting Station	The station from which a call was re-directed on Forwarding, Follow Me, coverage or twinning.

Related links

Call Information on page 98

Call States (Extension)

State	Extension
Idle	There is no call or call attempt on this extension or button.
Connected	The port has a connected call.
Held	The call is on hold. This could be the result of pressing the Hold button, or a flash
Held for Transfer/ Conference	The call is on hold pending transfer or a conference.
Parked	The user or system has parked the call.
Seized	The system has seized a port for the call but the call is not yet connected. The user has not dialed any digits.
Dialling	The system has seized a port for the call but the call is not yet connected. The user has dialed at least one digit.
WrapUp	The user on this port is in the wrap-up state.
In Use Elsewhere	This means that another person is active on a call using an associated button.
On Hold Elsewhere	This means that another person has placed a call on hold using an associated button.
In Use Inaccessible	For call and bridged appearance buttons: • The button is associated with a logged out user. • The oldest internal user on the call has Cannot Be Intruded active. • The button has no LEDs. • For line appearance buttons: - The oldest internal user on the call has Cannot Be Intruded active. - The associated line is out of service.
Alerting	When a call is visually or audibly alerting on a telephone.
Ringback	For outgoing calls, this is the state after the user has completed dialling and is listening to ringback.
Call Listen	Indicates the call is listening to this extension
Paging	Indicates one or more output points of a paging call.
Recording	The system is recording the call.
Hold Reminder	The system is alerting the extension with a held call reminder.
Park Reminder	The system is alerting the extension with a parked call reminder.
Transfer Return	The system is alerting the extension with a transfer return.
Voicemail Ringback	The system is alerting the extension with a voicemail ringback.
Auto Callback	The system is alerting the extension with a callback call.
Held at Central Office	For European ISDN lines, the central office has the call on hold. It frees the Bchannel which returns to idle in System Status.

Table continues…

State	Extension
Holding	Indicates that the other party on the call is in one of the Held states: Held, Held for Transfer, Held for Conference, Held at Central Office, Hold Reminder.
Connected Blind	Indicates that this end of the call is connected and that the other party on the call is alerting with either a blind transferred call or a transfer return.
Queuing	Indicates that the system has queued the call for a hunt group. While queued, the call does not alert at any extension.
Alerting Announcement	Indicates that the call is alerting at one or more extensions or trunks and also currently connected to voicemail for a queuing announcement.
Queuing Announcement	Indicates a queued call connected to voicemail for a queuing announcement.
Connected Announcement	Indicates a connected call listening to a queuing announcement.
Number Unobtainable	The call failed or cleared because the target was unobtainable.
Busy	The call failed or cleared because the target was busy.
Disconnected	The call failed or cleared because the target disconnected the call.

When a call is alerting, one end is in the alerting state while the other is in the ringback state. From the view of the system, Ringback and Incoming Alerting are equivalent states. Similarly, Alerting and Outgoing Alerting are equivalent states.

The Trunk Summary and Extension Status screens show the direction of each call. Trunks show the as outgoing if the system initiated the call and incoming if the central office or network initiated the call. Extensions show the call as outgoing if the extension initiated the call and incoming if another party initiated the call.

Related links

Call Information on page 98

Call States (Trunk)

System Status shows call states for both ends of a call.

State	Trunk
Idle	There is no call or call attempt on this port or channel.
Out of Service	The port has been set out of service or the digital circuit (that this channel is on) is down.
Connected	The port has a connected call.
Connected WAN	This time slot in use to deliver WAN interface - digital trunks only.
Parked	The system or a user has parked the call.
Seized	The system has seized the line in preparation to make a call.
Dialling	The system has seized the line and dialed out digits but the call is not yet connected.

Table continues…

State	Trunk
Clearing	The call is in the process of terminating or is in post call wrap-up.
Pre-Alert	The system has received an incoming on the trunk. The system is waiting for Caller ID.
Outgoing Alerting	The system has made an outgoing call on the trunk, The far end is alerting.
Incoming Alerting	The system has presented the incoming to a target at which it is alerting or queued.
Paging	Indicates one or more output points of a paging call.
Recording	The system is using the call record another call.
Held at Central Office	For European ISDN lines, the central office has the call on hold. It frees the Bchannel which returns to idle in System Status.
Holding	Indicates that the other party on the call is in one of the Held states: Held, Held for Transfer, Held for Conference, Held at Central Office, Hold Reminder.
Connected Blind	Indicates that this end of the call is connected and that the other party on the call is alerting with either a blind transferred call or a transfer return.
Queuing	Indicates that the system has queued the call for a hunt group. While queued, the call does not alert at any extension.
Alerting Announcement	Indicates that the call is alerting at one or more extensions or trunks and also currently connected to voicemail for a queuing announcement.
Queuing Announcement	Indicates a queued call connected to voicemail for a queuing announcement.
Connected Announcement	Indicates a connected call listening to a queuing announcement.

When a call is alerting, one end is in the alerting state while the other is in the ringback state. From the view of the system, Ringback and Incoming Alerting are equivalent states. Similarly, Alerting and Outgoing Alerting are equivalent states.

The Trunk Summary and Extension Status screens show the direction of each call. Trunks show the as outgoing if the system initiated the call and incoming if the central office or network initiated the call. Extensions show the call as outgoing if the extension initiated the call and incoming if another party initiated the call.

Related links

Call Information on page 98

Callback and Returning Calls

For these types of call, System Status reports the following as the call originator:

Call Type	Originator
Transfer Return	Transferee
Hold Reminder	The party who was the originator before initiating hold.

Table continues…

Call Type	Originator
Park Reminder	The park slot. The reminder is a new call. If the reminded party picks this call up, parked and new calls will combine in the same way as a transfer completion.
Automatic Callback	The party that requested the callback.
Voicemail Ringback	The party receiving the callback.

Related links

Call Information on page 98

Chapter 8: Resources

Path: Resources

This screen provides a summary of key resources and their current usage in the system.

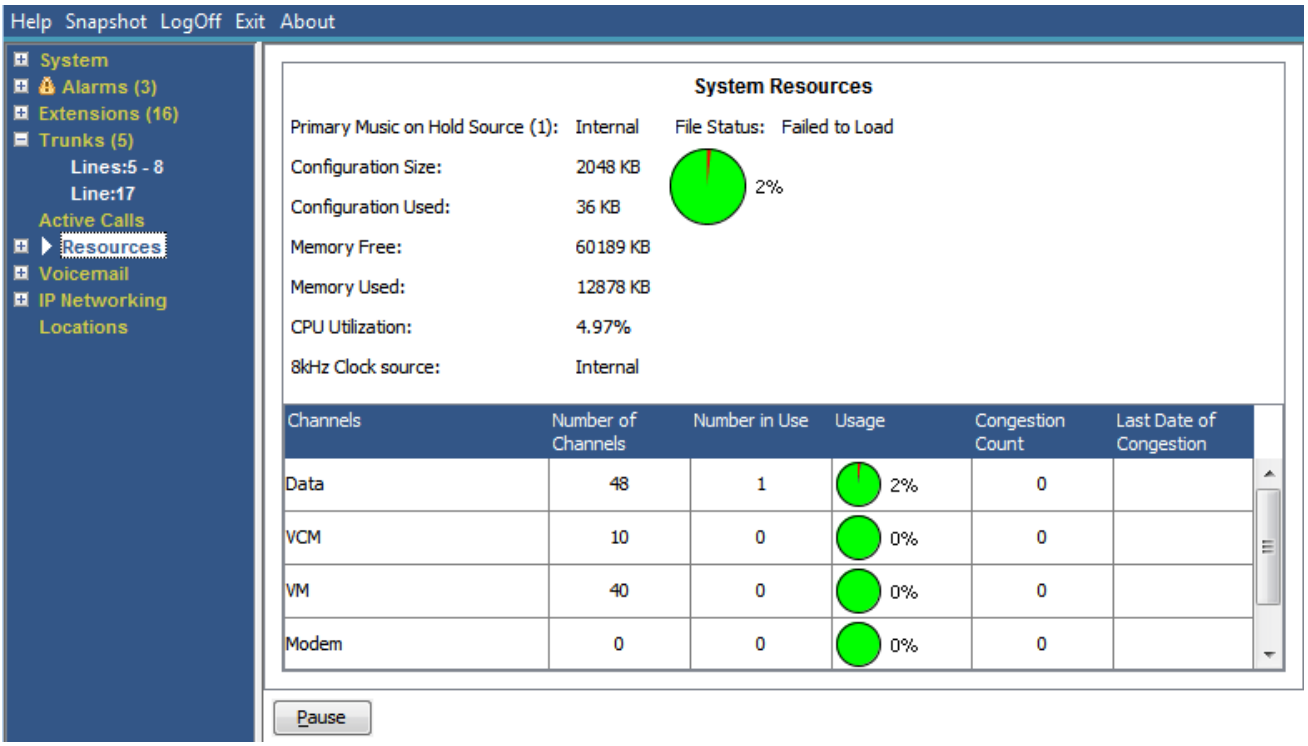


Figure 43: The Resources Menu

Information Displayed

Information	Description
Music on Hold Source	The system provides music on hold using either an internally stored file or an externally connected audio input.
Configuration Size	The maximum possible size for the system configuration. This varies depending on the type of control unit.
Configuration Used	The current configuration size.
Memory Free	The number of free Kbytes.

Table continues…

Information	Description
8kHz Clock Source	Indicates which digital trunk the system is configured to use as the trunk clock source.
Channels Table	This table lists details of various resource channels. See the `Channels` table below.
Number of Channels	The total number of resources available in the system.
Number in Use	The number of resources that are currently in use.
Usage	The percentage of the resource currently being used.
Congestion Count	The total number of times that requests for a resource exceeded the available resource .
Last Date of Congestion	The last occasion when insufficient resources were available.

Channels

This table lists details of various resource channels.

Channel	Description
VCM Channels	The system uses voice compression channels for calls between IP and non-IP devices (trunks and or extensions).
Data Channels	The system uses data channels for Remote Access (RAS), Internet Access, and voicemail sessions. A data channel is an internal signaling resource used whenever a call goes between the IP network and an exchange line. For example, four people surfing the Internet will use a single data channel since they all share the same line to the ISP. Two people remotely accessing the Office LAN from home will use two data channels since they have dialed in on separate lines. IP extensions do not use data channels.
Modem Channels	This is the internal IP400 modem card. The 'private' modem in a Small Office Edition base unit or an ATM4 card is not included in these channels.
Conference Channels	The number of channels available for conference members (parties) depend on the type of system control unit. Systems use these channels for conference calls and for features such as call intrusion and call recording.
VM Channels	The number of voicemail channels available and the number in use.

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.

Related links

Time on page 108

Licenses on page 109
Networked Licenses on page 110
Directory on page 110
Control Unit Audit on page 112

Time

Path: Resources > Time

This screen displays the current date and time set on the system and details about the source the system is using for that time plus any daylight savings settings.

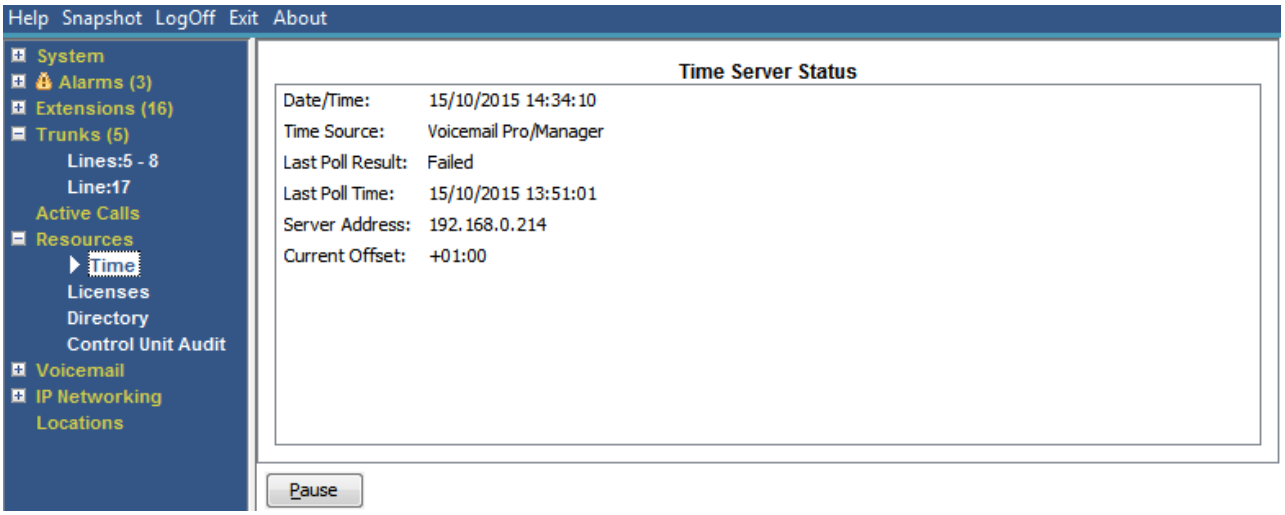


Figure 44: The Time Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.

Related links

Resources on page 106

Licenses

Path: Resources > Licenses

This screen shows the current installed licenses and the status of those licenses. It also shows the type and serial number of the feature key.

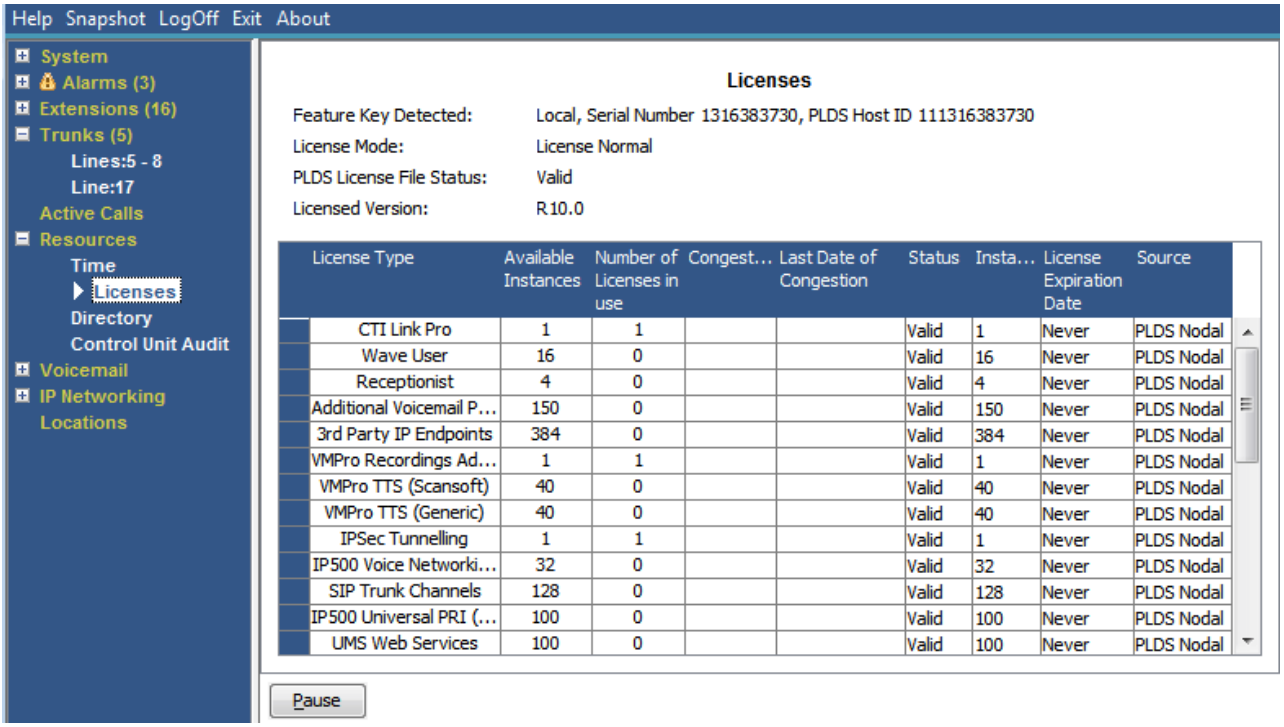


Figure 45: The Licenses Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Renew Licenses	Force the system to immediately revalidate its license entitlements rather than waiting for the next automatic check.

Related links

Resources on page 106

Networked Licenses

Path: Resources > Networked Licenses

For a system in a Server Edition multi-site network, this screen lists the licenses granted to the system from the network's primary server. This differs from licenses held in the system's own configuration shown on the Licenses screen.

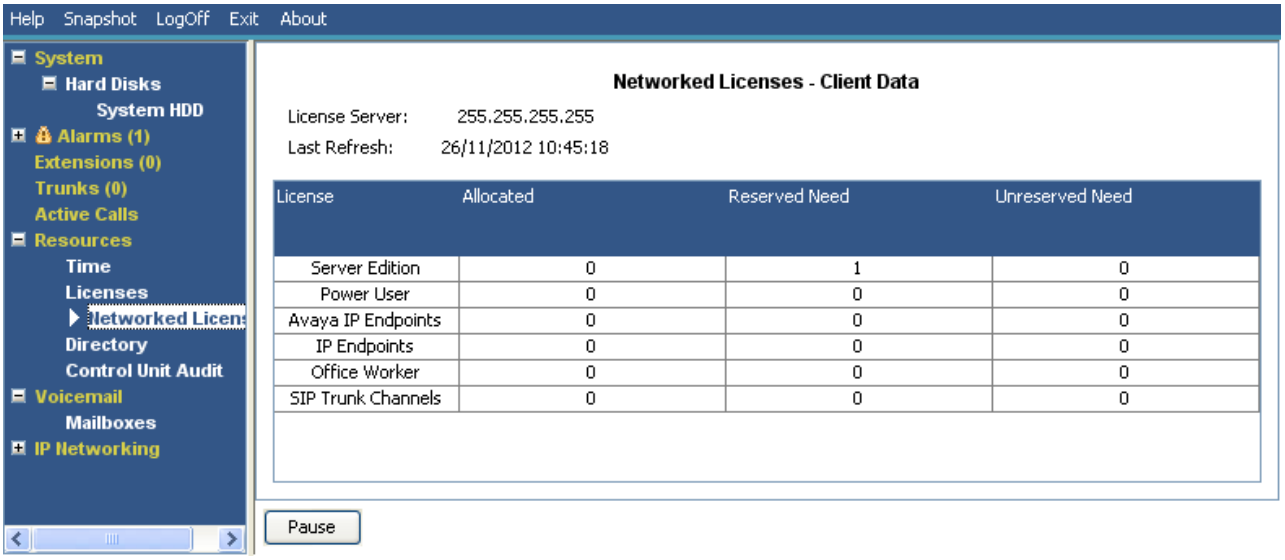


Figure 46: The Networked Licenses Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.

Related links

Resources on page 106

Directory

Path: Resources > Directory

This screen shows information about the directory entries held by the system including imported directory entries.

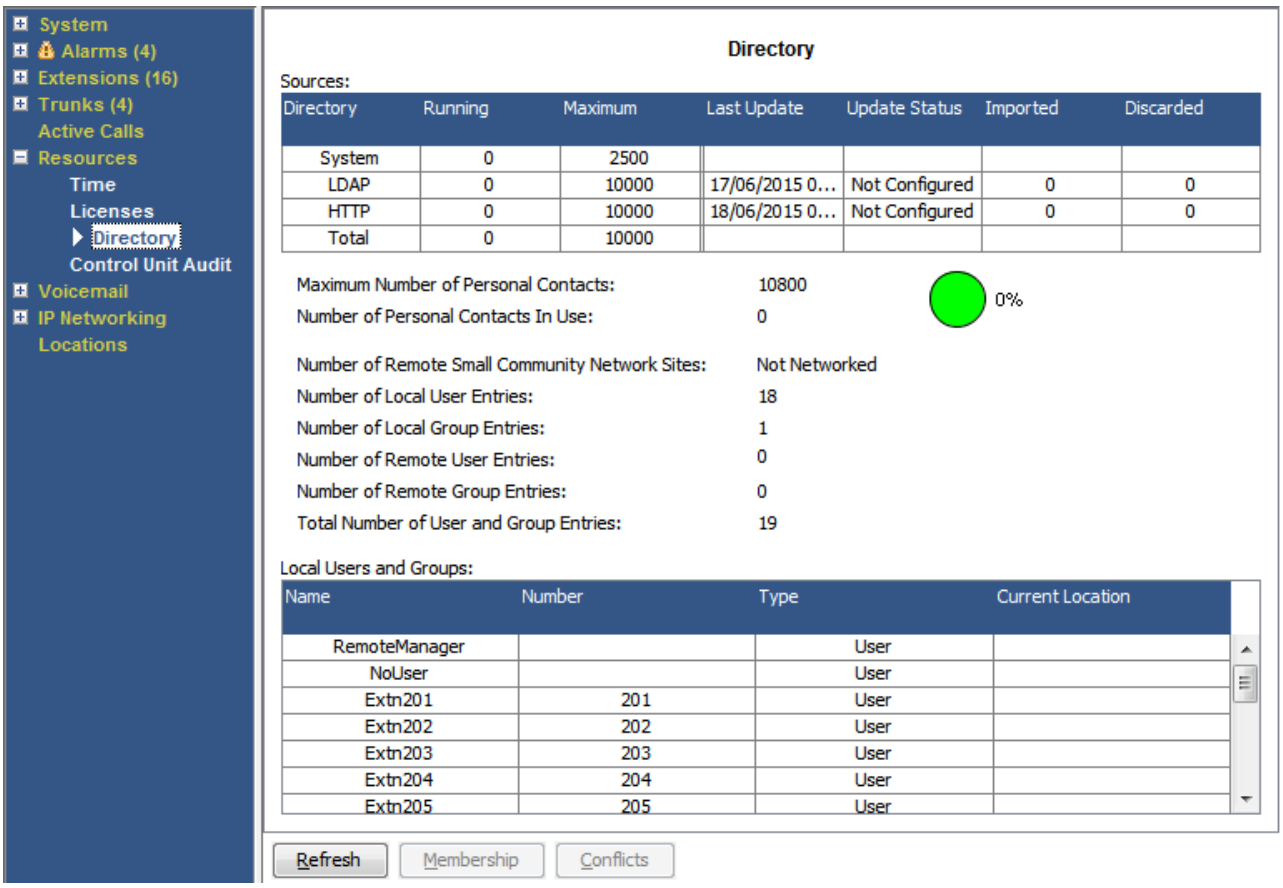


Figure 47: The Directory Menu

Information Displayed

Information	Description
Sources	This part of the table indicates the directory sources the system is using. • **System** Directory entries stored permanently as part of the system configuration. • **LDAP** Directory entries imported using LDAP from an LDAP server. • **HTTP** Directory entries imported using HTTP from another system. • **Total** The total number of current directory entries and the overall system maximum.
Running	The number of directory entries.

Table continues…

Information	Description
Maximum	The maximum capacity of such directory records that the system will allow. Note that System source entries have priority over imported LDAP/HTTP entries.
Last Update	The last time the **Update Status** was changed. Shown for LDAP and HTTP sources only.
Update Status	The status or result of the last update. Shown for LDAP and HTTP sources only. • Success • Success with Overflow • Failure • In Progress • Not Configured
Imported	The number of entries imported during the last successful update. Shown for LDAP and HTTP sources only.
Discard	The number of entries discarded, due to being invalid or duplicate, during the last successful update. The system discards records if they have a blank name or number, they match an existing record or then exceed the total capacity of the system. Shown for LDAP and HTTP sources only.

Buttons

The following buttons can appear on this screen:

Button	Description
Refresh	Updates the screen. This button appears on screens that do not update automatically.
Membership	Display the users who are members of the selected hunt group.
Conflicts	Displays any conflicts with directory entries on other systems if in a multi-site network.

Related links

Resources on page 106

Control Unit Audit

Path: Resources > Control Unit Audit

The audit trail lists the last 16 actions performed on the system using IP Office Manager. It includes actions such as sending a configuration back, reboots, upgrades and defaulting the system. The last failed action is always recorded and shown in red. It is kept even if there have been 16 subsequent successful actions.

The audit trail is just a snapshot of the most recent events. You can configure a continuous audit trail and enhanced audit trail output to Syslog from the IP Office system using the system's **System** > **System Events** settings.

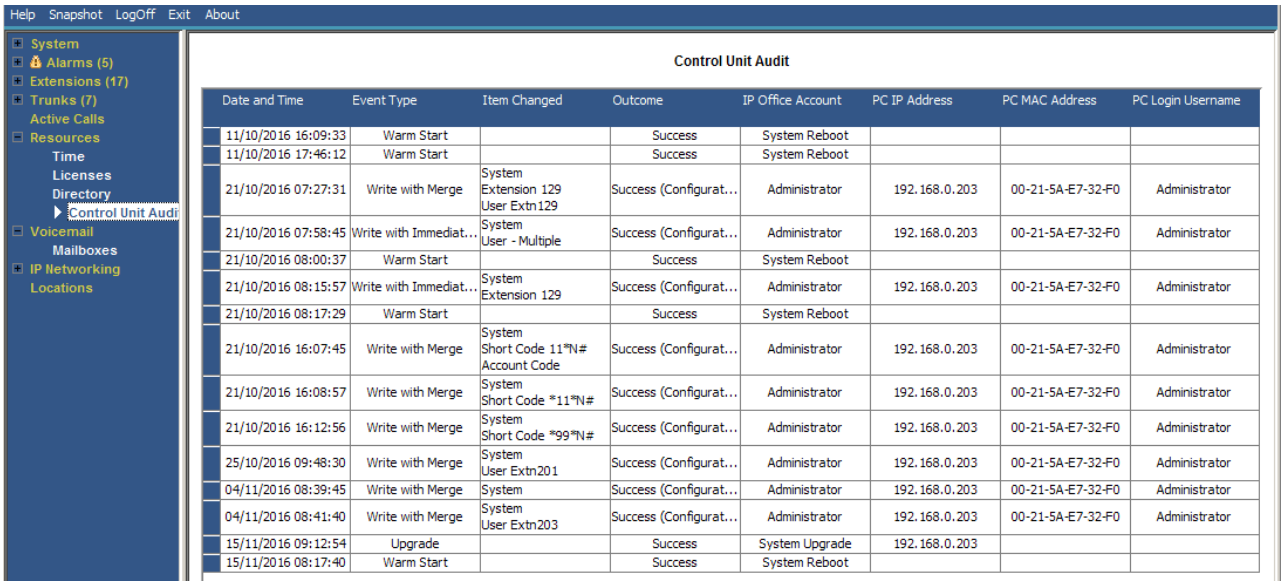


Figure 48: The Control Unit Audit Menu

Information Displayed

Information	Description
Date and Time	The Data and Time of Access indicate the local system time when the recorded event occurred.
Event Type	A description of the event recorded.
Items Changed	The Items Changed area summarizes the changes contained in a sent configuration. Where changes to a single record of a particular type are made, the Item Name field lists the individual record changed. Where changes are made to several records of the same type, the Item Name field displays Multiple items.
Outcome	The outcome Success (Warning) refers to the sending of a configuration that contains fields marked as errors or warnings by IP Office Manager's validation function. Success (Clean) refers to the sending of a configuration that does not contain any validation errors or warnings.
IP Office Account	The IP Office security user account used for the action.
PC IP Address	The IP address of the PC used for access.
PC MAC Address	The MAC address of the PC used for access.
PC Login Name	The PC user login name used for the access.

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.

Related links

Resources on page 106

Chapter 9: Voicemail

Path: Voicemail

This screen displays the status of the voicemail server configured for the system. The details shown will vary according to the type of voicemail server.

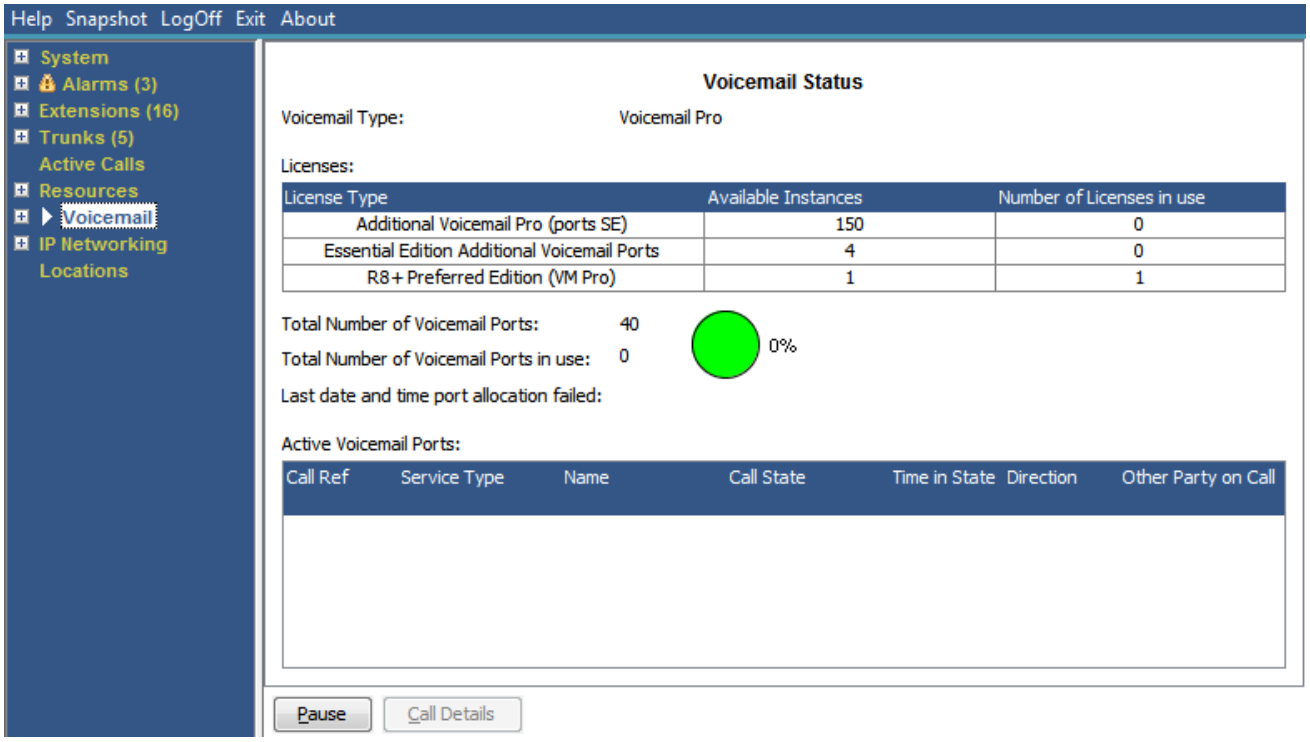


Figure 49: The Voicemail Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Call Details	Displays call details for the selected call, trunk or trunk channel.
Activate Backup Server	Transfer voicemail server operation to the configured backup voicemail server.

Related links

Mailboxes on page 116

Mailboxes

Path: Voicemail > Mailboxes

This screen displays details of the voicemail mailboxes on the voicemail server. It includes the number of messages and the status of basic voicemail settings for the associated mailbox user or hunt group.

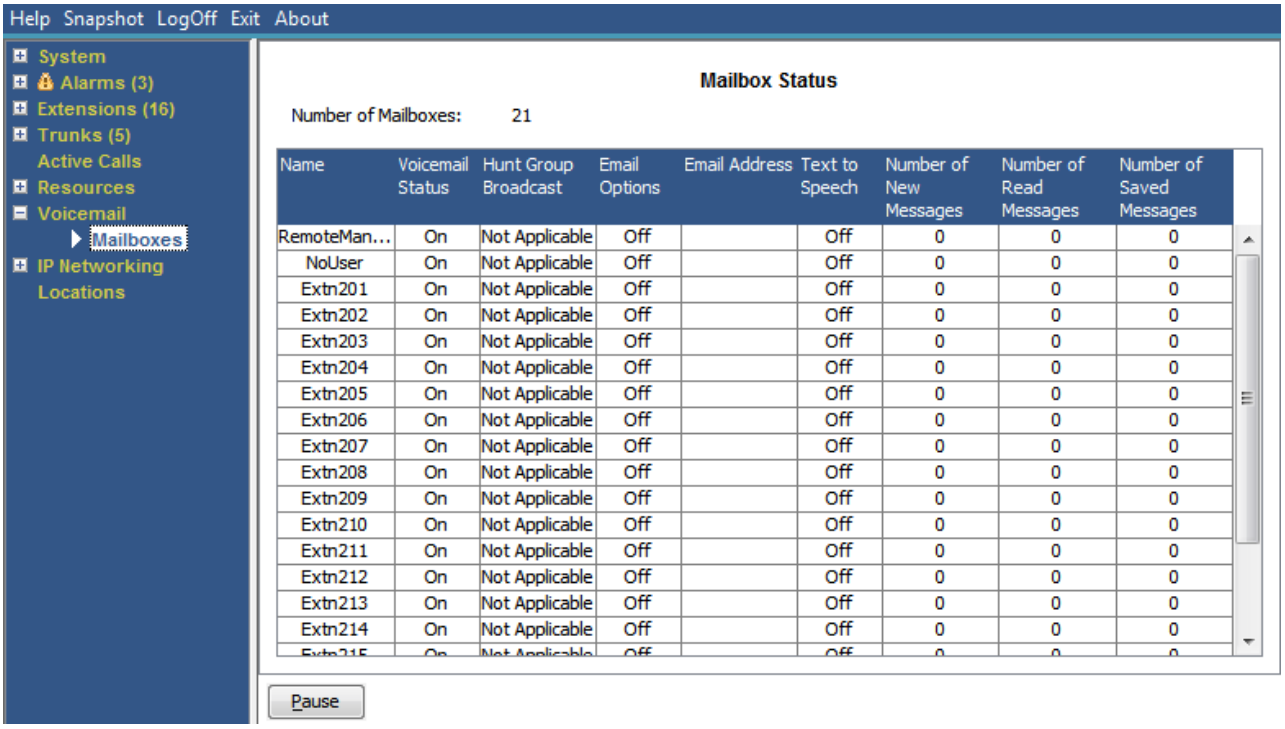


Figure 50: The Mailboxes Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.

Related links

Voicemail on page 115

Chapter 10: IP Networking

Path: IP Networking

These menus show the status of networking services (IP routes , tunnels and VPN services). This section does not cover VoIP functions which are covered by menus in other sections (see VoIP Trunks on page 40, VoIP Security on page 40, H.323 Extensions on page 31 and SIP Extensions on page 32.

Related links

IP Routes on page 117
IPV6 Routes on page 119
Tunnels on page 120
SSL VPN on page 121
Outdialer on page 122

IP Routes

Path: IP Networking > IP Routes

This screen shows the IP routes known by the system. This includes both configured static routes and routes learned through RIP if enabled.

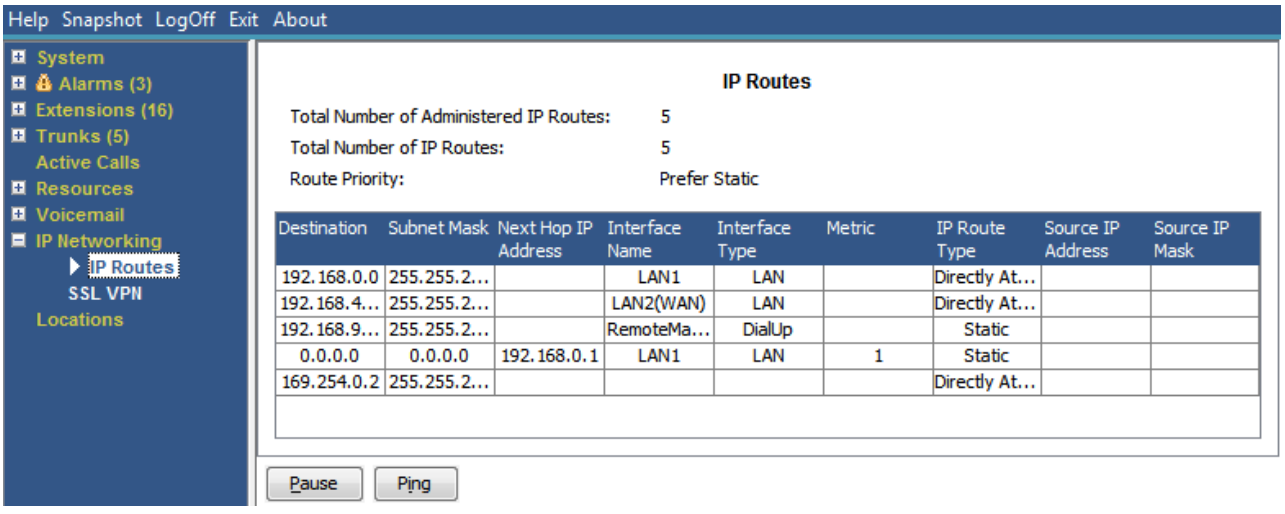


Figure 51: The IP Routes Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Ping	Perform a Ping action from the selected interface (system, line or extension) and display the results. See Ping on page 118.

Related links

IP Networking on page 117
Ping on page 118

Ping

You can use the Ping button to ping an IP address from the perspective of the system rather than your PC.

- When selected from the line details screen of an IP line, the system sends the ping to the configured gateway for the line.
- When selected from the IP routes screen, the system sends the ping from the selected interface (LAN1, LAN2 or Remote Manager).

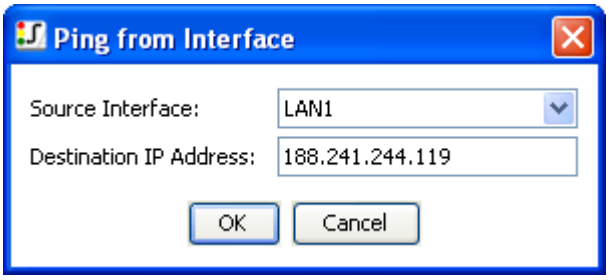


Figure 52: Ping Menu

Figure 53: The Ping Results Menu

Related links

IP Routes on page 117

IPV6 Routes

Path: IP Networking > IP Routes > IPV6 Routes

This screen shows the IPv6 routes known by the system.

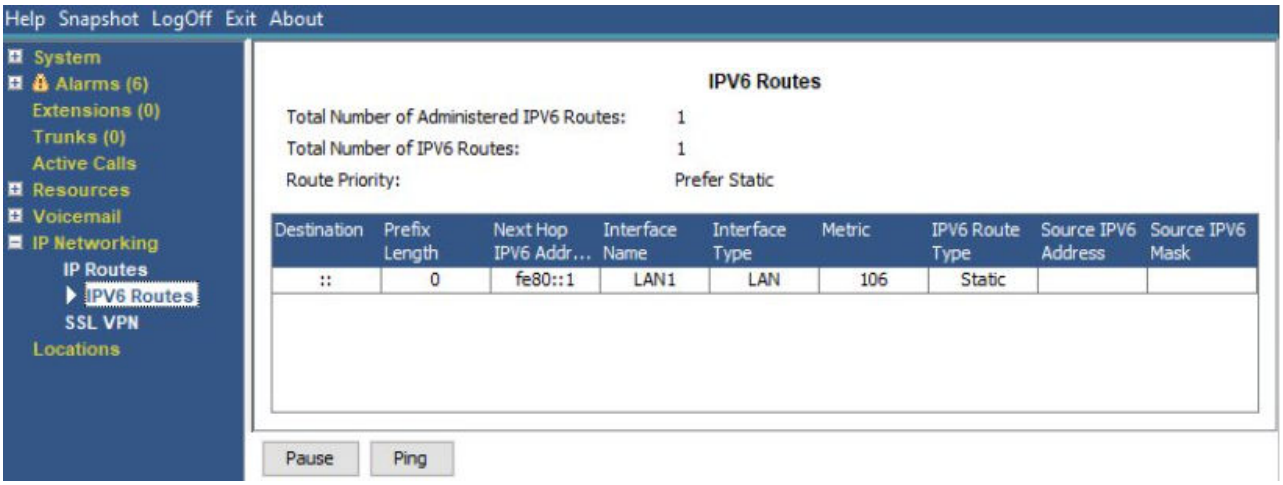


Figure 54: The IPv6 Routes Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Ping	Perform a Ping action from the selected interface (system, line or extension) and display the results. See Ping on page 118.

Related links

IP Networking on page 117

Tunnels

Path: IP Networking > Tunnels

This screen display details of the VPN tunnels (IPSec and L2TP) configured on the system.

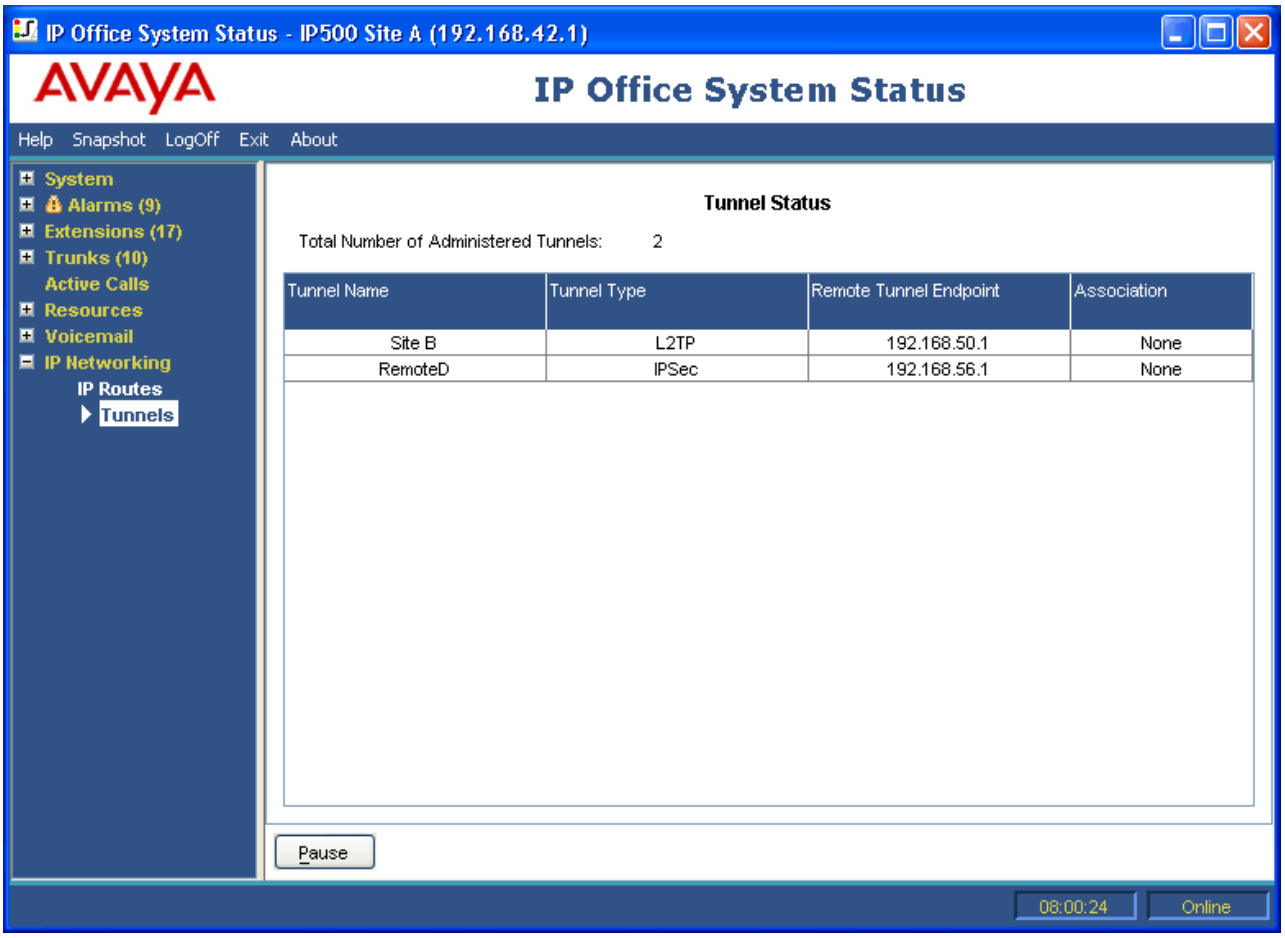


Figure 55: The Tunnels Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.

Related links

IP Networking on page 117

SSL VPN

Path: IP Networking > SSL VPN

This menu lists the SSL VPN services configured on the system and shows their current status.

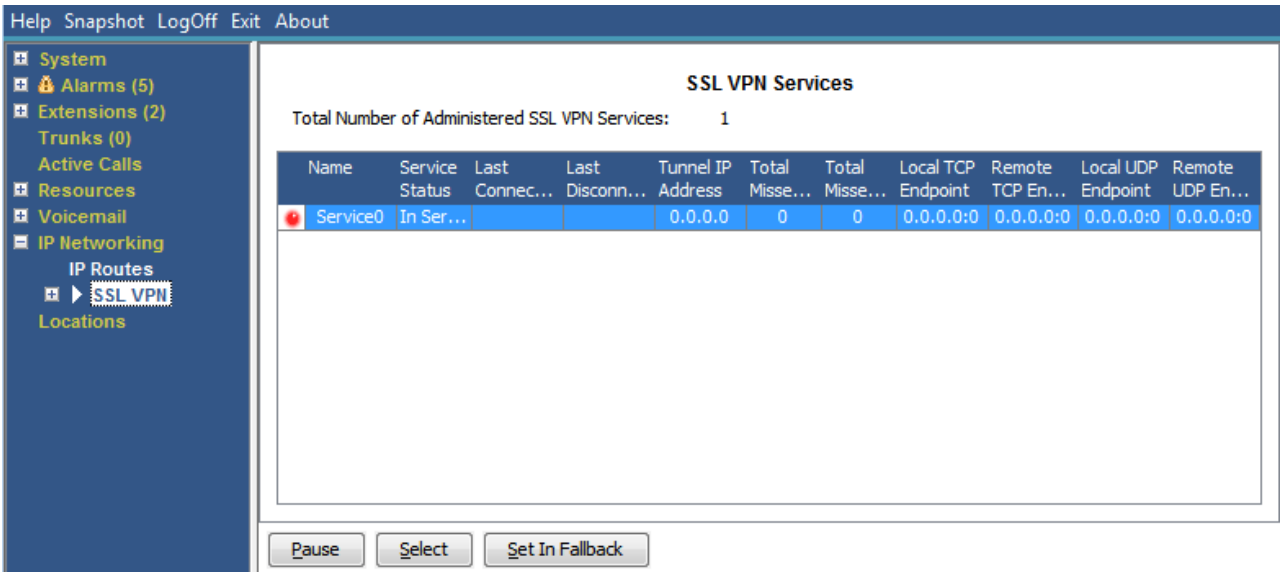


Figure 56: The SSL VPN Menu

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.

Table continues…

Button	Description
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Select	Show details for the currently selected item.
Set In Fallback	Set the currently selected SSL VPN service into fallback status.
Clear In Fallback	Clear the currently selected SSL VPN service's fallback status.

Related links

IP Networking on page 117

Outdialer

Path: IP Networking > Outdialer

This menu lists the current and historic status of the IP Office outdialler application connected to the system.

Outdialler Version

The version of the outdialler server.

Totals

This section lists the cumulative total number of calls made during the outdialler session.

Information	Description
Total Number of Calls	The number of calls made by the outdialler since starting the session.
Total Number of Answered Calls	The number of calls answered.
Total Number of Abandoned Calls	The number of calls not answered.
Total Number of Failed Calls	The number of calls that could not terminate on the target.
Total Number of Calls Connected to an Agent	The number of calls that involved an agent.
Total Number of Managed Calls	The number of calls which did not use predictive dialling, ie. calls made by agents.
Total Number of Predictive Calls	The number of calls made by predictive dialling.

Current

This section displays statistics for calls while this window is in the view. System Status updates the values every 5 seconds.

Information	Description
Trunks	These are the total number of trunks that the dialer application can use. The adjacent pie chart shows these values as percentages of the number of trunks.
Idle Trunks	The number of idle trunks.
Ringing Trunks	The number of ringing trunks.
Connected Trunks	The number of connected trunks and trunks in call wrap-up.
Connected Calls	The number of calls that answered and connected.
Calls Connected to an Agent	The number of calls currently connected to an agent. The adjacent pie chart shows this value as a percentage of the number of connected calls.
Agents	The number of agents available or connected.
Agents Connected	The number of agents currently speaking to customers. This adjacent pie chart shows this value as a percentage of the number of agents.

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Print...	Prints all information available in the current screen (including any information currently scrolled off).
Save As...	Saves the information shown on the screen to a text file (TXT or CSV). You can only save trace screens as CSV text files.

Related links

IP Networking on page 117

Chapter 11: Locations

This menu shows details of the locations configured in the system and activity for those locations.

Note that the information shown is applicable only to the system to which System Status is connected. For example, for servers in the same network and configured with the same locations, the call counters are not shared or combined. Note also that the call counters are not preserved even if call control temporarily passes to another server using resilience.

Calls are only counted from their beginning. Therefore, calls taken over by a system providing resilience do not appear in the call count.

Related links

Locations on page 124

Locations

This menu shows details of the locations configured in the system and activity for those locations.

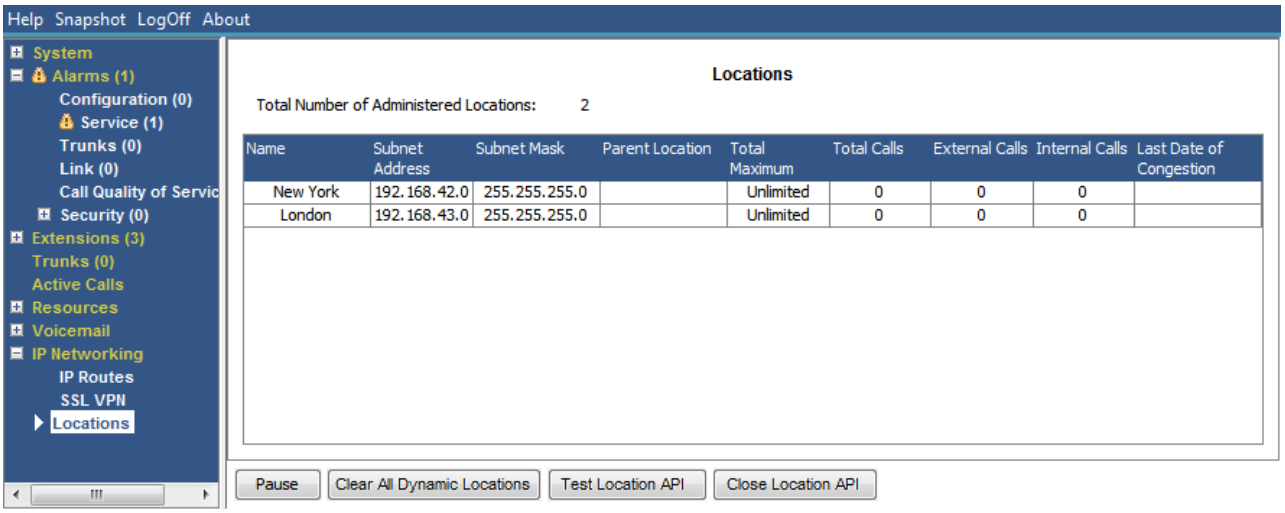


Figure 57: The Locations Menu

Note that the information shown is applicable only to the system to which System Status is connected. For example, for servers in the same network and configured with the same locations, the call counters are not shared or combined. Note also that the call counters are not preserved even if call control temporarily passes to another server using resilience.

Calls are only counted from their beginning. Therefore, calls taken over by a system providing resilience do not appear in the call count.

Buttons

The following buttons can appear on this screen:

Button	Description
Pause	Stops the screen from updating. The button label and function changes to **Resume** when the screen is paused.
Resume	Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.
Clear All Dynamic Locations	Third-party applications can use the system's location API to dynamically set the location of extensions. This button clears the dynamic location information currently held for all extension.
Close Location API	Close the dynamic extension location API.
Test Location API	Test the location API by requesting the dynamic extension location information.

Related links

Locations on page 124

Part 3: Tracing and Troubleshooting

Chapter 12: Tracing

System Status can generate traces for particular calls, lines and extensions. It displays trace information at the bottom of the screen.

The Pause button and scroll bar enable you to view the information whilst the application continues to record new trace events. The Resume button displays all the events recorded when a trace is paused, as well as further new events as they occur.

Whilst displaying a trace, System Status provides options to Print and Save As. You can save a trace as either a TXT or CSV text file. If the trace is paused, System Status only saves or prints the currently displayed information.

This section provides examples and descriptions of traces generated for calls, lines and extensions.

If the viewer restarts during a trace, if the traced trunk/channel/extension/buttons remains valid, the viewer retains the trace from before loss of connection. System Status adds a line to the trace to indicate the restart.

Related links

Using Traces for Troubleshooting on page 127

Using Traces for Troubleshooting

To diagnose problems with a call, it is generally best to trace the source of the call; e.g. trace the trunk for an incoming call or the extension for an outgoing call. By following this guideline, you will see all trace information from the very start of the call. The initial events often contain the most important diagnostic information. Since a trace also shows events relating to parties that are on the same call as the trunk or extension, a trace from a trunk or extension will allow you to see the whole history of the call.

Related links

Tracing on page 127

Chapter 13: Call Traces

You can trace a call from the Call Details screen. The trace shows changes of state for the call and events relating to both ends of the call. For example, it indicates button presses on an extension or if a protocol message is sent or received for a trunk channel that is on the call. These events appear for as long as the extension or trunk remains associated with the call. For example, if one extension transfers a call to another, the trace shows the transfer carried out by the first extension and then events relating to the second extension.

Related links

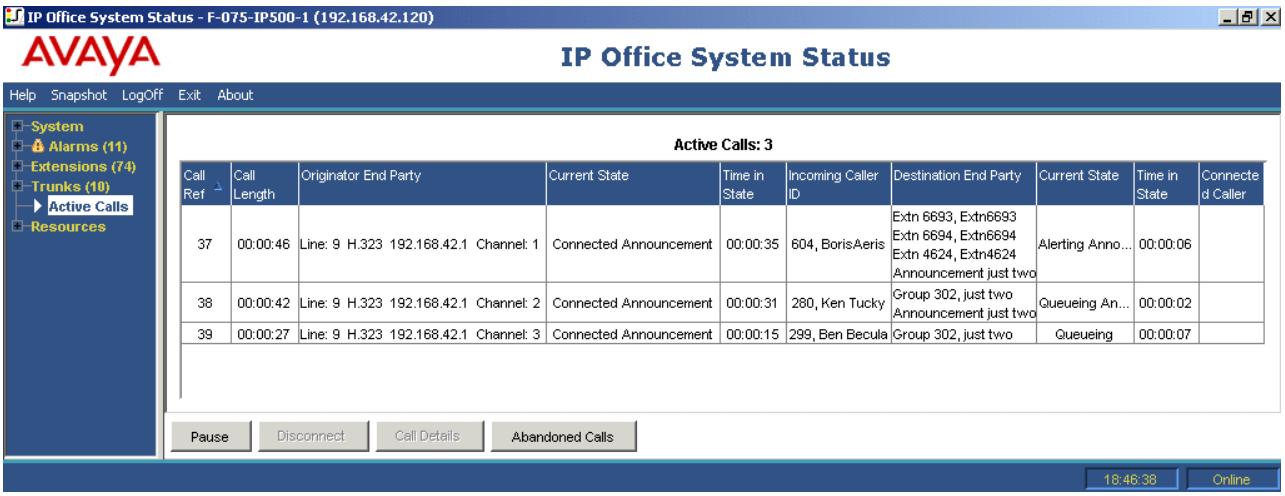
Announcements on page 128

Announcements

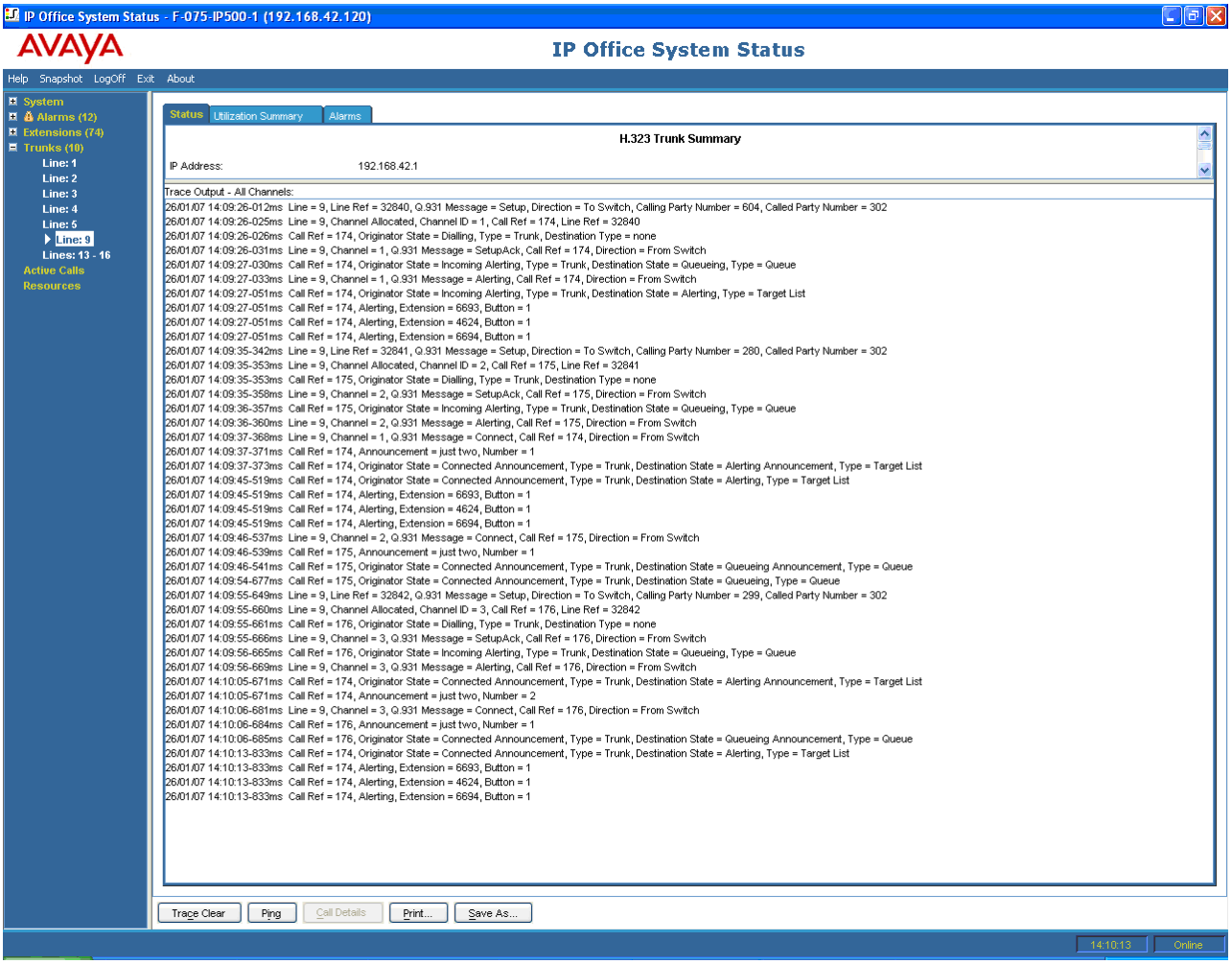
The system allows calls that are either queuing or alerting, to hear announcements. When the system plays an announcement, the current state of the call changes to Connected Announcement. The call remains in that state until either answered or cleared. System Status displays the type of announcement and details of the queued or alerting parties.

Example:

1. Call 37 is alerting at two extensions, as well as listening to Announcement 2 for the hunt group 'just two'.
2. Call 38 is queuing for the hunt group 'just two', as well as listening to Announcement 2 for the hunt group 'just two'.
3. Call 39 is queuing for the hunt group 'just two'.



The following trace shows the same call sequence, traced from the trunk from which the call originated:



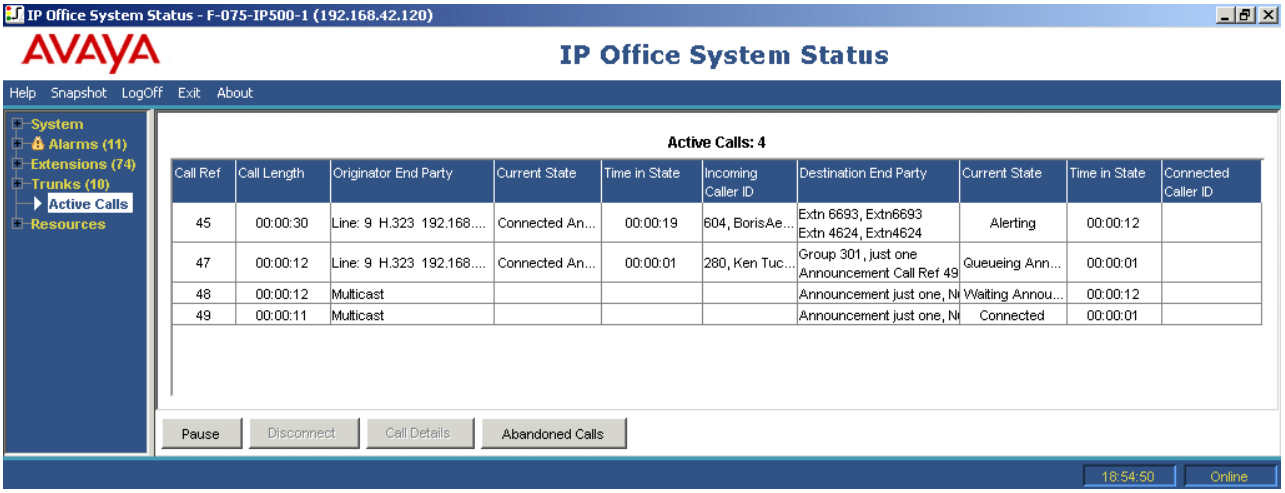
IP Office supports both synchronous and asynchronous announcements. The examples in this section are typical of asynchronous announcements. For synchronous announcements, IP Office sets up a call between voicemail and a multicasting point. Each call that is listening to the same announcement connects to the same multicasting point.

The multicasting call is set up as soon as there is a call that will require it, even if it is not yet time to play the announcement. A multicasting call that is currently playing an announcement will show the announcement details and a state of 'Connected'. A multicasting call that is waiting to play an announcement will show the announcement details and a state of 'Waiting Announcement'.

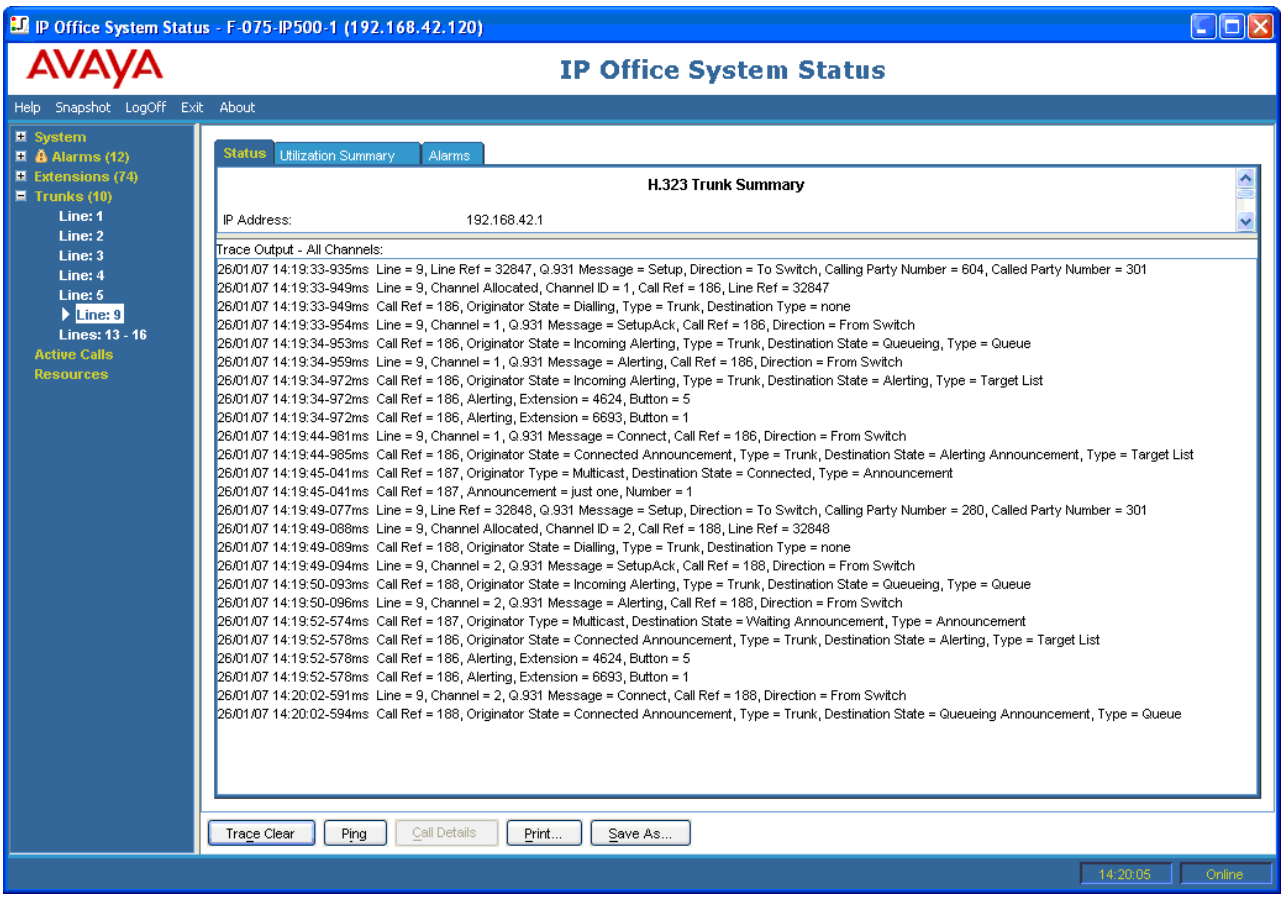
The trace of a call hearing an announcement indicates the call reference of the multicasting call.

Example:

1. Call 47 is the multicasting call for Announcement 1 of the hunt group 'just one'. This announcement is being played on call 49, which is queuing for hunt group 'just one'.
2. Call 49 is the multicasting call for Announcement 2 of the hunt group 'just two'. It has been created in readiness to play to call 45. Call 45 is alerting at two extensions. Announcement 1 of the hunt group 'just one' has already been played to it and it is waiting for Announcement 2 to begin.



The following trace shows the same call sequence, traced from the trunk from which the calls originated:



Related links

[Call Traces](#) on page 128

Chapter 14: Extension Traces

You can trace all or any selection of appearance buttons on an extension. For extensions without appearance buttons, you can trace all or any calls currently associated with the extension.

The trace for an extension will show events relating to that extension (e.g. button presses) and traces of all calls associated with the selected buttons, for as long as they are associated.

The trace information for a call which is associated with an extension button will show the same information as for a call traced from the Call Details screen. In other words, it will show changes of state for that call and events relating to both ends of the call.

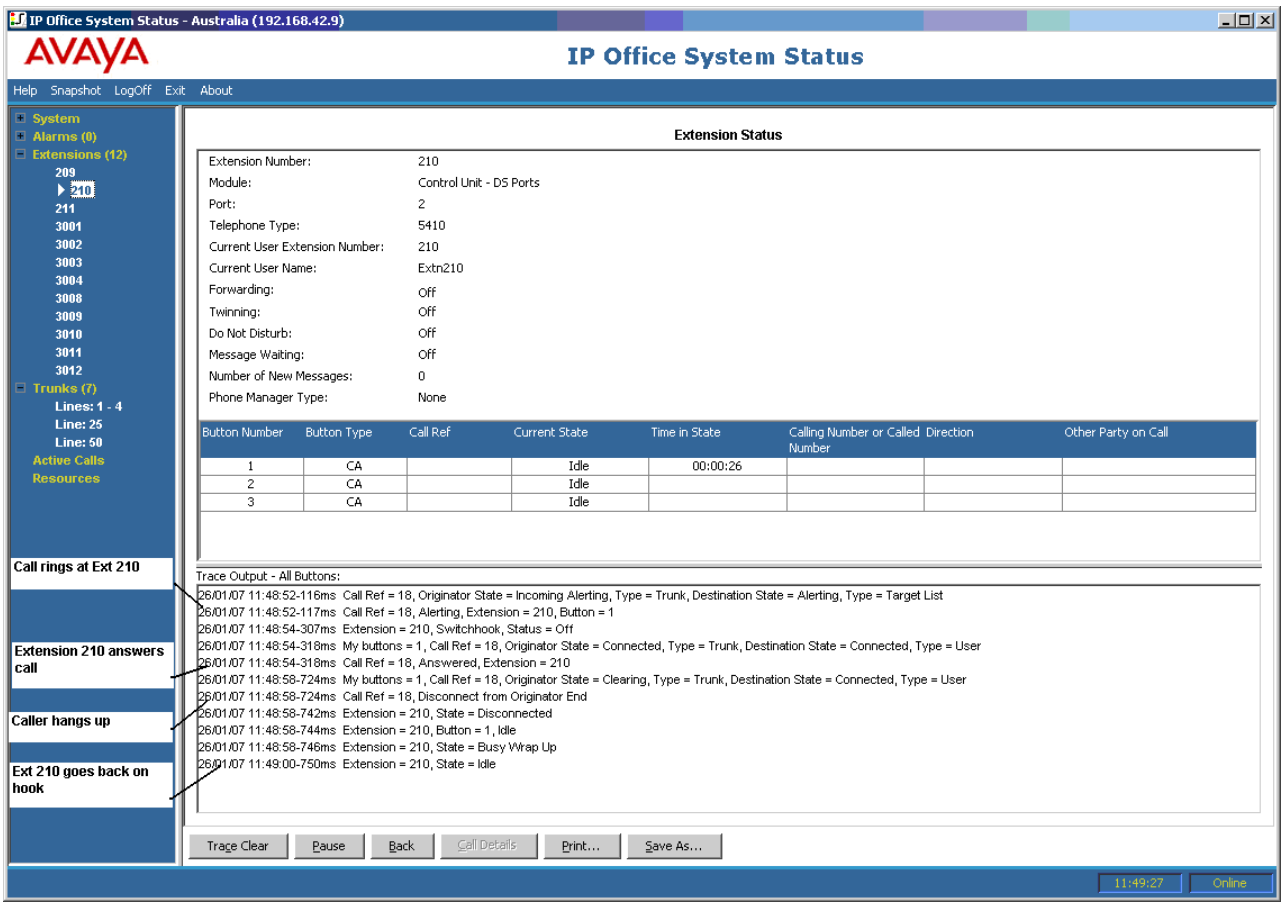
Related links

Incoming Outside Call on page 132
Extension Button Selection on page 134
Call Disconnected by Internal User on page 137
Call Disconnected by Outside Caller on page 139

Incoming Outside Call

Disconnected by Outside Caller

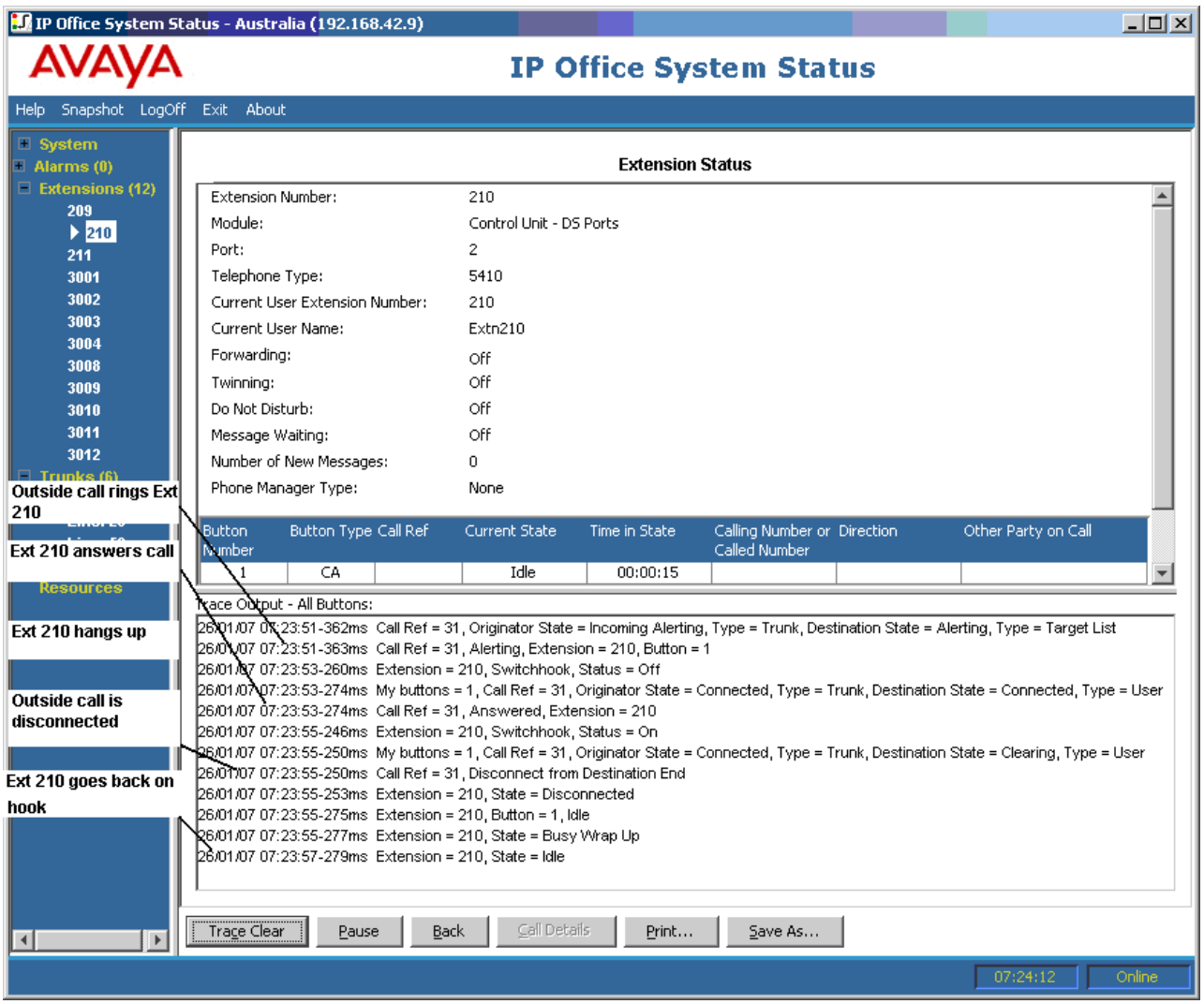
The following example shows an incoming call answered and then dropped by the outside caller:



- The outside call rings at extension 210.
- Extension 210 answers the call.
- The outside call (originator of the call) hangs up.
- Extension 210 goes back on hook.

Disconnected by System User

The following example details an incoming call answered and dropped by an internal user.



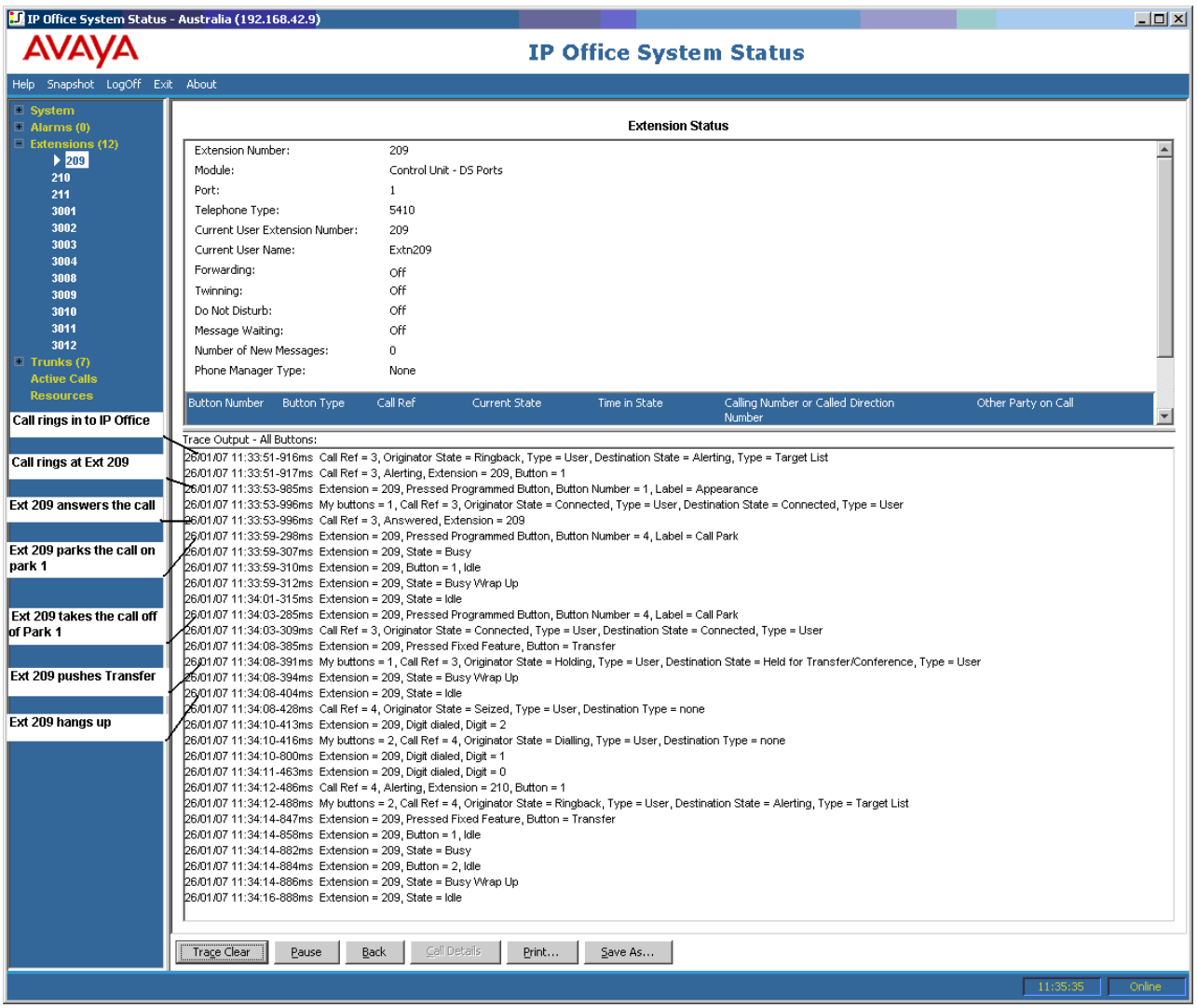
- The outside call (originator) rings at extension 210.
- Extension 210 (destination end) answers the call.
- Extension 210 hangs up.
- The outside call is disconnected.
- Extension 210 goes back on hook.

Related links

[Extension Traces](#) on page 132

Extension Button Selection

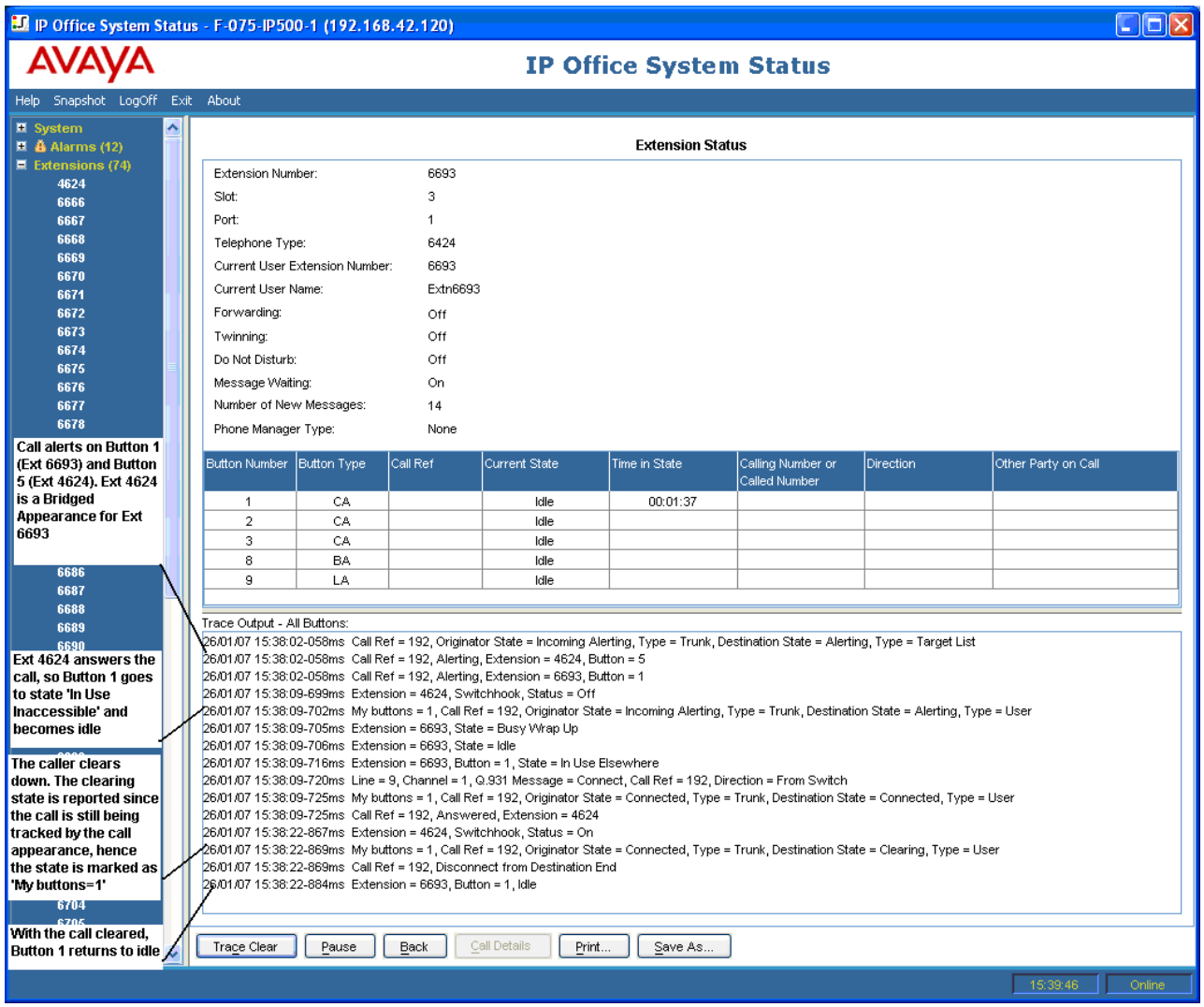
System Status can trace the buttons on a particular extension. The following example details a trace of button activity at an extension:



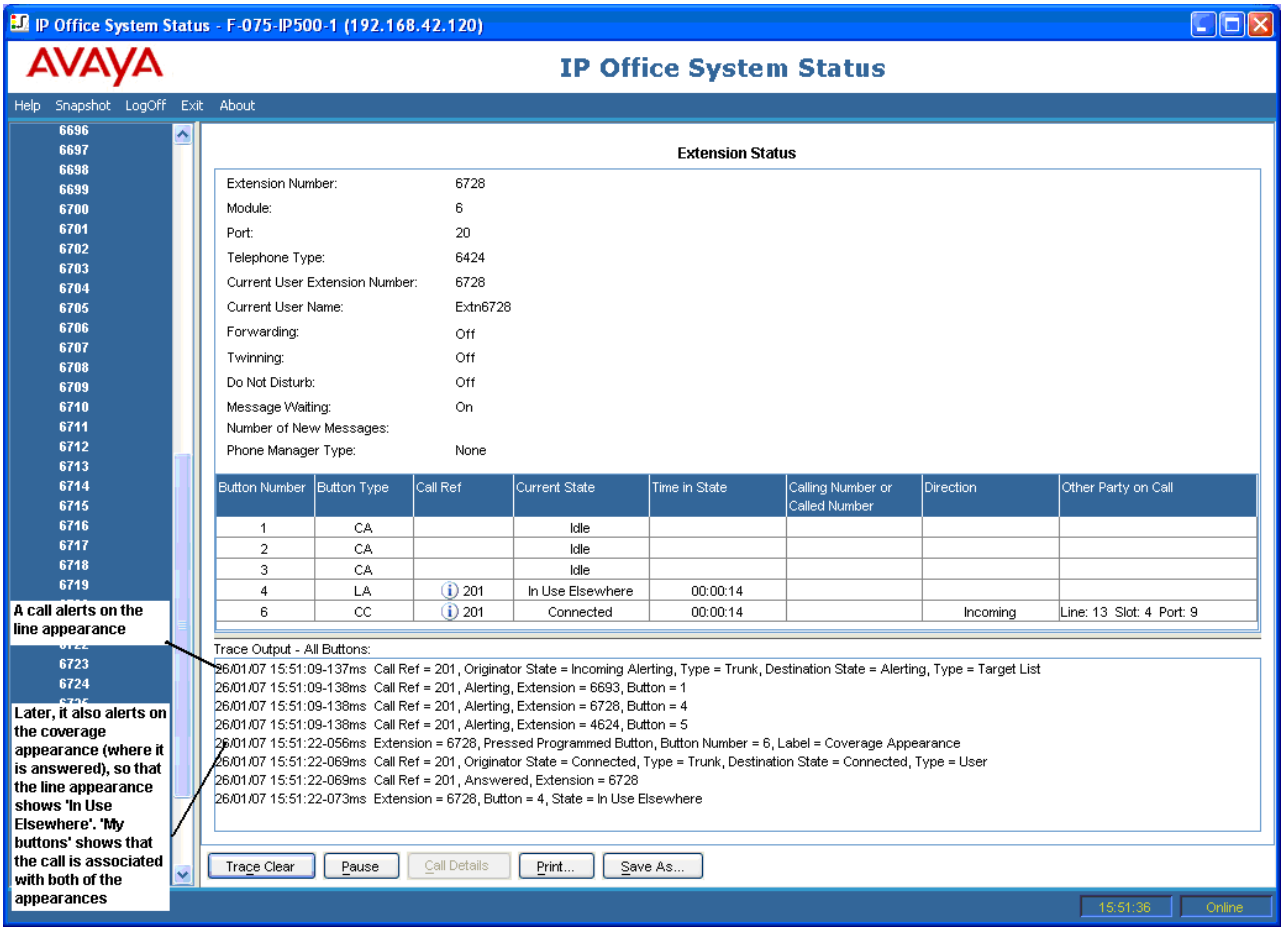
- A call rings at extension 209.
- Extension 209 answers by pressing a call appearance.
- Extension 209 parks the call on Park 1.
- Extension 209 takes the call off Park 1.
- Extension 209 selects the Transfer button.
- Extension 209 dials extension 210 and selects the Transfer button again.
- Extension 209 hangs up.

Many trace events relating to an extension that has appearance buttons, will indicate a button number against the event. When troubleshooting, this allows you to understand why, for example; a call alerted on a particular extension.

If you are tracing from the **Extension Status** screen, you also see **My buttons** marked against call state changes.



In some cases, a call may alert on more than one button on the same extension. For example, the extension might have a line appearance for the line originating the call and a coverage appearance for the destination of the call. In this case, the trace only shows the first alerting button.

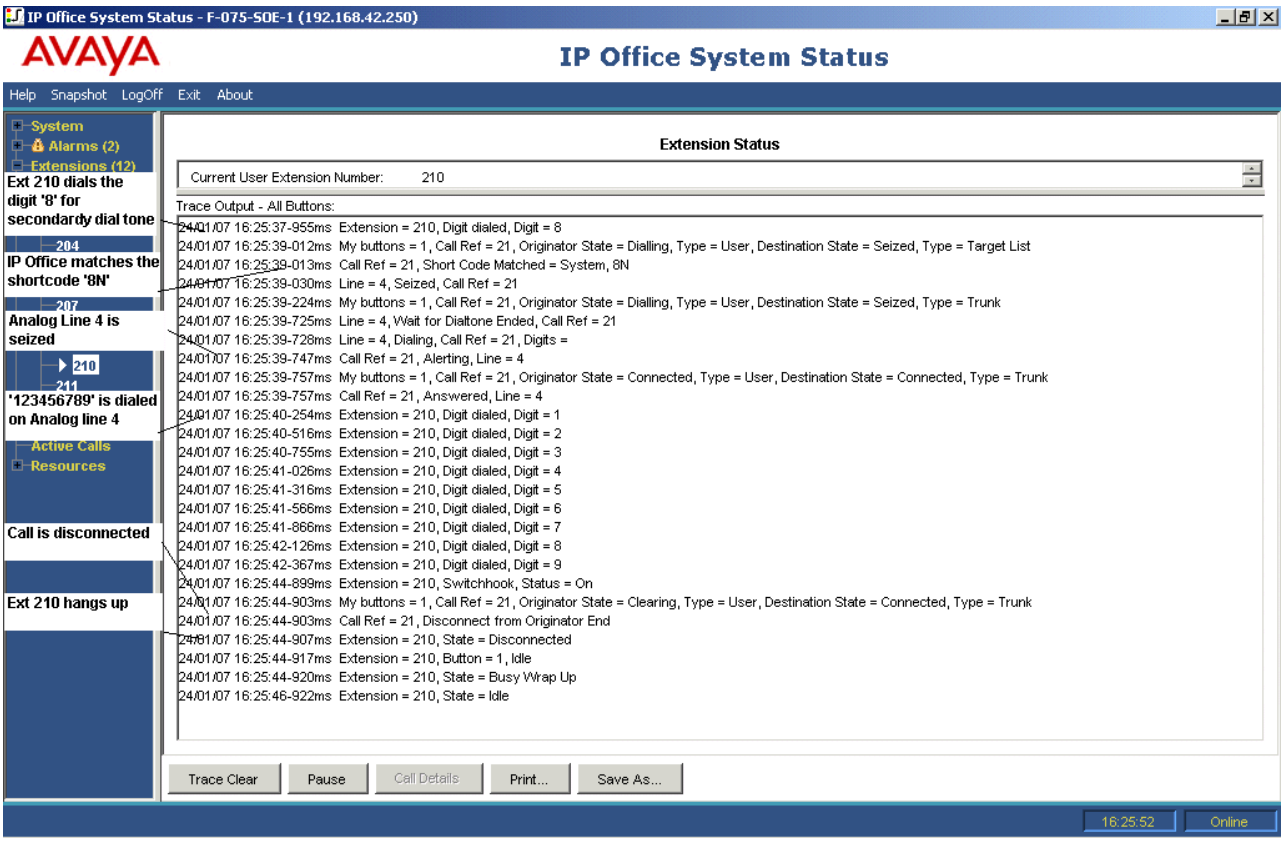


Related links

[Extension Traces](#) on page 132

Call Disconnected by Internal User

The following example shows an extension dialling out on an analog trunk:



- Extension 210 dials 8123456789.
- The trace shows Extension = 210, Digit dialed, digit = 8.
- The system matches the dialed 8, to the system short code 8N.
- The trace shows that the system seized analog line 4 and dialed 123456789 on the line.
- The trace shows that extension 210 goes back on hook.
- The system disconnects the call.

Note:

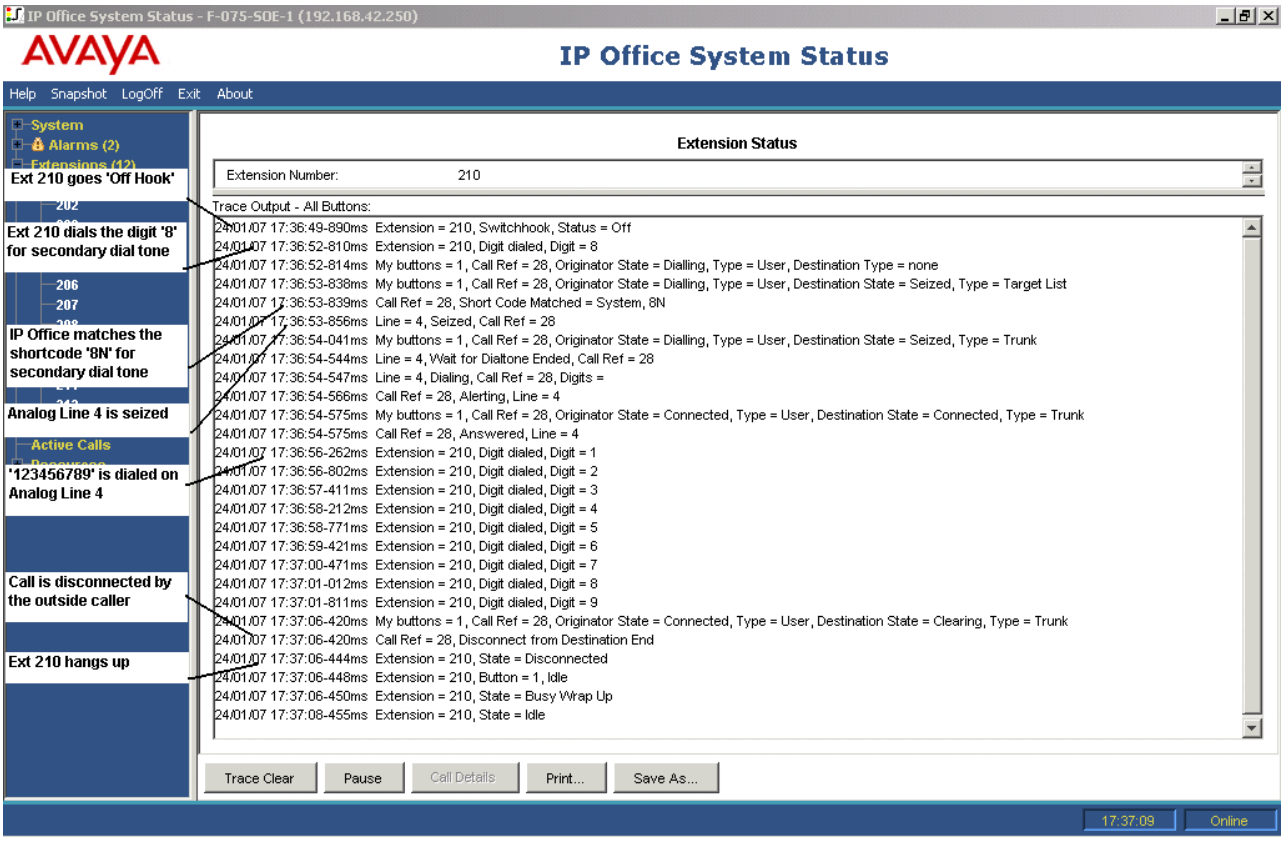
- Analog lines do not provide call progress signalling. Therefore, they go directly from the 'seized' to the 'connected' state.
- The trace will not show the digits dialed on an analog trunk after short code matching, if the pause between digits dialed exceeds an 'inter-digit' timeout.

Related links

[Extension Traces](#) on page 132

Call Disconnected by Outside Caller

This type of trace is useful when a customer reports disconnected calls. The following example shows an outgoing call on an analog line where the external party disconnects the call.



- Extension 210 dials 8123456789.
- The trace shows Extension = 210, Digit dialed, digit = 8.
- The system matches the dialed 8, to the system shortcode 8N.
- The system seizes analog line 4 and dials 123456789.
- The trace shows that external party disconnecting the call.
- The system disconnects the internal user.

Note:

- Extension 210 is the 'Originator' of the call, the extension dialed out and the outside party is the 'Destination End'.
- The trace does not display what occurs to digits collected after extension 210 dials 8.
- The trace does not display calls answered on analog lines.

Related links

[Extension Traces](#) on page 132

Chapter 15: Trunk Traces

You can trace all or any selection of channels on a trunk. The trace will show events relating to these channels (such as protocol messages), plus traces of all calls associated with these channels, for as long as they are associated.

The trace information for a call which is associated with a trunk channel will show the same information as a call traced from the Call Details screen. In other words, it will show changes of state for that call, plus events relating to both ends of the call.

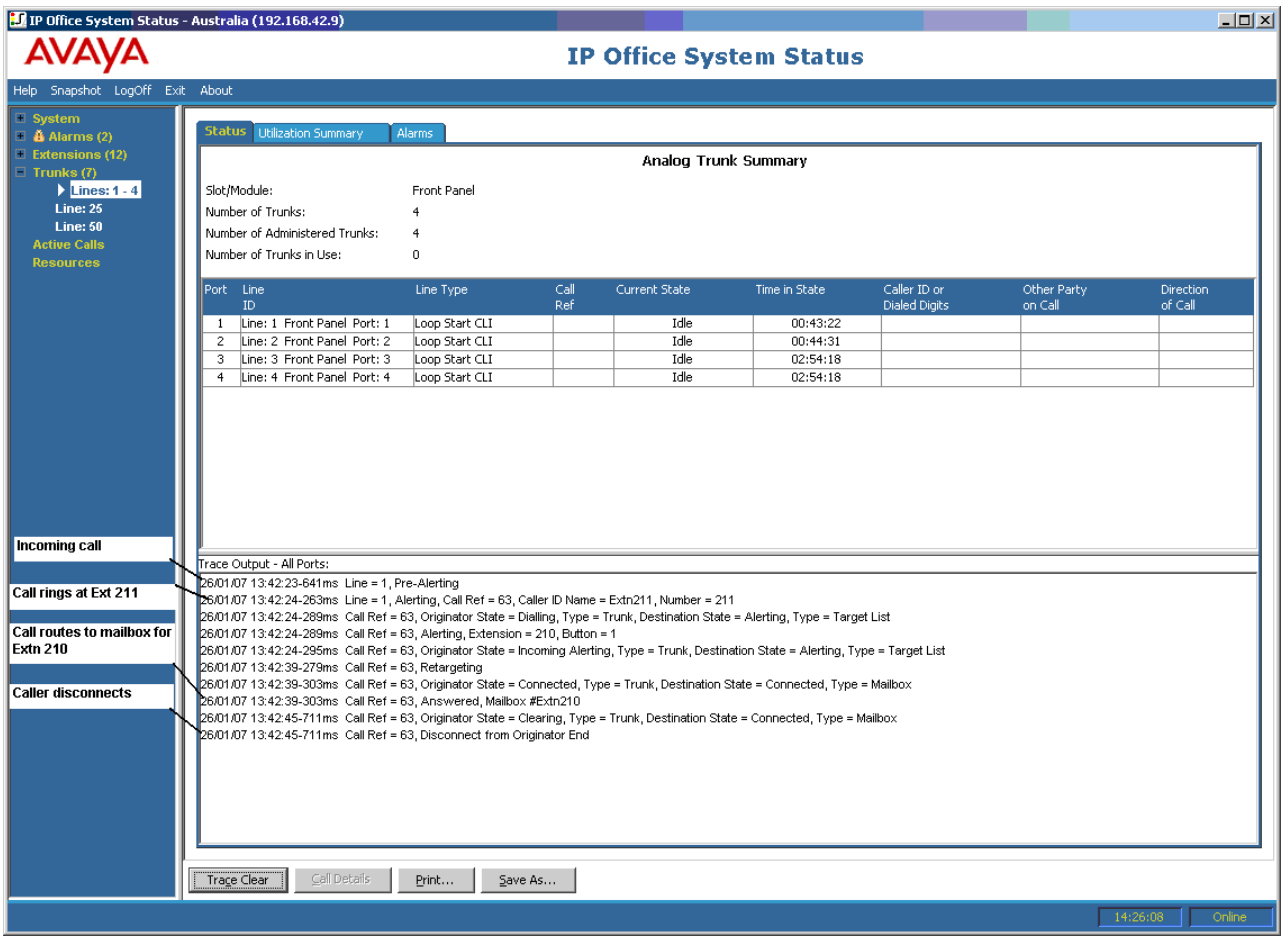
In some territories, the central office can hold calls. In such cases, the call is no longer associated with a particular channel. When un-held, it may become associated with the same or a different channel. If such a call is initially associated with a traced trunk channel, it continues in the trace, even if re-associated with a different channel or associated with no channel.

Related links

Tracing Incoming Calls on Analog Lines on page 140

Tracing Incoming Calls on Analog Lines

The following example shows an incoming call which rings at an extension and then transfers to voicemail:



- The system receives an incoming call.
- The system assigns a Call Ref of 63.
- The call rings at extension 211.
- The system redirects the call to the user's voicemail box.
- The external caller disconnected the call.

Related links

[Trunk Traces](#) on page 140

Chapter 16: Hunt Group

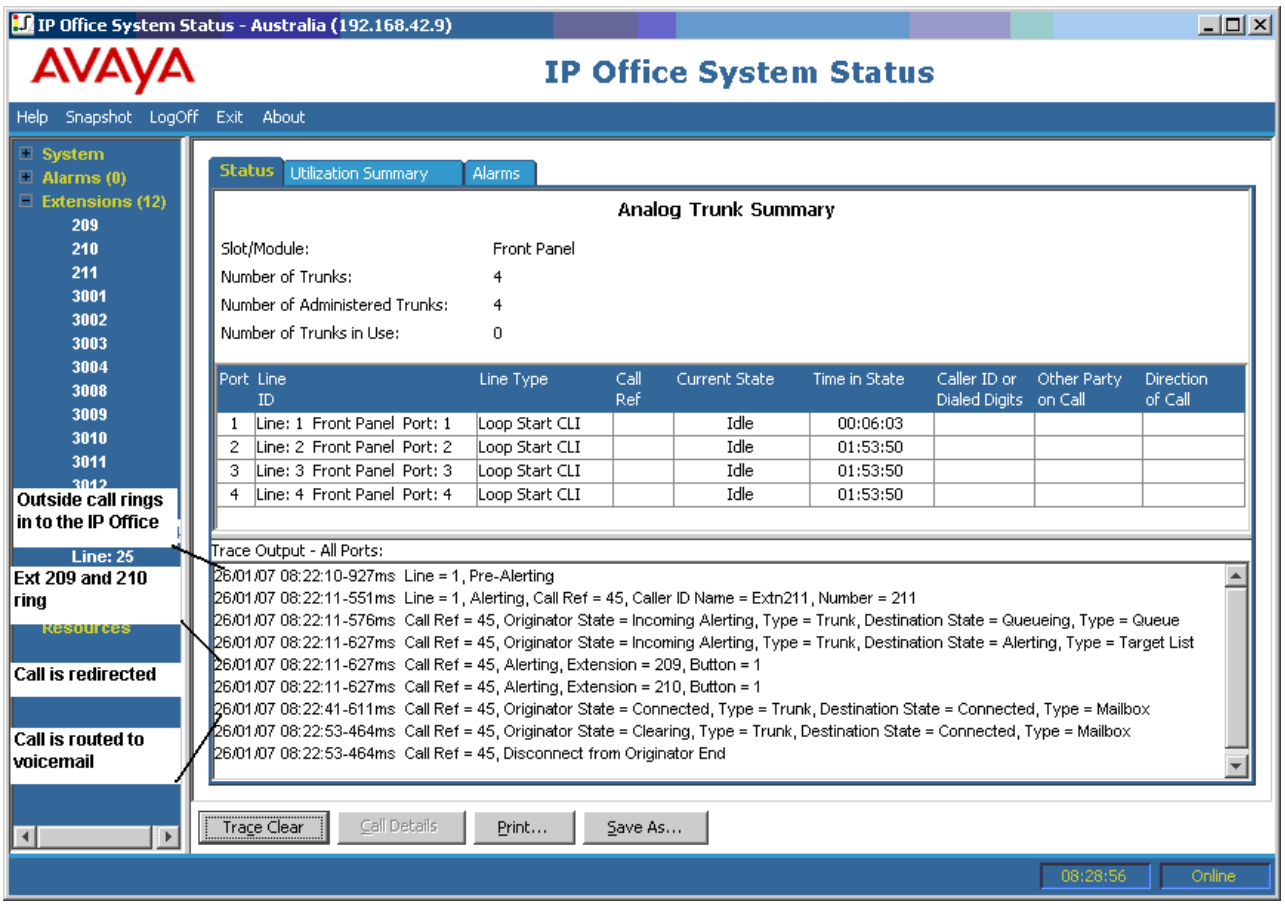
The trace examples in this section show which extensions are ringing but not the call the system delivers to the hunt group. To view details of the call, including the name of the targeted hunt group, see Call Details on page 95.

Related links

Hunt Group Calls Sent to Voicemail on page 142
Answered Hunt Group Call on page 143
Hunt Group Queued Call Sent to Voicemail on page 144
Call Being Abandoned on page 145
Hunt Group Call Overflowing on page 146

Hunt Group Calls Sent to Voicemail

The following example details a call received on the system and re-directed to voicemail:



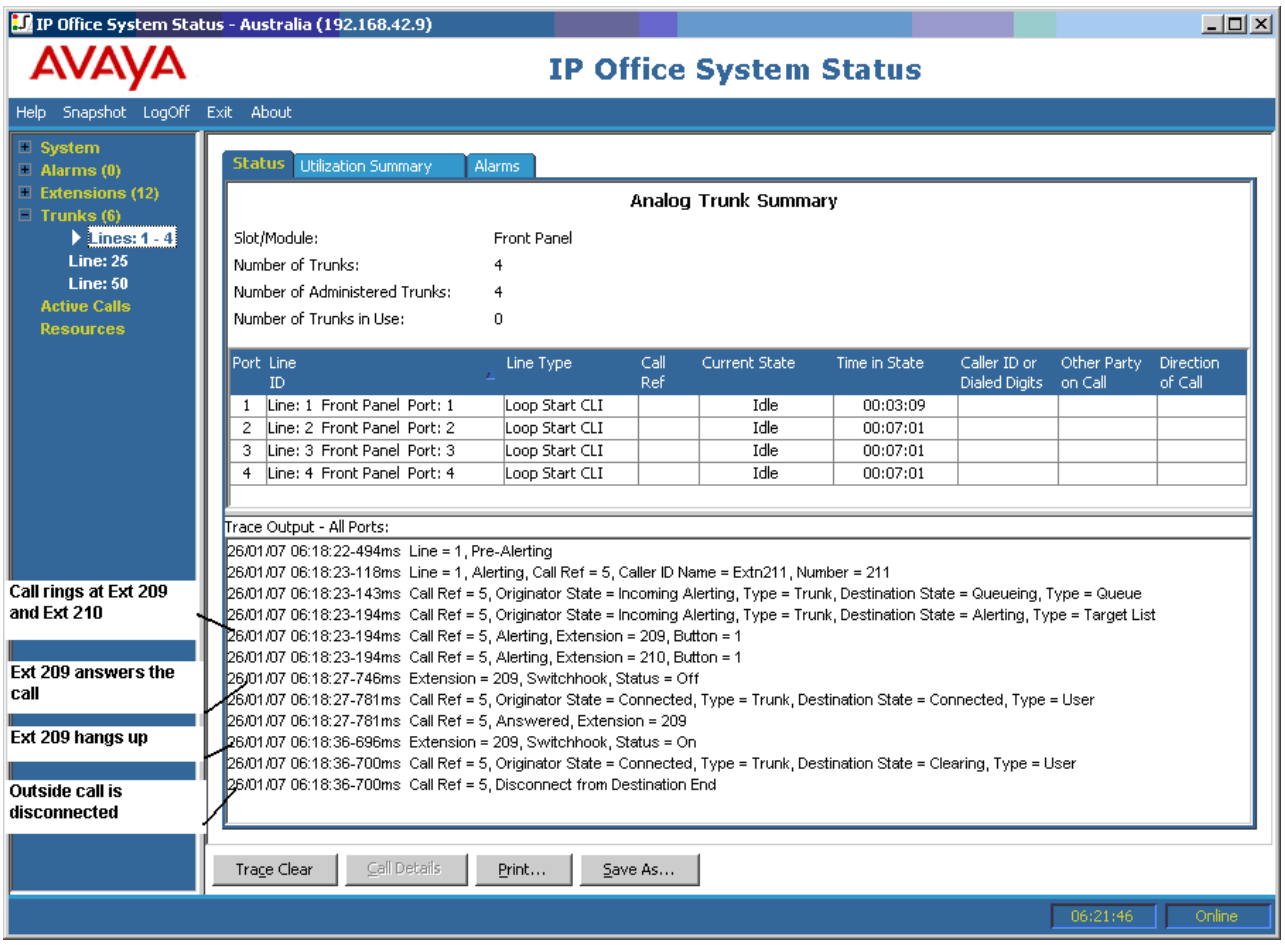
- The system receives an external call.
- The call rings at extension 209 and extension 210.
- The system re-directs the call to voicemail.

Related links

[Hunt Group](#) on page 142

Answered Hunt Group Call

The following example details a call received and answered by a hunt group member:



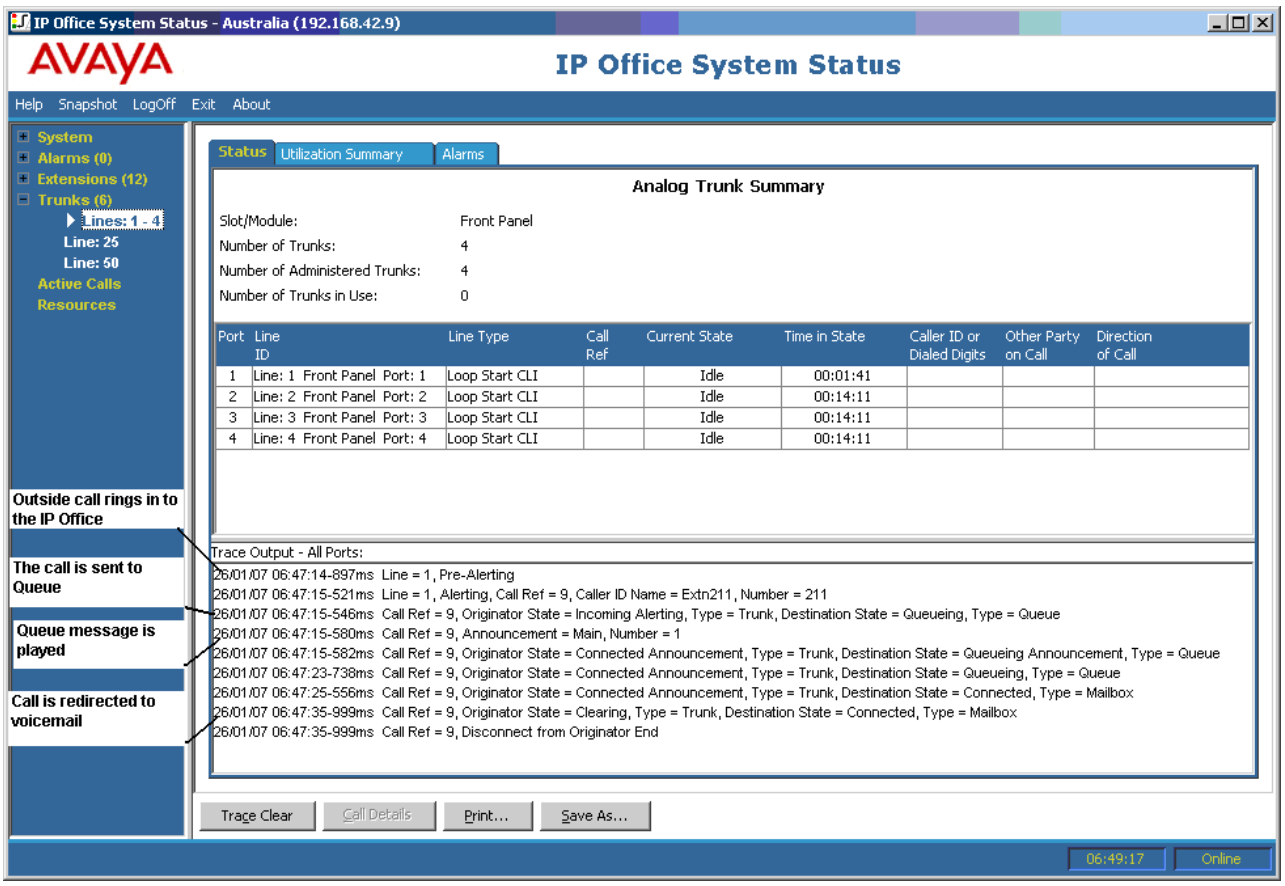
- An outside call (originator) rings at extension 209 and extension 210.
- Extension 209 (destination end) answers the call.
- Extension 209 hangs up the call.
- The system disconnects the external caller.

Related links

[Hunt Group](#) on page 142

Hunt Group Queued Call Sent to Voicemail

The following example details an incoming call, sent to the hunt group's queue and then re-directed to voicemail:



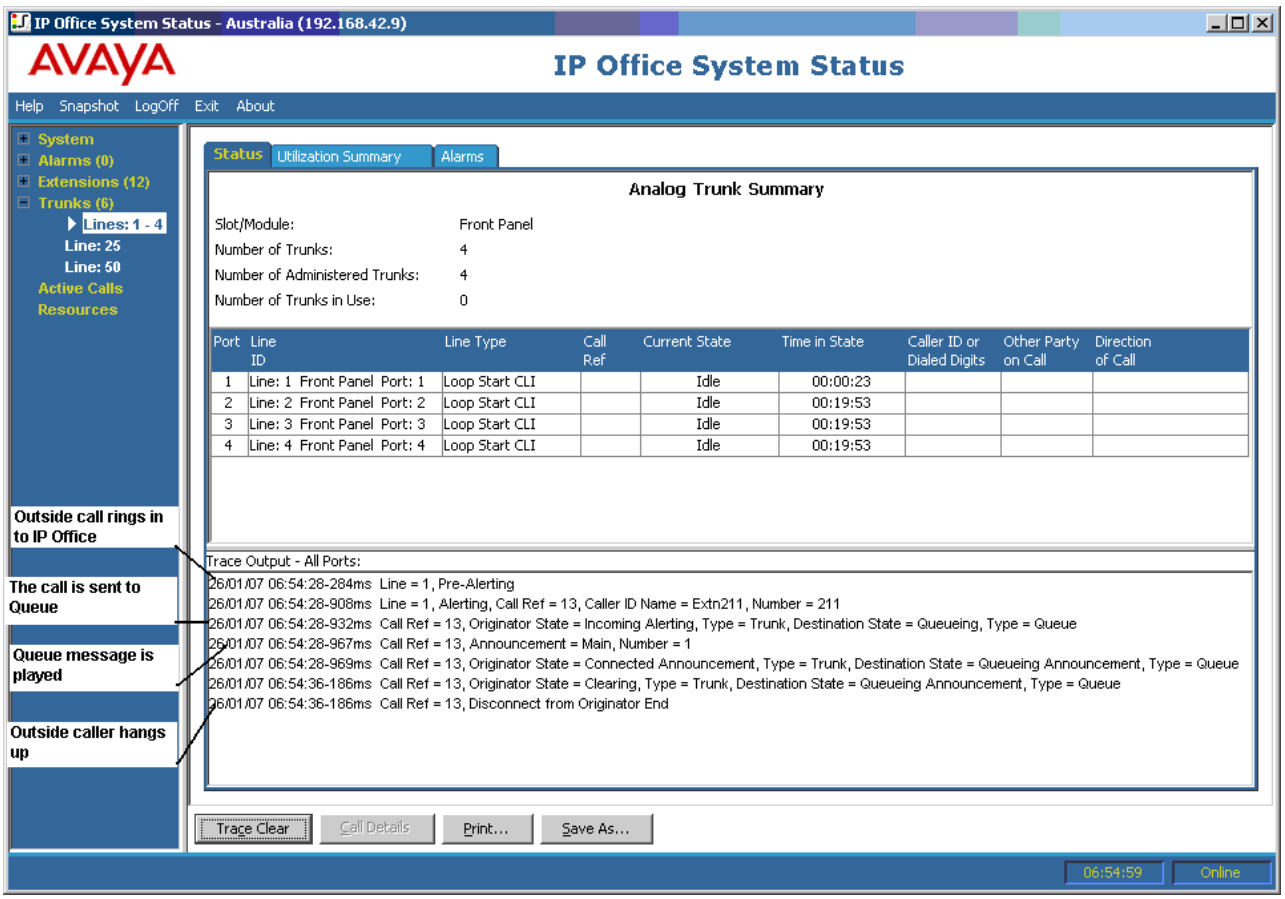
- The system receives an external call.
- The system sends the call to the hunt group's queue.
- The system plays the queue message.
- The system re-directs the call to voicemail.

Related links

Hunt Group on page 142

Call Being Abandoned

The following example details an incoming call sent to the hunt group's queue and then disconnected by the outside caller (Originator):



- The system receives an external call.
- The system sends the call to the hunt group's queue.
- The system plays the queue message.
- The external caller disconnects the call.

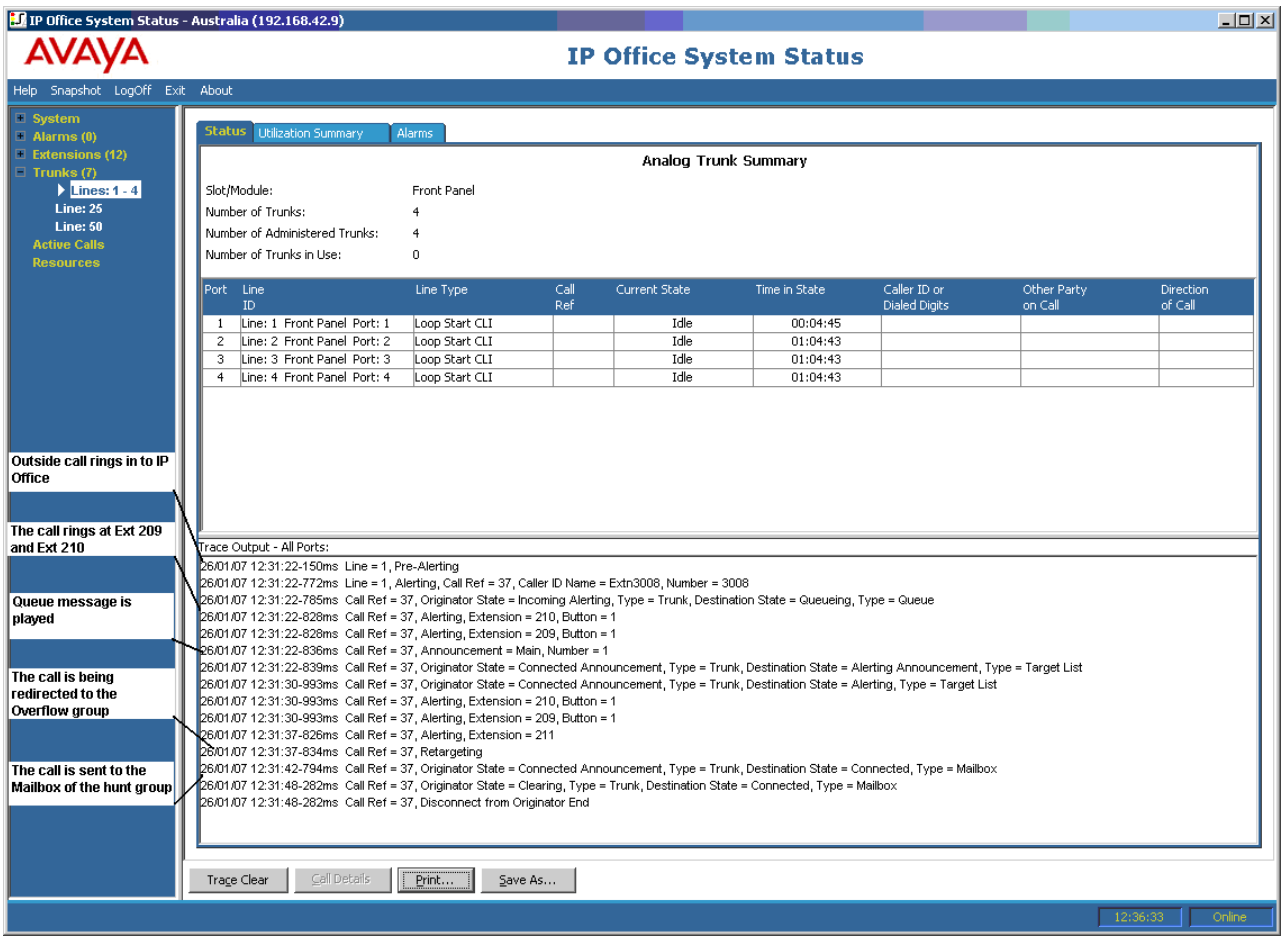
Related links

Hunt Group on page 142

Hunt Group Call Overflowing

The following example details a call received at one hunt group, re-directed to a second hunt group and then redirected to voicemail:

Hunt group call overflowing to a second hunt group and then answered by Voicemail:



1. The system receives an outside call.
2. The call rings at extension 209 and extension 210.
3. The system plays a queue message.
4. The system redirects the call to an overflow hunt group.
5. The call rings at extension 211 (a member of the overflow hunt group).
6. The system redirects the call to the original hunt group's voicemail.

Related links

Hunt Group on page 142

Chapter 17: Troubleshooting

The following are examples of using the application to diagnose issues.

Related links

ISDN Calls Cutting Off on page 148
Delay between Analog Line and Extension on page 149
Expansion Units Constantly Rebooting on page 150
User Receives Busy When Calling on page 150
SCN VoIP Calls Echo or Have Poor Speech Quality on page 151
Phone User Unable to Dial Out on page 151
PRI Line is Out of Service on page 152

ISDN Calls Cutting Off

Issue

The user experiences call cut offs.

Action

Check the system configuration in IP Office Manager to make sure that all trunk parameters are correct. Ensure the parameters match those provided by the central office/network provider.

Procedure

1. Ensure there are no alarms on the trunks. If alarms are present on the trunks, contact your service provider.
2. If no alarms are present, click **Trace All** to establish the reasons for the call cut off..

   Performing a trace should enable you to view the reason why the calls are cutting off.

   For example:

   In the following screen, the call was set up on Line 1, Channel 1 and the direction was to the switch (originating party):

   ```
   26/01/07 12:31:38-156ms  Line = 1, Channel = 1, Q.931 Message = Setup, Direction = To Switch, Calling Party Number = 909, Called Party Number = 2211
   26/01/07 12:31:38-204ms  Call Ref = 9, Alerting, Extension = 603, Button = 1
   26/01/07 12:31:38-206ms  Call Ref = 9, Originator State = Incoming Alerting, Type = Trunk, Destination State = Alerting, Type = Target List
   ```

   In the following screen, the disconnect direction is to the switch (Cause Code 16 - call was cleared from the originator):

```
26/01/07 12:31:43-270ms  Call Ref = 9, Answered, Extension = 603
26/01/07 12:31:49-760ms  Line = 1, Channel = 1, Q.931 Message = Disconnect, Call Ref = 9, Direction = To Switch, Cause Code = 16
26/01/07 12:31:49-763ms  Line = 1, Channel = 1, Q.931 Message = Release, Call Ref = 9, Direction = From Switch
26/01/07 12:31:49-959ms  Line = 1, Channel = 1, Q.931 Message = ReleaseComplete, Call Ref = 9, Direction = To Switch
26/01/07 12:31:49-964ms  Call Ref = 9, Originator State = Clearing, Type = Trunk, Destination State = Connected, Type = User
26/01/07 12:31:49-964ms  Call Ref = 9, Disconnect from Originator End
26/01/07 12:31:49-985ms  Line = 1, Idle, Channel ID = 1
```

If another cause code is shown, it indicates that there is an error condition on the line.

Related links

Troubleshooting on page 148

Delay between Analog Line and Extension

Issue

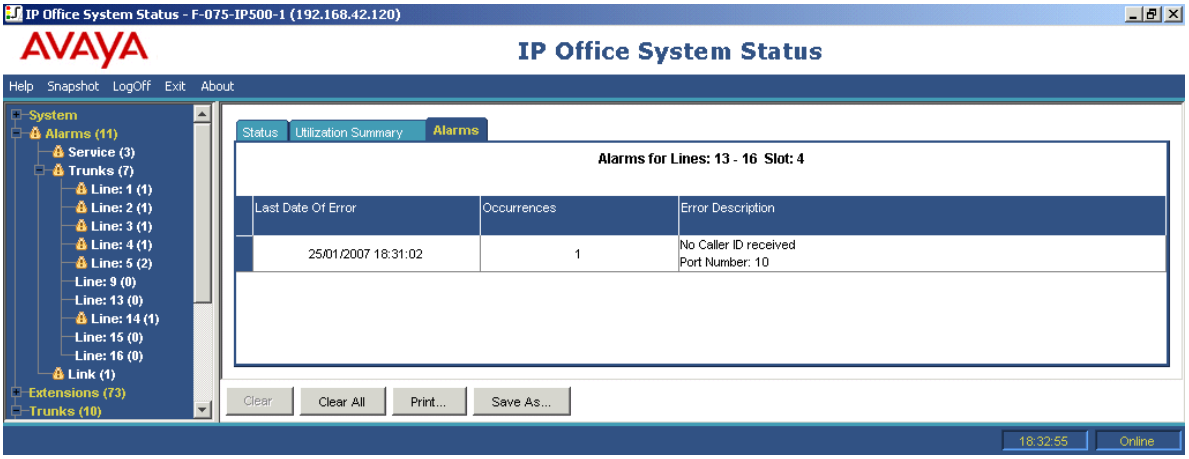
An incoming analog line rings several times before presenting the call to an extension.

Action

1. If the analog trunk is configured to wait for caller ID (CLI/ICLID) information from the central office and the information is not being provided, there will be a delay between the time the line/trunk rings and the call being presented to the extensions.
2. Check the system configuration in IP Office Manager and ensure the analog trunk parameters are correct and that they match those provided by the central office.

Procedure

1. In the Analog Trunk Summary, click the **Alarms** tab. If the central office is not providing Caller ID information, System Status displays No Caller ID received under Error Description.



2. From IP Office Manager, change the configuration to Loop Start only, as follows:
   a. Log on to IP Office Manager and open the system configuration.
   b. From the configuration tree, select **Line** and double-click the analog trunk in question.

c. On the **Line** tab, change **Line SubType** to **Loop Start**.

d. Alternatively, have the central office enable CLI/ICLID on the trunks.

Related links

Troubleshooting on page 148

Expansion Units Constantly Rebooting

Issue

Expansion units constantly reboot.

Action

1. Check the power supply for failure or faulty power bricks.
2. As a precaution, replace the power brick.
3. Check that the cable between the control unit and the resetting module.
4. Change the module with another module or plug the TDM cable in to another spare slot.

Procedure

1. View error messages by clicking **Alarms** and then the link.
2. The total number of times that system has lost contact with the module is displayed in the Occurrences column.

Related links

Troubleshooting on page 148

User Receives Busy When Calling

Issue

User receives Busy when calling voicemail (internal and external).

Action

1. Check that Voicemail Pro/Embedded is running.
2. If you are running Voicemail Pro, check that you have correctly configured Voicemail Channel Reservation:

Procedure

1. To view the number of times all voicemail channels have been in use, click **Resources**:
2. When all voicemail channels are in use, the system returns Busy to the caller.
3. Inform the user that they need to purchase more voicemail channels.

Related links

Troubleshooting on page 148

SCN VoIP Calls Echo or Have Poor Speech Quality

Issue

Calls over Small Community Network (SCN) VoIP trunks, echo or have poor speech quality.

Action

Check the system configuration in IP Office Manager and make sure all VoIP trunk parameters are correct and that they match the remote end of the SCN.

Procedure

1. Click **System** and then **VoIP Trunks**.
2. To view the details of the call, click one of the channels:
3. Check the **Originator** figures for the following:
   - Round Trip Delay
   - Receive Jitter
   - Receive Packet Loss
   - Transmit Jitter
   - Transmit Packet Loss
4. Open another System Status Application and click on the channel to monitor the **Destination** figures:
5. If the figures are high, consult your network administrator to make the necessary changes to the network to improve the situation.

Related links

Troubleshooting on page 148

Phone User Unable to Dial Out

Issue

Phone user without caller display is unable to dial out.

Action

From IP Office Manager, check that the user is not barred from making outside calls.

Procedure

Click **Extensions** and then double-click the specific extension.

Related links

Troubleshooting on page 148

PRI Line is Out of Service

Issue

PRI lines (set for N12 protocol) experience out of service and callers are unable to dial out or place a call into the system.

Action

Unplugging and plugging the PRI cord from the PRI slot will bring the line back in to service and allow calls to go out.

Procedure

1. Click **Alarms** and then **Trunks**.
2. Click the line number of the PRI.
3. Select the **24-Hour Performance History** tab.

   The example above shows that the PRI line experienced clock slips and missed frames. This issue may be resolved by replacing the wiring from the PRIs smart jack and the system.

Related links

Troubleshooting on page 148

Part 4: Further Help

Chapter 18: Additional Help and Documentation

The following pages provide sources for additional help.

Related links

Additional Manuals and User Guides on page 154
Getting Help on page 154
Finding an Avaya Business Partner on page 155
Additional IP Office resources on page 155
Training on page 156

Additional Manuals and User Guides

The Avaya Documentation Center website contains user guides and manuals for Avaya products including IP Office.

- For a listing of the current IP Office manuals and user guides, look at the Avaya IP Office™ Platform Manuals and User Guides document.
- The Avaya IP Office Knowledgebase and Avaya Support websites also provide access to the IP Office technical manuals and users guides.
  - Note that where possible these sites redirect users to the version of the document hosted by the Avaya Documentation Center.

For other types of documents and other resources, visit the various Avaya websites (see Additional IP Office resources on page 155).

Related links

Additional Help and Documentation on page 154

Getting Help

Avaya sells IP Office through accredited business partners. Those business partners provide direct support to their customers and can escalate issues to Avaya when necessary.

If your IP Office system currently does not have an Avaya business partner providing support and maintenance for it, you can use the Avaya Partner Locator tool to find a business partner. See Finding an Avaya Business Partner on page 155.

Related links

Additional Help and Documentation on page 154

Finding an Avaya Business Partner

If your IP Office system currently does not have an Avaya business partner providing support and maintenance for it, you can use the Avaya Partner Locator tool to find a business partner.

Procedure

1. Using a browser, go to the Avaya Website at https://www.avaya.com
2. Select **Partners** and then **Find a Partner**.
3. Enter your location information.
4. For IP Office business partners, using the **Filter**, select **Small/Medium Business**.

Related links

Additional Help and Documentation on page 154

Additional IP Office resources

In addition to the documentation website (see Additional Manuals and User Guides on page 154), there are a range of website that provide information about Avaya products and services including IP Office.

- Avaya Website (https://www.avaya.com)

  This is the official Avaya website. The front page also provides access to individual Avaya websites for different regions and countries.

- **Avaya Sales & Partner Portal** *(*https://sales.avaya.com*)*

  This is the official website for all Avaya business partners. The site requires registration for a user name and password. Once accessed, you can customize the portal to show specific products and information type that you want to see.

- **Avaya IP Office Knowledgebase** *(*https://ipofficekb.avaya.com*)*

  This site provides access to an online, regularly updated version of IP Office user guides and technical manual.

- **Avaya Support** *(*https://support.avaya.com*)*

This site provide access to Avaya product software, documentation and other services for Avaya product installers and maintainers.

- **Avaya Support Forums** *(*https://support.avaya.com/forums/index.php*)*

  This site provides forums for discussing product issues.

- **International Avaya User Group** *(*https://www.iuag.org*)*

  This is the organization for Avaya customers. It provides discussion groups and forums.

- **Avaya DevConnect** *(*https://www.devconnectprogram.com/*)*

  This site provides details on APIs and SDKs for Avaya products, including IP Office. The site also provides application notes for third-party non-Avaya products that interoperate with IP Office using those APIs and SDKs.

- **Avaya Learning** *(*https://www.avaya-learning.com/*)*

  This site provides access to training courses and accreditation programs for Avaya products.

Related links

Additional Help and Documentation on page 154

Training

Avaya training and credentials ensure our Business Partners have the capabilities and skills to successfully sell, implement, and support Avaya solutions and exceed customer expectations. The following credentials are available:

- Avaya Certified Sales Specialist (APSS)
- Avaya Implementation Professional Specialist (AIPS)
- Avaya Certified Support Specialist (ACSS)

Credential maps are available on the Avaya Learning website.

Related links

Additional Help and Documentation on page 154

Index

Numerics

12.7 PRI Line is Out of Service 152
24 hour performance history 56, 87

A

abandoned calls 92
Active Calls 91
Administrator 154
alarm history 49
alarms 47, 54, 85
announcements 128
answered hunt group call 143
APIs 155
Application Notes 155
assigning security settings 11
Avaya IP Phones 31
Avaya SIP Endpoints 32

B

Base Station 37
Blacklisted Addresses 43
Blacklisted Extensions 42
business partner locator 155
Buttons 13

C

call being abandoned 145
call details 95
call disconnected by Internal User 137
call disconnected by outside caller 139
Call Information 98
call quality of service 58
Call States (Extension) 102
call states (trunk) 103
Call Target/Routing Information 101
call traces 128
Callback and Returning Calls 104
conference details 97
configuration alarms 50
Control Unit 29
Control Unit Audit 112
courses 155

D

delay between analog line and extension 149
Destination Information 99
Directory 110

E

Expansion Modules 29
Expansion Units Constantly Rebooting 150
extension button selection 134
extension ports 30
Extension Status 65
Extension Summary 65
extension traces 132
Extensions 64

F

Feature Key Server Connection Failure 53
forums 155

H

H.323 Extensions 31
hard disks 28
Help 154
hunt group 142
hunt group call overflowing 146
hunt group calls sent to voicemail 142
Hunt Group Queued Call Sent to Voicemail 144

I

incoming outside call 132
installing the application 9
IP DECT System 34
IP DECT Systems 33
IP networking 117
IP routes 117
IPv6 routes 119
ISDN Calls Cutting Off 148

L

last system restart 48
Licenses 109
line protocols 82
line testing 88
link alarms 57
locations 124
Logon Failure Due to User ID/Password 52

M

mailboxes 116
Manuals 154
Memory Cards 26

menu bar 12

N

Navigation Panel 17
Networked Licenses 110
New 9

O

opening a configuration 21
Originator Information 98
outdialer 122

P

Phone User Unable to Dial Out 151
ping 118

Q

quality of service alarms 60
quarantined phones 41
Quick Reference Guides 154

R

reduced active calls 94
Reseller 154
Resources 106
resources not available 53

S

sales 155
SCN VoIP Calls Echo or Have Poor Speech Quality 151
SDKs 155
security 60
service alarms 50
SIP Application Server 36
SIP Application Servers 36
SIP DECT Base Station 36
SIP extensions 32
Snapshot 18
snapshots 18
SRTP 62
SSL VPN 121
Standard SIP Endpoints 33
starting system status 11
status analog trunk 70
status digital trunk 73
status H.323 trunk 75
status SIP trunk 78
support 155
System 23
System Administrator 154
System Hardware Details 25

T

Technical Bulletins 155
Time 108
TLS 61
Toubleshooting 148
trace 82
traces for troubleshooting 127
tracing 127
tracing incoming calls on analog lines 140
training 155, 156
trunk alarms summary 53
trunk ports 30
trunk traces 140
trunks 70
tunnels 120

U

UC modules 38
Unified Communications Module Status 39
unregistered IP Phones 32
User Guides 154
User Receives Busy When Calling 150
utilization summary 83

V

viewing a snapshot 20
voicemail 115
VoIP Security 40
VoIP Trunks 40

W

websites 155