IP Office™ Platform 9.1

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Chapter 1.
System Status

1. System Status

IP Office System Status is a diagnostic tool for system managers and administrators, used to monitor and check the status of systems. System Status connects to systems running IP Office Release 4.0 and higher software, using an IP connection.

To assist with faultfinding and diagnosis, the information reported is a combination of real-time and historical events as well as status and configuration data. System Status provides real-time status, historic utilization and alarm information for ports, modules and expansion cards on the system.

System Status provides information on the following:

- **Alarms**
  System Status displays all alarms for any system components. It shows the number of such alarms and the date and time of the last occurrence.

- **Call Details**
  Information on incoming and outgoing calls; including call length, call reference and routing information.

- **Extensions**
  System Status lists all extensions on the system, including device type, port location and status.

- **Trunks**
  System Status lists all system trunks and connections (VoIP, analog and digital) and shows their status.

- **System Resources**
  Systems include central resources utilized to perform various functions. Diagnosing these resources is often critical to the successful operation of the system.

Notes

- **System Configuration**
  System Status is not a configuration tool for systems. For information on configuration, refer to IP Office Manager.

1.1 Installing the Application

You can launch System Status directly from the IP Office system, see Starting System Status ⬚↘. 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.

System Status is a component of the IP Office administrator applications suite. Avaya supply this suite on the IP Office Applications DVD made available for each IP Office release. You can download an ISO file of the DVD from the Avaya support website http://support.avaya.com.

To install System Status:

1. You must first remove any pre-4.0 version of the IP Office Admin suite if installed.

   a. From the Windows **Control Panel**, click **Add or Remove Programs**.

   b. Click **IP Office Admin Suite** and then click **Remove**.

2. Insert the DVD. The installation process should automatically start. If it does not start, open the DVD contents and double-click **setup.exe**.

3. Select the language you want to use for the installation process and click **Next**.

4. Select whether only the current Windows logon account should be able to run the Admin suite applications or whether they will be available to all users of the PC. Click **Next**.

5. If required, select the destination for the installed applications. Click **Next**.

6. Select which applications to install. For System Status, select **System Status Application**. When you have selected the applications, click **Next**.

7. Click **Install**.

8. On completion, the installer prompts you whether you want to run the IP Office Manager. Select **No**.

1.2 Assigning Security Settings

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.

Rights Group Configuration

For a service user to use System Status to logon to a system, they must belong to a security **Rights Group** that has **System Status Access** enabled. In addition, if they want to use System Status to take snapshots that include the system configuration, the **Rights Group** must also have **Read all configuration** enabled.

By default that is done by making the service user a member of the **Rights Group** called *System Status*.
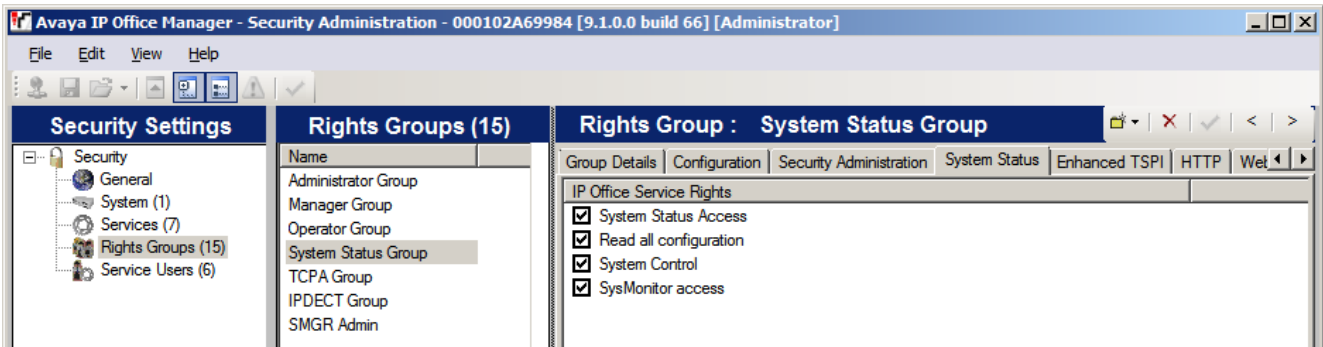
- **System Status Access**
  This is the basic setting to allow System Status to connection to show system status information.

- **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.

- **SysMonitor access**
  This option is used for the separate System Monitor application.

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 secure and/or unsecure connections.
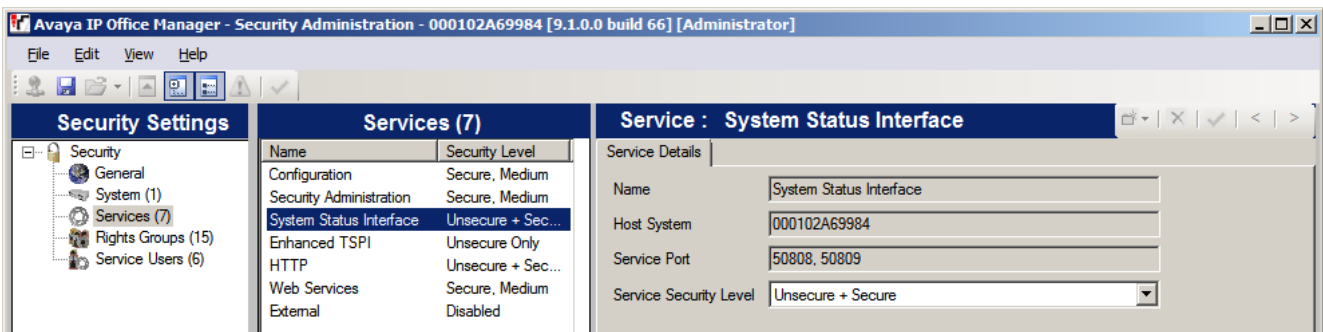
1.3 Starting System Status

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:

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:
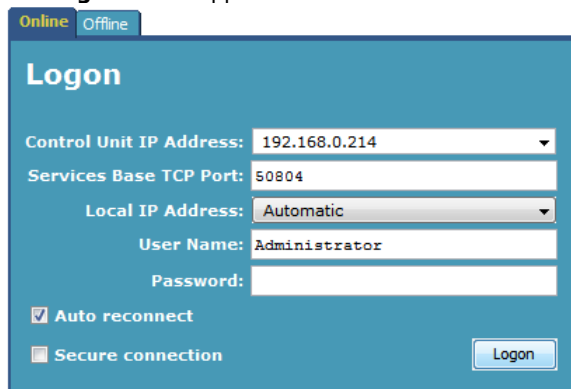
     - **IP Office Server Edition:**
       Browse to ***https://<server>:7070*** where *<server>* is the system's IP address. On the **Solution** page, click the ▤ icon next to the system details and select **Launch SSA**.

     - **IP Office Basic Edition:**
       Browse to ***https://<server>:8443*** where *<server>* is the system's IP address. Click **Monitoring** and select **System Status**.

2. The **Logon** menu appears with the **Online** tab selected.

   - **Online: Logging onto a system**
     Select the **Online** tab.

     - **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 should match the **Services Base TCP Port** setting of the system, set in its security settings. The default is 50804.

     - **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 System Status uses.

     - **User Name/Password**
       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 ⬐.

     - **Auto Reconnect**
       If selected, System Status automatically attempts to reconnect using the same settings if connection to the system is lost.

     - **Secure Connection**
       Use secure 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 ⬐.

   - **Offline: View a snapshot**
     Use the **Offline** tab to select and view a previously saved snapshot file. See Snapshots ⬐.

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

1.4 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:

- **Simple Snapshot**
  This type of snapshot captures the status details shown by System Status. System Status gives this type of snapshot an SSH file extension.

- **Continuous Log**
  This type of snapshot captures the system's status details over a period of time. System Status gives this type of snapshot has an SLO file extension.

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.

1.4.1 Taking a Snapshot

To take a snapshot

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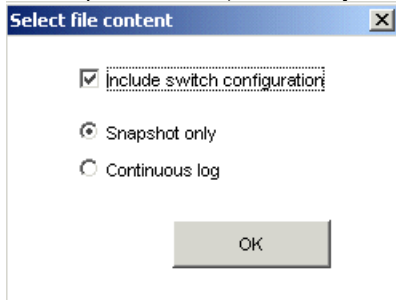
2. Select the type of snapshot.

- **Include switch configuration**
  If selected, the snapshot includes a copy of the system's configuration. You can open the snapshot file in System Status to examine the status of the system at the time of the snapshot. You can also open the snapshot in IP Office Manager to examine the system configuration. To use this option, the account used to log in to System Status must have **Read All Configuration** enabled (see Assigning Security Settings ↱).

- **Snapshot only/Continuous log**
  Select the type of snapshot.

  - **Snapshot only**
    If selected, after clicking **OK**, System Status requests where you want to save the snapshot file. System Status snapshot files have an SSH extension.

  - **Continuous log**
    If selected, after clicking **OK**, System Status displays the logging options menu. Note that with continuous logging, you must leave System Status running and cannot use it for other activities without first stopping the logging.
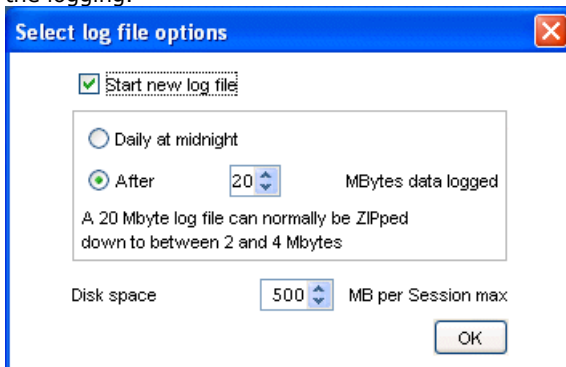
    Select the settings required and click **OK**. System Status requests where you want to save the snapshot file. System Status snapshot log files have an SLO extension. Once logging starts, System Status displays the following menu. Selecting **LogOff** ends logging and closes System Status.
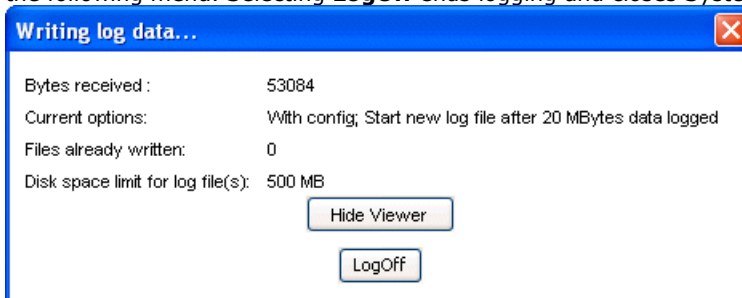
1.4.2 Viewing a Snapshot

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

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 Alarms**, are not available.

To open a snapshot

1. From the **Logon** menu, click the **Offline** tab:
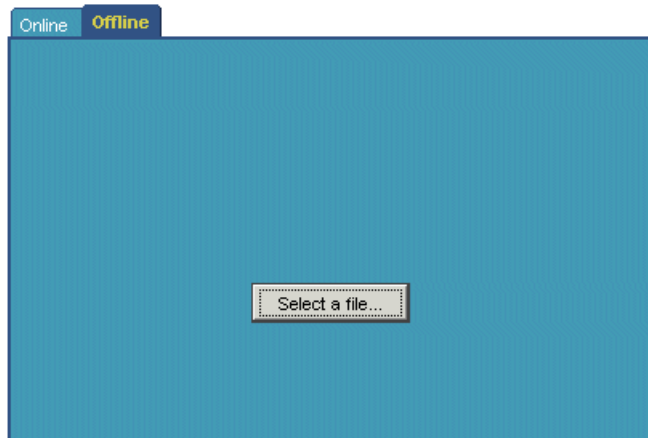
2. Click **Select a file...**

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.

1.4.3 Opening a Configuration

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

To open a snapshot in IP Office Manager

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**.

1.5 Using The Application

This section describes how to navigate and access the features available in System Status. The following screen shows the layout of the application:

1.5.1 The Menu Bar

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

- **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.

1.5.2 Button Bar

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

- **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.

- **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.

- **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. Any still active alarms remain with a count of 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 alarms. Any alarm still active will remain with the count of 1.

- **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 In Fallback**
  Clear the currently selected SSL VPN service's fallback status.

- **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 allows additional information to be displayed. See System Hardware Details.

- **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 ⬚.

- **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.

- **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.

- **Reregister**
  This option can be used to force Avaya H.323 IP phones to both reregister with the system 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**
  Applies to the Utilization Summary. Resets all counters and timers 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**
  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.

- **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.

- **Stop Test**
  Stopt loopback testing on the selected trunk. The button label and function changes to **Start Test**.

- **Summary**
  Return to the System Hardware Summary .

- **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.

- **Test Alarm**
  Request the IP Office system to send a test alarm.

- **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 .

- **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 .

- **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.

1.5.3 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.
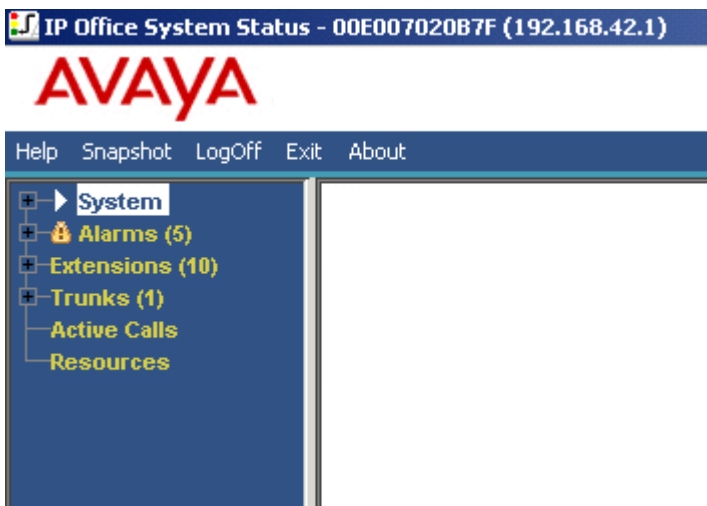
To view summary and specific details in the **Information Panel**:

- **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.

Chapter 2.
System

2. 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.

Buttons

The following buttons can appear on this screen:

- **Details**
  This button allows additional information to be displayed. See System Hardware Details .

- **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.

- **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.

- **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.

2.1 System Hardware Details

Buttons
The following buttons can appear on this screen:

- **Summary**
  Return to the System Hardware Summary.

2.2 Memory Cards

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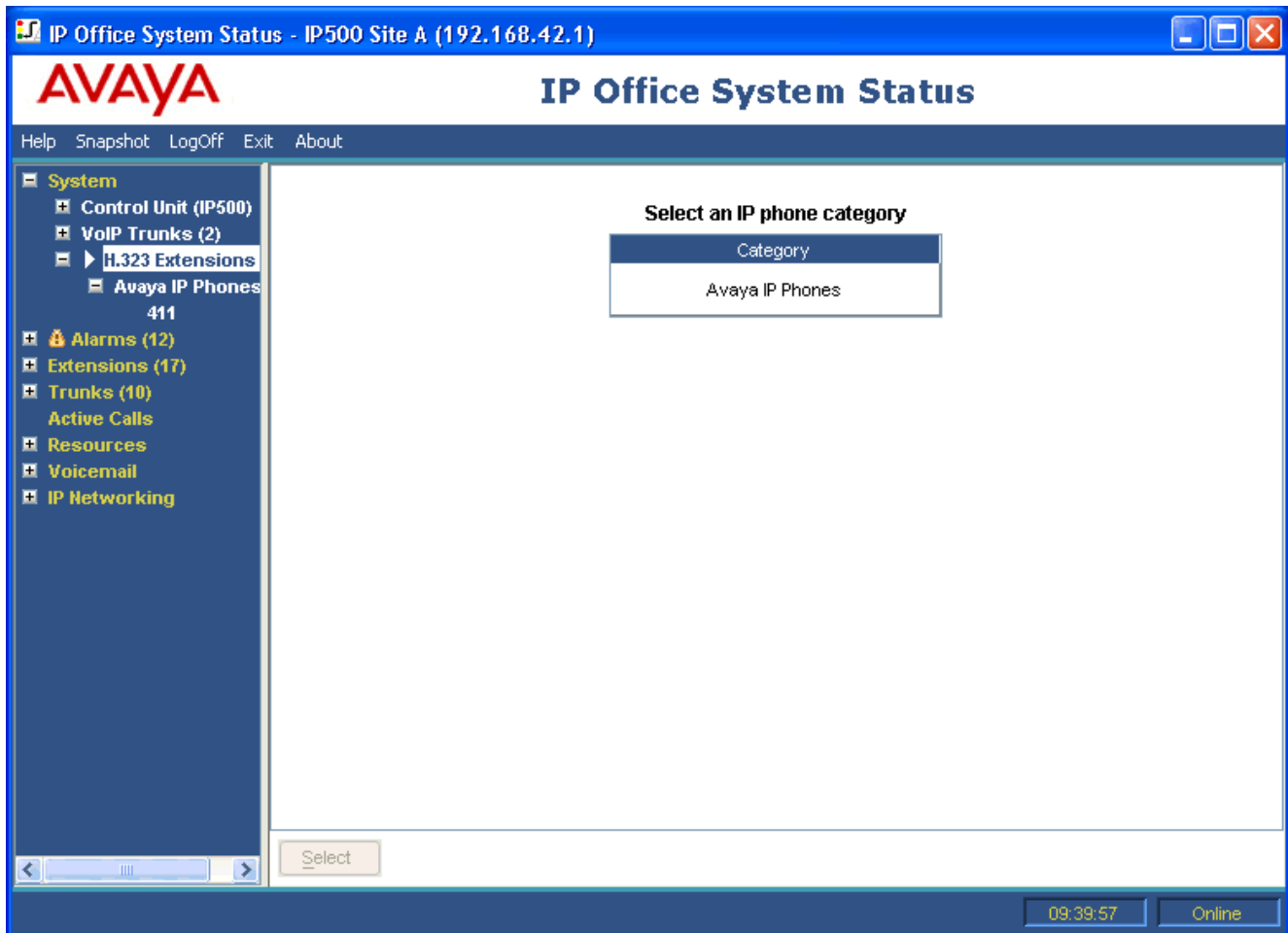

Buttons

The following buttons can appear on this screen:

- **Refresh**
  Updates the screen. This button appears on screens that do not update automatically.

- **Shutdown**
  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.

- **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.

- **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.

2.3 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.
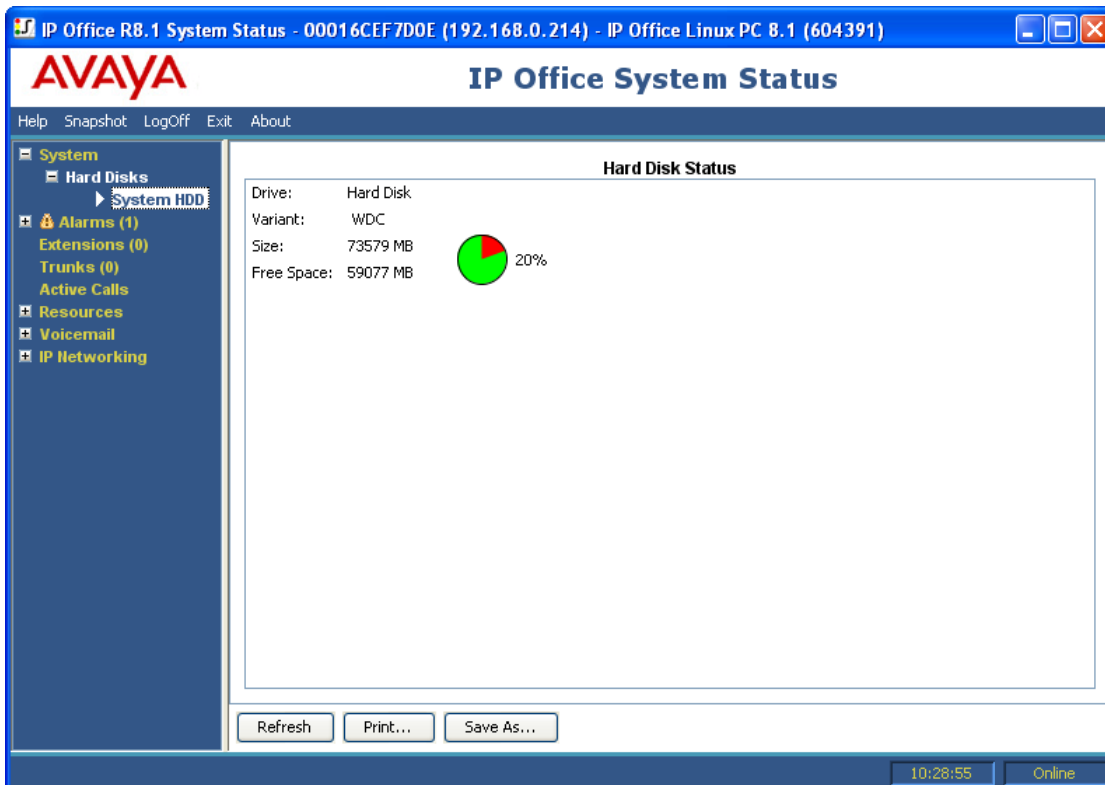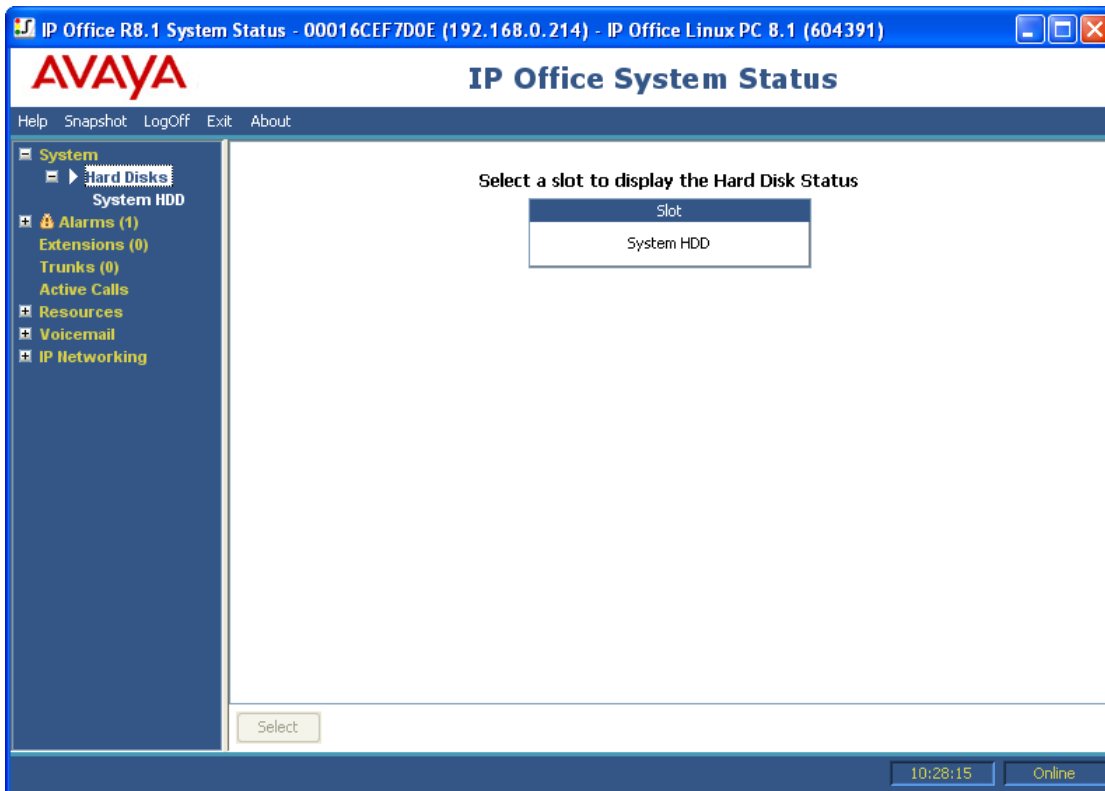
2.4 Control Unit

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.

2.4.1 Extension Selection

This screen will show extension provided by a control unit (see Expansion Modules to access extension ports provided by an external expansion module). To view details of an individual extension port, use the navigation pane or select the port and click Select. See Extension Status.
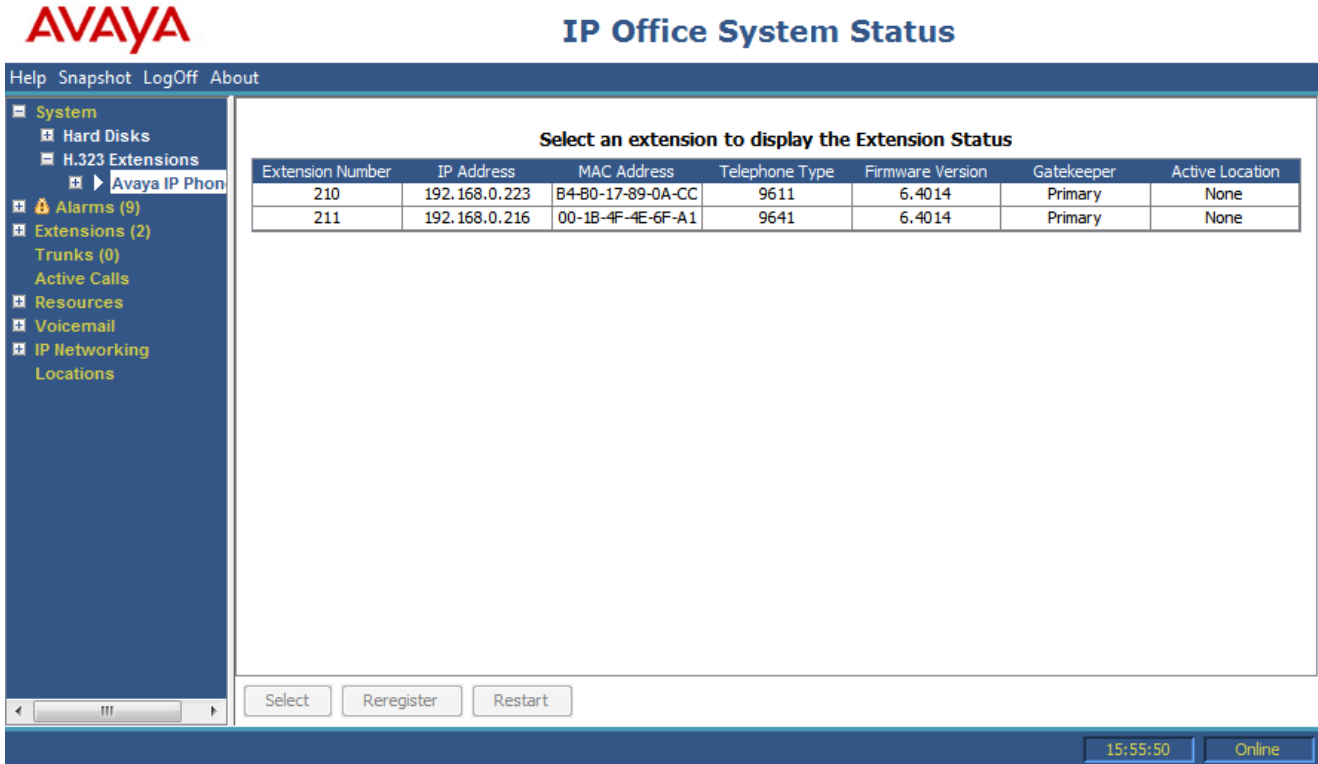

Buttons

The following buttons can appear on this screen:

- **Select**
  Show details for the currently selected extension. See Extension Status.

2.4.2 Extension Ports

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.
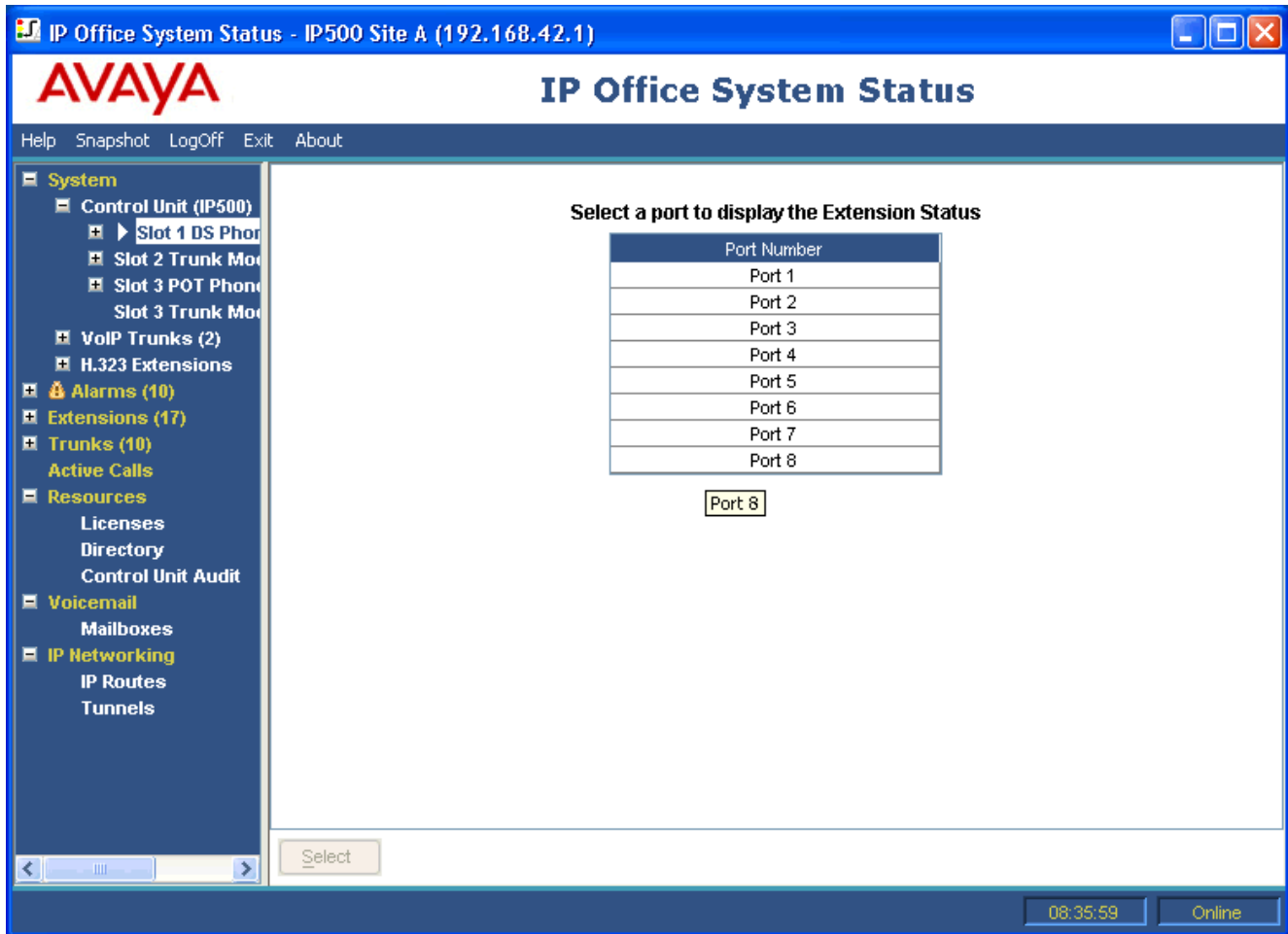
Buttons

The following buttons can appear on this screen:

- **Select**
  Show details for the currently selected extension. See Extension Status.

2.4.3 Trunk Ports

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:

- **Select**
  Show details for the currently selected trunk. See Analog Trunk, Digital Trunk, H.323 Trunk or SIP Trunk.

2.5 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**.
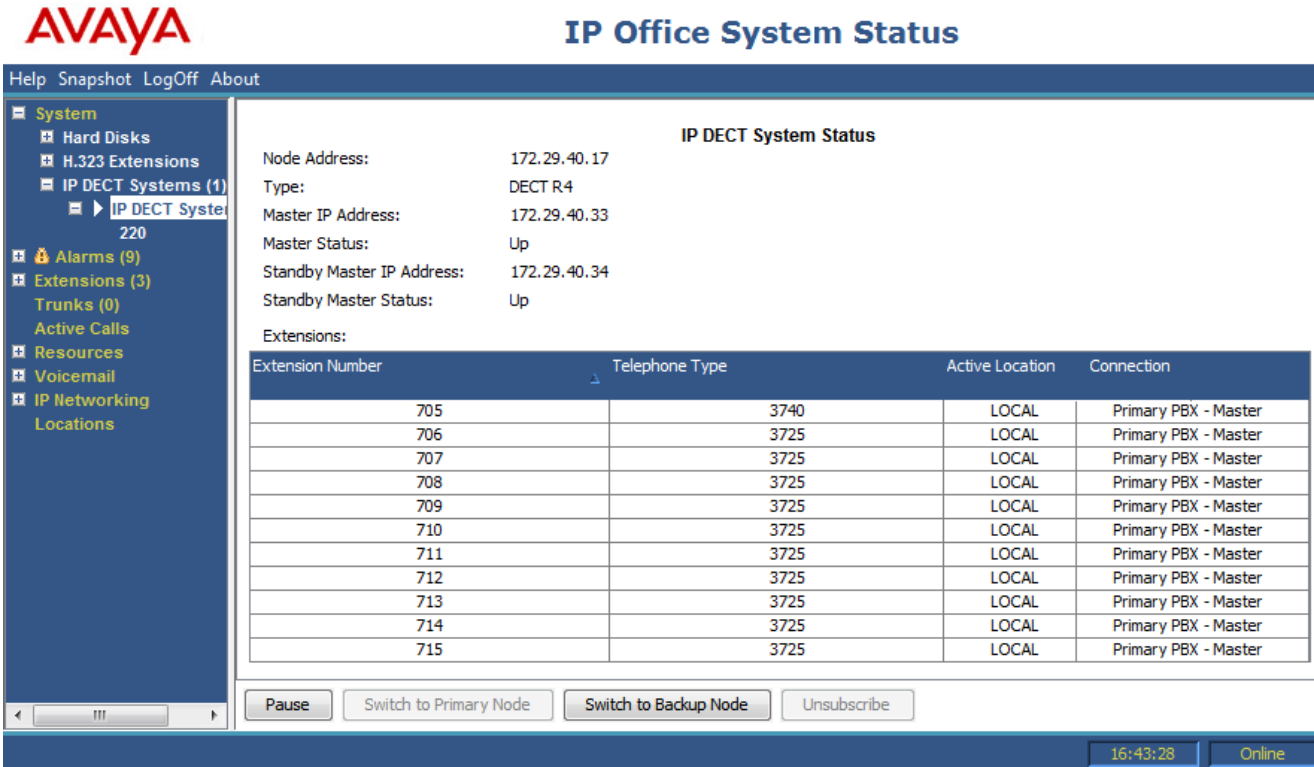
Module Information

Buttons

The following buttons can appear on this screen:

- **Select**
  Show details for the currently selected item.

2.6 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**. See Status (H.323 Trunk) or Status (SIP Trunk).

Buttons

The following buttons can appear on this screen:

- **Select**
  Show details for the currently selected trunk. See Analog Trunk, Digital Trunk, H.323 Trunk or SIP Trunk.

2.7 SIP DECT Base Station

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

Buttons

The following buttons can appear on this screen:

- **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**
  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.

2.7.1 Base Station

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

Buttons

The following buttons can appear on this screen:

- **Refresh**
  Updates the screen. This button appears on screens that do not update automatically.

- **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.

2.8 H.323 Extensions

This screen lists the different types of 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:

- **Select**
  Show details for the currently selected extension. See Extension Status .

2.8.1 Avaya IP Phones

This menu displays a list of the Avaya 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:

- **Select**
  Show details for the currently selected extension. See Extension Status .

- **Reregister**
  This option can be used to force Avaya H.323 IP phones to both reregister with the system 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.

2.9 IP DECT Systems

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

Buttons

The following buttons can appear on this screen:

- **Select**
  Show details for the currently selected item.

2.9.1 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.

Buttons

The following buttons can appear on this screen:

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

- **Select**
  Show details for the currently selected extension. See Extension Status.

- **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.

- **Unsubscribe**
  Force an IP DECT extension to unsubscribe.

Chapter 3.
Alarms

3. 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**.

Notes

- 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.

To view the alarms in a specific category:

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.

3.1 Last System Restart

This screen list details of the last system restart.

Information Displayed

- **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.

    - **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:

    - **Alarm History**
      Display the alarm history details .

3.1.1 Alarm History

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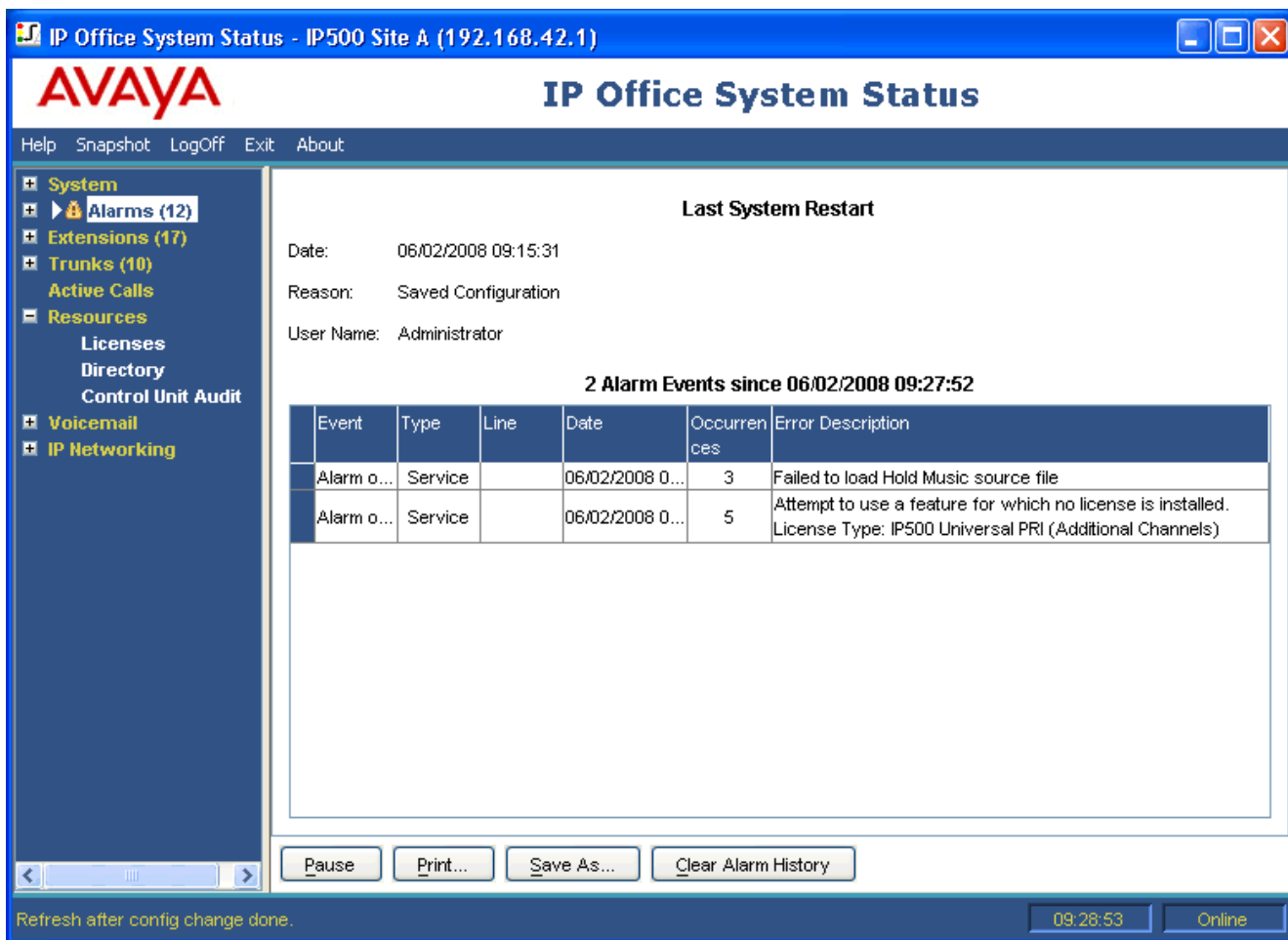
Buttons

The following buttons can appear on this screen:

- **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.

- **Clear Alarm History**
  Clear the historical alarms displayed.

3.2 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.

3.3 Service Alarms

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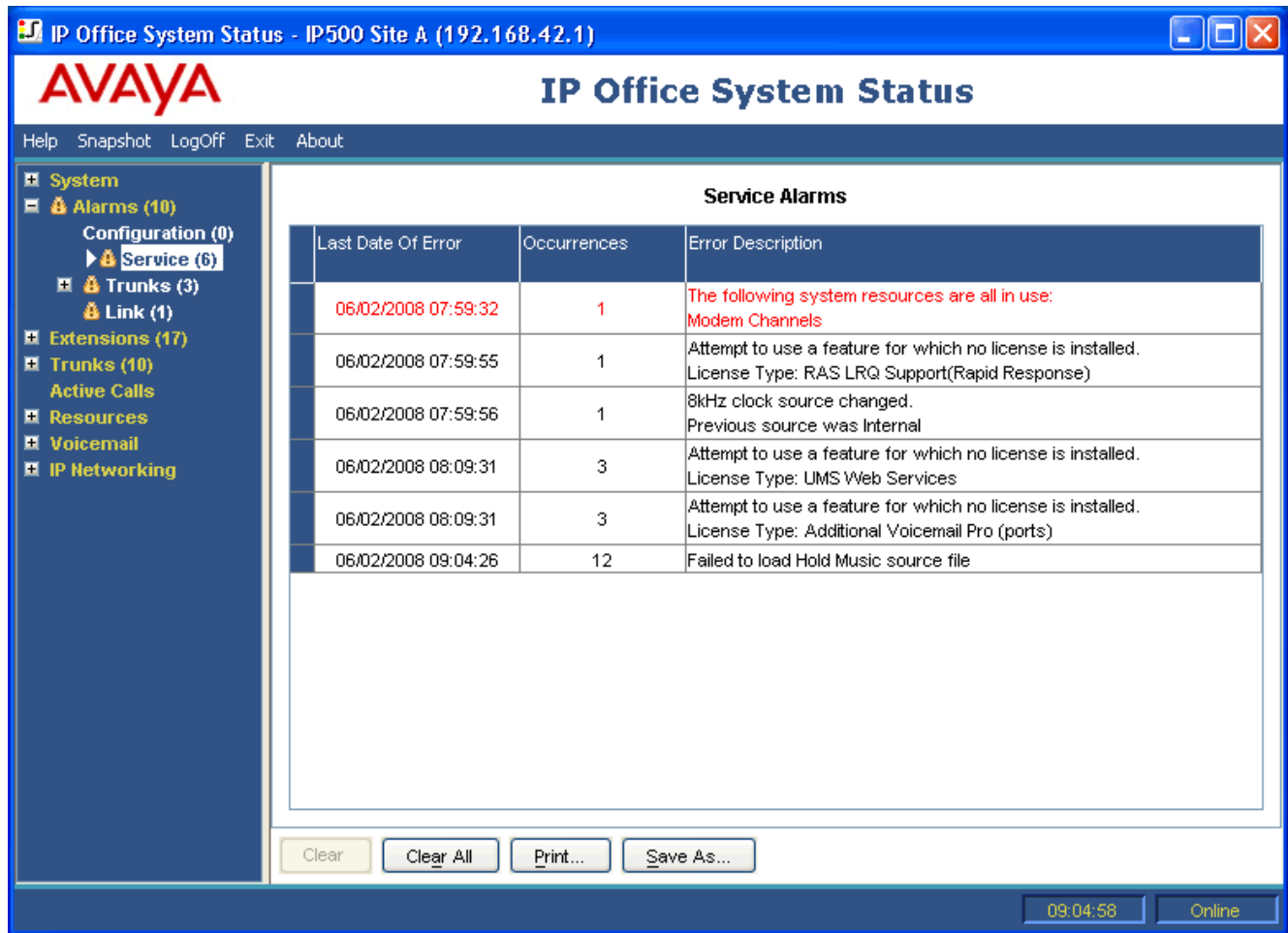
Information Displayed

- **Last Date of Error**
  The last time the particular error occurred.

- **Occurrences**
  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:

- **Clear**
  Clears the selected alarms. Any still active alarms remain with a count of 1.

- **Clear All**
  Clears all listed alarms. Any alarm still active will remain with the count of 1.

    - Some service alarms also appear in the System Resources screen. Clearing alarms from this screen also clears them in the System Resources 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.

- **Test Alarm**
  Request the IP Office system to send a test alarm.

3.3.1 Logon Failure Due to User ID/Password

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

- **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

3.3.2 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

3.3.3 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"

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

3.4 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.

Buttons

The following buttons can appear on this screen:

- **Select**
  Show details for the currently selected item.

  - The screen displays two tabs for digital trunks:

    - **Alarms**
      Any current alarms appear in red.

    - **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.

3.4.1 Alarms

Information Displayed

- **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.

| Error	Description
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:

- **Clear**
  Clears the selected alarms. Any still active alarms remain with a count of 1.

- **Clear All**
  Clears all listed alarms. Any alarm still active will remain with the count of 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.

3.4.2 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.

Buttons

The following buttons can appear on this screen:

- **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.

- **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.

3.5 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.

Information Displayed

- **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 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:

- **Clear**
  Clears the selected alarms. Any still active alarms remain with a count of 1.

- **Clear All**
  Clears all listed alarms. Any alarm still active will remain with the count of 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.

3.6 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.

When enabled, System Status displays QoS statistics for calls made by H323 IP extensions (1600 Series, 4600 Series and 5600 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.

- **Round Trip Delay** (msec): Default = 350.
  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** (msec): Default =20.
  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.
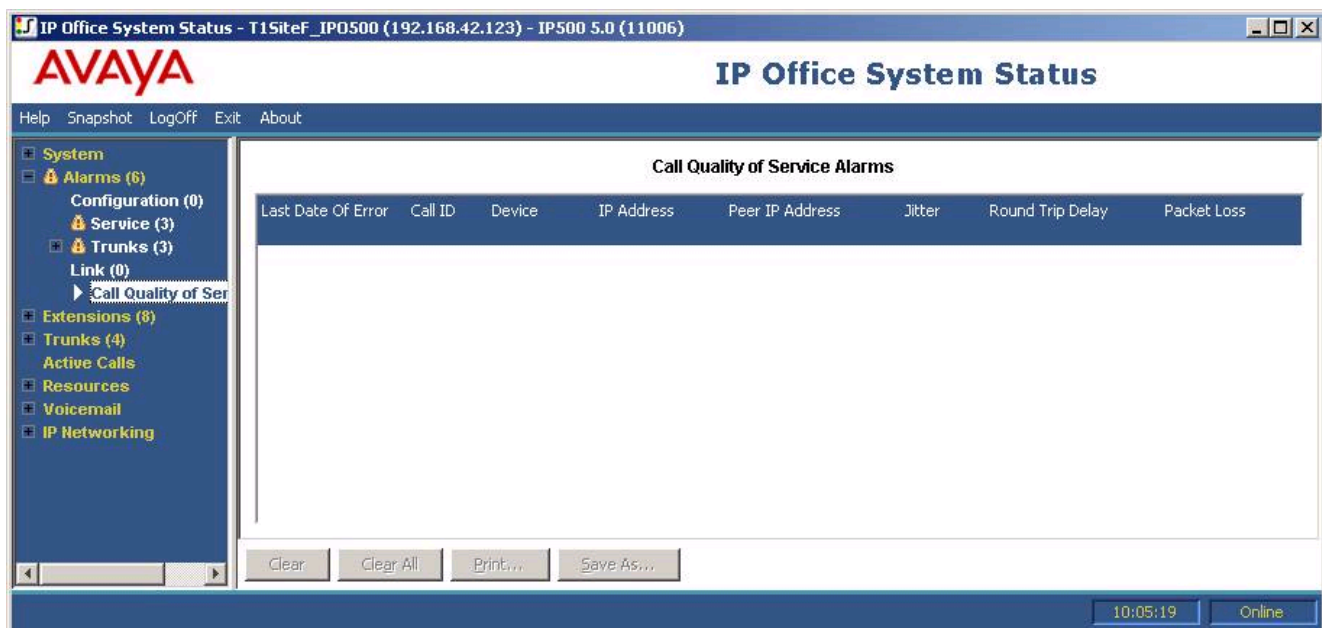
- If the call involves another extension, separate alarms may occur for both extensions.

- No alarms are generated for QoS measurements during the first 5 seconds of a call.

- Calls can divide into call segments. For example, if a user holds and then unholds a call, the system treats each part of the call as a separate call segment.

- Alarms are output at the end of the call segment in which the call exceeds a threshold.

- The system on generates one alarm even if the call exceeds more than one threshold. The alarm contains the maximum value of all 3 measured QoS values.

Buttons

The following buttons can appear on this screen:

- **Clear**
  Clears the selected alarms. Any still active alarms remain with a count of 1.

- **Clear All**
  Clears all listed alarms. Any alarm still active will remain with the count of 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.

3.6.1 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.

3.7 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.

Buttons

The following buttons can appear on this screen:

- **Clear**
  Clears the selected alarms. Any still active alarms remain with a count of 1.

- **Clear All**
  Clears all listed alarms. Any alarm still active will remain with the count of 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.

3.7.1 TLS

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

Buttons

The following buttons can appear on this screen:

- **Clear**
  Clears the selected alarms. Any still active alarms remain with a count of 1.

- **Clear All**
  Clears all listed alarms. Any alarm still active will remain with the count of 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.

3.7.2 SRTP

This menu displays any STRP alarms that have occurred.
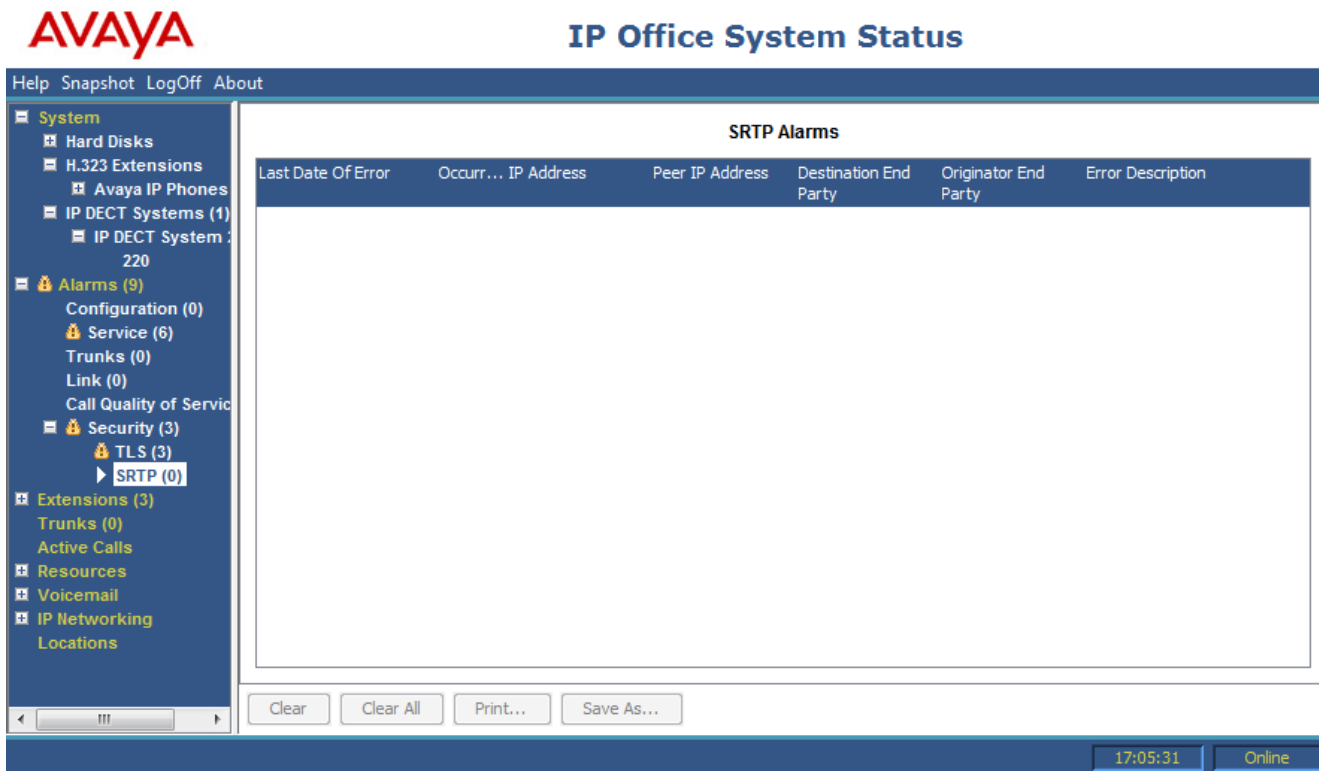
Buttons

The following buttons can appear on this screen:

- **Clear**
  Clears the selected alarms. Any still active alarms remain with a count of 1.

- **Clear All**
  Clears all listed alarms. Any alarm still active will remain with the count of 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.

Chapter 4.

Extensions

4. 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: 371	**IP Address:** 192.168.44.2	**MAC Address:** AA:AA:AA:AA:AA:AA

4.1 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.

Buttons

The following buttons can appear on this screen:

- **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).

4.2 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

- **Extension Number**
  The default extension number for this telephone.

- **Module/Slot/IP Address**
  Module number, slot details or IP address.

- **Port/MAC Address**
  Port number or MAC address of the control unit.

- **Telephone Type**
  The telephone model.

- **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.

- **Quality of Service Fields**
  The following addition items are available for calls by H323 phones and for other extension types when their current call uses a VCM channel.

  - **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.

  - **Current State**
    The current state of the call associated with the button. See Call States.

  - **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)

  - **Direction of Call**
    Displays the call as either **Incoming** or **Outgoing**.

Buttons

The following buttons can appear on this screen:

- **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.

- **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.

- **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.

- **Reregister**
  This option can be used to force Avaya H.323 IP phones to both reregister with the system 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**.

- **Back**
  Returns to the previous screen.

- **Call Details**
  Displays call details for the selected call, trunk or trunk channel.

- **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.

- **Unsubscribe**
  Force an IP DECT extension to unsubscribe.

Chapter 5.

Trunks

5. Trunks

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

Buttons

The following buttons can appear on this screen:

- **Select**
  Show details for the currently selected trunk. See Analog Trunk, Digital Trunk, H.323 Trunk or SIP Trunk.

5.1 Status (Analog Trunk)

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

Information Displayed

System Status displays the following information under the Status tab:

- **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**
  This table displays the following details:

  - **Port**
    The port number.

  - **Line ID**
    The line, module and port number.

  - **Line Type**
    The type of line protocol. See Line Protocols.

  - **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.

  - **Current State**
   The current state of the call associated with the button. See Call States.

- **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)

- **Direction of Call**
  Displays the call as either *Incoming* or *Outgoing*.

Buttons
The following buttons can appear on this screen:

- **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.

- **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.

- **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.

- **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.

5.2 Status (Digital Trunk)

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

Information Displayed

- **Line/Slot/Port**
  The line, slot and port number.

- **Line Type**
  See Line Protocols.

- **Line Subtype**
  See Line Protocols.

- **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**
  This table displays the following details:

  - **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 .

  - **Current State**
    The current state of the call associated with the button. See Call States .

  - **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
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)

- **Direction of Call**
  Displays the call as either *Incoming* or *Outgoing*.

Buttons
The following buttons can appear on this screen:

- **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.

- **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.

- **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.

- **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.

5.3 Status (H.323 Trunk)

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

Information Displayed

- **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**
  This table displays the following details:

- **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.

- **Current State**
  The current state of the call associated with the button. See Call States.

- **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**
  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)

- **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**

Buttons

The following buttons can appear on this screen:

- **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.

- **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 ⌐↳.

- **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 ⌐↳.

- **Call Details**
  Displays call details ⌐↳ for the selected call, trunk or trunk channel.

- **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.

5.4 Status (SIP Trunk)

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.

Information Displayed

- **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**
  The number of channels from the line form.

- **Total Channels in Use**
  The total number of channels that have associated call references.

- **Administered Compression**
  The compression mode from the VoIP form.

- **Silence Suppression**
  Either On or Off.

- **Channels Table**
  This table displays the following details:

  - **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.

  - **Current State**
    The current state of the call associated with the button. See Call States.

- **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 SIP message and may change throughout the call.

- **Connection Type**
  Either *RTP Relay* or *VCM*.

- **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)

- **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**

Buttons

The following buttons can appear on this screen:

- **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.

- **Ping**
  Perform a Ping action from the selected interface (system, line or extension) and display the results. See Ping.

- **Call Details**
  Displays call details for the selected call, trunk or trunk channel.

- **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.

- **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.

5.5 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:

- **Clear**
  Clears the selected alarms. Any still active alarms remain with a count of 1.

- **Call Details**
  Displays call details ⌐ꜛ for the selected call, trunk or trunk channel.

- **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.

- **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 ⌐ꜛ.

- **Ping**
  Perform a Ping action from the selected interface (system, line or extension) and display the results. See Ping ⌐ꜛ.

- **Call Details**
  Displays call details ⌐ꜛ for the selected call, trunk or trunk channel.

- **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.

5.6 Utilization Summary

Access this menu by clicking **Trunks** on the navigation panel. Alternatively, click **System** and then **Control Unit** and double-click the expansion module or VoIP trunk.

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

Information Displayed

- **Module**
  Type of trunk module.

- **Line**
  Line ID.

- **Line Type**
  See Line Protocols.

- **Line Sub Type**
  See Line Protocols.

- **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:

- **Reregister**
  This option can be used to force Avaya H.323 IP phones to both reregister with the system without restarting.
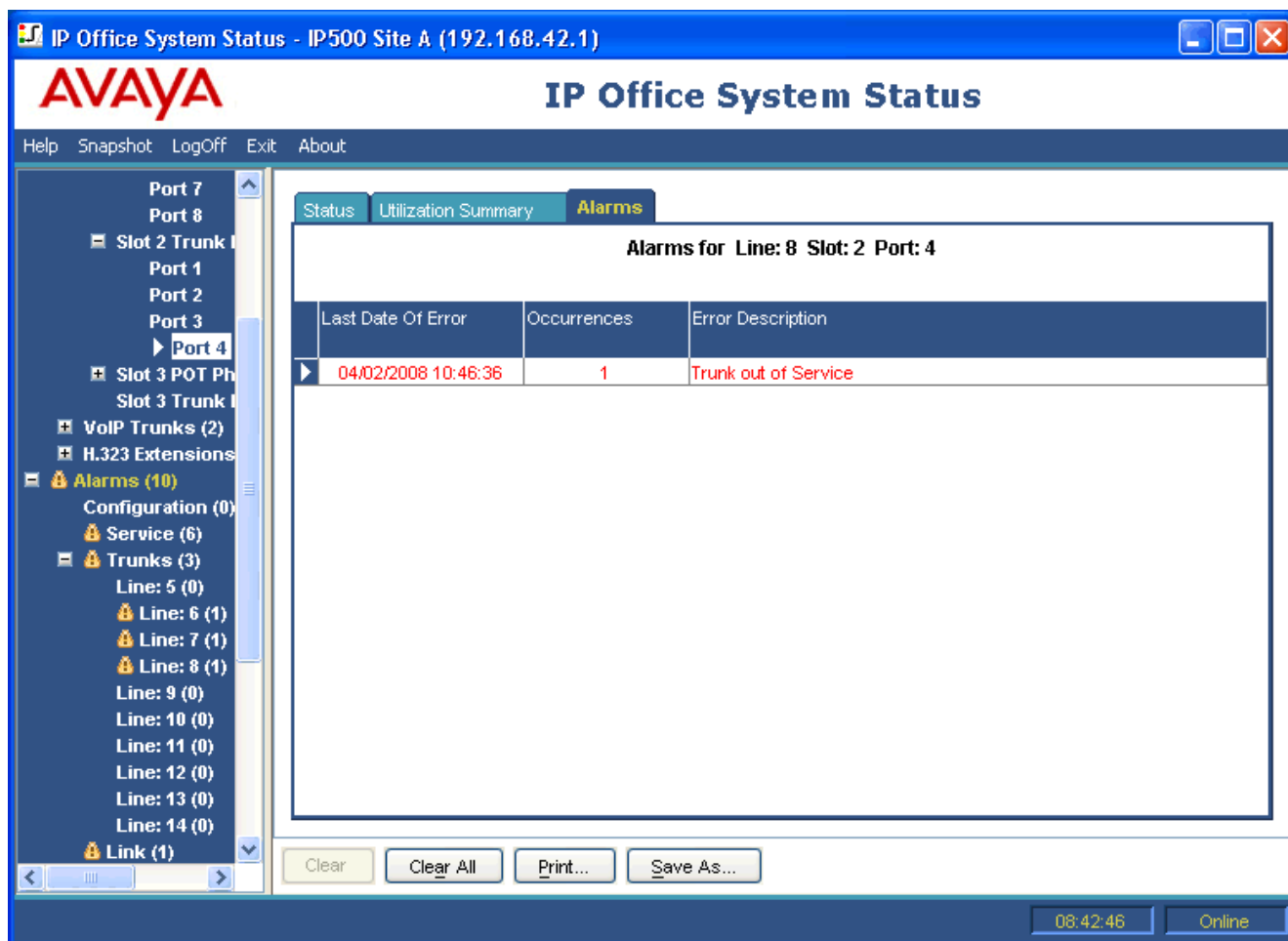
5.7 Alarms

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.

5.7.1 Alarms

Information Displayed

- **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

Error	Description
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:

- **Clear**
  Clears the selected alarms. Any still active alarms remain with a count of 1.

- **Clear All**
  Clears all listed alarms. Any alarm still active will remain with the count of 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.

5.7.2 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.

Buttons

The following buttons can appear on this screen:

- **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.

- **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.

5.8 Line Testing

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

Information Displayed

- **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.

- **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:

- **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**
  Stopt loopback testing on the selected trunk. The button label and function changes to **Start Test**.

Chapter 6.
Active Calls

6. Active Calls

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

Information Displayed

- **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.

  - **Current State**
    The originator's current state. See Call States.

  - **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.

- **Destination End Party**
  Trunk or 'Currently At' information. See Call Details.

  - **Current State**
    The destination's current state. See Call States.

  - **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:

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

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- **Resume**
  Resumes updating screen in real time. When pressed, the button label and function changes to **Pause**.

- **Disconnect**
  Clears the current call. The button cannot stop alerting calls on Loop Start, T1 Loop Start and T1 Ground Start lines.

- **Call Details**
  Displays call details ⌐ᐟ 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.

6.1 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.

Information Displayed

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

- **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.

- **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**
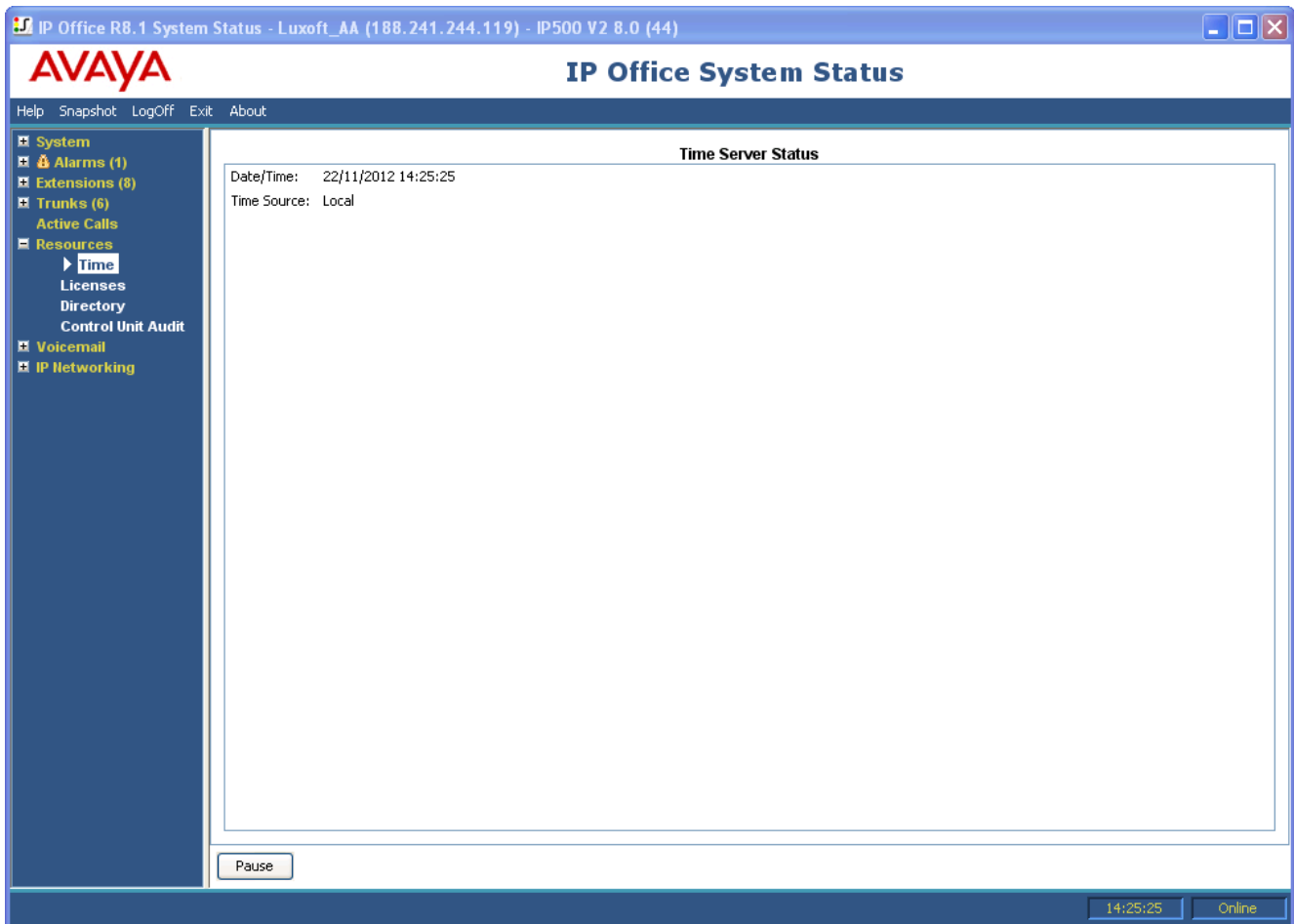 The call duration until disconnection occurred.

Buttons

The following buttons can appear on this screen:

- **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**.

- **Disconnect**
  Clears the current call. The button cannot stop alerting calls on Loop Start, T1 Loop Start and T1 Ground Start lines.

- **Call Details**
  Displays call details ☐ for the selected call, trunk or trunk channel.

- **Clear Abandoned Calls**
  Clears the list of all abandoned calls. This updates the date and time and enables the logging of further abandoned calls.

6.2 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.

Buttons

The following buttons can appear on this screen:

- **Full Details**
  Resume the full display of Active Calls ☐ from the reduced active calls state ☐.

6.3 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.

Information Displayed

- **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**.

    - **Destination Information**.

    - **Call Target Information**.

    - **Conference Details**.

    - **Call States (Extension Ports)**.

    - **Call States (Trunk Ports)**.

    - **Callback and Returning Calls**.

- **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
Tracing.

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:

- **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].

- **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.

6.4 Conference Details

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

Buttons

The following buttons can appear on this screen:

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

- **Refresh**
  Updates the screen. This button appears on screens that do not update automatically.

- **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.

6.5 Call Information

6.5.1 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.

- **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 .

- **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

- **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.

6.5.2 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

- **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

- **Current State and Time in State**
  The state of the call associated with the button.

- **Currently At**
  One of the following:

  - **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.

  - **Conference**
    The conference name. See Conference Details .

  - **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.

6.5.3 Call Target/Routing Information

- **RTP Connection Type** (if applicable)
  DirectMedia, RTPRelay or VCM.

- **Shortcode Matched** (if applicable)
  Includes the shortcode name, feature and the type.

- **Original Target** (if applicable)
  One of the following:

    - **Destination is a User**
      The user name or extension number.

    - **Destination is a Hunt Group**
      The hunt group name or extension number.

    - **Destination is a shortcode**
      The shortcode, the feature and the short code type.

    - **Destination is an embedded Automated Attendant**
      The string Automated Attendant, followed by the Automated 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** (if appropriate)
  The number of times a call has been transferred.

- **Redirecting Station** (if appropriate)
  The station from which a call was re-directed on Forwarding, Follow Me, coverage or twinning.

6.5.4 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 hook.
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 B-channel 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.
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.

6.5.5 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.
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 B-channel 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.

6.5.6 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.
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.

Chapter 7.
Resources

7. Resources

The **System Resources** screen provides a summary of key resources and their current usage in the system.

Information Displayed

- **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.

- **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.

  - **Channels**
    One of the following:

    - **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.

- **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.

Buttons

The following buttons can appear on this screen:

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

- **Refresh**
  Updates the screen. This button appears on screens that do not update automatically.

7.1 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.

Buttons

The following buttons can appear on this screen:

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

- **Refresh**
  Updates the screen. This button appears on screens that do not update automatically.

7.2 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.

Buttons

The following buttons can appear on this screen:

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

- **Refresh**
  Updates the screen. This button appears on screens that do not update automatically.

7.3 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.

Buttons

The following buttons can appear on this screen:

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

- **Refresh**
  Updates the screen. This button appears on screens that do not update automatically.

7.4 Directory

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

Information Displayed

- **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.

- **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*
  The last update was successful.

- *Success with Overflow*
  The last update was successful. However, the system discarded some entries because they exceeded the maximum capacity limits.

- *Failure*
  The last update attempt was not successful.

- *In Progress*
  The system is currently importing records.

- *Not Configured*
  The system does not have an import source 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:

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

- **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.

7.5 Control Unit Audit

This screen displays who has accessed the system configuration and the type of actions they performed.

Date and Time	Event Type	Item Changed	Outcome	IP Office Account	PC IP Address	PC MAC Address	PC Login Username
21/06/2007 ...	Security Login		Success	Operator			
18/01/2008 ...	Write with I...	System	Success	Administrator	192.168.42....	00-01-6C-E...	Administrator
18/01/2008 ...	Write with I...	System	Success	Administrator	192.168.42....	00-01-6C-E...	Administrator
18/01/2008 ...	Warm Start		Success	System Re...			
18/01/2008 ...	Write with I...	System	Success	Administrator	192.168.42....	00-01-6C-E...	Administrator
18/01/2008 ...	Warm Start		Success	System Re...			
18/01/2008 ...	Write with M...	System	Success	Administrator	192.168.42....	00-01-6C-E...	Administrator
23/01/2008 ...	Write with M...	User Extn203	Success	Administrator	192.168.42....	00-01-6C-E...	Administrator
23/01/2008 ...	Write with M...	User Extn203	Success	Administrator	192.168.42....	00-01-6C-E...	Administrator
23/01/2008 ...	Write with M...		Success	Administrator	192.168.42....	00-01-6C-E...	Administrator
23/01/2008 ...	Write with M...	User Extn203	Success	Administrator	192.168.42....	00-01-6C-E...	Administrator
23/01/2008 ...	Write with M...	User Extn203	Success	Administrator	192.168.42....	00-01-6C-E...	Administrator
29/01/2008 ...	Write with I...	User Extn203	Success	Administrator	192.168.42....	00-01-6C-E...	Administrator
29/01/2008 ...	Warm Start		Success	System Re...			
04/02/2008 ...	Upgrade		Success				
04/02/2008 ...	Warm Start		Success	System Re...			

Buttons

The following buttons can appear on this screen:

- **Refresh**
  Updates the screen. This button appears on screens that do not update automatically.

Chapter 8.

Voicemail

8. 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.

Buttons

The following buttons can appear on this screen:

- **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.

8.1 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.

Buttons

The following buttons can appear on this screen:

- **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**.

Chapter 9.

IP Networking

9. IP Networking
9.1 IP Routes

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

Buttons

The following buttons can appear on this screen:

- **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.

9.1.1 Ping

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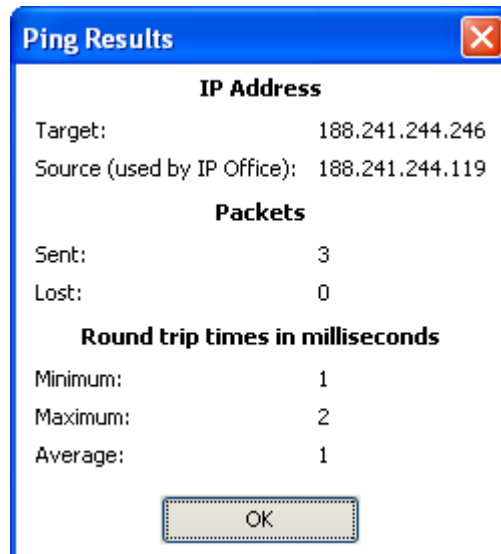
Ping Settings

Ping Results

9.2 Tunnels

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

Buttons

The following buttons can appear on this screen:

- **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**.

9.3 SSL VPN

This menu lists the SSL VPN services configured on the system.

Buttons

The following buttons can appear on this screen:

- **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 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.

9.4 Outdialer

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

Information Displayed

- **Outdialler Version:**
  The version of the outdialler server.

- **Totals:**
  This section lists the cumulative total number of calls made during the outdialler session.

  - **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.

- **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:

- **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.

Chapter 10.
Locations

10. Locations

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

Buttons

The following buttons can appear on this screen:

- **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**.

Chapter 11.
Tracing

11. 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.

11.1 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.

11.2 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.

11.3 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.

11.3.1 Incoming Outside Call

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

1. The outside call rings at extension 210.

2. Extension 210 answers the call.

3. The outside call (originator of the call) hangs up.

4. Extension 210 goes back on hook.

Disconnected by System User

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

1. The outside call (originator) rings at extension 210.

2. Extension 210 (destination end) answers the call.

3. Extension 210 hangs up.

4. The outside call is disconnected.

5. Extension 210 goes back on hook.

11.3.2 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:

1. A call rings at extension 209.

2. Extension 209 answers by pressing a call appearance.

3. Extension 209 parks the call on Park 1.

4. Extension 209 takes the call off Park 1.

5. Extension 209 selects the Transfer button.

6. Extension 209 dials extension 210 and selects the Transfer button again.

7. 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.

11.4 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.

11.4.1 Tracing Incoming Calls on Analog Lines

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

1. The system receives an incoming call.

2. The system assigns a Call Ref of 63.

3. The call rings at extension 211.

4. The system redirects the call to the user's voicemail box.

5. The external caller disconnected the call.

11.4.2 Tracing Outgoing Call

11.4.2.1 Call Disconnected by Internal User

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

1. Extension 210 dials **8123456789**.

2. The trace shows **Extension = 210, Digit dialed, digit = 8.**

3. The system matches the dialed 8, to the system short code 8N.

4. The trace shows that the system seized analog line 4 and dialed **123456789** on the line.

5. The trace shows that extension 210 goes back on hook.

6. The system disconnects the call.

Notes

- 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.

11.4.2.2 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.

1. Extension 210 dials **8123456789**.

2. The trace shows **Extension = 210, Digit dialed, digit = 8**.

3. The system matches the dialed 8, to the system shortcode 8N.

4. The system seizes analog line 4 and dials **123456789**.

5. The trace shows that external party disconnecting the call.

6. The system disconnects the internal user.

Notes

- 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.

11.5 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 ⌐⅂.

- Hunt Group Calls Sent to Voicemail After Ringing Hunt Group Members ⌐⅂
- Hunt Group Calls Being Answered by Hunt Group Member ⌐⅂
- Hunt Group Call Being Directed into a Hunt Group's Queue and then Sent to Voicemail ⌐⅂
- Call Being Abandoned While in a Hunt Group's Queue ⌐⅂
- Hunt Group Call Overflowing to a Second Hunt Group and then Answered by Voicemail ⌐⅂

11.5.1 Hunt Group Calls Sent to Voicemail

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

1. The system receives an external call.

2. The call rings at extension 209 and extension 210.

3. The system re-directs the call to voicemail.

11.5.2 Answered Hunt Group Call

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

1. An outside call (originator) rings at extension 209 and extension 210.

2. Extension 209 (destination end) answers the call.

3. Extension 209 hangs up the call.

4. The system disconnects the external caller.

11.5.3 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:

1. The system receives an external call.

2. The system sends the call to the hunt group's queue.

3. The system plays the queue message.

4. The system re-directs the call to voicemail.

11.5.4 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):

1. The system receives an external call.

2. The system sends the call to the hunt group's queue.

3. The system plays the queue message.

4. The external caller disconnects the call.

11.5.5 Hunt Group Call Overflowing

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

11.6 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:

Chapter 12.
Troubleshooting Examples

12. Troubleshooting Examples
## 12.1 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.
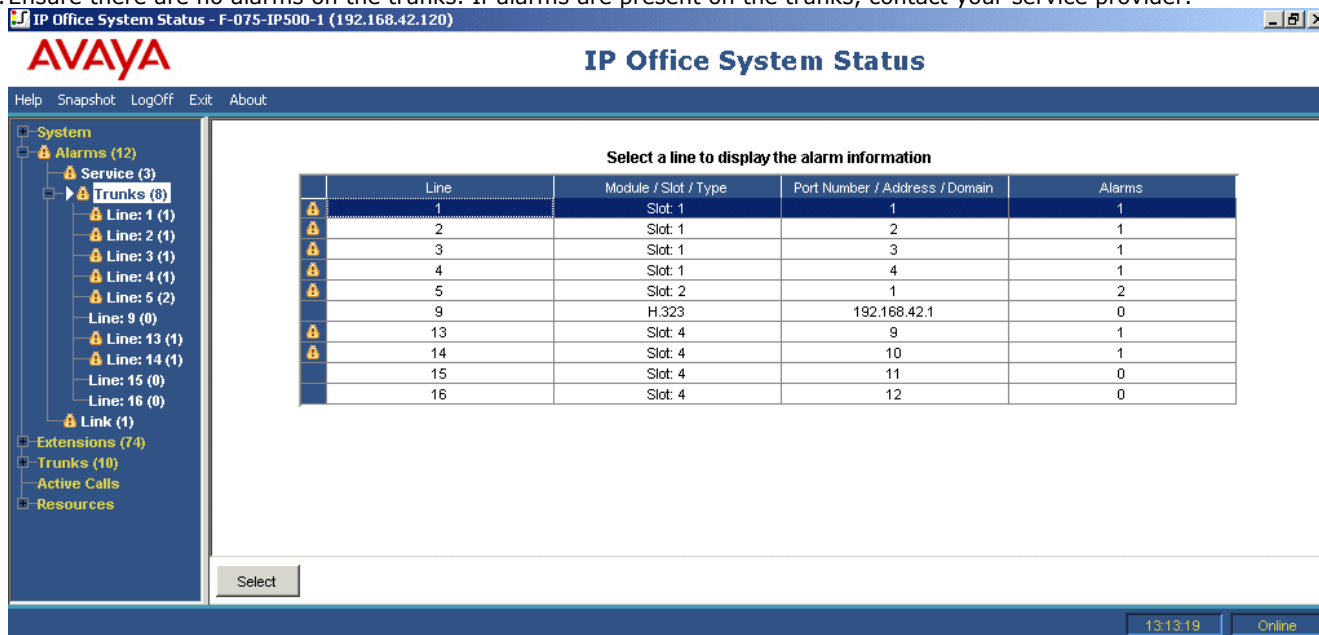
2. If no alarms are present, click **Trace All** to establish the reasons for the call cut off..

   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.

12.2 Delay Between Analog Line and Extension

Issue

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

Actions

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:
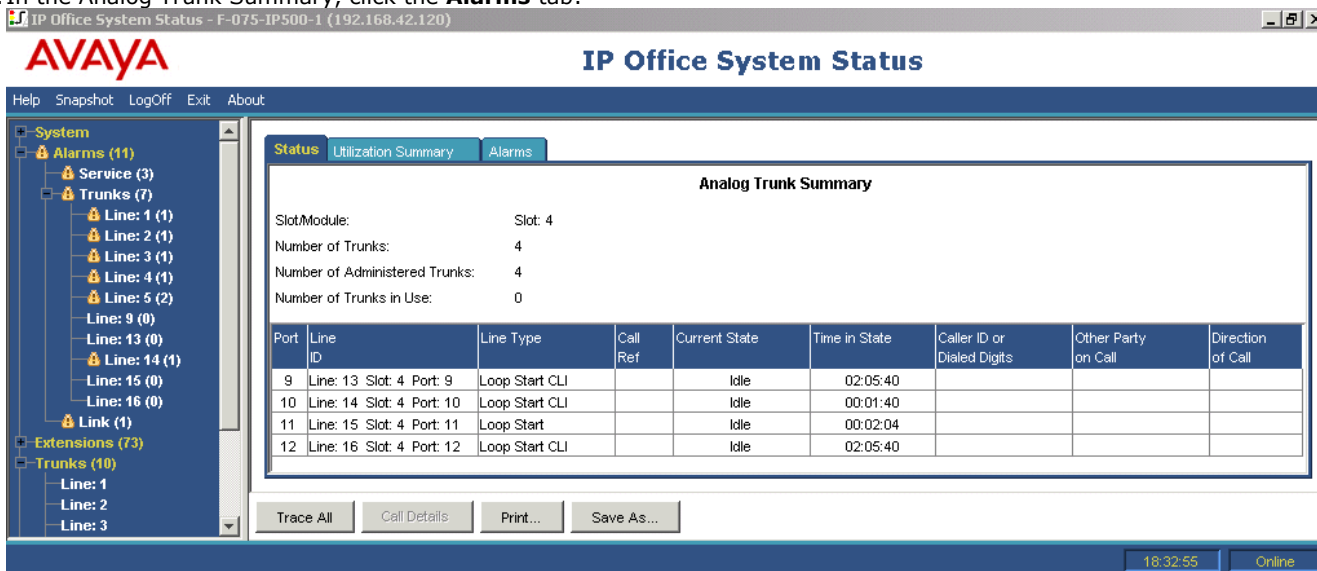
If the central office is not providing Caller ID information, System Status displays No Caller ID received under Error Description.

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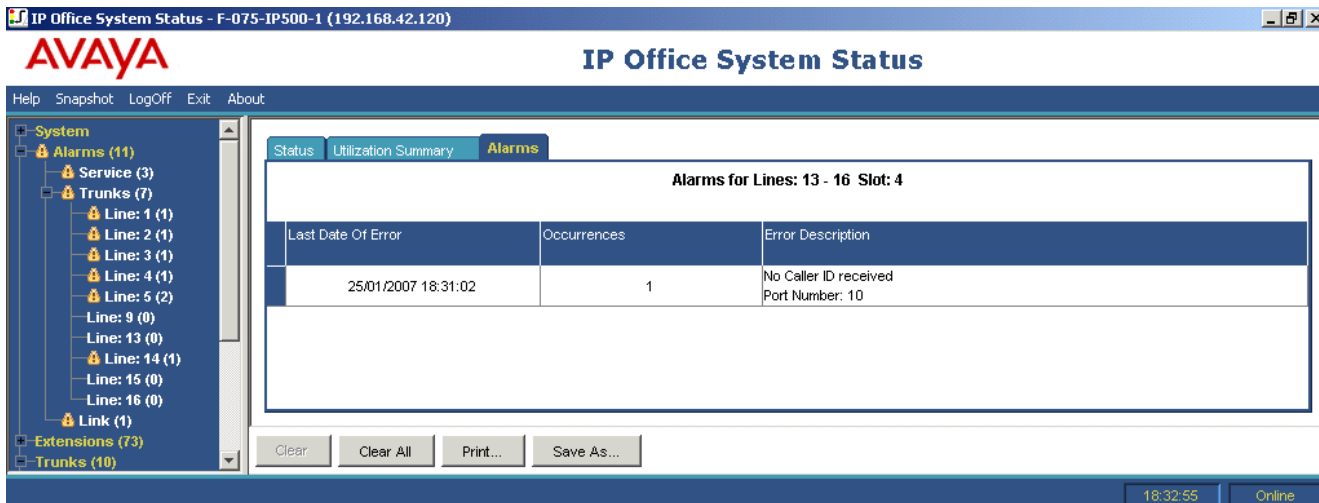
Alternatively, have the central office enable CLI/ICLID on the trunks.

12.3 Expansion Units Constantly Rebooting
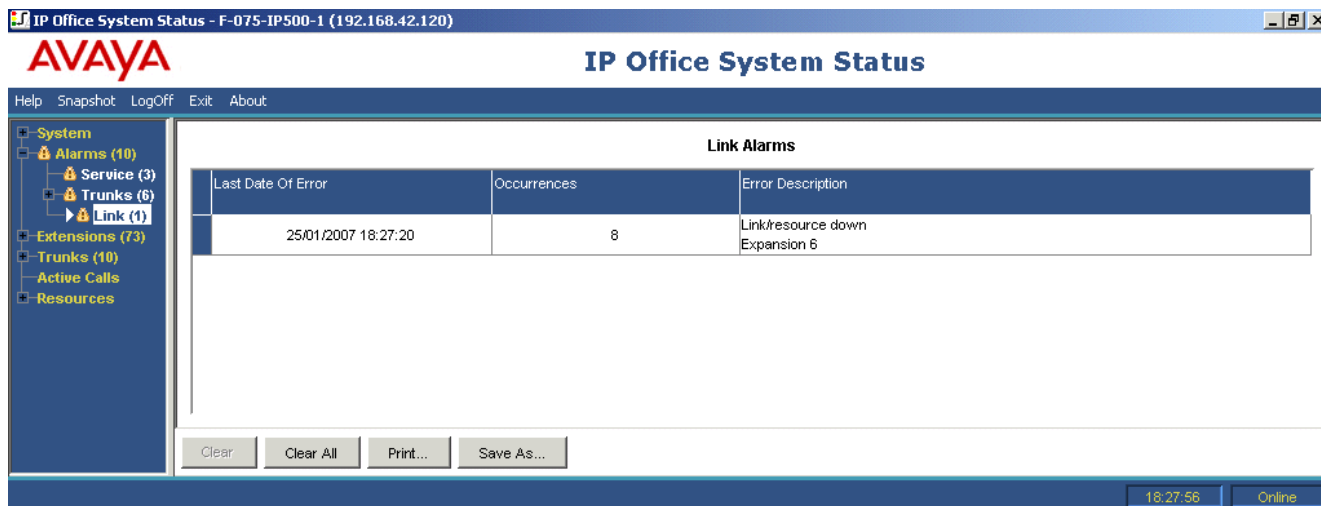
Issue

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.

The total number of times that system has lost contact with the module is displayed in the Occurrences column.

12.4 User Receives Busy When Calling

Issue

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

Action

1. Check that Voicemail Pro/Lite/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.

12.5 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.

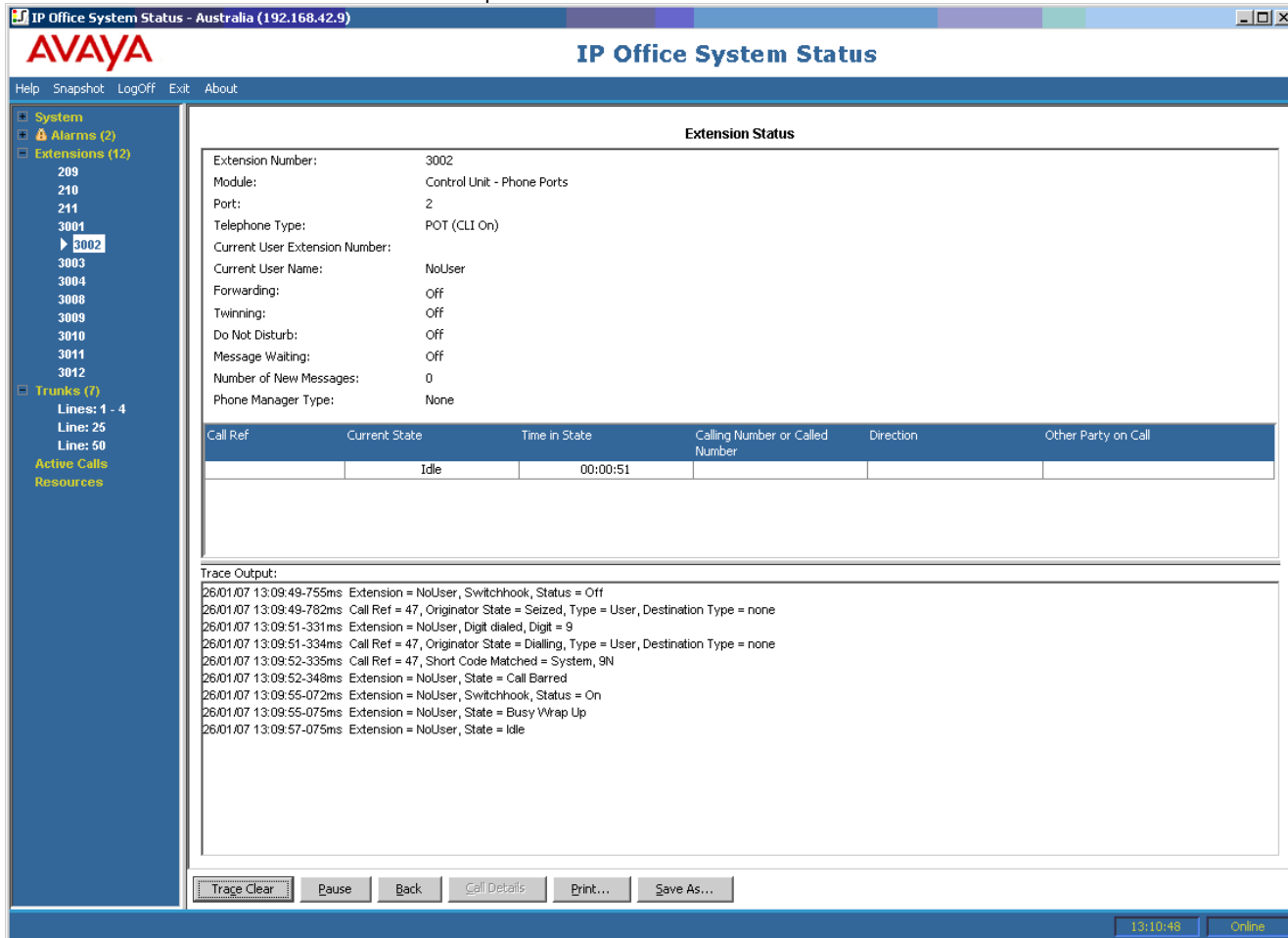# 12.6 Phone User Unable to Dial Out

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

This Extension Status screen shows that the user has not logged on and this is reason the user cannot dial out.

12.7 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.

Chapter 13.
Document History

13. Document History

Date	Issue	Changes
30th October 2014	**10b**	Updates for IP Office Release 9.1.

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