



IP Office 5.0

System Status Application

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Introduction to SSA

Overview

The System Status Application (SSA) is a diagnostic tool for system managers and administrators, in order to monitor and check the status of IP Office systems. SSA shows both the current state of an IP Office system and details of problems that have occurred.

To assist with fault finding and diagnosis, the information reported is a combination of real-time and historical events as well as status and configuration data.

SSA provides real-time status, historic utilization and alarm information for ports, modules and expansion cards on the system.

SSA connects to all variants of IP Office 4.0 and higher software, using an IP connection that can be remote or local.

SSA provides information on the following:

- **Alarms**
SSA displays all alarms which are recorded within IP Office for each device in error. The number of occurrences and the date and time of the last occurrence are recorded.
- **Call Details**
Information on incoming and outgoing calls; including call length, call reference and routing information.
- **Extensions**
SSA details all extensions (including device type and port location) on the IP Office system. Information on the current status of a device is also displayed.
- **Trunks**
IP Office trunks and connections (VoIP, analog and digital) and their current status are displayed.
- **System Resources**
IP Office includes central resources that are utilized to perform various functions. Diagnosing these resources is often critical to the successful operation of the system. Those resources include:
 - Voicemail Channels
 - Conference Channels
 - Data Channels
 - VCM Channels
 - Modem Channels

Notes

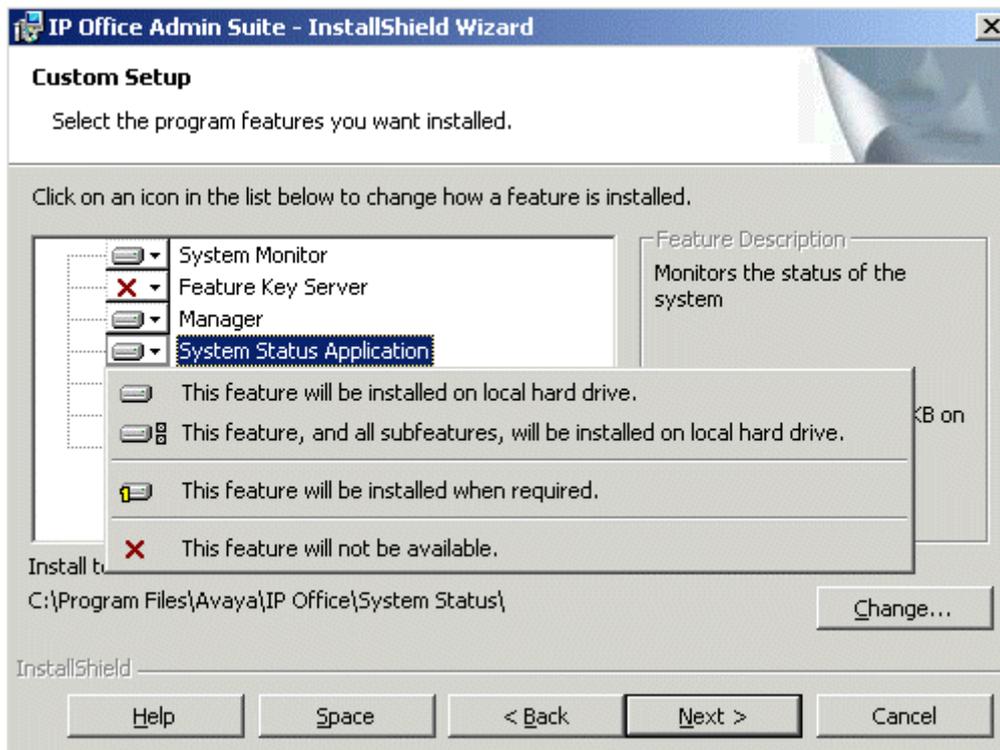
- SSA is not a configuration tool for IP Office systems. For information on configuration, refer to IP Office Manager.
- There can be up to two SSA clients connected to an IP Office unit at one time. However, two connections are not permitted from clients at the same IP address.
- SSA cannot be used from the same PC as the IP Office Customer Call Reporter application.

Installing the Application

SSA is a component of the IP Office 4.0+ suite of applications. This suite is supplied on the IP Office Applications DVD.

To install SSA:

1. If a pre-4.0 version of the IP Office Admin suite is installed, it must be removed. To do this:
 - a. From the Windows **Control Panel**, click **Add or Remove Programs**.
 - b. Click **IP Office Admin Suite** and then click **Remove**.
2. Insert the CD. The installation process should auto start. If it does not auto start, open the CD 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 to which the applications should be installed. Avaya recommends that you accept the default destination. Click **Next**.
6. The following screen is used to select which applications in the suite should be installed:



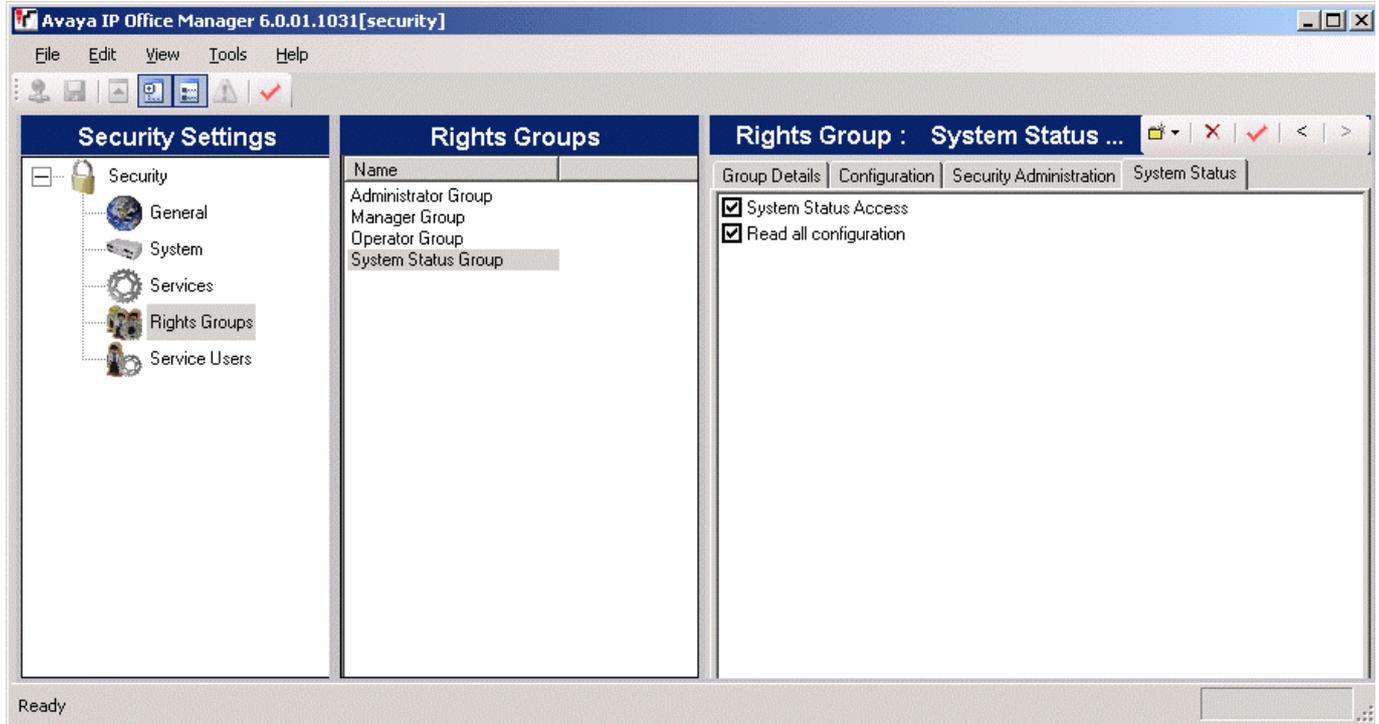
Clicking on each application will display a description. To change the installation selection, click ▼ next to each application. When you have selected the installations required, click **Next**.

7. Click **Install**.
8. Following installation, you will be prompted whether you want to run the IP Office Admin Suite. To run the suite, click **Yes**.

Assigning Security Settings

For new IP Office installations or where the security settings have been defaulted, then the default IP Office service users (Administrator, Manager and Operator) all have SSA access rights. For full details of security settings refer to the IP Office Manager application documentation or help.

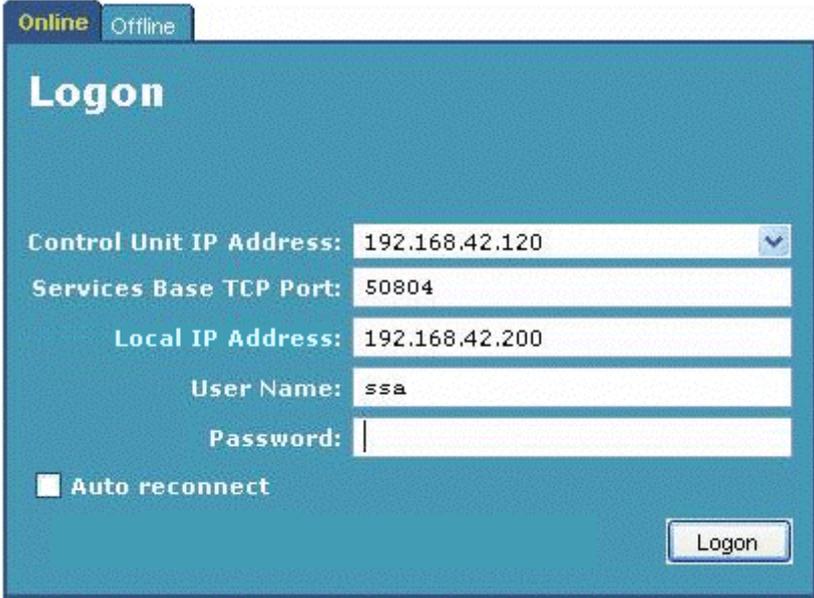
For an IP Office service user to be able to use SSA to logon to a system, they must belong to a Rights Group on that system that has System Status Access enabled. In addition if they want to take snap shots that include a copy of the system configuration Read all configuration must be enabled.



Starting the Application

SSA can be launched independently or via Manager.

1. Click the Windows **Start** icon and select **Programs | IP Office | System Status**.
 - From within the IP Office Manager application, select **File | Advanced | System Status**.
2. The following screen is displayed:



- **Control Unit IP Address**
Enter the IP address of the IP Office control units LAN interface 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 IP Office system, set in that systems security settings. The default is **50804**.
 - **Local IP Address: Default = Automatic**
If the PC has more than one IP address assigned to its network card or multiple network cards, the address to use can be selected if necessary. This allows SSA to be run on a PC that is already running an SSI connection to the IP Office for the IP Office Customer Call Reporter application.
 - **User Name/Password**
Enter a user name and password that has been provided for SSA usage. This must be the name of an **IP Office service user name that has been configured for system status access in the IP Office's security settings**. See Assigning Security Settings.
 - **Auto Reconnect**
If selected, SSA will attempt to reconnect using the same settings if connection to the IP Office is lost.
3. Once all the details are set, click **Logon**.

Note

- If SSA fails to start up on Windows 2000 Advanced Server, run **CMD** and select the directory in which the SSA components are installed (by default this will be **C:\Program Files\Avaya\IP Office\System Status**). Then run the following command:

```
java -Dsun.java2d.noddraw=true -jar ssaviewer.jar
```

This disables the use of DirectX from Java. If SSA starts up, this suggests your system has a DirectX problem.

Possible reasons for DirectX problems:

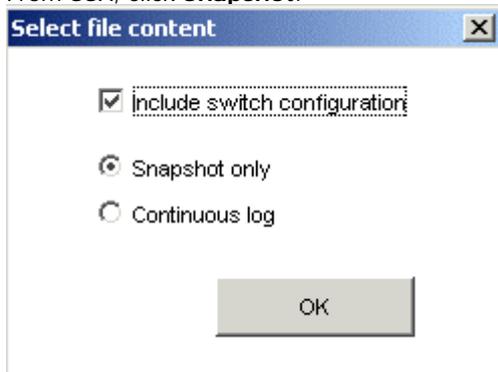
- DirectX is not properly installed (e.g. an installation or a de-installation of a program has corrupted one or more DirectX files). Test the DirectX setup by calling the **dxdiag** tool from the command line. Re-install DirectX or the latest service pack for your system.
- The driver of the graphics card is not fully compatible with the installed DirectX version. Update to the latest driver version.

Snapshot

Snapshot allows the IP Office system status to be captured and saved. The snapshot can then be viewed offline at a later time.

To take a snapshot

1. From SSA, click **Snapshot**:



2. The options **include switch configuration** and **Snapshot only** are selected by default.

- **Include switch configuration**

The user must have **Read All Configuration** enabled in the System Status Rights Groups (see Assigning Security Settings). The same snapshot file can be opened in SSA (to examine the status of the system at the time of the snapshot) and in Manager (to examine the configuration of the system at the time of the snapshot).

- **Snapshot only/Continuous log**

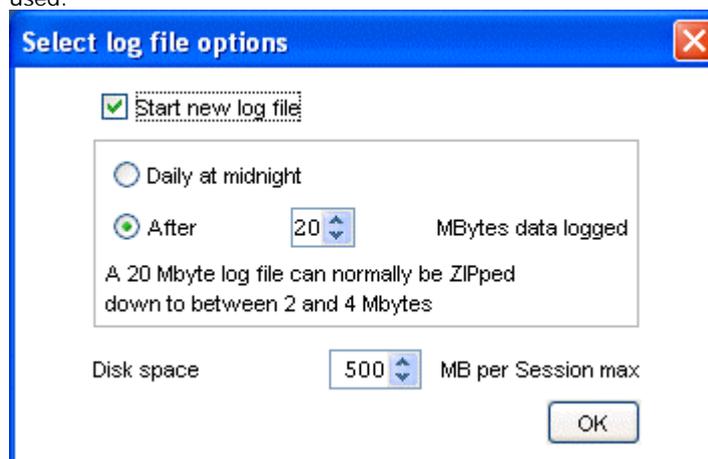
Select either a single snapshot of the current status or a continuous log of the status until logging is stopped. Note that with continuous logging, SSA must be left running and cannot be used for other activities without first stopping the logging.

- **Snapshot only**

If this option is selected, when **OK** is clicked, SSA will request where you want to save the snapshot **.ssh** file. A default file name that includes the system name, date and time is shown but this can be replaced if required.

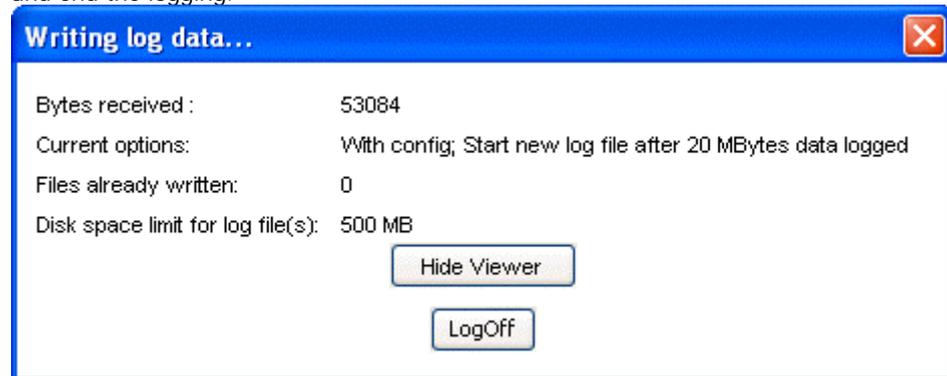
- **Continuous log**

If this option is selected, when **OK** is clicked a further menu will ask for the logging settings to be used.



Select the settings required and click **OK**. SSA will then request where the **.slo** file should be saved. Once logging has started, the following menu is displayed. Selecting **LogOff** will close SSA

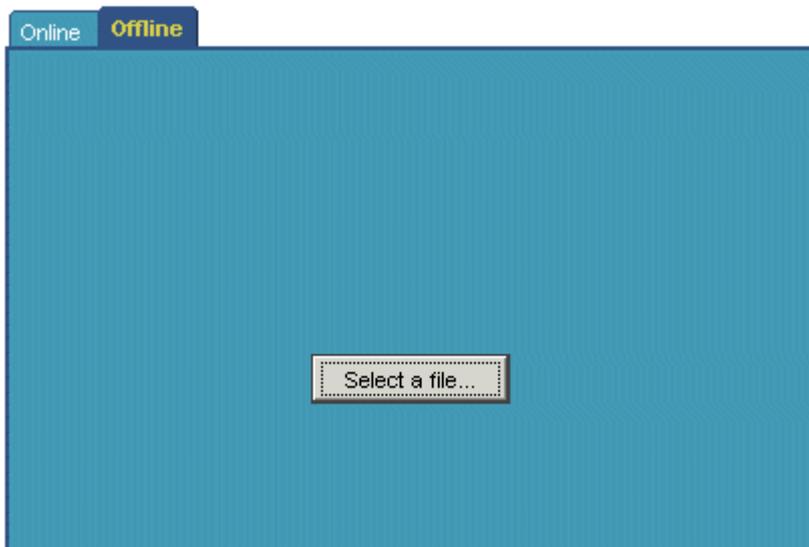
and end the logging.



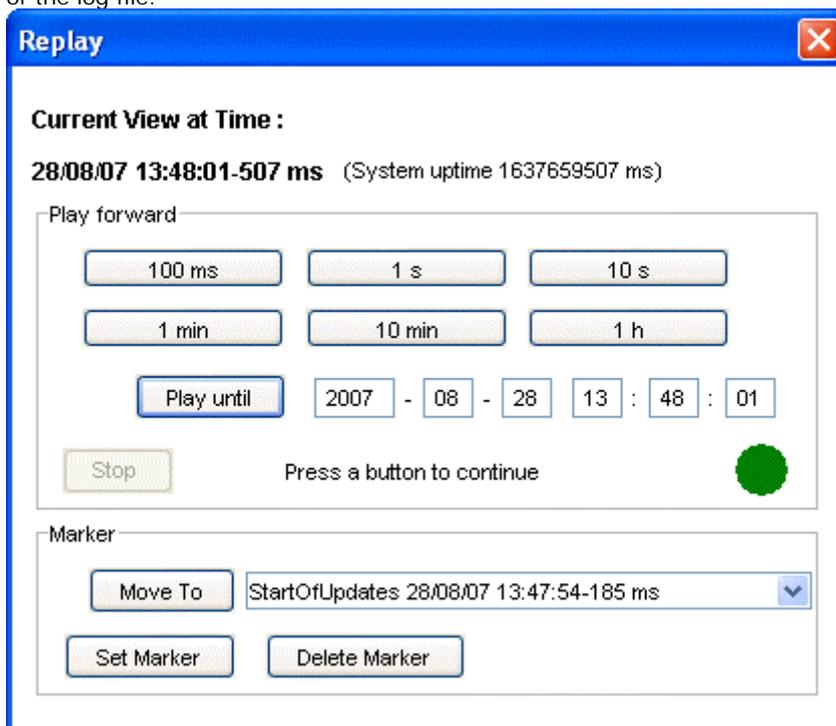
To open a snapshot

The menu options and buttons that relate to live information capture (such as **Refresh**) or that alter the IP Office state (such as Clear Alarms) are not available. The menu options **Snapshot** and **LogOff** are replaced by **Properties** and **Close**. Properties shows when the snapshot was taken and by whom.

1. From the Logon screen, 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 **.slo** continuous log files, the menu bar option **Replay** can be used to display a menu for controlling the playback of the log file.



Using the Application

Overview

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

IP Office System Status

Help Snapshot LogOff Exit About **MENU BAR**

System
Alarms (6)
Extensions (22)
 280
 299
 601
 602
 603
 604
 605
 606
 607
 608
 609
 610
 6666
 6667
 6747
 6748
 6749
 6750
 6751
 6752
 6753
 6754
Trunks (26)
Active Calls
Resources

NAVIGATION PANEL

Extension Summary
 You can get more information about an extension by double-clicking the Home Extension Number. **INFORMATION PANEL**

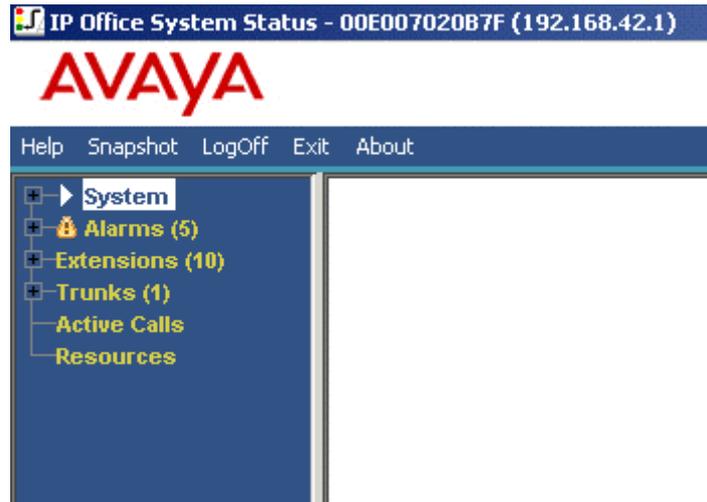
Home Extension Number	Current User Extension	Current User Name	Module/Slot/IP Address	Port Number/MAC Address	Telephone Type	Number of New Messages
6747	6747	Extn6747	Module: 5	1	POT (CLI On)	0
6748	6748	Extn6748	Module: 5	2	POT (CLI On)	0
6749	6749	Extn6749	Module: 5	3	POT (CLI On)	0
6750	6750	Extn6750	Module: 5	4	POT (CLI On)	0
6751	6751	Extn6751	Module: 5	5	POT (CLI On)	0
6752	6752	Extn6752	Module: 5	6	POT (CLI On)	0
6753	6753	Extn6753	Module: 5	7	POT (CLI On)	0
6754	6754	Extn6754	Module: 5	8	POT (CLI On)	0
601	601	Doris Salaam	Control Unit - Phone Ports	1	POT (CLI On)	0
602	602	Isla Wight	Control Unit - Phone Ports	2	POT (CLI Off)	0
603	603	Alice Ababa	Control Unit - DS Ports	1	2420	0
604	604	BorisAeris	Control Unit - DS Ports	2	2410	0
605	605	TristramDaCunha	Control Unit - DS Ports	3	9040 or 3810	0
606	606	Sam Jose	Control Unit - DS Ports	4	2402	0
607	607	Kate Cod	Control Unit - DS Ports	5	Unsupported Classm...	0
608			Control Unit - DS Ports	6	unplugged	
609	609	MontyCarlo	Control Unit - DS Ports	7	T3 Comfort	0
610			Control Unit - DS Ports	8	unplugged	
280	280	Ken Tucky	192.168.42.42	00-09-6E-08-13-B6	5610	0
299	299	Ben Becula	192.168.42.20	00-09-6E-07-B6-C9	5602	0
6666	6666	Steven Edge	IP DECT module		DECT IP	0
6667	6667	Peter Burrow	IP DECT module		DECT IP	0

Refresh **Print...** **BUTTON BAR**

STATUS BAR 10:14:45 AM Online

Navigation Panel

The **Navigation Panel** displays a list of items on which information can be selected and displayed in the .



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; click **Extensions** and the **Extension Summary** screen is displayed.
- **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.

Button Bar

The table below provides a description of the various buttons available from the Button Bar:

Button	Description
Abandoned Calls	The Active Calls screen splits to display a list of incoming calls on a trunk where the caller disconnected before the call was first answered
Absolute Time	Applies to the 24 Hour Performance History. Each line shows the absolute time at which the reported 15 minute period started (HH:MM in 24 hour clock format). See also Relative Time.
Back	Returns to the previously selected screen.
Call Details	Displays call details/traces. Only valid when a single row showing an active call is selected.
Clear	Clears all the alarms that have been selected. Any alarm still active will remain with the count of 1.
Clear Abandoned Calls	Clears all listed abandoned calls, updates the date and time and enables further abandoned calls to be logged.
Clear All	Clears all listed alarms. Any alarm still active will remain with the count of 1.
Conference Details	Available for call details when the call is connected to a conference.
Details	Available from the IP 500 System Hardware Summary. Shows more information about the system, e.g. Loader, FPGA and PCB versions.
Disconnect	Clears the current call.
Full Details	Applies to Active Calls. Resumes the full display.
Pause	Stops the screen from updating. Applies to screens that are continually updated. See also Resume.
Ping	Pings the IP address of the displayed extension or trunk.
Print	Prints all information available in the current screen (including any information currently scrolled off).
Refresh	Updates the screen. Applies to screens that are not automatically updated, such as Extension Summary.
Relative Time	Applies to the 24 Hour Performance History. Indicates how far into the 15 minute interval the line is (e.g. 3 minutes will show as 00:03). The times following that will be displayed in relationship to the current time as HH:MM (e.g. subtract 15 minutes from the current interval to get the next one).
Reset	Applies to the Utilization Summary. Resets all counters and timers to 0.
Resume	Resumes updating screen in real time.
Save As	Saves all information that is available on the screen. By default, the information is saved as a .txt file. For screens that include traces, the trace only can be saved as a .csv file.
Show Blanks	Applies to 24 Hour Performance History. 0 error values for each line appear as blanks.
Show Zeros	Applies to 24 Hour Performance History. 0 error values for each line are displayed.
Summary	Returns to the System Hardware Summary. See also Details.
Trace	Starts a trace of the rows selected. The trace is displayed for each call associated with the selected trunk ports or extension button. See Tracing.
Trace All	Starts a trace for the whole trunk group or extension. The trace is displayed for all calls associated with the trunk or extension.
Trace Clear	Clears the trace and continues tracing.

Menu Bar

Overview

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

- **Help**
Opens the SSA help system.
- **LogOff**
Logs off of the control unit and returns to the login screen.
- **Exit**
Closes the SSA application.
- **About**
Displays the SSA version number and copyright information. To close, click **OK**.
- **Snapshot**
Captures the complete status of an IP Office system at a particular time and saves this to file. SSA can then be used offline to browse this information.

Help

To open the help system, click **Help** from the menu bar. Alternatively, click **F1**.

If applicable, the help will open at the page relating to the screen currently displayed, otherwise **About this Guide** is displayed.

Screens

System

System Hardware Summary

When you first log on to SSA, the System Hardware Summary screen is displayed, detailing information about the system modules.

The format and layout of the screen will vary according to the type of IP Office control unit. For IP Office 500 control units the **Details** button allows additional information to be displayed. This additional information can be hidden again by clicking on the **Summary** button.

The screenshot shows the Avaya IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The main header displays the Avaya logo and "IP Office System Status". Below the header is a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About".

The left sidebar contains a tree view with the following items:

- System
 - Control Unit (IP500)
 - Slot 1 DS Phones
 - Slot 2 Trunk Mod
 - Slot 3 POT Phone
 - Slot 3 Trunk Mod
 - VoIP Trunks (2)
 - H.323 Extensions
 - Alarms (10)
 - Extensions (17)
 - Trunks (10)
 - Active Calls
 - Resources
 - Licenses
 - Directory
 - Control Unit Audit
 - Voicemail
 - Mailboxes
 - IP Networking
 - IP Routes
 - Tunnels

System Hardware Summary

Control Unit: IP500 Current Firmware: 4.2 (11007)
Mode: Professional Compact Flash: CompactFlash 512M

Control Unit Slots:

Slot Number		
1	Base: DS 8	Daughter card: None
2	Base: VCM64	Daughter card: Quad BRI
3	Base: Phone 8	Daughter card: ATM4
4	Empty	

External Modules:

Module Number	Type	Current Firmware
1	not present	
2	not present	
3	not present	

Details

08:32:15

Online

Click **Details** for more information.

System Hardware Details

Control Unit: IP500 Current Firmware: 4.2 (11007)

Loader Version: CPU Version: MPC8248 CPU Revision 0x0c10

Board Version: 0xA0 PLD Version: 0x17

Options Present: 0x802 FPGA: Id=0x1, Issue=0x0, Build=0x5E

NAND Flash: 64M, Hynix RTC Battery: present

RTC Last Update: 05/02/2008 07:46:34

LAN1 MAC Address: 00-E0-07-02-6F-AC LAN2 MAC Address: 00-E0-07-82-6F-AC

Mode: Professional Compact Flash: CompactFlash 512M, STI Flash 7.0.0

Control Unit Slots:

Slot Number		
1	Base: DS 8, Board version=0xC0, PLD version=0x5	Daughter card: None
2	Base: VCM64, Board version=0x1, PLD version=0x10	Daughter card: Quad BRI, Board version=0x0
3	Base: Phone 8, Board version=0x1, PLD version=0x3	Daughter card: ATM4, Board version=0x0
4	Empty	

External Modules:

Module Number	Type	Current Firmware
1	not present	

Summary

08:34:19 Online

Control Unit Port

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.

The screenshot displays the AVAYA IP Office System Status application. The window title is "IP Office System Status - IP500 Site A (192.168.42.1)". The application has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About".

The left sidebar shows a tree view under "System":

- Control Unit (IP500)
 - Slot 1 DS Phones
 - Slot 2 Trunk Mod
 - Slot 3 POT Phone
 - Slot 3 Trunk Mod
- VoIP Trunks (2)
- H.323 Extensions
- Alarms (10)
- Extensions (17)
- Trunks (10)
- Active Calls
- Resources
 - Licenses
 - Directory
 - Control Unit Audit
- Voicemail
 - Mailboxes
- IP Networking
 - IP Routes
 - Tunnels

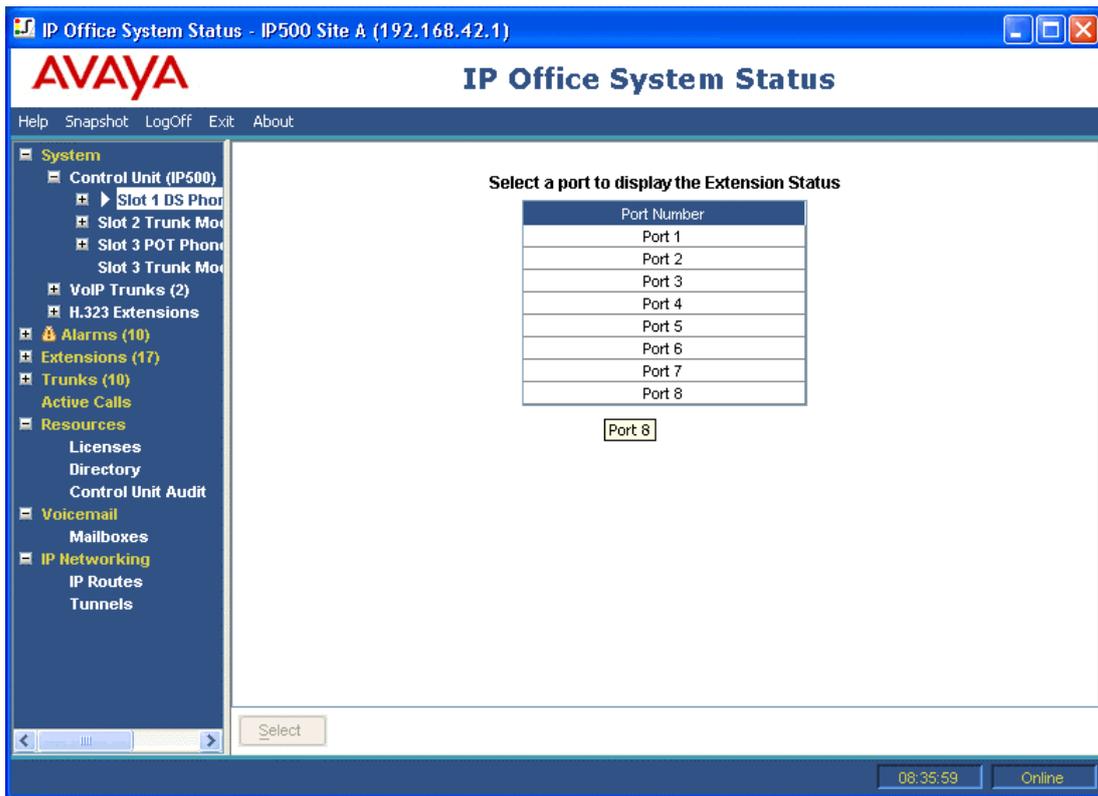
The main content area is titled "Select an internal module to display its ports" and contains a table:

Module
Slot 1 DS Phones Module (8)
Slot 2 Trunk Module (Quad BRI)
Slot 3 POT Phones Module (8)
Slot 3 Trunk Module (ATM4)

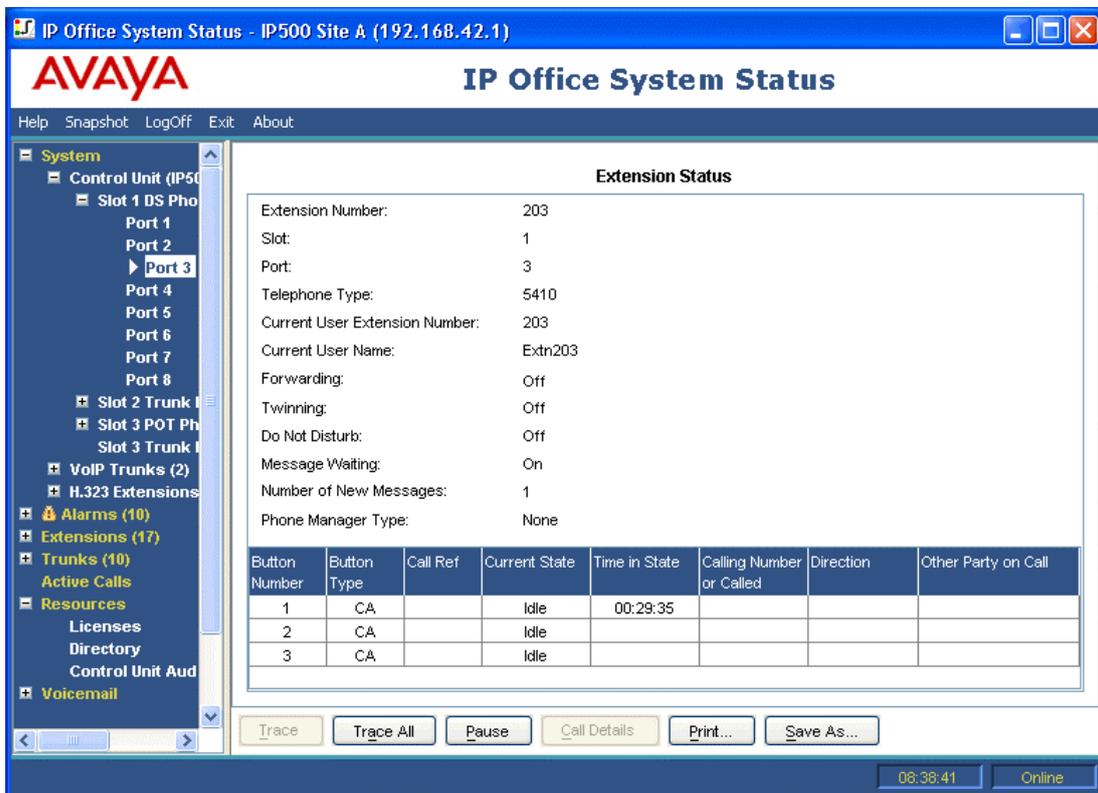
At the bottom left of the main content area is a "Select" button. The status bar at the bottom right shows the time "08:34:51" and the status "Online".

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.

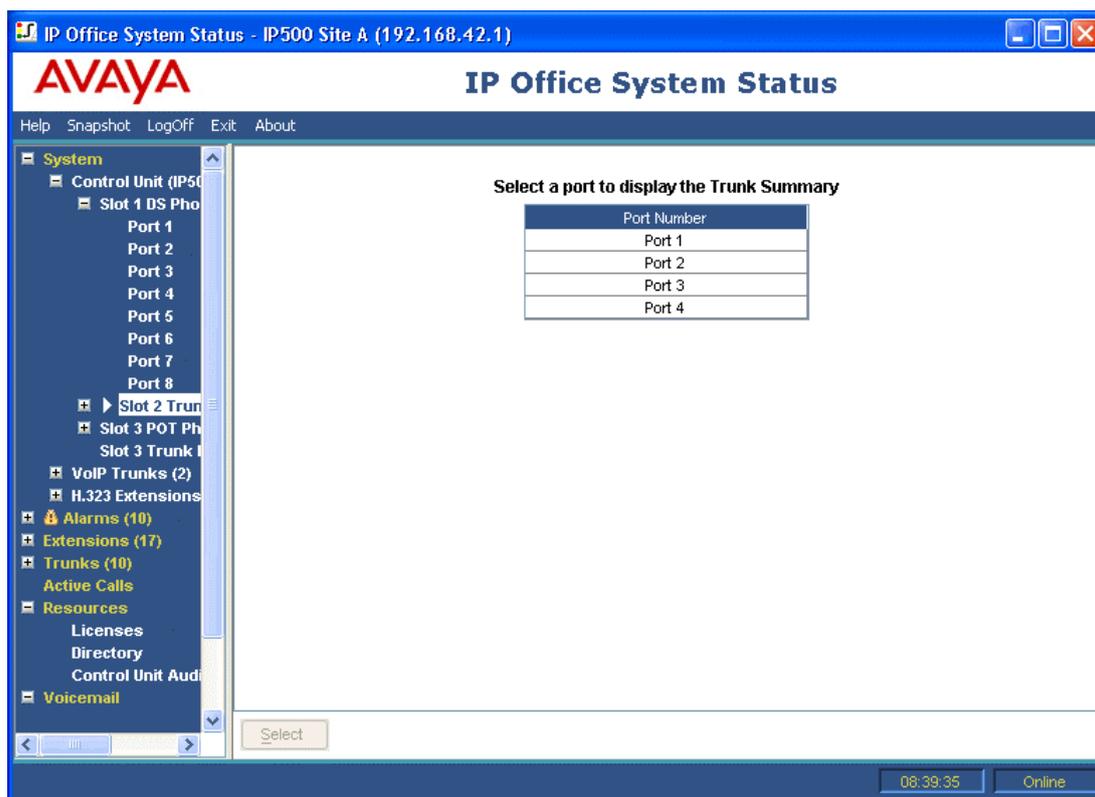


Select a device to display information on it.

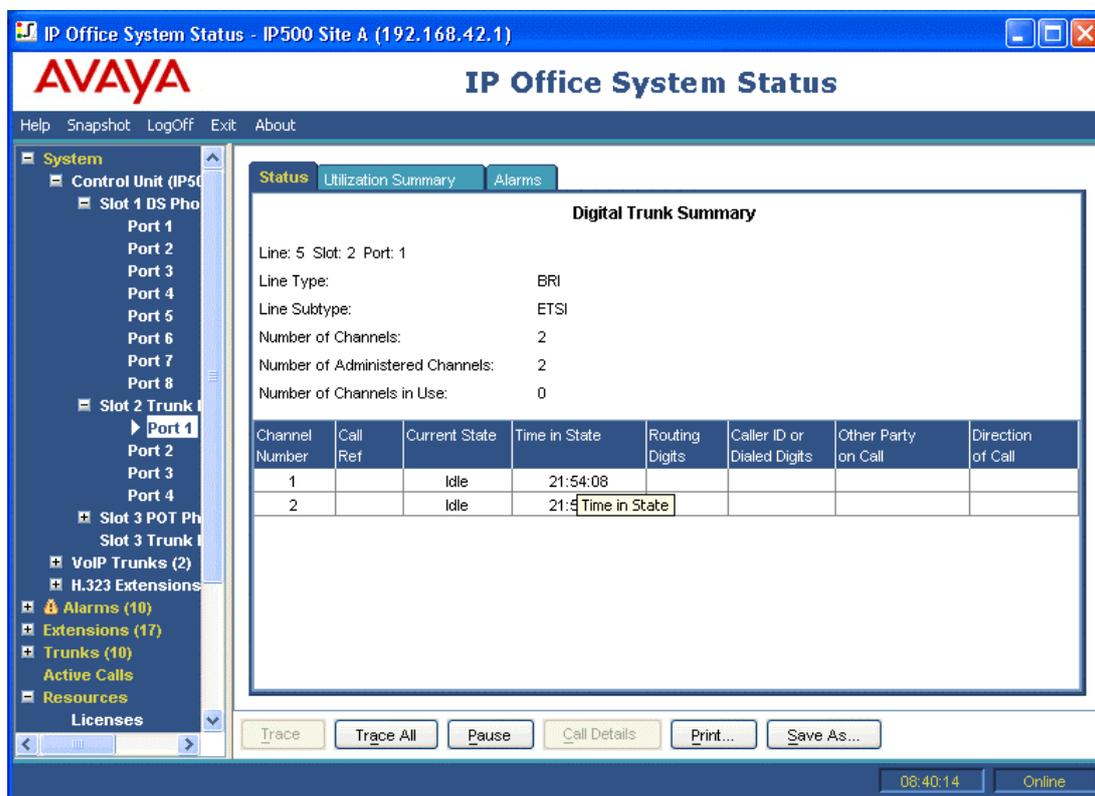


Trunk Ports

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.



Select a device to display information on it. For trunks this consists of a number of tabs. For full details refer to the **Trunks** section.



AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System

- Control Unit (IP500)
 - Slot 1 DS Phone
 - Port 1
 - Port 2
 - Port 3
 - Port 4
 - Port 5
 - Port 6
 - Port 7
 - Port 8
 - Slot 2 Trunk 1
 - Port 1**
 - Port 2
 - Port 3
 - Port 4
 - Slot 3 POT Phone
 - Slot 3 Trunk 1
 - VoIP Trunks (2)
 - H.323 Extensions
- Alarms (10)
- Extensions (17)
- Trunks (10)
- Active Calls
- Resources
- Licenses

Utilization Summary for Line: 5

Module: Quad BRI

Line: 5 Slot: 2 Port: 1

Line Type: BRI

Line Sub Type: ETSI

Counters started: 04/02/2008 10:46:34

99%

Call Type	Number of Calls	Total Call Duration
Outgoing	0	0:00:00
Incoming	0	0:00:00
Incoming Abandoned	3	

Reregister

08:41:57 Online

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System

- Port 7
- Port 8
- Slot 2 Trunk 1
 - Port 1
 - Port 2
 - Port 3
 - Port 4**
- Slot 3 POT Phone
 - Slot 3 Trunk 1
- VoIP Trunks (2)
- H.323 Extensions
- Alarms (10)
 - Configuration (0)
 - Service (6)
 - Trunks (3)
 - Line: 5 (0)
 - Line: 6 (1)
 - Line: 7 (1)
 - Line: 8 (1)
 - Line: 9 (0)
 - Line: 10 (0)
 - Line: 11 (0)
 - Line: 12 (0)
 - Line: 13 (0)
 - Line: 14 (0)
 - Link (1)

Alarms for Line: 8 Slot: 2 Port: 4

Last Date Of Error	Occurrences	Error Description
04/02/2008 10:46:36	1	Trunk out of Service

Clear Clear All Print... Save As...

08:42:46 Online

Expansion Modules

This screen lists the external expansion modules installed in the system.

IP Office System Status - IP500 Site A (192.168.42.1)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

- System
 - Control Unit (IP500)
 - Expansion Module
 - Module 1 (DS30V)
 - VoIP Trunks (2)
 - H.323 Extensions
 - Alarms (10)
 - Extensions (47)
 - Trunks (10)
 - Active Calls
 - Resources
 - Voicemail
 - IP Networking

Select a module to display its ports

Module Number	Type
1	DS30 V2

Select

09:46:11 Online

To view details of an individual ports, use the navigation pane or select the port and click **Select**.

IP Office System Status - IP500 Site A (192.168.42.1)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

- System
 - Control Unit (IP500)
 - Expansion Module
 - Module 1 (DS30V)
 - Port 1
 - Port 2
 - Port 3
 - Port 4
 - Port 5
 - Port 6
 - Port 7
 - Port 8
 - Port 9
 - Port 10
 - Port 11
 - Port 12
 - Port 13
 - Port 14
 - Port 15
 - Port 16
 - Port 17
 - Port 18
 - Port 19
 - Port 20
 - Port 21
 - Port 22

Select a port to display the Extension Status

Port Number
Port 1
Port 2
Port 3
Port 4
Port 5
Port 6
Port 7
Port 8
Port 9
Port 10
Port 11
Port 12
Port 13
Port 14
Port 15
Port 16
Port 17
Port 18
Port 19
Port 20
Port 21

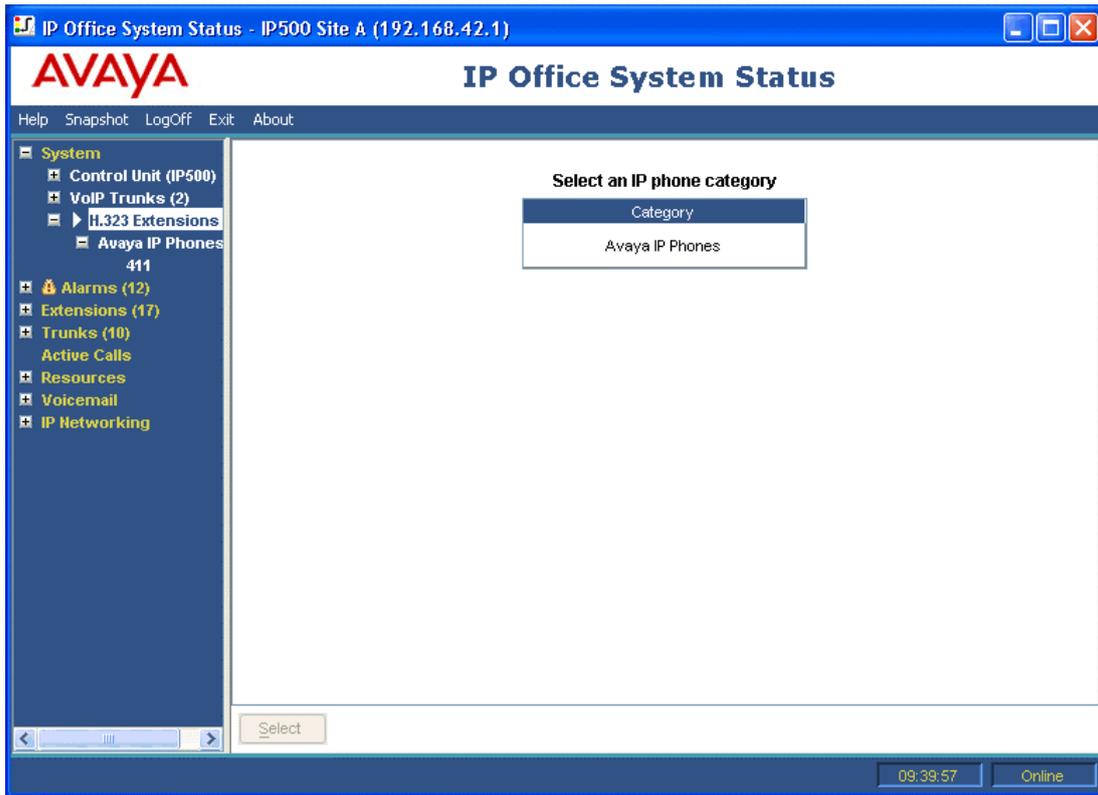
Select

09:46:49 Online

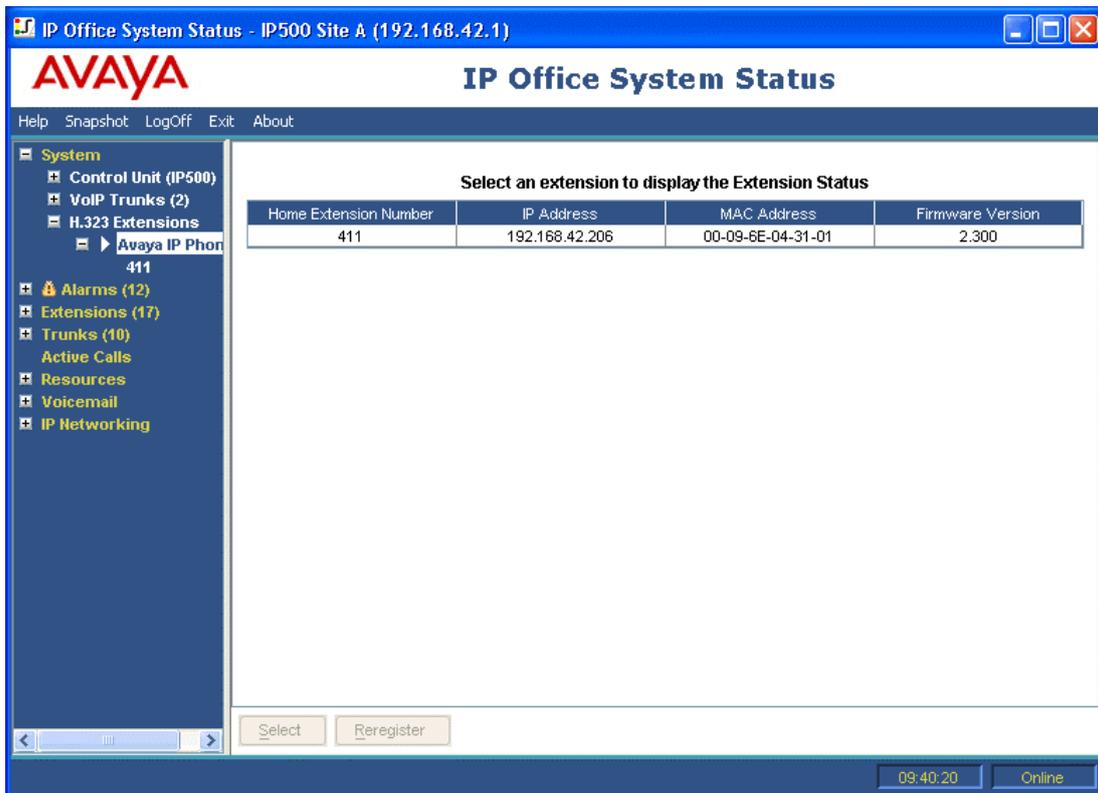
An individual port can then be selected to view its details.

H.323 Extensions

This screen will list the different types of IP phone devices being supported by the IP Office.



To see further detail use the navigation pane or select the type of phones required and click **Select**.

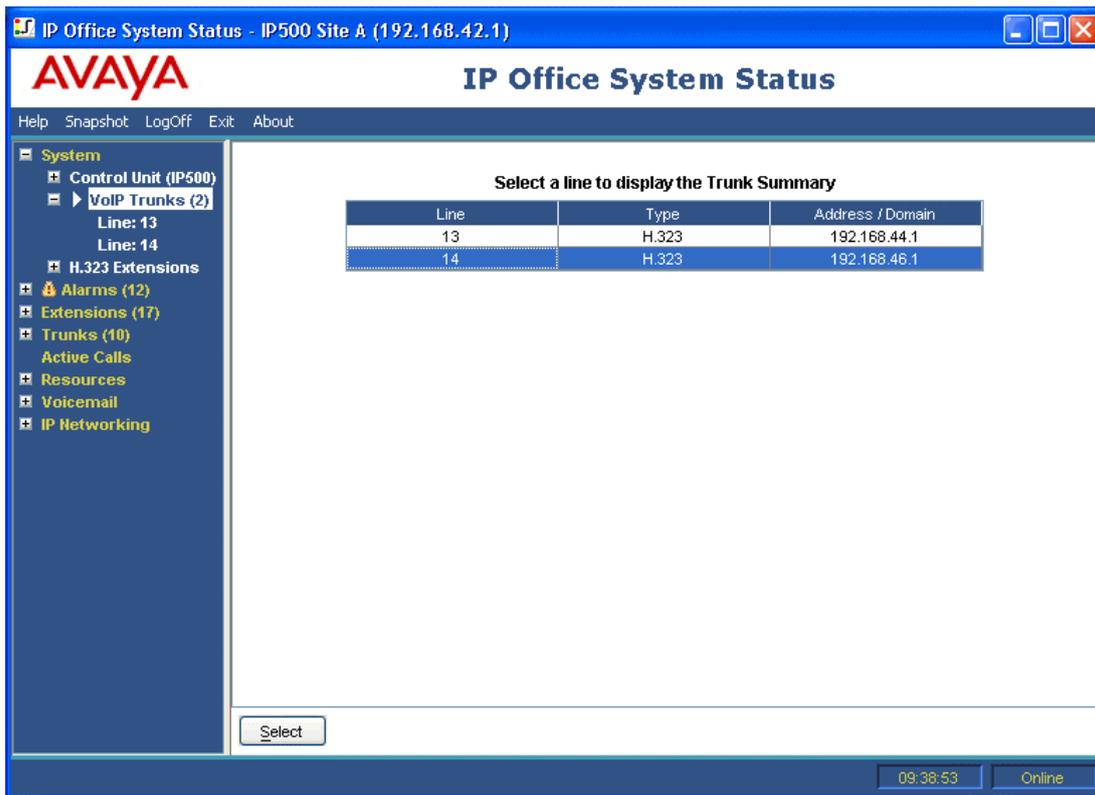


To view details of an individual extension port, use the navigation pane or select the port and click Select. See Extension Status.

The Reregister option can be used to force Avaya H.323 IP phones to both reregister with the IP Office and to restart, including checking their current firmware against that available on the configured TFTP or HTTP file server. Since this process is monitored in real-time by the SSA, it is recommended that only small groups, up to 15 phones, are forced to reregister at any time. Attempting to reregister larger numbers of phones will cause SSA to appear as paused.

VoIP Trunks

This screen lists the VoIP trunks configured within the system.



The screenshot displays the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The application header features the AVAYA logo and the title "IP Office System Status". Below the header is a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About".

The main interface is divided into a left navigation pane and a central content area. The navigation pane includes the following items:

- System
 - Control Unit (IP500)
 - VoIP Trunks (2)
 - Line: 13
 - Line: 14
 - H.323 Extensions
- Alarms (12)
- Extensions (17)
- Trunks (10)
- Active Calls
- Resources
- Voicemail
- IP Networking

The central content area is titled "Select a line to display the Trunk Summary" and contains a table with the following data:

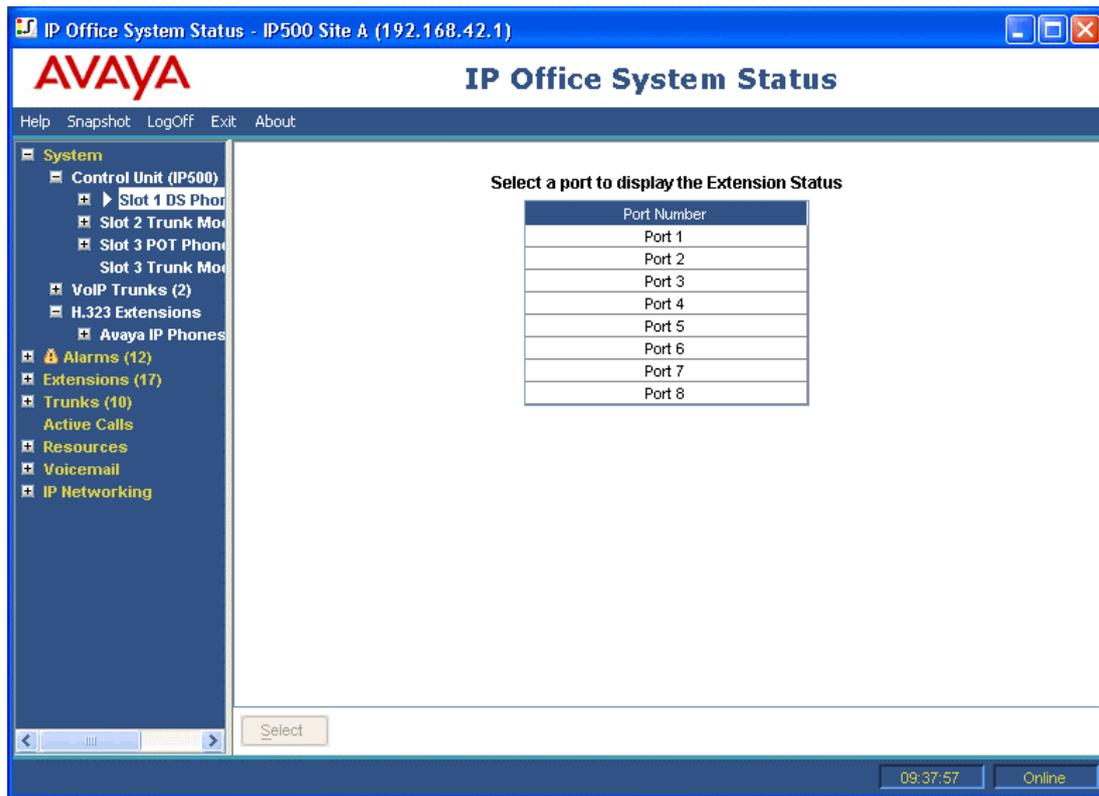
Line	Type	Address / Domain
13	H.323	192.168.44.1
14	H.323	192.168.46.1

At the bottom of the content area, there is a "Select" button. The status bar at the bottom right shows the time "09:38:53" and the status "Online".

To view details of an individual trunk, use the navigation pane or select the port and click Select. See Status (VoIP Trunk)

Extension Selection

This screen will show extensions 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.

Alarms

Alarms

Alarms are recorded within IP Office for each device in error. The number of occurrences and the date and time of the last occurrence is recorded. Alarms are listed on the display, by category and by trunk. Trunk alarms have a separate count for each alarm that happens on a particular trunk.

SSA distinguishes between the following alarm types:

- **Active**
Current alarms are displayed in red with a  symbol. If an alarm is no longer active, the alarm changes to black but the count will remain the same. When an alarm goes from historical to active, the count is increased by one.
- **Historic**
Alarms which are no longer occurring or which are instantaneous events are displayed in black. IP Office will hold at least 50 historic alarms. If historic alarms are discarded due to memory limitations, IP Office keeps a count of the number of discards and the corresponding number of occurrences. This is represented as 'Lost Alarms', which is displayed as a configuration alarm that is never automatically discarded.

Notes

- Alarms can be cleared using the **Clear** or **Clear All** buttons. If an alarm is still active, it will remain in the list with an occurrence count of 1.
- Alarms are not preserved after a control unit reboot.

To view the alarms in a specific category:

1. In the navigation panel, click + next to **Alarms**.
2. The alarm categories are displayed followed by the number of alarms (in brackets).
 - **Last System Restart**
 - **Configuration** (IP Office 4.2+)
Shows alarms caused by potential problems with the IP Office 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 any trunk alarms. Trunk alarms can be further expanded to display alarms for individual trunks.
 - **Link**
Shows alarms for non-trunk links to IP Office such as extensions and expansion modules.
2. To view a specific alarm, click the alarm or trunk type. The alarm details are displayed in the information panel.

Last System Restart

This screen list details of the last system restart. The Alarm History button can be pressed to display further alarms.

IP Office System Status - IP500 Site A (192.168.42.1)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System
 Alarms (12)
 Extensions (17)
 Trunks (10)
 Active Calls
 Resources
 Licenses
 Directory
 Control Unit Audit
 Voicemail
 IP Networking

Last System Restart

Date: 06/02/2008 09:15:31
 Reason: Saved Configuration
 User Name: Administrator

2 Alarm Events since 06/02/2008 09:27:52

Event	Type	Line	Date	Occurrences	Error Description
Alarm o...	Service		06/02/2008 0...	3	Failed to load Hold Music source file
Alarm o...	Service		06/02/2008 0...	5	Attempt to use a feature for which no license is installed. License Type: IP500 Universal PRI (Additional Channels)

Pause Print... Save As... Clear Alarm History

Refresh after config change done. 09:28:53 Online

- **Date**
Date and time the system was last restarted.
- **Reason**
Why the system restarted. The reasons may be:
 - **User Initiated**
The user has selected **File | Advanced | Reboot** in Manager. The Manager operator name is displayed.
 - **Saved Configuration**
A configuration save has required a reboot. The Manager operator name is displayed.
 - **Software Upgrade**
The software upgrade has caused a reboot.
 - **Normal Power-up**
The switch has restarted after power outage.
 - **Abnormal Termination**
The switch has restarted for any other reason. The stack trace is displayed.

Configuration Alarms

This screen displays configuration alarms. These do not necessarily match errors listed by the IP Office Manager application when that application is used to view and edit the system configuration. They are configuration errors that arise during operation of the system. 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 which no valid routing has been configured.

Service Alarms

The Service Alarm screen contains an entry for each service error. Alarms that are a current problem are displayed in red. If an alarm is no longer active, it is displayed in black. Service alarms are updated in real time.

Last Date Of Error	Occurrences	Error Description
06/02/2008 07:59:32	1	The following system resources are all in use: Modem Channels
06/02/2008 07:59:55	1	Attempt to use a feature for which no license is installed. License Type: RAS LRQ Support(Rapid Response)
06/02/2008 07:59:56	1	8KHz clock source changed. Previous source was Internal
06/02/2008 08:09:31	3	Attempt to use a feature for which no license is installed. License Type: UMS Web Services
06/02/2008 08:09:31	3	Attempt to use a feature for which no license is installed. License Type: Additional Voicemail Pro (ports)
06/02/2008 09:04:26	12	Failed to load Hold Music source file

The following information is 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 or the alarm was last cleared.
- **Error Description**
A description of the error that caused the alarm.

Note

- Some service alarms are also shown in the System Resources screen. Clearing the alarms from this screen will also clear them in the System Resources screen.

Logon Failure Due to User ID/Password

An alarm is displayed when attempted access has failed:

- **Manager**
A login has been attempted from Manager to the control unit with an invalid user ID or password.
- **Monitor**
A login has been attempted from Monitor to the control unit with an invalid password.
- **User**
The user has attempted to login with the wrong code.
- **Voicemail Box**
The user has attempted to access their voicemail box with the wrong code.
- **Voicemail System**
VoiceMail Pro/Lite has failed to connect to the control unit due to invalid passcode.
- **SNMP**
A management system has attempted to execute an SNMP request with the wrong community string.
- **H.323 Extension**
An invalid extension or passcode has been entered on the telephone.
- **RAS**
A dial-in user attempted to connect with the wrong password.
- **SSA**
A login has been attempted from SSA with an invalid user ID or password.

If an alarm has additional information, the following is displayed:

*Logon failed due to incorrect userId/password.
Application: YYYYYYYYYY
Additional information*

The following table lists what is displayed as additional information:

Logon Failure	Information
Manager	Operator name and the IP address of the PC running 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
SSA	User name and the IP address of the host running SSA

Feature Key Server Connection Failure

If the system cannot connect to the Feature Key Server, the following is displayed:

*"The system was unable to connect to the Feature Key Server."
Feature Key Server IP Address: XXX.XXX.XXX.XXX*

Resources Not Available

This alarm is generated when a request is made to access a resource and is denied because there are no resources available. The following is displayed:

"The following system resources are all in use"

The following table lists what is displayed as additional information:

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 shortcode have calls on them.

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.

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The application has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". The main interface is divided into a left-hand navigation pane and a central content area.

The navigation pane on the left contains the following items:

- System
- Alarms (10)
 - Configuration (0)
 - Service (6)
 - Trunks (3)
 - Line: 5 (0)
 - Line: 6 (1)
 - Line: 7 (1)
 - Line: 8 (1)
 - Line: 9 (0)
 - Line: 10 (0)
 - Line: 11 (0)
 - Line: 12 (0)
 - Line: 13 (0)
 - Line: 14 (0)
 - Link (1)
 - Extensions (17)
 - Trunks (10)
 - Active Calls
 - Resources
 - Voicemail
 - IP Networking

The central content area displays a table titled "Select a line to display the alarm information". The table has the following columns: Line, Module / Slot / Type, Port Number / Address / D..., and Alarms. The data rows are as follows:

Line	Module / Slot / Type	Port Number / Address / D...	Alarms
5	Slot: 2	1	0
6	Slot: 2	2	1
7	Slot: 2	3	1
8	Slot: 2	4	1
9	Slot: 3	9	0
10	Slot: 3	10	0
11	Slot: 3	11	0
12	Slot: 3	12	0
13	H.323	192.168.44.1	0
14	H.323	192.168.46.1	0

Below the table is a "Select" button. At the bottom right of the application window, there is a status bar showing the time "08:58:52" and the status "Online".

Trunk 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. Trunk alarms are updated in real time.

The screen displays two tabs for digital trunks:

- **Alarms**
Any current alarms are reported in red on the Alarm tab. If an alarm is no longer active, the alarm changes to black but the count will remain the same. When an alarm goes from historical to active, the count is increased by one.
- **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.

Alarms

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The main window has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A navigation tree on the left shows a hierarchy of system components, with "Alarms (10)" expanded to show "Line: 8 (1)". The main content area has tabs for "Status", "Utilization Summary", and "Alarms". The "Alarms" tab is active, displaying a table titled "Alarms for Line: 8 Slot: 2 Port: 4".

Last Date Of Error	Occurrences	Error Description
04/02/2008 10:46:36	1	Trunk out of Service

At the bottom of the window, there are buttons for "Clear", "Clear All", "Print...", and "Save As...". The status bar at the bottom right shows the time "08:42:46" and the status "Online".

The following information is 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 or the alarm was last cleared.

- Error Description**

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

Error	Description
Insufficient DID Digits	<p>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:</p> <p><i>There was a mismatch in the number of DID digits Expected number of digits: XX Digits Received: YYYYY</i></p>
Incoming Call on Outgoing Trunk	<p>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:</p> <p><i>An incoming call arrived on the channel that is administered for Outgoing calls. Channel Number: XX (for digital lines) Port Number: XX (for analog lines)</i></p>
Trunk Went Out of Service	<p>If the trunk is not administered to be out of service but goes down, the following is displayed:</p> <p><i>Trunk out of service.</i></p>
Red Alarm Active on Trunk	<p>When a red alarm is reported on a T1/PRI trunk, the following is displayed: <i>Red Alarm</i> A red alarm indicates lost synchronization.</p>
Blue Alarm Active on Trunk	<p>When a blue alarm is reported on a T1/PRI trunk, the following is displayed: <i>Blue Alarm</i> A blue alarm indicates a signal failure has occurred.</p>
Yellow Alarm Active on Trunk	<p>When a yellow alarm is reported on a T1/PRI trunk, the following is displayed: <i>Yellow Alarm</i> A yellow alarm indicates a transmission problem.</p>
Loss of Signal on Trunk	<p>When a loss of signal is reported, the following is displayed: <i>Loss of Signal</i></p>
Caller ID not received	<p>For analog loop start trunks administered with ICLID.</p>
Seize Failure	<p>When there is no loop current detected when trying to seize the trunk.</p>
Response Failure	<p>This alarm is generated when IP Office sends a TCP Sync to the remote end of an H.323 trunk and fails to receive an acknowledgement from the remote end, also when IP Office sends an INVITE over a SIP trunk and times out on no response.</p> <p><i>No response to IP trunk call request. IP Trunk Line Number: xxx Remote end IP address: yyy.yyy.yyy.yyy</i></p>

24 Hour Performance History

The first line in the table displays the current 15 minute interval and represents 0-15 minutes worth of data. Subsequent lines display the last 24 hours divided in to 15 minute intervals (fewer lines will be shown if the system has been running for less than 24 hours).

IP Office System Status - F-075-IP500-1 (192.168.42.120)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System

- Alarms (12)
 - Service (5)
 - Trunks (6)
 - Line: 1 (1)
 - Line: 2 (1)
 - Line: 3 (1)
 - Line: 4 (1)
 - Line: 5 (2)**
 - Line: 9 (0)
 - Line: 13 (0)
 - Line: 14 (0)
 - Line: 15 (0)
 - Line: 16 (0)
 - Link (1)
- Extensions (73)
- Trunks (10)
- Active Calls
- Resources

Alarms for Line: 5 Slot: 2 Port: 1

Alarms 24 Hour Performance History

The number in each line indicates the number of times during the 15 minutes interval that the error occurred. By default, the first row is the current 15 minute interval.

Interval Start Time	Error Seconds	Bursty Error Seconds	Severely Errored Seconds	Failed/Unavailable Seconds	Bipolar Violation	Clock Slips	Missed Frame
12:00							
11:45	1					1	
11:30	1					1	
11:15	2					2	
11:00	1					1	
10:45	1					1	
10:30	2					2	
10:15	1					1	
10:00	1					1	
09:45	2					2	
09:30	1					1	
09:15	1					1	
09:00	1					1	

Relative Time Show Zeros Print... Save As...

12:00:53 Online

The table is displayed regardless of whether there are errors on the trunk.

Link Alarms

The Link Alarms screen contains an entry for devices linked to the IP Office control unit such as expansion modules and extension devices. Alarms that are a current problem are displayed in red. If an alarm is no longer active, it is displayed in black. Link Alarms are updated in real time.

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The main window has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A left-hand navigation pane shows a tree view with categories like "System", "Alarms (12)", "Configuration (0)", "Service (8)", "Trunks (3)", "Link (1)", "Extensions (17)", "Trunks (10)", "Active Calls", "Resources", "Licenses", "Directory", "Control Unit Audit", "Voicemail", and "IP Networking". The "Link (1)" item is selected. The main content area is titled "Link Alarms" and contains a table with the following data:

Last Date Of Error	Occurrences	Error Description
06/02/2008 09:16:10	1	Delta Server down

At the bottom of the window, there are buttons for "Clear", "Clear All", "Print...", and "Save As...". The status bar at the bottom right shows the time "09:33:03" and the status "Online".

The following information is 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.

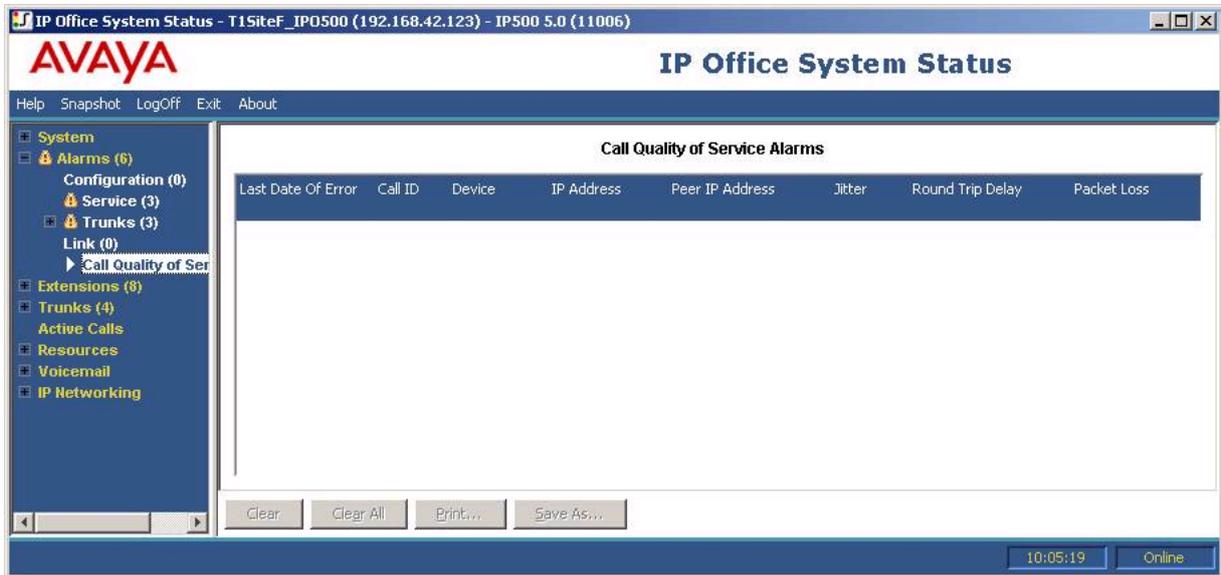
Call Quality of Service

Previous SSA only displayed QoS measurements for calls on IP trunks (H323, SIP, SES). IP Office 5.0 systems can be enabled to provide QoS reporting for extensions and also QoS alarms. This is configured by enabling the Enable RTCP Monitoring on Port 5005 within the IP Office configuration.

Once enabled, the SSA application will display QoS statistics for calls made by H323 IP extensions (1600 Series, 4600 Series and 5600 Series) registered to the IP Office. It will also display QoS statistics other extension types when the call being made by the extension involves an IP Office VCM channel. The QoS information for the extensions current call is displayed by SSA in the **Extension Status** screen.

Within the IP Office configuration, alarm thresholds can be configured for jitter (default 20ms), round trip delay (default 350ms) and packet loss (default 0.5%). If any of the thresholds is exceeded during a call segment, an alarm is generated 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 will be noticeable by those involved in the call. Note that, depending on the compression codec being used, some delay stems from the signal processing and cannot be removed: 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 IP Office extension, separate alarms may occur for both extensions.
- No alarms are generated for QoS measurements during the first 5 seconds of a call.
- Alarms are output at the end of a call segment in which a threshold is exceeded. For example, if a call is held and then unheld, each part of the call is treated as a separate call segment.
- Only one alarm is generated, even if more than one threshold is exceeded. The alarm contains the maximum value of all 3 measured QoS values.

Extensions

Extensions

Information on the status of a specific extension can be accessed from the navigation panel either:

- 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.

Alternatively, double-click an extension from the **Extension Summary** screen.

The following is used to indicate an analog or digital extension:

- If the extension is on the control unit (except IP Office 500), 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 a module in an IP Office 500 slot, the designation is *Slot: [1-4]*, followed by *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 IP Office and the phone are on the same subnet). For example:

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

Extension Summary

The Extension Summary screen displays all extensions in the system.

The screenshot shows the AVAYA IP Office System Status application. The main window displays the 'Extension Summary' screen. The title bar reads 'IP Office System Status - IP500 Site A (192.168.42.1)'. The AVAYA logo is in the top left, and the title 'IP Office System Status' is in the top center. A menu bar includes 'Help', 'Snapshot', 'LogOff', 'Exit', and 'About'. On the left is a navigation tree with items like 'Port 2', 'Port 3', 'Port 4', 'Port 5', 'Port 6', 'Port 7', 'Port 8', 'Slot 2 Trunk', 'Slot 3 POT Ph', 'Slot 3 Trunk', 'VoIP Trunks (2)', 'H.323 Extensions', 'Alarms (10)', 'Extensions (17)', 'Trunks (10)', 'Active Calls', 'Resources', 'Licenses', 'Directory', 'Control Unit Aud', 'Voicemail', 'Mailboxes', and 'IP Networking'. The main area contains the following text and table:

Extension Summary
You can get more information about an extension by double-clicking the Home Extension Number.

Home Extension Number	Current User Extension	Current User Name	Module/ Slot/ IP Address	Port Number/ MAC Address	Telephone Type	Number of New Messages
411	411	Extn411	192.168.42.206	00-09-6E-04-31-01	4602	0
201	201	Extn201	Slot: 1	1	2410	
202			Slot: 1	2	unplugged	
203	203	Extn203	Slot: 1	3	5410	1
204			Slot: 1	4	unplugged	
205			Slot: 1	5	unplugged	
206			Slot: 1	6	unplugged	
207			Slot: 1	7	unplugged	
208			Slot: 1	8	unplugged	
209	209	Extn209	Slot: 3	1	POT (CLI On)	0
210	210	Extn210	Slot: 3	2	POT (CLI On)	0
211	211	Extn211	Slot: 3	3	POT (CLI On)	0
212	212	Extn212	Slot: 3	4	POT (CLI On)	0
213	213	Extn213	Slot: 3	5	POT (CLI On)	0
214	214	Extn214	Slot: 3	6	POT (CLI On)	0
215	215	Extn215	Slot: 3	7	POT (CLI On)	0
216	216	Extn216	Slot: 3	8	POT (CLI On)	0

At the bottom of the main area are 'Refresh' and 'Print...' buttons. The status bar at the bottom right shows '08:37:44' and 'Online'.

For detailed information about an extension, double-click a specific extension number to display the **Extension Status** screen.

Extension Status

The Extension Status screen provides specific details on an extension, depending on its configuration.

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The main window has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A navigation tree on the left shows "System", "Alarms (10)", "Extensions (17)", "Trunks (10)", "Active Calls", "Resources", "Licenses", and "Directory". The "Extensions (17)" list is expanded, showing extensions 201 through 411, with extension 203 selected. The main area displays the "Extension Status" for extension 203 with the following details:

- Extension Number: 203
- IP address: 192.168.42.16
- MAC address: 00-1B-4F-06-F2-AA
- Firmware Version: 1.042
- Telephone Type: 1608
- Current User Extension Number: 5802
- Current User Name: Extn5802
- Forwarding: Off
- Twinning: Off
- Do Not Disturb: Off
- Message Waiting: Off
- Number of New Messages: 0
- Phone Manager Type: None
- PacketLoss: 0%
- Jitter: 17.4ms
- Round Trip Delay: 4ms

Below the details is a call log table:

Button Number	Button Type	Call Ref	Current State	Time in State	Calling Number or Called	Direction	Other Party on Call
1	CA	31	Connected	00:00:49	5201	Outgoing	Extn 5201, Extn5201
2	CA		Idle				
3	CA		Idle				

At the bottom of the window are buttons for "Trace", "Trace All", "Pause", "Back", "Call Details", "Print...", and "Save As...". The status bar at the bottom right shows "09:15:11" and "Online".

The following information is 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 one or more of the following options:
 - Forward Unconditional + Number
 - Forward On Busy + Number
 - Forward On No Answer + Number
 - Follow Me + Number
- **Twinning**
Set as 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
 - Off
- **Do Not Disturb**
Either On or Off.

- **Message Waiting**
If the user has an unread message, this will be **On**. If the personal messages have been read, this will be **Off**.
- **Number of New Messages**
The number of new messages for the current user. This does not include hunt group messages.
- **Phone Manager Type**
Lite, Pro, IP or None - the Phone Manager type that is currently being used.

Extension Quality of Service Information

The following additional items are available for calls by H323 phones. They are also available for other extension types when the current call is using an IP Office VCM channel. The values require the Enable RTCP Monitoring on Port 5005 option to be selected in the IP Office 5.0+ configuration.

- **Packet Loss**
- **Jitter**
- **Round Trip Delay**

Call Information

The information displayed in the table below, will depend on whether the extension has call appearances. 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**
Any call associated with a button.
- **Current State**
Defined when there is a call associated with a button.
- **Time in State**
Reset to 0 each time there is a state change.
- **Calling Number or Called Number**
 - **Incoming Calls**
The Caller ID name and number. If there is no Caller ID, **None** is displayed.
 - **Outgoing Calls**
The digits that are sent to the central office (not including the dial-out code).
- **Direction**
Incoming or outgoing.
- **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 or announcement
Conference	Conference name
Trunk	Line ID/URI Group/Channel number as appropriate
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)

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.

When a trace is in progress, any calls on the extension 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.

Trunks

Trunks

Trunk information (via the **Status** tab) can be accessed from the navigation panel by either:

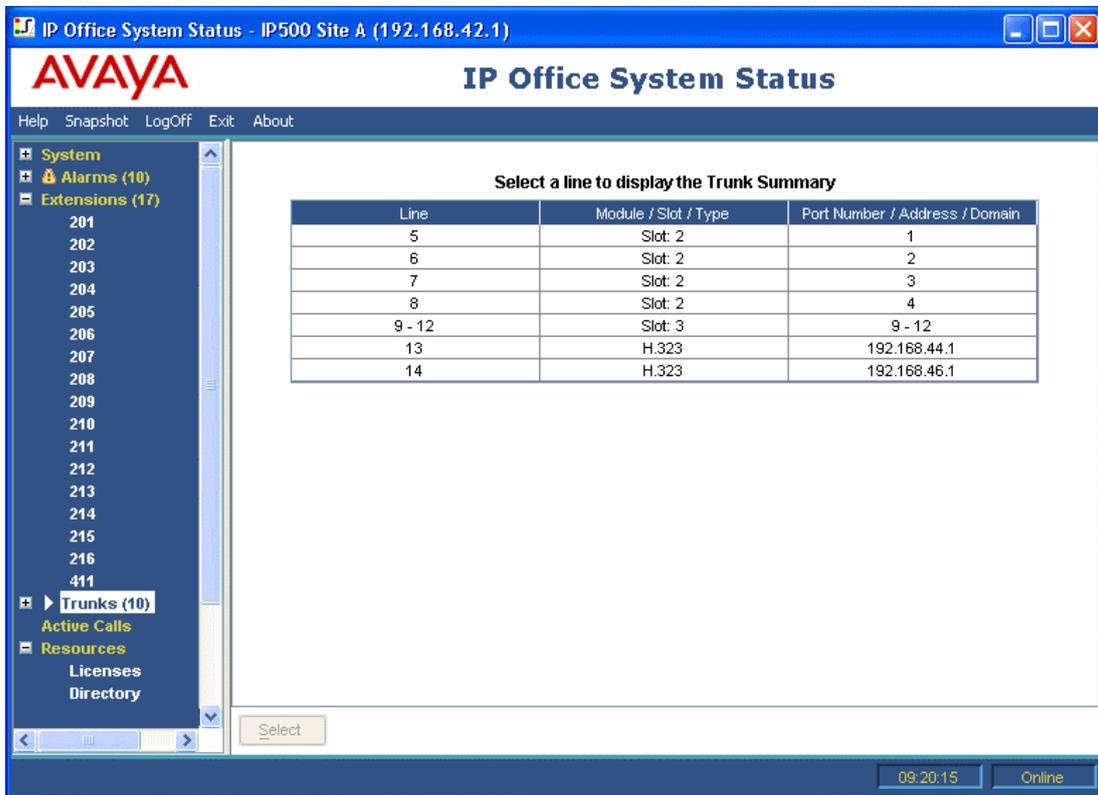
- Double-clicking **Trunks** and then selecting a line from the navigation panel or the information panel.
- Clicking **System** and then **Control Unit** and double-clicking a trunk port.

Depending on the line selected, one of the following is displayed:

- Digital Trunk Summary
- Analog Trunk Summary
- H.323 Trunk Summary
- SIP Trunk Summary

Trunks Line Selection

Select and then double-click a line to display the trunk data.



The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The main window has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". On the left is a navigation tree with categories: System, Alarms (10), Extensions (17) (with sub-items 201-216 and 411), Trunks (10), Active Calls, and Resources (with sub-items Licenses and Directory). The "Trunks (10)" category is selected. The main area displays a table titled "Select a line to display the Trunk Summary".

Line	Module / Slot / Type	Port Number / Address / Domain
5	Slot 2	1
6	Slot 2	2
7	Slot 2	3
8	Slot 2	4
9 - 12	Slot 3	9 - 12
13	H.323	192.168.44.1
14	H.323	192.168.46.1

Below the table is a "Select" button. At the bottom right of the window, there is a status bar showing "09:20:15" and "Online".

Status (Digital Trunk)

The Digital Trunk Summary can be accessed by clicking **Trunks** on the navigation panel and is displayed under the **Status** tab. Alternatively, click **System** and then **Control Unit** and double-click the line. Digital trunks are reported on a per line basis.

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The main window has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A navigation tree on the left shows "System", "Alarms (10)", "Extensions (17)", "Trunks (10)", "Line: 5" (selected), "Line: 6", "Line: 7", "Line: 8", "Lines: 9 - 12", "Line: 13", "Line: 14", "Active Calls", "Resources", "Licenses", "Directory", "Control Unit Audit", "Voicemail", "Mailboxes", "IP Networking", "IP Routes", and "Tunnels". The main content area has tabs for "Status", "Utilization Summary", and "Alarms". The "Status" tab is active, displaying the "Digital Trunk Summary" for "Line: 5 Slot: 2 Port: 1". The summary includes: Line Type: BRI, Line Subtype: ETSI, Number of Channels: 2, Number of Administered Channels: 2, and Number of Channels in Use: 0. Below this is a table with columns: Channel Number, Call Ref, Current State, Time in State, Routing Digits, Caller ID or Dialed Digits, Other Party on Call, and Direction of Call. The table contains two rows of data. At the bottom of the window, there are buttons for "Trace", "Trace All", "Pause", "Call Details", "Print...", and "Save As...". The status bar at the bottom right shows "09:31:48" and "Online".

The following information is displayed under the **Status** tab:

- **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 that can be supported with a digital trunk.
- **Number of Administered Channels**
Number of channels from the line form that are administered to be in service.
- **Number of Channels in Use**
The total number of channels currently in use.

Below this information, a table displays the following details:

- **Channel Number**
To view details of the call, click on the row.
- **Call Ref**
Call reference, assigned by IP Office and associated with the line in use.
- **Current State**
The state is defined when there is a call associated with a 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**
 - **Incoming Calls**
The Caller ID name and number. If there is no Caller ID, **None** is displayed.

- **Outgoing Calls**
The digits that are 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**.

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.

To display further information on a call, select one or more rows in the table and click the **Call Details** button. See Button Bar.

Status (Analog Trunk)

The Analog Trunk Summary is accessed by clicking **Trunks** on the navigation panel and is displayed under the **Status** tab. Alternatively, click **System** and then **Control Unit** and click on a row to show the call details.

Analog trunks are displayed by card or module. Therefore, the number of trunks on a card is reported.

The screenshot displays the AVAYA IP Office System Status application. The main window title is "IP Office System Status - IP500 Site A (192.168.42.1)". The application has a navigation menu on the left with categories like System, Alarms (10), Extensions (17), Trunks (10), Active Calls, Resources, Voicemail, and IP Networking. The "Trunks (10)" category is expanded, showing lines 5 through 14, with "Lines: 9 - 12" selected. The main content area shows the "Status" tab active, displaying the "Analog Trunk Summary".

Analog Trunk Summary

Slot/Module: Slot: 3
 Number of Trunks: 4
 Number of Administered Trunks: 4
 Number of Trunks in Use: 0

Port ID	Line ID	Line Type	Call Ref	Current State	Time in State	Caller ID or Dialed Digits	Other Party on Call	Direction of Call
9	Line: 9 Slot: 3 P...	Loop Start CLI		Idle	22:46:29			
10	Line: 10 Slot: 3 ...	Loop Start CLI		Idle	22:46:29			
11	Line: 11 Slot: 3 ...	Loop Start CLI		Idle	22:46:29			
12	Line: 12 Slot: 3 ...	Loop Start CLI		Idle	22:46:29			

At the bottom of the window, there are buttons for "Trace", "Trace All", "Pause", "Call Details", "Print...", and "Save As...". The system time is 09:32:36 and the status is Online.

The following information is displayed under the **Status** tab:

- **Slot/Module**
Slot or module number.
- **Number of Trunks**
Total number of trunks.
- **Number of Administered Trunks**
Number of channels from the line form that are administered to be in service.
- **Number of Trunks in Use**

Below this information, a 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 IP Office and associated with the line in use.
- **Current State**
See Call States.
- **Time in State**
Reset to zero each time there is a state change.
- **Caller ID or Dialed Digits**
 - **Caller ID**
The Caller ID name and number. If there is no Caller ID, **None** is displayed.
 - **Dialed Digits**
The digits that are 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**
Incoming or Outgoing.

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.

To display further information on a call, select one or more rows in the table and click the **Call Details** button. See Button Bar.

Status (VoIP Trunk)

The VoIP Trunk Summary is accessed by clicking **Trunks** on the navigation panel and is displayed under the **Status** tab as either H.323 Trunk Summary or SIP Trunk Summary. Alternatively, click **System** and then **Control Unit** and double-click the line.

H.323 Trunk

- **IP Address**
The gateway IP address from the VoIP form.
- **Line Number**
Fixed line number, defined by the user.
- **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**
One of the following is displayed:
 - If this feature is not administered in Manager, (Voice Networking option on the VoIP form is off), **Disabled** is displayed.
 - If the feature is administered and the other end is responding, **Up** is displayed.
 - If the feature is administered and the other end is not responding, **Down** is displayed.
- **Direct Media Path**
Either On or Off.
- **Enable Faststart**
Either On or Off.
- **Silence Suppression**
Either On or Off.

Below this information, a table containing the following information is displayed:

- **Channel Number**
Click on the row to view details of the call.

- **Call Ref**
Call reference assigned by IP Office and associated with the line in use.
- **Current State**
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**
 - **Caller ID**
The Caller ID name and number. If there is no Caller ID, **None** is displayed.
 - **Dialed Digits**
The digits that are 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**
Incoming or Outgoing.
- **QoS**
Receive and transmit details. Normal data packets can prevent or delay voice data from getting across the link, causing unacceptable speech quality. The QoS settings are:
 - Round Trip Delay
 - Receive Jitter
 - Transmit Jitter
 - Receive Packet Loss
 - Transmit Packet Loss

To display further information on a call, select one or more rows in the table and click on one of the buttons at the bottom of the screen.

SIP Trunk

For SSA and IP Office 5.0, SSA will display the configured and free SIP Channel license count in the top of the SIP trunk screen. Also where the SIP Trunk requires registration, the status of the Primary and secondary registration will also be displayed in the top/summary section of the Trunk Status Screen for the SIP trunk.

IP Office System Status - F-075-IP406-1 (192.168.42.1)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

- System
- Alarms (7)
- Extensions (22)
- Trunks (26)
 - Line: 1
 - Line: 2
 - Line: 3
 - Line: 4
 - Lines: 5 - 8
 - Line: 9
 - Line: 10
 - Lines: 901 - 916
- Active Calls
- Resources

SIP Trunk Summary

Peer Domain Name: FreeCallsRUs.co.uk
 Gateway Address: 192.168.42.251
 Line Number: 3
 Number of Administered Channels: 40
 Number of Channels in Use: 1
 Administered Compression: Auto
 Silence Suppression: Off

Channel Number	URI Group	Call Ref	Current State	Time in State	Remote RTP Address	Codec	Connection Type	Caller ID or Dialed Digits	Other Party on Call	Direction of Call	Round Trip Delay	Receive Jitter	Receive Loss Fraction	Transmit Jitter	Transmit Loss Fraction
1	4	50	Connect...	00:00:48	192.168.4...	G72...	RTP Relay	Vickie@SIP...	Extn 299, Ben B	Incoming					
2			Idle	2 days ...											
3			Idle	2 days ...											
4			Idle	2 days ...											
5			Idle	2 days ...											
6			Idle	2 days ...											
7			Idle	2 days ...											
8			Idle	2 days ...											
9			Idle	2 days ...											
10			Idle	2 days ...											
11			Idle	2 days ...											
12			Idle	2 days ...											
13			Idle	2 days ...											

Trace All Ping Call Details Print... Save As...

4:08:24 PM Online

- **Peer Domain Name**
The name of the service from the line form.
- **Gateway Address**
Gateway IP address from the VoIP form.
- **Line Number**
Fixed line number, defined by the user.
- **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.

Below this information, a 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 call was routed in or out of the trunk. If there is no Call Ref, the URI Group is blank.
- **Call Ref**
Call Ref associated with the line in use.
- **Current State**
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**
 - **Caller ID**
The Caller ID name and number. If there is no Caller ID, **None** is displayed.
 - **Dialed Digits**
The digits that are 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 (not alerting)

- **Direction of Call**
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. SSA provides the following information about the VoIP connection and how it is being impacted by other traffic. These statistics are calculated as defined in RFC 1889.
 - Round Trip Delay
 - Receive Jitter
 - Transmit Jitter
 - Receive Packet Loss
 - Transmit Packet Loss

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 screenshot displays the AVAYA IP Office System Status application. The main window shows a navigation tree on the left with 'Line: 9' selected. The main area is divided into 'Status', 'Utilization Summary', and 'Alarms' tabs. The 'Status' tab shows call details for Line 9, including IP Address (192.168.42.120), Line Number (9), and various settings. Below this is a table of channels and a 'Trace Output - All Channels' section showing a list of call events.

An 'Information Snapshot for Call Ref 54' pop-up window is open, displaying the following call details:

- Call Ref: 54, Call length: 00:00:11
- Originator: (blank)
- Current State: Connected, Time in State: 00:00:04
- Currently at: Extn 604, BorisAeris
- Button Number: 1
- Button Type: Call Appearance (CA)
- Dialed Digits: 6704
- Destination: (blank)
- Current State: Connected, Time in State: 00:00:04
- Trunk Used: Line: 9 H.323 192.168.42.120 Channel: 1
- Digits sent to Central Office: 6704
- Caller ID sent from Central Office: 6704
- Codec: G729 A
- Round Trip Delay: 0ms
- Receive Jitter: 0ms
- Receive Packet Loss Fraction: 0%
- Transmit Jitter: 0ms
- Transmit Packet Loss Fraction: 0%
- Call target / Routing information: (blank)
- RTP Connection Type: VCM
- Call Recording: No
- Redirected to Twin: No
- Routed across SCN trunk: Yes
- Retargeting Count: 0

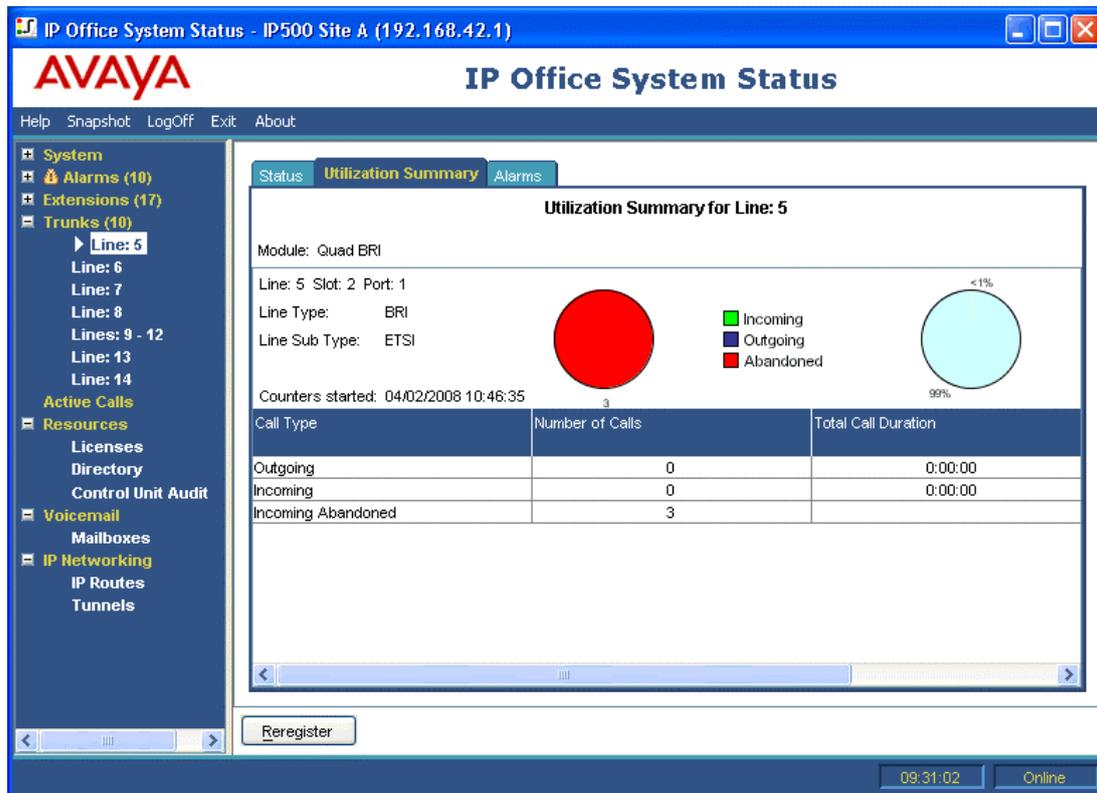
At the bottom of the application, there are buttons for 'Trace Clear', 'Ping', 'Call Details', 'Print...', and 'Save As...'. The system status bar at the bottom right shows '4:47:26 PM' and 'Online'.

The pop-up shows the state of the call at the time of selection and does not update.

Utilization Summary

The Utilization Summary tab is accessed by clicking **Trunks** on the navigation panel. Alternatively, click **System** and then **Control Unit** and double-click an expansion module or VoIP trunk.

The Utilization Summary provides a usage history for each trunk. The counts are reset either when the **Reset** button is clicked (at which point all values are reset to zero) or when the system reboots.



The following information is shown:

- **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.

Below this information, a table displays the following details:

- **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 call was answered. Total Call Duration is blank for Incoming Abandoned calls.
- **Number of Calls**
Total number of calls by Call Type.
- **Total Call Duration**
Hours, minutes and seconds format. For Outgoing calls, measured from the start of the call. For Incoming calls, measured from when the call was answered.
- **Total Ring Time**
Hours, minutes and seconds format.

Trunk 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. Trunk alarms are updated in real time.

The screen displays two tabs for digital trunks:

- **Alarms**
Any current alarms are reported in red on the Alarm tab. If an alarm is no longer active, the alarm changes to black but the count will remain the same. When an alarm goes from historical to active, the count is increased by one.
- **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.

Alarms

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The main window has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A navigation tree on the left shows various system components, with "Alarms (10)" expanded to show "Trunks (3)", including "Line: 8 (1)". The main content area has three tabs: "Status", "Utilization Summary", and "Alarms". The "Alarms" tab is active, displaying "Alarms for Line: 8 Slot: 2 Port: 4". Below this, a table shows one alarm entry:

Last Date Of Error	Occurrences	Error Description
04/02/2008 10:46:36	1	Trunk out of Service

At the bottom of the main content area, there are buttons for "Clear", "Clear All", "Print...", and "Save As...". The status bar at the bottom right shows the time "08:42:46" and the status "Online".

The following information is 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 or the alarm was last cleared.

- Error Description**

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

Error	Description
Insufficient DID Digits	<p>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:</p> <p><i>There was a mismatch in the number of DID digits Expected number of digits: XX Digits Received: YYYYY</i></p>
Incoming Call on Outgoing Trunk	<p>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:</p> <p><i>An incoming call arrived on the channel that is administered for Outgoing calls. Channel Number: XX (for digital lines) Port Number: XX (for analog lines)</i></p>
Trunk Went Out of Service	<p>If the trunk is not administered to be out of service but goes down, the following is displayed:</p> <p><i>Trunk out of service.</i></p>
Red Alarm Active on Trunk	<p>When a red alarm is reported on a T1/PRI trunk, the following is displayed: <i>Red Alarm</i> A red alarm indicates lost synchronization.</p>
Blue Alarm Active on Trunk	<p>When a blue alarm is reported on a T1/PRI trunk, the following is displayed: <i>Blue Alarm</i> A blue alarm indicates a signal failure has occurred.</p>
Yellow Alarm Active on Trunk	<p>When a yellow alarm is reported on a T1/PRI trunk, the following is displayed: <i>Yellow Alarm</i> A yellow alarm indicates a transmission problem.</p>
Loss of Signal on Trunk	<p>When a loss of signal is reported, the following is displayed: <i>Loss of Signal</i></p>
Caller ID not received	<p>For analog loop start trunks administered with ICLID.</p>
Seize Failure	<p>When there is no loop current detected when trying to seize the trunk.</p>
Response Failure	<p>This alarm is generated when IP Office sends a TCP Sync to the remote end of an H.323 trunk and fails to receive an acknowledgement from the remote end, also when IP Office sends an INVITE over a SIP trunk and times out on no response.</p> <p><i>No response to IP trunk call request. IP Trunk Line Number: xxx Remote end IP address: yyy.yyy.yyy.yyy</i></p>

24 Hour Performance History

The first line in the table displays the current 15 minute interval and represents 0-15 minutes worth of data. Subsequent lines display the last 24 hours divided in to 15 minute intervals (fewer lines will be shown if the system has been running for less than 24 hours).

IP Office System Status - F-075-IP500-1 (192.168.42.120)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System

- Alarms (12)
 - Service (5)
 - Trunks (6)
 - Line: 1 (1)
 - Line: 2 (1)
 - Line: 3 (1)
 - Line: 4 (1)
 - Line: 5 (2)**
 - Line: 9 (0)
 - Line: 13 (0)
 - Line: 14 (0)
 - Line: 15 (0)
 - Line: 16 (0)
 - Link (1)
- Extensions (73)
- Trunks (10)
- Active Calls
- Resources

Alarms for Line: 5 Slot: 2 Port: 1

Alarms 24 Hour Performance History

The number in each line indicates the number of times during the 15 minutes interval that the error occurred. By default, the first row is the current 15 minute interval.

Interval Start Time	Error Seconds	Bursty Error Seconds	Severely Errored Seconds	Failed/Unavailable Seconds	Bipolar Violation	Clock Slips	Missed Frame
12:00							
11:45	1					1	
11:30	1					1	
11:15	2					2	
11:00	1					1	
10:45	1					1	
10:30	2					2	
10:15	1					1	
10:00	1					1	
09:45	2					2	
09:30	1					1	
09:15	1					1	
09:00	1					1	

Relative Time Show Zeros Print... Save As...

12:00:53 Online

The table is displayed regardless of whether there are errors on the trunk.

Active Calls

Active Calls

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

Call Ref	Call Length	Originator End Party	Current State	Time in State	Incoming Caller ID	Destination End Party	Current State	Time in State	Dialed Digits
6	00:00:09	Line: 5 Slot: 2 ...	Connected	00:00:06		Extn 203, Extn2...	Connected	00:00:06	

The following information is displayed:

- **Call Ref**
Call reference for incoming trunks, assigned by IP Office and associated with the line in use.
- **Call Length**
Total length of the call.

The following information is displayed for the call **originator**:

- **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.

The following information is displayed for the call **destination**:

- **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.

Note

- The **Disconnect** button cannot be used to stop alerting calls for calls on Loop Start, T1 Loop Start and T1 Ground Start lines.

Abandoned Calls

If the Abandoned Calls button is selected, the Active Calls screen splits to display a list of Abandoned Calls (below the Active Calls list).

The Abandoned Calls table lists incoming calls on a trunk where the caller disconnected before the call was first answered.

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The application has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A left-hand navigation pane contains a tree view with categories: System, Alarms (10), Extensions (17), Trunks (10) (with sub-items for lines 5-14), Active Calls, Resources (Licenses, Directory, Control Unit Audit), Voicemail (Mailboxes), and IP Networking (IP Routes, Tunnels). The main content area is split into two sections. The top section, titled "Active Calls: 1", contains a table with columns: Call Ref, Call Length, Originator End Party, Current State, Time in State, Incoming Caller ID, Destination End Party, Current State, Time in State, and Dialed Digits. One row is visible with Call Ref 9, Call Length 00:00:05, Originator End Party "Line: 5 Slot: 2 ...", Current State "Connected", Time in State "00:00:04", Incoming Caller ID, Destination End Party "Extn 203, Extn2...", Current State "Connected", Time in State "00:00:04", and Dialed Digits. The bottom section, titled "1 Abandoned Calls since 05/02/2008 12:37:53", contains a table with columns: Date and Time, From Trunk, Incoming Caller ID, Incoming DID, Ringing/Queueing At, and iWait. One row is visible with Date and Time "05/02/2008 12:38:05", From Trunk "Line: 5 Slot: 2 Port: 1 ...", Incoming Caller ID, Incoming DID "200", Ringing/Queueing At "Extn 203, Extn203", and iWait "00:00:03". At the bottom of the main content area are buttons for "Pause", "Disconnect", "Call Details", and "Clear Abandoned Calls". The status bar at the bottom right shows the time "12:38:20" and the status "Online".

The following information is displayed for disconnections that have occurred since the time the Abandoned Calls button was selected:

- **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/Queueing 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.

Clicking the **Clear Abandoned Calls** button clears the Abandoned Calls list, updates the date and time and enables further abandoned calls to be logged.

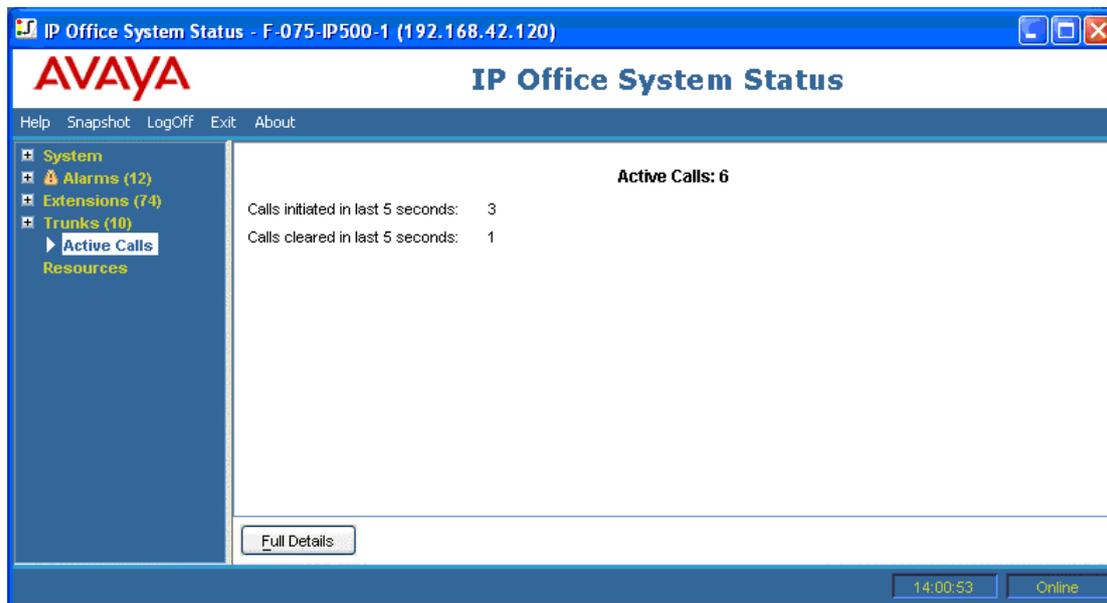
Note

- If the viewer restarts whilst an Abandoned Calls list is displayed, the list is cleared. After the restart, the viewer updates the time in the header to indicate that the list displays Abandoned Calls since the time of the restart.

Reduced Active Calls

If you are viewing the Active Calls information for a heavily loaded IP Office (using a communications link with insufficient bandwidth or running SSA with insufficient CPU power), SSA will automatically reduce the amount of information displayed, to accommodate the high call rate.

Reduced information similar to the following is displayed:

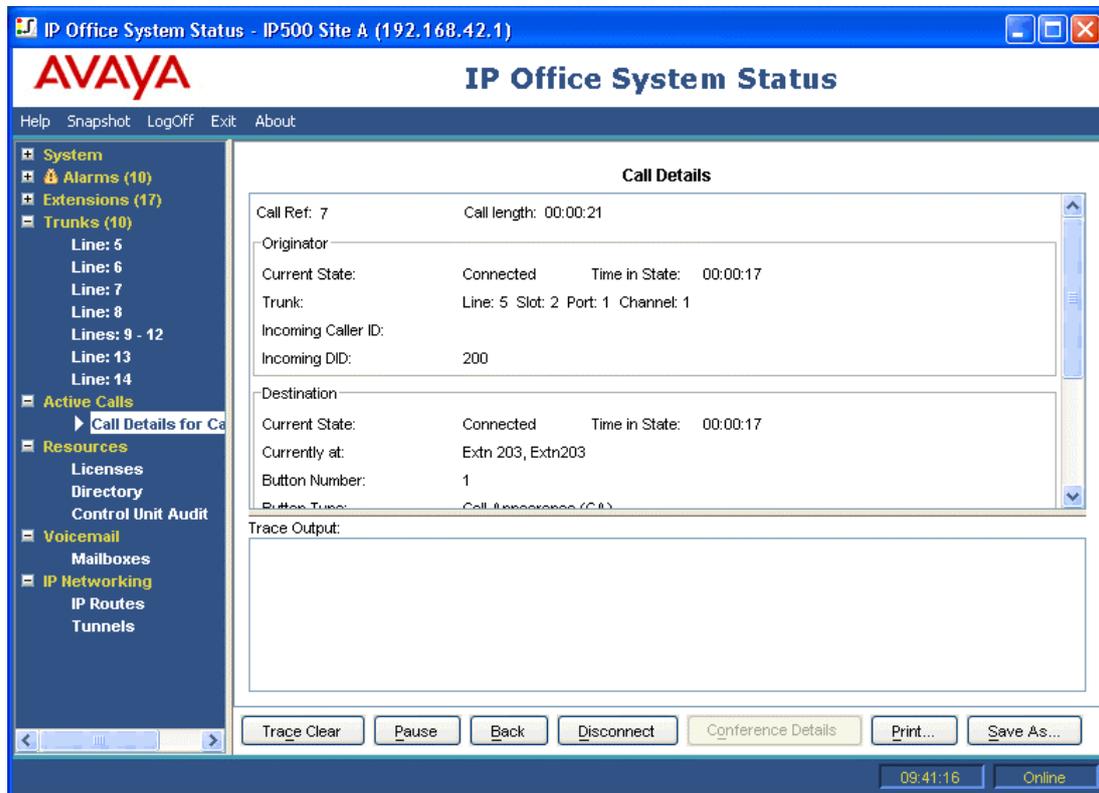


When the call initiation/setup rate has reduced, the **Full Details** button can be selected to resume the full display. If you want to view IP Office activity during the high load, the snapshot facility can be used to obtain a complete instantaneous view of the system.

Call Details

The Call Details screen is only displayed if a call is active. The Call Details screen can be accessed as follows:

- 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.



The following information is displayed:

- **Call Ref**
Call reference assigned by IP Office 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.**

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 IP Office to voicemail, when the connection is made. Any subsequent activities within the voicemail Telephone User Interface (TUI), for example; logging in to an alternative mailbox, will not be reflected in the information shown for the destination.
- A call that is both alerting/queuing and listening to an announcement will indicate information about both.

Conference Details

When a call is connected to a conference, an additional **Conference Details** button shows all connected calls on the conference. The screen also displays whether the conference is a Conferencing Center or ad-hoc type and whether the conference is being recorded.

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The main window has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A left-hand navigation pane contains the following items: System, Alarms (10), Extensions (17), Trunks (10), Active Calls (with a sub-item "Call Details for Call ID"), Resources, Voicemail, and IP Networking. The "Active Calls" section is expanded to show "Conference C". The main content area is titled "Conference Details" and displays the following information:

Name: Conf 100
Type: Ad Hoc
Call Recording: No

Call Ref	State	Party
3	Connected	Extn 411, Extn411
4	Connected	Extn 201, Extn201
5	Connected	Extn 203, Extn203

At the bottom of the main content area, there are four buttons: "Pause", "Back", "Print...", and "Save As...". The bottom status bar shows the time "08:26:23" and the status "Online".

Call Information

Originator Information

The following information displayed is based 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.

The following is reported for the **Originator** (trunk):

- **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)**
Normal data packets can prevent or delay voice data from getting across the link, causing unacceptable speech quality. SSA provides the following information about the VoIP connection and how it is being impacted by other traffic. These statistics are calculated as defined in RFC 1889.
 - Round Trip Delay
 - Receive Jitter
 - Transmit Jitter
 - Receive Packet Loss
 - Transmit Packet Loss

Originating End is not a Trunk

The following information is reported for the **Originator**:

- **Current State and Time in State**
The state is defined when there is a call associated with a button.
- **Currently At:**
 - **Users**
The user name and number is listed. For multi-line sets, the button number and button type (Call, Line and Bridged Appearance or Call Coverage) are displayed.
 - **Voicemail Call flow**
When voicemail is the originator end, no call flow name will be shown.
 - **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.

Destination Information

The information displayed is based on whether the destination end 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

The following information is reported for the **Destination**:

- **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 is defined when there is a call associated with a button.
- **Digits sent to Central Office**
These are the digits that IP Office has 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 (versus who was called).
- **Codec**
Selected via H.323/SIP messages and may change during the call.
- **VoIP Trunk (H.323, SCN or SIP)**
Normal data packets can prevent or delay voice data from getting across the link, causing unacceptable speech quality. SSA provides the following information about the VoIP connection and how it is being impacted by other traffic. These statistics are calculated as defined in RFC 1889.
 - Round Trip Delay
 - Receive Jitter
 - Transmit Jitter
 - Receive Packet Loss
 - Transmit Packet Loss

Destination End is not a Trunk

The following information is reported for the **Destination**:

- **Current State and Time in State**
The state is defined when there is a call associated with a button.
- **Currently At**
One of the following:
 - **Group of Users**
For paging and some hunt group calls, listed by user name and number. If the call is alerting/connected for both users and SCN trunks, all will be listed.
 - **User**
The user name and number are listed. For multi-line sets the button number and button type (Call, Line and Bridged Appearance and Call Coverage) are displayed.
 - **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.

Call Target Information

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 (System, User, LCR, Line).
- **Original Target** (if applicable)
One of the following:
 - **Destination is a User**
The user name or extension number is listed.
 - **Destination is a Hunt Group**
The hunt group name or extension number is listed.
 - **Destination is a shortcode**
The shortcode and feature are listed along with the type (System, User, LCR, Line).
 - **Destination is an embedded Automated Attendant**
The string *Automated Attendant*, followed by the Automated Attendant number is listed.
- **Call Recording**
Call recording in progress (Yes or No).
- **Call was Redirected to a Twin**
Yes or No.
- **Call Routed Across SCN Trunk**
Yes or No. Set to Yes only when the call becomes connected.
- **Retargeting Count**
The number of times the call has been retargeted. A call is retargeted, for example; on expiry of a no answer timeout. Retargeting means that the current destination(s) stop alerting and a new destination is selected instead.
- **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.

Call States

Call States are shown for both ends of a call. The valid states for extension ports are listed in the following table:

State	Extension
Idle	There is no call or call attempt on this extension or button.
Connected	A call is connected on this port.
Held	The call is on regular hold. This could be the result of pressing the Hold button, or a flash hook.
Held for Transfer/Conference	The call is on hold as the result of a user pressing the fixed Transfer or Conference button.
Parked	The call has been parked at a park slot.
Seized	A call is being originated, the port has been seized but the call is not yet connected. No digits have been dialed.
Dialling	A call is being originated, the port has been seized but the call is not yet connected. At least one digit has been dialed.
WrapUp	The user on this port is in the Wrapup state. This might be the automatic call time or set for call center agent.
In Use Elsewhere	This means that another person is active on a Call or Bridged Appearance. For Line Appearance, this means that another user is active on the call.
On Hold Elsewhere	This means that another person has placed a call on hold at a Call or Bridged Appearance. For Line Appearance, this means another user has placed a call on hold.
In Use Inaccessible	This means that the Call or Bridged Appearance cannot be accessed. For example: <ul style="list-style-type: none"> • The Call Appearance on the chain is associated with a user who is not logged in. • The longest internal member on the call has Cannot Be Intruded active. • The Call Appearance on the chain is on a button that has no LEDs. A Line Appearance cannot be accessed. For example: <ul style="list-style-type: none"> • The longest internal member on the call has Cannot Be Intruded active. • The line associated with the Line Appearance 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	A surrogate call is being used to record the call whose ID is indicated.
Hold Reminder	Extension is alerting with a hold reminder notification.
Park Reminder	Extension is alerting with a park reminder notification.
Transfer Return	Extension is alerting with a transfer return call notification.
Voicemail Ringback	Extension is alerting with a voicemail ringback notification.
Auto Callback	Extension is alerting with a callback/reminder notification.
Held at Central Office	For European ISDN lines, the central office has the call on hold. It will free the B-channel which will be seen as idle in SSA.

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 call is held in a hunt group queue and is not alerting at any extension. The other end will be in Ringback/Incoming Alerting or Connected Announcement state.
Alerting Announcement	Indicates that the call is alerting at one or more extensions or trunks and is also currently connected to voicemail for a queuing announcement.
Queuing Announcement	Indicates that the call is held in a hunt group queue, is not alerting at any extension and is currently connected to voicemail for a queuing announcement.
Connected Announcement	Indicates that this end of the call is connected because the call is or has been listening to a queuing announcement.
Number Unobtainable	States that an extension can be left in by a failed/cleared call.
Busy	States that an extension can be left in by a failed/cleared call.
Disconnected	States that an extension can be left in by a failed/cleared call.

* When a call is alerting, one endpoint will be in the alerting state and the other will be in the ringback state. From the view of the call model, Ringback and Incoming Alerting are equivalent states. Also, Alerting and Outgoing Alerting are equivalent states.

Trunk Summary and Extension Status screens will show a direction for each call. For a trunk, the call is shown as outgoing (if IP Office initiated the call) and incoming (if the central office or network initiated the call). For an extension, the call is shown as outgoing (if the extension initiated the call) and incoming (if another party initiated the call).

For examples of call sequences that include announcements, see Tracing.

Call States (Trunk)

Call States are shown for both ends of a call. The valid states for trunk ports are listed in the following table:

State	Trunk
Idle	There is no call or call attempt on this port or channel.
Out of Service	The port has been set to Out of Service or the digital circuit (that this channel is on) is down.
Connected	A call is connected on this port.
Connected WAN	This time slot in use to deliver WAN interface - digital trunks only.
Parked	The call has been parked at a park slot.
Seized	A call is being made and the system selects a particular line.
Dialling	A call is being originated from this port, the trunk has been seized but the call is not yet connected. On analog trunks, 'connected' may be an implied state based on a timeout.
Clearing	The call is in the process of terminating or is in the post call timeout period.
Pre-Alert	This is when an incoming call arrives on a trunk and the system is waiting for Caller ID.
Outgoing Alerting	When an outgoing call is being made and the far end is alerting.
Incoming Alerting	When an incoming trunk call is visually or audibly alerting or is in a hunt group queue.
Paging	Indicates one or more output points of a paging call.
Recording	A surrogate call is being used to record the call whose ID is indicated.
Held at Central Office	For European ISDN lines, the central office has the call on hold. It will free the B-channel which will be seen as idle in SSA.
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 call is held in a hunt group queue and is not alerting at any extension. The other end will be in Ringback/Incoming Alerting or Connected Announcement state.
Alerting Announcement	Indicates that the call is alerting at one or more extensions or trunks and is also currently connected to voicemail for a queuing announcement.
Queuing Announcement	Indicates that the call is held in a hunt group queue, is not alerting at any extension and is currently connected to voicemail for a queuing announcement.
Connected Announcement	Indicates that this end of the call is connected because the call is or has been listening to a queuing announcement.

* When a call is alerting, one endpoint will be in the alerting state and the other will be in the ringback state. From the view of the call model, Ringback and Incoming Alerting are equivalent states. Also, Alerting and Outgoing Alerting are equivalent states.

Trunk Summary and Extension Status screens will show a direction for each call. For a trunk, the call is shown as outgoing (if IP Office initiated the call) and incoming (if the central office or network initiated the call). For an extension, the call is shown as outgoing (if the extension initiated the call) and incoming (if another party initiated the call).

For examples of call sequences that include announcements, see Tracing.

Callback and Returning Calls

The following table shows what is reported as the originator:

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

* While alerting at the telephone who originated the callback.

Resources

System Resources

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

System Resources

Primary Music on Hold Source (1): Internal File Status: Loaded
 Alternate Music on Hold Source (2): 1234567890123456789012345678901 File Status: Failed to Load
 Configuration Size: 1024K
 Configuration Used: 32K
 Memory Free: 73189K
 8kHz Clock source: Line: 5 Slot: 2 Port: 1

Channels	Number of Channels	Number in Use	Usage	Congestion Count	Last Date of Congestion
Data	48	0	0%	0	
VCM	64	0	0%	0	
VM	4	0	0%	0	
Modem	0	0	0%	1	04/02/2008 1...
Conference	64	0	0%	0	

07:39:04 Online

The following information is displayed:

- Music on Hold Source**
 Music on Hold (MOH) is provided by IP Office as either an internally stored file or an externally connected audio input. For IP Office 4.2+ details of the configured alternate music on hold sources are also shown.
- Configuration Size**
 The maximum available Kbytes size available for a configuration file. This varies depending on the control unit.
- Configuration Used**
 The total number of Kbytes that have been used in the configuration file.
- Memory Free**
 The number of free Kbytes in IP Office.
- 8kHz Clock Source**
 For systems with digital trunks this will indicate the trunk being used as the clock source for the IP Office system. If no clock source has been configured the IP Office will default to using its own clock.

- **Channels**

One of the following:

- **VCM Channels**

Voice compression channels are used for calls between IP and non-IP devices (trunks and or extensions). For most control units, voice compression channels are provided by the installation of VCM cards.

- **Data Channels**

Data Channels is used for Remote Access (RAS), Internet Access, and Voicemail sessions. A data channel is an internal signaling resource used whenever a call is made from the IP network to an exchange line (Central Office). 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) varies with the IP Office control unit type. These channels are used 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. For Voicemail Pro the number available is based on the voicemail licenses installed.

- **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 all of the resources were in use. For example; if there are 4 voicemail channels and there has been an attempt to access this channel, the congestion count will display 1.

- **Last Date of Congestion**

When a request for a resource has failed.

Directory

For IP Office 5.0, this screen is split several parts.

The first part is a table indicating the system directory number sources being used by the IP Office.

- **System**
Directory entries stored as part of the IP Office configuration. These are entered and edited using IP Office Manager. They can also be edited by a system phone user using a 1608/1616 phone
- **LDAP**
Directory entries imported using LDAP from an LDAP server. The IP Office needs to be configured to use LDAP Directory Services and how often to import using LDAP.
- **HTTP**
Directory entries imported using HTTP from another IP Office. The IP Office needs to be configured to use HTTP Directory Services and how often to import using HTTP.
- **Total**
The total number of current directory entries and the overall system maximum.

For LDAP and HTTP directories; the time, date and status of the last import are shown. Also the number of records imported and the number discarded. Records are discarded if they have a blank name or number, match an existing record or exceed the total capacity of the IP Office system.

- **Last Update**
The last time the Update Status (below) was changed.
- **Update Status**
The status or result of the last update:
 - **Success:** The last update was successful.
 - **Success with Overflow:** The last update was successful but some entries were not imported because the maximum was exceeded.
 - **Failure:** The last update attempt was not successful.
 - **In Progress:** The IP Office is currently importing records.
 - **Not Configured:** The IP Office does not have an import source has been configured.
- **Imported**
The number of entries imported during the last successful update.
- **Discard**
The number of entries discarded, due to being invalid or duplicate, during the last successful update.

For hunt groups, the hunt group can be selected and the **Membership** button pressed to display the users who are members of that hunt group.

If there are conflicting Small Community Network entries, the **Conflicts** button can be used to locate those entries.

IP Office System Status - System5 (192.168.42.1) - IP500 5.0 (11012)

IP Office System Status

Help Snapshot LogOff Exit About

- System
- Alarms (4)
- Extensions (9)
- Trunks (7)
- Active Calls
- Resources
 - Licenses
 - Directory
 - Control Unit Audit
- Voicemail
- IP Networking

Directory

Sources:

Directory	Running	Maximum	Last Update	Update Status	Imported	Discarded
System	3	2500				
LDAP	0	5000	10/03/2009 09...	Not Configured	0	0
HTTP	0	5000	10/03/2009 09...	Not Configured	0	0
Total	3	5000				

Number of Remote Small Community Network Sites: Not Networked

Number of Local User Entries: 15

Number of Local Group Entries: 2

Number of Remote User Entries: 0

Number of Remote Group Entries: 0

Total Number of User and Group Entries: 17

Users and Groups:

Name	Number	Type	Source of Entry	Current Location
RemoteManager		User	Local	
NoUser		User	Local	
Extn201	201	User	Local	
Extn202	202	User	Local	
Extn203	203	User	Local	
Extn204	204	User	Local	
Extn205	205	User	Local	
Extn206	206	User	Local	
Extn207	207	User	Local	
Extn208	208	User	Local	
Extn299	299	User	Local	
Extn298	298	User	Local	

Refresh
Membership
Conflicts

09:30:26 Online

Control Unit Audit

IP Office 4.2+. This screen displays the control unit audit trail. It shows who has accessed the system configuration and the type of actions they have been performing.

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The AVAYA logo is in the top left, and the title "IP Office System Status" is in the top right. Below the title bar is a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About".

The left sidebar contains a navigation tree with the following items:

- System
 - Control Unit (IP500)
 - VoIP Trunks (2)
 - H.323 Extensions
- Alarms (10)
- Extensions (17)
- Active Calls
- Resources
 - Licenses
 - Directory
 - Control Unit Audit (selected)
- Voicemail
- IP Networking

The main content area is titled "Control Unit Audit" and contains a table with the following columns: Date and Time, Event Type, Item Changed, Outcome, IP Office Account, PC IP Address, PC MAC Address, and PC Login Username. The table lists various system events such as Security Login, Write with I..., Warm Start, and Upgrade, all with an Outcome of "Success".

At the bottom of the main content area is a "Refresh" button. The status bar at the very bottom shows the time "07:50:14" and the status "Online".

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
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...			

Voicemail

Voicemail

IP Office 4.2+. This screen displays the status of the voicemail server configured for the IP Office. The details shown will vary according to the type of voicemail server.

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

- System
 - Control Unit (IP500)
 - VoIP Trunks (2)
 - H.323 Extensions
- Alarms (10)
- Extensions (17)
- Trunks (10)
- Active Calls
- Resources
 - Licenses
 - Directory
 - Control Unit Audit
- Voicemail**
 - Mailboxes
- IP Networking

Voicemail Status

Voicemail Type: Voice Mail Pro

Licenses:

License Type	Available Instances	Number of Licenses in use
Voicemail Pro (4 Ports)	Unlimited	0
AUDIX Voicemail	Unlimited	0

Total Number of Voicemail Ports: 4

Total Number of Voicemail Ports in use: 1  25%

Last date and time port allocation failed:

Active Voicemail Ports:

Call Ref	Service Type	Name	Call State	Time in State	Direction	Other Party on Call
1	Mailbox	?Extn203	Connected	00:00:05	Incoming	Extn 203, Extn203

Pause Call Details

08:08:32 Online

Mailboxes

IP Office 4.2+. This screen displays details of the voicemail mailboxes on the voicemail server. It includes the number of messages and the current status of basic voicemail settings for the associated mailbox user or hunt group.

IP Office System Status - IP500 Site A (192.168.42.1)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System

- Control Unit (IP500)
- VoIP Trunks (2)
- H.323 Extensions
- Alarms (10)
- Extensions (17)
- Trunks (10)
- Active Calls
- Resources
 - Licenses
 - Directory
 - Control Unit Audit
- Voicemail
 - Mailboxes**
- IP Networking

Mailbox Status

Number of Mailboxes: 26

Name	Voicemail Status	Hunt Group Broadcast	Email Options	Email Address	Text to Speech	Number of New Messages	Number of Read Messages	Number of Saved Messages
RemoteMan...	On	Not Applica...	Off		Off	0	0	0
NoUser	On	Not Applica...	Off		Off	0	0	0
Extn201	Off	Not Applica...	Off		Off	0	0	0
Extn202	On	Not Applica...	Off		Off	0	0	0
Extn203	On	Not Applica...	Off		Off	1	2	2
Extn204	On	Not Applica...	Off		Off	0	0	0
Extn205	On	Not Applica...	Off		Off	0	0	0
Extn206	On	Not Applica...	Off		Off	0	0	0
Extn207	On	Not Applica...	Off		Off	0	0	0
Extn208	On	Not Applica...	Off		Off	0	0	0
Extn209	On	Not Applica...	Off		Off	0	0	0
Extn210	On	Not Applica...	Off		Off	0	0	0
Extn211	On	Not Applica...	Off		Off	0	0	0
Extn212	On	Not Applica...	Off		Off	0	0	0
Extn213	On	Not Applica...	Off		Off	0	0	0
Extn214	On	Not Applica...	Off		Off	0	0	0
Extn215	On	Not Applica...	Off		Off	0	0	0
Extn216	On	Not Applica...	Off		Off	0	0	0

Pause

08:09:05 Online

IP Networking

IP Routes

IP Office 4.2+. This screen shows the IP routes known by the IP Office. This includes both configured static routes and routes learnt through RIP if enabled.

IP Office System Status

Help Snapshot LogOff Exit About

IP Routes

Total Number of Administered IP Routes: 5
 Total Number of IP Routes: 5
 Route Priority: Prefer Static

Destination	Subnet Mask	Next Hop IP Address	Interface Name	Interface Type	Metric	IP Route Type	Source IP Address	Source IP Mask
192.168.42.0	255.255.25...		LAN1	LAN		Directly Att...		
192.168.43.0	255.255.25...		LAN2(WAN)	LAN		Directly Att...		
192.168.99.0	255.255.25...		Remotema...	DialUp		Static		
192.168.44.0	255.255.25...	192.168.44.1	LAN1	LAN	1	Static		
192.168.46.0	255.255.25...	192.168.46.1	LAN1	LAN	1	Static		

Pause Ping

08:10:00 Online

Tunnels

IP Office 4.2+. This screen display details of the VPN tunnels (IPSec and L2TP) configured on the IP Office.

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - IP500 Site A (192.168.42.1)". The application has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A left-hand navigation pane lists various system components, with "Tunnels" selected under "IP Networking". The main content area is titled "Tunnel Status" and displays the following information:

Total Number of Administered Tunnels: 2

Tunnel Name	Tunnel Type	Remote Tunnel Endpoint	Association
Site B	L2TP	192.168.50.1	None
Remoted	IPSec	192.168.56.1	None

At the bottom of the window, there is a "Pause" button and a status bar showing the time "08:00:24" and the status "Online".

Tracing

Overview

SSA enables traces to be generated for calls, lines and extensions.

Trace information is presented 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.

When a trace is displayed, the option to **Print** and/or **Save As** are available. A trace can be saved to file either as a **.txt** or **.csv** file. If the trace is paused, only the information currently displayed will be saved and/or printed.

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

- If the viewer restarts whilst a trace is being generated and the trunk/channel/extension/buttons being traced are still valid, the viewer retains the trace before loss of connection. A line is added to the trace as follows: *[time and date] Connection to the Control Unit restarted*. The trace continues to generate.

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.

Call Traces

You can trace a call from the Call Details screen. The trace of a call will show changes of state for that call and events relating to both ends of the call. For example; it will indicate if a button is pressed on an extension that is on the call or if a protocol message is sent or received for a trunk channel that is on the call. These events will be shown for as long as the extension/trunk is associated with the call. For example; if one extension transfers a call to another, you will see the transfer being carried out by the first extension; events relating to the second extension will then be shown.

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.

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, a call can be held at the central office rather than IP Office. In such cases, the call stops being associated with a particular channel; it may then be un-held and become associated with the same or a different channel. If such a call is initially associated with a trunk channel that is being traced, it will continue to be shown in the trace for as long as it is associated with the trunk, even if it is re-associated with a different channel or is associated with no channel at all.

Analog Trunk

Tracing Incoming Calls on Analog Lines

SSA can be used to troubleshoot calls that are being disconnected.

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

The screenshot displays the AVAYA IP Office System Status application. The main window is titled "IP Office System Status" and shows the "Analog Trunk Summary" for the Front Panel. The summary includes the following information:

- Slot/Module: Front Panel
- Number of Trunks: 4
- Number of Administered Trunks: 4
- Number of Trunks in Use: 0

Below the summary is a table with the following columns: Port, Line ID, Line Type, Call Ref, Current State, Time in State, Caller ID or Dialed Digits, Other Party on Call, and Direction of Call. The table contains four rows, all with a "Current State" of "Idle".

The "Trace Output - All Ports" section shows a sequence of events for an incoming call:

- 26/01/07 13:42:23-641ms Line = 1, Pre-Alerting
- 26/01/07 13:42:24-263ms Line = 1, Alerting, Call Ref = 63, Caller ID Name = Extn211, Number = 211
- 26/01/07 13:42:24-289ms Call Ref = 63, Originator State = Dialling, Type = Trunk, Destination State = Alerting, Type = Target List
- 26/01/07 13:42:24-289ms Call Ref = 63, Alerting, Extension = 210, Button = 1
- 26/01/07 13:42:24-295ms Call Ref = 63, Originator State = Incoming Alerting, Type = Trunk, Destination State = Alerting, Type = Target List
- 26/01/07 13:42:39-279ms Call Ref = 63, Retargeting
- 26/01/07 13:42:39-303ms Call Ref = 63, Originator State = Connected, Type = Trunk, Destination State = Connected, Type = Mailbox
- 26/01/07 13:42:39-303ms Call Ref = 63, Answered, Mailbox #Extn210
- 26/01/07 13:42:45-711ms Call Ref = 63, Originator State = Clearing, Type = Trunk, Destination State = Connected, Type = Mailbox
- 26/01/07 13:42:45-711ms Call Ref = 63, Disconnect from Originator End

The left sidebar shows a navigation menu with "Incoming call" selected. The bottom of the window displays the time "14:26:08" and the status "Online".

1. The call rings in to IP Office.
2. The call is assigned a Call Ref of 63.
3. The call rings at extension 211.
4. The call is redirected to the user's voicemail box.
5. The call is then disconnected by the outside caller (originator) of the call.

Tracing Outgoing Call - Call Disconnected by the IP Office User

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

The screenshot displays the AVAYA IP Office System Status interface. The main window shows the 'Extension Status' for extension 210. The trace output is as follows:

```

Current User Extension Number: 210

Trace Output - All Buttons:
24/01/07 16:25:37-955ms Extension = 210, Digit dialed, Digit = 8
24/01/07 16:25:39-012ms My buttons = 1, Call Ref = 21, Originator State = Dialling, Type = User, Destination State = Seized, Type = Target List
24/01/07 16:25:39-013ms Call Ref = 21, Short Code Matched = System, 8N
24/01/07 16:25:39-030ms Line = 4, Seized, Call Ref = 21
24/01/07 16:25:39-224ms My buttons = 1, Call Ref = 21, Originator State = Dialling, Type = User, Destination State = Seized, Type = Trunk
24/01/07 16:25:39-725ms Line = 4, Wait for Dialtone Ended, Call Ref = 21
24/01/07 16:25:39-728ms Line = 4, Dialling, Call Ref = 21, Digits =
24/01/07 16:25:39-747ms Call Ref = 21, Alerting, Line = 4
24/01/07 16:25:39-757ms My buttons = 1, Call Ref = 21, Originator State = Connected, Type = User, Destination State = Connected, Type = Trunk
24/01/07 16:25:39-757ms Call Ref = 21, Answered, Line = 4
24/01/07 16:25:40-254ms Extension = 210, Digit dialed, Digit = 1
24/01/07 16:25:40-516ms Extension = 210, Digit dialed, Digit = 2
24/01/07 16:25:40-755ms Extension = 210, Digit dialed, Digit = 3
24/01/07 16:25:41-026ms Extension = 210, Digit dialed, Digit = 4
24/01/07 16:25:41-316ms Extension = 210, Digit dialed, Digit = 5
24/01/07 16:25:41-566ms Extension = 210, Digit dialed, Digit = 6
24/01/07 16:25:41-866ms Extension = 210, Digit dialed, Digit = 7
24/01/07 16:25:42-126ms Extension = 210, Digit dialed, Digit = 8
24/01/07 16:25:42-367ms Extension = 210, Digit dialed, Digit = 9
24/01/07 16:25:44-899ms Extension = 210, Switchhook, Status = On
24/01/07 16:25:44-903ms My buttons = 1, Call Ref = 21, Originator State = Clearing, Type = User, Destination State = Connected, Type = Trunk
24/01/07 16:25:44-903ms Call Ref = 21, Disconnect from Originator End
24/01/07 16:25:44-907ms Extension = 210, State = Disconnected
24/01/07 16:25:44-917ms Extension = 210, Button = 1, Idle
24/01/07 16:25:44-920ms Extension = 210, State = Busy Wrap Up
24/01/07 16:25:46-922ms Extension = 210, State = Idle
  
```

The interface includes a left-hand navigation pane with options like System, Alarms (2), Extensions (12), Active Calls, and Resources. The main window has a 'Trace Output' area with a scroll bar and a status bar at the bottom showing '16:25:52' and 'Online'.

1. Extension 210 dials **8123456789**.
2. The trace shows **Extension = 210, Digit dialed, digit = 8**.
3. IP Office matches the dialed 8, to the system shortcode 8N.
4. The trace shows that the analog line 4 is seized and **123456789** is dialed on the line.
5. The trace shows that extension 210 goes back on hook.
6. The call is then disconnected by IP Office (Originator).

Notes

- Analog lines will go directly from a 'seized' state to a 'connected' state, since the line provides no call progress signalling to IP Office.
- The trace will not show the digits dialed on an analog trunk after shortcode matching, if the pause between digits dialed exceeds an 'inter-digit' timeout.

Tracing Outgoing Call - Call Disconnected by Outside Caller

The following example describes an outgoing call on an analog line, where the call is disconnected by an outside caller:

1. Extension 210 dials **8123456789**.
2. The trace shows **Extension = 210, Digit dialed, digit = 8**.
3. IP Office matches the dialed 8, to the system shortcode 8N.
4. The trace shows that the analog line 4 is seized and **123456789** is dialed on the line.
5. The trace shows that the call is disconnected by the outside caller (Destination End).
6. Extension 210 is disconnected.

This type of trace is useful when customer report calls are being disconnected.

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.

Extension

Incoming Outside Call - Disconnected by Outside Caller

The following example details an incoming call that has been answered and then dropped by the outside caller:

The screenshot displays the AVAYA IP Office System Status application. The main window shows the 'Extension Status' for extension 210. The left sidebar contains a tree view with 'System', 'Alarms (0)', 'Extensions (12)', and 'Trunks (7)'. The 'Extensions (12)' section is expanded, showing a list of extensions from 209 to 3012, with extension 210 selected. Below the list, it shows 'Lines: 1 - 4', 'Line: 25', and 'Line: 50'. The 'Active Calls Resources' section is also visible.

The main content area displays the following details for extension 210:

```

Extension Number: 210
Module: Control Unit - DS Ports
Port: 2
Telephone Type: 5410
Current User Extension Number: 210
Current User Name: Extn210
Forwarding: Off
Twinning: Off
Do Not Disturb: Off
Message Waiting: Off
Number of New Messages: 0
Phone Manager Type: None
  
```

Below the details is a table showing the current state of the extension's buttons:

Button Number	Button Type	Call Ref	Current State	Time in State	Calling Number or Called Direction Number	Other Party on Call
1	CA		Idle	00:00:26		
2	CA		Idle			
3	CA		Idle			

Below the table is a 'Trace Output - All Buttons' section showing a list of call events:

```

26/01/07 11:48:52-116ms Call Ref = 18, Originator State = Incoming Alerting, Type = Trunk, Destination State = Alerting, Type = Target List
26/01/07 11:48:52-117ms Call Ref = 18, Alerting, Extension = 210, Button = 1
26/01/07 11:48:54-307ms Extension = 210, Switchhook, Status = Off
26/01/07 11:48:54-318ms My buttons = 1, Call Ref = 18, Originator State = Connected, Type = Trunk, Destination State = Connected, Type = User
26/01/07 11:48:54-318ms Call Ref = 18, Answered, Extension = 210
26/01/07 11:48:58-724ms My buttons = 1, Call Ref = 18, Originator State = Clearing, Type = Trunk, Destination State = Connected, Type = User
26/01/07 11:48:58-724ms Call Ref = 18, Disconnect from Originator End
26/01/07 11:48:58-742ms Extension = 210, State = Disconnected
26/01/07 11:48:58-744ms Extension = 210, Button = 1, Idle
26/01/07 11:48:58-746ms Extension = 210, State = Busy Wrap Up
26/01/07 11:49:00-750ms Extension = 210, State = Idle
  
```

The bottom of the application window shows a status bar with the time '11:49:27' and the word 'Online'.

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.

Incoming Outside Call - Disconnected by IP Office User

The following example details an incoming call that has been dropped by extension 210:

The screenshot displays the AVAYA IP Office System Status application. The main window title is "IP Office System Status - Australia (192.168.42.9)". The application shows the "Extension Status" for extension 210, which is currently in an "Idle" state. The call trace output shows the following sequence of events:

Time	Event
26/01/07 07:23:51-362ms	Call Ref = 31, Originator State = Incoming Alerting, Type = Trunk, Destination State = Alerting, Type = Target List
26/01/07 07:23:51-363ms	Call Ref = 31, Alerting, Extension = 210, Button = 1
26/01/07 07:23:53-260ms	Extension = 210, Switchhook, Status = Off
26/01/07 07:23:53-274ms	My buttons = 1, Call Ref = 31, Originator State = Connected, Type = Trunk, Destination State = Connected, Type = User
26/01/07 07:23:53-274ms	Call Ref = 31, Answered, Extension = 210
26/01/07 07:23:55-246ms	Extension = 210, Switchhook, Status = On
26/01/07 07:23:55-250ms	My buttons = 1, Call Ref = 31, Originator State = Connected, Type = Trunk, Destination State = Clearing, Type = User
26/01/07 07:23:55-250ms	Call Ref = 31, Disconnect from Destination End
26/01/07 07:23:55-253ms	Extension = 210, State = Disconnected
26/01/07 07:23:55-275ms	Extension = 210, Button = 1, Idle
26/01/07 07:23:55-277ms	Extension = 210, State = Busy Wrap Up
26/01/07 07:23:57-279ms	Extension = 210, State = Idle

The application interface includes a left-hand navigation pane with a tree view showing "System", "Alarms (0)", "Extensions (12)", and "Trunks (6)". The "Extensions (12)" list is expanded to show extension 210. The main window displays the "Extension Status" for extension 210, including details such as "Module: Control Unit - DS Ports", "Port: 2", "Telephone Type: 5410", and "Current User Extension Number: 210". A table below the status shows the current state of the extension, with columns for "Button Number", "Button Type", "Call Ref", "Current State", "Time in State", "Calling Number or Direction", and "Other Party on Call". The table shows a single row for button 1, which is currently in an "Idle" state.

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.

Extension Button Selection

SSA is useful in tracing buttons that are pressed at a particular extension.

The following example details a trace of button activity at an extension:

IP Office System Status - Australia (192.168.42.9)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System

Alarms (0)

Extensions (12)

209

210

211

3001

3002

3003

3004

3008

3009

3010

3011

3012

Trunks (7)

Active Calls

Resources

Call rings in to IP Office

Call rings at Ext 209

Ext 209 answers the call

Ext 209 parks the call on park 1

Ext 209 takes the call off of Park 1

Ext 209 pushes Transfer

Ext 209 hangs up

Extension Status

Extension Number: 209

Module: Control Unit - DS Ports

Port: 1

Telephone Type: 5410

Current User Extension Number: 209

Current User Name: Extn209

Forwarding: Off

Twining: Off

Do Not Disturb: Off

Message Waiting: Off

Number of New Messages: 0

Phone Manager Type: None

Button Number	Button Type	Call Ref	Current State	Time in State	Calling Number or Called Direction Number	Other Party on Call
Trace Output - All Buttons:						
26/01/07 11:33:51-916ms	Call Ref = 3, Originator State = Ringback, Type = User, Destination State = Alerting, Type = Target List					
26/01/07 11:33:51-917ms	Call Ref = 3, Alerting, Extension = 209, Button = 1					
26/01/07 11:33:53-985ms	Extension = 209, Pressed Programmed Button, Button Number = 1, Label = Appearance					
26/01/07 11:33:53-996ms	My buttons = 1, Call Ref = 3, Originator State = Connected, Type = User, Destination State = Connected, Type = User					
26/01/07 11:33:53-996ms	Call Ref = 3, Answered, Extension = 209					
26/01/07 11:33:59-298ms	Extension = 209, Pressed Programmed Button, Button Number = 4, Label = Call Park					
26/01/07 11:33:59-307ms	Extension = 209, State = Busy					
26/01/07 11:33:59-310ms	Extension = 209, Button = 1, Idle					
26/01/07 11:33:59-312ms	Extension = 209, State = Busy Wrap Up					
26/01/07 11:34:01-315ms	Extension = 209, State = Idle					
26/01/07 11:34:03-285ms	Extension = 209, Pressed Programmed Button, Button Number = 4, Label = Call Park					
26/01/07 11:34:03-309ms	Call Ref = 3, Originator State = Connected, Type = User, Destination State = Connected, Type = User					
26/01/07 11:34:08-365ms	Extension = 209, Pressed Fixed Feature, Button = Transfer					
26/01/07 11:34:08-391ms	My buttons = 1, Call Ref = 3, Originator State = Holding, Type = User, Destination State = Held for Transfer/Conference, Type = User					
26/01/07 11:34:08-394ms	Extension = 209, State = Busy Wrap Up					
26/01/07 11:34:08-404ms	Extension = 209, State = Idle					
26/01/07 11:34:08-428ms	Call Ref = 4, Originator State = Seized, Type = User, Destination Type = none					
26/01/07 11:34:10-413ms	Extension = 209, Digit dialed, Digit = 2					
26/01/07 11:34:10-418ms	My buttons = 2, Call Ref = 4, Originator State = Dialling, Type = User, Destination Type = none					
26/01/07 11:34:10-800ms	Extension = 209, Digit dialed, Digit = 1					
26/01/07 11:34:11-463ms	Extension = 209, Digit dialed, Digit = 0					
26/01/07 11:34:12-486ms	Call Ref = 4, Alerting, Extension = 210, Button = 1					
26/01/07 11:34:12-488ms	My buttons = 2, Call Ref = 4, Originator State = Ringback, Type = User, Destination State = Alerting, Type = Target List					
26/01/07 11:34:14-847ms	Extension = 209, Pressed Fixed Feature, Button = Transfer					
26/01/07 11:34:14-858ms	Extension = 209, Button = 1, Idle					
26/01/07 11:34:14-882ms	Extension = 209, State = Busy					
26/01/07 11:34:14-884ms	Extension = 209, Button = 2, Idle					
26/01/07 11:34:14-886ms	Extension = 209, State = Busy Wrap Up					
26/01/07 11:34:16-888ms	Extension = 209, State = Idle					

Trace Clear Pause Back Call Details Print... Save As...

11:35:35 Online

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.

System Status Application

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 will also see **My buttons** marked against call state changes. This allows you to understand why this call is being reported in the trace:

IP Office System Status - F-075-IP500-1 (192.168.42.120)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System
Alarms (12)
Extensions (74)

- 4624
- 6666
- 6667
- 6668
- 6669
- 6670
- 6671
- 6672
- 6673
- 6674
- 6675
- 6676
- 6677
- 6678

Call alerts on Button 1 (Ext 6693) and Button 5 (Ext 4624). Ext 4624 is a Bridged Appearance for Ext 6693

- 6686
- 6687
- 6688
- 6689
- 6690

Ext 4624 answers the call, so Button 1 goes to state 'In Use Inaccessible' and becomes idle

The caller clears down. The clearing state is reported since the call is still being tracked by the call appearance, hence the state is marked as 'My buttons=1'

- 6704
- 6705

With the call cleared, Button 1 returns to idle

Extension Status

Extension Number: 6693
 Slot: 3
 Port: 1
 Telephone Type: 6424
 Current User Extension Number: 6693
 Current User Name: Extn6693
 Forwarding: Off
 Twinning: Off
 Do Not Disturb: Off
 Message Waiting: On
 Number of New Messages: 14
 Phone Manager Type: None

Button Number	Button Type	Call Ref	Current State	Time in State	Calling Number or Called Number	Direction	Other Party on Call
1	CA		Idle	00:01:37			
2	CA		Idle				
3	CA		Idle				
8	BA		Idle				
9	LA		Idle				

Trace Output - All Buttons:

```

26/01/07 15:38:02-058ms Call Ref = 192, Originator State = Incoming Alerting, Type = Trunk, Destination State = Alerting, Type = Target List
26/01/07 15:38:02-058ms Call Ref = 192, Alerting, Extension = 4624, Button = 5
26/01/07 15:38:02-058ms Call Ref = 192, Alerting, Extension = 6693, Button = 1
26/01/07 15:38:09-699ms Extension = 4624, Switchhook, Status = Off
26/01/07 15:38:09-702ms My buttons = 1, Call Ref = 192, Originator State = Incoming Alerting, Type = Trunk, Destination State = Alerting, Type = User
26/01/07 15:38:09-705ms Extension = 6693, State = Busy Wrap Up
26/01/07 15:38:09-706ms Extension = 6693, State = Idle
26/01/07 15:38:09-716ms Extension = 6693, Button = 1, State = In Use Elsewhere
26/01/07 15:38:09-720ms Line = 9, Channel = 1, Q.931 Message = Connect, Call Ref = 192, Direction = From Switch
26/01/07 15:38:09-725ms My buttons = 1, Call Ref = 192, Originator State = Connected, Type = Trunk, Destination State = Connected, Type = User
26/01/07 15:38:09-725ms Call Ref = 192, Answered, Extension = 4624
26/01/07 15:38:22-867ms Extension = 4624, Switchhook, Status = On
26/01/07 15:38:22-869ms My buttons = 1, Call Ref = 192, Originator State = Connected, Type = Trunk, Destination State = Clearing, Type = User
26/01/07 15:38:22-869ms Call Ref = 192, Disconnect from Destination End
26/01/07 15:38:22-884ms Extension = 6693, Button = 1, Idle
    
```

Trace Clear Pause Back Call Details Print... Save As...

15:39:46 Online

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, only the first alerting button will be shown.

The states of all the buttons on the extension can be examined in the top half of the Extension Status screen.

IP Office System Status - F-075-IP500-1 (192.168.42.120)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

Extension Status

Extension Number: 6728
 Module: 6
 Port: 20
 Telephone Type: 6424
 Current User Extension Number: 6728
 Current User Name: Extn6728
 Forwarding: Off
 Twinning: Off
 Do Not Disturb: Off
 Message Waiting: On
 Number of New Messages:
 Phone Manager Type: None

Button Number	Button Type	Call Ref	Current State	Time in State	Calling Number or Called Number	Direction	Other Party on Call
1	CA		Idle				
2	CA		Idle				
3	CA		Idle				
4	LA	201	In Use Elsewhere	00:00:14			
6	CC	201	Connected	00:00:14		Incoming	Line: 13 Slot: 4 Port: 9

Trace Output - All Buttons:

```

26/01/07 15:51:09-137ms Call Ref = 201, Originator State = Incoming Alerting, Type = Trunk, Destination State = Alerting, Type = Target List
26/01/07 15:51:09-138ms Call Ref = 201, Alerting, Extension = 6693, Button = 1
26/01/07 15:51:09-138ms Call Ref = 201, Alerting, Extension = 6728, Button = 4
26/01/07 15:51:09-138ms Call Ref = 201, Alerting, Extension = 4624, Button = 5
26/01/07 15:51:22-056ms Extension = 6728, Pressed Programmed Button, Button Number = 6, Label = Coverage Appearance
26/01/07 15:51:22-069ms Call Ref = 201, Originator State = Connected, Type = Trunk, Destination State = Connected, Type = User
26/01/07 15:51:22-069ms Call Ref = 201, Answered, Extension = 6728
26/01/07 15:51:22-073ms Extension = 6728, Button = 4, State = In Use Elsewhere
  
```

Trace Clear Pause Call Details Print... Save As...

15:51:36 Online

A call alerts on the line appearance

Later, it also alerts on the coverage appearance (where it is answered), so that the line appearance shows 'In Use Elsewhere'. 'My buttons' shows that the call is associated with both of the appearances

Hunt Group

The trace examples in this section, show which extensions are ringing but not the call being delivered to the hunt group 'Main'. To view details on the call (including the name of the targeted hunt group), see Call Details.

Hunt Group Calls Sent to Voicemail After Ringing Hunt Group Members

The following example details a call received on IP Office and re-directed to voicemail:

IP Office System Status - Australia (192.168.42.9)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System
Alarms (0)
Extensions (12)
 209
 210
 211
 3001
 3002
 3003
 3004
 3008
 3009
 3010
 3011
 3012

Outside call rings in to the IP Office
 Line: 25
Ext 209 and 210 ring
resources
Call is redirected
Call is routed to voicemail

Status Utilization Summary Alarms

Analog Trunk Summary

Slot/Module: Front Panel
 Number of Trunks: 4
 Number of Administered Trunks: 4
 Number of Trunks in Use: 0

Port ID	Line	Line Type	Call Ref	Current State	Time in State	Caller ID or Dialed Digits	Other Party on Call	Direction of Call
1	Line: 1 Front Panel Port: 1	Loop Start CLI		Idle	00:06:03			
2	Line: 2 Front Panel Port: 2	Loop Start CLI		Idle	01:53:50			
3	Line: 3 Front Panel Port: 3	Loop Start CLI		Idle	01:53:50			
4	Line: 4 Front Panel Port: 4	Loop Start CLI		Idle	01:53:50			

Trace Output - All Ports:

```

26/01/07 08:22:10-927ms Line = 1, Pre-Alerting
26/01/07 08:22:11-551ms Line = 1, Alerting, Call Ref = 45, Caller ID Name = Extn211, Number = 211
26/01/07 08:22:11-576ms Call Ref = 45, Originator State = Incoming Alerting, Type = Trunk, Destination State = Queueing, Type = Queue
26/01/07 08:22:11-627ms Call Ref = 45, Originator State = Incoming Alerting, Type = Trunk, Destination State = Alerting, Type = Target List
26/01/07 08:22:11-627ms Call Ref = 45, Alerting, Extension = 209, Button = 1
26/01/07 08:22:11-627ms Call Ref = 45, Alerting, Extension = 210, Button = 1
26/01/07 08:22:41-611ms Call Ref = 45, Originator State = Connected, Type = Trunk, Destination State = Connected, Type = Mailbox
26/01/07 08:22:53-464ms Call Ref = 45, Originator State = Clearing, Type = Trunk, Destination State = Connected, Type = Mailbox
26/01/07 08:22:53-464ms Call Ref = 45, Disconnect from Originator End
    
```

Trace Clear Call Details Print... Save As...

08:28:56 Online

1. An outside call is received on IP Office.
2. The call rings at extension 209 and extension 210.
3. The call is re-directed and answered by voicemail.

Hunt Group Calls Being Answered by Hunt Group Member

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

IP Office System Status - Australia (192.168.42.9)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System
Alarms (0)
Extensions (12)
Trunks (6)
 ▶ Lines: 1 - 4
 Line: 25
 Line: 50
 Active Calls
 Resources

Call rings at Ext 209 and Ext 210

Ext 209 answers the call

Ext 209 hangs up

Outside call is disconnected

Status Utilization Summary Alarms

Analog Trunk Summary

Slot/Module: Front Panel
 Number of Trunks: 4
 Number of Administered Trunks: 4
 Number of Trunks in Use: 0

Port	Line ID	Line Type	Call Ref	Current State	Time in State	Caller ID or Dialed Digits	Other Party on Call	Direction of Call
1	Line: 1 Front Panel Port: 1	Loop Start CLI		Idle	00:03:09			
2	Line: 2 Front Panel Port: 2	Loop Start CLI		Idle	00:07:01			
3	Line: 3 Front Panel Port: 3	Loop Start CLI		Idle	00:07:01			
4	Line: 4 Front Panel Port: 4	Loop Start CLI		Idle	00:07:01			

Trace Output - All Ports:

```

26/01/07 06:18:22-494ms Line = 1, Pre-Alerting
26/01/07 06:18:23-118ms Line = 1, Alerting, Call Ref = 5, Caller ID Name = Extn211, Number = 211
26/01/07 06:18:23-143ms Call Ref = 5, Originator State = Incoming Alerting, Type = Trunk, Destination State = Queueing, Type = Queue
26/01/07 06:18:23-194ms Call Ref = 5, Originator State = Incoming Alerting, Type = Trunk, Destination State = Alerting, Type = Target List
26/01/07 06:18:23-194ms Call Ref = 5, Alerting, Extension = 209, Button = 1
26/01/07 06:18:23-194ms Call Ref = 5, Alerting, Extension = 210, Button = 1
26/01/07 06:18:27-746ms Extension = 209, Switchhook, Status = Off
26/01/07 06:18:27-781ms Call Ref = 5, Originator State = Connected, Type = Trunk, Destination State = Connected, Type = User
26/01/07 06:18:27-781ms Call Ref = 5, Answered, Extension = 209
26/01/07 06:18:36-696ms Extension = 209, Switchhook, Status = On
26/01/07 06:18:36-700ms Call Ref = 5, Originator State = Connected, Type = Trunk, Destination State = Clearing, Type = User
26/01/07 06:18:36-700ms Call Ref = 5, Disconnect from Destination End
  
```

Trace Clear Call Details Print... Save As...

06:21:46 Online

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 outside caller is disconnected.

Hunt Group Call Being Directed into a Hunt Group's Queue and then Sent to Voicemail

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

The screenshot shows the AVAYA IP Office System Status application interface. The main window displays the 'Analog Trunk Summary' and a 'Trace Output - All Ports' section. The trace output shows a sequence of events for an incoming call on Line 1, including alerting, announcement, and clearing, ultimately resulting in the call being redirected to voicemail. On the left side, a navigation pane shows system components like Alarms, Extensions, and Trunks. A vertical list of call events is shown on the left, with arrows pointing to specific lines in the trace output.

Analog Trunk Summary

Slot/Module: Front Panel
 Number of Trunks: 4
 Number of Administered Trunks: 4
 Number of Trunks in Use: 0

Port ID	Line ID	Line Type	Call Ref	Current State	Time in State	Caller ID or Dialed Digits	Other Party on Call	Direction of Call
1	Line: 1 Front Panel Port: 1	Loop Start CLI		Idle	00:01:41			
2	Line: 2 Front Panel Port: 2	Loop Start CLI		Idle	00:14:11			
3	Line: 3 Front Panel Port: 3	Loop Start CLI		Idle	00:14:11			
4	Line: 4 Front Panel Port: 4	Loop Start CLI		Idle	00:14:11			

Trace Output - All Ports:

```

26/01/07 06:47:14-897ms Line = 1, Pre-Alerting
26/01/07 06:47:15-546ms Call Ref = 9, Originator State = Incoming Alerting, Type = Trunk, Destination State = Queueing, Type = Queue
26/01/07 06:47:15-580ms Call Ref = 9, Announcement = Main, Number = 1
26/01/07 06:47:15-582ms Call Ref = 9, Originator State = Connected Announcement, Type = Trunk, Destination State = Queueing Announcement, Type = Queue
26/01/07 06:47:23-738ms Call Ref = 9, Originator State = Connected Announcement, Type = Trunk, Destination State = Queueing, Type = Queue
26/01/07 06:47:25-556ms Call Ref = 9, Originator State = Connected Announcement, Type = Trunk, Destination State = Connected, Type = Mailbox
26/01/07 06:47:35-999ms Call Ref = 9, Originator State = Clearing, Type = Trunk, Destination State = Connected, Type = Mailbox
26/01/07 06:47:35-999ms Call Ref = 9, Disconnect from Originator End
    
```

Call event list on the left:

- Outside call rings in to the IP Office
- The call is sent to Queue
- Queue message is played
- Call is redirected to voicemail

1. An outside call is received on IP Office.
2. The call is sent to the hunt group's queue.
3. The queue message is played.
4. The call is re-directed to voicemail.

Call Being Abandoned While in a Hunt Group's Queue

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

The screenshot displays the AVAYA IP Office System Status application. The main window title is "IP Office System Status - Australia (192.168.42.9)". The application has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". On the left, there is a navigation pane with sections for "System", "Alarms (0)", "Extensions (12)", and "Trunks (6)". Under "Trunks (6)", there are sub-sections for "Lines: 1 - 4", "Line: 25", and "Line: 50". Below this is "Active Calls Resources".

The main content area has tabs for "Status", "Utilization Summary", and "Alarms". The "Status" tab is active, showing an "Analog Trunk Summary" section with the following data:

Slot/Module:	Front Panel
Number of Trunks:	4
Number of Administered Trunks:	4
Number of Trunks in Use:	0

Below this is a table with the following columns: Port, Line ID, Line Type, Call Ref, Current State, Time in State, Caller ID or Dialed Digits, Other Party on Call, and Direction of Call.

Port	Line ID	Line Type	Call Ref	Current State	Time in State	Caller ID or Dialed Digits	Other Party on Call	Direction of Call
1	Line: 1 Front Panel Port: 1	Loop Start CLI		Idle	00:00:23			
2	Line: 2 Front Panel Port: 2	Loop Start CLI		Idle	00:19:53			
3	Line: 3 Front Panel Port: 3	Loop Start CLI		Idle	00:19:53			
4	Line: 4 Front Panel Port: 4	Loop Start CLI		Idle	00:19:53			

Below the table is a "Trace Output - All Ports:" section with the following log entries:

```

26/01/07 06:54:28-284ms Line = 1, Pre-Alerting
26/01/07 06:54:28-908ms Line = 1, Alerting, Call Ref = 13, Caller ID Name = Extn211, Number = 211
26/01/07 06:54:28-932ms Call Ref = 13, Originator State = Incoming Alerting, Type = Trunk, Destination State = Queueing, Type = Queue
26/01/07 06:54:28-967ms Call Ref = 13, Announcement = Main, Number = 1
26/01/07 06:54:28-969ms Call Ref = 13, Originator State = Connected Announcement, Type = Trunk, Destination State = Queueing Announcement, Type = Queue
26/01/07 06:54:36-186ms Call Ref = 13, Originator State = Clearing, Type = Trunk, Destination State = Queueing Announcement, Type = Queue
26/01/07 06:54:36-186ms Call Ref = 13, Disconnect from Originator End
  
```

On the left side of the screenshot, there are four call events with arrows pointing to the corresponding trace entries:

- "Outside call rings in to IP Office" points to the first trace entry (Pre-Alerting).
- "The call is sent to Queue" points to the second trace entry (Alerting).
- "Queue message is played" points to the third trace entry (Announcement).
- "Outside caller hangs up" points to the fourth trace entry (Disconnect from Originator End).

At the bottom of the application window, there are buttons for "Trace Clear", "Call Details", "Print...", and "Save As...". The system time is 06:54:59 and the status is Online.

1. An outside call is received on IP Office.
2. The call is sent to the hunt group's queue.
3. The queue message is played.
4. The call is disconnected by the outside caller.

Hunt Group Call Overflowing to a Second Hunt Group and then Answered by Voicemail

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

The screenshot shows the AVAYA IP Office System Status interface. The left sidebar contains navigation options: System, Alarms (0), Extensions (12), Trunks (7), Lines: 1-4, Line: 25, Line: 50, Active Calls, and Resources. The main window displays the 'Analog Trunk Summary' for 'Front Panel' with 4 trunks. Below this is a 'Trace Output - All Ports' section showing a detailed call log. On the left side of the trace, five call events are highlighted with callouts:

- Outside call rings in to IP Office**: 26/01/07 12:31:22-150ms Line = 1, Pre-Alerting
- The call rings at Ext 209 and Ext 210**: 26/01/07 12:31:22-772ms Line = 1, Alerting, Call Ref = 37, Caller ID Name = Extn3008, Number = 3008
- Queue message is played**: 26/01/07 12:31:22-828ms Call Ref = 37, Alerting, Extension = 210, Button = 1
- The call is being redirected to the Overflow group**: 26/01/07 12:31:22-836ms Call Ref = 37, Announcement = Main, Number = 1
- The call is sent to the Mailbox of the hunt group**: 26/01/07 12:31:42-794ms Call Ref = 37, Originator State = Connected Announcement, Type = Trunk, Destination State = Connected, Type = Mailbox

The trace also includes other call events such as 'Alerting, Extension = 209, Button = 1', 'Connected Announcement, Type = Trunk, Destination State = Alerting, Type = Target List', and 'Disconnect from Originator End'.

1. A outside call is received on IP Office.
2. The call rings at extension 209 and extension 210.
3. The queue message is played.
4. The call is re-directed to an overflow hunt group.
5. The call rings at extension 211 (a member of the overflow hunt group).
6. The call is then re-directed to the original hunt group's voicemail.

Announcements

IP Office 4.0 allows calls that are either queuing or alerting, to be played announcements in a pattern that is configured using Manager. When an announcement is heard on a call, the current state is displayed as Connected Announcement and this state will remain until the call is either answered or cleared. SSA displays the type of announcement as well as details of the queue 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 originator state is Connected Announcement because an announcement has played to this call but at present no announcement is being played.

The screenshot shows the AVAYA IP Office System Status application window. The title bar reads "IP Office System Status - F-075-IP500-1 (192.168.42.120)". The application has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A left-hand navigation pane shows a tree view with "System", "Alarms (11)", "Extensions (74)", "Trunks (10)", "Active Calls" (selected), and "Resources". The main area displays "Active Calls: 3" and a table with the following data:

Call Ref	Call Length	Originator End Party	Current State	Time in State	Incoming Caller ID	Destination End Party	Current State	Time in State	Connecte d Caller
37	00:00:46	Line: 9 H.323 192.168.42.1 Channel: 1	Connected Announcement	00:00:35	604, BorisAeris	Extn 6693, Extn6693 Extn 6694, Extn6694 Extn 4624, Extn4624 Announcement just two	Alerting Anno...	00:00:06	
38	00:00:42	Line: 9 H.323 192.168.42.1 Channel: 2	Connected Announcement	00:00:31	260, Ken Tucky	Group 302, just two Announcement just two	Queueing An...	00:00:02	
39	00:00:27	Line: 9 H.323 192.168.42.1 Channel: 3	Connected Announcement	00:00:15	299, Ben Becula	Group 302, just two	Queueing	00:00:07	

Below the table are buttons for "Pause", "Disconnect", "Call Details", and "Abandoned Calls". The bottom right corner shows the time "18:46:38" and the status "Online".

System Status Application

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

The screenshot displays the AVAYA IP Office System Status application interface. The title bar reads "IP Office System Status - F-075-IP500-1 (192.168.42.120)". The main window is titled "IP Office System Status" and has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". On the left, there is a navigation pane with "System", "Alarms (12)", "Extensions (74)", and "Trunks (10)". Under "Trunks (10)", "Line: 9" is selected. Below this, it says "Active Calls" and "Resources". The main content area is titled "H.323 Trunk Summary" and shows "IP Address: 192.168.42.1". Below this, there is a "Trace Output - All Channels:" section containing a list of call events with timestamps and details such as "Line = 9, Line Ref = 32840, Q.931 Message = Setup, Direction = To Switch, Calling Party Number = 604, Called Party Number = 302". At the bottom of the main area, there are buttons for "Trace Clear", "Ping", "Call Details", "Print...", and "Save As...". The bottom status bar shows the time "14:10:13" and the status "Online".

IP Office 4.0 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'.

A call that is listening to an announcement will indicate the call reference of the multicasting call to which it is linked.

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 screenshot shows the AVAYA IP Office System Status interface. The title bar reads "IP Office System Status - F-075-IP500-1 (192.168.42.120)". The main window displays "Active Calls: 4" in a table format. The table has columns for Call Ref, Call Length, Originator End Party, Current State, Time in State, Incoming Caller ID, Destination End Party, Current State, Time in State, and Connected Caller ID. Below the table are buttons for Pause, Disconnect, Call Details, and Abandoned Calls. The system status at the bottom right shows "18:54:50" and "Online".

Call Ref	Call Length	Originator End Party	Current State	Time in State	Incoming Caller ID	Destination End Party	Current State	Time in State	Connected Caller ID
45	00:00:30	Line: 9 H.323 192.168....	Connected An...	00:00:19	604, BorisAe...	Extn 6693, Extn6693 Extn 4624, Extn4624	Alerting	00:00:12	
47	00:00:12	Line: 9 H.323 192.168....	Connected An...	00:00:01	280, Ken Tuc...	Group 301, just one Announcement Call Ref 49	Queueing Ann...	00:00:01	
48	00:00:12	Multicast				Announcement just one, Ni	Waiting Annou...	00:00:12	
49	00:00:11	Multicast				Announcement just one, Ni	Connected	00:00:01	

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

The screenshot shows the AVAYA IP Office System Status interface with the "H.323 Trunk Summary" window open. The title bar reads "IP Office System Status - F-075-IP500-1 (192.168.42.120)". The main window displays "H.323 Trunk Summary" for IP Address: 192.168.42.1. The "Trace Output - All Channels:" section shows a detailed sequence of events for multiple calls, including setup, alerting, and announcement messages. At the bottom, there are buttons for Trace Clear, Ping, Call Details, Print..., and Save As... The system status at the bottom right shows "14:20:05" and "Online".

H.323 Trunk Summary
IP Address: 192.168.42.1

Trace Output - All Channels:

```

26/01/07 14:19:33-935ms Line = 9, Line Ref = 32847, Q.931 Message = Setup, Direction = To Switch, Calling Party Number = 604, Called Party Number = 301
26/01/07 14:19:33-949ms Line = 9, Channel Allocated, Channel ID = 1, Call Ref = 186, Line Ref = 32847
26/01/07 14:19:33-949ms Call Ref = 186, Originator State = Dialling, Type = Trunk, Destination Type = none
26/01/07 14:19:33-954ms Line = 9, Channel = 1, Q.931 Message = SetupAck, Call Ref = 186, Direction = From Switch
26/01/07 14:19:34-953ms Call Ref = 186, Originator State = Incoming Alerting, Type = Trunk, Destination State = Queueing, Type = Queue
26/01/07 14:19:34-959ms Line = 9, Channel = 1, Q.931 Message = Alerting, Call Ref = 186, Direction = From Switch
26/01/07 14:19:34-972ms Call Ref = 186, Originator State = Incoming Alerting, Type = Trunk, Destination State = Alerting, Type = Target List
26/01/07 14:19:34-972ms Call Ref = 186, Alerting, Extension = 4624, Button = 5
26/01/07 14:19:34-972ms Call Ref = 186, Alerting, Extension = 6693, Button = 1
26/01/07 14:19:44-981ms Line = 9, Channel = 1, Q.931 Message = Connect, Call Ref = 186, Direction = From Switch
26/01/07 14:19:44-985ms Call Ref = 186, Originator State = Connected Announcement, Type = Trunk, Destination State = Alerting Announcement, Type = Target List
26/01/07 14:19:45-041ms Call Ref = 187, Originator Type = Multicast, Destination State = Connected, Type = Announcement
26/01/07 14:19:45-041ms Call Ref = 187, Announcement = just one, Number = 1
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26/01/07 14:19:49-088ms Line = 9, Channel Allocated, Channel ID = 2, Call Ref = 188, Line Ref = 32848
26/01/07 14:19:49-089ms Call Ref = 188, Originator State = Dialling, Type = Trunk, Destination Type = none
26/01/07 14:19:49-094ms Line = 9, Channel = 2, Q.931 Message = SetupAck, Call Ref = 188, Direction = From Switch
26/01/07 14:19:50-093ms Call Ref = 188, Originator State = Incoming Alerting, Type = Trunk, Destination State = Queueing, Type = Queue
26/01/07 14:19:50-096ms Line = 9, Channel = 2, Q.931 Message = Alerting, Call Ref = 188, Direction = From Switch
26/01/07 14:19:52-574ms Call Ref = 187, Originator Type = Multicast, Destination State = Waiting Announcement, Type = Announcement
26/01/07 14:19:52-578ms Call Ref = 186, Originator State = Connected Announcement, Type = Trunk, Destination State = Alerting, Type = Target List
26/01/07 14:19:52-578ms Call Ref = 186, Alerting, Extension = 4624, Button = 5
26/01/07 14:19:52-578ms Call Ref = 186, Alerting, Extension = 6693, Button = 1
26/01/07 14:20:02-591ms Line = 9, Channel = 2, Q.931 Message = Connect, Call Ref = 188, Direction = From Switch
26/01/07 14:20:02-594ms Call Ref = 188, Originator State = Connected Announcement, Type = Trunk, Destination State = Queueing Announcement, Type = Queue

```


Troubleshooting

ISDN Calls Cutting Off

Issue

User experiences their calls being cut off.

Action

Check the IP Office configuration in 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.

The screenshot shows the AVAYA IP Office System Status application. The title bar reads "IP Office System Status - F-075-IP500-1 (192.168.42.120)". The main window has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". On the left is a tree view showing the system hierarchy: System (12), Alarms (12), Service (3), Trunks (8), and various lines (Line 1-16) and links. The main area displays a table titled "Select a line to display the alarm information".

Line	Module / Slot / Type	Port Number / Address / Domain	Alarms
1	Slot 1	1	1
2	Slot 1	2	1
3	Slot 1	3	1
4	Slot 1	4	1
5	Slot 2	1	2
9	H.323	192.168.42.1	0
13	Slot 4	9	1
14	Slot 4	10	1
15	Slot 4	11	0
16	Slot 4	12	0

At the bottom of the main area is a "Select" button. The status bar at the bottom right shows "13:13:19" and "Online".

2. If no alarms are present, click **Trace All** to establish why the calls are being 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.

Delay Between Analog Line and Extension

Issue

Incoming analog line rings several times before the call is presented to the 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 IP Office configuration in 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:

The screenshot shows the 'IP Office System Status' application window. The left-hand navigation tree is expanded to 'Trunks (10)'. The main content area displays the 'Analog Trunk Summary' for Slot 4. The 'Alarms' tab is selected, showing a table of trunk status and a list of alarms.

Port ID	Line ID	Line Type	Call Ref	Current State	Time in State	Caller ID or Dialed Digits	Other Party on Call	Direction of Call
9	Line: 13 Slot: 4 Port: 9	Loop Start CLI		Idle	02:05:40			
10	Line: 14 Slot: 4 Port: 10	Loop Start CLI		Idle	00:01:40			
11	Line: 15 Slot: 4 Port: 11	Loop Start		Idle	00:02:04			
12	Line: 16 Slot: 4 Port: 12	Loop Start CLI		Idle	02:05:40			

If the central office is not providing Caller ID information, *No Caller ID received* is displayed under the Error Description.

2. From Manager, change the configuration to Loop Start only, as follows:
 - a. Log on to Manager and open the IP Office 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**.

The screenshot shows the 'IP Office System Status' application window with the 'Alarms' tab selected. The main content area displays 'Alarms for Lines: 13 - 16 Slot: 4' with a table of error details.

Last Date Of Error	Occurrences	Error Description
25/01/2007 18:31:02	1	No Caller ID received Port Number: 10

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

Expansion Units Constantly Rebooting

Issue

IP Office 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 blue TDM cable is correctly connected at the rear of both the IP Office Control Unit and the module that is resetting.
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 screenshot shows the IP Office System Status application window. The title bar reads "IP Office System Status - F-075-IP500-1 (192.168.42.120)". The AVAYA logo is on the left, and the title "IP Office System Status" is in the center. The application has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A left-hand navigation pane shows a tree view with "System" expanded, containing "Alarms (10)", "Service (3)", "Trunks (6)", and "Link (1)". The "Link (1)" item is selected. The main content area is titled "Link Alarms" and contains a table with the following data:

Last Date Of Error	Occurrences	Error Description
25/01/2007 18:27:20	8	Link/resource down Expansion 6

Below the table are buttons for "Clear", "Clear All", "Print...", and "Save As...". The bottom right corner of the window shows the time "18:27:56" and the status "Online".

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

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**:

The screenshot shows the AVAYA IP Office System Status application. The main window title is "IP Office System Status - F-075-IP500-1 (192.168.42.120)". The application interface includes a menu bar (Help, Snapshot, LogOff, Exit, About) and a left-hand navigation pane with options: System, Alarms (9), Extensions (73), Trunks (10), Active Calls, and Resources (selected). The main content area is titled "System Resources" and displays the following information:

- Music on Hold Source: Internal
- Configuration Size: 1024K
- Configuration Used: 56K (5% usage, shown with a green gauge)
- Memory Free: 76802K
- 8kHz Clock source: Internal

Below this information is a table with the following columns: Channels, Number of Channels, Number in Use, Usage, Congestion Count, and Last Date of Congestion.

Channels	Number of Channels	Number in Use	Usage	Congestion Count	Last Date of Congestion
Data	48	3	6%	0	
VCM	9	0	0%	0	
VM	4	3	75%	12	25/01/2007 18:20:03
Modem	0	0	0%	1	25/01/2007 16:27:21
Conference	64	5	7%	0	

At the bottom of the application window, there is a "Pause" button and a status bar showing the time "18:21:36" and the status "Online".

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.

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 IP Office configuration in 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:

The screenshot shows the Avaya IP Office System Status application window. The title bar reads "IP Office System Status - F-075-IP500-1 (192.168.42.120)". The Avaya logo is in the top left, and the window title "IP Office System Status" is in the top right. A menu bar contains "Help", "Snapshot", "LogOff", "Exit", and "About". On the left is a navigation tree with "System" selected, containing "Alarms (8)", "Extensions (73)", "Trunks (10)", "Active Calls", and "Resources". Under "Active Calls", "Call Details for Call Ref = 1" is selected. The main area displays "Call Details" for Call Ref: 1, with a call length of 00:05:35. The "Originator" tab is active, showing the following data:

Call Ref:	1	Call length:	00:05:35
Originator:			
Current State:	Connected	Time in State:	00:05:31
Trunk:	Line: 9 H.323 192.168.42.1 Channel: 1		
Incoming Caller ID:	604, BorisAeris		
Incoming DID:	6693		
Codec:	G729 A		
Round Trip Delay:	3ms		
Receive Jitter:	0ms		
Receive Packet Loss Fraction:	50%		
Transmit Jitter:	0ms		
Transmit Packet Loss Fraction:	60.15%		

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:

The screenshot shows the Avaya IP Office System Status application window. The title bar reads "IP Office System Status - F-075-IP406-1 (192.168.42.1)". The Avaya logo is in the top left, and the window title "IP Office System Status" is in the top right. A menu bar contains "Help", "Snapshot", "LogOff", "Exit", and "About". On the left is a navigation tree with "System" selected, containing "Alarms (10)", "Extensions (23)", "Trunks (26)", "Active Calls", and "Resources". Under "Active Calls", "Call Details for Call Ref = 71" is selected. The main area displays "Call Details" for Call Ref: 71, with a call length of 00:08:26. The "Destination" tab is active, showing the following data:

Call Ref:	71	Call length:	00:08:26
Destination:			
Current State:	Connected	Time in State:	00:08:26
Trunk Used:	Line: 9 H.323 192.168.42.120 Channel: 1		
Digits sent to Central Office:	6693		
Caller ID sent from Central Office:	6693		
Codec:	G729 A		
Round Trip Delay:	3.5ms		
Receive Jitter:	0ms		
Receive Packet Loss Fraction:	73.82%		
Transmit Jitter:	0ms		
Transmit Packet Loss Fraction:	71.09%		

5. If the figures are high, consult your network administrator to make the necessary changes to the network to improve the situation.

Phone User Unable to Dial Out

Issue

Phone user without caller display is unable to dial out.

Action

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

Procedure

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

The screenshot displays the AVAYA IP Office System Status application. The left sidebar shows a tree view with 'Extensions (12)' expanded, and extension 3002 selected. The main window shows the 'Extension Status' for extension 3002. The status is 'Idle' with a time in state of '00:00:51'. The trace output shows the following sequence of events:

Call Ref	Current State	Time in State	Calling Number or Called Number	Direction	Other Party on Call
	Idle	00:00:51			

Trace Output:

```

26/01/07 13:09:49-755ms Extension = NoUser, Switchhook, Status = Off
26/01/07 13:09:49-782ms Call Ref = 47, Originator State = Seized, Type = User, Destination Type = none
26/01/07 13:09:51-331ms Extension = NoUser, Digit dialed, Digit = 9
26/01/07 13:09:51-334ms Call Ref = 47, Originator State = Dialling, Type = User, Destination Type = none
26/01/07 13:09:52-335ms Call Ref = 47, Short Code Matched = System, 9N
26/01/07 13:09:52-348ms Extension = NoUser, State = Call Barred
26/01/07 13:09:55-072ms Extension = NoUser, Switchhook, Status = On
26/01/07 13:09:55-075ms Extension = NoUser, State = Busy Wrap Up
26/01/07 13:09:57-075ms Extension = NoUser, State = Idle
  
```

At the bottom of the window, there are buttons for 'Trace Clear', 'Pause', 'Back', 'Call Details', 'Print...', and 'Save As...'. The system time is 13:10:48 and the user is Online.

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

PRI Line is Out of Service

Issue

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

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.

IP Office System Status - F-075-IP406-1 (192.168.42.1)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System

- Alarms (7)
 - Service (2)
 - Trunks (3)
 - Line: 1 (3)**
 - Line: 2 (0)
 - Line: 3 (0)
 - Line: 4 (0)
 - Line: 5 (0)
 - Line: 6 (0)
 - Line: 7 (0)
 - Line: 8 (0)
 - Line: 9 (0)
 - Line: 10 (0)
 - Line: 901 (0)
 - Line: 902 (0)
 - Line: 903 (0)
 - Line: 904 (0)
 - Line: 905 (0)
 - Line: 906 (0)
 - Line: 907 (0)
 - Line: 908 (0)
 - Line: 909 (0)

Alarms for Line: 1 Slot: A Port: 1

Alarms 24 Hour Performance History

Last Date Of Error	Occurrences	Error Description
26/01/2007 12:45:54	12	Loss of Signal
26/01/2007 12:03:13	1	Trunk out of Service
26/01/2007 12:45:52	3	Red Alarm

Clear Clear All Print... Save As...

12:47:00 Online

3. Select the 24 Hour Performance History tab.

IP Office System Status - F-075-IP406-1 (192.168.42.1)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

System

- Alarms (7)
 - Service (2)
 - Trunks (3)
 - Line: 1 (3)**
 - Line: 2 (0)
 - Line: 3 (0)
 - Line: 4 (0)
 - Line: 5 (0)
 - Line: 6 (0)
 - Line: 7 (0)
 - Line: 8 (0)
 - Line: 9 (0)
 - Line: 10 (0)
 - Line: 901 (0)
 - Line: 902 (0)
 - Line: 903 (0)
 - Line: 904 (0)
 - Line: 905 (0)
 - Line: 906 (0)
 - Line: 907 (0)
 - Line: 908 (0)
 - Line: 909 (0)

Alarms for Line: 1 Slot: A Port: 1

Alarms 24 Hour Performance History

The number in each line indicates the number of times during the 15 minutes interval that the error occurred. By default, the first row is the current 15 minute interval.

Interval Start Time	Error Seconds	Bursty Error Seconds	Severely Errored Seconds	Failed/Unavailable Seconds	Bipolar Violation	Clock Slips	Missed Frame
12:45	3	1	1	0	4	0	14
12:30	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0
12:00	5	2	2	0	7	0	19
11:45	1	0	0	0	0	2	0

Relative Time Show Blanks Print... Save As...

12:47:00 Online

The example above shows that the PRI line experienced Clock Slips and Missed Frames. Replacing the wiring from the PRI's Smart Jack and the IP Office will resolve the issue.

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