



Viewing Operational Information

You can view status messages, network statistics, and other types of operational information for a Cisco IP Communicator device in two ways:

- Locally—from the Cisco IP Communicator interface on the client PC
- Remotely—from a web page

The following sections provide details about the type of information you can view and how to access it:

- [An Overview of Operational Information, page 7-1](#)
- [Viewing Operational Information Locally on the Cisco IP Communicator Interface, page 7-3](#)
- [Viewing Operational Information Remotely from a Web Page, page 7-9](#)

An Overview of Operational Information

[Table 7-1](#) is an overview that shows you how to access different types of operational information. You can access this information locally (on the Cisco IP Communicator interface) and/or remotely (from a web site). The last column in the table points to sections in this guide where you can find more detailed instructions.



Tip

To learn how to access a web page for a device, see the [“Accessing the Web Page for a Device”](#) section on page 7-10.

Table 7-1 An overview of operational information

If you want to view...	Look here...	For details, see...
Device Information	<ul style="list-style-type: none"> • From the Cisco IP Communicator interface: Settings > Device Configuration • From the device web page, choose Device Information 	<ul style="list-style-type: none"> • Viewing the Device Configuration Screen Locally, page 7-3 • Viewing Device Information Remotely, page 7-11
Software Version	From the Cisco IP Communicator interface: Right-click > About	Viewing the Status Menu Locally, page 7-5
Status Messages	<ul style="list-style-type: none"> • From the Cisco IP Communicator interface: Settings > Status > Status Messages • From the device web page: Device Logs > Status Messages 	<ul style="list-style-type: none"> • Viewing the Status Menu Locally, page 7-5 • Viewing Device Logs Remotely, page 7-13
Statistics	<ul style="list-style-type: none"> • From the Cisco IP Communicator interface, click the ? button twice quickly during a call • From the device web page: Streaming Statistics > Stream 1, Stream 2, or Stream 3 	<ul style="list-style-type: none"> • Viewing the Call Statistics Screen Locally, page 7-8 • Viewing Streaming Statistics Remotely, page 7-15
Alarm Messages	From the device web page: Device Logs > Debug Display	Viewing Device Logs Remotely, page 7-13

Viewing Operational Information Locally on the Cisco IP Communicator Interface

The following topics describes the operational information you can view locally on the Cisco IP Communicator interface:

- [Viewing the Device Configuration Screen Locally, page 7-3](#)
- [Viewing the Status Menu Locally, page 7-5](#)
- [Viewing the Call Statistics Screen Locally, page 7-8](#)

Viewing the Device Configuration Screen Locally

To view the device configuration screen, choose **Settings > Device Configuration**. This screen displays a variety of non-network settings, as shown in [Table 7-2](#).

Use Cisco CallManager Administration to modify configurable items that appear in this menu.

Table 7-2 Device Configuration items displayed on Cisco IP Communicator

Option	Description
Call Manager 1 Call Manager 2 Call Manager 3 Call Manager 4 Call Manager 5	<p>Cisco CallManager servers that are available for processing calls from this application, in prioritized order. For an available server, an option will show the Cisco CallManager server IP address and one of the following states:</p> <ul style="list-style-type: none"> • Active—Cisco CallManager server from which the application is currently receiving call-processing services. • Standby—Cisco CallManager server to which the application switches if the current server becomes unavailable. • Blank—No current connection to this Cisco CallManager server. <p>An option may also include the Survivable Remote Site Telephony (SRST) designation, which indicates an SRST router capable of providing Cisco CallManager functionality with a limited feature set. This router assumes control of call processing if all other Cisco CallManager servers become unreachable. The SRST Cisco CallManager always appears last in the list of servers, even if it is active. You configure the SRST router address in the Device Pool section in Cisco CallManager.</p>
Directories URL	URL of the server from which the application obtains directory information.
Services URL	URL of the server from which the application obtains Cisco IP Phone services.
Messages URL	URL of the server from which the application obtains message services.
Information URL	URL of the help text that appears on the application.
Authentication URL	URL that the application uses to validate requests made to the application web server.
Proxy Server URL	URL used to proxy HTTP requests for access to non-local host addresses from the application HTTP client.
Idle URL	URL that the application displays when the application has not been used for the time specified in the Idle URL Time option. For example, you could use the Idle URL option and the Idle URL Timer option to display a log on the LCD screen when the application has not been used for five minutes.
Idle URL Time	Amount of time in seconds that elapses before the URL specified in the Idle URL option appears.

Table 7-2 Device Configuration items displayed on Cisco IP Communicator (continued)

Option	Description
User Locale	User locale associated with the application user. The user locale identifies a set of detailed information to support users, including language, font, date and time formatting, and alphanumeric keyboard text information.
Network Locale	Network locale associated with the application user. The network locale identifies a set of detailed information to support the application in a specific location, including definitions of the tones and cadences used by the application.
User Locale Version	Version of the user locale loaded on the application.
Network Locale Version	Version of the network locale loaded on the application.
User Locale Char Set	Character set that the application uses for the user locale.
Auto Line Select Enabled	When enabled, indicates that the phone will shift the call focus to incoming calls on all lines. When disabled, the phone will only shift the focus to incoming calls on the currently used line.

Viewing the Status Menu Locally

The Status menu displays the Status Messages screen, which shows a log of important system messages. [Table 7-3](#) describes the status messages that might appear. This table also includes actions you can take to address errors that are indicated.

To display the Status menu, choose **Settings > Status**. To exit the Status menu, choose **Exit**.

Table 7-3 Status messages displayed on Cisco IP Communicator

Message	Description	Possible Explanation and Action
CFG file not found	The name-based and default configuration file was not found on the TFTP Server.	<p>The configuration file for an application is created when the application is added to the Cisco CallManager database. If the application has not been added to the Cisco CallManager database, the TFTP server generates a CFG File Not Found response.</p> <ul style="list-style-type: none"> If the device is not registered with Cisco CallManager. You must manually add the device to Cisco CallManager if you are not allowing devices to auto-register. See the “Adding Devices to the Cisco CallManager Database” section on page 2-10 for details. If you are using DHCP, verify that the DHCP server is pointing to the correct TFTP server. If you are using static IP addresses, check configuration of the TFTP server.
CFG TFTP Size Error	The PC’s hard disk is full.	Delete some files
Checksum Error	Downloaded software file is corrupted.	Obtain a new copy of the application software and place it in the TFTPPath directory. You should only copy files into this directory when the TFTP server software is shut down, otherwise the files may be corrupted.
DHCP timeout	DHCP server did not respond.	<ul style="list-style-type: none"> Network is busy—The errors should resolve themselves when the network load reduces. No network connectivity between the DHCP server and the application—Verify the network connections. DHCP server is down—Check configuration of DHCP server. Errors persist—Consider assigning a static IP address.

Table 7-3 Status messages displayed on Cisco IP Communicator (continued)

Message	Description	Possible Explanation and Action
DNS timeout	DNS server did not respond.	<ul style="list-style-type: none"> • Network is busy—The errors should resolve themselves when the network load reduces. • No network connectivity between the DNS server and the application—Verify the network connections. • DNS server is down—Check configuration of DNS server.
DNS unknown host	DNS could not resolve the name of the TFTP server or Cisco CallManager.	<ul style="list-style-type: none"> • Verify that the host names of the TFTP server or Cisco CallManager are configured properly in DNS. • Consider using IP addresses rather than host names.
Error update locale	One or more localization files could not be found in the TFTPPath directory or were not valid. The locale was not changed.	<p>Check that the following files are located within subdirectories in the TFTPPath directory:</p> <ul style="list-style-type: none"> • Located in subdirectory with same name as network locale: <ul style="list-style-type: none"> – tones.xml • Located in subdirectory with same name as user locale: <ul style="list-style-type: none"> – glyphs.xml – dictionary.xml – kate.xml – dictionary.xml
Load ID incorrect	Load ID of the software file is of the wrong type.	Check the load ID assigned to the application (from Cisco CallManager, choose Device > Phone). Verify that the load ID is entered correctly.
SEPDefault.cnf.xml	Name of the configuration file.	None. This is an informational message indicating the name of the configuration file for the application.
TFTP access error	TFTP server is pointing to a directory that does not exist.	<ul style="list-style-type: none"> • If you are using DHCP, verify that the DHCP server is pointing to the correct TFTP server. • If you are using static IP addresses, check configuration of TFTP server.

Table 7-3 Status messages displayed on Cisco IP Communicator (continued)

Message	Description	Possible Explanation and Action
TFTP file not found	The requested load file was not found in the TFTPPath directory.	Check the load ID assigned to the application (from Cisco CallManager, choose Device > Phone). Verify that the TFTPPath directory contains a file with this load ID as the name.
TFTP timeout	TFTP server did not respond.	<ul style="list-style-type: none"> • Network is busy—The errors should resolve themselves when the network load reduces. • No network connectivity between the TFTP server and the application—Verify the network connections. • TFTP server is down—Check configuration of TFTP server.
No files changed	Application files are up-to-date and match those on TFTP server of Cisco CallManager.	Application has updated load information. No action is required.

Viewing the Call Statistics Screen Locally

Use the Call Statistics screen to view counters and statistics for the current call. [Table 7-4](#) explains the information that appears in this screen.

To display the Call Statistics screen, click the **?** button twice rapidly during a call. To exit the Call Statistics screen, choose **Exit**.

Table 7-4 Call statistics displayed on Cisco IP Communicator

Item	Description
Rcvr Codec	Type of voice stream received (RTP streaming audio) (G.729, G.711 u-law, G.711 A-law, or Lin16k).
Sender Codec	Type of voice stream transmitted (RTP streaming audio) (G.729, G.711 u-law, G.711 A-law, or Lin16k).
Rcvr Size	Size of voice packets, in milliseconds, in the receiving voice stream (RTP streaming audio).

Table 7-4 Call statistics displayed on Cisco IP Communicator (continued)

Item	Description
Sender Size	Size of voice packets, in milliseconds, in the transmitting voice stream.
Rcvr Packets	Number of RTP voice packets received since voice stream was opened. Note This number is not necessarily identical to the number of RTP voice packets received since the call began because the call might have been placed on hold.
Sender Packets	Number of RTP voice packets transmitted since voice stream was opened. Note This number is not necessarily identical to the number of RTP voice packets transmitted since the call began because the call might have been placed on hold).
Avg Jitter	The estimated average RTP packet jitter (dynamic delay that a packet encounters when going through the network) observed since the receiving voice stream was opened.
Max Jitter	Maximum jitter observed since the receiving voice stream was opened.
RxDisc	Number of RTP packets in the receiving voice stream that have been discarded (bad packets, too late, and so on). Note The application will discard payload type 19 comfort noise packets that are generated by Cisco Gateways, which will increment this counter.
Recvr Lost Packets	Missing RTP packets (lost in transit).

Viewing Operational Information Remotely from a Web Page

Each Cisco IP Communicator device has a web page from which you can view operational information. You can use this information to remotely monitor the device and to assist with troubleshooting.

You can also obtain much of this information directly from the Cisco IP Communicator interface. For more information, see the [“Viewing Operational Information Locally on the Cisco IP Communicator Interface”](#) section on page 7-3.

For more information about troubleshooting the Cisco IP Communicator, see Chapter 8, “Troubleshooting Cisco IP Communicator.”

This section includes these topics:

- [Accessing the Web Page for a Device, page 7-10](#)
- [Viewing Device Information Remotely, page 7-11](#)
- [Viewing Network Configuration Remotely, page 7-11](#)
- [Viewing Device Logs Remotely, page 7-13](#)
- [Viewing Streaming Statistics Remotely, page 7-15](#)

Accessing the Web Page for a Device

To access the web page for a Cisco IP Communicator, follow these steps:

Procedure

-
- Step 1** Search for the device in Cisco CallManager by choosing **Device > Phone**. Devices registered with Cisco CallManager display the IP address at the top of the Phone Configuration web page.
- Step 2** Open a web browser and enter the following URL, where *IP_address* is the IP address of the Cisco IP Communicator:

`http://IP_address`



Tip

If you are doing this on the PC on which Cisco IP Communicator is installed, you can use *localhost* for the IP address if Cisco IP Communicator is running.

Viewing Device Information Remotely

The Device Information area on a device's web page displays device settings and related information. [Table 7-5](#) describes these items.

To display the Device Information area, access the web page as described in the [“Accessing the Web Page for a Device”](#) section on page 7-10, then click **Device Information**.

Table 7-5 *Device Information items displayed on the device web page*

Item	Description
Host Name	Host name that the DHCP server assigned to the device.
Phone DN	Directory number assigned to the device.
Version	Version of the boot load running on the device.
Model Number	Model number of the device.
Message Waiting	Indicates if there is a voice message waiting on any line for the device.

Viewing Network Configuration Remotely

The Network Configuration area on a device's web page displays network configuration information and information about other settings. [Table 7-6](#) describes these items.

You can view some of these items from the Device Configuration Menu in the Cisco IP Communicator interface. For more information, see the [“Viewing the Device Configuration Screen Locally”](#) section on page 7-3.

To display the Network Configuration area, access the web page as described in the [“Accessing the Web Page for a Device”](#) section on page 7-10, then click **Network Configuration**.

Table 7-6 Network Configuration items displayed on the device web page

Item	Description
DHCP Server	IP address of the Dynamic Host Configuration Protocol (DHCP) server from which the device obtains its TFTP server address.
Host Name	Host name that the DHCP server assigned to the device.
IP Address	Internet Protocol (IP) address of the device.
TFTP Server 1	Primary Trivial File Transfer Protocol (TFTP) server used by the device.
Call Manager 1–5	<p>Cisco CallManager servers that are available for processing calls from the device, in prioritized order. For an available server, an option will show the Cisco CallManager server IP address and one of the following states:</p> <ul style="list-style-type: none"> • Active—Cisco CallManager server from which the device is currently receiving call-processing services. • Standby—Cisco CallManager server to which the device switches if the current server becomes unavailable. • Blank—No current connection to this Cisco CallManager server. <p>An option may also include the Survivable Remote Site Telephony (SRST) designation, which indicates an SRST router capable of providing Cisco CallManager functionality with a limited feature set. This router assumes control of call processing if all other Cisco CallManager servers become unreachable. The SRST Cisco CallManager always appears last in the list of servers, even if it is active. You configure the SRST router address in the Device Pool section in Cisco CallManager.</p>
Information URL	URL of the help text that appears on the device.
Directories URL	URL of the server from which the device obtains directory information.
Messages URL	URL of the server from which the device obtains message services.
Services URL	URL of the server from which the device obtains Cisco IP Phone services.
Alternate TFTP	Indicates whether the device is using an alternative TFTP server.
Idle URL	URL that the phone displays when the device has not been used for the time specified by Idle URL Time.
Idle URL Time	Amount of time in seconds that elapses before the URL shown in Idle URL appears.

Table 7-6 Network Configuration items displayed on the device web page (continued)

Item	Description
Proxy Server URL	URL of proxy server, which makes HTTP requests to non-local host addresses on behalf of the device HTTP client and provides responses from the non-local host to the device HTTP client.
Authentication URL	URL that the device uses to validate requests made to the web server.
TFTP Server 2	Backup TFTP server that the device uses if the primary TFTP server is unavailable.
User Locale	User locale associated with the Cisco IP Communicator user. Identifies a set of detailed information to support users, including language, font, date and time formatting, and alphanumeric keyboard text information.
Network Locale	Network locale associated with the Cisco IP Communicator user. Identifies a set of detailed information to support the device in a specific location, including definitions of tones and cadences.
User Locale Version	Version of the user locale loaded on the device.
Network Locale Version	Version of the network locale loaded on the phone.

Viewing Device Logs Remotely

The device logs area on a application's web page provides information you can use to help monitor and troubleshoot the application:

- **Status Messages area**—Displays up to the 10 most recent status messages that Cisco IP Communicator generated since it was last powered up. These are the same status messages that you can see on the interface by choosing **Settings > Status > Status Message**. [Table 7-3](#) describes the status messages that can appear.
- **Debug Display area**—Displays a log of up to the 50 most recent alarms for the phone. Alarms indicate a variety of errors or conditions. [Table 7-7](#) lists alarm message numbers and their meanings.

To display the Status Messages or the Debug Display area, access the web page as described in the [“Accessing the Web Page for a Device”](#) section on page 7-10, then click **Status Messages** or **Debug Display**.

Table 7-7 Alarms displayed on the device web page

Alarm Number	Explanation
1	Configuration file that the device tried to obtain from the TFTP server was too large (greater than 2 MB)
3	Firmware image that the device tried to obtain has an incorrect name
4	A PC on which Cisco IP Communicator is installed has run out of disc space
6	Configuration file that the device requested does not exist on the TFTP server
7	A request to the TFTP server timed out
8	The device could not log on to the TFTP server
9	General TFTP error
14	Cisco CallManager closed socket
15	The device lost its connection to the remote host
16	Cisco CallManager indicates that the device could not unregister for some reason
17	Cisco CallManager stopped responding to KeepAlive requests
18	The device failed back to a higher priority Cisco CallManager
20	User clicked ***#** on the phone
21	The device obtained a new IP address
22	Cisco CallManager sent a reset instruction to the device
23	Cisco CallManager sent a restart instruction to the device
24	Cisco CallManager rejected a registration attempt from the device
25	No prior reset cause (default condition)
32	General alarm
33	Could not write to the hard drive

Viewing Streaming Statistics Remotely

A Cisco IP Communicator device can stream information to and from up to three devices simultaneously. Cisco IP Communicator streams information when it is on a call or running a service that sends or receives audio or data.

The streaming statistics areas on the device web page provide information about the streams. Most calls use only one stream (Stream 1), but some calls use two or three stream. For example, a barged call uses Stream 1 and Stream 2.

Table 7-8 describes the items in the Streaming Statistics areas.

To display a Streaming Statistics area, access the web page as described in the “[Accessing the Web Page for a Device](#)” section on page 7-10, then click **Stream 1**, **Stream 2**, or **Stream 3**.

Table 7-8 Streaming statistics displayed on the device web page

Item	Description
Domain	Domain of the device
Remote Address	IP address of the destination of the stream
Local Address	IP address of the device
Sender Joins	Number of times the device has started transmitting a stream
Receiver Joins	Number of times the device has started receiving a stream
Bytes	Number of times the device has stopped transmitting a stream
Start Time	Internal time stamp indicating when Cisco CallManager requested that the device start transmitting packets
Row Status	Whether the device is streaming
Host Name	Host name of the device
Sender Packets	Total number of packets sent by the device
Sender Octets	Total number of octets sent by the device
Sender Tool	Type of audio encoding used for the stream
Sender Reports	Number of times this streaming statistics report has been accessed from the web page (resets when the device resets)
Sender Report Time	Internal time stamp indicating when this streaming statistics report was generated

Table 7-8 Streaming statistics displayed on the device web page (continued)

Item	Description
Sender Start Time	Time that the stream started
Rcvr Lost Packets	Total number of packets lost
Rcvr Jitter	Maximum jitter of stream
Receiver Tool	Type of audio encoding used for the stream
Rcvr Reports	Number of times this streaming statistics report has been accessed from the web page (resets when the device resets)
Rcvr Report Time	Internal time stamp indicating when this streaming statistics report was generated
Rcvr Packets	Total number of packets received by the device
Rcvr Octets	Total number of octets received by the device
Rcvr Start Time	Internal time stamp indicating when Cisco CallManager requested that the device start receiving packets