



Using Phone Status Testing

**Note**

If you do not have the required software license, you will not be able to use phone status testing.

The following topics describe phone status testing:

- [Getting Started with Phone Status Testing, page 11-1](#)
- [Using Phone Status Testing, page 11-3](#)

Getting Started with Phone Status Testing

Phone status testing uses Cisco IOS IP SLA (IP SLA) technology to monitor the reachability of key phones in the network. A phone status test consists of the following:

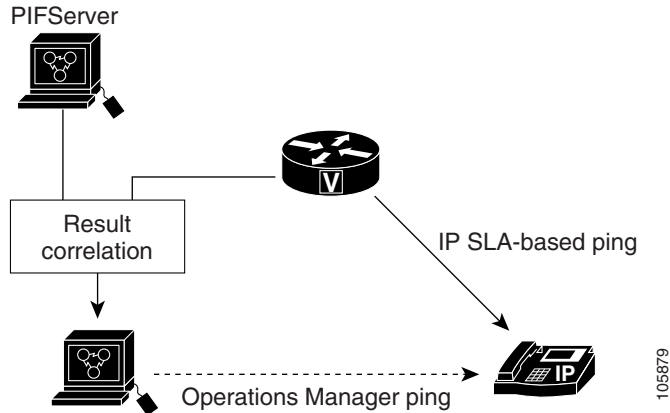
- A list of IP phones to test, selected by you.
- A testing schedule that you configure.
- IP SLA-based pings from an IP SLA-capable device (for example, a switch, a router, or a voice router) to the IP phones. Optionally, it also pings from Cisco Prime Unified Operations Manager (Cisco Prime UOM) to the IP phones.

**Note**

If you ever need to uninstall Cisco Prime UOM, be sure to delete all the phone status tests from the application before you uninstall it. If you do not delete these tests, they will continue to run on the router. For instructions on deleting, see [Deleting Phone Status Tests, page 11-7](#).

[Figure 11-1](#) illustrates a phone status test configured on an IP SLA-capable voice router, with Cisco Prime UOM ping enabled. Cisco Prime UOM configures an echo test on the IP SLA-capable device, provided that the device has enough memory provisioned.

Phone status testing also, checks with the phone status process (in the following figure it is referred to as PIFServer, it is used for generating IP phone reports) to verify that the phone is registered.

Figure 11-1 A Phone Status Test

A phone is considered unreachable after there is no response to either an IP SLA-based ping, or an Cisco Prime UOM ping, and the phone status is unregistered in the phone status process. Cisco Prime UOM generates the `PhoneReachabilityTestFailed` event.

If the phone is not monitored by the phone status process, it is considered unreachable after there is no response to either an IP SLA-based ping, or an Cisco Prime UOM ping.

Phone status testing is protocol-independent and can perform tests on phones that operate, for example, under the following protocols:

- MGCP
- SCCP
- SIP

Before You Add a Phone Status Test

You can add phone status tests by using the Create Phone Status test page (see [Adding a Phone Status Test—Using the Create Phone Status Test Page, page 11-4](#)), or by using a seed file (see [Adding a Phone Status Test—Using a Seed File, page 11-4](#)).

You must be able to provide IP SLA-capable devices and IP phones (extensions and IP addresses) for testing.

Phone status tests do not require information from Cisco Prime UOM device inventory. However, when Cisco Prime UOM monitors phone-related devices, it can update phone status tests whenever phone information changes.

Maintaining Phone Status Tests

The source device for a phone status test must be monitored in Cisco Prime UOM, meaning it must be in Cisco Prime UOM inventory for the test to be created.

The following questions and answers supply guidance on how to maintain phone status tests. The answers describe common occurrences and explain whether you need to take action as a result.

- Q.** What happens when a router is rebooted?
- A.** When a router is rebooted, the phone status tests are lost. However, Cisco Prime UOM reconfigures the test when the router becomes available. While the router is down, the Cisco Prime UOM ping continues to run, if you have enabled Cisco Prime UOM ping.
- Q.** What happens after I move a phone to a different Cisco Unified Communications Manager?
- A.** Phone status tests continue to run, except when phone information (IP address or extension number) changes and phone-related devices are not monitored by Cisco Prime UOM (see [Table 11-1](#) for more information); update the seed file and add the test again.
- If you want to configure the test on the IP SLA-capable device closest to the new Cisco Unified Communications Manager, update the seed file and add the test again.

Using Phone Status Testing

When you open the Phone Status Tests page, you view a table of existing phone status tests with the status for each test. From this page, you can do any of the following:

- Add a phone status test. By using the Create Phone Status test page (see [Adding a Phone Status Test—Using the Create Phone Status Test Page, page 11-4](#)), or by using a seed file (see [Adding a Phone Status Test—Using a Seed File, page 11-4](#)).
- Configure phone status tests. You can update the schedule for one or more phone status tests and enable or disable the Cisco Prime UOM ping. See [Editing Phone Status Tests, page 11-6](#).
- Delete phone status tests. You can delete one or more phone status tests from Cisco Prime UOM and from the routers on which the tests run. See [Deleting Phone Status Tests, page 11-7](#).
- View phone status test details. You can view details for one or more phone status tests. See [Viewing Phone Status Test Details, page 11-7](#).

To view the Phone Status page, select **Administration > Diagnostic Tests > Phone Status Tests**.

The following information is displayed:

Field	Description
Test Name	Name for the test when you add it to Cisco Prime UOM. See Adding a Phone Status Test—Using a Seed File, page 11-4 .
Source Router	Name or IP address of source router.
Status	Status can be one of the following: <ul style="list-style-type: none"> • Started—The test is scheduled to run. • Running—The test is currently running. • Stopped—The test is not scheduled to run.

If you do not have the required software license, you will not be able to use phone status testing. The Diagnostic Tests tab will not appear in Cisco Prime UOM.

Adding a Phone Status Test—Using the Create Phone Status Test Page

You can add a phone status test using the Create Phone Status Test page.

To add a phone status test:

-
- Step 1** Select **Administration > Diagnostic Tests > Phone Status Tests** and click **Create**.
The Create Phone Status Test page appears.
Cisco Prime UOM provides multiple launch points for the Create Phone Status Test page. For example, you can also open the page through a phone report, or Fault Monitor using the device or event details Action links.
- Step 2** In the Source pane, use the device selector to choose a source device, or enter the device's name (or IP address) in the Name field.
- Step 3** (Optional) Enter the Interface.
- Step 4** Click the **Add from Phone Report** button.
The IP Phones/Lines report opens.
- Step 5** On the IP Phones/Lines report, selected the check box next to the phones you want to add to the test. Click **Select**.
If you select a single phone that shares its extension with other phones in the personalized report, the generated report contains details about all the phones (including the selected phone).
- Step 6** In the Run area of the Create Phone Status Test page, do the following:
- Schedule when to run the test. Choose an interval time, start and stop times, and the days the test should run.
 - Enter a name for the test.
 - Choose whether to use ping from the Cisco Prime UOM server. By default, phone status testing pings a phone from both the Cisco Prime UOM server and the router. Select this check box to disable ping from the server.
- Step 7** Click **OK**.
One of the following is displayed:
- Informational messages for you to read and acknowledge.
 - Errors and recommended actions for you to take.
-

Adding a Phone Status Test—Using a Seed File

You can add one phone status test at a time by importing a file with a list of extensions to include in the test.

Before you Begin

- Verify that your seed file is formatted correctly. For details, see [Formatting an Import File for Phone Status Testing, page 11-5](#).
- Place the seed file on the server, in the `NMSROOT\ImportFiles` directory. If you do not have access to the directory, contact a local administrator for the server where Cisco Prime UOM is installed.

NMSROOT is the directory where Cisco Prime UOM is installed on your system. If you selected the default directory during installation, it can be entered as “C:\Program Files\CSCOPx” or C:\PROGRA~1\CSCOPx.

To add a phone status test, using a seed file:

-
- Step 1** Ensure the steps in [Before you Begin](#) are complete.
- Step 2** Select **Administration > Diagnostic Tests > Phone Status Tests** and click **Import**.
The Import Phone Status Test page appears.
- Step 3** Enter the name of the seed file.
- Step 4** In the Run area, do the following:
- Schedule when to run the test. Choose an interval time, start and stop times, and the days the test should run.
 - Enter a name for the test.
 - Choose whether to use ping from the Cisco Prime UOM server. By default, phone status testing pings a phone from both the Cisco Prime UOM server and the router. Select this check box to disable ping from the Cisco Prime UOM server.
- Step 5** Click **OK**.

Either of the following is displayed:

- Informational messages for you to read and acknowledge.
- Errors and recommended actions for you to take.

In some cases, you might need to correct an entry in the seed file. If so, correct the seed file, copy it to the seed file directory, and return to [Step 2](#).

Cisco Prime UOM does not add a phone status test until all errors are resolved.

Validation of the information in the seed file completes and Cisco Prime UOM starts to create tests on the IP SLA-enabled devices. If errors occur during test creation, an error message is displayed. Otherwise, the Phone Status Test Manager window is displayed, showing the newly added test.

Formatting an Import File for Phone Status Testing

A phone status testing import file should list all the phones that you need to create a single test. You can use a six-column or eight-column file format. The first six columns are the same for both file formats.

The information that you must provide for each phone is:

- Extension number
- IP address
- MAC address



Note

Soft phones will display the device name in the MAC address fields.

You must also provide the IP address and read and write community strings for the router closest to the Unified CM that the phone is registered to.

Handle phones with shared lines or multiple extensions as follows:

- Shared lines—Enter one or both phones; Cisco Prime UOM can run one test for each phone on a shared line.
- Multiple extensions—Even if you enter multiple extensions for a phone, Cisco Prime UOM runs only one test for the phone.

Each line of the seed file must contain:

- Six or eight columns. If a column is not used, you must enter a space.
- Colons separating the columns.

Table 11-1 shows the seed file format for testing the phone status

Table 11-1 Seed File Format for Phone Status Testing

Column Number	Description
1	Phone extension.
2	Phone MAC address.
3	Phone IP address.
4	IP SLA-enabled device (router, switch, or voice router).
5	Read community string for the IP SLA-enabled device.
6	Write community string for the IP SLA-enabled device.
7	SNMPv3 username (used in the eight-column format only)
8	SNMPv3 password (used in the eight-column format only)

Example 11-1 shows a sample six-column import file. Example 11-2 shows a sample eight-column import file.

Example 11-1 Phone Status Testing Six-Column Import File

```
[Extension]:[MAC Address]:[IPAddress]:[IPSLA Router]:[Read Community]:[Write community]
4000:200000000001:172.20.121.1:10.76.34.194:private:private
```

Example 11-2 Phone Status Testing Eight-Column Import File

```
2) [Extension]:[MAC Address]:[IPAddress]:[SAA Router]:[Read Community]:[Write community]:
[snmpv3UserName]:[snmpv3Passwd]
#4000:200000000001:172.20.121.1:10.76.34.194:![NOVALUE]!::![NOVALUE]!:admin:admin
```

Editing Phone Status Tests

You can change the source device, change phones, update the schedule, or enable or disable the Cisco Prime UOM ping for one or more phone status tests. See [Getting Started with Phone Status Testing, page 11-1](#) for information about the Cisco Prime UOM ping.

To edit the phone status tests:

-
- Step 1** Select **Administration > Diagnostic Tests > Phone Status Tests**.
- Step 2** Select one or more tests and click **Edit**.
The Phone Status Test Configuration page appears.
- Step 3** Change any of the following.

Field	Description
Source Router	Change the source device.
Selected Phones	Change the phones to monitor.
Select Test Interval	Select the number of minutes (between 1 and 10) from the start of one test to the start of the next test.
Test Time	Select a daily start and end time for tests.
Days of the Week	Select one or more days on which to run tests.
Do not use ping from Cisco Prime UOM server	Deselect this check box to enable phone reachability to ping phones from both the Cisco Prime UOM server and the router. Select this check box to disable the ping from the Cisco Prime UOM server.

- Step 4** Click **Finish**.
-

Deleting Phone Status Tests

You can delete one or more phone status tests. To do so:

-
- Step 1** Select **Administration > Diagnostic Tests > Phone Status Tests**.
- Step 2** Select one or more tests and click **Delete**.
A confirmation message is displayed.
- Step 3** Click **OK** to delete the tests.
-

Viewing Phone Status Test Details

To view the details of the phone tests:

-
- Step 1** Select **Administration > Diagnostic Tests > Phone Status Tests**.
- Step 2** Select a test and click **View**.

The Testing Details page appears.

The Testing Details page displays the test parameters and schedule and the extension numbers of the tested phones.
