



Using Phone Status Testing

The following topics describe phone status testing:

- [Getting Started with Phone Status Testing, page 8-1](#)
- [Using Phone Status Testing, page 8-3](#)

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 and, optionally, pings from IP Communications Operations Manager (Operations Manager) to the IP phones.

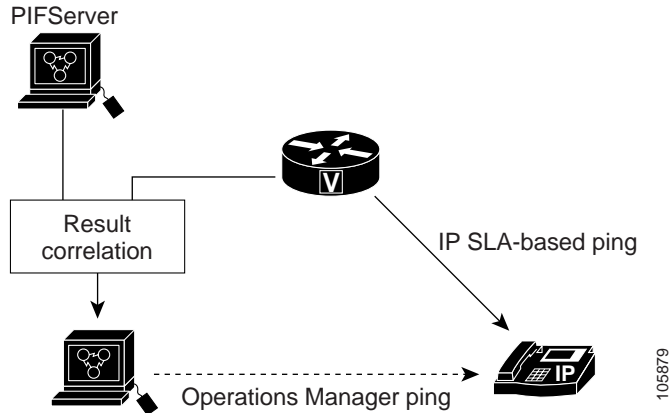


Note

If you ever need to uninstall Operations Manager, 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 8-7](#).

[Figure 8-1](#) illustrates a phone status test configured on an IP SLA-capable voice router, with Operations Manager ping enabled. Operations Manager configures an echo test on the IP SLA-capable device, provided that the device has enough memory provisioned to allow Operations Manager to do so. Phone status testing also, checks with the PIFServer (used for generating IP phone reports) to verify that the phone is registered.

Figure 8-1 A Phone Status Test



A phone is considered unreachable after there is no response to either an IP SLA-based ping, or an Operations Manager ping, and the phone status is unregistered in the PIFServer. Operations Manager generates the `PhoneReachabilityTestFailed` event. If the phone is not monitored by the PIFServer, then a phone is considered unreachable after there is no response to either an IP SLA-based ping, or an Operations Manager 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 8-4](#)), or by using a seed file (see [Adding a Phone Status Test—Using a Seed File, page 8-4](#)).

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 Operations Manager device inventory. However, when Operations Manager 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 Operations Manager, meaning it must be in Operations Manager 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, Operations Manager reconfigures the test when the router becomes available. While the router is down, the Operations Manager ping continues to run, if you have enabled Operations Manager ping.
- Q. What happens after I move a phone to a different Cisco CallManager?
- 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 Operations Manager (see [Table 8-1](#) 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 CallManager, 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 8-4](#)), or by using a seed file (see [Adding a Phone Status Test—Using a Seed File, page 8-4](#)).
- Configure phone status tests. You can update the schedule for one or more phone status tests and enable or disable the Operations Manager ping. See [Editing Phone Status Tests, page 8-6](#).
- Delete phone status tests. You can delete one or more phone status tests from Operations Manager and from the routers on which the tests run. See [Deleting Phone Status Tests, page 8-7](#).
- View phone status test details. You can view details for one or more phone status tests. See [Viewing Phone Status Test Details, page 8-7](#).

Step 1 Select **Diagnostics > Phone Status Tests**. The following information is displayed.

Field	Description
Test Name	Test name—Provide a name for the test when you add it to Operations Manager. See Adding a Phone Status Test—Using a Seed File, page 8-4 .
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.

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.

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- Step 1** Select **Diagnostics > Phone Status Tests** and click **Create**. The Create Phone Status Test page appears.
 - 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** Enter the Interface.
 - Step 4** In the Selected Phones pane, add phones from one of the following:
 - From Monitored List
 - From Phone Report
 - Step 5** 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 Operations Manager server. By default, phone status testing pings a phone from both the Operations Manager server and the router. Select this check box to disable ping from the Operations Manager server.
 - Step 6** Click **OK**. One of the following will be displayed:
 - Informational messages for you to read and acknowledge.
 - Errors and recommended actions for you to take.
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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 8-5](#).
- 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 Operations Manager is installed.



Note NMSROOT is the directory where Operations Manager is installed on your system. If you selected the default directory during installation, it is `C:\Program Files\CSCOpX`.

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- Step 1** Select **Diagnostics > Phone Status Tests** and click **Import**. The Import Phone Status Test page appears.
 - Step 2** Enter the name of the seed file.

- Step 3** 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 Operations Manager server. By default, phone status testing pings a phone from both the Operations Manager server and the router. Select this check box to disable ping from the Operations Manager server.
- Step 4** Click **OK**. One of the following will be displayed:
- Informational messages for you to read and acknowledge.
 - Errors and recommended actions for you to take.



Note 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 1](#).



Note Operations Manager does not add a phone status test until all errors are resolved.

Validation of the information in the seed file completes and Operations Manager 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.

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

Handle phones with shared lines or multiple extensions as follows:

- Shared lines—Enter one or both phones; Operations Manager can run one test for each phone on a shared line.
- Multiple extensions—No matter how many of the extensions for a phone that you enter, Operations Manager 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.
- A colon separating the columns.

Table 8-1 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 8-1](#) shows a sample six-column import file. [Example 8-2](#) shows a sample eight-column import file.

Example 8-1 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 8-2 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 Operations Manager ping for one or more phone status tests. See [Getting Started with Phone Status Testing, page 8-1](#) for information about the Operations Manager ping.

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- Step 1** Select **Diagnostics > 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.

Field	Description
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 Operations Manager server	Deselect this check box to enable phone reachability to ping phones from both the Operations Manager server and the router. Select this check box to disable the ping from the Operations Manager server.

Step 4 Click **Finish**.

Deleting Phone Status Tests

You can delete one or more phone status tests.

- Step 1 Select **Diagnostics > 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.
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Viewing Phone Status Test Details

- Step 1 Select **Diagnostics > Phone Status Tests**.
 - Step 2 Select a test and click **View**. The Testing Details page appears.
 - Step 3 The Testing Details page displays the test parameters and schedule and the extension numbers of the tested phones.
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