



Configuring Non-Cisco SIP Phones

Cisco Unified CallManager Release 5.0 supports Cisco SIP IP Phones as well as RFC3261-compliant SIP phones from third-party companies. This appendix describes how to configure the third-party SIP phones by using Cisco Unified CallManager Administration.

This appendix contains the following sections:

- [SIP Phone Configuration Differences, page C-1](#)
- [Third-Party SIP Phone Configuration Checklist, page C-3](#)
- [Where to Find More Information, page C-4](#)

SIP Phone Configuration Differences

[Table C-1](#) provides a comparison overview of the configuration differences between Cisco SIP IP Phones and third-party SIP phones.

Table C-1 ***SIP Phone Model Configuration Comparison***

SIP Phone	Integrated with Centralized TFTP	Sends MAC Address	Downloads Softkey File	Downloads Dial Plan File	Supports Cisco Unified CallManager Failover and Fallback	Supports Reset and Restart
Cisco SIP IP Phone model 7911, 7941, 7961, 7970, 7971	Yes	Yes	Yes	Yes	Yes	Yes
Cisco SIP IP Phone model 7940, 7960	Yes	Yes	No	Yes	Yes	Yes
Cisco SIP IP Phone model 7905, 7912	Yes	Yes	No	No	Yes	Yes
Third-party SIP Phone	No	No	No	No	No	No

When third-party SIP phones get configured, the Cisco Unified CallManager database gets updated when the administrator uses Cisco Unified CallManager Administration. The administrator must also perform configuration steps on the third-party SIP phone; see following examples:

- Proxy address in the phone should be the IP or Fully Qualified Domain Name (FQDN) of Cisco Unified CallManager
- Directory number(s) in the phone should match the directory number(s) that are configured for the device in Cisco Unified CallManager Administration
- Digest user ID (sometimes referred to as Authorization ID) in the phone should match the Digest User ID in Cisco Unified CallManager Administration

Consult the documentation that came with the third-party SIP phone for more information. See the [“Third-Party SIP Phone Configuration Checklist”](#) section on page C-3 for Cisco Unified CallManager Administration configuration steps.

How Cisco Unified CallManager Identifies a Third-Party Phone

Because third-party SIP phones do not send a MAC address, they must identify themselves by using digest authentication.

The REGISTER message includes the following header:

```
Authorization: Digest
username="swhite",realm="ccmsipline",nonce="GBauADss2qoWr6k9y3hGGVDAqnLfoLk5",uri
="sip:172.18.197.224",algorithm=MD5,response="126c0643a4923359ab59d4f53494552e"
```

The username, swhite, must match an end user that is configured in the End User Configuration window of Cisco Unified CallManager Administration (see [Adding an End User](#), page 87-3). The administrator configures the SIP third-party phone with the user; for example, swhite, in the Digest User field of Phone Configuration window (see [Configuring Cisco Unified IP Phones](#), page 70-2).



Note

You can assign each end user ID to only one third-party phone (in the Digest User field of the Phone Configuration window). If the same end user ID is assigned as the Digest User for multiple phones, the third-party phones to which they are assigned will not successfully register.

Third-Party SIP Phones and TFTP

Third-party SIP phones do not get configured by using the Cisco Unified CallManager TFTP server. The customer configures them by using the native phone configuration mechanism (usually a web page or tftp file). The customer must keep the device and line configuration in the Cisco Unified CallManager database synchronized with the native phone configuration (for example, extension 1002 on the phone and 1002 in Cisco Unified CallManager). Additionally, if the directory number of a line is changed, ensure that it is changed in both Cisco Unified CallManager Administration and in the native phone configuration mechanism.

Enabling Digest Authentication for Third-Party SIP Phones

To enable digest authentication for third-party SIP phones, the administrator must create a SIP Phone Security Profile. (See [SIP Phone Security Profile Configuration](#) in the *Cisco Unified CallManager Administration Guide*.) On the SIP Phone Security Profile Configuration window, check the Enable Digest Authentication check box. After the security profile is configured, the administrator must assign that security profile to the SIP phone by using the Phone Configuration window. If this check box is not

checked, Cisco Unified CallManager will use digest authentication for purposes of identifying the phone by the end user ID, and it will not verify the digest password. If the check box is checked, Cisco Unified CallManager will verify the password.

**Note**

Cisco Unified CallManager does not support Transport Layer Security (TLS) from third-party SIP phones.

Third-Party SIP Phone Configuration Checklist

Table C-2 provides steps to manually configure a third-party SIP phone by using Cisco Unified CallManager Administration.

Table C-2 *Third-Party SIP Phone Configuration Checklist*

Configuration Steps		Procedures and Related Topics
Step 1	Gather the following information about the phone: • MAC address • Physical location of the phone • Cisco Unified CallManager user to associate with the phone • Partition, calling search space, and location information, if used • Number of lines and associated DN's to assign to the phone	
Step 2	Configure the end user that will be the Digest User. Note If the third-party SIP phone does not support an authorization ID (digest user), create a user with a user ID that matches the DN of the third-party phone. For example, create an end user named 1000 and create a DN of 1000 for the phone. Assign this user to the phone (see Step 8).	Adding an End User, page 87-3
Step 3	Configure the SIP Profile or use the default profile. The SIP Profile gets added to the SIP phone by using the Phone Configuration window. Note Third-party SIP phones use only the SIP Profile Information section of the SIP Profile Configuration window.	Configuring SIP Profiles, page 79-2 Configuring Cisco Unified IP Phones, page 70-2
Step 4	Use one of the pre-defined Non-Secure SIP Profiles, the Standard SIP Profile for Autoregistration, or configure a SIP phone security profile. Enable digest authentication if required.	Enabling Digest Authentication for Third-Party SIP Phones, page C-2 SIP Phone Security Profile Configuration, Cisco Unified CallManager Administration Guide Cisco Unified CallManager Security Guide

Table C-2 *Third-Party SIP Phone Configuration Checklist (continued)*

Configuration Steps		Procedures and Related Topics
Step 5	Add and configure the third-party SIP phone by choosing Third-party SIP Device (Advanced) or (Basic) from the Add a New Phone Configuration window. Note Third-party SIP Device (Basic) supports one line and consumes three license units, and Third-party SIP Device (Advanced) supports up to eight lines and video, and consumes six license units.	Configuring Cisco Unified IP Phones, page 70-2
Step 6	Add and configure lines (DNs) on the phone.	Directory Number Configuration, page 49-1
Step 7	In the End User Configuration window, associate the third-party SIP phone with the user by using Device Association and choosing the SIP phone.	Associating Devices to an End User, page 87-10
Step 8	In the Digest User field of the Phone Configuration window, choose the end user that you created in Step 2 .	Phone Configuration Settings, page 70-6
Step 9	Provide power, install, verify network connectivity, and configure network settings for the third-party SIP phone.	Refer to the administration guide that was provided with your SIP phone.
Step 10	Make calls with the third-party SIP phone.	Refer to the user guide that came with your third-party SIP phone.

Where to Find More Information

- [Directory Number Configuration, page 49-1](#)
- [Cisco Unified IP Phone Configuration, page 70-1](#)
- [SIP Profile Configuration, page 79-1](#)
- [End User Configuration, page 87-1](#)
- [Cisco Unified IP Phones, Cisco Unified CallManager System Guide](#)