

Auto Register Cisco IP Communicator 8.6 with CUCM 8.x

Document ID: 113589

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Introduction

Cisco Unified Communications Solutions unify voice, video, data, and mobile applications on fixed and mobile networks. This enables easy collaboration every time from any workspace. Cisco IP Communicator brings your phone to your PC. This allows you to make calls with your corporate phone number no matter where you are working.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on these software and hardware versions:

- Cisco IP Communicator 8.6
- Cisco Unified Communications Manager (CUCM) 8.x

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

CIPC

Cisco IP Communicator is a Microsoft® Windows-based soft-phone application that brings your work telephone to your personal computer. It is easy to deploy, and includes some of the latest technology and

advancements available for IP communications. This advantage boosts business collaboration and responsiveness, and helps organizations keep pace with the current mobile business environment.



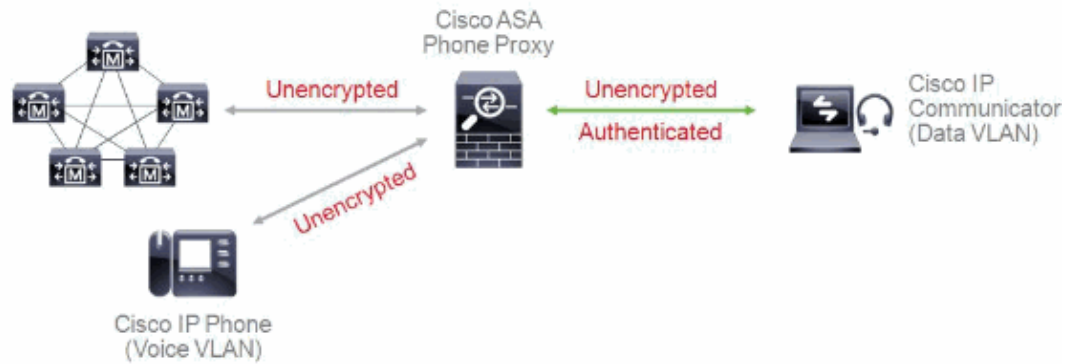
Features and Benefits

Cisco IP Communicator is intuitively designed and easy to use, and it delivers convenient access to a broad range of features:

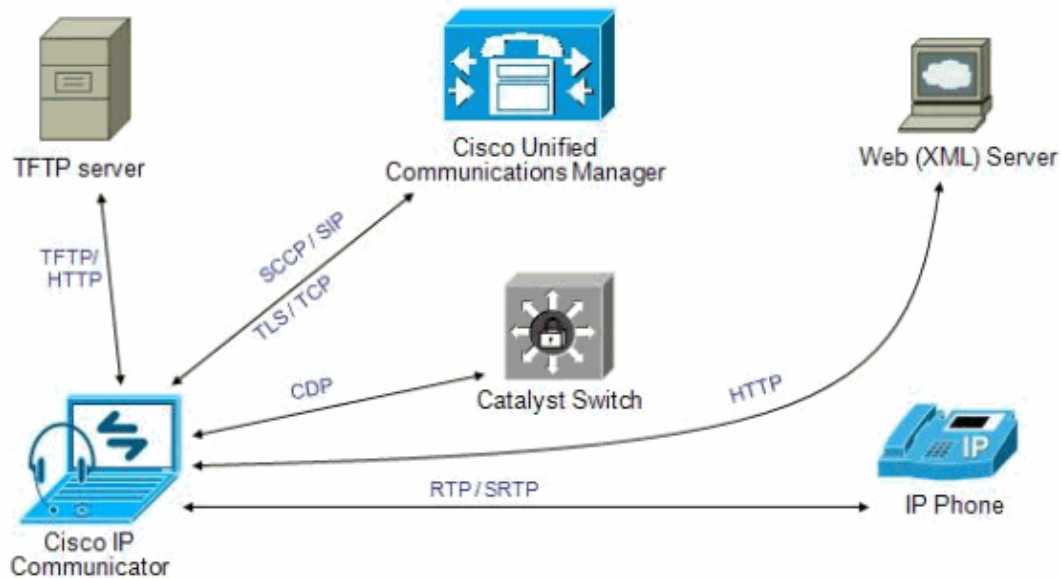
- Eight line keys: These keys provide telephone lines and direct access to telephony features.
- Five soft keys: These keys dynamically give you call-feature options.
- Messages: This key gives you direct access to your voicemail messages.
- Directories: Cisco IP Communicator identifies incoming calls and messages, and categorizes them on the screen. This allows you to return calls quickly and effectively using direct dial-back capability. The corporate directory integrates with the Lightweight Directory Access Protocol Version 3 (LDAPv3) standard directory.
- Settings: This key allows you to select from a large number of ringer sounds and background images.
- Services: Cisco IP Communicator allows you to quickly access diverse information such as weather, stocks, quote of the day, or any other web-based information. The phone uses XML to provide a portal to an ever-growing world of features and information.
- Help: The online Help feature gives you information about the phone keys, buttons, and features.

Secure VLAN Traversal

ASA intercepts and authenticates Cisco IP Communicator traffic before it reaches Communications Manager by forcing all soft client media to proxy via the ASA appliance. This ensures a single, secure point of entry to the voice VLAN.



High-Level Components and Protocols

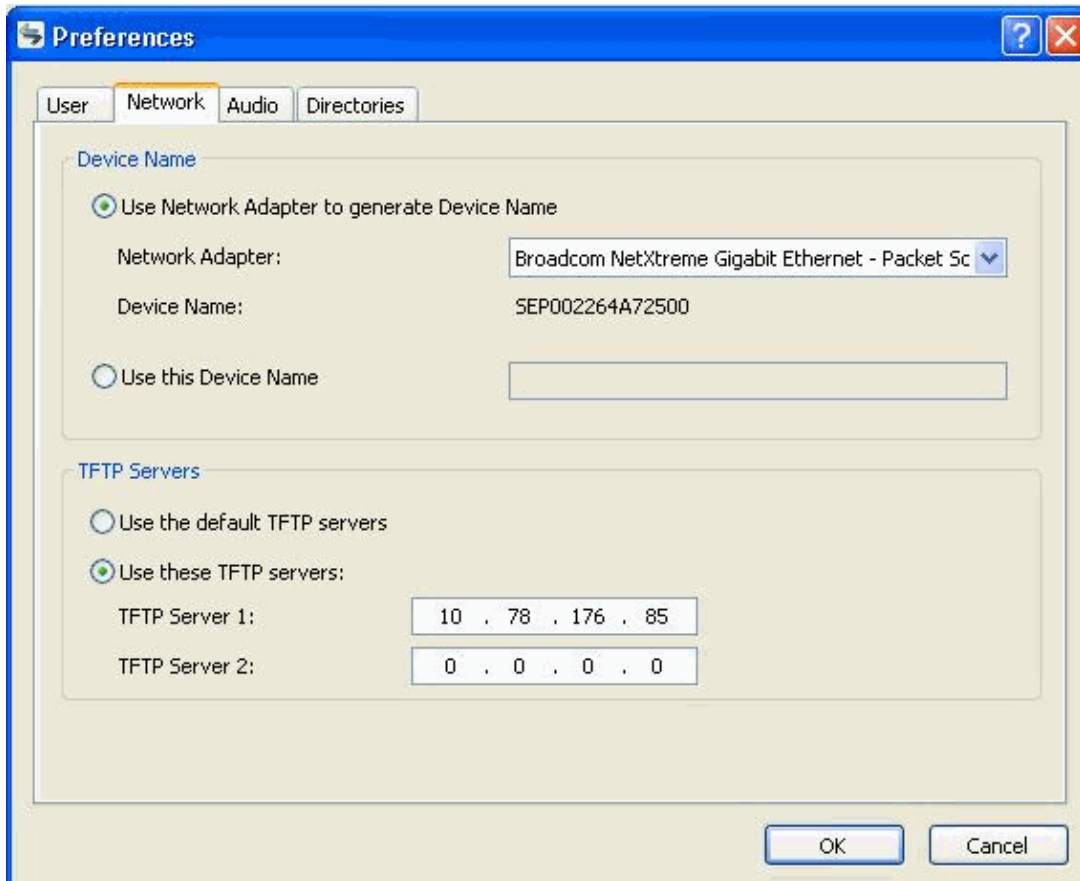


Cisco IP Communicator supports the same call control and application protocols as the 7970s. At startup, the Cisco IP Communicator interacts with the network as follows:

1. Locate the configuration server: After startup, Cisco IP Communicator always attempts to use DHCP to locate its TFTP server. Similar to other phones, Cisco IP Communicator can use TFTP to retrieve files from the server. It can also use HTTP to retrieve software updates, thereby accelerating file transfer for remote users.



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2. Request the CTL file (if security is configured): The TFTP server stores the CTL file, which contains a list of Cisco Unified CallManagers and TFTP servers that Cisco IP Communicator is authorized to connect to. It also contains the certificates necessary for establishing a secure connection between Cisco IP Communicator and Cisco Unified CallManager. The security **CTLFile.tlv** file is downloaded to the **Program Files > Cisco Systems > Cisco IP Communicator > AppData > sec folder**.
3. Request configuration files: Configuration files (.cnf.xml) reside on the TFTP server and define parameters for connecting to Cisco Unified CallManager. In general, any time you make a change in

Cisco Unified CallManager that requires a device to be reset, a change is made to the configuration file for that device. If you have enabled auto-registration in Cisco Unified CallManager, Cisco IP Communicator accesses a default configuration file (xmldefault.cnf.xml) from the TFTP server. Otherwise, Cisco IP Communicator accesses a .cnf.xml file corresponding to its device name.

4. Update software: If you use AutoUpdate, the .cnf.xml file contains the information that tells Cisco IP Communicator which software version it should run. If this software version differs from the one currently in use, Cisco IP Communicator contacts the TFTP server to request the new software file. In order to make this request, Cisco IP Communicator first tries to use HTTP. If you have not enabled HTTP access, Cisco IP Communicator uses TFTP.
5. Contact Cisco Unified CallManager: After obtaining the configuration file from the TFTP server, Cisco IP Communicator attempts to make a connection to the highest priority Cisco Unified CallManager on the list. If security is implemented, Cisco IP Communicator makes a TLS connection. Otherwise, it makes a non-secure TCP connection. If the device was added to the database individually (through Cisco Unified CallManager Administration or in bulk through the Bulk Administration Tool (BAT), Cisco Unified CallManager identifies the device. This is only true if you are not using BAT with the Tool for Auto-Registered Phones Support (TAPS). Otherwise, the device attempts to register itself in the Cisco Unified CallManager database (when auto-registration is enabled in Cisco Unified CallManager).

Note: Auto-registration is disabled when security is enabled on CUCM. In this case, you must manually add Cisco IP Communicator to the Cisco Unified CallManager database.



Related Information

- [Install and Configure IP Communicator with CallManager](#)
- [Release Notes for Cisco IP Communicator Release 8.6](#)
- [Voice Technology Support](#)
- [Voice and Unified Communications Product Support](#)
- [Troubleshooting Cisco IP Telephony](#)
- [Technical Support & Documentation – Cisco Systems](#)

