Security Troubleshooting Overview

Remote Access

Remote access provides you with the ability to establish Terminal Services (remote port 3389), HTTP (remote port 80), and Telnet (remote port 23) sessions to all the necessary equipment.

Caution When you are setting up dial-in, do not use **login:cisco** or **password:cisco** because they constitute a vulnerability to the system.

You may resolve many issues very quickly by allowing the TAC engineer remote access to the devices through one of the following methods:

- Equipment with public IP address.
- Dial-in access—In decreasing order of preference: analog modem, Integrated Services Digital Network (ISDN) modem, virtual private network (VPN).
- Network Address Translation (NAT)—IOS and private Internet exchange (PIX) to allow access to equipment with private IP addresses.

Ensure that firewalls do not obstruct IOS traffic and PIX traffic during engineer intervention and that all necessary services, such as Terminal Services, start on the servers.

Note TAC handles all access information with the utmost discretion, and no changes will get made to the system without customer consent.

Cisco Secure Telnet

Cisco Secure Telnet offers Cisco Service Engineers (CSE) transparent firewall access to Unified Communications Manager servers on your site.

Cisco Secure Telnet works by enabling a Telnet client inside the Cisco Systems firewall to connect to a Telnet daemon behind your firewall. This secure connection allows remote monitoring and maintenance of your Unified Communications Manager servers without requiring firewall modifications.

Note Cisco accesses your network only with your permission. You must provide a network administrator at your site to help initiate the process.

Firewall Protection

Virtually all internal networks use firewall applications to restrict outside access to internal host systems. These applications protect your network by restricting IP connections between the network and the public Internet.

Firewalls work by automatically blocking TCP/IP connections that are initiated from the outside, unless the software is reconfigured to allow such access.

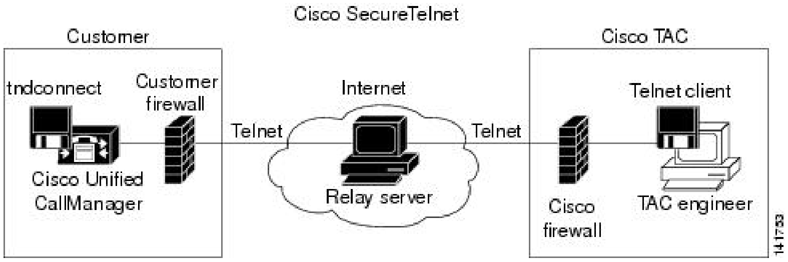
Corporate networks normally permit communication with the public Internet but only if connections directed to outside hosts originate from inside the firewall.

Cisco Secure Telnet Design

Cisco Secure Telnet takes advantage of the fact that Telnet connections can easily be initiated from behind a firewall. Using an external proxy machine, the system relays TCP/IP communications from behind your firewall to a host behind another firewall at the *Cisco Technical Assistance Center* (TAC).

Using this relay server maintains the integrity of both firewalls while secure communication between the shielded remote systems get supported.

Figure 1: Cisco Secure Telnet System



Cisco Secure Telnet Structure

The external relay server establishes the connection between your network and Cisco Systems by building a Telnet tunnel. This enables you to transmit the IP address and password identifier of your Unified Communications Manager server to your CSE.

Note The password comprises a text string upon which your administrator and the CSE mutually agree.

Your administrator starts the process by initiating the Telnet tunnel, which establishes a TCP connection from inside your firewall out to the relay server on the public Internet. The Telnet tunnel then establishes another connection to your local Telnet server, creating a two-way link between the entities.

Note The Telnet client at the Cisco TAC runs in compliance with systems that run on Windows NT and Windows 2000 or with UNIX operating systems.

After the Cisco Communications Manager at your site accepts the password, the Telnet client that is running at the Cisco TAC connects to the Telnet daemon that is running behind your firewall. The resulting transparent connection allows the same access as if the machine were being used locally.

After the Telnet connection is stable, the CSE can implement all remote serviceability functionality to perform maintenance, diagnostic, and troubleshooting tasks on your Unified Communications Manager server.

You can view the commands that the CSE sends and the responses that your Unified Communications Manager server issues, but the commands and responses may not always be completely formatted.

Set up a Remote Account

Configure a remote account in the Unified Communications Manager so that Cisco support can temporarily gain access to your system for troubleshooting purposes.

Procedure

Step 1 From Cisco Unified Operating System Administration, choose **Services** > **Remote Support**.

Step 2 In the **Account Name** field, enter a name for the remote account.

Step 3 In the **Account Duration** field, enter the account duration in days.

Step 4 Click **Save**.
The system generates an encrypted pass phrase.

Step 5 Contact Cisco support to provide them with the remote support account name and pass phrase.