IP Phones are Unable to Download the IP Phone Load from TFTP

Document ID: 70570

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Introduction

After a Cisco CallManager upgrade, some IP phones do not download the new IP phone load from TFTP and do not register with the Cisco CallManager. This document discusses and provides a resolution for this issue.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco CallManager Administration
- Cisco IP Phone Registration Process

Components Used

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

- Cisco CallManager 3.x and later
- Cisco 7900 IP phones

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.

Problem

After a Cisco CallManager upgrade, some of the IP phones do not boot up completely. They are stuck in various states of the boot process that include "Configuring CM List" and "Upgrading Software". The IP phones also do not register with the Cisco CallManager and display the `.cnf.xml files cannot be`

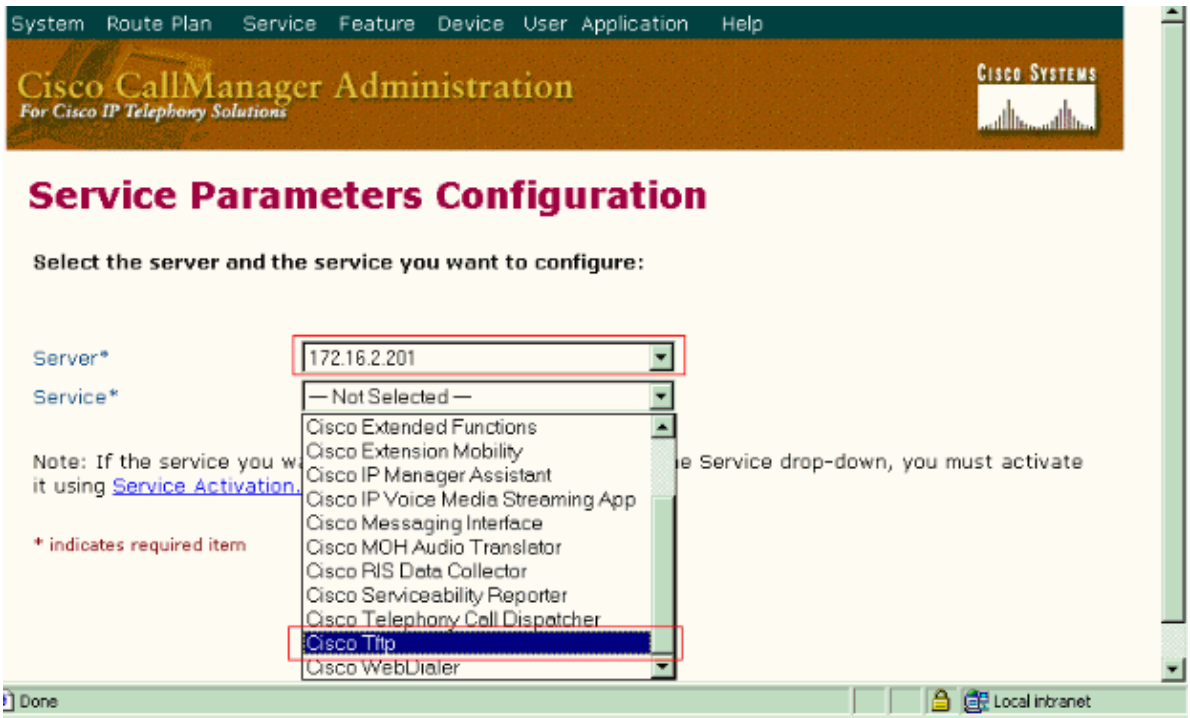
`located` error message.

Solution

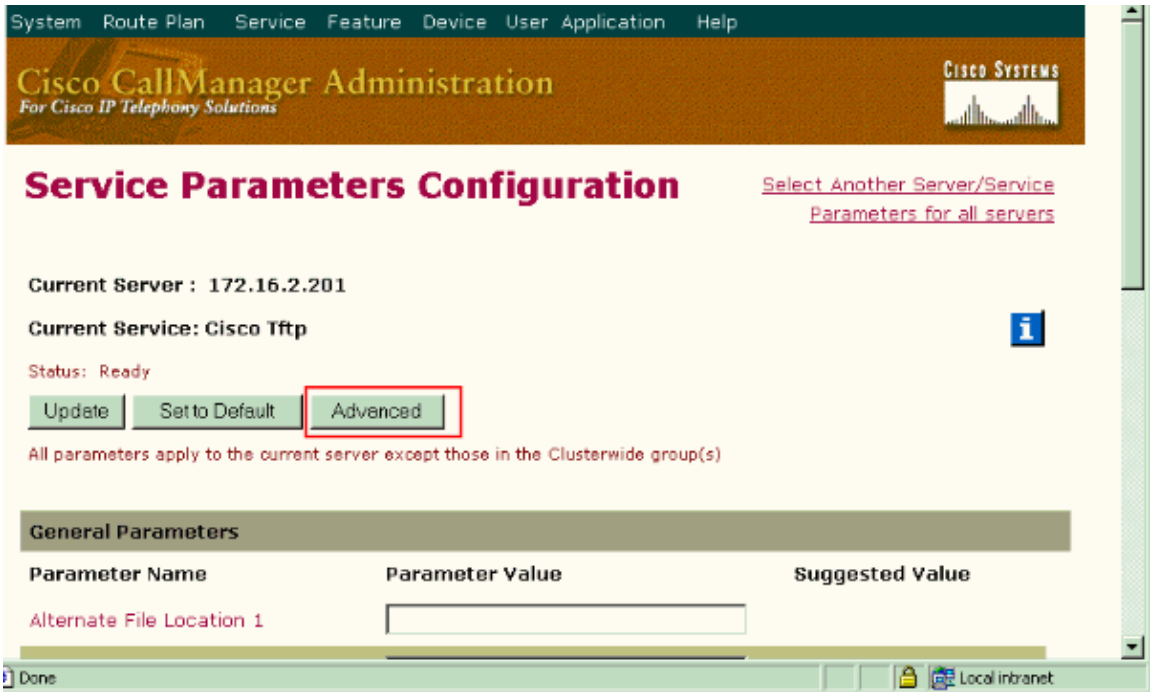
Complete these steps to resolve this problem:

1. Open the Cisco CallManager Administration page.
2. Select **Service** > **Service Parameters**.

3. Select the CallManager server and choose **Cisco Tftp** for the service.



4. Click **Advanced**.



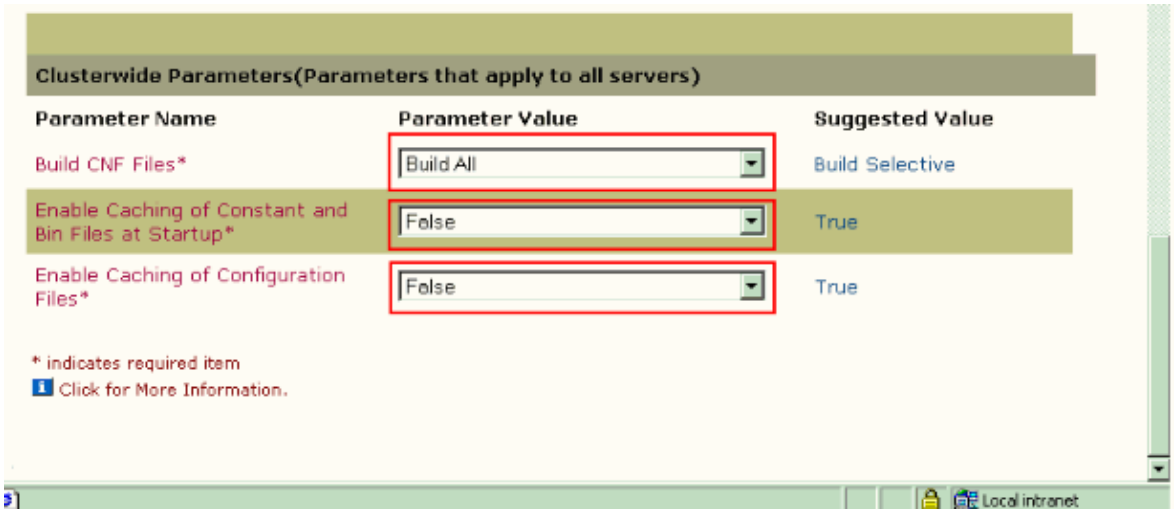
5. Set these parameters under Clusterwide Parameters (parameters that apply to all servers):

    a. Set the value for Build CNF Files* to **Build All**.

    Note: When you set the Build CNF Files service parameter to **Build All**, the TFTP server builds both .cnf.xml and .cnf format configuration files for all devices. When you set this service parameter to **Build None**, the TFTP server builds only .cnf.xml files for all devices. When this parameter is set to **Build Selective**, which is the default value, the TFTP server builds .cnf.xml files for all devices. It also builds .cnf files only for a select list of devices that do not support .cnf.xml.

    b. Set the Enable Caching of Constant and Bin Files at Startup parameter to **False**.

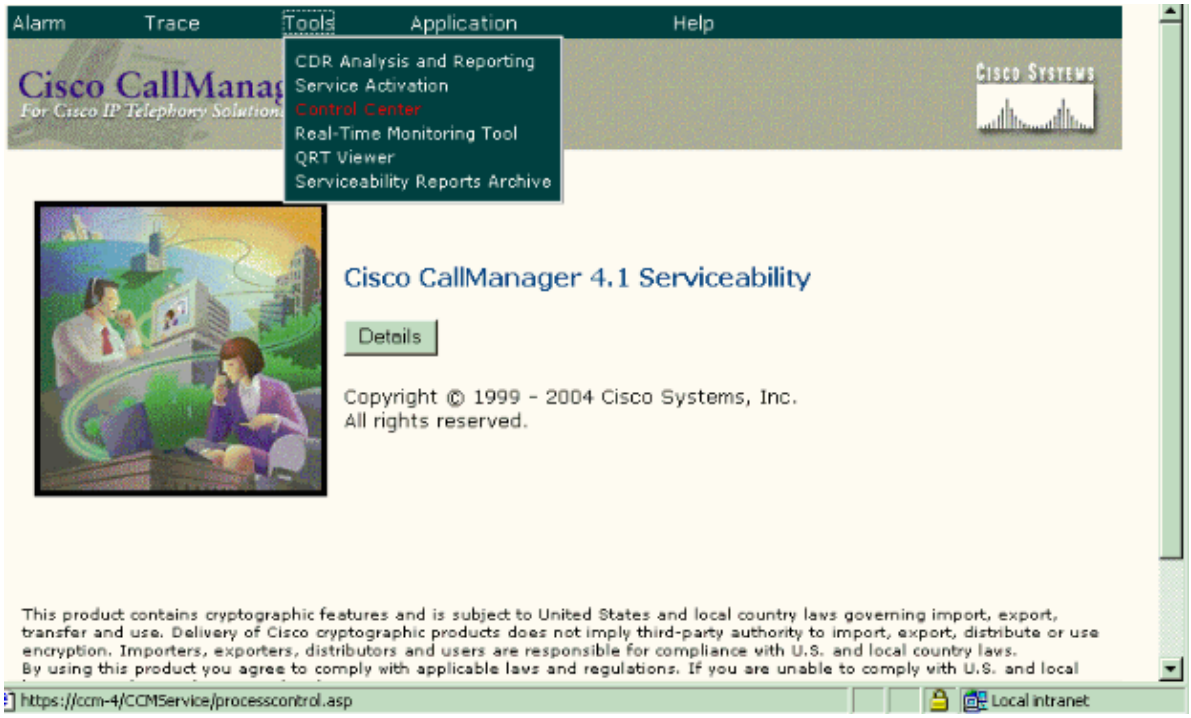
    c. Set the Enable Caching of Configuration Files parameter to **False**.



Note: By default, Enable Caching of Configuration Files is set to **True**. When this parameter is set to **True**, all the CNF and XML files are built and kept only in memory. When this parameter is set to **False**, TFTP writes all the CNF and XML files to the disk under the TFTP path **C:\Program Files\Cisco\TFTPPath**. It can take a long time to write these files to the disk if a large number of devices exist in the network. Therefore, set the Enable Caching of Configuration Files parameter to **False** to reduce the performance of the TFTP server.

6. Restart the Cisco TFTP service. Complete these steps:

   a. Select **Application** > **Cisco CallManager Serviceability** > **Tools** > **Control Center**.



   b. Click on the Cisco CallManager server, choose **Cisco TFTP** and click **Restart**.

   Note: You are now able to see the configuration files for the devices in **C:\Program Files\Cisco\TFTPPath**.

7. Restart the affected Cisco IP phones.
8. Set the values of the Enable Caching of Constant and Bin Files at Startup parameter and the Enable Caching of Configuration Files parameter back to **True**.

   Note: There are several problems that can cause a Cisco IP phone not to register. Refer to Troubleshooting Cisco IP Phone (7910, 7940, 7960, 12 SP, and 30 VIP) Registration Problems with

Cisco CallManager 3.x and 4.0 for more information on those problems.

Related Information

- **Cisco TFTP**
- **IP Phone 7940/7960 Fails to Boot − Protocol Application Invalid**
- **Voice Technology Support**
- **Voice and IP Communications Product Support**
- **Troubleshooting Cisco IP Telephony**
- **Technical Support & Documentation − Cisco Systems**

Updated: Oct 10, 2006 Document ID: 70570