



## Configuring Cisco TFTP

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Cisco Trivial File Transfer Protocol (TFTP) is a Windows NT service that builds and serves files consistent with the TFTP protocol. TFTP is a simplified version of the FTP protocol. Cisco TFTP serves embedded component executable, runner files, and configuration (.cnf) files.

A configuration file is a list of Cisco CallManagers to which devices (telephones and gateways) make connections. When a device boots, the component queries a Dynamic Host Configuration Protocol (DHCP) server for its network configuration information. The DHCP server responds with an IP address for the device, a subnet mask, a default gateway, a Domain Name System (DNS) server address, and a TFTP server name or address.

The device requests a .cnf file from the TFTP server. The .cnf file contains a list of Cisco CallManagers and the TCP port through which the device connects to those Cisco CallManagers.

If the Cisco CallManager's name is received, the device resolves the name using DNS and a Cisco CallManager connection is opened. If neither an IP address or name is received, the default server name is used.

For more detailed TFTP information, refer to the following sections:

- Understanding DHCP and TFTP, page 7-2
- Understanding How Devices Identify the TFTP Server, page 7-4

Use the following procedures to insert and delete TFTP service from a server, configure and delete Command Line Parameters, and to configure and delete TFTP Trace Parameters:

- Inserting Cisco TFTP Service on a Server, page 31-2
- Deleting Cisco TFTP Service From a Server, page 31-4
- Configuring Cisco TFTP Command Line Parameters, page 31-5
- Deleting Cisco TFTP Command Line Parameters, page 31-7
- Configuring Cisco TFTP Trace Parameters, page 31-9



**Note** Under normal circumstances, default values are preferable.

## Inserting Cisco TFTP Service on a Server

This section describes how to insert Cisco TFTP service on a server.



**Note** Service(s) are automatically inserted during the installation process.

### Before You Begin

The following prerequisite must be met before proceeding with the steps. See the “Server” section on page 11-1.

- Servers must be configured

### Procedure

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- Step 1** Open Cisco CallManager Administration.
- Step 2** Click **Service > Cisco TFTP**.
- Step 3** Select a server on which to insert Cisco TFTP service from the drop-down list box and click **Insert**. (Servers listed on the left side of the page have already been configured with TFTP service.) The page refreshes, showing the server you selected.

- Step 4** Select either Command Line Parameters or Trace, then click **Insert**.  
You are now ready to configure either Command Line Parameters or Trace.

**Tips**

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Click **New** if you want to insert Cisco TFTP on another server. This takes you back to the first Cisco TFTP Configuration page.

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**Note**

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You only need to configure Cisco TFTP service on one server in a network, unless you want to share TFTP load.

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**Related Topics**

- [Configuring Cisco TFTP, page 31-1](#)
- [Understanding DHCP and TFTP, page 7-2](#)
- [Understanding How Devices Identify the TFTP Server, page 7-4](#)
- [Configuring Cisco CallManager Groups, page 13-1](#)
- [Deleting Cisco TFTP Service From a Server, page 31-4](#)
- [Configuring Cisco TFTP Command Line Parameters, page 31-5](#)
- [Deleting Cisco TFTP Command Line Parameters, page 31-7](#)
- [Configuring Cisco TFTP Trace Parameters, page 31-9](#)
- [Adding a Cisco CallManager Group, page 13-2](#)

# Deleting Cisco TFTP Service From a Server

This section describes how to delete Cisco TFTP service from a server.

## Before You Begin

The following prerequisite must be met before proceeding with the steps. See the “Server” section on page 11-1.

- Servers must be configured
- Cisco TFTP service must be configured

## Procedure

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- Step 1** Open Cisco CallManager Administration.
- Step 2** Click **Service > Cisco TFTP**.
- Step 3** Select the server from which you want to delete Cisco TFTP service from the list of servers on the left side of the page. (Servers listed on the left side of the page have already been configured with Cisco TFTP service.) The page refreshes showing the information for the server you selected.
- Step 4** Click **Delete Service**. A message displays stating that you are about to permanently delete this service, and that the action can not be undone.
- Step 5** If you wish to continue this deletion, Click **OK**, otherwise click **Cancel**.
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## Related Topics

- Configuring Cisco TFTP, page 31-1
- Understanding DHCP and TFTP, page 7-2
- Understanding How Devices Identify the TFTP Server, page 7-4
- Configuring Cisco CallManager Groups, page 13-1
- Inserting Cisco TFTP Service on a Server, page 31-2
- Configuring Cisco TFTP Command Line Parameters, page 31-5
- Deleting Cisco TFTP Command Line Parameters, page 31-7

- Configuring Cisco TFTP Trace Parameters, page 31-9
- Adding a Cisco CallManager Group, page 13-2

## Configuring Cisco TFTP Command Line Parameters

This section describes how to configure Cisco TFTP command line parameters.

### Before You Begin

The following prerequisite must be met before proceeding with the steps. See the “Server” section on page 11-1.

- Servers must be configured
- Cisco TFTP service must be configured
- Before configuring any Cisco TFTP service parameters, read the “Understanding Service Parameters” section on page 10-1. Refer to the “Cisco TFTP Service Parameters” section on page 10-13 for service parameters specific to Cisco TFTP.

### Procedure

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- Step 1** Open Cisco CallManager Administration.
  - Step 2** Click **Service > Cisco TFTP**.
  - Step 3** Select the server on which you want to configure command line parameters from either the drop-down list box, or the list of servers on the left side of the page.



**Note** The list of servers on the left side of the page are already configured with TFTP service. If you choose a server from the drop-down list box, you must first add Cisco TFTP service to the server before configuring any command line parameters.

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The page refreshes.

- Step 4** Click **Command Line Parameters** if it is not already selected.

**Caution**

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Some changes to service parameters may cause system failure. We recommend you do not make any changes to service parameters unless you fully understand the feature that you are changing, or unless the changes are specified by the Cisco Technical Assistance Center (TAC). Refer to the “Understanding Service Parameters” section on page 10-1 for more information. You will probably never need to add parameters unless directed by the Cisco TAC.

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**Step 5** Enter the name of the parameter you want to configure on this server in the Param field.

**Step 6** Enter the type of the parameter in the Type field, or choose a type from the drop-down list box.

**Note**

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The drop-down list box contains parameter types that have already been configured.

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**Step 7** Enter a value for the parameter in the Value field.

**Step 8** Click **Update**. The page refreshes and your new service parameter appears in the Configured Service Parameters list at the bottom of the page.

**Step 9** Repeat Steps 1 through 8 to add additional service parameters.

**Note**

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If you would rather use the Cisco CallManager default service parameters, click **Default**. A message displays stating that you are about to permanently delete any previous settings and replace them with the default settings. Click **OK** if you wish to continue, or **Cancel** to keep the current settings.

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**Related Topics**

- Configuring Cisco TFTP, page 31-1
- Understanding DHCP and TFTP, page 7-2
- Understanding How Devices Identify the TFTP Server, page 7-4

- Configuring Cisco CallManager Groups, page 13-1
- Inserting Cisco TFTP Service on a Server, page 31-2
- Deleting Cisco TFTP Service From a Server, page 31-4
- Deleting Cisco TFTP Command Line Parameters, page 31-7
- Configuring Cisco TFTP Trace Parameters, page 31-9
- Adding a Cisco CallManager Group, page 13-2

## Deleting Cisco TFTP Command Line Parameters

This section describes how to delete Cisco TFTP command line parameters.

### Before You Begin

The following prerequisite must be met before proceeding with the steps. See the “Server” section on page 11-1.

- Servers must be configured
- Cisco TFTP service must be configured
- Command line parameters must be configured
- Before deleting any Cisco TFTP service parameters, read the “Understanding Service Parameters” section on page 10-1. Refer to the “Cisco TFTP Service Parameters” section on page 10-13 for service parameters specific to Cisco TFTP.



### Caution

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You will never need to delete parameters unless directed by the Cisco Technical Assistance Center (TAC).

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### Procedure

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- Step 1** Open Cisco CallManager Administration.
  - Step 2** Click **Service > Cisco TFTP**.
  - Step 3** Select the server from which you want to delete command line parameters from the list of servers on the left side of the page.

- Step 4** Click **Insert**. The page refreshes.
- Step 5** Click **Command Line Parameters** if it is not already selected.
- Step 6** Highlight the service parameter you want to delete from the list of configured service parameters at the bottom of the page.
- Step 7** Click **Delete**. A message displays stating that you are about to permanently delete this parameter, and that this action cannot be undone.
- Step 8** Click **OK** if you wish to delete the parameter, or **Cancel** to cancel the deletion. The parameter you deleted should no longer appear in the list of configured service parameters.
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### Related Topics

- Configuring Cisco TFTP, page 31-1
- Understanding DHCP and TFTP, page 7-2
- Understanding How Devices Identify the TFTP Server, page 7-4
- Inserting Cisco TFTP Service on a Server, page 31-2
- Deleting Cisco TFTP Service From a Server, page 31-4
- Configuring Cisco TFTP Command Line Parameters, page 31-5
- Configuring Cisco TFTP Trace Parameters, page 31-9
- Adding a Cisco CallManager Group, page 13-2

# Configuring Cisco TFTP Trace Parameters

This section describes how to configure Cisco TFTP trace parameters. For more detailed trace information refer to the “Configuring Trace” section on page 36-1.

## Before You Begin

The following prerequisite must be met before proceeding with the steps. See the “Server” section on page 11-1.

- Servers must be configured
- Cisco TFTP service must be configured
- Read the “Configuring Trace” section on page 36-1 before configuring trace parameters. This section provides detailed descriptions of trace levels and settings.



### Caution

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We recommend that you configure all trace parameters from the Trace configuration pages. You can access **Trace** via the **Service** menu in the Cisco CallManager Administration application. If you want to delete the trace, you can either click the **Delete** button, or deselect **Trace On**. However, Cisco does not recommend deleting any parameters without the assistance of the Cisco Technical Assistance Center (TAC).

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## Procedure

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- Step 1** Open Cisco CallManager Administration.
- Step 2** Click **Service > Cisco TFTP**.
- Step 3** Select the server on which you want to configure trace parameters from either the drop-down list box, or the list of servers on the left side of the page. The page refreshes.
- Step 4** Click **Trace**.
- Step 5** Select **Trace On** to enable trace. If Trace On is not selected, it is disabled and you will not be able to modify any trace properties.

- Step 6** Check each **User Mask** check box you want enabled. The user mask automatically appears in the Mask field. Click the **Show Time** check box if you want a time associated with the trace.
- Step 7** Select the level of trace you want from the **Level** drop-down list box. Click the **Show Date** check box if you want a date associated with the trace level.
- Step 8** Select the type of trace event alarms you want from the **Event** drop-down list box.



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**Note** The level of trace event you want is determined by what you select from the drop-down list box. For instance, DEBUG is used for lab purposes and traces every event on the system, while CRITICAL only traces critical alarms.

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- Step 9** Check the box of each trace component you want enabled.
- Step 10** When you have completed your trace parameter selections, click **Update**.



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**Note** If you'd rather use the default settings, click **SetDefault**.

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### Related Topics

- Configuring Cisco TFTP, page 31-1
- Understanding DHCP and TFTP, page 7-2
- Understanding How Devices Identify the TFTP Server, page 7-4
- Inserting Cisco TFTP Service on a Server, page 31-2
- Deleting Cisco TFTP Service From a Server, page 31-4
- Configuring Cisco TFTP Command Line Parameters, page 31-5
- Deleting Cisco TFTP Command Line Parameters, page 31-7
- Adding a Cisco CallManager Group, page 13-2