



# CHAPTER 7

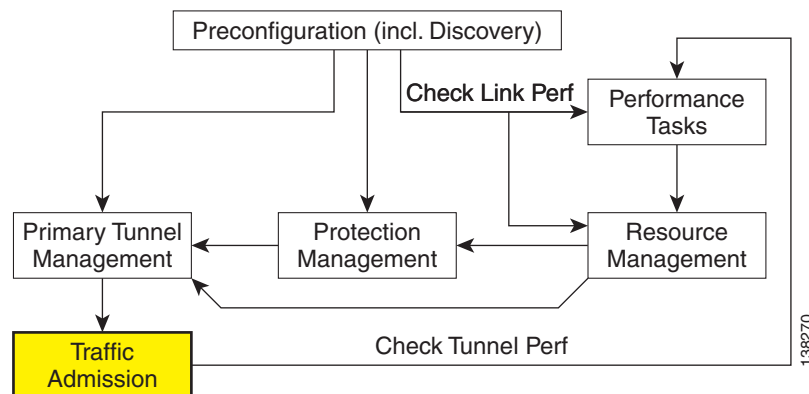
## Traffic Admission

Traffic admission is the first step towards enabling services on TE tunnels. There are a number of mechanisms that can be used for forwarding traffic into a tunnel to provide basic IP connectivity. The current implementation of Cisco IP Solution Center Traffic Management (TEM) uses both static routing and autoroute announce to inform the routing protocol of the tunnel's presence. Autoroute announce can be also used as part of the routing protocol calculations.

The TE Traffic Admission tool is used to assign traffic to traffic-engineered tunnels.

The highlighted box in [Figure 7-1](#) shows where in TEM traffic admission occurs.

**Figure 7-1** TEM Process Diagram - Traffic Admission



This chapter includes the following sections:

- [Overview, page 7-2](#)
- [Creating a TE Traffic Admission SR, page 7-2](#)
- [Deploying a TE Traffic Admission SR, page 7-5](#)
- [Other Traffic Admission SR Operations, page 7-6](#)
- [Viewing the SR State, page 7-6.](#)

# Overview

Static routing is perhaps the simplest way of forwarding traffic into a tunnel. Traffic that matches a target destination prefix is routed into a particular tunnel.

While this achieves the basic goal of directing traffic into a given tunnel, this approach has limitations. First, the offering of differentiated Class-of-Service (CoS) treatment is limited to destination-based CoS. As each source PE serves as an aggregation point for a number of traffic flows, there is no way to restrict which traffic receives preferential treatment to a destination because access to a tunnel is through general routing. Secondly, it does not generally provide a scalable solution because the static routing mechanism must capture both the large number of subnets that can be served by each PE router, and it must be able to further capture CoS treatment for each of these subnets.

Static routing works best if there is no need to provide differentiated CoS treatment by destination. That is, all packets destined for one or more particular prefixes all receive the same CoS.

## Creating a TE Traffic Admission SR

The TE traffic admission tool in Cisco ISC TEM only displays primary tunnels (managed or unmanaged) when they are associated with a TE provider and the tunnels are not already associated with a TE Admission SR. That is, the tool is only intended for admitting new traffic onto tunnels currently not carrying any traffic.

To create a TE Traffic Admission SR, use the following steps:

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- Step 1** Choose **Service Inventory > Inventory and Connection Manager > Traffic Engineering Management**.
  - Step 2** Click **TE Traffic Admission**.

The TE Traffic Admission Tunnel Selection window in [Figure 7-2](#) appears.



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**Note** If this window does not open, either no tunnels are associated with a TE provider or any tunnels associated with a TE provider are already tied to a TE Admission SR.

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Figure 7-2 TE Traffic Admission Tunnel Selection

**TE Traffic Admission Tunnel Selection**

TE Provider Provider2

Show Tunnels with  matching

Showing 1 - 5 of 20 records

#	Tunnel ID	T#	Head	Dest	Op	Type	Policy	Deploy Status
1.	<input checked="" type="radio"/> ISC-P1	2	isctmp11	isctmp10	ADD	Managed	ISC-P1-isctmp11:tunnel-te2	DEPLOYED
2.	<input type="radio"/> ISC-P122	1003	isctmp11	isctmp12	ADD	Managed	ISC-P122-isctmp11:tunnel-te1003	DEPLOYED
3.	<input type="radio"/> ISC-P149	1006	isctmp11	isctmp10	ADD	UnManaged	te_policy1	DEPLOYED
4.	<input type="radio"/> ISC-P151	1007	isctmp11	isctmp10	ADD	UnManaged	te_policy1	DEPLOYED
5.	<input type="radio"/> ISC-P4	2	isctmp10	isctmp1	ADD	Managed	ISC-P1-isctmp11:tunnel-te2	DEPLOYED

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For an explanation of the various window elements, see [Select TE Tunnel for Admission, page B-63](#).

The TE Traffic Admission Tunnel Selection window lists all primary tunnels, both managed and unmanaged, that are not already associated with an admission SR.

The **Deploy Status** can be **Pending**, **Deployed**, or **Functional**.

**Note**

Backup tunnels are not displayed in the TE Traffic Admission Tunnel Selection window.

**Step 3** Select a TE tunnel by clicking the corresponding radio button and clicking **Select**.

The TE Traffic Admission SR window in [Figure 7-3](#) appears.

Figure 7-3 TE Traffic Admission SR

For an explanation of the various fields and buttons, see [TE Traffic Admission, page B-63](#).



**Note** If TE Traffic Admission SR attributes such as PBTS attributes are changed outside ISC and a TE discovery task is run, the discovery task logs will not report a discrepancy warning and the ISC repository will be updated with the new configuration from the device.

**Step 4** When filling out the form, if **Autoroute Announce** is set to **On**, indicate whether **Autoroute Metric** should be **Absolute** or **Relative**.

**Step 5** You can also set an optional autoroute metric.

For the relative metric, the range is -10 to 10, for the absolute metric, the range is 1 to 2147483647.



**Note** CBTS is supported in IOS and PBTS is supported in IOS XR. If the tunnel head router is running IOS XR, the **EXP** fields will not be present and are replaced with the **PBTS** fields.

When clicking the **Add** button, the Add TE Static Route window appears.

**Step 6** In the Add TE Static Route window, specify at a minimum a **Destination** IP address (w.x.y.z/n).

Optionally specify an administrative **Distance**. It is recommended that you either define one or more static routes or, alternatively, that you define an autoroute.

**Step 7** Click **OK** to accept the entries or **Cancel** to exit the window.

In the main TE Traffic Admission SR window, you can add another TE Static Route or edit existing routes.

**Step 8** Click **Save** to save the service request.

The Service Requests window in [Figure 7-4](#) appears with the TE Traffic Admission SR in **REQUESTED** state and the Operation Type set to **ADD**.

The service request states and the interaction between them are described in [Service Request States](#), page C-9.

To deploy the service request from the Service Requests window, see [Deploying a TE Traffic Admission SR](#), page 7-5.

## Deploying a TE Traffic Admission SR

As opposed to the TE Primary Tunnel SR, Backup Tunnel SR, and TE Resource Modification windows, a TE Admission SR must be deployed from the general Service Requests window.

To deploy a TE Admission SR, use the following steps:

- Step 1** Choose **Service Inventory > Inventory and Connection Manager > Service Requests**.
- Step 2** The Service Requests window in [Figure 7-4](#) appears.

**Figure 7-4** Service Requests

#	Job ID	Data Files	State	Type	Operation Type	Creator	Customer Name	Policy Name	Last Modified	Description
41.	41		DEPLOYED	TE Admission	ADD	admin			9/3/08 5:30 PM	isctmp9:1015 - TE Admission SR
42.	42		DEPLOYED	TE Admission	ADD	admin			9/3/08 5:30 PM	isctmp9:1016 - TE Admission SR
43.	45		REQUESTED	TE Admission	ADD	admin			10/8/08 3:55 PM	isctmp1:77 - TE Admission SR

Showing 41 - 43 of 43 records

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Auto Refresh:  Create Details Status Edit Deploy Decommission Purge

The Service Requests window contains the following elements:

- **Job ID**—Job ID for the SR.
- **Data Files**—This field is used for variable substitutions via templates and currently do not apply to TEM SRs.
- **State**—Indicates whether the tunnel state is DEPLOYED or NOT DEPLOYED and whether it is Conformed or Not Conformed.
- **Type**—The type of service request, indicating which service issued the request. For a detailed description of the possible service types, see the [Cisco IP Solution Center Infrastructure Reference, 5.1](#).
- **Operation Type**—SR operation on the tunnel, can be either **ADD**, **MODIFY**, **DELETE**, or **ADMIT**. Applicable only to tunnels in the current SR.

- **Creator**—ID for the user who created the SR.
- **Customer Name**—Name of the customer to which the SR applies.
- **Policy Name**—Name of the policy associated with the SR.
- **Last Modified**—Date and time when the SR was last modified.
- **Description**—SR description provided by the user.

**Step 3** Select the desired service request and click **Deploy**.

A drop-down menu appears under the **Deploy** button. In the drop-down menu, select **Deploy** or **Force Deploy**. After having been successfully deployed, the **State** of the SR changes to **Deployed**.

The Service Requests window (**Service Inventory > Inventory and Connection Manager > Service Requests**) appears and displays the state of the deployed SR.

For more information on working with service requests, see [Appendix C, “Managing Service Requests.”](#)

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## Other Traffic Admission SR Operations

As opposed to other service requests, TE Traffic Admission SRs can be decommissioned in the Service Requests window.

Edit and decommission operations for TE Traffic Admission service requests are handled in the Service Requests window. These operations are described in [Appendix C, “Managing Service Requests.”](#)

## Viewing the SR State

To view a service request state, go to the Service Requests window under **Inventory and Connection Manager**.

If the SR does not enter the **Deployed** state, go to the **Task Logs** window to see the deployment log (**Monitoring > Task Manager > Logs**) as described in [SR Deployment Logs, page 9-1](#).