



## CHAPTER

# 9

# Administration

A number of administrative features in Cisco IP Solution Center Traffic Engineering Management (ISC TEM) are common to ISC. Instructions on how to use these features are described in detail in *Cisco IP Solution Center Infrastructure Reference, 4.1*.

In this chapter, only TE-specific administrative features are described.

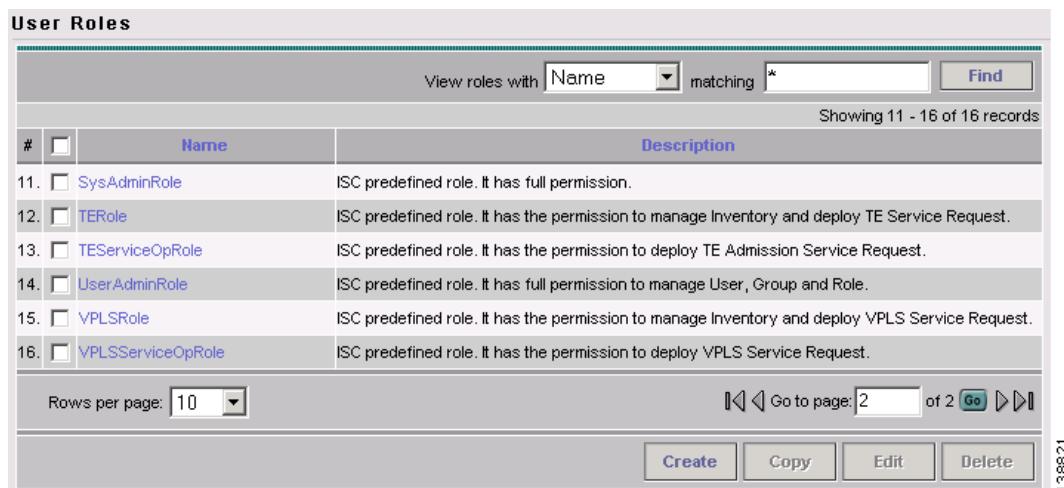
This chapter includes the following sections:

- [TE User Roles, page 9-1](#)
- [TE Policies, page 9-2](#)
  - [Create Policy, page 9-2](#)
  - [Edit Policy, page 9-4](#)
  - [Delete Policy, page 9-5](#)
- [TE Tasks, page 9-5](#)
  - [Creating a TE Task, page 9-6](#)
    - [Creating a TE Functional Audit Task, page 9-6](#)
    - [Creating a TE Interface Performance Task, page 9-11](#)
- [SR History and Configlets, page 9-17](#)
- [Manage Lock, page 9-17.](#)

## TE User Roles

A TE user role can be a predefined or a user-specified role defining a set of permissions. For a detailed description of user roles in ISC and how to use them, see the *Cisco IP Solution Center Infrastructure Reference, 4.1*.

To access the User Roles window and locate the TE user roles, navigate **Administration > Security > User Roles**. The User Roles window in [Figure 9-1](#) appears.

**Figure 9-1 User Roles**


The screenshot shows a table titled "User Roles" with the following data:

| #   | Name              | Description   |
|-----|-------------------|---|
| 11. | SysAdminRole      | ISC predefined role. It has full permission.  |
| 12. | TERole            | ISC predefined role. It has the permission to manage Inventory and deploy TE Service Request.   |
| 13. | TEServiceOpRole   | ISC predefined role. It has the permission to deploy TE Admission Service Request.              |
| 14. | UserAdminRole     | ISC predefined role. It has full permission to manage User, Group and Role.                     |
| 15. | VPLSRole          | ISC predefined role. It has the permission to manage Inventory and deploy VPLS Service Request. |
| 16. | VPLSServiceOpRole | ISC predefined role. It has the permission to deploy VPLS Service Request.                      |

Buttons at the bottom include: Create, Copy, Edit, Delete, and a "Rows per page" dropdown set to 10. A status bar on the right says "138821".

For a description of the various window elements, see *Cisco IP Solution Center Infrastructure Reference*, 4.1.

There are two pre-defined TEM user roles:

- **TERole**—Grants full permission to TEM operations.
- **TEServiceOpRole**—Grants permission only to manage the TE Admission SR.

## TE Policies

Policies are used to define common tunnel attributes. Attributes such as bandwidth pools, hold and setup priority, and affinity bits, are set manually during policy creation as described below.

This section describes the following policy operations:

- [Create Policy, page 9-2](#)
- [Edit Policy, page 9-4](#)
- [Delete Policy, page 9-5](#)

## Create Policy

ISC TEM allows you to create TE-specific policies in a manner similar to other ISC policies.

To create a TE policy, you must access the Policy Manager. Use the following steps:

---

**Step 1** Navigate Service Design > Policy Manager.

**Step 2** Click the Policy Manager icon.

The Policies window in [Figure 9-2](#) appears.

Figure 9-2 Policies Window

The screenshot shows the Cisco IP Solution Center Policies window. The top navigation bar includes links for Home, Shortcuts, Account, Index, Help, About, and Logout, along with a user account section for 'User: admin' and 'Customer: None'. Below the navigation is a breadcrumb trail: You Are Here: Service Design > Policies. The main area is titled 'Policies' and contains a table listing 20 records. The columns are '#', 'Policy Name', 'Type', and 'Owner'. The table rows show various policy types: TE, L2VPN, MPLS, and VPLS. Some rows have specific labels like 'MPLS Policy', 'L2VPN (P2P) Policy', 'VPLS Policy', and 'QoS Policy'. At the bottom of the table, there are buttons for 'Create', 'Edit', 'Copy', and 'Delete', along with pagination controls showing page 2 of 2.

**Step 3** Click **Create** and select **TE Policy** to set up a new TE policy.

The TE Policy Editor window in [Figure 9-3](#) appears.

Figure 9-3 TE Policy Editor

The screenshot shows the TE Policy Editor window. It contains a form with the following fields:

- Policy Name \*: A text input field with a note '(1 - 64 characters)'.
- Owner \*: A dropdown menu set to 'Global'.
- Managed: A checkbox that is unchecked.
- Pool Type: Radio buttons for 'Sub Pool (BC1)' and 'Global Pool (BC0)', with 'Global Pool (BC0)' selected.
- Setup Priority \*: An input field containing the value '1'.
- Hold Priority \*: An input field containing the value '1'.
- Affinity (0x0-0xFFFFFFFF): An input field.
- Affinity Mask (0x0-0xFFFFFFFF): An input field.
- FRR Protection Level: Radio buttons for 'None' and 'Best Effort', with 'None' selected.

At the bottom right are 'Save' and 'Cancel' buttons. A note at the bottom left states 'Note: \* - Required Field'. The ID '138822' is visible on the right side of the window.

The TE Policy Editor window contains the following fields:

- **Policy Name**—Name of the TE policy chosen by the user.

- **Owner**—The owner of the TE policy:
    - **Global**—A global policy.
    - **Provider**—A provider policy.
    - **Customer**—A customer policy.
  - **Managed**—Check this box to make the policy to be used by managed tunnels. When clicked, both the setup and hold priorities are set to zero and these are not editable. If the box is unchecked, the setup/hold priorities can be set to a value between 1 and 7.
- Clicking the **Managed** check box will add some extra fields in the TE Policy Editor corresponding to two additional protection levels for **FRR Protection Level** (Fast Re-Route) and a new field, **Delay Constraint**.
- **Pool Type**—Tunnel bandwidth pool type for this policy. For a definition of pool types, see [Bandwidth Pools, page 1-5](#).
    - **Sub Pool (BC1)**—Bandwidth will be reserved from Sub Pool.
    - **Global Pool (BC0)**—Bandwidth will be reserved from Global Pool.
  - **Setup Priority**—Priority used when signaling an LSP for the tunnel to determine, which of the existing tunnels can be preempted. Valid values are from 0 to 7, where a lower number indicates a higher priority. Therefore, an LSP with a setup priority of 0 can preempt any LSP with a non-0 hold priority.
  - **Hold Priority**—Priority associated with an LSP for the tunnel to determine if it should be preempted by other LSPs that are being signaled. Valid values are from 0 to 7, where a lower number indicates a higher priority.
  - **Affinity**—Attribute values required for links carrying the tunnel (bit values are either 0 or 1).
  - **Affinity Mask**—Which attribute values should be checked. If a bit in the mask is 0, a link's attribute value of that bit is irrelevant. If a bit in the mask is 1, the link's attribute value and the tunnel's required affinity for that bit must match.
  - **FRR Protection Level**—Level of Fast Reroute protection required on the primary tunnel.
    - **None**—No backup tunnel needed.
    - **Best Effort**—Use backup tunnel if available.

Two actions are available:

- **Save**—Save the TE policy with the current data.
- **Cancel**—Quit the TE Policy Editor and discard any changes.

## Edit Policy

A policy can be edited only if it is not associated with a tunnel.

To edit a TE policy, use the following steps:

- 
- Step 1** Navigate **Service Design > Policy Manager**.
  - Step 2** Click the **Policy Manager** icon.

The Policies window in [Figure 9-2](#) appears.

- Step 3** Select the desired policy and click **Edit**.

The TE Policy Editor window in [Figure 9-3](#) appears. The TE Policy Editor window in [Figure 9-3](#) appears. The policy editor is described in [Create Policy, page 9-2](#). The only difference between the create and edit processes is that the policy name and owner are not editable when editing a policy.

- Step 4** Make the desired changes to the policy attributes and click **Save**. If the save operation succeeds, the new TE policy now appears in the Policies window. If not, the **Status** box will indicate the type of error that occurred and, when possible, the corrective action required.

## Delete Policy

A policy can be deleted only if it is not associated with a tunnel.

To delete a TE policy, use the following steps:

- Step 1** Navigate **Service Design > Policy Manager**.

- Step 2** Click the **Policy Manager** icon.

The Policies window in [Figure 9-2](#) appears.

- Step 3** Select the desired policy and click **Delete**. The Confirm Delete window in [Figure 9-4](#) appears

**Figure 9-4 Policies - Confirm Delete**



- Step 4** Check the policy marked for deletion and click **OK**.

- Step 5** The Policies window refreshes and the selected policy disappears.

## TE Tasks

ISC TEM currently offers three TE-specific tasks that are used in a manner similar to other ISC tasks:

- **TE Discovery**—Populates the repository with data from the TE network. Discrepancies are reconciled and/or reported.
- **TE Functional Audit**—Performs functional audit on TE Primary or Backup SRs in certain states.
- **TE Interface Performance**—Calculates the interface/tunnel bandwidth utilization.

This section focuses on describing how to create TE Functional Audit and TE Interface Performance tasks. Instructions on how to create a TE Discovery task are included in [Chapter 3, “TE Network Discovery”](#).

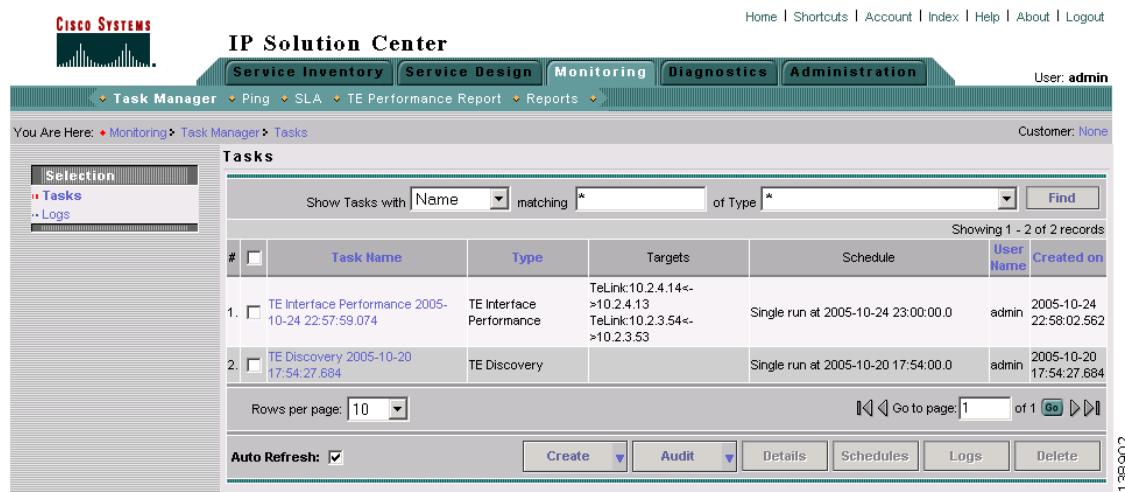
## Creating a TE Task

TE tasks are managed in the **ISC Task Manager**, which is accessed as follows:

**Step 1** Navigate **Monitoring > Task Manager**.

The Tasks window in [Figure 9-5](#) appears.

**Figure 9-5 Tasks Window**



For a detailed description of the window elements in the Tasks window, see *Cisco IP Solution Center Infrastructure Reference, 4.1*.

This page shows all collection and deployment tasks that have been executed. Note that a task could be scheduled to happen once or there could be several scheduled runs of a task. The schedule can be viewed by selecting a task and clicking **Schedules**.

## Creating a TE Functional Audit Task

For each tunnel in the SR, the TE Functional Audit task checks the LSP currently used on a router against the LSP stored in the repository:

- tunnel down—Ignore (do not check)
- tunnel up—Check the LSP used on the router against the one stored in the repository:
  - If they are the same, the tunnel and the SR are both set to **Functional**.
  - If they are different, both the tunnel and the SR are set to **Broken**.
- tunnel missing from router—SR left untouched. The tunnel state is set to **Lost**.

This task only performs functional audit on TE Primary or Backup SRs, which are not in one of the following states:

- **Closed**
- **Requested**
- **Invalid**
- **Failed Deploy**

For a detailed explanation of the various states, see *Cisco IP Solution Center Infrastructure Reference*, 4.1.

To create a TE Functional Audit task, use the following steps:

**Step 1** Navigate **Monitoring > Task Manager**.

**Step 2** Click **Audit > TE Functional Audit** to open the Create Task window in [Figure 9-6](#).

**Figure 9-6** Create a TE Functional Audit Task

The screenshot shows the 'Create Task' window with the following details:

|              |   |
|--------------|---|
| Name *       | TE Functional Audit 2005-11-08 23:03:20.012 |
| Type:        | TE Functional Audit                         |
| Description: | Created on 2005-11-08 23:03:20.012          |

Note: \* - Required Field

Step 1 of 2 -

Buttons at the bottom: < Back, Next >, Finish, Cancel

Reference ID: 138844

For a detailed description of the window elements in the Create Task window, see *Cisco IP Solution Center Infrastructure Reference*, 4.1.

**Step 3** Modify the **Name** or **Description** fields as desired and click **Next**.

The Task Service Requests window in [Figure 9-7](#) appears.

**Figure 9-7** Task Service Requests

The screenshot shows a software interface titled "Task Service Requests". At the top, there is a search bar with fields for "Job ID" (containing "\*"), "matching", "of Type" (set to "All"), and a "Find" button. Below the search bar, it says "Showing 0 of 0 records". There is a table with columns: #, Job ID, State, Type, Customer Name, and VPN Name. A dropdown for "Rows per page" is set to 10. Navigation buttons include "Go to page" (page 1 of 1), "Add", and "Delete". At the bottom, there is a progress bar labeled "- Step 1 of 3 -" and buttons for "< Back", "Next >", "Finish", and "Cancel". The identifier "122682" is visible on the right.

**Step 4** Click **Add** to add a task service request. The Select Service Request(s) window in [Figure 9-8](#) appears.

**Figure 9-8** Select Service Request(s)

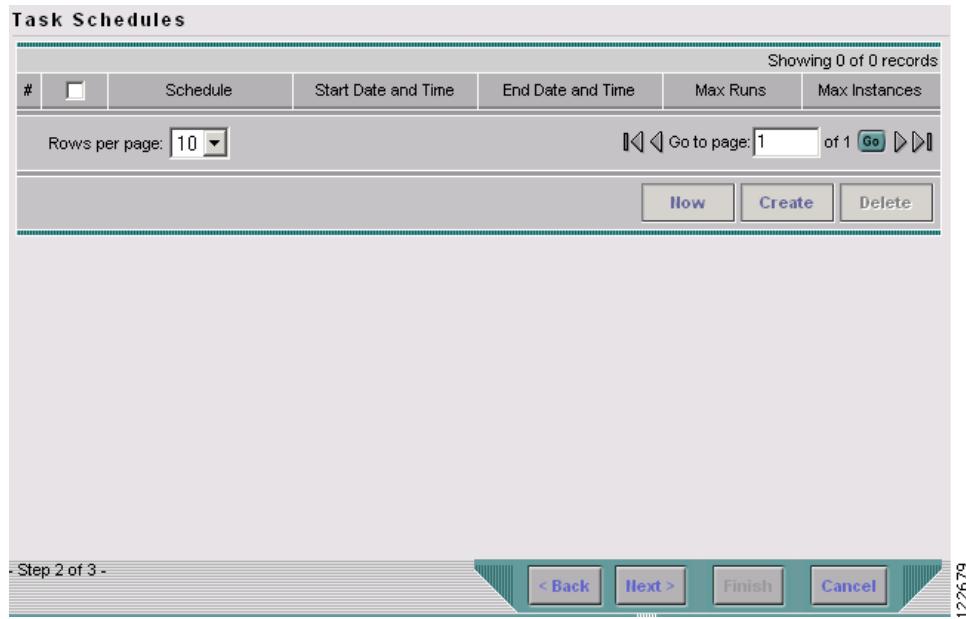
The screenshot shows a software interface titled "Select Service Request(s)". At the top, there is a search bar with fields for "Job ID" (containing "\*"), "matching", "of Type" (set to "All"), and a "Find" button. Below the search bar, it says "Showing 1 - 10 of 16 records". There is a table with columns: #, Job ID, State, Type, Operation Type, Creator, Customer Name, and Policy Name. The rows list 10 service requests, each with a checkbox in the first column:

| #   | Job ID | State     | Type          | Operation Type | Creator | Customer Name | Policy Name     |
|-----|--------|-----------|---------------|----------------|---------|---------------|-----------------|
| 1.  | 1      | REQUESTED | MPLS          | ADD            | admin   | Customer1     | MPLSPolicy_PECE |
| 2.  | 2      | REQUESTED | MPLS          | ADD            | admin   | Customer1     | MPLSPolicyNO_CE |
| 3.  | 3      | REQUESTED | L2VPN         | ADD            | admin   | Customer1     | L2VpnPolicy1    |
| 4.  | 4      | REQUESTED | QoS           | ADD            | admin   | Customer1     | 3550-DSGP       |
| 5.  | 5      | REQUESTED | L2VPN         | ADD            | admin   | Customer1     | L2VpnPolicy2    |
| 6.  | 6      | REQUESTED | VPLS          | ADD            | admin   | Customer2     | VPLSPolicy1     |
| 7.  | 7      | REQUESTED | VPLS          | ADD            | admin   | Customer2     | VPLSPolicy2     |
| 8.  | 8      | DEPLOYED  | TE Tunnel     | MODIFY         | admin   |               |                 |
| 9.  | 9      | DEPLOYED  | TE Protection | MODIFY         | admin   |               |                 |
| 10. | 10     | DEPLOYED  | TE Admission  | ADD            | admin   |               |                 |

Below the table, there is a dropdown for "Rows per page" (set to 10), navigation buttons ("Go to page" 1 of 2), and buttons for "Select" and "Cancel". The identifier "138845" is visible on the right.

**Step 5** Select an SR using the **Select** button. Only SRs of type TE Tunnel or TE Protection will be accepted. The Selected Service Request(s) window closes and the selected task(s) now appears in the Task Service Requests window. To add other SRs, repeat the procedure in [Step 4](#) and [Step 5](#).

**Step 6** In the Task Service Requests window, click **Next**. The Task Schedules window in [Figure 9-9](#) appears.

**Figure 9-9** Task Schedules

- Step 7** Click **Now** to start the task immediately or **Create** to create a task schedule. When selecting **Now**, a line is added to the **Task Schedules** window. When selecting **Create**, the Task Schedule window in [Figure 9-10](#) appears.

**Figure 9-10** Task Schedule

The screenshot shows the "Task Schedule" configuration dialog. It has several sections: "Single run:" with radio buttons for "Now" (selected) and "Once"; "Periodic Run:" with radio buttons for "Minute", "Hourly", "Daily", "Weekly", and "Monthly"; "Run Interval:" and "Run Limits:" fields; "Start Date and Time" fields for date (November 8, 2005) and time (11:44 PM); and "End Date and Time (Default is unlimited)" fields for month/day/year and hour/min/am. At the bottom are "OK" and "Cancel" buttons.

- Step 8** In the Task Schedule window, indicate when and how often to run the task.

- Step 9** Click **OK**. The scheduled task should now appear in the **Task Schedules** table.



**Note** The default setting is to schedule a single TE Functional Audit task to take place immediately ("Now").

**Step 10** Click **Next**. The Task Schedule window now shows the new task in its list of created tasks as shown in [Figure 9-11](#).

**Figure 9-11** *Task Schedule with Scheduling Data*

| Task Schedules  |  |                       |                   |           |               |                           |
|---|--|-----------------------|-------------------|-----------|---------------|---------------------------|
| #   | Schedule   | Start Date and Time   | End Date and Time | Max Runs  | Max Instances | Showing 1 - 1 of 1 record |
| 1.  | <input type="checkbox"/> Single run at 2005-11-08 23:44:00.0 | 2005-11-08 23:44:00.0 | not applicable    | unlimited | unlimited     |                           |
| <input type="button" value="Rows per page: 10"/> <input type="button" value="Go to page: 1 of 1"/> <input type="button" value="Go"/>  |  |                       |                   |           |               |                           |
| <input type="button" value="Now"/> <input type="button" value="Create"/> <input type="button" value="Delete"/>  |  |                       |                   |           |               |                           |
| - Step 2 of 3 - <input type="button" value="&lt; Back"/> <input type="button" value="Next &gt;"/> <input type="button" value="Finish"/> <input type="button" value="Cancel"/> |  |                       |                   |           |               |                           |
| 138790  |  |                       |                   |           |               |                           |

**Step 11** A summary of the scheduled task appears as shown in [Figure 9-12](#).

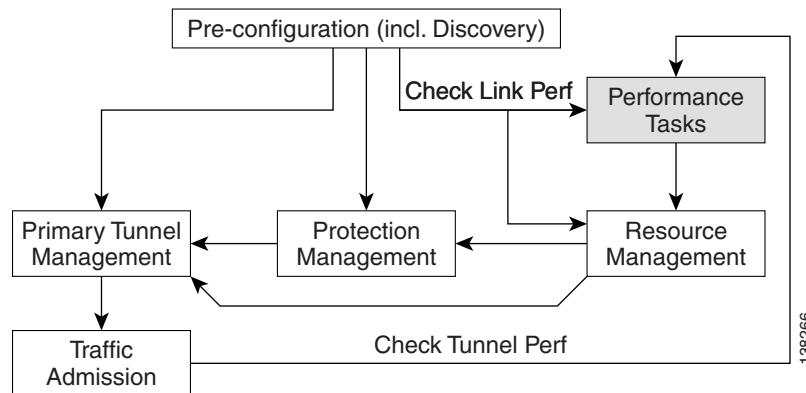
**Figure 9-12** *TE Functional Audit Task Summary*

| TE Func Audit Task Summary  |   |
|---|---|
| Name  | TE Functional Audit 2005-11-08 23:37:55.956 |
| Description   | Created on 2005-11-08 23:37:55.956          |
| Service Job IDs   | 8   |
| Schedules   | Single run at 2005-11-08 23:44:00.0         |
| - Step 3 of 3 - <input type="button" value="&lt; Back"/> <input type="button" value="Next &gt;"/> <input type="button" value="Finish"/> <input type="button" value="Cancel"/> |   |
| 138791  |   |

**Step 12** Click **Finish**. This adds the task to the list of created tasks in the Tasks window (Figure 9-5).

To view the task logs for the created tasks, see [Viewing a Task Log, page 10-2](#).

## Creating a TE Interface Performance Task



This task calculates interface/tunnel bandwidth utilization using the Simple Network Management Protocol (SNMP).

Calculating utilization depends on how data is presented for the object you want to measure. Interface utilization is the primary measure used for network utilization. Because MIB-II variables are stored as counters, you must take two poll cycles and figure the difference between the two (hence, the delta used in the equation).

Three variables are required:

- task duration—how long the task will run (in secs)
- frequency—how frequent the data will be collected (in secs)
- interval—the distance between two poll cycles (in ms).

The following explains the variables used in the formulas:

- delta(traffic in)—the delta between two poll cycles of collecting the SNMP input object, which represents the number of inbound units of traffic.
- delta(traffic out)—the delta between two poll cycles of collecting the SNMP output object, which represents the number of outbound units of traffic
- bandwidth—the speed of the interface..

A more accurate method is to measure the input utilization and output utilization separately, using the following formula:

$$\text{delta(traffic in)} \times 8 \times 100$$

$$\text{Input utilization} = \frac{\text{delta(traffic in)} \times 8 \times 100}{(\text{number of seconds in delta}) \times \text{bandwidth}}$$

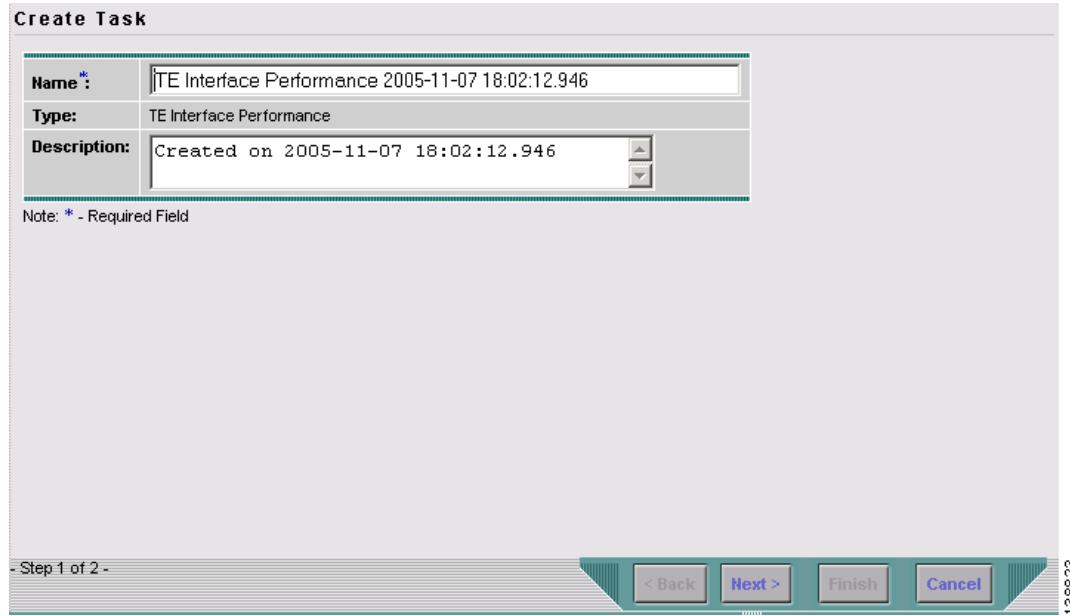
$\text{delta(traffic out) } \times 8 \times 100$

Output utilization = -----  
 (number of seconds in delta) x bandwidth

To create a TE Interface Performance task, use the following steps:

- 
- Step 1** Navigate Monitoring > Task Manager.
  - Step 2** Click **Create** to open the Create Task window in [Figure 9-13](#).

**Figure 9-13** *Create TE Interface Performance Task*



For a detailed description of the window elements in the Create Task window, see *Cisco IP Solution Center Infrastructure Reference, 4.1*.

- Step 3** Select **TE Interface Performance** in the drop-down list of the **Type** field.

The Select TE Provider window in [Figure 9-14](#) appears.

**Figure 9-14 Select TE Provider**

**Select TE Provider**

|   |    | Provider Name |
|---|----|---------------|
| # | 1. | Provider2     |

Show TE Providers with Name matching  \*

Showing 1 - 1 of 1 record

Rows per page:  Go to page:  of 1  >>

< Back  Finish

- Step 1 of 4 -

138824

**Step 4** Click a radio button to select a TE provider.

**Step 5** Click **Next**. The TE Performance Collection window in [Figure 9-15](#) appears.

**Figure 9-15 TE Performance Collection**

**TE Performance Collection**

|                        |                                   |
|------------------------|-----------------------------------|
| Task Duration (sec) *  | <input type="text" value="1000"/> |
| Task Frequency (sec) * | <input type="text" value="100"/>  |
| Task Interval (msec) * | <input type="text" value="10"/>   |

Targets

Showing 0 of 0 records

| <input type="checkbox"/> | Device | Type | Name |
|--------------------------|--------|------|------|
|                          |        |      |      |

Rows per page:  Go to page:  of 1  >>

Add  TeTunnel  Cancel

- Step 2 of 4 -

138825

**Step 6** Enter desired values in the **Duration**, **Frequency**, and **Interval** fields.

**Step 7** Use the **Add** button to select a tunnel or link on which to run the interface performance task:

- **TE Tunnel**—Add a TE tunnel. The Select Tunnel(s) window in [Figure 9-16](#) appears.
- **TE Link**—Add a TE link. The Select Link(s) window in [Figure 9-17](#) appears.

**Figure 9-16 Select Tunnel(s) - Interface Performance**

**TE Provider Provider2**

Show Tunnels with  matching

Showing 1 - 5 of 26 records

| #  | <input type="checkbox"/> | Head     | Dest     | T#   | Tunnel Name            | Tunnel ID | Deploy Status | Policy                              | Type      |
|----|--------------------------|----------|----------|------|------------------------|-----------|---------------|-------------------------------------|-----------|
| 1. | <input type="checkbox"/> | isctmp11 | isctmp10 | 2    | isctmp11:tunnel-te2    | ISC-P1    | DEPLOYED      | ISC-P1-<br>isctmp11:tunnel-te2      | Managed   |
| 2. | <input type="checkbox"/> | isctmp11 | isctmp1  | 1000 | isctmp11:tunnel-te1000 | ISC-P2    | DEPLOYED      | ISC-P2-<br>isctmp11:tunnel-te1000   | Managed   |
| 3. | <input type="checkbox"/> | isctmp11 | isctmp12 | 1003 | isctmp11:tunnel-te1003 | ISC-P122  | DEPLOYED      | ISC-P122-<br>isctmp11:tunnel-te1003 | Managed   |
| 4. | <input type="checkbox"/> | isctmp11 | isctmp8  | 1004 | isctmp11:tunnel-te1004 | ISC-P123  | DEPLOYED      | ISC-P122-<br>isctmp11:tunnel-te1003 | Managed   |
| 5. | <input type="checkbox"/> | isctmp11 | isctmp10 | 1006 | isctmp11:tunnel-te1006 | ISC-P149  | DEPLOYED      | te_policy1                          | UnManaged |

Rows per page:  Go to page:  of 6

138826

**Figure 9-17 Select Link(s) - Interface Performance**

**Links associated with Performance Task**

Show Links with:  matching

Showing 1-5 of 35 records

| #  | <input type="checkbox"/> | From     | Link                  | To       |
|----|--------------------------|----------|-----------------------|----------|
| 1. | <input type="checkbox"/> | isctmp11 | 10.2.4.10<->10.2.4.9  | isctmp12 |
| 2. | <input type="checkbox"/> | isctmp11 | 10.2.4.14<->10.2.4.13 | isctmp12 |
| 3. | <input type="checkbox"/> | isctmp11 | 10.2.4.6<->10.2.4.5   | isctmp8  |
| 4. | <input type="checkbox"/> | isctmp10 | 10.2.4.22<->10.2.4.21 | isctmp12 |
| 5. | <input type="checkbox"/> | isctmp12 | 10.2.4.29<->10.2.4.30 | isctmp7  |

Rows per page:  Go to page:  of 7

138827

- Step 8** Select one or more of tunnels and links and click **Next**. The selected tunnels and links are added to the **Targets** list in the TE Performance Collection window.
- Step 9** The Task Schedules window in [Figure 9-18](#) appears.

## **Figure 9-18 Task Schedules**

| Task Schedules |          |                     |                     |          |                        |                        |
|----------------|----------|---------------------|---------------------|----------|------------------------|------------------------|
| #              | Schedule | Start Date and Time | End Date and Time   | Max Runs | Max Instances          | Actions                |
|                |          |                     |                     |          |                        |                        |
| Rows per page: |          | 10                  | Go to page: 1 of 1  |          |                        | <a href="#">Go</a>     |
|                |          |                     | <a href="#">How</a> |          | <a href="#">Create</a> | <a href="#">Delete</a> |

**Step 10** Click **Now** or **Create** to create a task schedule. When you select **Create** to customize the schedule, the Task Schedule window in [Figure 9-19](#) appears (with **Now**, this step is skipped).



**Note** The default setting is to schedule a single TE Interface Performance task to take place immediately (“Now”).

## **Figure 9-19 Task Schedule**

|   |  |
|---|--|
| <b>Task Schedule</b>  |  |
| Single run: <input checked="" type="radio"/> Now <input type="radio"/> Once<br>Periodic Run: <input type="radio"/> Minute <input type="radio"/> Hourly <input type="radio"/> Daily <input type="radio"/> Weekly <input type="radio"/> Monthly |  |
| Periodic Run Attributes   |  |
| Run Interval:   |  |
| Run Limits:   |  |
| Start Date and Time   |  |
| Date:   | November <input type="button" value="▼"/> 7 <input type="button" value="▼"/> 2005 <input type="button" value="▼"/> |
| Time:   | 6 <input type="button" value="▼"/> 31 <input type="button" value="▼"/> PM <input type="button" value="▼"/>         |
| End Date and Time (Default is unlimited)  |  |
| Date:   | Month <input type="button" value="▼"/> Day <input type="button" value="▼"/> Year <input type="button" value="▼"/>  |
| Time:   | Hour <input type="button" value="▼"/> Min <input type="button" value="▼"/> AM <input type="button" value="▼"/>     |
| <input type="button" value="OK"/> <input type="button" value="Cancel"/>   |  |

**Step 11** In the Task Schedule window, make your selections to define when and how often to run the task.

**Step 12** Click **OK**. The scheduled task should now appear in the **Task Schedules** table as shown in Figure 9-20.

**Figure 9-20 Task Schedules with Scheduling Data**

| Task Schedules  |  |                       |                   |           |               |  |
|---|--|-----------------------|-------------------|-----------|---------------|--|
| #   | Schedule                               | Start Date and Time   | End Date and Time | Max Runs  | Max Instances | Showing 1 - 1 of 1 record  |
| 1.  | Single run at 2005-11-07<br>18:31:00.0 | 2005-11-07 18:31:00.0 | not applicable    | unlimited | unlimited     |  |
| Rows per page:  |  |                       |                   |           |               |  |
| Go to page: 1 of 1  |  |                       |                   |           |               | <input type="button" value="Go"/>  |
|   |  |                       |                   |           |               | <input type="button" value="Now"/> <input type="button" value="Create"/> <input type="button" value="Delete"/> |
| - Step 3 of 4 -   |  |                       |                   |           |               |  |
| <input type="button" value="&lt; Back"/> <input type="button" value="Next &gt;"/> <input type="button" value="Finish"/> <input type="button" value="Cancel"/> |  |                       |                   |           |               | 138829   |

**Step 13** Click **Next**. A summary of the scheduled task appears as shown in [Figure 9-21](#).

**Figure 9-21 Performance Task Summary**

| Performance Task Summary  |  |
|---|--|
| Name  | TE Interface Performance 2005-11-07 18:02:12.946                 |
| Task Duration (sec)   | 1000   |
| Task Frequency (sec)  | 100  |
| Task Interval (msec)  | 10   |
| Devices   | isctmp11 10.2.4.10<->10.2.4.9<br>isctmp11 isctmp11:tunnel-te1000 |
| Schedules   | Single run at 2005-11-07 18:31:00.0                              |
| - Step 4 of 4 -   |  |
| <input type="button" value="&lt; Back"/> <input type="button" value="Next &gt;"/> <input type="button" value="Finish"/> <input type="button" value="Cancel"/> |  |
| 138830  |  |

**Step 14** Click **Finish**. This adds the task to the list of created tasks in the Tasks window ([Figure 9-22](#)).

**Figure 9-22** Tasks Window with New Performance Task

The screenshot shows the 'Tasks' window with the following details:

| #  | Task Name  | Type                     | Targets   | Schedule                            | User Name | Created on              |
|----|--|--------------------------|---|-------------------------------------|-----------|-------------------------|
| 1. | TE Interface Performance 2005-11-07 18:02:12.946 | TE Interface Performance | TeLink:10.2.4.10<->10.2.4.9<br>TeTunnel:tunnel-te1000 | Single run at 2005-11-07 18:31:00.0 | admin     | 2005-11-07 18:11:39.401 |
| 2. | Deploy Primary SR-ID 8 2005-11-07 00:31:32.56    | Service Deployment       | Job Id : 8  | Schedule TE Primary SR deployment   | admin     | 2005-11-07 00:31:32.56  |
| 3. | Deploy Primary SR-ID 8 2005-11-06 16:15:37.027   | Service Deployment       | Job Id : 8  | Schedule TE Primary SR deployment   | admin     | 2005-11-06 16:15:37.027 |
| 4. | Deploy Primary SR-ID 8 2005-11-06 16:01:09.867   | Service Deployment       | Job Id : 8  | Schedule TE Primary SR deployment   | admin     | 2005-11-06 16:01:09.867 |
| 5. | TE Discovery 2005-11-02 15:50:25.705             | TE Discovery             |   | Single run at 2005-11-02 15:50:00.0 | admin     | 2005-11-02 15:50:25.705 |

Buttons at the bottom include: Auto Refresh:  Create ▾ Audit ▾ Details Schedules Logs Delete. Row per page: 5. Go to page: 1 of 2 Go ▶. Reference ID: 138831.

To view the TE Performance Report that is generated for TE Interface Performance task(s), see [TE Performance Reports, page 10-4](#).

To view the task logs for the created tasks, see [Viewing a Task Log, page 10-2](#).

## SR History and Configlets

The history and configlets associated with individual service requests can be viewed from the Service Requests window when you select a service request and click the **Details** button.

The history of a service request is essentially a state change report. It lists the various states that elements associated with an SR has transitioned between and reports relevant details pertaining to these state changes.

Configlets for devices associated with service requests are in simple scrollable text format.

For more information about these features and how to manage service requests, see [Appendix B, “Managing Service Requests.”](#)

## Manage Lock

Whenever a task is performed that incurs a database update, which might affect the resource and hence the result of a tunnel computation, it locks the system before the update and releases it at completion of the update. If for some reason the lock is not released, other updates that require the lock are blocked.

The purpose of the lock feature is to prevent concurrent and mutually inconsistent planning activities from being committed to the database. Meaning, if each user takes the same snapshot of the repository, performs computations, and tries to commit what he/she sees, the locking mechanism helps synchronize the commit and ensures that no commit invalidates other commits.

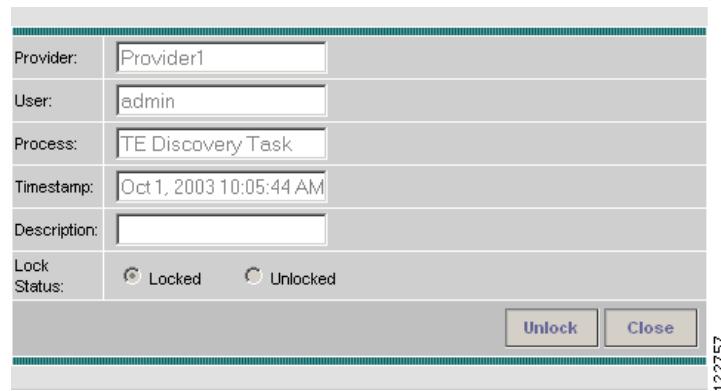
**■ Manage Lock**

If the system is locked for prolonged periods of time, the administrator should check if anyone is performing long planning tasks and take note of which process locked the system and report it. If the administrator is sure that no one is using the system, it can be unlocked by using the lock manager.

Each system lock is linked to a TE provider. To unlock the TE provider, use the following steps:

- 
- Step 1** Navigate **Service Inventory > Inventory and Connection Manager > Traffic Engineering Management > TE Providers**.
  - Step 2** The TE Providers window in [Figure 2-3](#) appears.
  - Step 3** Select a TE provider that is locked by clicking the corresponding check box.
  - Step 4** Click **Manage Lock**. The System Lock Management window in [Figure 9-23](#) appears.

**Figure 9-23 System Lock Management**



The text fields in this window are read-only.

- Step 5** To unlock, click the **Unlock** button.

The System Lock Management window closes and the **System Lock Status** field in the TE Providers window is updated accordingly.

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