



Using TIF Manager

This chapter contains the following sections:

- [About TIF Manager, page 1](#)
- [Creating a TIF Policy, page 1](#)
- [Editing a TIF Policy, page 3](#)
- [Removing TIF Policies, page 4](#)
- [Creating a Custom Path, page 4](#)
- [Viewing a Custom Path, page 5](#)
- [Removing Custom Paths, page 5](#)

About TIF Manager

With the Topology Independent Forwarding (TIF) Manager, you can customize the path that a data flow takes through the network. TIF Manager can also be invoked by any network-aware business application that communicates with Cisco Extensible Network Controller (XNC) using REST APIs.

Creating a TIF Policy

The Topology Independent Forwarding (TIF) Manager allows you to create paths between hosts and devices.

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- Step 1** On the menu bar, choose **TIF Manager**, and then click the **TIF Policies** tab.
- Step 2** Click **Create TIF Policy**.
- Step 3** In the **Create TIF Policy** dialog box, complete the following fields:

Name	Description
Name field	<p>The name that you want to assign to the TIF policy.</p> <p>The name can contain between 1 and 256 alphanumeric characters including the following special characters: underscore ("_"), hyphen ("-"), plus ("+"), equals ("="), open parenthesis ("("), closed parenthesis (")"), vertical bar (" "), period ("."), or at sign ("@").</p> <p>Note The name cannot be changed after the TIF policy is saved.</p>
Source IP field	The source IP address of the host.
Destination IP field	The destination IP address of the host.
Protocol drop-down list	<p>Choose the protocol to be used for the policy. This can be one of the following:</p> <ul style="list-style-type: none"> • any—All protocols are used. • ICMP—Only the ICMP protocol is used. • TCP—Only the TCP protocol is used. • UDP—Only the UDP protocol is used. • IPv6-ICMP—Only the IPv6-ICMP protocol is used.
Source Port field	The transport layer port number. If no source port is specified, any ports can be used.
Destination Port field	The destination port number. If no destination port is specified, any ports can be used.
Path Type field	<p>How the traffic will be routed between the source and destination IP.</p> <p>Click Properties to choose a property from one of the following categories:</p> <ul style="list-style-type: none"> • Latency • Number • Bandwidth • String <p>Note Any custom property templates created in the Network Properties area is also displayed in this list.</p> <p>Click the Custom Path radio button to choose an existing path from the drop-down list.</p>

Step 4 Click **Create TIF Policy**.

Editing a TIF Policy



Note The name of the TIF policy cannot be changed.

Before You Begin

Create one or more TIF policies.

Step 1 On the menu bar, choose **TIF Manager**, and then click the **TIF Policies** tab.

Step 2 Click **Edit** next to the name of the TIF policy that you want to change.

Step 3 In the **Edit TIF Policy** dialog box, complete the following fields:

Name	Description
Name field	<p>The name that you want to assign to the TIF policy.</p> <p>The name can contain between 1 and 256 alphanumeric characters including the following special characters: underscore ("_"), hyphen ("-"), plus ("+"), equals ("="), open parenthesis ("("), closed parenthesis (")"), vertical bar (" "), period ("."), or at sign ("@").</p> <p>Note The name cannot be changed after the TIF policy is saved.</p>
Source IP field	The source IP address of the host.
Destination IP field	The destination IP address of the host.
Protocol drop-down list	<p>Choose the protocol to be used for the policy. This can be one of the following:</p> <ul style="list-style-type: none"> • any—All protocols are used. • ICMP—Only the ICMP protocol is used. • TCP—Only the TCP protocol is used. • UDP—Only the UDP protocol is used. • IPv6-ICMP—Only the IPv6-ICMP protocol is used.
Source Port field	The transport layer port number. If no source port is specified, any ports can be used.
Destination Port field	The destination port number. If no destination port is specified, any ports can be used.

Name	Description
Path Type field	<p>How the traffic will be routed between the source and destination IP.</p> <p>Click Properties to choose a property from one of the following categories:</p> <ul style="list-style-type: none"> • Latency • Number • Bandwidth • String <p>Note Any custom property templates created in the Network Properties area is also displayed in this list.</p> <p>Click the Custom Path radio button to choose an existing path from the drop-down list.</p>

Step 4 Click **Save TIF Policy**.

Removing TIF Policies

Step 1 On the menu bar, choose **TIF Manager**, and then click the **TIF Policies** tab.

Step 2 Check the check box next to the **Name** of each TIF policy that you want to remove, or check the top check box to select all TIF policies for removal.

Step 3 Click **Remove TIF Policy**.

Step 4 In the **Remove TIF Policy** confirmation dialog box, click **Remove TIF Policy**.

Creating a Custom Path

Step 1 On the menu bar, choose **TIF Manager**.

Step 2 At the top of the topology diagram, enter the name that you want to give the custom path in the field next to the **Save Custom Path** button.

Step 3 In the topology diagram, click the links that you want to include in the path.

Step 4 Click **Save Custom Path** to save the path to the **Existing Custom Paths** table.

Viewing a Custom Path

Before You Begin

Create a custom path.

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- Step 1** On the menu bar, choose **TIF Manager**.
- Step 2** Click **View/Edit Path** in the **Existing Custom Paths** table next to the path that you want to display. The custom path links are displayed in the topology diagram.
- Step 3** In the **Links Information** tab, enter a node number in the **Search** box, and click the search icon to narrow the list of nodes displayed for the path.
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Removing Custom Paths

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- Step 1** On the menu bar, choose **TIF Manager**.
- Step 2** Check the check box next to the path name of each custom path that you want to remove in the **Existing Custom Paths** tab, or check the top check box to choose all custom paths for removal.
- Step 3** Click **Remove**.
- Step 4** In the **Remove Path(s)** confirmation dialog box, click **Remove Path(s)**.
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