

## Chapter 9

# Configuring IP Tunnel Interfaces

This chapter describes how to create IP tunnel interfaces and contains the following sections:

- Overview on page 123
- References on page 123
- Creating IP Tunnel Interfaces on page 123

### Overview

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IP tunnel interfaces are endpoints in a tunnel connection. These interfaces are created automatically when you create an IP or Switched Multimegabit Data Service (SMDS) tunnel connection. The NMC-RX application also allows you to create IP tunnel interfaces individually. You can then associate these individual interfaces as endpoints in a tunnel connection.

### References

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See the following chapters for related information:

- *NMC-RX User Guide, Vol. 1, Chapter 21, Configuring CBF Interfaces*
- *NMC-RX User Guide, Vol. 1, Chapter 29, Configuring SMDS Interfaces*
- *Chapter 10, Configuring Tunnel Connections*

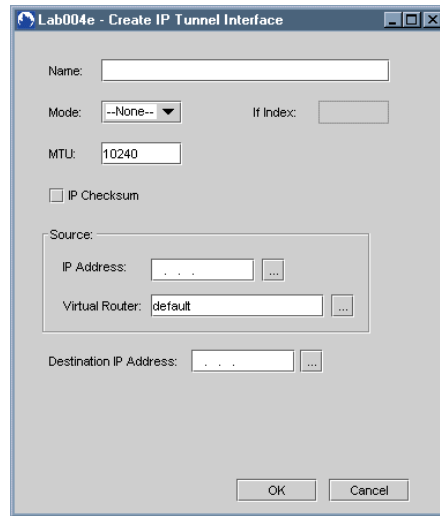
### Creating IP Tunnel Interfaces

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To create an IP tunnel interface individually:


1. In either the Instance Explorer or the Device-wide Explorer, click System, right-click, select Create, and click IP Tunnel Interface.

The Create IP Tunnel Interface dialog box appears.




2. Set the parameters (Table 45).



You can set the source and destination IP addresses and the source virtual router in either of the following ways:

- Enter the IP addresses and the virtual router name in the text boxes.
- Select existing IP addresses and a virtual router by clicking  to the right of each parameter. (See *Related Dialog Boxes* on page 125.)

**Table 45: IP Tunnel Interface Parameters**


Parameter	Description
Name	Name for the IP tunnel interface; 1–80 characters, no spaces.
Mode	IP tunnel mode for an IP tunnel: generic routing encapsulation (GRE) or Distance Vector Multicast Routing Protocol (DVMRP). You must choose one of these modes.
If Index	This field is blank when you create an object and is automatically populated with the If Index identifier when you configure the object; cannot edit.
MTU	Maximum transmission unit setting for the IP tunnel interface; range 1024–10240; default 10240. To ensure effective function, the MTU value should be the same for both endpoints.
IP Checksum	Selecting this box enables end-to-end check summing and causes the system to drop packets with bad checksums received on this interface. Range: enable/disable. Default: disable.  This feature is disabled for DVMRP mode.
Source: IP Address	Source IP address for the IP tunnel interface. Enter a valid address or click  to search for and select an IP address (see <i>Related Dialog Boxes</i> on page 125).

**Table 45: IP Tunnel Interface Parameters (continued)**

Parameter	Description
Source: Virtual Router	Transport router associated with the source IP tunnel interface. You cannot edit this parameter once you create the tunnel interface. Once you choose a virtual router, you cannot change it. Enter a virtual router name, or click  to search for and select a virtual router (see <i>Related Dialog Boxes</i> on page 125).
Destination IP Address	Destination IP address for the tunnel interface. Enter a valid address, or click  to search for and select an IP address (see <i>Related Dialog Boxes</i> on page 125).

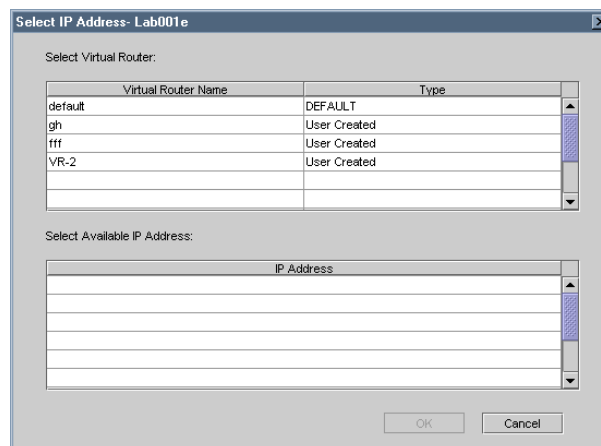
- When you have finished setting all the parameters, click OK in the Create IP Tunnel Interface dialog box to apply the settings to the IP tunnel interface you are creating.

## Related Dialog Boxes

**Source IP Address** The  button to the right of the source parameter allows you to select an existing IP address (rather than create a new one).

- Click  next to the Source IP Address text box.

The Select IP Address dialog box appears. Use it to view and select an existing IP address.




- Select a virtual router from the list.

A list of available IP addresses appears.

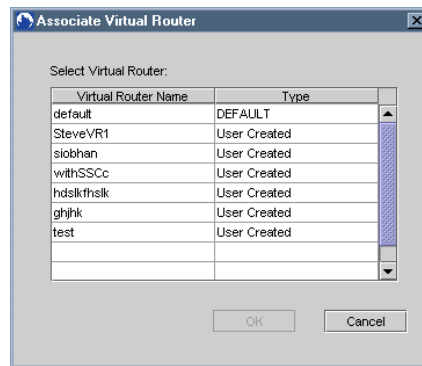
- Select an IP address.
- Click OK.

The IP address and the virtual router name appear in the Source group box in the Create IP Tunnel Interface dialog box for the particular device that you are configuring.

**Source Virtual Router** The  button to the right of the source parameter allows you to select an existing virtual router (rather than create a new one).


1. Click  next to the Source Virtual Router text box.

The Associate Virtual Router dialog box appears. Use it to view and select an existing virtual router if you need to change the virtual router that you selected above.



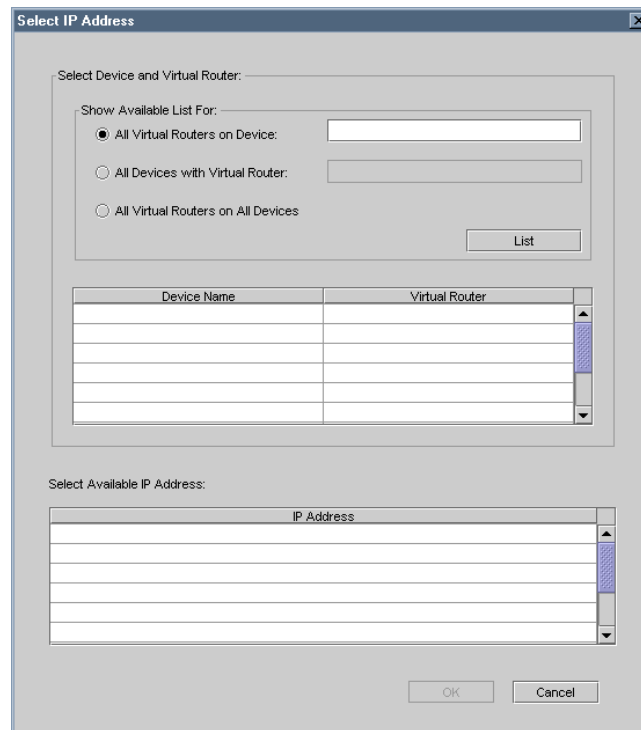
2. Select a virtual router from the list.
3. Click OK.

If you already selected a virtual router, a message asks if you want to replace the previously selected virtual router.

**Destination IP Address** The  button to the right of the destination parameter allows you to select an existing IP address (rather than create a new one).

1. Click  next to the Destination IP Address field.

The Select IP Address dialog box appears. Use it to view and select an existing IP address.



This dialog box allows you to set the following filters for selecting the destination IP address:

- All virtual routers on a particular device
  - All devices that have the same virtual router
  - All virtual routers on all devices
2. Select a filter, and click List.  
A list of all the virtual routers appears.
  3. Select a virtual router from the list.  
A list of available IP addresses appears.
  4. Select an IP address, and click OK.

The IP address appears in the Destination IP Address text box in the Create IP Tunnel Interface dialog box for the particular device that you are configuring.

### **Saving Parameter Settings**

When you finish setting all the parameters for the IP tunnel interface, click OK in the Create IP Tunnel Interface dialog box to apply the settings to the tunnel interface.

