Configuring Bridged IP 18

The NMC-RX application supports bridged IP (1483) on the following ERX modules:

- T3-ATM
- E3-ATM
- OC3

Overview

You can create bridged IP interfaces on an ERX system to manage IP packets that are encapsulated inside an Ethernet frame running over a permanent virtual circuit (PVC).

Bridged IP interfaces can be configured on an ATM subinterface. You can create one occurrence each of the following on a bridged IP interface:

- PPPoE interface
- CBF interface
- IP address

Stacking containing more than one interface type is also known as hybrid PVC. See Figure 18-1.

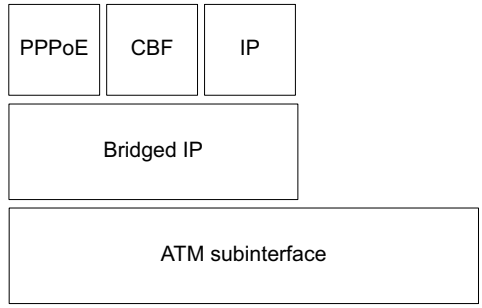


Figure 18-1 Structure of bridged IP interface

After a PPPoE interface, CBF Interface, or IP address is created on a bridged IP interface, its menu choice is removed from the Create pop-up menu because only one of each interface type is allowed per bridged IP interface. Therefore, if a choice does not appear in the pop-up menu, that interface has already been created on the selected bridged IP interface.

You can also establish a CBF connection between two bridged IP interfaces using the NMC-RX application.

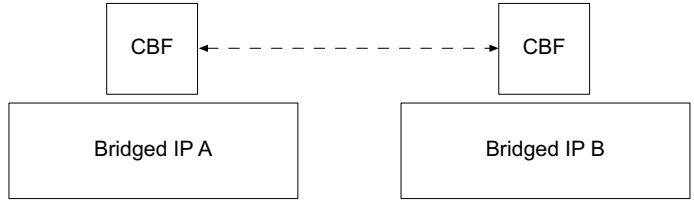


Figure 18-2 CBF connection between bridged IP interfaces

References

For more detailed information, see *ERX Link Layer Configuration Guide, Chapter 8, Configuring Bridged IP.*

Creating Bridged IP Interfaces

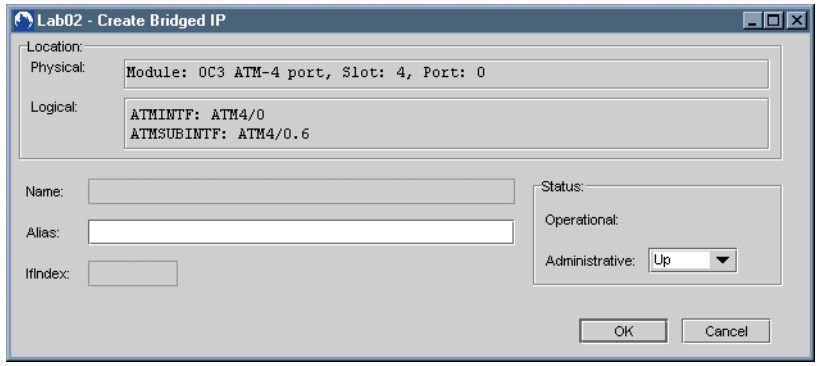
To create a bridged IP interface on an ATM subinterface, you must navigate through the following hierarchy:

- The module
- The line interface
- The ATM interface
- The ATM subinterface

To create a bridged IP interface:

1 Select an ATM subinterface, right-click, select Create, and click Bridged IP (RFC1483).

The Create Bridged IP dialog box appears.



2 Click OK. The bridged IP interface is created. See Table 18-1.

Table 18-1 Bridged IP parameters

Parameter	Description
Name	Identifies the interface; generated automatically
Alias	Description of the interface; 0–15 characters; default blank
IfIndex	Identifies the interface on the particular line interface; generated automatically
Operational	Current operational status of the interface
Administrative	Desired status of the interface: Up/Down; default Up

You can now create each of the following on the new bridged IP interface:

- IP address (see *NMC-RX User Guide, Vol. 2, Chapter 6, Configuring IP*)
- PPPoE interface (see *Chapter 26, Configuring PPP over Ethernet*)
- CBF interface (see next section)

Creating CBF Interfaces

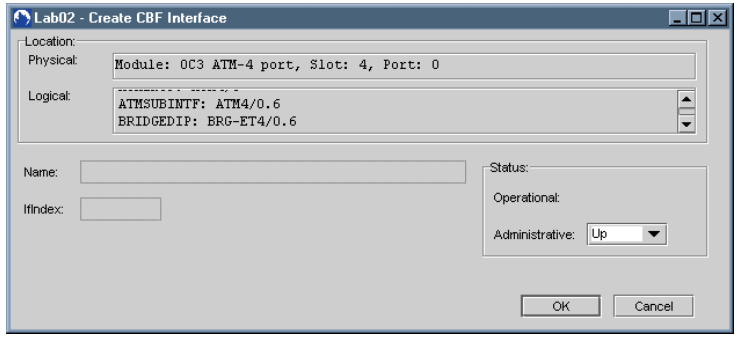
To create a CBF interface:

1 Select a bridged IP interface.

2 Right-click, select Create, and click CBF Interface.

Note: *If CBF Interface does not appear in the pop-up menu, that type of interface has already been created on the selected bridged IP interface. Only one CBF interface is allowed per bridged IP interface.*

The Create CBF Interface dialog box appears.



The CBF interface parameters described in Table 18-2 are generated automatically.

Table 18-2 CBF interface parameters

Parameter	Description
Name	Identifies the interface; generated automatically
IfIndex	Identifies the interface on the particular line interface; generated automatically

Table 18-2 CBF interface parameters (continued)

Parameter	Description
Operational	Current operational status of the interface
Administrative	Desired status of the interface: Up/Down; default Up

3 Click OK.

The CBF interface is created.

Establishing a CBF Connection

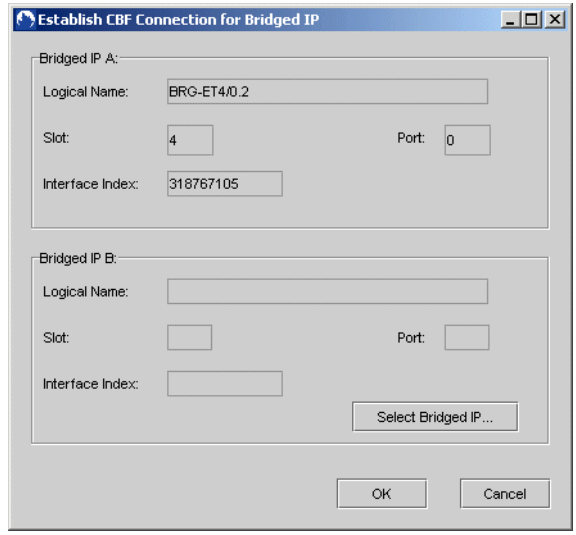
You can establish a CBF connection between two bridged IP interfaces (see Figure 18-2). Traffic other than IP and PPPoE traffic is forwarded through the CBF connection to the associated bridged IP interface. You must have at least two bridged IP interfaces configured to establish a connection.

To establish a CBF connection:

1 Select a bridged IP interface in the list area.

2 Right-click, and select Establish CBF Connection.

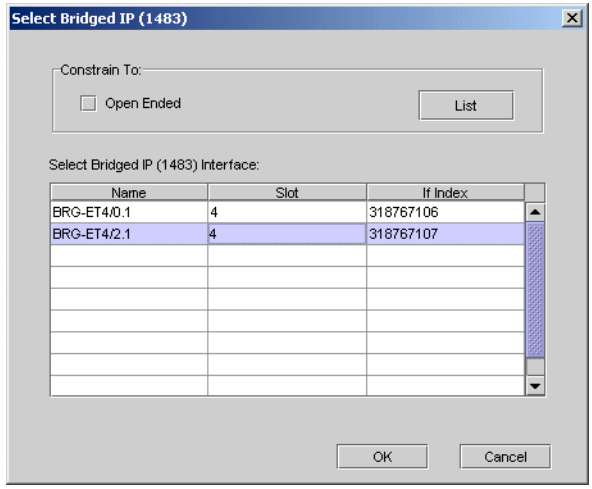
The Establish CBF Connection for Bridged IP dialog box appears.



Note: *If information is already entered in the Bridged IP B group box, then a connection has already been made to the selected interface. To change the connection point, continue to the next step.*

3 Click the Select Bridged IP button.

The Select Bridged IP (1483) dialog box appears and lists all available Bridged IP interfaces on the device.



Note: *If no interfaces are listed, there are no other bridged IP interfaces on the device.*

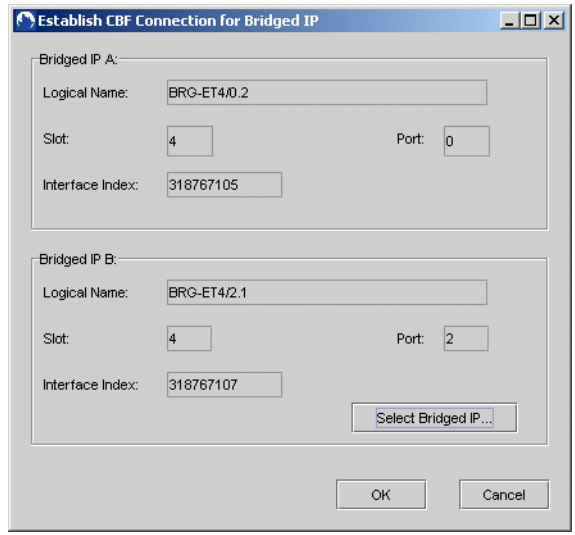
4 To list only bridged IP (1483) interfaces that are not currently connected to another bridged IP interface, select the Open Ended check box, and click List. The list updates.

5 Select the bridged IP interface that you want to connect to.

Note: *If you select a bridged IP interface that is already connected to another bridged IP interface, the old connection will be deleted when the new connection is created in step 7.*

6 Click OK.

The Bridged IP interface's information is entered in the Bridged IP B group box of the Establish CBF Connection for Bridged IP dialog box.



7 Click OK.

The connection is established.