Chapter 14

Configuring Ethernet Modules

The NMC-RX application supports the following Ethernet modules:

FE-2, FE-8, and GE

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Overview

The Fast Ethernet (FE) and Gigabit Ethernet (GE) modules support the routing of IP packets and quality of service (QoS) classification. These modules use Address Resolution Protocol (ARP) to obtain MAC addresses for outgoing Ethernet frames. Ethernet line modules pair with I/O modules to provide particular capabilities and connections.

See Table 42 and the *E-series Module Guide* for complete module details.

Table 42: Ethernet Line Modules and I/O Modules

Line Module	I/O Module	Description	NMC-RX Software Reference Name
FE-2	FE-2	2-port module that supports 10/100 Base-T operation	FE-2 port
GE/FE	FE-8	8-port module that supports 10/100 Base-T operation	FE-8 port
GE/FE	GE SFP	1-port module that supports 1000 Base-SX, 1000 Base-LH, and 1000 Base-ZX operation **NOTE:** GE SFP I/O module uses a range of simple form factor pluggable transceivers (SFPs) to support different modes and cable lengths.	GE-1 port
GE/FE	GE	1-port module that supports 1000 Base-LX and 1000 Base-SX operation **NOTE:** Assembly is superseded by a newer assembly; however, assembly is supported by current software.	GE-1 port

References

See the *JUNOSe Physical Layer Configuration Guide* for more information.

Configuration Tasks

Typically, you configure Ethernet modules in the following order. Some steps may not be applicable for a particular module.

1. Set the parameters that provide basic identification and status information about the module.
2. Set the line interface parameters.
3. Create the interface stacking by choosing one of following options:

   An IP interface with IP addresses and/or PPPoE stacking

   FE or GE subinterfaces with IP interfaces or PPPoE stacking

   VLAN stacking

Configuring Ethernet Modules

You can configure a module's admin status only by enabling or disabling it.

To change the admin status:

1. In the Instance Explorer list, select the module you want to configure.
2. Right-click, and click Configure.

   The Module Config tab appears in the work area.

3. Set an admin status. See Table 43.

Table 43: Module Configuration Parameters

Field	Description
Module Type	Module type (uneditable)
Admin Status	Enabled—Module is running Disabled—Module is not in operation
Serial Number	Ten-digit identification number (S/N) on the module's face plate. This value is automatically retrieved from the device and is uneditable.
IOA Serial Number	Ten-digit identification number (S/N) on the input/output adapter's face plate.This value is automatically retrieved from the device and is uneditable.

4. Click Save.

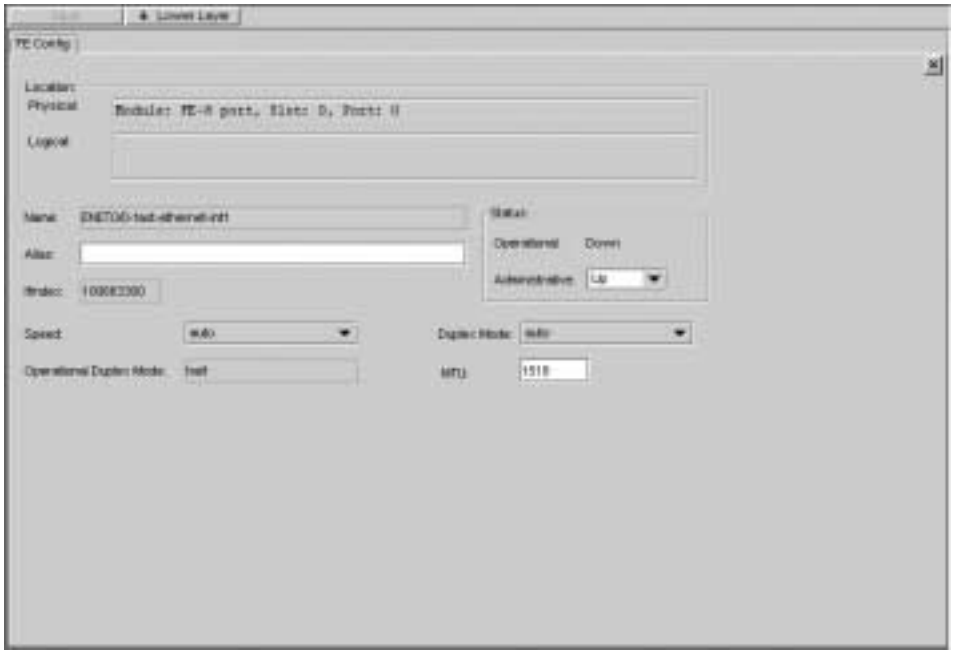
Configuring a Line Interface

There are two line interfaces (0, 1) for the FE-2 module, eight line interfaces (0-7) for the FE-8 module, and one line interface (0) for the GE module.

To configure a line interface:

1. In the Instance Explorer, select the line interface you want to configure.
2. Right-click, and click Configure.

   The Config tab (either FE Config or GE Config) appears in the work area.



3. Set the parameters. See Table 44.

Table 44: Line Interface Parameters

Field	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
Speed	Specifies the line speed for a Fast Ethernet or Gigabit Ethernet interface: auto—Automatically specifies that the system negotiates the line speed with the remote device 10—Specifies that the device uses a line speed of 10 Mbps (FE only) 100—Specifies that the device uses a line speed of 100 Mbps (FE only) 1000—Specifies that the device uses a line speed of 1000 Mbps (GE only)
Operational Duplex Mode	Specifies the current operational duplex mode for the Ethernet interface
Duplex Mode	Specifies the duplex mode for a Fast Ethernet or Gigabit Ethernet interface: auto—Automatically specifies that the system negotiates duplex mode with the remote device half—Specifies that the device uses half-duplex (FE only) full—Specifies that the device uses full-duplex on the interface
MTU	Maximum transmission unit; range 64–9188; default 1518

4. Click Save.

NOTE: Setting the duplex mode to values other than “auto” takes effect only when the corresponding speed parameter is simultaneously set to other than “auto.” Therefore, the operational duplex mode could be different from the duplex mode.