

# Configuring the ATM Fabric Integration Module

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This chapter describes how to configure the ATM fabric integration module.

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**Note** For complete information on installing the Catalyst 5000 series ATM Fabric integration module, refer to the *Catalyst 5000 Series Module Installation Guide*.

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**Note** For complete syntax and usage information for the commands used in this chapter, refer to the *Command Reference* for your switch.

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This chapter consists of these sections:

- Understanding How ATM Fabric Integration Works on page 38-1
- ATM Fabric Integration Hardware and Software Restrictions on page 38-2
- Default ATM Fabric Integration Configuration on page 38-2
- Configuring the ATM Fabric Integration Module on page 38-3

## Understanding How ATM Fabric Integration Works

The ATM fabric integration module seamlessly integrates the switching fabrics of a Catalyst 5500 switch and a LightStream 1010 ATM switch installed in the bottom slots of the Catalyst 5500 chassis.

The module consists of one external LightStream 1010 OC-12 ATM interface and one internal interface to the LightStream 1010 switching backplane. The external OC-12 ATM interface behaves exactly as any an OC-12 interface on a LightStream 1010 port-adapter module (PAM).

Communication between the Catalyst 5000 series switch backplane and the LightStream 1010 ATM switch backplane occurs across the internal interface. You must configure the interface from both the ATM module CLI and the LightStream 1010 CLI.

## ATM Fabric Integration Hardware and Software Restrictions

These guidelines apply when using the ATM fabric integration module:

- You must use Catalyst 5000 series supervisor engine software release 4.3(1) or later on the Catalyst 5000 series switch.
- You must use Catalyst 5000 series ATM software release 11.3(5)WA4(8a) or later on the ATM fabric integration module.
- A LightStream 1010 ATM Switch Processor (ASP) running LightStream 1010 software release 12.0(1)WA5(5) or later must be installed in slot 13 of the Catalyst 5500 switch. If no ASP is installed, the fabric integration module will not function.
- You must install the ATM fabric integration module in slots 9–12 of the Catalyst 5500 switch.

## Default ATM Fabric Integration Configuration

The external ATM interface of the fabric-integration module has the same default configuration as any LightStream 1010 OC-12 ATM interface. For information on the OC-12 ATM interface default configuration, refer to the *LightStream 1010 ATM Switch Configuration Guide* publication.

Table 38-1 shows the ATM fabric-integration module internal interface default configuration on the Catalyst 5500 side.

**Table 38-1 ATM Fabric Integration Module Internal Interface Default Configuration (Catalyst 5500 Side)**

Feature	Default Value
LANE enable state	LANE is disabled
PVCs	ILMI and signaling PVCs are set up

Table 38-2 shows the ATM fabric-integration module internal interface default configuration on the LightStream 1010 side.

**Table 38-2 ATM Fabric Integration Module Internal Interface Default Configuration (LightStream 1010 Side)**

Feature	Default Setting
ATM interface type	UNI
UNI version	3.0
Maximum VPI bits	8
Maximum VCI bits	14
ATM interface side	Network
ATM UNI type	Private
Framing	STS-3C
Clock source	Network-derived
Synchronous Transfer Signal (STS) stream scrambling	On
Cell payload scrambling	On

## Configuring the ATM Fabric Integration Module

These sections describe how to configure the ATM fabric integration module:

- Configuring the External OC-12 ATM Interface on page 38-3
- Configuring the Internal ATM Port from the ATM Module CLI on page 38-3
- Configuring the Internal ATM Interface from the LightStream 1010 CLI on page 38-3

### Configuring the External OC-12 ATM Interface

You can configure the external OC-12 ATM port on the ATM fabric integration module exactly as you configure any OC-12 ATM port on the LightStream 1010 ATM switch.

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**Note** For complete information on configuring ATM interfaces, refer to the *LightStream 1010 ATM Switch Configuration Guide*.

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### Configuring the Internal ATM Port from the ATM Module CLI

On the Catalyst 5000 series switch side, the internal interface functions similarly to the ATM ports on the Catalyst 5000 series ATM OC-3 LANE/MPOA modules. However, there is no PHY on the internal bridge port.

You can configure the internal ATM interface (interface ATM 0) exactly as you configure any ATM interface on the Catalyst 5000 series LANE/MPOA modules. For information on configuring the ATM interface, refer to the following sections:

- For information on configuring ATM LANE, see Chapter 35, “Configuring ATM LAN Emulation.”
- For information on configuring MPOA, refer to the “Configuring the MPC” section on page 37-6 and the “Configuring the MPS” section on page 37-8.

The following commands are not available on the ATM fabric integration module:

- **set clock**
- **set sonet mode**

In addition, the **show controller** command output does not show PHY error counters for the internal ATM port.

### Configuring the Internal ATM Interface from the LightStream 1010 CLI

On the LightStream 1010 side, the internal interface functions similarly to an OC-3 ATM interface on a LightStream 1010 ATM PAM. However, there is no PHY on the internal bridge interface.

You can configure the internal ATM interface exactly as you configure any OC-3 ATM interface on a LightStream 1010 PAM. For information on configuring the LightStream 1010 ATM interface, refer to the *LightStream 1010 ATM Switch Configuration Guide* publication.

