8271 NWAYS ETHERNET LAN SWITCH ATM OC-3C MODULE QUICK REFERENCE GUIDE

Pre-Configuration Checklist

Before configuring the ATM OC-3c Module, complete the following steps:

1 **Install the ATM Module —** Installation instructions are provided in "Installing and Setting Up the Module" in the ATM Module User's Guide.

2 **Check that the ATM Module is correctly installed in the Switch —** Follow the "Post Installation Checks" as described in "Installing and Setting Up the Module", in the ATM Module User's Guide.

3 **Check that the Switch is correctly installed in the network —** See the User's Guide that came with your Switch.

In this reference guide, the term Switch is used to identify the device containing the ATM Module. The term ATM Switch is used to identify the ATM device that the Switch is connected to on the network.

4 Ensure that the LANE Services are correctly set up on your network, that is, each LAN Emulation Server (LES) and its associated Broadcast and Unknown Server (BUS) are operational.

5 To communicate with an ATM Switch, the communication settings on the ATM Module and ATM Switch must be compatible. Find the following ATM Switch settings and enter them below:

Signalling Mode _____

Signalling must be the same on both devices, and must be either 3.0 or 3.1. The default on the ATM Module is 3.1.

SONET or SDH? _____

Both devices must use the same physical standard. The ATM Module supports *SONET STS-3c* and *SDH STM-1*, and the default is *SONET STS-3c*.

ILMI VCC **VPI =** _____ **VCI =** _____

Both devices must use the same *Interim Local Management Interface (ILMI)* connection.
The default is VPI = 0 and VCI = 16.

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Configuring the ATM Module

1 Access the Local Management Screens

Refer to "Accessing Management Features" in the ATM Module User's guide for instructions.

2 Ensure that the ATM Module and ATM Switch use compatible settings:

a From the Main Menu, select the ATM Configuration option. The ATM Module Configuration screen is displayed. An example of the screen is shown in Figure 1.

```
IBM 8271 Nways Switch ATM Module Configuration

Changing the configuration displayed on this screen will cause the
device to be reset and may result in a loss of communication. Please
refer to the manual before editing any of the fields on this screen.

ATM Mode:           LAN Emulation Version 1
Signalling:         ♦uni3.1   ♦
SONET/SDH:          ♦SONET STS-3c   ♦
Max VPI Bits(0-4):  [3 ]
Max VCI Bits:        8
ILMI VCC:           [0 ]  [16  ]

ATM Module Version Information:
  Hardware Version:                1.00
  Upgradable Software Version:     1.04
  Boot Software Version:           1.00

             OK          ATM LEC SETUP          CANCEL
```

Figure 1 ATM Module Configuration Screen

b Ensure that the signalling mode used by the ATM Module matches the signalling mode used on the ATM Switch, either version 3.0 or 3.1.

c Ensure that the ATM Module and the ATM Switch are using the same physical standard, either SONET STS-3c or SDH STM-1.

d Ensure that the ATM Module and ATM Switch are using the same ILMI VCC. The standard ILMI VCC is VPI = 0, VCI=16.

e If you do not need to make any changes, select the CANCEL button. Select the OK button to apply the changes and automatically reset the device.

3 Ensure that the Default VLAN is operational

a From the Main Menu, select the Switch Management option. The Switch Management screen is displayed. An example of the screen is shown in Figure 2.

```
IBM 8271 Nways Switch Management

Management Level:       ♦Port♦

Port ID (default 1):    [  ]

Enter port number:1..24, 25(Module), 26(100BASE-TX).

     STATS          RESILIENCE    SETUP   CANCEL
```

Figure 2 Switch Management Screen

b In the *Management Level* field ensure that the *Port* option is selected. You can use the spacebar to toggle between the options.

c Ensure that the Port ID is set to the ATM port number. The ATM port numbers are as follows:

- Port **13** on an IBM 8271 Nways Ethernet LAN Switch Model 612 and IBM 8271 Nways Ethernet LAN Switch Model 712
- Port **25** on an IBM 8271 Nways Ethernet LAN Switch Model 624 and IBM 8271 Nways Ethernet LAN Switch Model 524

d Select the STATS button.

e The ATM Port Statistics Screen is displayed.

f Select the LEC button to displays statistics and status information for the default VLAN that is associated with the default ELAN (admin1).

An example of the ATM VLAN LEC Status screen is shown in Figure 3.

```
                IBM 8271 Nways Switch ATM VLAN LEC Status

  Port ID:                      25

  Select the VLAN to be monitored in the field below:

  VLAN:                         [1 ]

  LEC State:                    Active
  LEC ELAN Name:                elan4212_0
  LEC ATM Address:              47000000000000000000000000:08004e08ebf8:00

  Last LEC Failure Reason:      None
  LEC Operation at Failure:     None

  Frames Received:      483905118     Octets Received:      905586714
  Frames Transmitted:   462252145     Octets Transmitted:   3814474626


           CLEAR SCREEN COUNTERS             CANCEL
```

Figure 3 ATM VLAN LEC Status Screen

g If the default VLAN's *LEC State* field displays a value other than *Active*, and the *Last LEC Failure Reason* shows a value other than *None*, an error has arisen; see "Troubleshooting".

Troubleshooting

The most likely error at start-up time is a problem with the physical connection. Use Table 1 to identify any problems you encounter after installation. If you cannot resolve the problem using the table, refer to the "Troubleshooting" appendix in the ATM Module User's Guide.

Table 1 Troubleshooting

1	**Is the Link Status LED OFF?**	**Yes**	Ensure that the port is turned on (enabled) at both ends of the link. You may need to reverse the Transmit and Receive connectors at one end of the link.
		No	Go to step 2.
2	**Is the Far End Status LED OFF?**	**Yes**	Ensure that the cable is not obstructed or damaged. Replace damaged cable.
		No	Go to step 3.
3	**Has the LEC joined the LANE service?** Check the *Last LEC Failure Reason* field on the ATM VLAN LEC Status Screen, as described in the previous section of this guide.	**Yes**	The Switch is operational, but there is a problem with the adjacent ATM Switch, or insufficient resources further along the network connection. Check the ATM Connection using the Connection Table, as described in "Displaying an ATM Connection" within the "Managing the ATM Module" chapter of the ATM Module User's Guide.
		No	Ensure that you have completed the "Pre-Configuration Checklist" at the start of this guide. Refer to the *Last LEC Failure Reason* troubleshooting table in the "ATM VLAN LEC Status" section of the "Monitoring the ATM Module" chapter of the ATM Module User's Guide. If you still cannot resolve the problem, refer to the "Troubleshooting" appendix in the User's Guide.

Menu Map

The local management menu and screen structure is shown in Figure 4. ATM specific screens are shaded gray on the map.

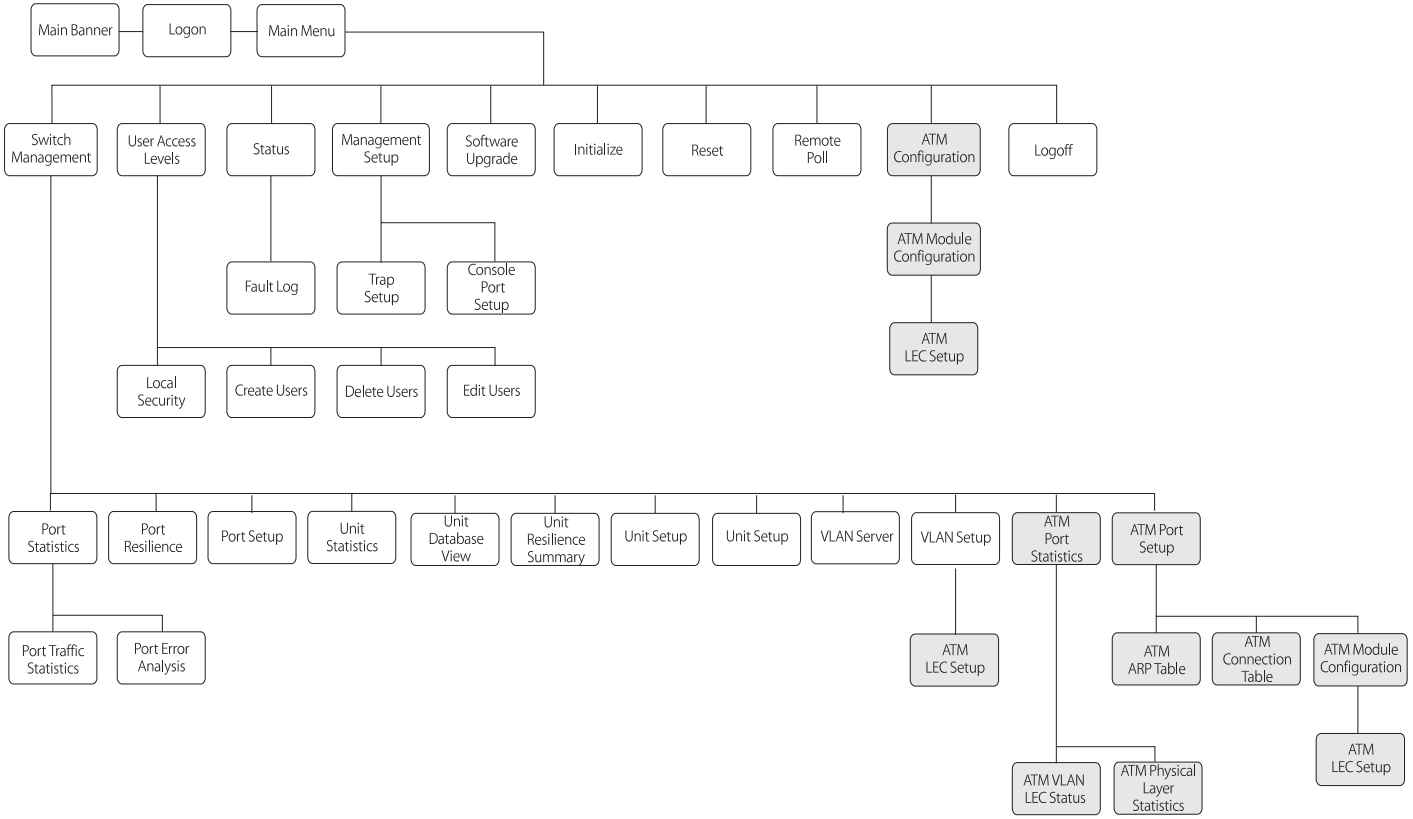

Figure 4 ATM Module Screen Map