CSA-7400

4U Rackmount Network Appliance with Dual Intel® Xeon® Processor E5-2600 v3/v4 & Dual Redundant Intel® FM10840

Quick Start Guide



Manual Revision: 1.1
Revision Date: November 5, 2018
Part No.: 50-40349-5010

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Leading EDGE COMPUTING

Preface

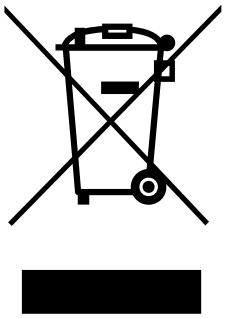
Copyright 2018 ADLINK Technology, Inc.

This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic, or other means in any form without prior written permission of the manufacturer.

Disclaimer

The information in this document is subject to change without prior notice in order to improve reliability, design, and function and does not represent a commitment on the part of the manufacturer.
In no event will the manufacturer be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use the product or documentation, even if advised of the possibility of such damages.

Environmental Responsibility



ADLINK is committed to fulfill its social responsibility to global environmental preservation through compliance with the European Union's Restriction of Hazardous Substances (RoHS) directive and Waste Electrical and Electronic Equipment (WEEE) directive. Environmental protection is a top priority for ADLINK. We have enforced measures to ensure that our products, manufacturing processes, components, and raw materials have as little impact on the environment as possible. When products are at their end of life, our customers are encouraged to dispose of them in accordance with the product disposal and/or recovery programs prescribed by their nation or company.

Battery Labels (for products with battery)



California Proposition 65 Warning



WARNING: This product can expose you to chemicals including acrylamide, arsenic, benzene, cadmium, Tris(1,3-dichloro-2-propyl)phosphate (TDCPP), 1,4-Dioxane, formaldehyde, lead, DEHP, styrene, DINP, BBP, PVC, and vinyl materials, which are known to the State of California to cause cancer, and acrylamide, benzene, cadmium, lead, mercury, phthalates, toluene, DEHP, DIDP, DnHP, DBP, BBP, PVC, and vinyl materials, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Trademarks

Product names mentioned herein are used for identification purposes only and may be trademarks and/or registered trademarks of their respective companies.

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Revision History

Revision	Release Date	Description of Change(s)
1.0	2018-03-22	Initial release
1.1	2018-11-05	Update switch sled login procedure; add rackmount warnings

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Table of Contents

Preface **2**
List of Figures **6**
1 Overview **7**
1.1 Introduction 7
1.2 Mechanical Overview 8
1.2.1 Front Panel 8
1.2.2 Rear Panel 8
1.3 Chassis Module List 9
1.4 Package Contents 9
2 Preparation **10**
2.1 About This Guide 10
2.2 Required Equipment for Initial Setup 11
3 Getting Started **12**
3.1 Installing a SATA Drive 12
3.2 Connecting VGA cable to the MXN-3610 14
3.3 Assembling the CSA-7400 15
3.3.1 Inserting and Removing the MCN-2600T CPU Sled 15
3.3.2 Inserting and Removing the MXN-3610 Switch Sled 19
3.4 MCN-2600T I/O Ports 22
3.5 MXN-3610 I/O Ports 23
3.6 Connecting Power Cords to the CSA-7400 24
4 Powering Up for the First Time **25**
4.1 Power-Up Behavior 25
4.2 Health/Status Indicators and Buttons 26
5 BIOS Setup **27**
5.1 MXN-3610 BIOS Configuration 27
5.2 MCN-2600T BIOS Configuration 28
6 Network Configuration **30**
6.1 MXN-3610 System IP Setup 30
6.2 CMM IP configuration 31
7 Running the CSA-7400 Platform **32**
7.1 Login to the MXN-3610 Switch 32
7.1.1 Login Via Serial Port 32
7.1.2 Local Login 35
7.1.3 Via Network Port 37
7.2 MXN-3610 OS Version Check 38
7.3 Login to the MXN-3610 CMM Locally 39
7.3.1 Login to the CMM Via Serial Port 39
7.3.2 Login to the MXN-3610 CMM via LAN Port 41
7.4 Checking the MXN-3610 CMM Firmware Version 42
7.5 Running MCN-2600T System 43
8 PacketManager on the MXN-3610 ..... **44**
8.1 Check PacketManager Installation Version 44

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

8.2 Command Line Interface and Configure Mode 45
8.3 Get Help and Check Version 46
8.4 Switch Management 48
8.4.1 Port Configuration 49
8.4.2 VLAN Configuration 59
8.4.3 ACL Configuration 61
8.4.4 IP Configuration 68
9 Hot-Swapping 72
9.1 Hot-Swapping the MCN-2600T Sled 72
9.2 Hot-Swapping the MXN-3610 Sled 72
Safety Instructions 73
Consignes de Sécurité Importantes 75
Getting Service 77

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

List of Figures

Figure 1: Required Equipment for Initial Setup 11
Figure 2: MXN-3610 VGA Connector Location 14
Figure 3: Connecting the VGA Cable 14
Figure 4: CSA-7400 System 15
Figure 5: MXN-3610 VGA Cable Routing 21
Figure 7: MCN-2600T I/O Ports 22
Figure 6: MXN-3610 I/O Ports 23
Figure 8: Connecting Power Cords 24
Figure 9: CSA-7400 Status LEDS 26
Figure 10: Setting BIOS Display Mode 27
Figure 11: MXN-3610 BIOS 28
Figure 12: MCN-2600T BIOS Setup Menu 29
Figure 13: COMe Module Network Default Mode 30
Figure 14: CMM Network Default Mode 31
Figure 15: Connecting USB Serial Port 32
Figure 16: Checking the USB COM Port Number 33
Figure 17: Putty Settings for Login Via Serial Port 34
Figure 18: Connecting to LAN Port of COMe Module 37
Figure 19: PuTTY Settings for Login via LAN Port 37
Figure 20: MXN-3610 OS Version 38
Figure 21: PuTTY Settings for Login via Serial Port (CMM) 39
Figure 22: Connect to CMM via Serial Port 40
Figure 23: Connecting to LAN Port of CMM 41
Figure 24: PuTTY Settings for Login via LAN Port (CMM) 41
Figure 25: Checking the CMM Firmware Version 42
Figure 26: Check PacketManager Version 44
Figure 27: Entering the Command Line Interface and Configure Mode 45
Figure 28: Getting Help in PacketManager 46
Figure 29: Getting PacketManager Command Help 46
Figure 30: Show OS and SDK Versions 47
Figure 31: Entering Fabric Mode in PacketManager 48
Figure 32: Show All Ports of the MXN-3610 49

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

1 Overview

1.1 Introduction

The ADLINK CSA-7400 is a high-performance high-density computing platform supporting four dual Intel® Xeon® E5 compute nodes, interconnected by dual redundant switch modules. The CSA-7400 can ensure uninterrupted service delivery through hot-swappable compute nodes and switch modules. It is ideally suited for building next generation high-performance firewalls and virtualized telecom elements.

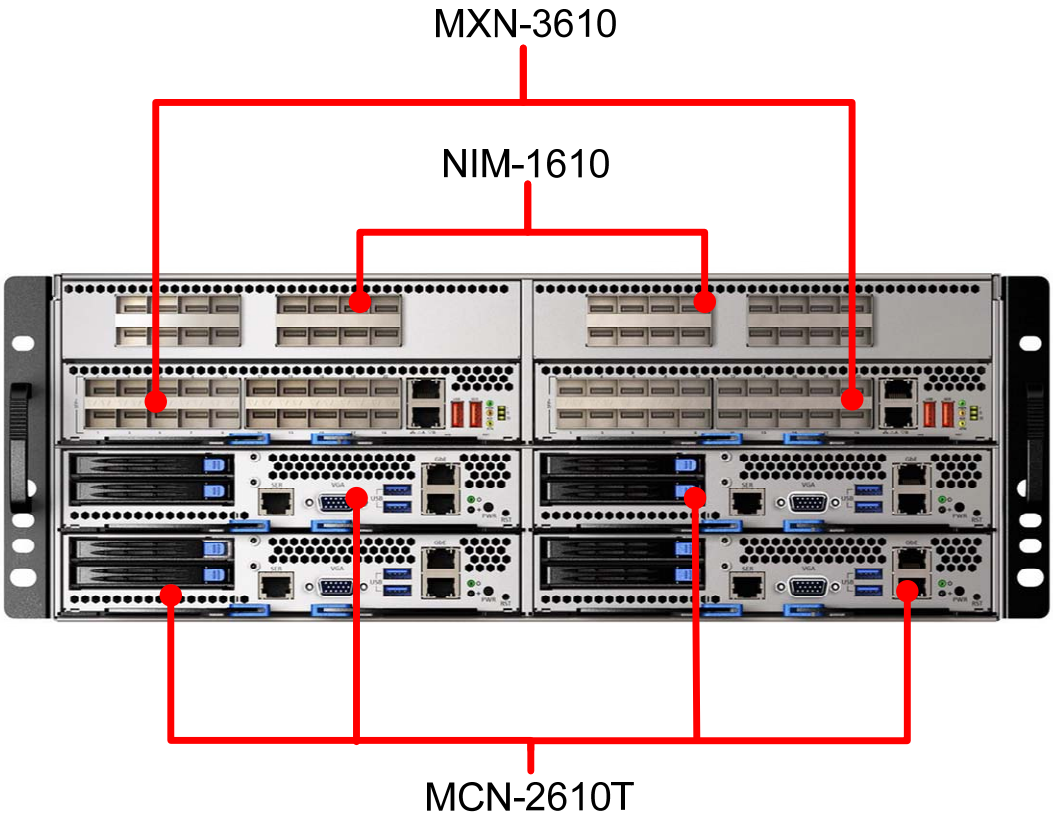
The main features of the CSA-7400 are summarized as follows:

- Supports four single-system dual Xeon® E5 compute nodes (MCN-2600T)
- Dual redundant switch modules provide 40G internal links to each compute node, and 360G uplinks
- Supports IPMI 2.0 specification, provides web-based intelligent system management, and supports SOL on compute nodes
- Dual redundant hot-swappable power supply units provide active power management on compute nodes, support flexible power limit polices
- Integrates ADLINK PacketManager software to provide common Layer 2 and Layer 3 switch stacks.
- Optionally integrates Wind River® Titanium Server or OPNFV software to provide carrier grade NFV service

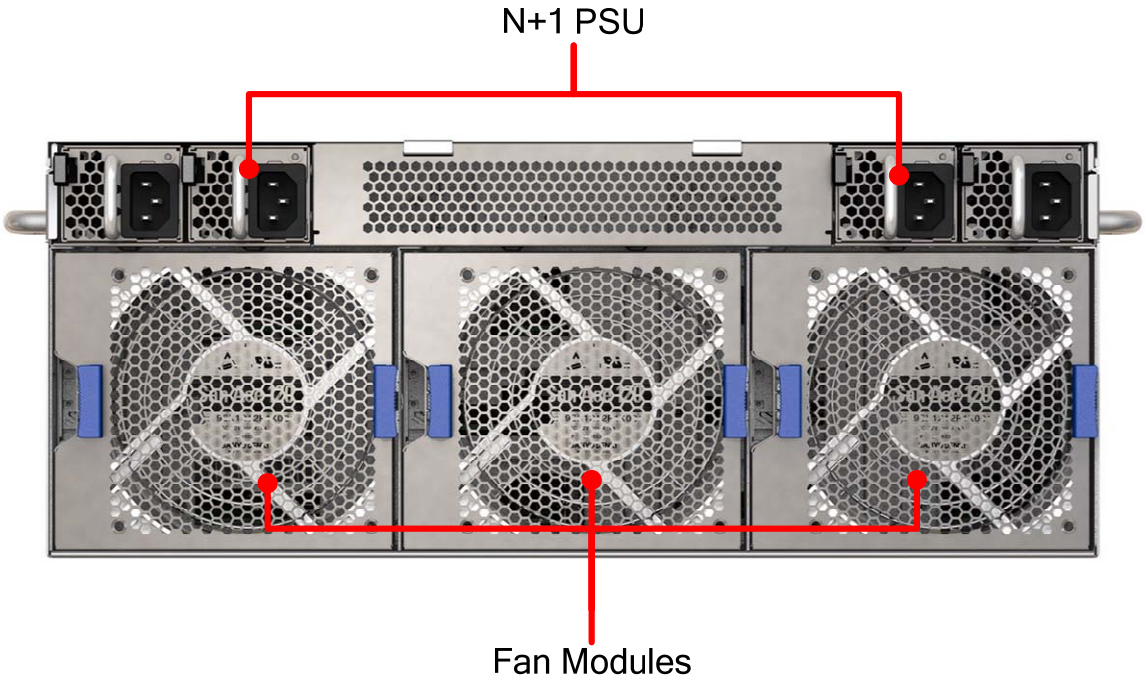
Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

1.2 Mechanical Overview

1.2.1 Front Panel



1.2.2 Rear Panel



Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

1.3 Chassis Module List

The CSA-7400 chassis include the following field replaceable units.

- 4 x CPU Sled (MCN-2600T)
- 2 x Switch Sled (MXN-3610)
- 2 x IO Card (NIM-1610)
- 4 x Fan Module
- 4 x Power Supply Unit

1.4 Package Contents

Before opening, please check the shipping carton for any damage. If the shipping carton and contents are damaged, notify the dealer for a replacement. Retain the shipping carton and packing material for inspection by the dealer. Obtain authorization before returning any product to ADLINK.

Check that the following items are included in the package. If there are any missing items, contact your dealer:

- CSA-7400 Rackmount Network Appliance
- Package check list
- Console cable
- Power cord

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

2 Preparation

2.1 About This Guide

This Quick Start Guide will assist you with getting up and running on your CSA-7400 Platform. The guide addresses the following tasks:

- Getting Started
- First Power-Up
- BIOS Configuration
- Network Configuration
- Running an Operating System
- PacketManager on MXN-3610
- Hot-Swapping

For more detailed information, please refer to the other documents available on the ADLINK website:

CSA-7400: www.adlinktech.com/PD/web/PD_detail.php?cKind=&pid=1624
PacketManager: www.adlinktech.com/PD/web/PD_detail.php?cKind=&pid=1535

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

2.2 Required Equipment for Initial Setup

For purposes of accomplishing the tasks described in this guide, you may need various cables. The figure 3 shows what you will need to get started. For instructions on how to install these components, see Chapter 3 Getting Started.

CSA-7400	
Power Cord	
VGA Cable	
Network Cable (User supplied)	
USB-to-USB Cable	

Figure 1: Required Equipment for Initial Setup

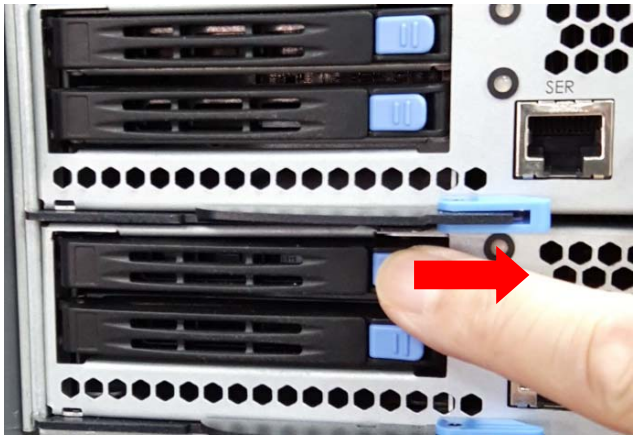
Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

3 Getting Started

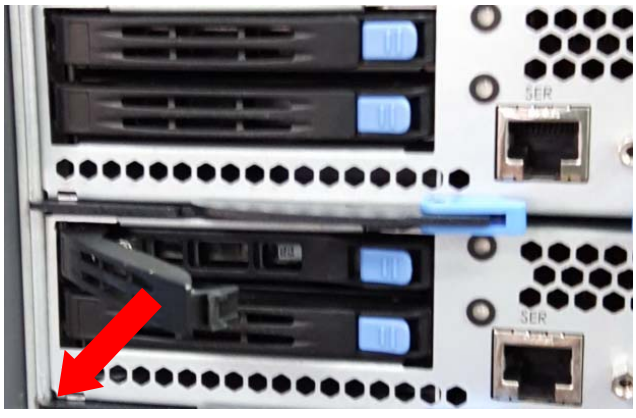
For detailed instructions on installing internal components to the MCN-2600T CPU sled and MXN-3610 switch sled, refer to sections 3.1 and 3.2 of the CSA-7400 User's Manual.

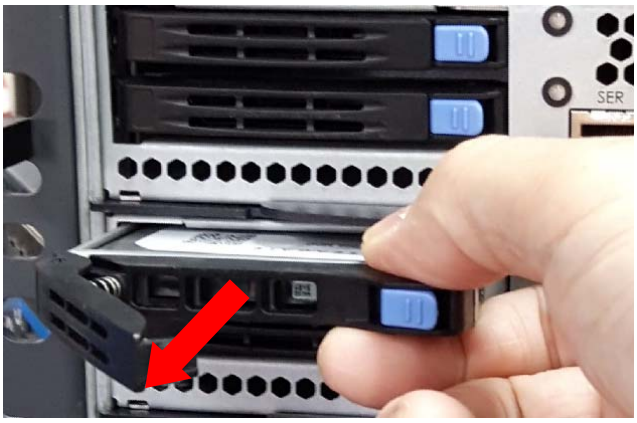
3.1 Installing a SATA Drive

1. Unlock the ejector handle of the SATA drive tray by pressing the blue unlocking tab towards the right. The ejector handle will swing outwards.



2. Pull outwards on the ejector handle to remove the SATA drive tray.



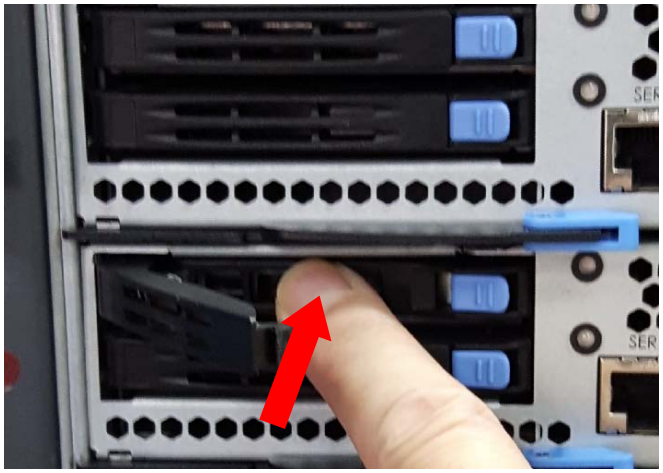


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

3. Secure the 2.5” SATA drive to the drive tray with 4 screws as shown.



4. Insert the drive tray into the drive bay and press inwards until it is firmly seated.



5. Close the ejector handle and press inwards until it locks in place with a “click”.



Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

3.2 Connecting VGA cable to the MXN-3610

Locate the VGA connector on the MXN-3610 PCB as shown.

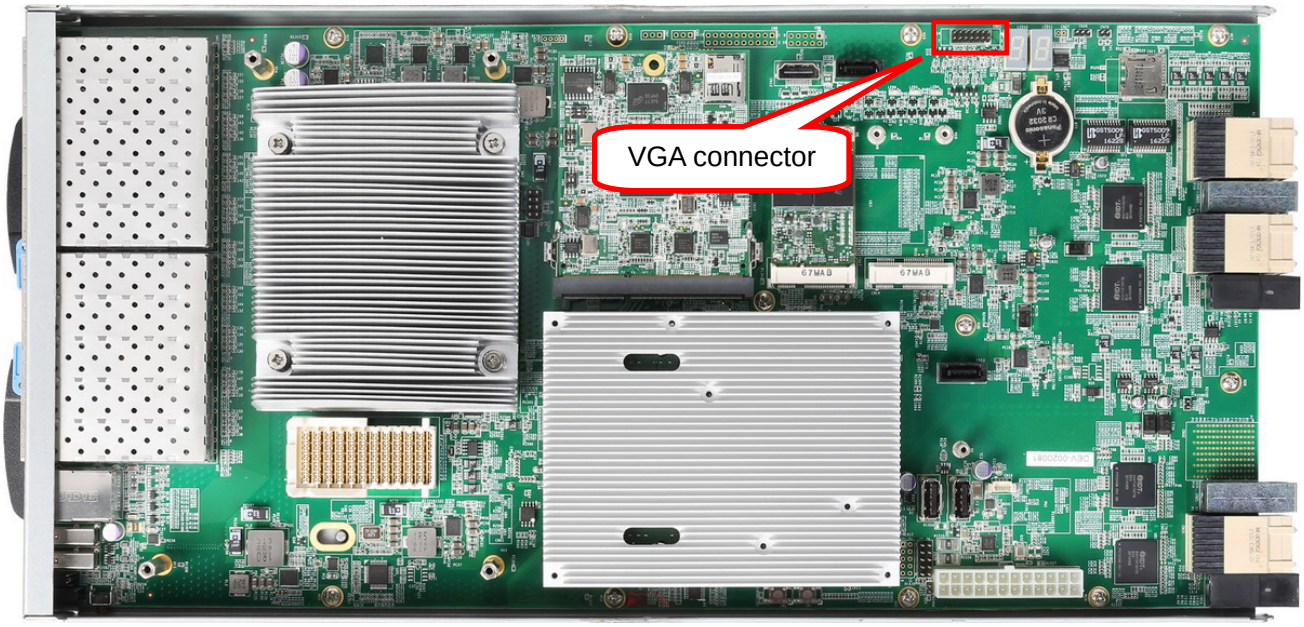


Figure 2: MXN-3610 VGA Connector Location

Connect the VGA cable to the connector on the MXN-3610, Please check position of the red line (right side), as shown.

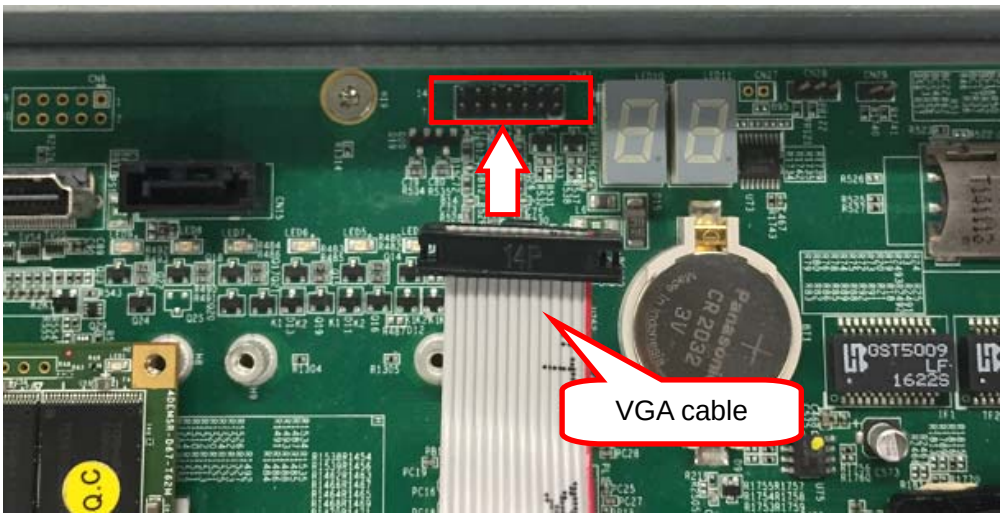


Figure 3: Connecting the VGA Cable

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

3.3 Assembling the CSA-7400

Insert the MXN-3610 (switch node) and MCN-2600T (CPU node) into the chassis as follows.

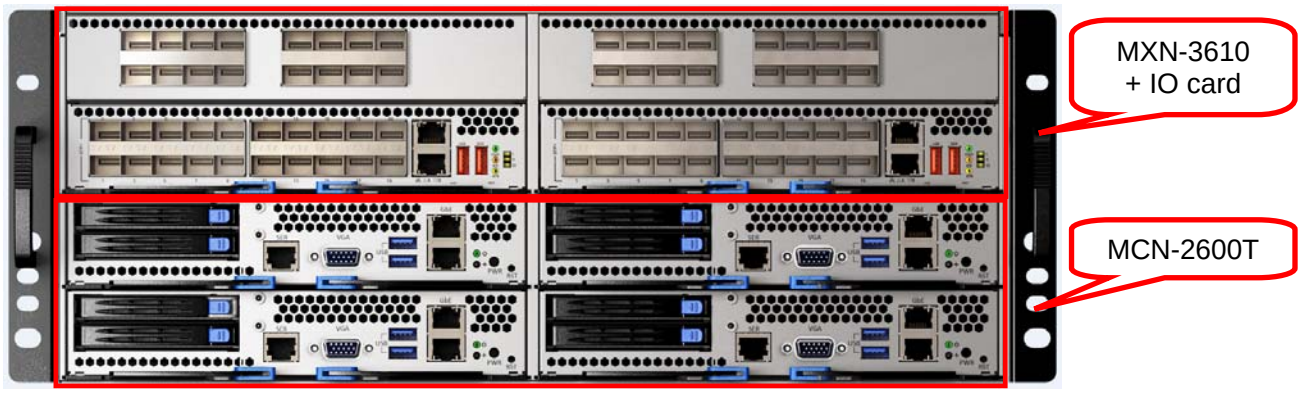
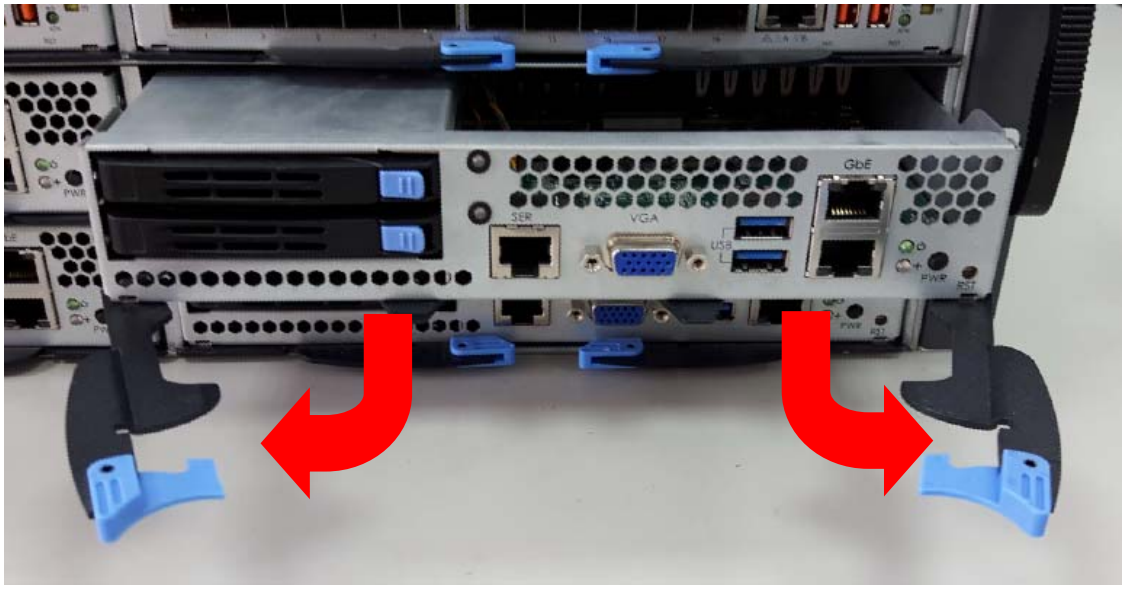


Figure 4: CSA-7400 System

3.3.1 Inserting and Removing the MCN-2600T CPU Sled

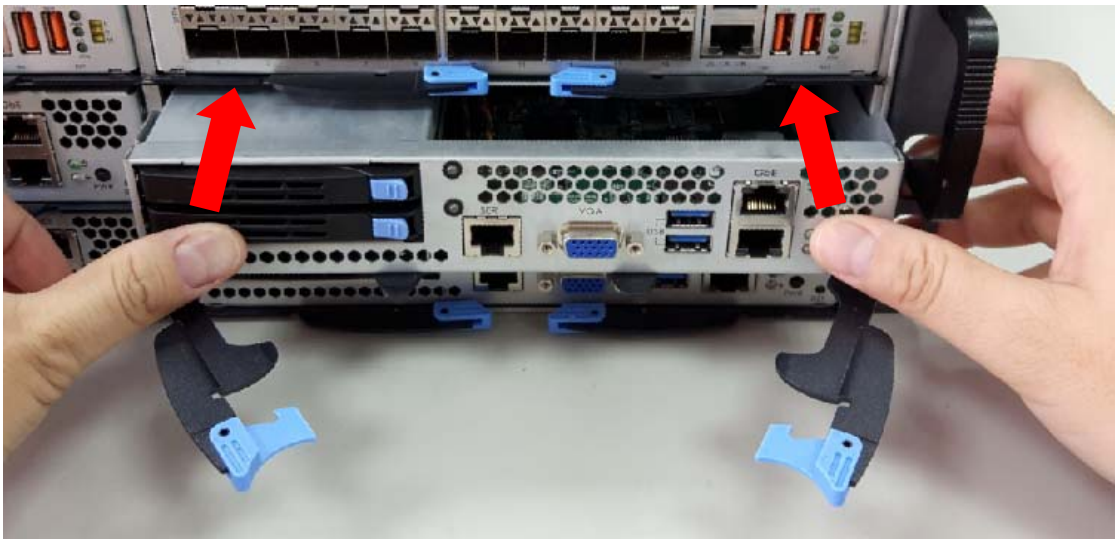
Insert the CPU sleds into the 4 slots in lower 2 layers.

a. Insert the CPU sled into one of the lower 4 slots and open the ejector handles as shown.

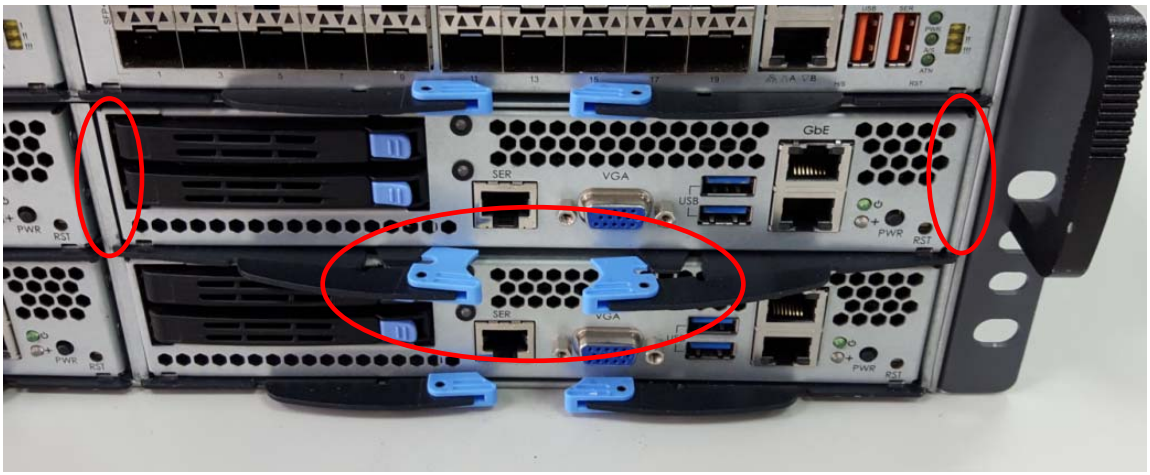


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

b. Push the CPU sled into the slot until the front panel is flush with the chassis.

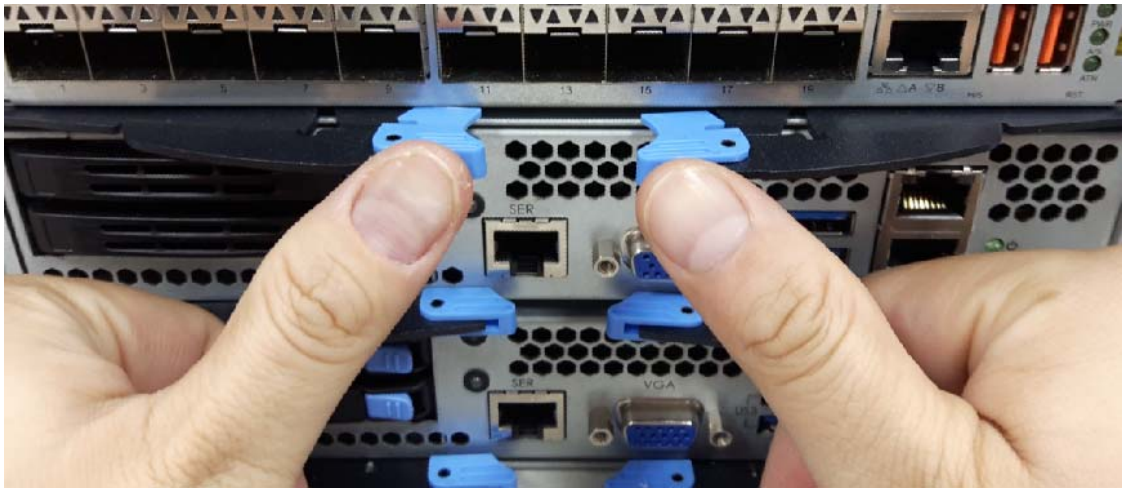


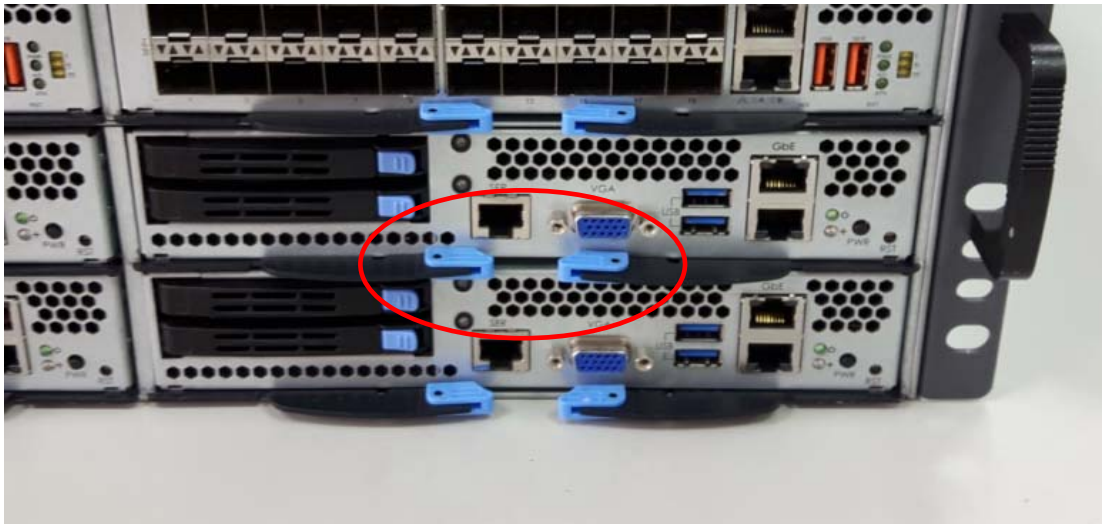
c. When the CPU sled is fully inserted into the chassis, the locking handles will be pulled into the closed position.



Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

d. Press inwards on the ejector handles until they lock into place. You will hear a click.

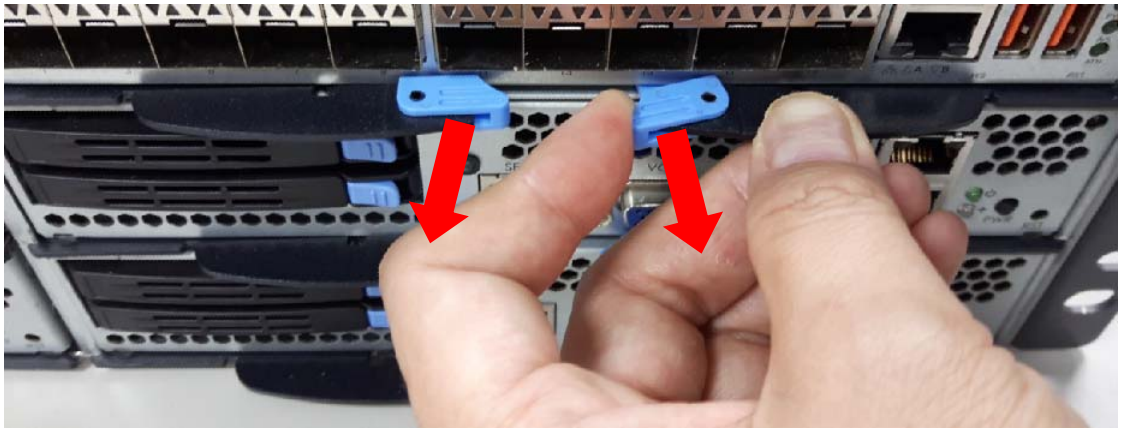




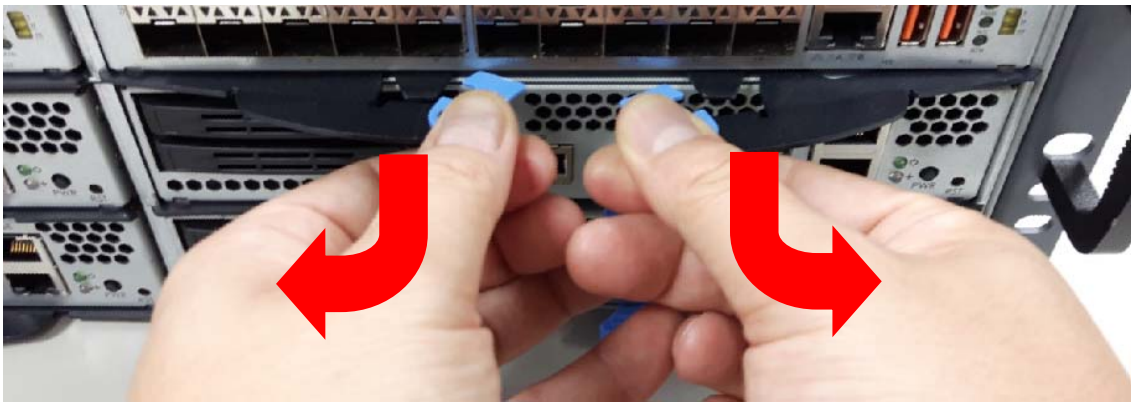
Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

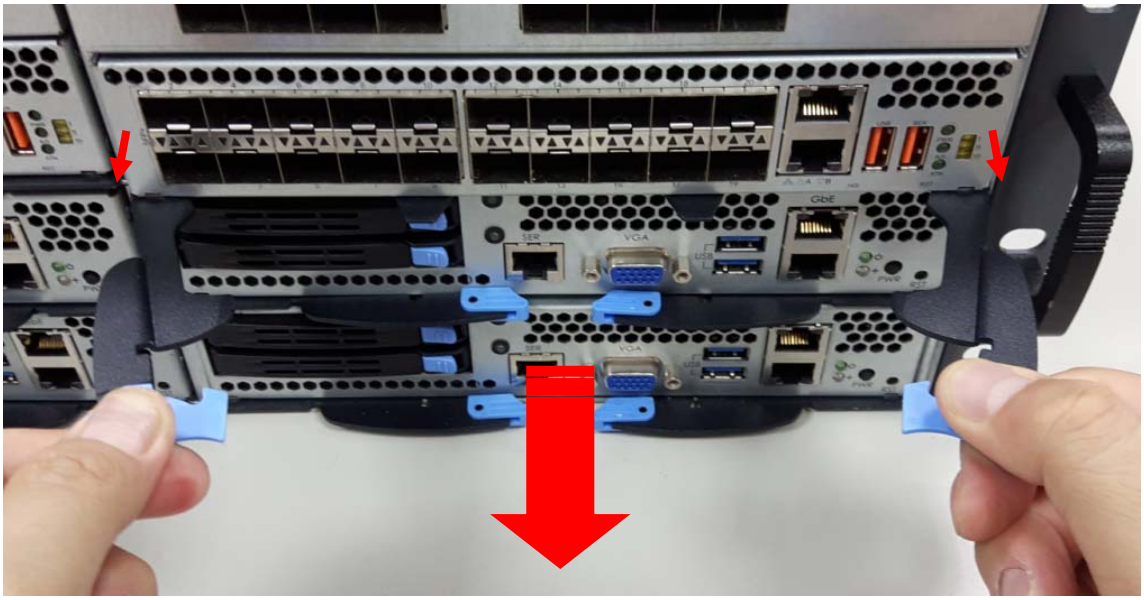
To remove a CPU sled:

a. Pull outwards to release the locking latch of each ejector handle as shown.



b. Pull outwards on the ejector handles as shown to eject the CPU sled from the chassis.





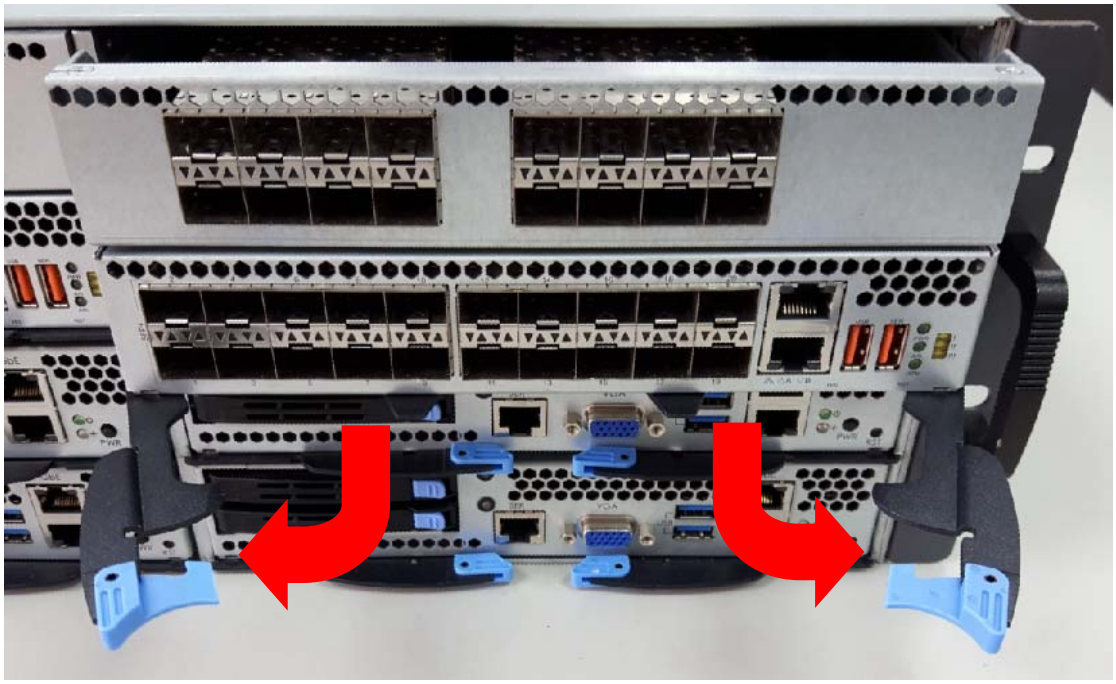
c. Pull back on the ejector handles to remove the CPU sled from the chassis.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

3.3.2 Inserting and Removing the MXN-3610 Switch Sled

Insert the Switch sleds into the 2 slots in upper 2 layers.

a. Insert the Switch sled into one of the upper 2 slots and open the ejector handles as shown.

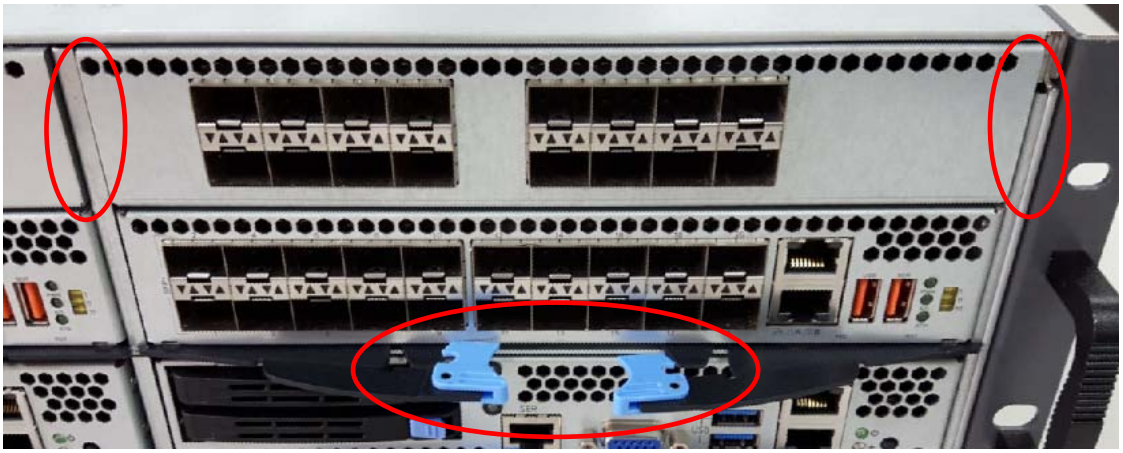


b. Push the Switch sled into the slot by pressing on the front panel of the Switch until the front panel is flush with the chassis.
Caution: Do NOT press on the front panel of the IO card. Doing so may cause damage to the Switch and IO card.



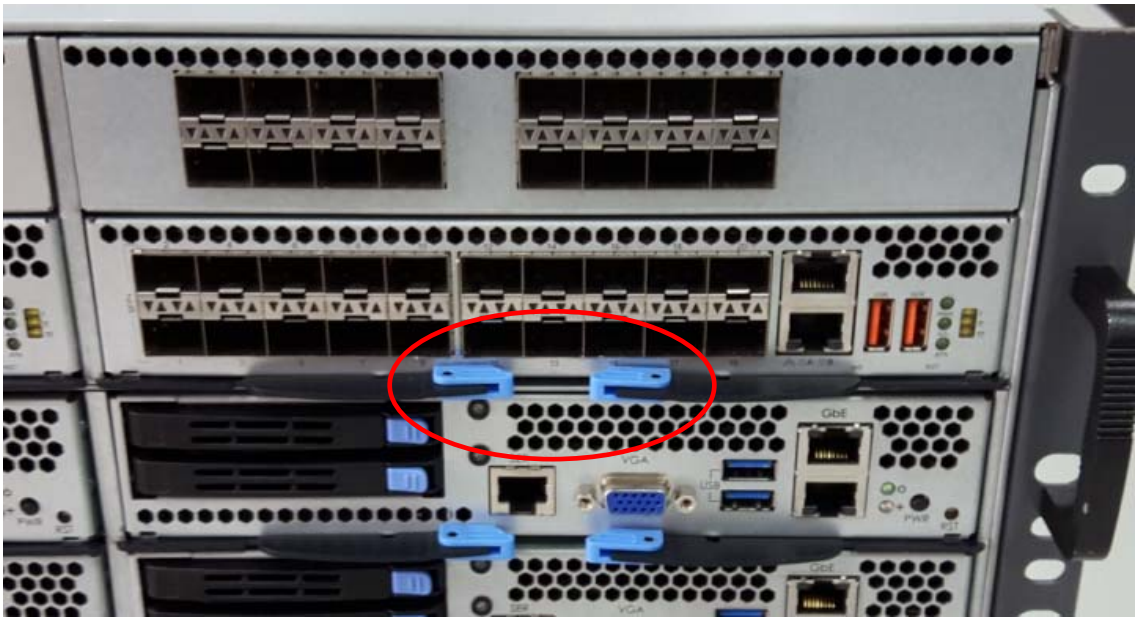
Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

c. When the Switch sled is fully inserted into the chassis, the locking handles will be pulled into the closed position.



d. Press inwards on the ejector handles until they lock into place. You will hear a click.





To remove a CPU sled:
Follow the instructions above for removing a CPU sled.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Note: If you are using the MXN-3610 with VGA cable connected, route the VGA cable as shown below.

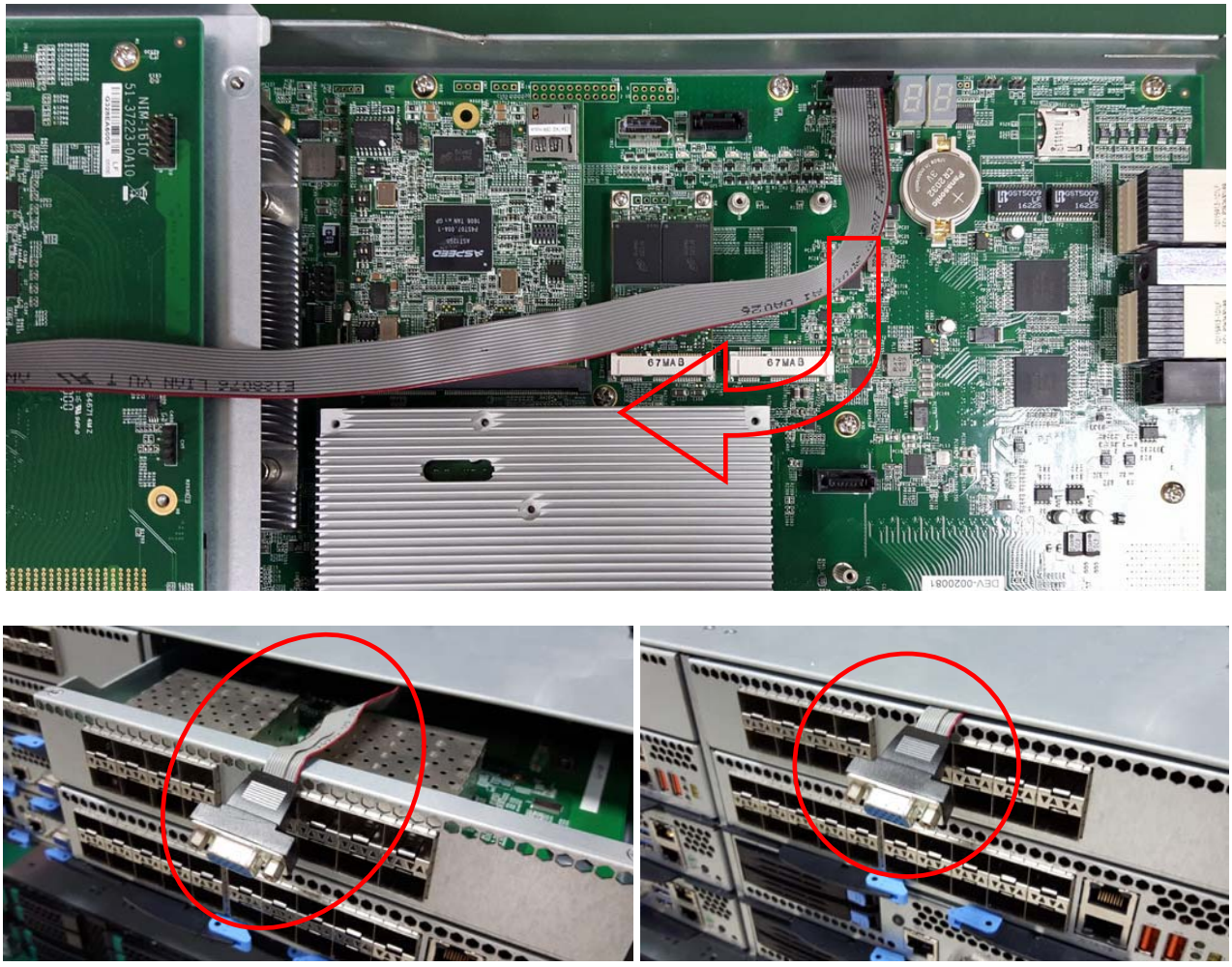
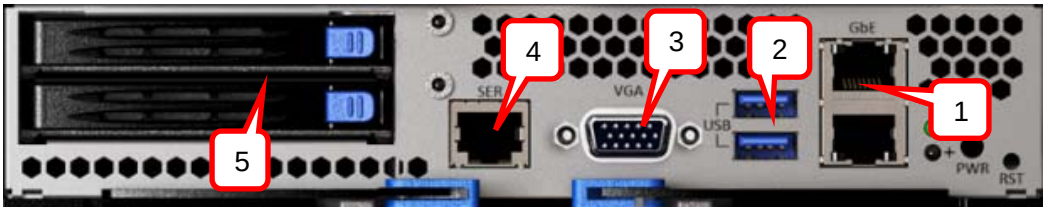


Figure 5: MXN-3610 VGA Cable Routing

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

3.4 MCN-2600T I/O Ports

The MCN-2600T provides I/O connections from the front panel. There are two 1GbE RJ-45 LAN ports, two USB 3.0 port, one VGA port, one console port and two 2.5 drive bays, as shown in figure 7.



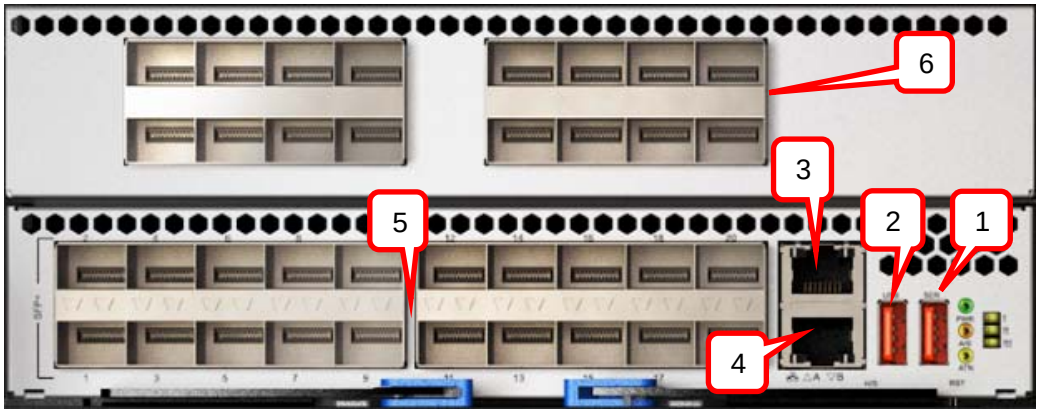
I/O port	Description
1	Two 10/100/1000BASE-T Ethernet ports
2	Two USB 3.0 port
3	VGA connector
4	RJ-45 console port
5	Two 2.5’’ drive bays

Figure 6: MCN-2600T I/O Ports

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

3.5 MXN-3610 I/O Ports

The MXN-3610 provides I/O connections from the front panel. There are two 1GbE RJ-45 LAN ports (top: COMe module, bottom: CMM), a total of thirty-six 10GbE SFP+ ports (20 from MXN-3610, 8 from NIM-1610 extension card), one USB 2.0 port and one USB serial port, as shown below.



I/O port	Description
1	Two-in-one USB serial console to COMe module and CMM (Baud rate: COMe module 115200, CMM 38400)
2	USB 2.0
3	10/100/1000BASE-T RJ-45 port of COMe module
4	10/100/1000BASE-T RJ-45 port of CMM
5	MXN-3610: 20x 10G SFP+ ports
6	NIM-1610: Switch I/O extension card with 16x 10G SFP+ (4x 40G QSFP optional)

Figure 7: MXN-3610 I/O Ports

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

3.6 Connecting Power Cords to the CSA-7400

Power cords are connected to the CSA-7400 platform as shown below. Connect all of the power cords to the AC power inputs. The CSA-7400 has a 3+1 redundant PSU design.

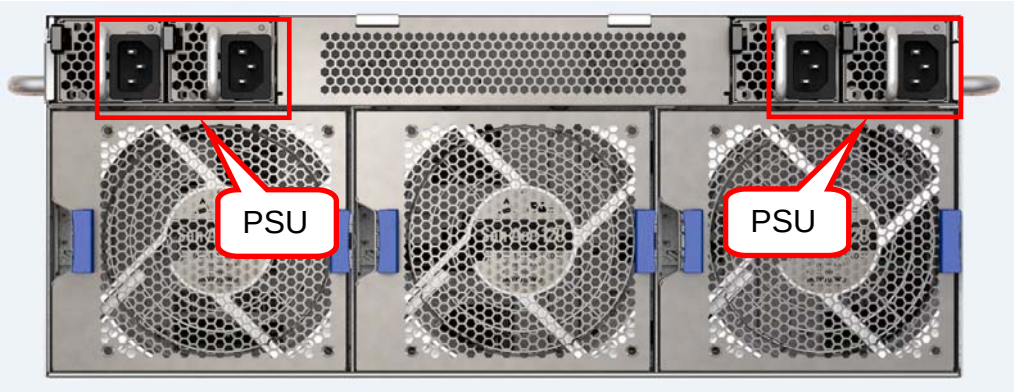


Figure 8: Connecting Power Cords

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

4 Powering Up for the First Time

This chapter covers covers the procedure for booting up the system for the first time.

4.1 Power-Up Behavior

The behavior of the system when powered up is described below.

1. Cooling fans start speeding up as soon as power is applied to the system.
2. Power LEDs of both CPU and switch nodes turn ON (green).
3. CPU nodes start booting up: The status LED turns ON (red), indicating BIOS POST status. After BIOS POST is completed, the status LED changes from red to green, Indicating system status
   Note: The BMC Watchdog timeout will turn off the status LED. If the BMC watchdog is not enabled, the green status LED will stay on.
4. After a few seconds, the switch node A/S LED turns ON (steady or blinking) indicating CM Active/Standby status.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

4.2 Health/Status Indicators and Buttons

This section covers the LEDs and buttons on the CSA-7400 platform: MXN-3610 and MCN-2600T, as show in Figure 9.

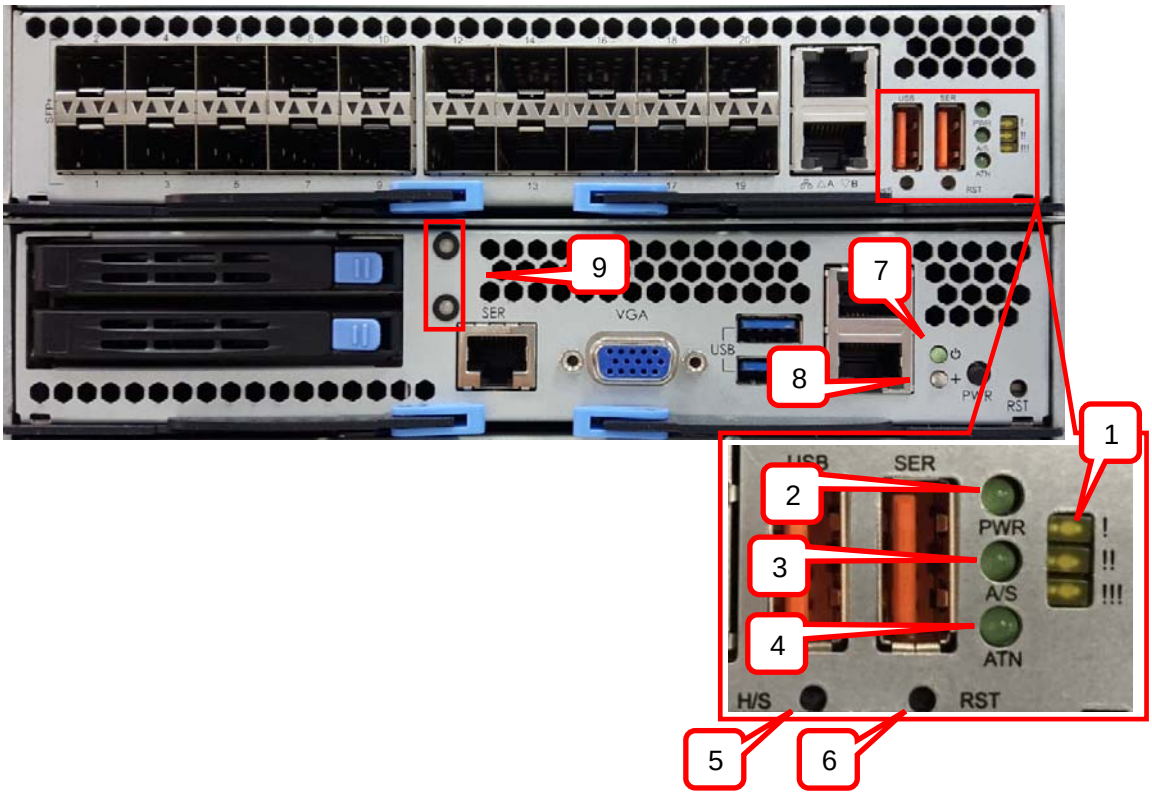


Figure 9: CSA-7400 Status LEDS

	LED #	Description	
MXN-3610	1	Alarm LED: indicates CMM alarm level	
	2	Power LED (power on: Green)	
	3	Active/Standby (A/S) LED: Steady Green means CMM is active Blinking Green means CMM is standby	
	4	ATN LED: Lights Green to indicate OK to hot-swap	
	5	Hot Swap button (H/S)	
	6	Reset button (RST)	
MCN-2600T	7	Power LED (power on: Green)	
	8	Status LED (BIOS POST: Red; POST completed: Green)	
	9	SATA Drive LEDs	
		Drive Status	**LED (Green)**
		Read/Write	Blinking
		Idle	On
		Not Present	Off

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

5 BIOS Setup

This chapter describes how to setup BIOS, both MXN-3610 and MCN-2600T.

5.1 MXN-3610 BIOS Configuration

Note: The MXN-3610 BIOS default setting does not enable the VGA display: *Boot* > *CSM parameters* > *Launch Video OpROM policy* > *Do not launch*. If you want to display BIOS via VGA, please change 'Do not launch' to 'Legacy Only'.

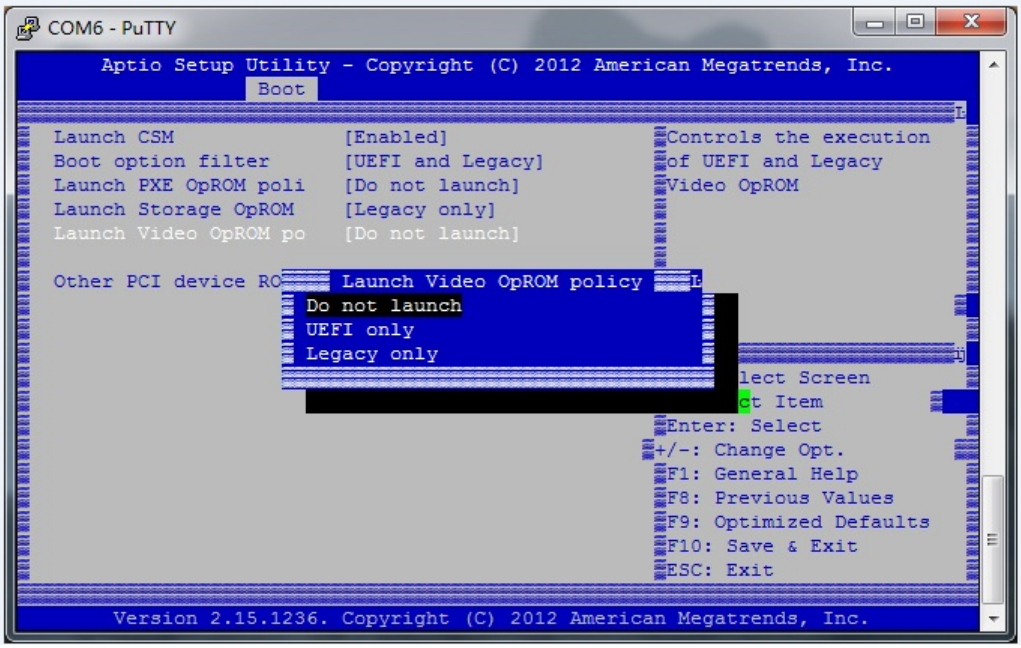


Figure 10: Setting BIOS Display Mode

Therefore, the first time you enter the MXN-3610 BIOS setup menu must be via the serial port:

1. Refer to 7.1.1 Login Via Serial Port steps 1 to 3.
2. Power on the system. During POST (when the screen begins receiving output), press the <ESC> or <Del> key to enter the BIOS setup.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

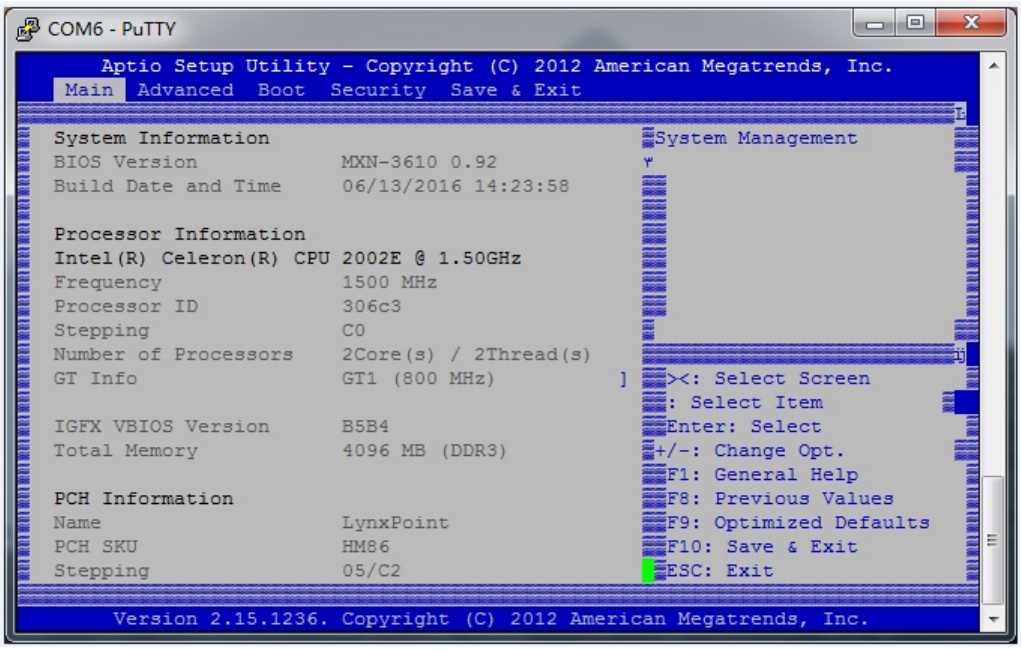


Figure 11: MXN-3610 BIOS

The BIOS setup default values are the optimum performance settings for all devices and system features. However, you can change some of the settings, particularly the device boot order, to better suit your needs.

5.2 MCN-2600T BIOS Configuration

MCN-2600T BIOS firmware is based on the American Megatrends Inc. (AMI) EFI solution, and it can be customized to support different motherboard IO extensions. The following operating systems are supported.

- Windows 7 64-bit
- Linux Kernel 2.6 and above

How to enter the setup screen, follow these steps:

1. Power on the system
2. Press the < Delete > key on your keyboard when you see the following text prompt: *Press <DEL> or <ESC> to enter Setup*. After you press the < Delete > key, the main BIOS setup menu will appear.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

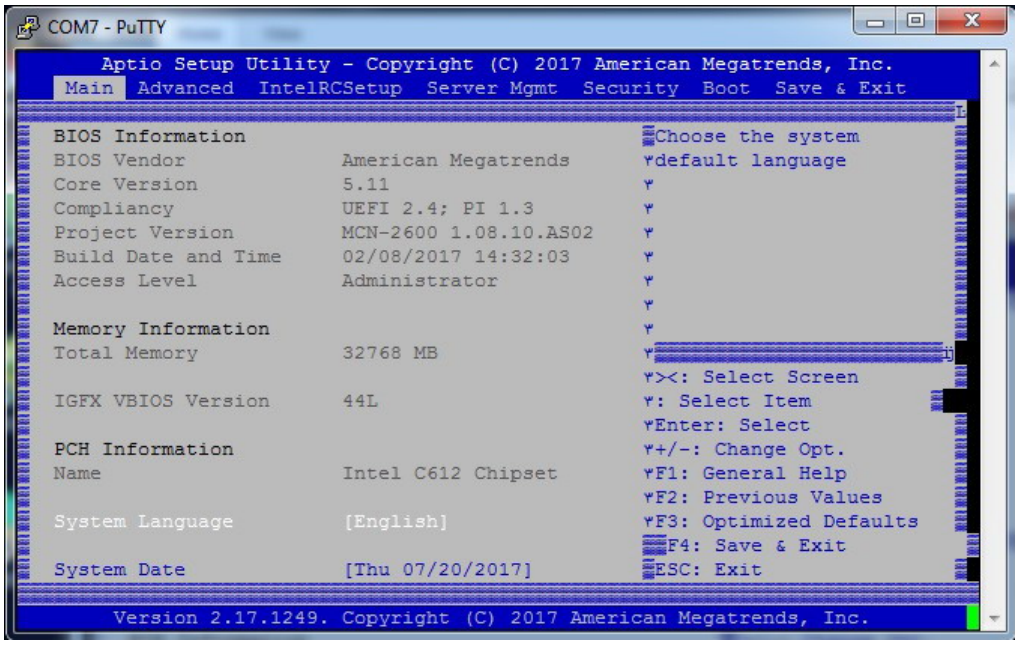


Figure 12: MCN-2600T BIOS Setup Menu

You can access the other setup screens to suit your needs, such as Serial Port Console Redirection, iSCSI Configuration and LAN Bypass Configuration. For more detailed configuration regarding the MCN-2600T, please refer to the CSA-7400 User's Manual, Chapter 5, MCN-2600T BIOS Setup, which can be download from the ADLINK website. www.adlinktech.com/PD/web/PD_detail.php?cKind=&pid=1624

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

6 Network Configuration

This chapter explains how to configure CSA-7400 platform for your specific network environment.

6.1 MXN-3610 System IP Setup

Users can set the network to “DHCP” or “Static” mode via edit “/etc/sysconfig/network-scripts/ifcfg-enp2s0”, by logging in to the COMe module serial console. The default mode is “DHCP”.

After editing, save the change, and run “reboot” for the change to take effect.

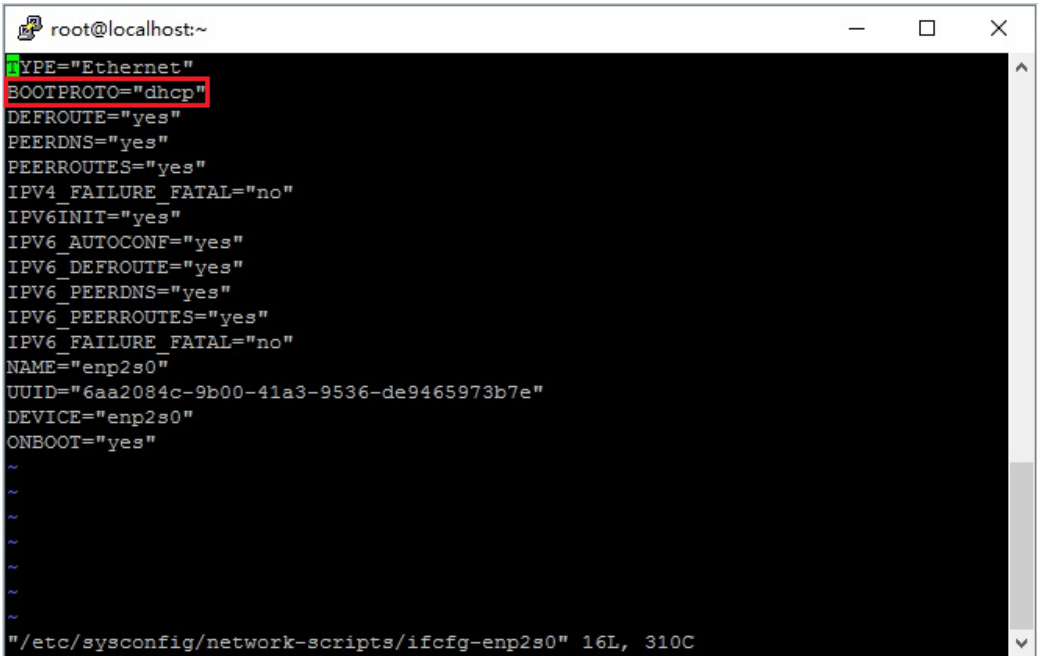


Figure 13: COMe Module Network Default Mode

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

6.2 CMM IP configuration

Users can set the network to “DHCP” or “Static” mode via edit “/conf/interfaces” by logging in to the CMM serial console. The default mode is “DHCP”.

After editing, save the change, and run “reboot” for the change to take effect.

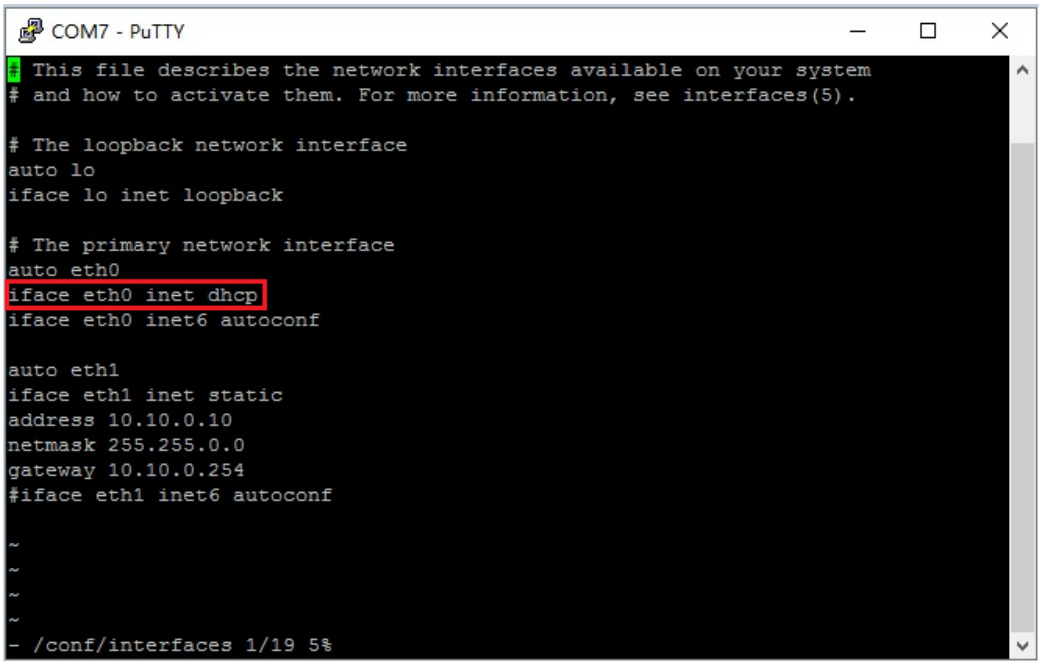


Figure 14: CMM Network Default Mode

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

7 Running the CSA-7400 Platform

On the CSA-7400 platform, the MXN-3610 is shipped with a pre-installed operating system and the MCN-2600T is shipped without a pre-installed operating system. This chapter covers how to run the operating system.

7.1 Login to the MXN-3610 Switch

The MXN-3610 is shipped with an operating system pre-installed on the COMe module. Users can login to the switch using the following methods.

- Via USB Serial Port
- Local login
- Via Network Port

7.1.1 Login Via Serial Port

Step 1
Connect a PC and MXN-3610 with USB-to-USB cable using the port labeled “SER”.



Figure 15: Connecting USB Serial Port

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Step 2
Install the USB-serial chip driver “CDM v2.12.06 WHQL Certified.zip” or “CDM v2.12.06 WHQL Certified_64.zip” on the PC. Check the COM number in the Device Manager.

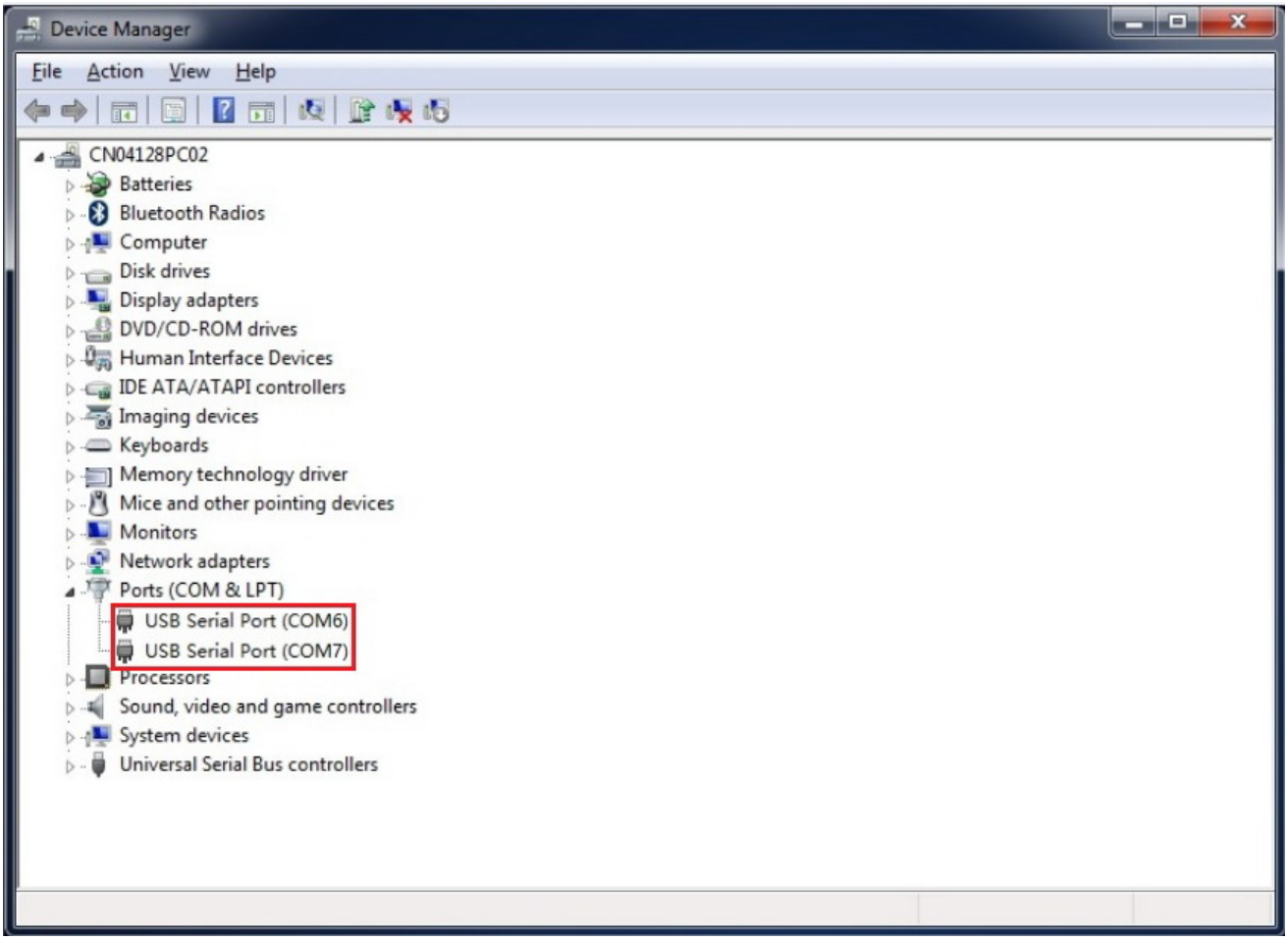


Figure 16: Checking the USB COM Port Number

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Step 3
Open serial port console tool (e.g. putty), choose the smaller COM port (it may be different on different computers, please try both), then set baud rate to **115200**. Click the 'Open' button.

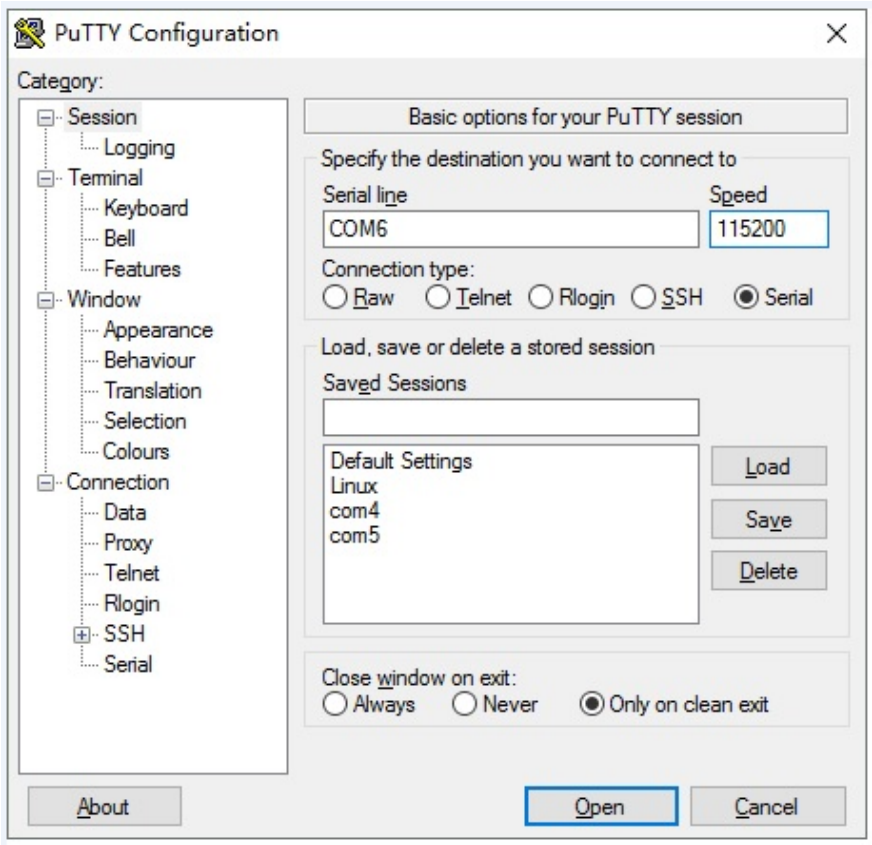


Figure 17: Putty Settings for Login Via Serial Port

Note: Be sure to set the baud rate to 115200 to login to the switch.

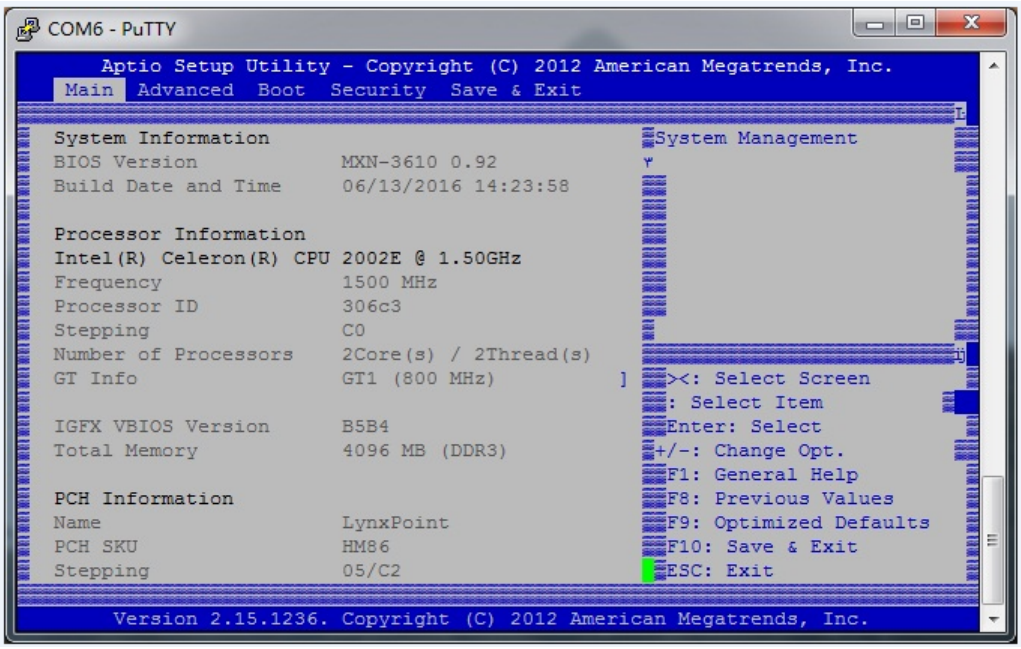
Step 4
Input the user name "root" and password "adlink" to login to the system.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

7.1.2 Local Login

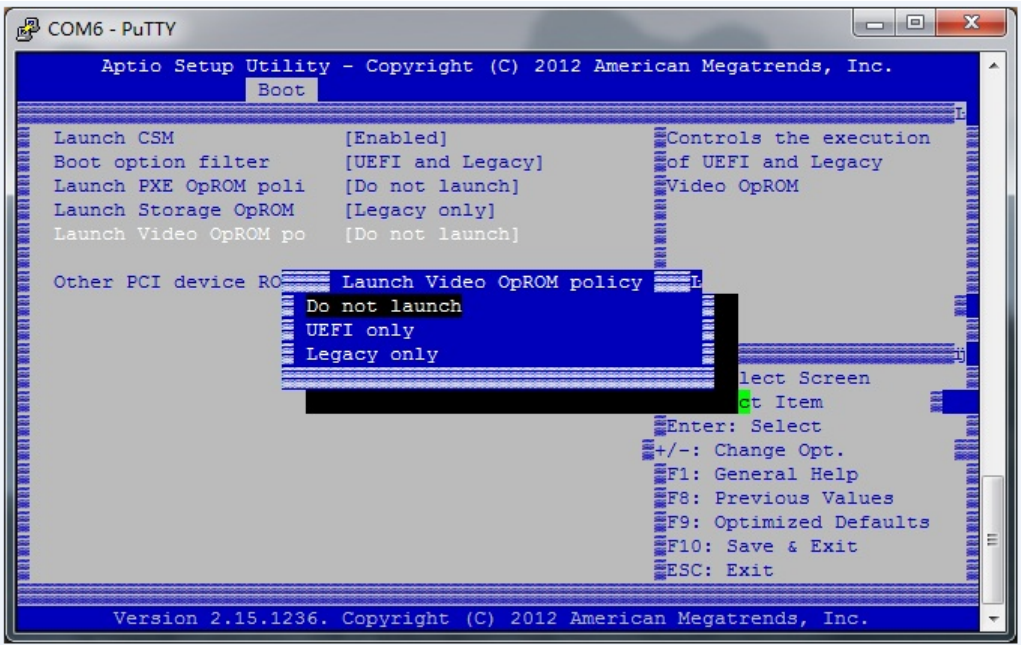
The MXN-3610 COMe BIOS default setting does not enable the VGA display. Therefore, the first time you ent login toer the MXN-3610 BIOS setup menu must be via the serial port: To enable local login using the VGA display:

1. Perform steps 1 to 3 of **7.1.1 Login Via Serial Port** above. In step 3, click the “Open” button as soon as possible after powering on the system.
2. During the POST sequence, (when the screen begins receiving output), press the <ESC> or <Del> key to enter the BIOS setup.



Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

To enable the VGA display, change the *Boot > CSM parameters > Launch Video OpROM policy* setting from “Do not launch” to “Legacy Only”. Save the settings and restart the system.



Connect the MXN-3610 to a monitor using the VGA cable (see **3.2 Connecting VGA cable to the MXN-3610** for instructions). Login to the system on the COMe module with the user name “root” and password “adlink”.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

7.1.3 Via Network Port

Step 1
Connect the LAN port of the COMe module to the DHCP server.

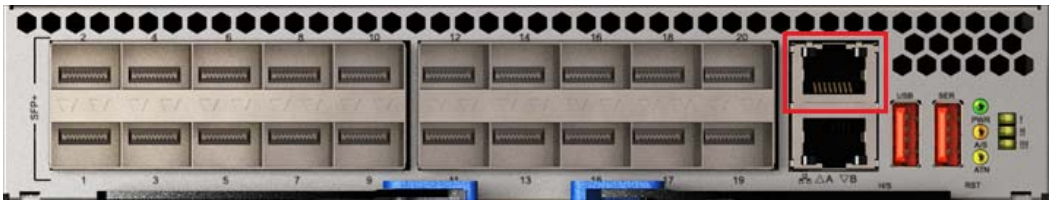


Figure 18: Connecting to LAN Port of COMe Module

Step 2
Open an SSH tool (such as PuTTY), input the host name “172.20.2.23” (login to the COMe module via serial port to check the IP address).

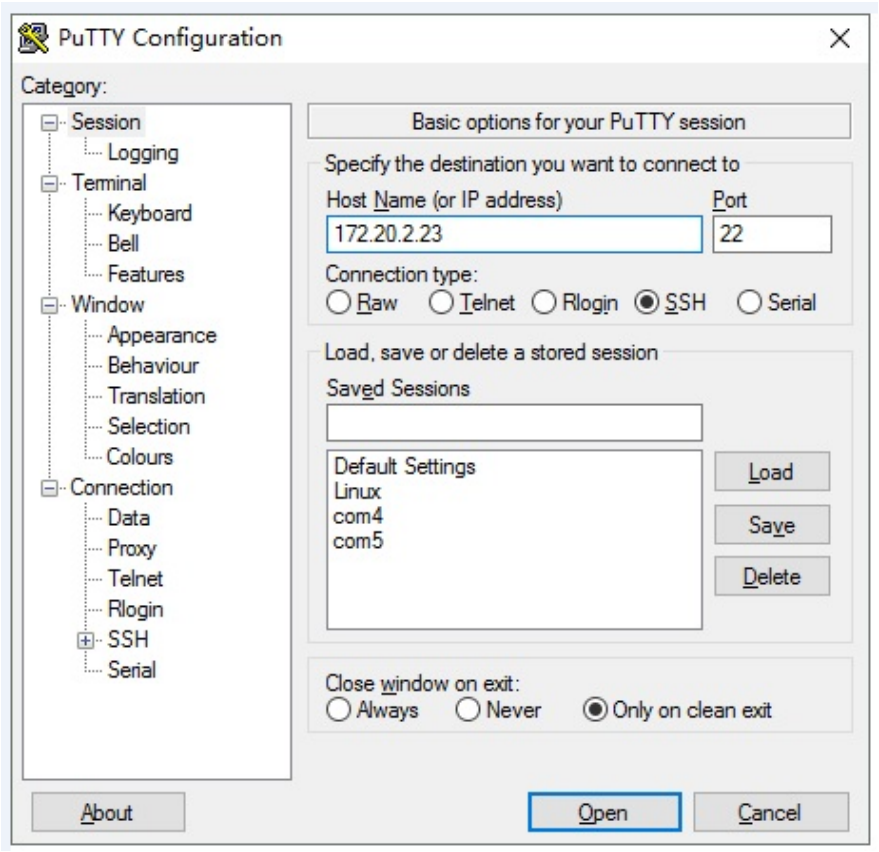


Figure 19: PuTTY Settings for Login via LAN Port

Step 3
Input the user name “root” and password “adlink” to login to the system.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

7.2 MXN-3610 OS Version Check

After logging in to the MXN-3610 system, you can check OS version by using the following command: *uname –a* or *cat /proc/version*. The shipped system version is CentOS 7 (Linux kernel 3.10.0-229.e17.x86_64), as shown below.

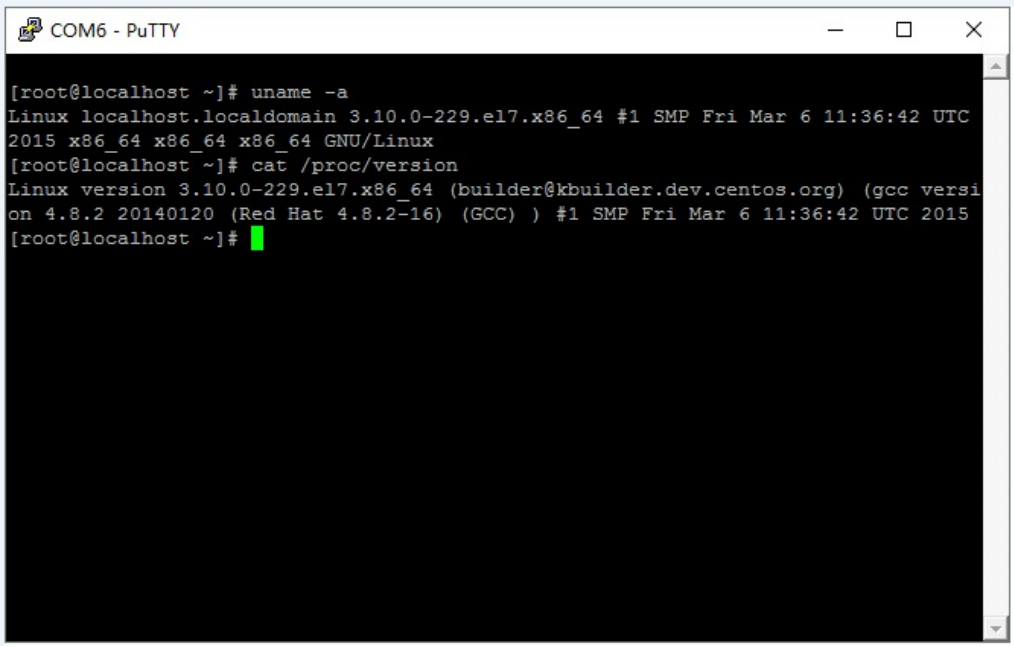


Figure 20: MXN-3610 OS Version

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

7.3 Login to the MXN-3610 CMM Locally

This chapter covers how to login to the MXN-3610 Chassis Management Module (CMM):

- Via USB serial port
- Via LAN port of CMM

7.3.1 Login to the CMM Via Serial Port

Step 1
Open a serial port console tool (such as PuTTY), choose the larger COM port (it may be different on different computers, please try both), then set baud rate to **38400**.

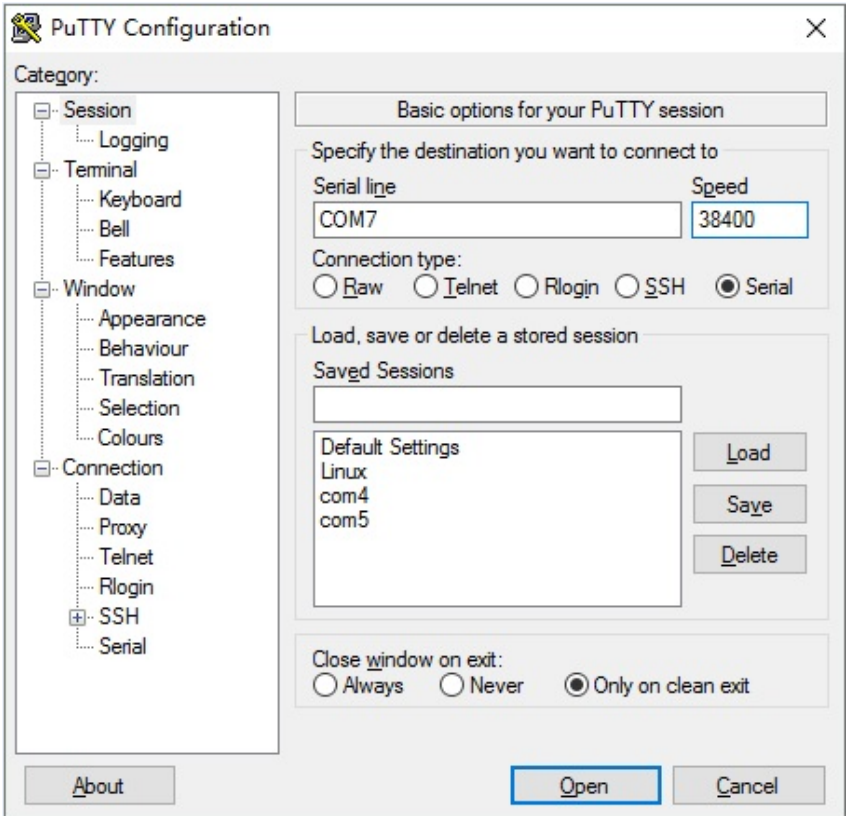


Figure 21: PuTTY Settings for Login via Serial Port (CMM)

Note: Be sure to set the baud rate to 38400 to login to the CMM.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Step 2
Input the user name “sysadmin” and password “superuser” to login to the system.

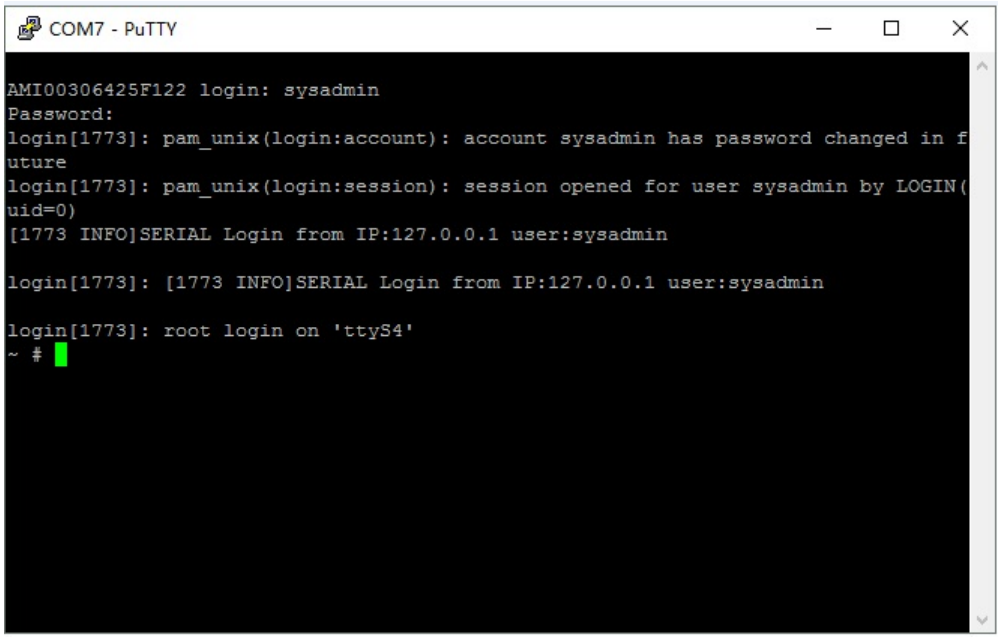


Figure 22: Connect to CMM via Serial Port

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

7.3.2 Login to the MXN-3610 CMM via LAN Port

Step 1
Connect the LAN port of the MXN-3610 CMM to the DHCP server.

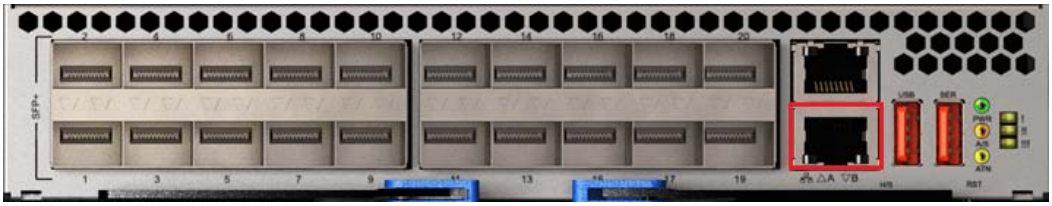


Figure 23: Connecting to LAN Port of CMM

Step 2
Open a SSH tool (such as PuTTY), input host name “172.20.2.18” (use serial port login to the CMM to check the IP address).

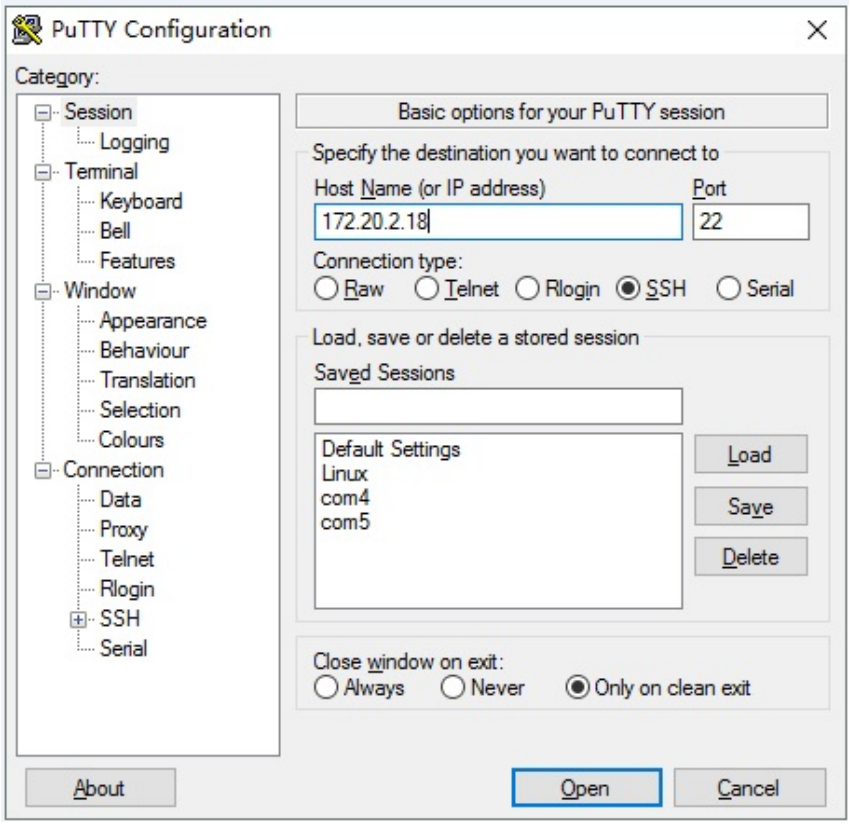


Figure 24: PuTTY Settings for Login via LAN Port (CMM)

Step3
Input the user name “sysadmin” and password “superuser” to login to the system.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

7.4 Checking the MXN-3610 CMM Firmware Version

After logging in to the MXN-3610 CMM, you can check CMM firmware version by using the following command:

ipmitool –H 172.20.2.18 –U admin –P admin mc info

The shipped CMM firmware version is 3.0, as show below.

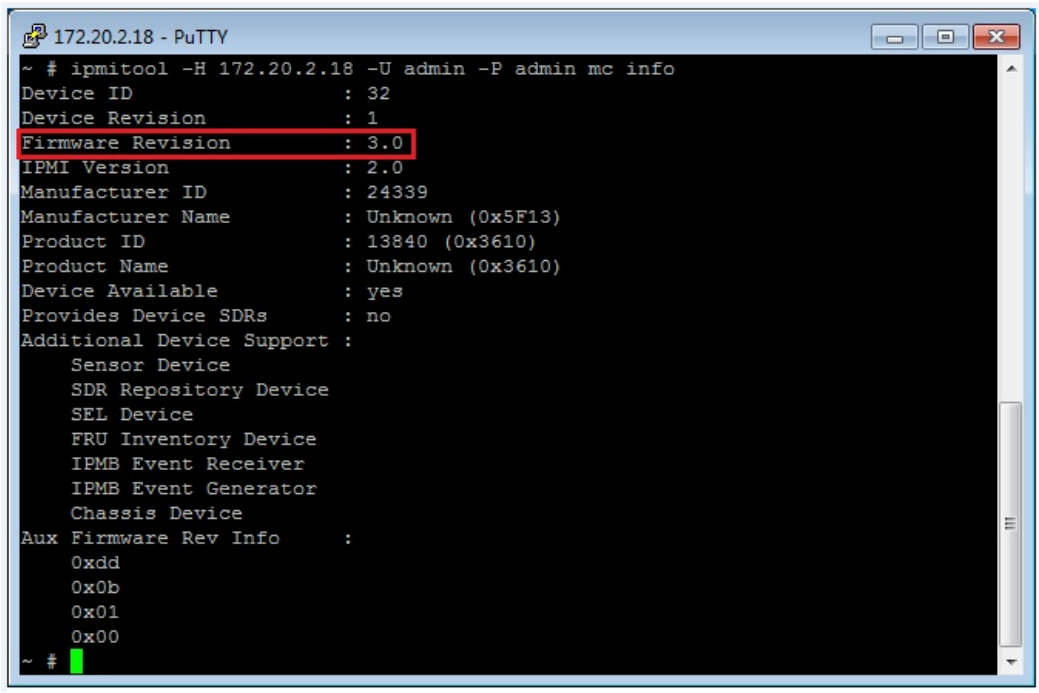


Figure 25: Checking the CMM Firmware Version

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

7.5 Running MCN-2600T System

The MCN-2600T is shipped without a pre-installed operating system. Therefor, you will need install an operating system before using the MCN-2600T The following operating systems are supported:

- Window 7 64bit
- Linux Kernel 2.6 or above

For more detailed information about the MCN-2600T, download the MCN-2600 Compute Node Specification from: http://www.adlinktech.com/PD/web/PD_OtherDocument.php?PDNo=1624&Kind=OD&mktg_source=.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

8 PacketManager on the MXN-3610

ADLINK PacketManager runs on the MXN-3610 COMe module under Linux OS. It includes the most commonly used Layer2/3 stacks and switch management features.

This chapter describes how to check the version, enter Configure Mode and get help.

8.1 Check PacketManager Installation Version

Go to the Linux file path “/root” to check the PacketManager version. The file “PacketManager_xxx_Vxx_s.xxx.tar.gz” is the software installation package. The package will be unzipped to the directory “PacketManager_xxx_Vxx_s.xxx”.

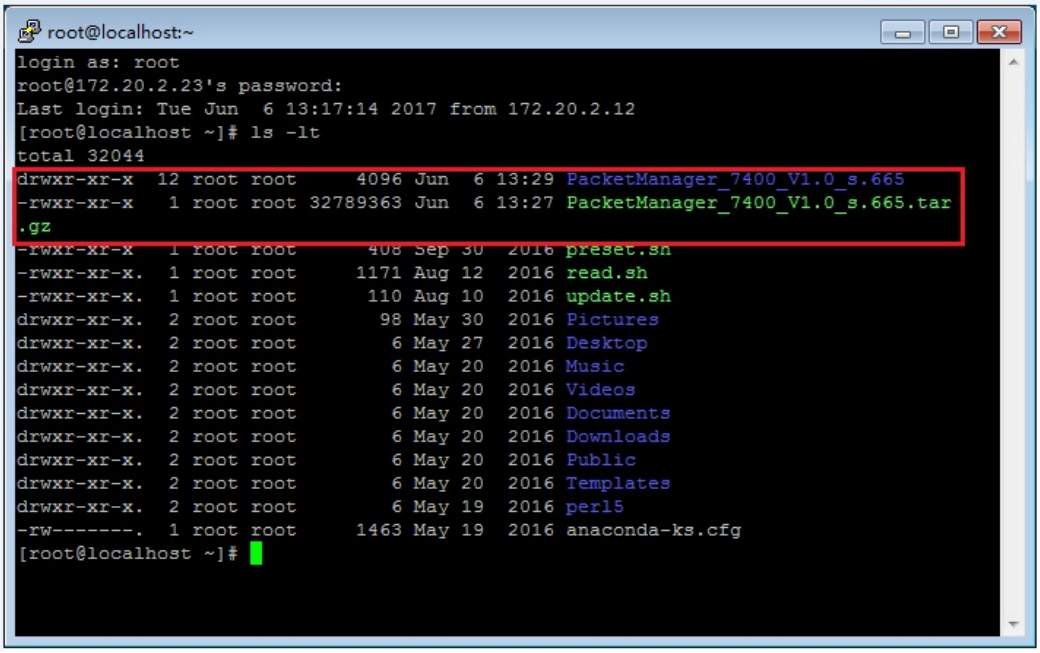


Figure 26: Check PacketManager Version

The PacketManager version number consists of three parts: “7400” represents the platform, “V1.0” is the major version number, and “S.665” is the secondary version number.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

8.2 Command Line Interface and Configure Mode

Step 1
After logging into the MXN-3610 system, you can input the following command to enter command line interface (CLI):

telnet localhost 9896

Step 2
To enter Configure Mode, use the enable command “en” or “enable” and default password “adlink”. The display will not echo the password. After entering Configure Mode successfully, the prompt will change from ">" to "#", as show below.

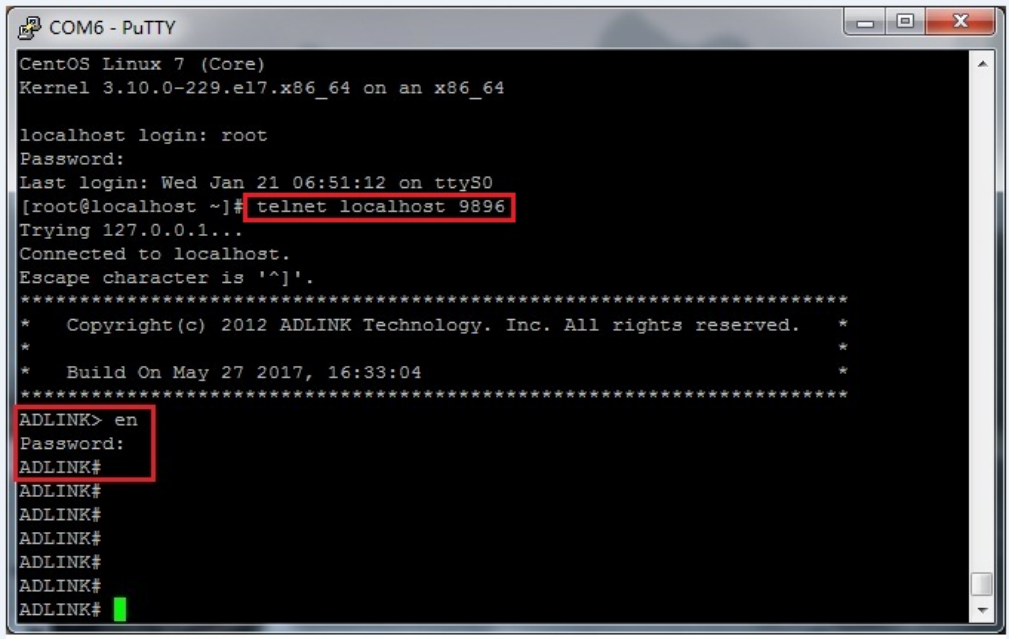


Figure 27: Entering the Command Line Interface and Configure Mode

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

8.3 Get Help and Check Version

Entering a question mark “?” at the system prompt will display a list of commands or sub commands available for the current command mode. You can also type a “?” in the middle of a command line to view the list of valid arguments or parameters needed to complete the command.

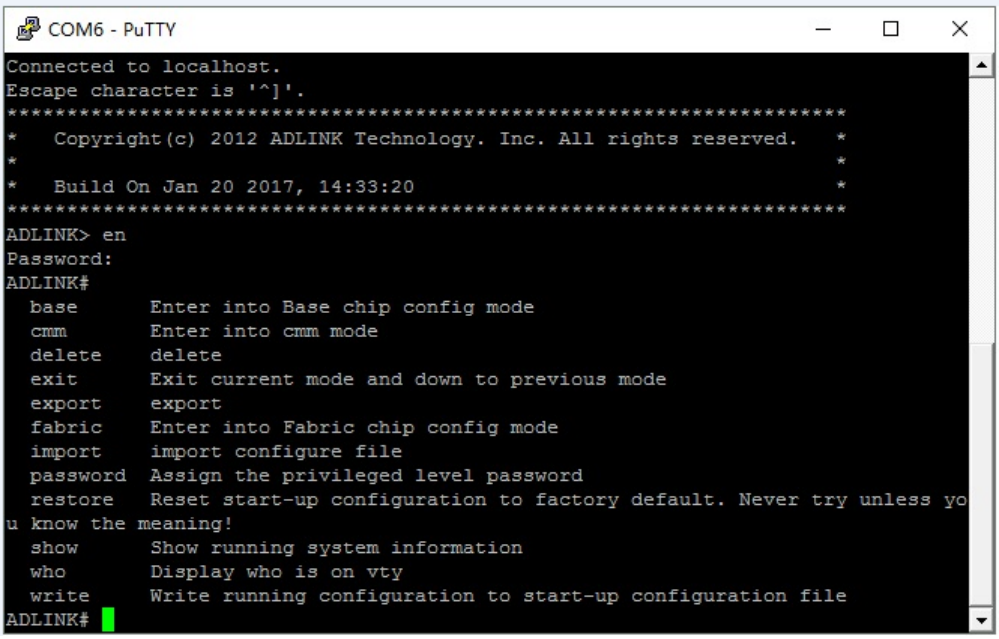


Figure 28: Getting Help in PacketManager

You can also enter “*command<space>?*” to get help for a specific command, such as “*show ?*”.

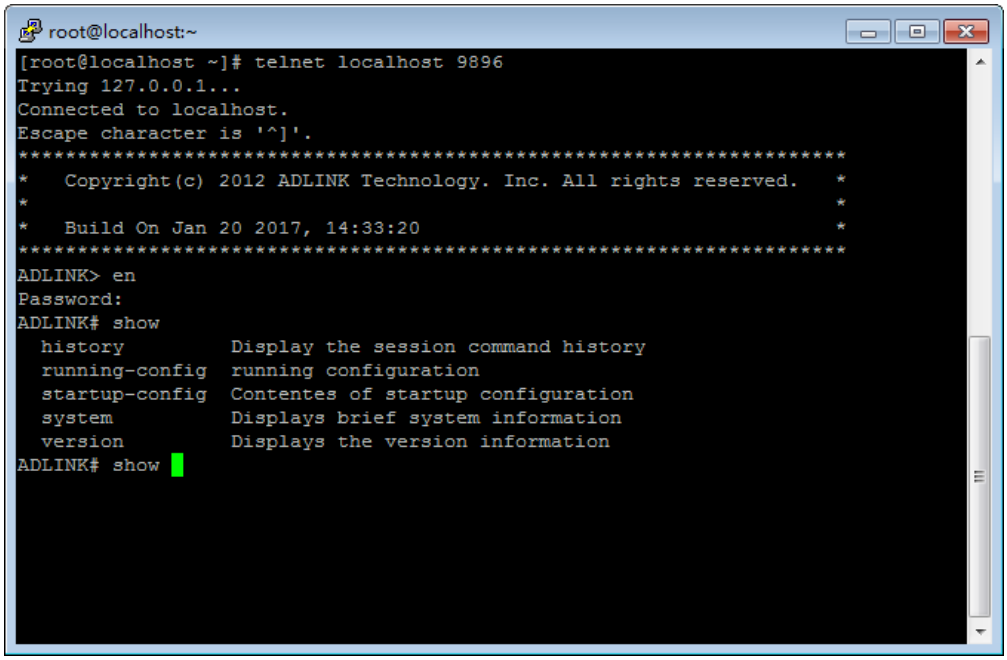


Figure 29: Getting PacketManager Command Help

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Use the “*show version*” command to check the OS and SDK versions.

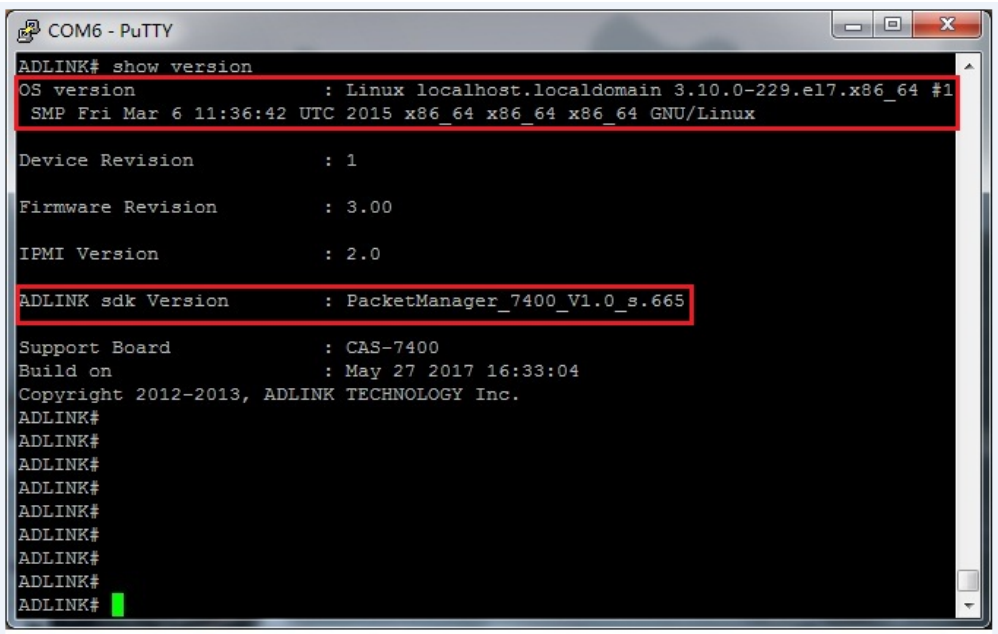


Figure 30: Show OS and SDK Versions

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

8.4 Switch Management

The section will present the frequently used CLI commands for switch management.

At the system prompt, enter the command “*fabric*” to enter fabric mode:

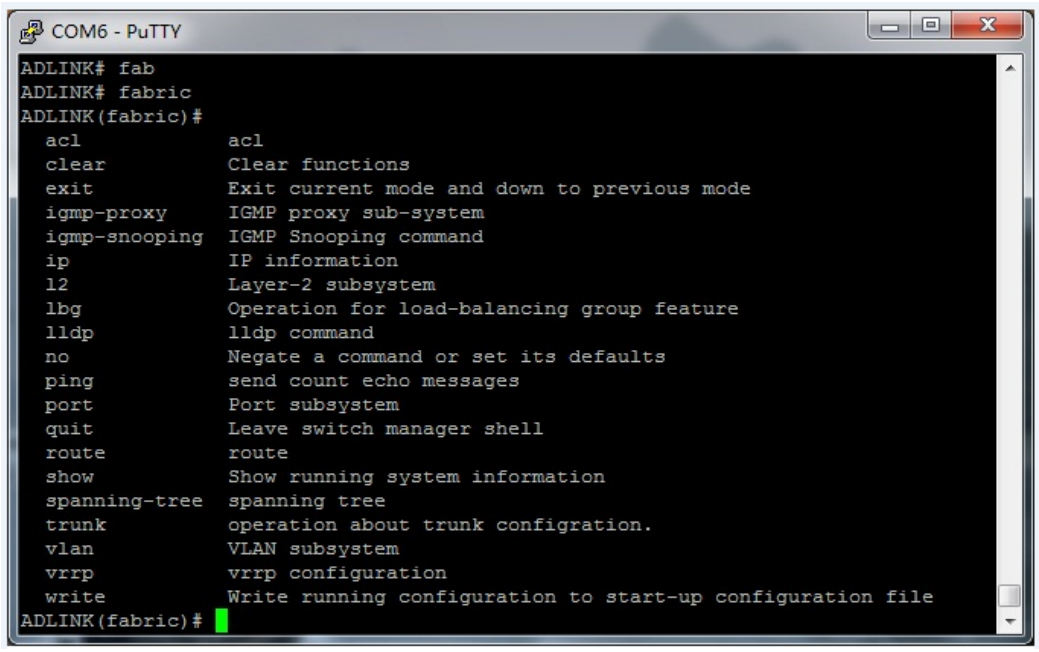


Figure 31: Entering Fabric Mode in PacketManager

In fabric mode, you can configure the switch. An example command is “show port” which can be used to check the port list. For detailed information about configuration commands, please refer to the **ADLINK PacketManager Configuration Guide**.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

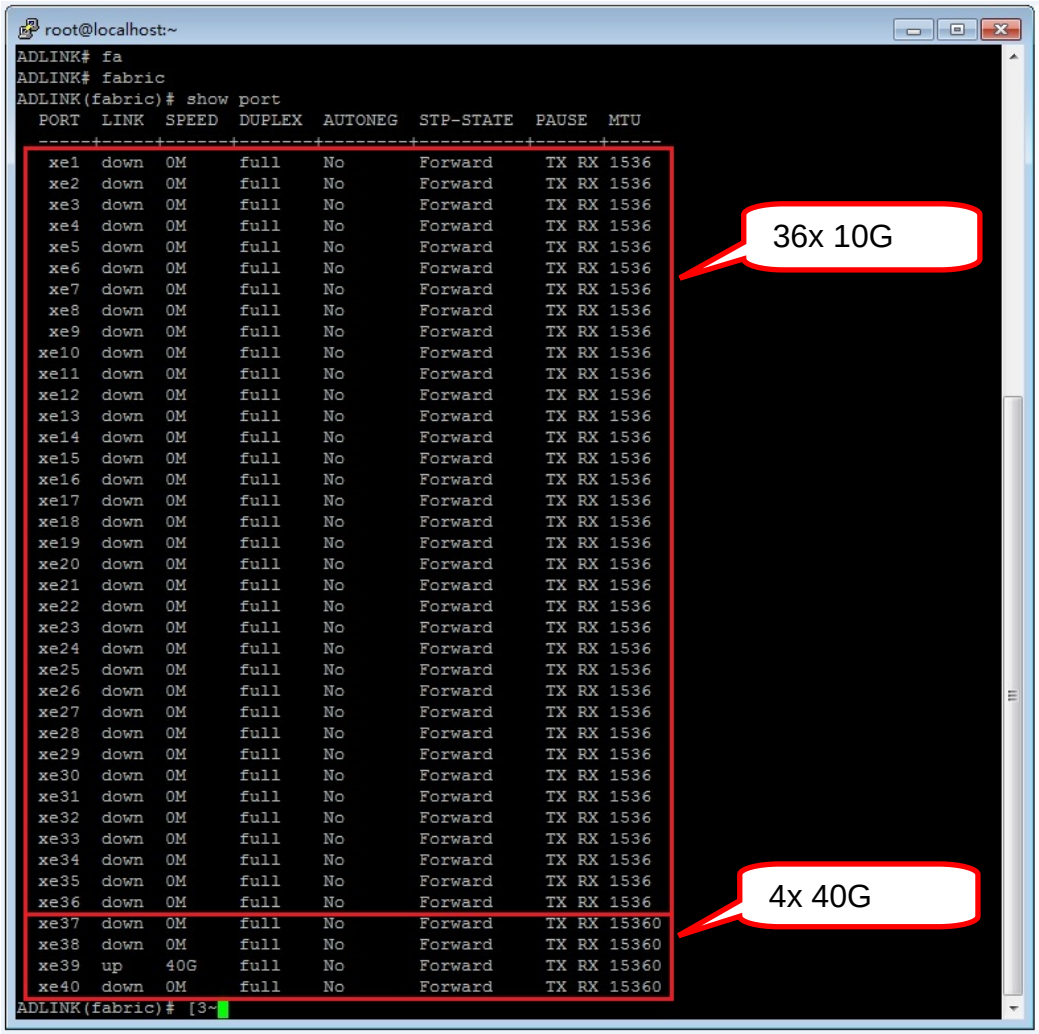


Figure 32: Show All Ports of the MXN-3610

8.4.1 Port Configuration

The following commands are available for configuring port parameters.

Show port counters

Description	Show the traffic counters of ports.	
Prerequisite	None	
Syntax	show port PORT_LIST|PORT_ID counters [nozero]	
Options	PORT_LIST|PORT_ID	Port id list or port id. Eg: xe1 or xe1,xe3 or xe1-xe3.
	nozero	Optional parameter. This parameter is added to hide those zero items.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Example

Show port counters.

```
ADLINK(fabric)# show port xe1 counters
Statistics of port xe1 --
RX Octets                :              410(Byte)
RX Pkts(total)           :                5(packets)
RX Pkts Without Err      :                5(packets)
RX Unicast               :                0(packets)
RX Bcast                 :                0(packets)
RX Mcast                 :                5(packets)
RX Err                   :                0(packets)
RX Oversize              :                0(packets)
RX Discards              :                5(packets)
R64                      :                0(packets)
R65to127                 :              410(packets)
R128-255                 :                0(packets)
R256-511                 :                0(packets)
R512-1023                :                0(packets)
R1024-1518               :                0(packets)
TX Octets                :             3465(Byte)
TX Pkts Without Err      :               36(packets)
TX Unicast               :                0(packets)
TX Bcast                 :                1(packets)
TX Mcast                 :               35(packets)
TX Discards              :                0(packets)
Time since last clear    :          2095600(ms)
```

```
ADLINK(fabric)# show port xe1 counters nozero
Statistics of port xe1 --
RX Octets                :              410(Byte)
RX Pkts(total)           :                5(packets)
RX Pkts Without Err      :                5(packets)
RX Mcast                 :                5(packets)
RX Discards              :                5(packets)
R65to127                 :              410(packets)
TX Octets                :             3465(Byte)
TX Pkts Without Err      :               36(packets)
TX Bcast                 :                1(packets)
TX Mcast                 :               35(packets)
Time since last clear    :          2109818(ms)
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Clear port counters

Description	Clear the traffic counters of ports.	
Prerequisite	None	
Syntax	clear port PORT_LIST|PORT_ID counters	
Options	PORT_LIST|PORT_ID	Port id list or port id. Eg: xe1 or xe1,xe3 or xe1-xe3.

Example

Clear port counters.

```
ADLINK(fabric)# clear port xe1 counters
ADLINK(fabric)# show port xe1 counters
Statistics of port xe1 --
RX Octets                :                0(Byte)
RX Pkts(total)           :                0(packets)
RX Pkts Without Err      :                0(packets)
RX Unicast               :                0(packets)
RX Bcast                 :                0(packets)
RX Mcast                 :                0(packets)
RX Err                   :                0(packets)
RX Oversize              :                0(packets)
RX Discards              :                0(packets)
R64                      :                0(packets)
R65to127                 :                0(packets)
R128-255                 :                0(packets)
R256-511                 :                0(packets)
R512-1023                :                0(packets)
R1024-1518               :                0(packets)
TX Octets                :                0(Byte)
TX Pkts Without Err      :                0(packets)
TX Unicast               :                0(packets)
TX Bcast                 :                0(packets)
TX Mcast                 :                0(packets)
TX Discards              :                0(packets)
Time since last clear    :                6073(ms)
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Show port

Description	Show the status of ports.	
Prerequisite	None	
Syntax	show port PORT_LIST|PORT_ID	
Options	PORT_LIST|PORT_ID	Port id list or port id. Eg: xe1 or xe1,xe3 or xe1-xe3. Optional parameter. If there is no port list, it will show the general status of all ports. Otherwise, it will show the detailed status of the specified ports.

Example

Show port status.

```
ADLINK(fabric)# show port
 PORT  LINK  SPEED  DUPLEX  AUTONEG  STP-STATE  PAUSE  MTU
 -----+-----+------+-------+--------+----------+------+-----
  xe1  up    10G    full    No       Forward    TX RX 1536
  xe2  down  0M     full    No       Forward    TX RX 1536
  xe3  down  0M     full    No       Forward    TX RX 1536
  xe4  down  0M     full    No       Forward    TX RX 1536
  xe5  down  0M     full    No       Forward    TX RX 1536
…
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Show port status (cont'd).

```
ADLINK(fabric)# show port xe1
Information of port xe1 --
Name          : ADLINK-1
Admin status  : Enable              Link status    : Up
Auto-neg      : Off
Link speed    : 10000M              Duplex mode    : Full
Vlan filter   : None                Stp state      : Forward
Default VLAN  : 100                 Default COS    : 0
Untag Vlan Cnt : 1                  Untag Vlan No  : 100
Tagged Vlan Cnt: 0
MTU           : 1536
Qinq mode     : external
Mac learn     : Enable
Mcast limit   : Disable             Mcast max rate : 0 Mbps
Bcast limit   : Enable              Bcast max rate : 89 Mbps
DLF   limit   : Enable              DLF max rate   : 478 Mbps
TxPause       : Enable
RxPause       : Enable
ADLINK(fabric)#
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Port enable/disable

Description	Set the port admin status of ports.	
Prerequisite	None	
Syntax	port PORT_LIST|PORT_ID enable|disable	
Options	PORT_LIST|PORT_ID	Port id list or port id. Eg: xe1 or xe1,xe3 or xe1-xe3.
	Enable|disable	Set the admin status of ports to be enable or disable.

Example

Port enable and disable.

```
ADLINK(fabric)# port xe1 enable
ADLINK(fabric)# show port  xe1
Information of port xe1 --
Name          : xe1
Admin status   : Enable              Link status    : Up
Auto-neg       : Off
Link speed     : 10000M              Duplex mode    : Full
…
ADLINK(fabric)# port xe1 disable
ADLINK(fabric)# show port  xe1
Information of port xe1 --
Name          : xe1
Admin status   : Disable             Link status    : Down
Auto-neg       : Off
Link speed     : 0M                  Duplex mode    : Full
…
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Port autoneg enable/disable

Description	Set the AutoNeg status of ports.	
Prerequisite	None	
Syntax	port PORT_LIST|PORT_ID autoneg enable|disable	
Options	PORT_LIST|PORT_ID	Port id list or port id. Eg: xe1 or xe1,xe3 or xe1-xe3.
	enable|disable	Set the AutoNeg status of ports to be enable or disable. Note that Enabling autonegotiation is ineffective unless the link partner also has autonegotiation enabled. If autonegotiation is disabled, you must set the line speed of the physical port.

Example

Set port autoneg status.

```
ADLINK(fabric)# port xe1 autoneg enable
ADLINK(fabric)# show port xe1
Information of port xe1 --
Name          : xe1
Admin status   : Enable              Link status    : Up
Auto-neg       : On
Link speed     : 10000M              Duplex mode    : Full
….
ADLINK(fabric)# port xe1 autoneg disable
ADLINK(fabric)# show port xe1
Information of port xe1 --
Name          : xe1
Admin status   : Enable              Link status    : Up
Auto-neg       : Off
Link speed     : 10000M              Duplex mode    : Full
…
```

Set port default VLAN

Description	Set the default VLAN ID of ports.	
Prerequisite	None	
Syntax	port PORT_LIST|PORT_ID pvlan <1-4094>	
Options	PORT_LIST|PORT_ID	Port id list or port id. Eg: xe1 or xe1,xe3 or xe1-xe3.
	<1-4094>	Default vlan id. 1 to 4094 is legal value. When a packet coming in without vlan, it will be added a vlan. The vlan id is the ingress port's default vlan.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Example

Set the default VLAN ID of ports.

```
ADLINK(fabric)# port  xe1 pvlan 100
ADLINK(fabric)# show port xe1
Information of port xe1 --
Name          : xe1
Admin status   : Enable              Link status    : Down
Auto-neg       : Off
Link speed     : 0M                  Duplex mode    : Full
Vlan filter    : None                Stp state      : Forward
Default VLAN   : 100                 Default COS    : 0
…
```

Set port description

Description	Set the description of a port.	
Prerequisite	None	
Syntax	port PORT_LIST|PORT_ID name STRING | clear	
Options	PORT_ID	Eg: xe1.
	STRING	Set port description as the string. The max length of the string is 31.
	clear	Clear the description of the port.

Example

Set port name.

```
ADLINK(fabric)# port xe1 name uplink_port
ADLINK(fabric)# show port xe1
Information of port xe1 --
Name          : uplink_port
…
ADLINK(fabric)# port xe1 name clear
ADLINK(fabric)# show port xe1
Information of port xe1 --
Name          : xe1
…
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Set port mirror

Description	Set the mirror of port.	
Prerequisite	None	
Syntax	port PORT_LIST|PORT_ID mirror-to PORT_ID ingress| egress|both	
Options	PORT_LIST|PORT_ID	Port id list or port id. Eg: xe1 or xe1,xe3 or xe1-xe3.
	ingress| egress|both	Ingress: mirror the ingress traffic of the SrcPort to the DstPort. Egress: mirror the egress traffic of the SrcPort to the DstPort. Both: mirror both the ingress and egress traffic of the SrcPort to the DstPort.

Example

Set port mirror.

```
ADLINK(fabric)# port xe1 mirror-to xe2 ingress
ADLINK(fabric)# port xe1 mirror-to xe3 egress
ADLINK(fabric)# show port mirror
SRC_PORT    DST_PORT    MODE
xe1         xe3                 egress
ADLINK(fabric)#
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Clear port mirror

Description	Clear the mirror of port.	
Prerequisite	None	
Syntax	port PORT_LIST|PORT_ID mirror clear	
Options	PORT_LIST|PORT_ID	Port id list or port id. Eg: xe1 or xe1,xe3 or xe1-xe3.
	Clear	Clear the mirror of the srcport.

Example

Clear port mirror.

```
ADLINK(fabric)# show port mirror
SRC_PORT    DST_PORT    MODE
xe1         xe2         ingress,
xe2         xe3         ingress,
ADLINK(fabric)# port xe1 mirror clear
ADLINK(fabric)# show port mirror
SRC_PORT    DST_PORT    MODE
xe2         xe3         ingress,
ADLINK(fabric)#
ADLINK(fabric)#
```

Show port mirror

Description	Show the mirror info of all ports.
Prerequisite	None
Syntax	show port mirror
Options	None

Example

Show ports mirror info.

```
ADLINK(fabric)# port xe1 mirror-to xe2 ingress
ADLINK(fabric)# port xe2 mirror-to xe3 egress
ADLINK(fabric)# show port mirror
SRC_PORT    DST_PORT    MODE
xe1         xe2         ingress,
xe2         xe3         egress,
ADLINK(fabric)#
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

8.4.2 VLAN Configuration

Ethernet is a network technology based on the Carrier Sense Multiple Access/Collision Detect (CSMA/CD) mechanism. Because the medium is shared, collisions and excessive broadcasts are common on Ethernet networks. To address the issue, virtual LAN (VLAN) was introduced to break a LAN down into separate VLANs.

Virtual LAN (VLAN) support to a Layer 2 switch offers some of the benefits of both bridging and routing. Like a bridge, a VLAN switch forwards traffic based on the Layer 2 header, which is fast, and like a router, it partitions the network into logical segments, which provides better administration, security and management of multicast traffic. Virtual Local Area Networks (VLANs) are used to provide connectivity between ports and other entities in the Switch System and across Ethernet Virtual Connections across Ethernet Networks.

Set VLAN name

Description	Name a VLAN	
Prerequisite	None	
Syntax	vlan name set VID STRING	
Options	VID	Specifies the VLAN id
	STRING	Specifies the VLAN name.

Clear VLAN name

Description	Remove the name of a VLAN. The name will be set to “null”	
Prerequisite	None	
Syntax	vlan name clear VID	
Options	VID	Specifies the VLAN id

Add port to a VLAN

Description	Add port or port list to a VLAN in tagged or untagged mode	
Prerequisite	None	
Syntax	vlan add VID PORT_LIST|PORT_ID (tag|untag)	
Options	VID	Specifies the VLAN id, if the VLAN ID not exists
	PORT_LIST| PORTID	Specifies the port or port list that want to add to VLAN.
	(tag|untag)	tag or untag mode for the port list.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Delete ports from VLAN

Description	Delete port or port list from a VLAN	
Prerequisite	None	
Syntax	vlan del VID PORT_LIST|PORT_ID	
Options	VID	Specifies the VLAN id
	PORT_LIST| PORTID	Specifies the port or port list that you want to add to VLAN.

Remove VLAN

Description	Delete an existing VLAN	
Prerequisite	None	
Syntax	vlan remove VID	
Options	VID	Specifies the VLAN id

Show VLAN

Description	Show an existing VLAN	
Prerequisite	None	
Syntax	show vlan [VID]	
Options	VID	Specifies the VLAN id. If there is no VID, all VLANs created will be shown.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Example
Create a VLAN with VLAN ID of 2. Set port xe2 and xe3 as untagged port and add them into VLAN.

```
ADLINK (fabric)# vlan add 2 xe2 untag
ADLINK (fabric)# vlan add 2 xe3 untag
ADLINK (fabric)# vlan name set 2 hello
ADLINK (fabric)# show vlan 2
vlan 2, name hello, ports xe2-xe3, untagged xe2-xe3.
ADLINK (fabric)# vlan del 2 xe2
ADLINK (fabric)# show vlan 2
vlan 2, name hello, ports xe3, untagged xe3.
ADLINK (fabric)# vlan remove 2
ADLINK (fabric)# show vlan 2
vlan 2 ports NULL, untagged NULL.
```

8.4.3 ACL Configuration

Access Control Lists (ACLs) provide an optional control capability that allows or disallows transport from certain source or to certain destination addresses. An access control list (ACL) is a set of rules (or permit or deny statements) for identifying traffic based on criteria such as source IP address, destination IP address, and port number.

ACLs are primarily used for packet filtering. A packet filter drops packets that match a deny rule and permits packets that match a permit rule. The following commands are available for ACL.

ACL add

Description	Add an ACL.	
Prerequisite	None	
Syntax	acl add <0-1> ACTION POLICER QUALIFIER …	
Options	<0-1>	ACL rule priority, 0 means high priority, 1 means low priority. If the
	ACTION	<action_type>[=param0][/param1]. Please use “acl list actions” to show the actions supported.
	POLICER	policer=policer_id for limit the transmission rate of flow; policer=0 for NOT limitation; Default is 0.
	QUALIFIER	<qualifier_type>[=data][/mask]. There can be 1~8 qualifiers. Please use “acl list qualifiers” to show the qualifiers supported.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Example

Add an ACL rule to make all packets with source IP in the 10.10.10.0 network segment redirect to port xe0.

```
ADLINK(fabric)# acl add 0 redirectport=xe0 policer=1
srcip=10.10.10.10/255.255.255.0
ADLINK(fabric)# show acl
index  priority   policer_id      action              qualifiers.....
0      0          1       redirectPort=xe2   SrcIp=10.10.10.10/255.255.255.0
```

ACL delete

Description	Delete an ACL.	
Prerequisite	None	
Syntax	acl delete <0-1023>	
Options	<0-1023>	The acl rule id which will be deleted. It can be got by the CMD “show acl”.

Example

Delete an ACL.

```
ADLINK(fabric)# acl add 0 redirectPort=xe2 policer=1
SrcIp=10.10.10.10/255.255.255.0
ADLINK(fabric)# show acl
index  priority   policer_id action                    qualifiers.....
0      0          1         redirectPort=xe2    SrcIp=10.10.10.10/255.255.255.0
ADLINK(fabric)# acl del 0
ADLINK(fabric)# show  acl
index  priority   policer_id action   qualifiers.....
```

ACL clear

Description	Clear the whole ACL table	
Prerequisite	None	
Syntax	acl clear	
Options	None	

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Example
Clear the whole ACL table.

```
ADLINK(fabric)# acl add 0 redirectPort=xe2 policer=1
SrcIp=10.10.10.10/255.255.255.0
ADLINK(fabric)# show acl
index  priority   policer_id action   qualifiers.....
0      0          1          redirectPort=xe2 SrcIp=10.10.10.10/255.255.255.0
ADLINK(fabric)# acl clear
ADLINK(fabric)# show acl
index  priority   policer_id action   qualifiers.....
```

ACL list actions

Description	show the Legal actions supported.
Prerequisite	None
Syntax	acl list actions
Options	None

Table 1: Actions Table

Type	Description
drop	Drop the packet.
RedirectPort	Forwarding the packet to the port such as XE x.
RedirectTrunk	Forwarding the packet to the trunk x.
OuterVlanNew	Modify the outer VLAN ID.

Example
ACL list actions.

```
ADLINK(fabric)# acl list actions
Action type          param0/param1,example
redirectPort          redirect packet to a port.eg:redirectPort=xe1
RedirectTrunk         redirect packet to a trunk,eg:redirecttrunk=1
Drop                drop the packe,eg:drop
OuterVlanNew        modify the outervlan id to a new id.eg:OuterVlanNew=1024
ADLINK(fabric)#
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

ACL list qualifiers

Description	Show the legal qualifiers supported.
Prerequisite	None
Syntax	acl list qualifiers
Options	None

Table 2: Qualifiers Table

Type	Description
INPORTS	Filter for the port ID a packet comes from..
SRCIP	Filter for source IP address of a packet.
DSTIP	Filter for destination IP address of a packet.
IPPROTOCOL	Filter for IP protocol (such as 0x06 for TCP) of a packet.
L4SRCPORT	Filter for L4 source port of a packet.
L4DSTPORT	Filter for L4 destination port of a packet.
SRCMAC	Filter for source MAC address of a packet.
DSTMAC	Filter for destination MAC address of a packet.
ETHERTYPE	Filter for Ethernet type (such as 0x0806 for ARP) of a packet.
INNERVLAN	Filter for the inner VLAN ID of a packet.
OUTERVLAN	Filter for the outer VLAN ID of a packet.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Example

ACL list qualifiers.

```
ADLINK(fabric)# acl list qualifiers
Qualifier type          data/mask,example
SrcIp                IPv4 Address/IPv4 Address mask,eg:srcip=10.1.1.0/255.255.255.0
DstIp                IPv4 Address/IPv4 Address mask,eg:dstip=10.1.1.0/255.255.255.0
InPort               Ports,eg:inport=xe1
OuterVlan      16-bit VLAN data/16-bit mask.12-bitmask is used for vlan
id.eg:outervlan=1024/0x0fff
InnerVlan       16-bit VLAN data/16-bit mask..12-bitmask is used for vlan
id.eg:innervlan=1024/0x0fff
IpProtocol             IpProtocol/8-bit mask,eg:ipprotocol=6/0xff
L4SrcPort            TCP/UDP port/16-bit mask,eg:l4srcport=80/0xffff
L4DstPort            TCP/UDP port/16-bit mask,leg:l4dstport=80/0xffff
SrcMac              macaddr</mask>,eg:srcmac=0x001122334455/0xffffffffffff
DstMac              macaddr</mask>,eg:dstmac=0x001122334455/0xffffffffffff
EtherType             Ether Type/16-bit mask,eg:EtherType=0x0806/0xffff
ADLINK(fabric)#
```

Show ACL

Description	Show the ACLtable
Prerequisite	None
Syntax	show acl
Options	None

Example

Show the ACL table.

```
ADLINK(fabric)# acl add 0 redirectport=xe2 policer=1
Srcip=10.10.10.1/255.255.255.0
ADLINK(fabric)# show acl
index  priority   policer_id action   qualifiers.....
0      0          1          redirectPort=xe2 SrcIp=10.10.10.1/255.255.255.0
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

ACL UDF add

Description	Add an ACL UDF.	
Prerequisite	None	
Syntax	acl udf set <0-5> l4header <OFFSET_LIST> <PROTOCOL>	
Options	<0-5>	ACL UDF priority, 5 means the highest priority, 0 means the lowest priority.
	OFFSET_LIST	Word(4 byte) offset list .eg:0,2-3,14
	PROTOCOL	L4 protocol . eg: 17 for UDP 6 for TCP

Example

Add an ACL rule to make all packets with L4 user udp data' the second word is 0x01020304 and source/destination port is 177's packet will redirect to port xe1.

```
ADLINK(fabric)# acl udf set 1 l4header 1 17 177
ADLINK(fabric)# show udf 1
   udf_id   protocol      port     offset
       1        17       177     1
ADLINK(fabric)# acl add 1 redirectport=xe1 policer=1 offset1=0x01020304
ADLINK(fabric)# show acl
index  priority   policer_id action   qualifiers.....
0      1          1          redirectPort=xe1 offset1=0x01020304/0xffffffff
```

ACL UDF delete

Description	Delete an ACL UDF.	
Prerequisite	None	
Syntax	acl udf delete <0-5>	
Options	<0-5>	ACL UDF priority, 5 means the highest priority, 0 means the lowest priority.

Example

Delete an ACL rule

```
ADLINK(fabric)# acl udf set 1 l4header 1 17 177
ADLINK(fabric)# acl udf del 1
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

ACL POLICER add

Description	Add an ACL POLICER for limit the transmission rate of flow.	
Prerequisite	None	
Syntax	acl policer <1-100> capacity <0-4294967> rate <0-240000000>	
Options	<1-100>	policer id.
	<0-4294967>	set the committed policer max capacity, unit:Kb/s
	<0-240000000>	configure the committed policer rate, unit:Kb/s

Example

Add an policer for limit the transmission rate of flow; when adding ACL rule, need to appoint to policer id.

```
ADLINK(fabric)# acl policer 1 capacity 123 rate 345
ADLINK(fabric)# show policer
policer_id   capacity     rate
1            123          456
```

ACL POLICER delete

Description	Delete an ACL POLICER.	
Prerequisite	None	
Syntax	acl policer del <1-100>	
Options	<1-100>	policer id.

Example

Delete an policer

```
ADLINK(fabric)# acl policer 1 capacity 123 rate 456
ADLINK(fabric)# show policer
policer_id   capacity     rate
1            123          456
ADLINK(fabric)# acl policer del 1
ADLINK(fabric)# show policer
policer_id   capacity     rate
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

ACL POLICER show

Description	Show ACL POLICER.	
Prerequisite	None	
Syntax	show policer	
Options		

Example
Show policer information

```
ADLINK(fabric)# acl policer 1 capacity 123 rate 456
ADLINK(fabric)# acl policer 2 capacity 12345 rate 240000000
ADLINK(fabric)# show policer
policer_id   capacity     rate
1            123          456
2            12345        240000000
```

8.4.4 IP Configuration

The switch provides IPv4, IPv6 address and MAC address configuration functions on the physical network interface card and logical vlan-interface.

Set IPv4 vlan-interface

Description	Set a vlan-interface with IPV4 address.	
Prerequisite	Add port(s) to the VLAN	
Syntax	ip vlan-interface VLAN_ID address IP_ADDR_MASK	
Options	VLAN_ID	The VLAN ID to set vlan-interface IP address.
	IP_ADDR_MASK	IPv4 address with mask. Such as 10.10.10.1/24.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Example

Add some ports to VLAN 100 and set the vlan-interface IPv4 address..

```
ADLINK(fabric)# vlan add 100 xe2-xe3 untag
ADLINK(fabric)# port xe2-xe3 pvlan 100
ADLINK(fabric)# ip vlan-interface 100 address 10.10.10.1/24
ADLINK(fabric)# show running-config
#Wrote on Wed Sep 28 05:18:45 2016
!
 Fabric
   ##Fabric port-config
    Port xe2-xe3 pvlan 100

   ##Fabric vlan-config
    vlan add 100 xe2-xe3 untag

   ##Fabric L3_intf-config
    ip vlan-interface 100 address 10.10.10.1/24
```

Set IPv6 vlan-interface

Description	Set a vlan-interface with ipv6 address.	
Prerequisite	Add port(s) to the VLAN	
Syntax	ip -6 vlan-interface VLAN_ID address IPV6_ADDR_MASK	
Options	VLAN_ID	The VLAN ID to set vlan-interface IP address.
	IPV6_ADDR_MASK	IPv6 address with mask. Such as: 234e:0:4567::3d / 64/

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Example

Add some ports to vlan 100 and set the vlan-interface IPv6 address.

```
ADLINK(fabric)# vlan add 100 xe2-xe3 untag
ADLINK(fabric)# ip -6 vlan-interface 100 address 234e:0:4567::3d/64
ADLINK(fabric)# show running-config
#Wrote on Thu Sep 29 02:12:17 2016
!
 fabric
    ##Fabric vlan-config
     vlan add 100 xe2-xe3 untag

    ##Fabric L3_intf-config
     ip -6 vlan-interface 100 address 234e:0:4567::3d/64
!
#End
ADLINK(fabric)#
```

```
ADLINK(fabric)# vlan add 100 xe2-xe3 untag
ADLINK(fabric)# ip vlan-interface 100 address 10.10.10.1/24
ADLINK(fabric)# show running-config
#Wrote on Wed Sep 28 05:18:45 2016
!
 fabric
    ##Fabric vlan-config
     vlan add 100 xe2-xe3 untag

    ##Fabric L3_intf-config
     ip vlan-interface 100 address 10.10.10.1/24

!
#End
ADLINK(fabric)# no ip vlan-interface 100
ADLINK(fabric)# show running-config
#Wrote on Wed Sep 28 05:18:45 2016
!
 fabric
    ##Fabric vlan-config
     vlan add 100 xe2-xe3 untag
!
#End
ADLINK(fabric)#
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Show IP vlan-interface

Description	Show the vlan-interface status.
Prerequisite	Add port(s) to the VLAN and set vlan-interface
Syntax	show ip vlan-interface
Options	None

Example

Add some ports to VLAN 100 and set the vlan-interface ip address. Then, show vlan-interface.

```
ADLINK(fabric)# vlan add 100 xe2-xe3 untag
ADLINK(fabric)# ip vlan-interface 100 address 10.10.10.1/24
ADLINK(fabric)# ADLINK(fabric)# show ip vlan-interface
Interface VLAN-100 : status UP  , IP: 10.10.10.1     , Mask: 255.255.255.0
ADLINK(fabric)#
```


Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

9 Hot-Swapping

9.1 Hot-Swapping the MCN-2600T Sled

Before hot-swapping the MCN-2600T, the user must first shutdown the OS by executing a command from the OS or holding down the power button more than 4 seconds.

9.2 Hot-Swapping the MXN-3610 Sled

When hot-swapping the MXN-3610, the user must first push the hot-swap (H/S) button at the lower right of the front panel, and wait until the ATN LED turns on before removing the MXN-3610 from the chassis.



A detailed description of the hot-swap process is outlined below:

- When the H/S button is pushed, the signal is replicated by a logic module on the mid plane and sent to the four MCN-2600T CPU sleds. At the same time, a graceful shutdown of the COMe module is triggered by briefly pulling the COMe PWR_BTN GPIO high, emulating a user to push the power button.
- When the MCN-2600T detects the H/S signal, it will perform a PCIe device removal on CPU sled based on the PCIe hot-swap specification. When the CPU sled finishes this task, it asserts its ATN LED line.
- After the logic module on the midplane detects that all ATN LED lines are asserted and the COMe module S5 signal is also asserted, it will turn on the ATN LED on the MXN-3610 front panel.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Safety Instructions

For user safety, please read and follow all **instructions**, **WARNINGS**, **CAUTIONS,** and **NOTES** marked in this manual and on the associated equipment before handling/operating the equipment.

1. Read these safety instructions carefully.
2. Keep this user's manual for future reference.
3. Read the specifications section of this manual for detailed information on the operating environment of this equipment.
4. The equipment can be operated at an ambient temperature of 40°C.
5. When installing/mounting or uninstalling/removing equipment; or when removal of the chassis lid required for user servicing (Section 3.1-3.5):
   - Turn off power and unplug any power cords/cables, and
   - Reinstall the chassis lid before restoring power.
6. To avoid electrical shock and/or damage to equipment:
   - Keep equipment away from water or liquid sources;
   - Keep equipment away from high heat or high humidity;
   - Keep equipment properly ventilated (do not block or cover ventilation openings);
   - Make sure to use recommended voltage and power source settings;
   - Always install and operate equipment near an easily accessible electrical socket-outlet;
   - Secure the power cord (do not place any object on/over the power cord);
   - Only install/attach and operate equipment on stable surfaces and/or recommended mountings;
   - If the equipment will not be used for long periods of time, turn off and unplug the equipment from its power source.
7. Never attempt to fix the equipment. Equipment should only be serviced by qualified personnel.
8. A Lithium-type battery may be provided for uninterrupted, backup or emergency power.
   CAUTION! Risk of explosion if battery is replaced with one of an incorrect type. Please dispose of used batteries appropriately.
9. Equipment must be serviced by authorized technicians when:
   - The power cord or plug is damaged;
   - Liquid has penetrated the equipment;
   - It has been exposed to high humidity/moisture;
   - It is not functioning or does not function according to the user's manual;
   - It has been dropped and/or damaged; and/or,
   - It has an obvious sign of breakage.
10. Please pay strict attention to all warnings and advisories appearing on the device, to avoid injury or damage.
11. The equipment may have more than one power supply input. To reduce the risk of electrical shock, trained personnel should disconnect all power supply inputs before servicing.
    CAUTION! Disconnect all power supply inputs before servicing.
12. It is recommended that equipment be installed only in a server room or computer room where access is:

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

- Restricted to qualified service personnel or users familiar with restrictions applied to the location, reasons therefor, and any precautions required;
- Only afforded by the use of a tool or lock and key, or other means of security, and is controlled by the authority responsible for the location.

13. **Elevated Operating Ambient:** If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
14. **Reduced Air Flow:** Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
15. **Mechanical Loading:** Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
16. **Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
17. **Reliable Earthing:** Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Consignes de Sécurité Importantes

Pour assurer la sécurité de l'utilisateur, veuillez lire et suivre toutes les **directives**, ainsi que les **AVERTISSEMENTS**, **MISES EN GARDE** et **REMARQUES** de ce manuel et indiqués sur l'équipement associé avant de manipuler ou utiliser l'équipement.

1. Veuillez lire attentivement ces instructions de sécurité avec soin.
2. Veuillez conserver ce manuel pour référence future.
3. Veuillez lire la section des spécifications de ce manuel pour avoir des informations détaillées sur l'environnement d'exploitation de cet équipement.
4. L'équipement peut être utilisé à une température ambiante de 40 °C.
5. Lors de l'installation ou du montage et de la désinstallation ou de la dépose de l'équipement; ou lors de la dépose du couvercle du châssis pour procéder à l'entretien par l'utilisateur (Sections 3.1-3.5):
   - Coupez l'alimentation et débranchez les cordons et les câbles d'alimentation, et
   - Reposez le couvercle du châssis avant de remettre l'alimentation.
6. Pour éviter un risque d'électrocution et pour éviter d'endommager l'équipement :
   - Éloignez l'équipement de l'eau et de toute source liquide;
   - Éloignez l'équipement de toute source de chaleur ou d'humidité élevée;
   - Gardez l'équipement correctement ventilé (ne pas bloquer ou couvrir les ouvertures de ventilation);
   - Veillez à utiliser la tension recommandée et les réglages adéquats pour la source d'alimentation;
   - Veuillez toujours installer et exploiter l'équipement à proximité d'une prise de courant facilement accessible;
   - Assurez-vous que le cordon d'alimentation est acheminé de manière sécuritaire (ne déposez aucun objet dessus);
   - Installez, fixez et utilisez l'équipement sur des surfaces stables ou sur les fixations recommandées uniquement;
   - Si l'équipement n'est pas utilisé pendant une longue période, éteignez-le et débranchez-le de sa source d'alimentation.
7. N'essayez jamais de réparer l'équipement. L'équipement ne doit être réparé que par du personnel qualifié.
8. Une pile au lithium peut être installée pour assurer l'alimentation de secours ou d'urgence en continu.
   ATTENTION! Risque d'explosion si la pile est remplacée par une autre de type incorrect. Veuillez jeter les piles usagées de façon appropriée.
9. L'équipement doit être entretenu par des techniciens agréés lorsque :
   - le cordon d'alimentation est endommagé ou lorsque la fiche électrique est endommagée;
   - du liquide a pénétré à l'intérieur de l'équipement;
   - l'équipement a été exposé à un taux d'humidité élevé;
   - l'équipement ne fonctionne pas ou ne fonctionne pas conformément au manuel de l'utilisateur;
   - l'équipement est tombé ou lorsqu'il a été endommagé;
   - l'équipement présente un signe évident de défaillance.
10. Veuillez porter une attention rigoureuse à tous les avertissements et à tous les avis figurant sur l'appareil, pour éviter des blessures ou des dommages.
11. **ATTENTION!** L'équipement peut avoir plus d'une entrée d'alimentation. Pour réduire le

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

risque d’électrocution, le personnel qualifié devrait déconnecter toutes les entrées d’alimentation avant de procéder à l’entretien.

12. Il est recommandé que l'équipement soit installé que dans une salle de serveur ou de la salle informatique où:
    - L'accès est limité au personnel de maintenance qualifié ou utilisateurs familiers avec les restrictions appliquées à l'emplacement, motifs, et tout les précautions nécessaires, et;
    - L'accès est uniquement assurée par l'utilisation d'un outil ou clé, ou d'autres moyens de sécurité, et est contrôlé par l'autorité responsable de l'emplacement.
13. **Température ambiante de fonctionnement élevée** - S'il est installé dans un rack ou des unités multiples, la température ambiante de fonctionnement de l'environnement du rack peut être supérieure à celle de la pièce. Par conséquent, il convient d'envisager d'installer l'équipement dans un environnement compatible avec la température ambiante maximale (Tma) spécifiée par le fabricant.
14. **Débit d'air réduit** - L'installation de l'équipement dans un rack doit être telle que la quantité de flux d'air requise pour un fonctionnement en toute sécurité de l'équipement ne soit pas compromise.
15. **Chargement mécanique** - Le montage de l'équipement dans le rack doit être tel que des conditions dangereuses ne soient pas créées en raison d'un chargement mécanique inégal.
16. **Surcharge du circuit** - Il convient de prendre en compte le raccordement de l'équipement au circuit d'alimentation et les effets qu'une surcharge des circuits peut avoir sur la protection contre les surintensités et le câblage d'alimentation. Lors de la résolution de ce problème, il convient de prendre en compte les caractéristiques de la plaque signalétique de l'équipement.
17. **Mise à la terre fiable** - La mise à la terre fiable des équipements montés en armoire doit être maintenue. Une attention particulière doit être accordée aux connexions d’alimentation autres que les connexions directes au circuit de dérivation (par exemple, utilisation de barrettes d’alimentation).

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Getting Service

Ask an Expert: http://askanexpert.adlinktech.com

ADLINK Technology, Inc.
Address: 9F, No.166 Jian Yi Road, Zhonghe District
New Taipei City 235, Taiwan
新北市中和區建一路 166 號 9 樓
Tel: +886-2-8226-5877
Fax: +886-2-8226-5717
Email: service@adlinktech.com

Ampro ADLINK Technology, Inc.
Address: 5215 Hellyer Avenue, #110, San Jose, CA 95138, USA
Tel: +1-408-360-0200
Toll Free: +1-800-966-5200 (USA only)
Fax: +1-408-360-0222
Email: info@adlinktech.com

ADLINK Technology (China) Co., Ltd.
Address: 上海市浦东新区张江高科技园区芳春路 300 号 (201203)
300 Fang Chun Rd., Zhangjiang Hi-Tech Park, Pudong New Area
Shanghai, 201203 China
Tel: +86-21-5132-8988
Fax: +86-21-5132-3588
Email: market@adlinktech.com

ADLINK Technology GmbH
Address: Hans-Thoma-Strasse 11, D-68163, Mannheim, Germany
Tel: +49-621-43214-0
Fax: +49-621 43214-30
Email: emea@adlinktech.com

Please visit the Contact page at www.adlinktech.com for information on how to contact the ADLINK regional office nearest you.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000