PLANET
Networking & Communication

User's Manual

MC-1610MR

MC-1610MR48

16-Slot Managed Media Converter Chassis

Trademarks

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To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

PLANET Managed Media Converter Chassis User's manual

MODELS: MC-1610MR / MC-1610MR48

REVISION: 1.0 (FEB .2009)

Part No.: EM-MC1610M_v1.0 (2080-AA1130-000)

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Package Contents

Thank you for purchasing PLANET Managed Media Converter Chassis, the Managed Media Converter Chassis package shall contain following contents:

Check the contents of your package for following parts:

- Managed Media Converter Chassis with one power supply installed x1
- User's manual CD x1
- Quick Installation Guide x1
- RS-232 console cable x1
- Power Cord x1
- Two Rack-Mounting Brackets with attachment screws x1

If any of these pieces are missing or damaged, please contact your dealer immediately, if possible, retain the carton including the original packing material, and use them against to repack the product in case there is a need to return it to us for repair.

1.2 How to Use This Manual

The Managed Media Converter Chassis User's Manual is structured as followings:

Section 2, Hardware Installation

It explains the functions of Managed Media Converter Chassis and how to install the Managed Media Converter Chassis.

Section 3, Managed Media Converter Chassis Management

It contains information about how to manage the Managed Media Converter Chassis.

Section 4, Console Interface

It contains information about the management function from the console interface of Managed Media Converter Chassis.

Section 5, Web Management

It contains information about the management function from the Web interface of Managed Media Converter Chassis.

Section 6, Link Pass Through Function

It contains detail explanation about the Link Pass Through function.

Section 7, Troubleshooting

It contains troubleshooting guide of Managed Media Converter Chassis.

Appendix A

It contains cable information of Managed Media Converter Chassis.

In the following section, the term **"Managed Media Converter Chassis"** means the MC-1610MR and MC-1610MR48.

1.3 About the Managed Media Converter Chassis

The MC-1610MR / MC-1610MR48 series provide 16-slots and one management system in a 19”-rack chassis, the MC-1610MR / MC-1610MR48 series is designed for the applications such as FTTx installation for ISPs, telecoms, campuses and enterprises. Various types of optic connectors, and fiber-optic wires on the distance basis are provides flexibly.

The 16-slots for optional FST-8 / GST-7 / GST-8 series Fast / Gigabit Ethernet Smart Media Converter installation makes building a network solution of FTTH (Fiber to the Home), FTTB(Fiber to the Building) or FTTC(Fiber to the Curb) for ISPs, enterprises and campuses, MC-1610MR / MC-1610MR48 series builds the FTTx easily. Therefore, the MC-1610MR / MC-1610MR48 series will perfectly satisfy diverse demands while providing reliable and efficient network solution based on distance and installation budgets.

With an independent power supply on each slot of the MC-1610MR / MC-1610MR48 series, any converter is hot-swappable without causing an interruption to other converters; the FST and GST Series Smart Media Converter provide Media conversion between copper to FX, SX and LX optical model for distance from 220m and up to 120km kilometers. The flexibility allows MC-1610MR / MC-1610MR48 series to grow with the network and providing space efficient and cost-effective scalable solution.

The management function enables network administrators to monitor Media Converter connection status and configure the converter via Web browser remotely or locally via an RS-232 console port. Its management function allow network administrator to monitor the slide in converter module connection status and configure the converter module. Through the management interface, the entire status of the converters will be clearly demonstrated within the chassis form on / off and status / statistics of ports. The MC-1610MR / MC-1610MR48 series is great ideal for telecom and corporate applications where a number of fiber links need to be managed and controlled from a central location.

Power Redundant - MC-1610MR / MC-1610MR48 series supports the optional hot-swappable **Redundant Power System (RPS)**. The MC-1610MR equip with one 100~240V AC power supply unit and MC-1610MR48 equip with one DC -48V power supply unit on its standard package, both MC-1610MR and MC-1610MR48 provide one spare power supply unit slot for option redundant power supply installation. A redundant power supply is also provided to enhance the reliability with options of either 100~240V AC power supply unit or DC -48V power supply unit. The continuous power systems are specifically designed to handle the demands of high tech facilities requiring the highest power integrity available. Also, -48V DC power supply implemented make it as telecom level device that can be located at the electronic room.

Fiber-Optic Redundant Link - The redundancy back-up and error tolerance capability of the link can be greatly improved to guarantee the network stability. The redundant link is designed for critical networks that require fibers or copper links to automatically rapid recovery, such as ISPs, telecom, hospitals, banks and enterprises. If the port status of master converter is link down, it forwards the packet to the slave converter’s port of the backup pair.

Temperature and FAN status Monitoring - The MC-1610MR / MC-1610MR48 series is equipped with temperature senor and cooling fans to ensure reliable operation. Whenever the temperature detects or cooling fan stop service, the Managed Media Converter Chassis display related information on the Web management interface.

1.4 Features

- **Hardware**
  - ☐ High quality 19”Rack-Mountable Chassis installation
  - ☐ Supports up to sixteen hot-swappable slide-in modular Media Converter
  - ☐ Supports the PLANET smart series Fast Ethernet and Gigabit Ethernet Media Converter FST-80x and GST-70x / GST-80x
  - ☐ Two power slots at rear panel for redundant power support with options of 100~240V AC or -48V DC supplies
  - ☐ Bay power isolation ensure each bay is electrically isolated from each other
  - ☐ Up to two fans installation for increased air-flow for system cooling
  - ☐ One 10/100Mbps Fast Ethernet port and one RS-232 port for management
  - ☐ Management Fast Ethernet interface supports Auto-MDI / MDI-X for 10/100Base-TX port
  - ☐ LED indicators for system, power and fan status
  - ☐ EMI standards complies with FCC, CE class A

- **System Management**
  - ☐ Configurable through console, Web and SNMP
  - ☐ Provides SNMP status of converters with trap functions for any chassis and connectivity events.
  - ☐ Simple Network Management Protocol
    - SNMP v1, v2c
    - SNMP Trap
    - Public MIB
    - Private MIB
  - ☐ NTP Client (Time Zone Setting)
  - ☐ Remote Syslog and local System log
  - ☐ DHCP Client and DNS Client
  - ☐ Temperature detects display and alarm
  - ☐ Web Firmware Upgrade
  - ☐ Management account login session control
  - ☐ PLANET Smart Discovery Utility for deploy management

- **Converter Management**
  - ☐ Provides media Link / Connection Speed Duplex status for each module
  - ☐ Redundant Back up (Media Converter Link Redundant)
  - ☐ Reduces the effort of converter’s maintenance and management

1.5 Specification

Model	MC-1610MR	MC-1610MR48
Hardware Specification		
Dimension (W x D xH)	440 x 88 x 350mm, 2U	
Slot	16 open Slot(15 x 80 x 26mm, W x D x H) 2 power slot s (one fixed, one vacant*)	
Weight	7kg	
Power requirement	100-240V AC, 1A, 50-60Hz	DC -48V , 2A, Range: -40V ~ -60V
Power Output	5V DC per slot, 2A maximum	
Power consumption	**10 Watts / 34BTU (1 x power supply , not include converters)** **46.9 Watts / 160 BTU (Full loading)**	5.3 Watts / 18BTU (1 x power supply, not include converters) 96 Watts / 327 BTU (Full loading)
Operate environment	0~50 Degree C, 5%~90%RH	
Storage environment	-20~70 Degree C, 5%~90%RH	
Emission	FCC Class A, CE mark	
Management Interface		
Standards	IEEE 802.3 10Base-T Ethernet, IEEE 802.3u 100Base-TX Fast Ethernet, IEEE 802.3x Flow control	
Fixed interface	10/100Base-TX port x1, RS-232 console port x1, Reset button x1	
Speed	Ethernet: 10/20Mbps for half / full-duplex, Fast Ethernet: 100/200Mbps for half / full-duplex	
LED indicator	System: MGM, Console, LNK/ACT, PWR ON x2, PWR FAIL x2, FAN FAIL x2	
Management	Console, Web, SNMP v1/v2c	
SNMP Trap	Cold Start, MC copper link up/down, MC fiber link up/down.	

Remark: The Managed Media Converter Chassis comes with one built-in power module, to install the second power module into the vacant power slot, please consult your local dealer.

2. HARDWARE INSTALLATION

This section describes the functionalities of MC-1610MR / MC-1610MR48 components and guides how to install the device on the desktop or shelf. Basic knowledge of networking is assumed; please read this chapter completely before continuing installs the Managed Media Converter Chassis.

2.1 Front Panel

The Managed Media Converter Chassis provides one management module and 16-Slots for optional FST-8 / GST-7 / GST-8 series Fast / Gigabit Ethernet Smart Media converter installation.

Figure 2-1: Managed Media Converter Chassis front panel

The LED indicators of the management module include power on, power fail, fan fail, MGM, Console and LNK/ACT. The management module front panel in Figure 2-2 appears and the LED indicator in Table 2-1 appears.

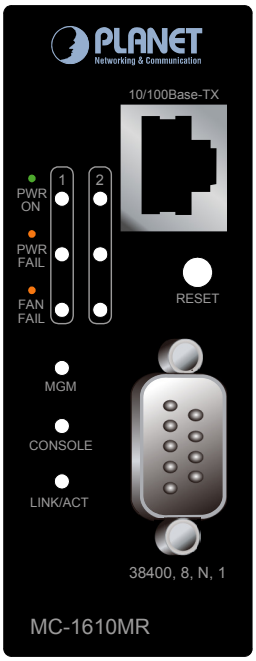


Figure 2-2: Management module front panel

LED Indicators

LED	Color	LED Status	Function
PWR ON	**Green**	Lights On	Indicate that the device has power.
		Lights Off	Indicate that the device not receive power.
PWR FAIL	**Amber**	Lights On	Indicate that power is inserted and failed to work.
		Lights Off	Indicate that power is inserted and work normal.
FAN FAIL	**Amber**	Lights On	Indicate that fan is failed to work.
		Lights Off	Indicate that fan is work normally.
MGM	**Green**	Light blink	Indicate that CPU is working.
		Light Off	Indicate that CPU is not working.
CONSOLE	**Green**	Light blink	Indicate that console port is working.
		Light Off	Indicate that console port is not working.
LNK/ACT	**Green**	Light On	The link through that port is successfully established.
		Light Off	The link through that port is not established or run at 10Mbps half / full duplex mode.

Table 2-1: LED Indicators from Management module front panel

Notice:

1. Press the **RESET** button for **2** seconds. The Managed Media Converter Chassis will reboot automatically.
2. Press the **RESET** button for **10** seconds. The Managed Media Converter Chassis will back to the factory default mode; the entire configuration will be erased.

2.2 Rear Panel

The MC-1610MR equip with one 100~240V AC power supply unit and MC-1610MR48 equip with one DC -48V power supply unit on its standard package, both MC-1610MR and MC-1610MR48 provide one spare power supply unit slot for option redundant power supply installation. A redundant power supply is also provided to enhance the reliability with options of either 100~240V AC power supply unit or DC -48V power supply unit.

Figure 2-3: Rear panel of Managed Media Converter Chassis

Install and remove the power supply unit

To install a power supply unit to Managed Media Converter Chassis, please fasten the hand screw clockwise and slide in the power supply unit to the Managed Media Converter Chassis.

To remove a power supply unit out the Managed Media Converter Chassis, please loose the hand screw counter clockwise and pull out the power supply unit from the Managed Media Converter Chassis.

Figure 2-4: Install and remove the power supply unit of Managed Media Converter Chassis

Power Notice:

1. The device is a power-required device, it means, it will not work till it is powered. If your networks should active all the time, please consider using UPS (Uninterrupted Power Supply) for your device. It will prevent you from network data loss or network downtime.
2. In some area, installing a surge suppression device may also help to protect your Managed Media Converter Chassis from being damaged by unregulated surge or current to the Managed Media Converter Chassis.

2.3 Managed Media Converter Chassis Installation

The chapter describes how to install optional FST-8 / GST-7 / GST-8 series Fast / Gigabit Ethernet Smart Media converter into your Managed Media Converter Chassis, please read the following topics and perform the procedures in the order being presented.

To install your Managed Media Converter Chassis on a desktop or shelf, simply complete the following steps.

2.3.1 Desktop Installation

To install a Managed Media Converter Chassis on a desktop or shelf, simply completed the following steps:

Step 1: Attached the rubber feet to the recessed areas on the bottom of the Managed Media Converter Chassis.

Step 2: Place the Managed Media Converter Chassis on a desktop or shelf near an AC/DC power source.

Step 3: Keep enough ventilation space between the Managed Media Converter Chassis and the surrounding objects.

Notice: When choosing a location, please keep in mind the environmental restrictions discussed in Chapter 1, Section 5, Specification.

Step 4: Connect your Managed Media Converter Chassis to network administrator stations.

A. Connect one end of a standard network cable to the 10/100 RJ-45 port on the management module front panel of the Managed Media Converter Chassis.

B. Start to manage the Managed Media Converter Chassis through the Microsoft Internet Explorer and etc.

Notice: Connection to the Managed Media Converter Chassis requires UTP Category 5 network cabling with RJ-45 tips. For more information, please see the Cabling Specification in **Appendix A**.

Step 5: Supply power to the Managed Media Converter Chassis.

A. Connect one end of the power cable to the Managed Media Converter Chassis.

B. Connect the power plug of the power cable to a standard wall outlet then power on the Managed Media Converter Chassis.

When the Managed Media Converter Chassis receives power, the Power LED should remain solid Green.

2.3.2 Rack Mounting

To install the Managed Media Converter Chassis in a **19-inch** standard rack, follow the instructions described below.

Step 1: Place your Managed Media Converter Chassis on a hard flat surface, with the front panel positioned towards your front side.

Step 2: Attach a rack-mount bracket to each side of the Managed Media Converter Chassis with supplied screws attached to the package. Figure 2-5 shows how to attach brackets to one side of the Managed Media Converter Chassis.

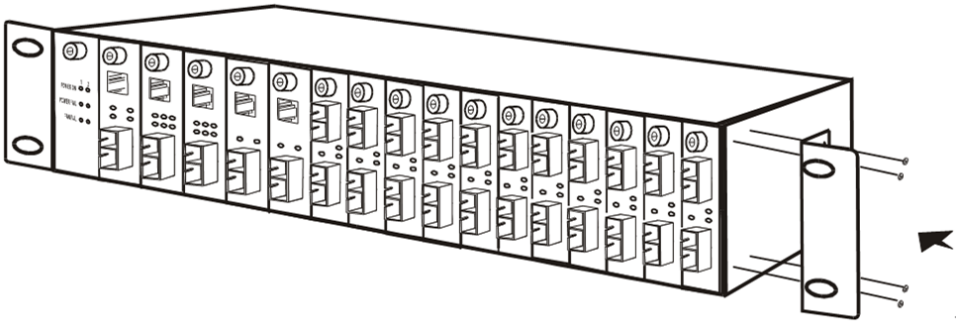


Figure 2-5 Attaching the brackets to the Managed Media Converter Chassis

Caution:

You must use the screws supplied with the mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

Step 3: Secure the brackets tightly.

Step 4: Follow the same steps to attach the second bracket to the opposite side.

Step 5: After the brackets are attached to the Managed Media Converter Chassis, use suitable screws to securely attach the brackets to the rack, as shown in Figure 2-6.

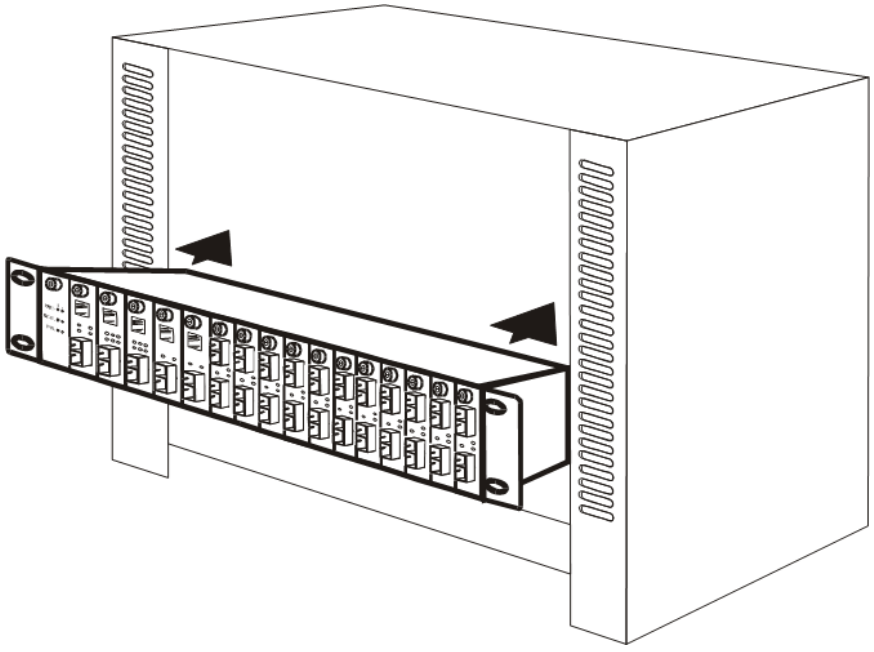
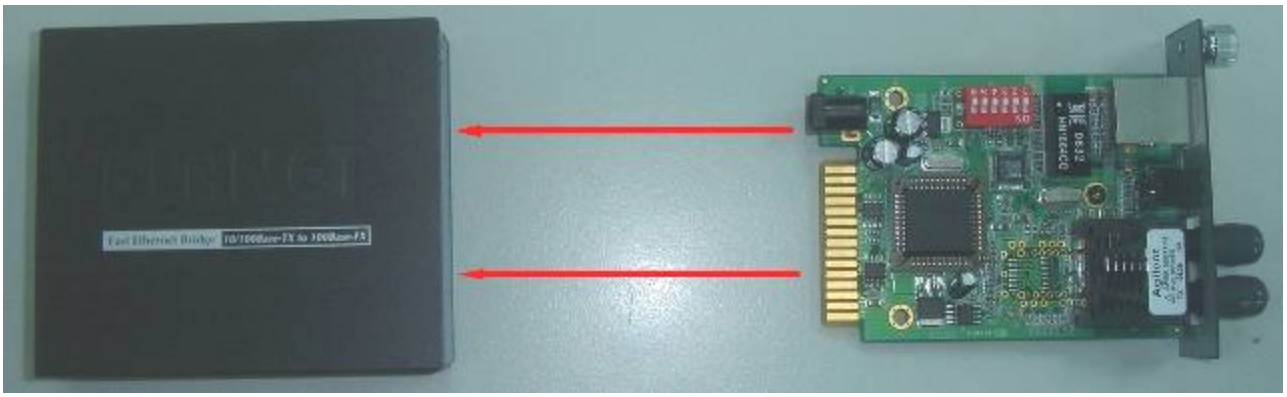


Figure 2-6 Mounting the Managed Media Converter Chassis in a Rack

Step 6: Proceed with the steps 4 and steps 5 of section **2.3.1 Desktop Installation** to connect the network cabling and supply power to your Managed Media Converter Chassis.

2.3.3 Slide Media Converter board into MC-1610MR /MC-1610MR48 Chassis Installation

Step 1: unscrew and pull out the FST-80x / GST-70x / GST-80x Media Converter board.



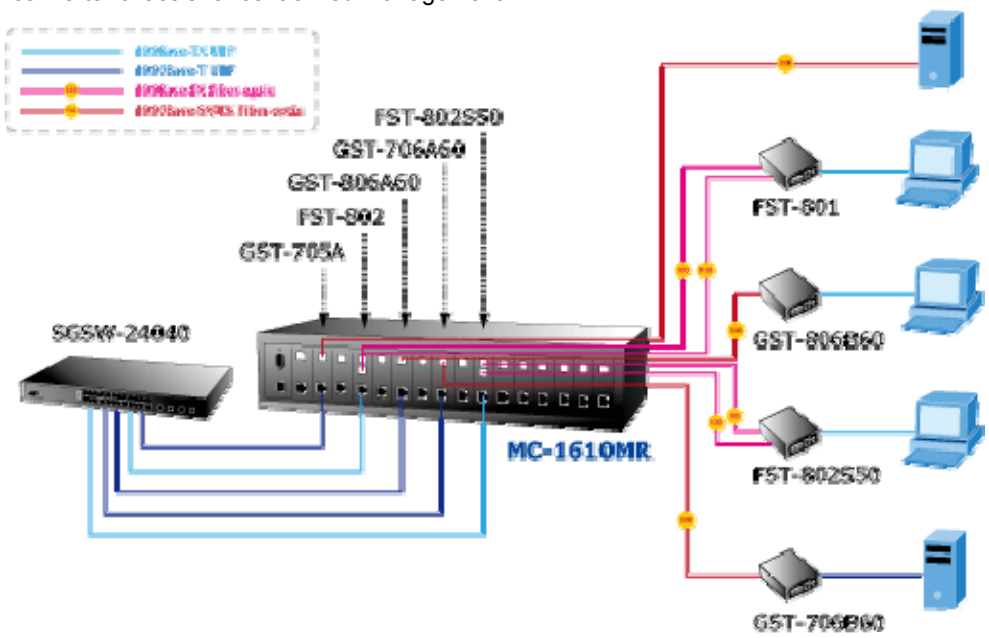
Step 2: Remove a blank faceplate from an empty expansion slot on the front of the chassis. The FST-80x / GST-70x / GST-80x Media Converter board can be installed in any expansion slot.

Step 3: Slide the FST-80x / GST-70x / GST-80x Media Converter board into the expansion slot, aligning it with the guide rails, until it firmly connects to the chassis' backplane.

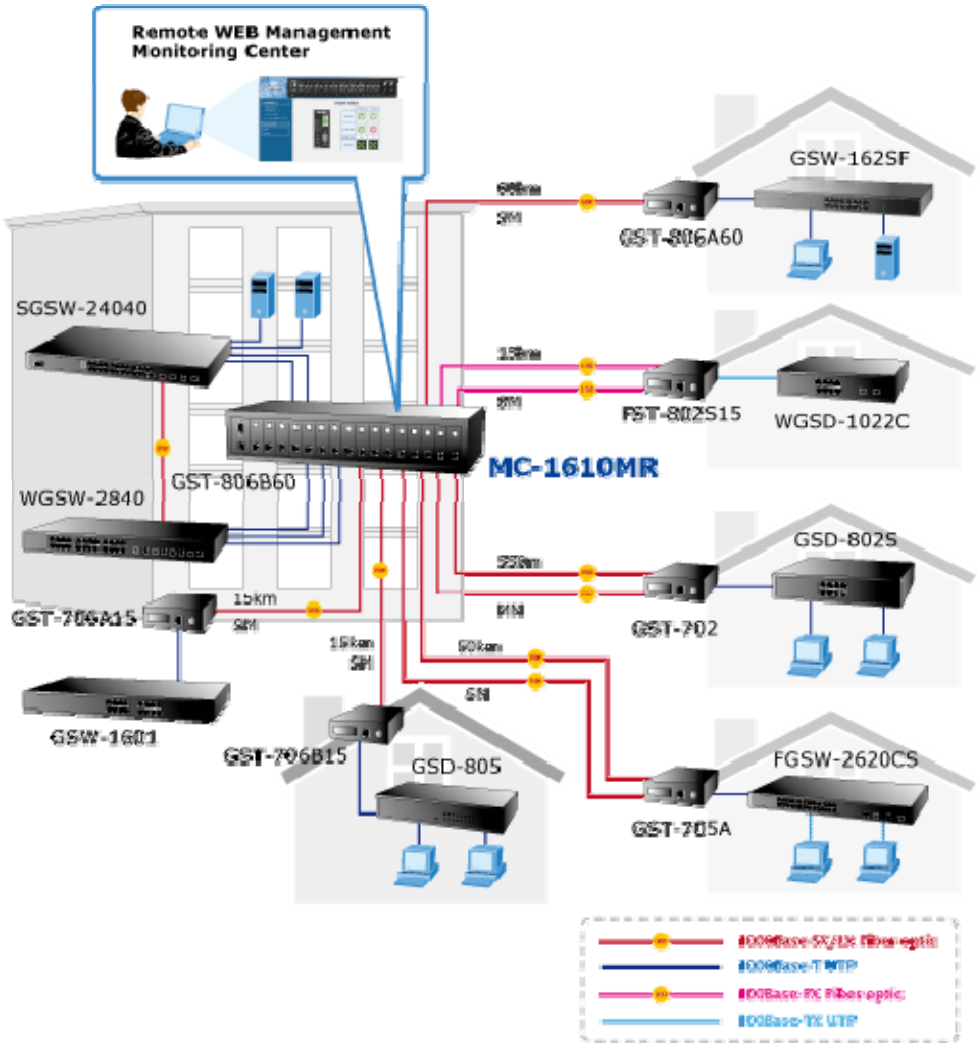
Step 4: Secure the FST-80x / GST-70x / GST-80x Media Converter board to the chassis by tightening the thumbscrew.

2.3.4 Centralize management Media Converter application

Affording the current network grows and expanding, the PLANET MC-1610MR / MC-1610MR48 series provide advanced Media conversion technology to fill this kind of demands. The Managed Media Converter chassis allows installing up to sixteen FST-80x / GST-70x / GST-80x series of Fast /Gigabit Ethernet Smart Media converter with diverse fiber connect types of options to meet different network applications. It is very flexible for FST-80x / GST-70x / GST-80x series to install into the central Managed Media converter chassis for centralized management.



Once, the FST-80x / GST-70x / GST-80x series of Fast /Gigabit Ethernet Smart Media converter install into Managed Media Converter chassis with hot swappable feature and redundant link function to avoid entire network downtime. The PLANET Managed Media Converter chassis with FST-80x / GST-70x / GST-80x series of Fast /Gigabit Ethernet Smart Media converter are the ideal solution for building a network solution of FTTC (Fiber to the Curb) and FTTB (Fiber to the Building) for ISPs, campuses and enterprises.


Remote WEB Management
Monitoring Center
GSW-162SF
GST-806A60
SGSW-24040
FST-802S15
WGSD-1022C
MC-1610MR
GST-806B60
WGSW-2840
GSD-802S
GST-702
GST-706A15
GSW-1601
GST-706B15
GSD-805
FGSW-2620CS
GST-705A

3. MANAGED MEDIA CONVERTER CHASSIS MANAGEMENT

This chapter describes how to manage the Managed Media Converter Chassis. Topics include:

- Overview
- Management methods
- Assigning an IP address to the Managed Media Converter Chassis
- Logging on to the Managed Media Converter Chassis

3.1 Overview

The Managed Media Converter Chassis provides user-friendly, command line console interface and remote Web interface. Using both interfaces, you can perform various Managed Media Converter Chassis configuration and management activities.

Please refer to the following Chapter 4 and 5 for the details.

3.2 Management Method

There are two ways to manage the Managed Media Converter Chassis:

- Local Console Management via the serial port of Managed Media Converter Chassis.
- Web Management via a network or dial-up connection.

3.2.1 Local Console Management

You can manage the Managed Media Converter Chassis locally by connecting a VT100 terminal, or a personal computer or workstation with terminal emulation software, to the serial port of Managed Media Converter Chassis. The terminal or workstation connects to the serial port of Managed Media Converter Chassis, using a null modem cable that has the appropriate connectors on each end.

This management method is ideal when:

- The network is unreliable.
- The Network Manager does not have direct network connection.

The serial port of Managed Media Converter Chassis. Default setting is set to **38400** baud using a character format of **8** data bits, no parity, and **1** stop bit.

Therefore, configure the terminal or workstation to use these settings before you log on to the Managed Media Converter Chassis. You can change this default setting, if desired, after you log on.

When you log on to the Managed Media Converter Chassis console port for the first time, a sign-on string appears and you are prompted for a console login user name and password.

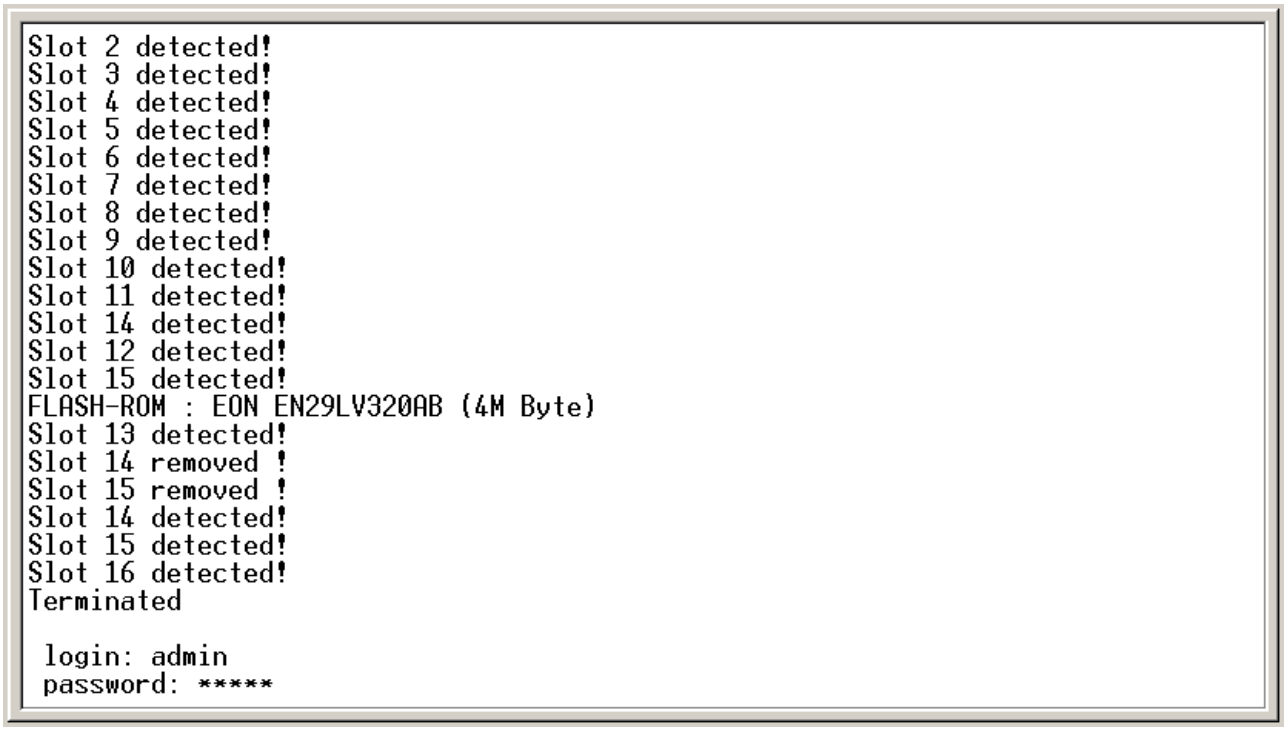


Figure 3-1 Managed Media Converter Chassis Console Login Screen

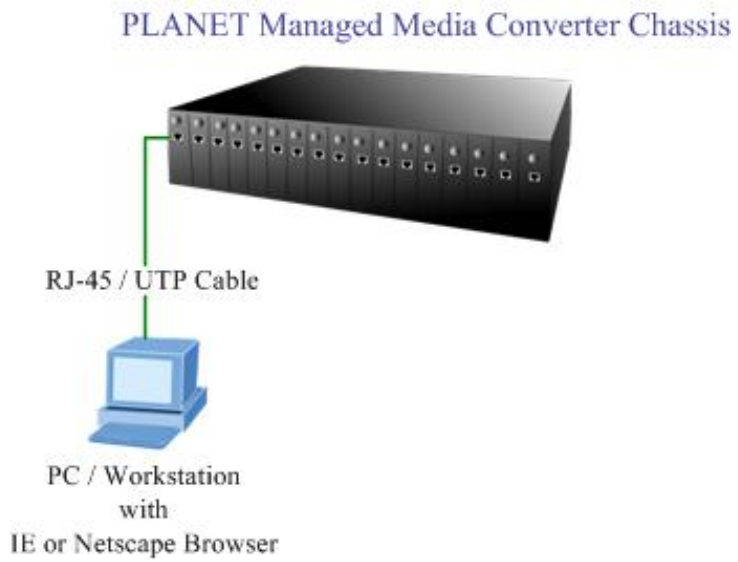
The factory default login username and password is **admin**.

Notice:

1. For security reason, please change and memorize the new password after this first setup.
2. Only accept command in lowercase letter under console interface.
3. Please refer to the following Chapter 4 for the details.

3.2.2 Web Management

You can manage the Managed Media Converter Chassis remotely by having a remote host with web browser, such as Microsoft Internet Explorer or Netscape Navigator.



Using this management method:

The Managed Media Converter Chassis must have an Internet Protocol (IP) address accessible for the remote host. For easily list the Managed Media Converter Chassis in your Ethernet environment, the Planet Smart Discovery Utility from user's manual CD-ROM is an ideal solution.

The following install instructions guiding you for run the Planet Smart Discovery Utility.

1. Deposit the Planet Smart Discovery Utility in administrator PC.
2. Run this utility and the following screen appears.

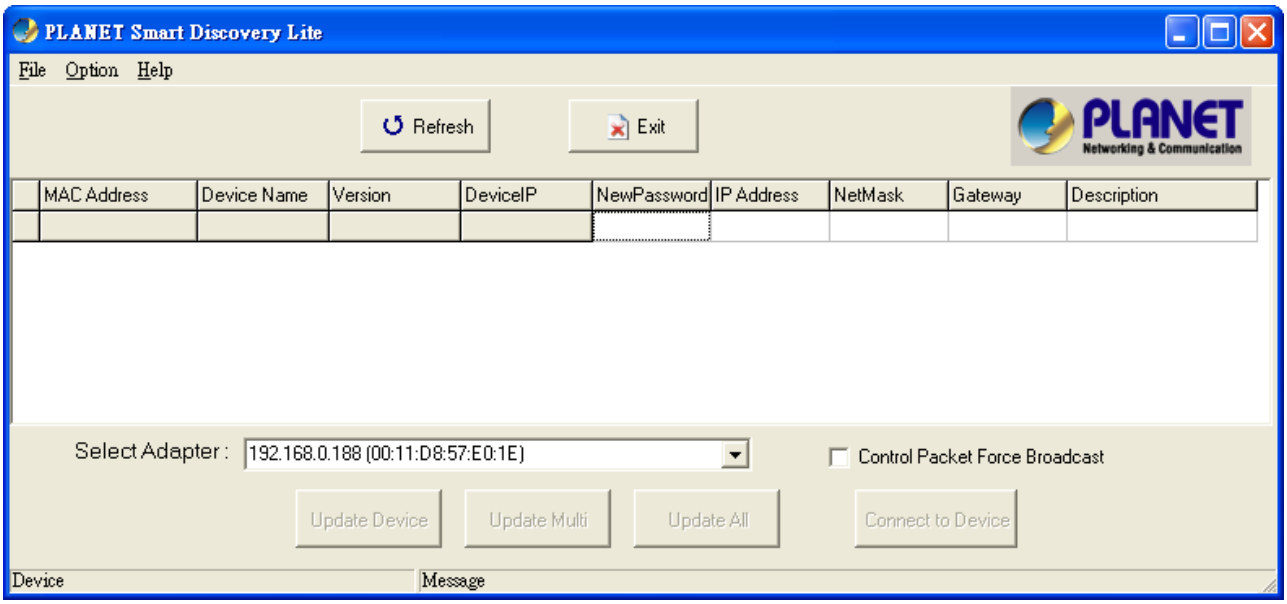


Figure 3-2 Planet Smart Discovery Utility Screen

Notice: If there are two LAN cards or above in the same administrator PC, choose different LAN card by use the **"Select Adapter"** tool.

3. Press **"Refresh"** button for list current connected devices in the discovery list, the screen is shown as follow.

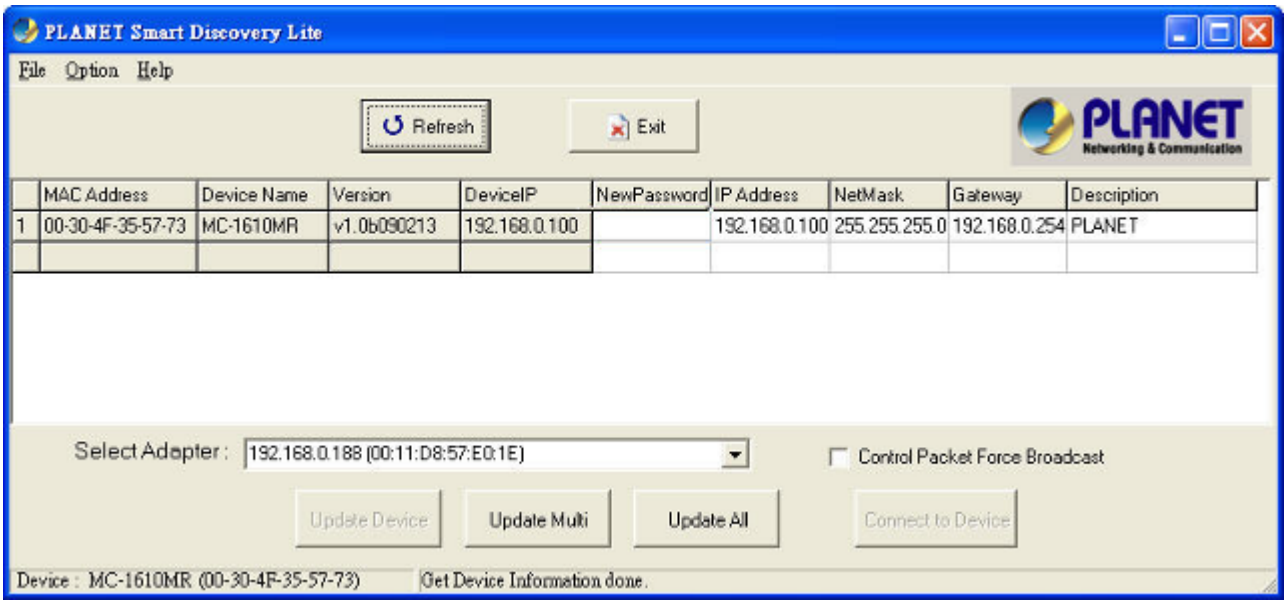


Figure 3-3 Planet Smart Discovery Utility Screen

4. This utility show all necessary information from the devices, such as MAC Address, Device Name, firmware version, Device IP Subnet address, also can assign new password, IP Subnet address and description for the devices.

5. After setup completed, press **"Update Device"**, **"Update Multi"** or **"Update All"** button to take affect. The meaning of the 3 buttons above are shown as below:

   Update Device: use current setting on one single device.

   Update Multi: use current setting on choose multi-devices.

   Update All: use current setting on whole devices in the list.

   The same functions mentioned above also can be finding in **"Option"** tools bar.

6. To click the **"Control Packet Force Broadcast"** function, it can allow assign new setting value to the Managed Media Converter Chassis under different IP subnet address.

7. Press **"Connect to Device"** button then the Web login screen appears in Figure 3-4.

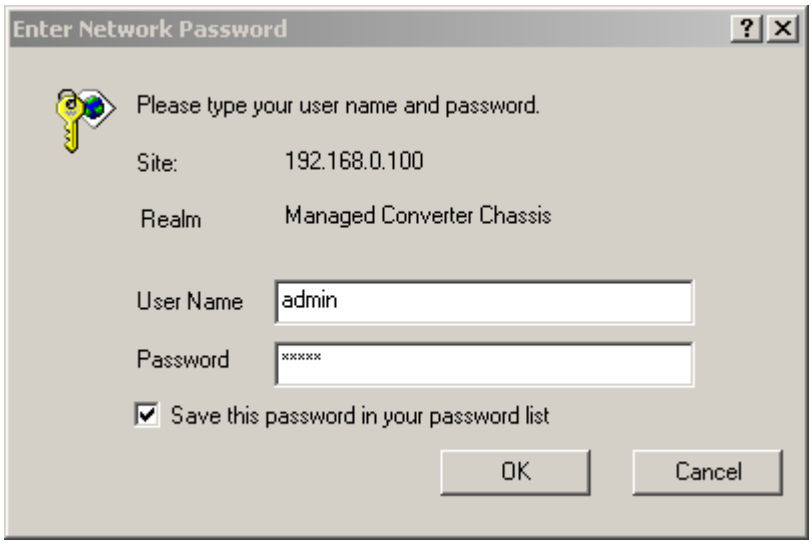


Figure 3-4 Web Login Screen of Managed Media Converter Chassis

8. Press **"Exit"** button to shutdown the planet Smart Discovery Utility.

Notice: Please refer to the following Chapter 5 for the details.

3.3 Assigning an IP Address to the Managed Media Converter Chassis

To manage the Managed Media Converter Chassis remotely through the web browser with a Management Station, you can use its default IP address **(192.168.0.100)** or assign another IP address to the Managed Media Converter Chassis.

To set the IP address, please use command.

set ip xxx.xxx.xxx.xxx mmm.mmm.mmm.mmm ggg.ggg.ggg.ggg

For example, to configure the Managed Media Converter Chassis with the following IP settings:

IP Address: 192.168.0.101

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.0.254

Press the following command and press **<Enter>**

set ip 192.168.0.101 255.255.255.0 192.168.0.254
Then the following message appears under console interface:

set ip done

You can access the web interface of Managed Media Converter Chassis through the new IP address. The IP subnet address setting screen in Figure 3-5 appears.

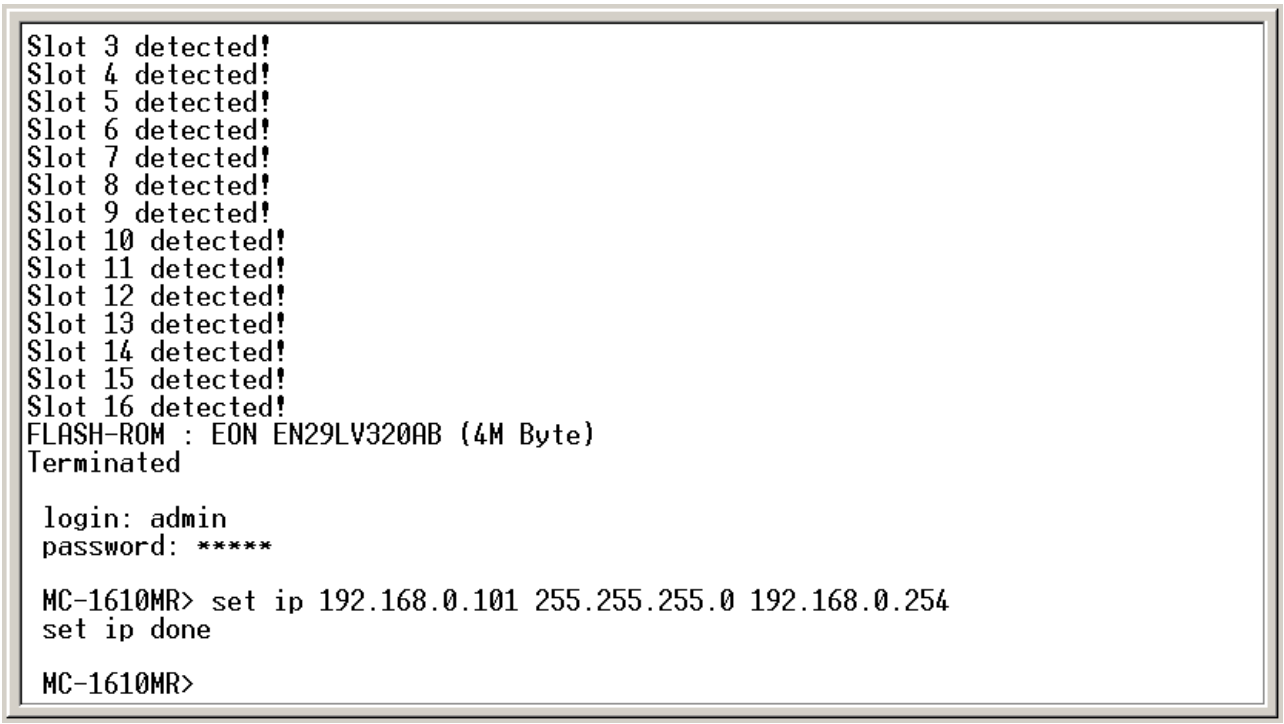


Figure 3-5 Set IP command screen

4. CONSOLE INTERFACE

4.1 CONNECT TO PC

RS-232 serial cable

Use the bundled RS-232 serial cable and attach the 9-pin female connector to the male connector on the Managed Media Converter Chassis. Plug the other side of this cable to your PC.

Hyper Terminal

In Windows 98/2000/ME/XP, launch **"HyperTerminal"**, create a new connection, and adjust settings as below:

- Emulation: **VT-100 compatible**
- Baud per second: **38400**
- Data bits: **8**
- Parity: **None**
- Stop bits: **1**
- Flow Control: **None**

To gain a demo, please see the Figure 4-1.

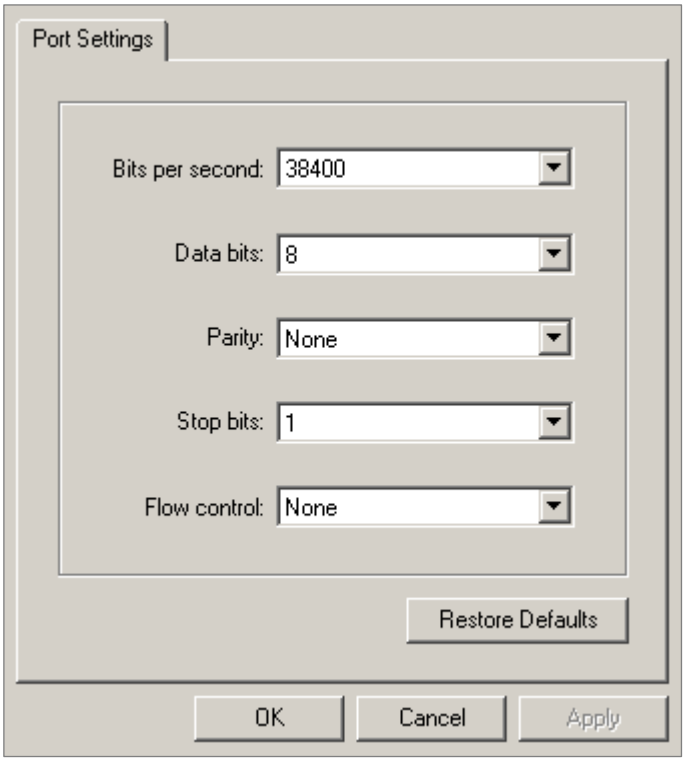


Figure 4-1 Port Settings for console interface

4.2 Login in

Login is required to access the console interface after the self-test completes successfully. The factory default user name and password is "**admin**". You may change the password by use **"set pass"** command. Please always enter the correct user name and password. (See Figure 4-2)

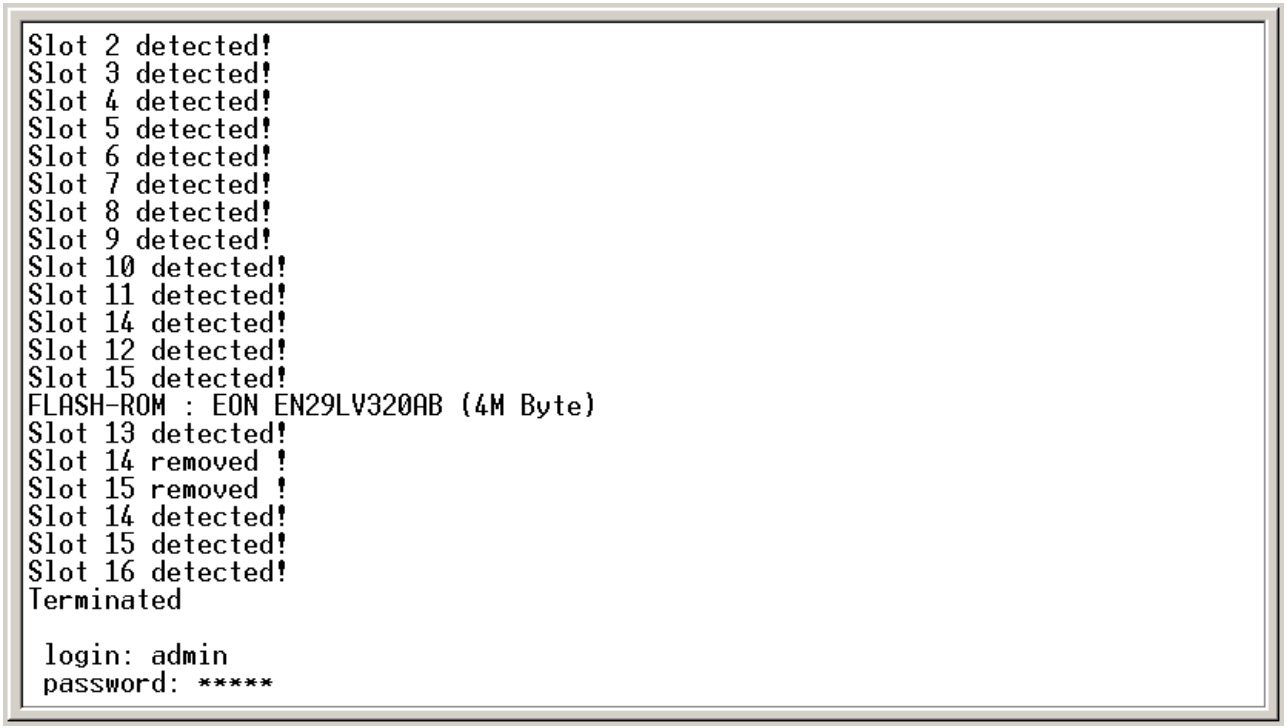


Figure 4-2 Managed Media Converter Chassis login screen

4.3 Main Menu screen

After login the Managed Media Converter Chassis, the main menu screen shows as below.

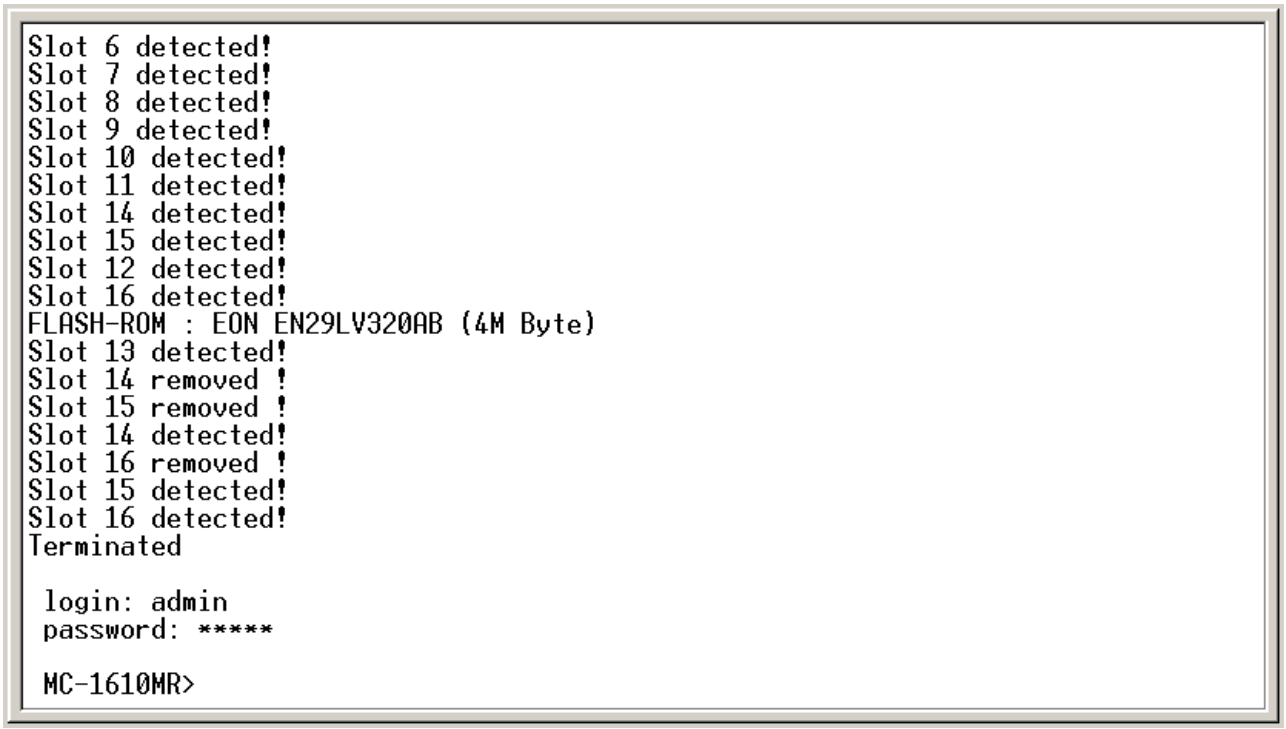


Figure 4-3 Managed Media Converter Chassis Main Menu screen

4.4 Getting Started

4.4.1 General Guidelines

The Managed Media Converter Chassis allows users to configure the device via command line under console interface. Please type **"help"** or **"?"** for all available commands in the**"MC-1610MR>"** prompt. The screen of available commands in Figure 4-4 appears, and the detail description shown in table 4-1.

```
Slot 16 detected!
Terminated

 login: admin
 password: *****

 MC-1610MR> help

 show system
 show ip
 show power
 show slot [n]
 show redundant [n]

 set slot [n]
 set redundant [n] disable/enable
 set ip xxx.xxx.xxx.xxx mmm.mmm.mmm.mmm ggg.ggg.ggg.ggg
 set pass [oldpass] [newpass]

 factory default
 reboot
 logout

 MC-1610MR>
```

Figure 4-4 Managed Media Converter Chassis available commands screen

Command	Description
Show system	Show software version, MAC address and IP address of Managed Media Converter Chassis.
Show IP	Show current IP subnet address of Managed Media Converter Chassis.
Show power	Show current power supply unit status of Managed Media Converter Chassis.
Show slot [n]	Show current per slot status of Managed Media Converter Chassis with FST-8 / GST-7 / GST-8 Media Converter boards.
Show redundant [n]	Show per redundant group status of Managed Media Converter Chassis.
Set slot [n]	Configure per slot setting of Managed Media Converter Chassis with various Media Converter boards.
Set redundant [n] disable / enable	Disable or enable per redundant group of Managed Media Converter Chassis.
Set IP xxx.xxx.xxx.xxx, mmm. mmm, mmm, mmm, ggg.ggg.ggg.ggg	Assign IP address, subnet mask, and gateway of Managed Media Converter Chassis.
Set Pass [oldpass] [newpass]	Change the default password of Managed Media Converter Chassis, the maximum length is 15 characters.

Factory Default	Reset the Managed Media Converter Chassis to factory default mode.
Reboot	Reboot the Managed Media Converter Chassis.
Logout	Logout console interface of Managed Media Converter Chassis.

Table 4-1 Detail description of Managed Media Converter Chassis available commands

Notice: Only accept command in lowercase letter under console interface.

4.4.2 Show command

From the main menu screen (see Figure 4-3), input **"show"** and press enter. The show command list screen in Figure 4-5 appears.

```
show system
show ip
show power
show slot [n]
show redundant [n]

set slot [n]
set redundant [n] disable/enable
set ip xxx.xxx.xxx.xxx mmm.mmm.mmm.mmm ggg.ggg.ggg.ggg
set pass [oldpass] [newpass]

factory default
reboot
logout

MC-1610MR> show

show system
show ip
show power
show slot [n]
show redundant [n]

MC-1610MR>
```

Figure 4-5 Show command list screen

This show command list contains five items:

Show system: Please refer to **chapter 4.4.2.1.**

Show IP: Please refer to **chapter 4.4.2.2.**

Show power: Please refer to **chapter 4.4.2.3.**

Show slot [n]: Please refer to **chapter 4.4.2.4**

Show redundant [n]: Please refer to **chapter 4.4.2.5**

4.4.2.1 Show system

Display the system information of Managed Media Converter Chassis, such as software version, MAC address and IP address. The system information screen in Figure 4-6 appears.

```
MC-1610MR> show system

PLANET MC-1610MR
Software Version : v1.0b090213
MAC: 00-30-4f-35-57-73
IP : 192.168.0.100


MC-1610MR>
```

Figure 4-6 Show system command screen

4.4.2.2 Show IP

Display the current IP address, Subnet mask and Gateway of Managed Media Converter Chassis, the IP subnet address information screen in Figure 4-7 appears.

```
MC-1610MR> show ip

IP addr : 192.168.0.100
Submask : 255.255.255.0
Gateway : 192.168.0.254


MC-1610MR>
```

Figure 4-7 Show IP command screen

4.4.2.3 Show power

Display the current power supply unit status of Managed Media Converter Chassis, the power information screen in Figure 4-8 appears.

```
MC-1610MR> show power

                Power1  Power2
Power On          V       -
Power Status      V       -
Power Type        AC      -
Fan Status        V       -

                        V:Normal    -:Empty    X:Fail

MC-1610MR>
```

Figure 4-8 Show power command screen

4.4.2.4 Show slot [n]

Display current per slot status of Managed Media Converter Chassis with FST-8 / GST-7 / GST-8 Media Converter boards, the per slot information screen in Figure 4-9 & 4-10 & 4-11 & 4-12 appears.

```
MC-1610MR> show slot

slot  1: FST-80X                slot  9: GST-70X
slot  2: GST-70X                slot 10: GST-70X
slot  3: GST-80X                slot 11: GST-70X
slot  4: GST-70X                slot 12: GST-70X
slot  5: GST-70X                slot 13: GST-70X
slot  6: GST-70X                slot 14: FST-80X
slot  7: GST-70X                slot 15: FST-80X
slot  8: GST-70X                slot 16: GST-70X

MC-1610MR>
```

Figure 4-9 Show slot command screen

```
MC-1610MR> show slot 1

Converter:              FST-80X
  Device :              enable
  Ports  :          TP          Fiber
  Link   :     Link-Down     Link-Down
  Speed  :          --            --
  Duplex :          --            --
  Device :              enable
   LLCF  :              enable
TP AN Mode:             Auto
TP Speed :              100M
TP Duplex:              Full
  TP FC  :              disable
Fiber LLR:              disable
Fiber Duplex:           Full


MC-1610MR>
```

Figure 4-10 FST-80x Show slot command [n] screen

```
MC-1610MR> show slot 2

Converter:              GST-70X
  Device :              enable
  Ports  :          TP          Fiber
  Link   :     Link-Down     Link-Down
  Speed  :          --            --
  Duplex :          --            --
  Device :              enable
Fiber LLR:              disable
Fiber AN Bypass:        enable

MC-1610MR>
```

Figure 4-11 GST-70x Show slot command [n] screen

```
MC-1610MR> show slot 3

Converter:              GST-80X
  Device :              enable
  Ports  :          TP          Fiber
  Link   :     Link-Down     Link-Down
  Speed  :          --            --
  Duplex :          --            --
  Device :              enable
   LLCF  :              disable
TP AN Mode:              Auto
TP Speed :               100M
TP Duplex:               Full
  TP FC  :              enable
Fiber LLR:              disable
Fiber Duplex:            Full


MC-1610MR>
```

Figure 4-12 GST-80x Show slot command [n] screen

Notice: Different parameters display on FST-8 / GST-7 / GST-8 Media Converter boards installation.

4.4.2.5 Show redundant [n]

Display per redundant group status of Managed Media Converter Chassis, the per redundant group status screen in Figure 4-13 & 4-14 appears.

```
 MC-1610MR> show redundant

Redundant group 1 : Enable
Redundant group 2 : Disable
Redundant group 3 : Enable
Redundant group 4 : Disable
Redundant group 5 : Enable
Redundant group 6 : Disable
Redundant group 7 : Enable
Redundant group 8 : Disable

 MC-1610MR>
```

Figure 4-13 Show redundant command screen

```
 MC-1610MR> show redundant 1

Redundant group 1 : Enable

 MC-1610MR> show redundant 2

Redundant group 2 : Disable

 MC-1610MR> show redundant 3

Redundant group 3 : Enable

 MC-1610MR> show redundant 4

Redundant group 4 : Disable

 MC-1610MR>
```

Figure 4-14 Show redundant [n] command screen

4.4.3 Set command

From the main menu screen (see Figure 4-3), input **"set"** and press enter. The set command list screen in Figure 4-15 appears.

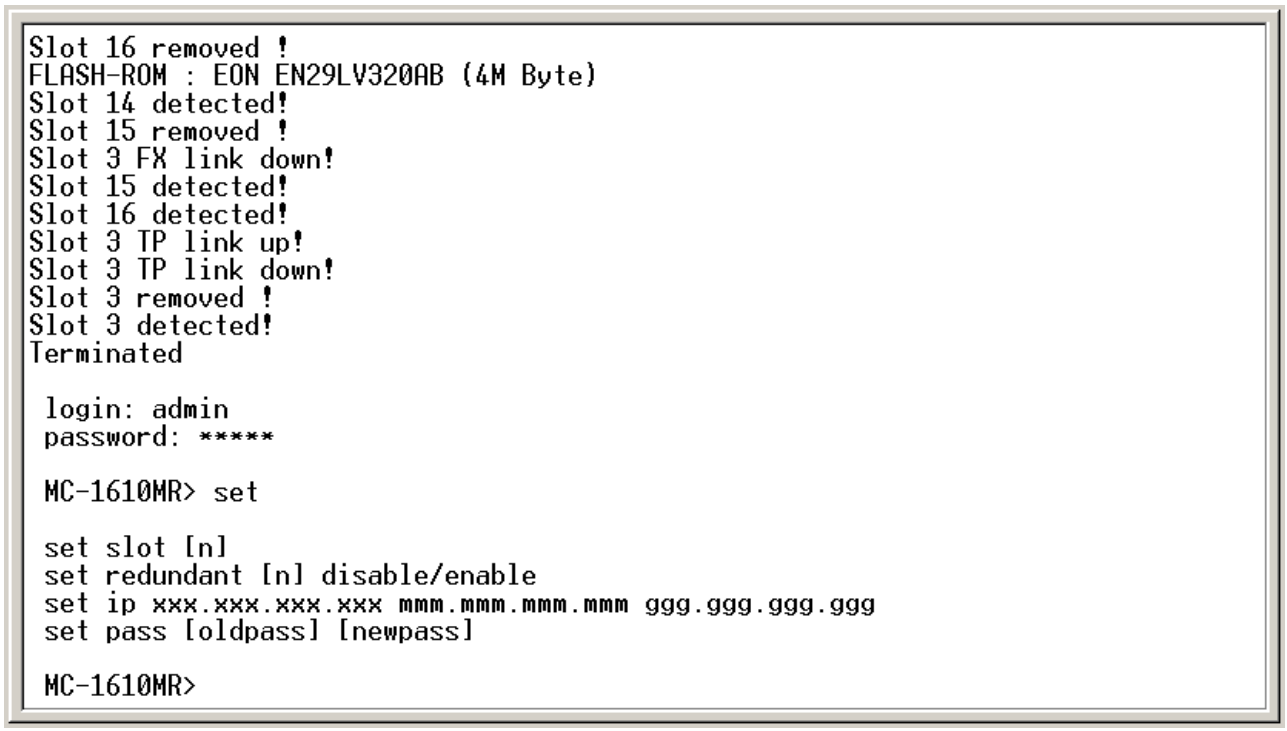


Figure 4-15 Set command list screen

This set command list contains four items:

Set slot [n]: Please refer to **chapter 4.4.3.1.**

Set redundant [n] disable / enable: Please refer to **chapter 4.4.3.2.**

Set ip xxx.xxx.xxx.xxx.mmm.mmm.mmm.mmm.ggg.ggg.ggg.ggg: Please refer to **chapter 4.4.3.3**

Set pass [oldpass] [newpass]: Please refer to **chapter 4.4.3.4**

4.4.3.1 Set slot [n]

This command allows configuring per slot parameters of Managed Media Converter Chassis, different parameters provide on FST-8 / GST-7 / GST-8 Media Converter boards installation. The correct usage is shown as below:

Set slot [n]: n=1-16, to configuring per slot parameters of Managed Media Converter Chassis. The configuring per slot parameters screen in Figure 4-16 appears and the detail description shown in table 4-2 & 4-3 & 4-4.

```
MC-1610MR> set slot 1

FST-80X setting
Device: (1)Enable (2)Disable 1
LLCF: (1)Enable (2)Disable 1
TP AN Mode: (1)Auto (2)Force 2
TP Speed: (1)100M (2)10M 1
TP Duplex: (1)Full (2)Half 1
TP Flow Control: (1)Enable (2)Disable 1
Fiber LLR: (1)Enable (2)Disable 1
Fiber Duplex: (1)Full (2)Half 1

MC-1610MR> set slot 2

GST-70X setting
Device: (1)Enable (2)Disable 1
Fiber LLR: (1)Enable (2)Disable 2
Fiber AN Bypass: (1)Enable (2)Disable 1

MC-1610MR>
MC-1610MR>
```

Figure 4-16 Set slot [n] command screen

Item	Description
Device	To enable or disable per FST-80x Converter board.
LLCF	To enable or disable the LLCF function from FST-80x Converter board.
TP AN Mode	To set the UTP port runs at Auto-negotiation or Forced Mode.
TP Speed *	To set the UTP port runs at 100Mbps or 10Mbps.
TP Duplex *	To set the UTP port runs at Full duplex or Half duplex mode.
TP Flow Control	To set the Flow Control of the UTP port to enable or disable.
Fiber LLR	To enable or disable the LLR function of the Fiber port.
Fiber Duplex	To set the Duplex Mode of Fiber port to Full duplex or Half duplex mode.

Table 4-2 Descriptions of the FST-80x slot Configuration screen Objects

Item	Description
Device	To enable or disable per GST-70x Converter board.
Fiber LLR	To enable or disable the LLR function of the fiber port.
Fiber AN Bypass	To set the Auto negotiation bypass function of the fiber port to enable or disable.

Table 4-3 Descriptions of the GST-70x slot Configuration screen Objects

Item	Description
Device	To enable or disable per GST-80x Converter board.
LLCF	To enable or disable the LLCF function from GST-80x Converter board.
TP AN Mode	To set the UTP port runs at Auto-negotiation or Forced Mode.
TP Speed*	To set the UTP port runs at 1000Mbps,100Mbps or 10Mbps.
TP Duplex*	To set the UTP port runs at Full duplex or Half duplex mode.
TP Flow Control	To set the Flow Control of the UTP port to enable or disable.
Fiber LLR	To enable or disable the LLR function of the Fiber port.
Fiber AN Bypass	To set the Auto negotiation bypass function of the fiber port to enable or disable.

Table 4-4 Descriptions of the GST-80x slot Configuration screen Objects

Notice:

*: Only set the TP port run at force mode, the TP speed and TP duplex function are available.

4.4.3.2 Set redundant [n] disable/enable

This command allows disable or enable per redundant group of Managed Media Converter Chassis, the correct usage is shown as below:

Set redundant[n]disable/enable: n=1-8, to disable or enable per redundant group of Managed Media Converter Chassis, the screen in Figure 4-17 appears.

```
 MC-1610MR> set redundant 1 enable
Redundant group 1 : Enable
 MC-1610MR> set redundant 2 enable
Redundant group 2 : Enable
 MC-1610MR> set redundant 3 enable
Redundant group 3 : Enable
 MC-1610MR>
```

Figure 4-17 Set redundant [n] disable / enable command screen

The redundant backup setting function already divides 8 redundant groups and each group includes 2 ports, the ports with an odd number will be **"Master"**. Vice versa, the ports with even number will be **Slave"**.

Group	Master	Slave
1	1	2
2	3	4
3	5	6
4	7	8
5	9	10
6	11	12
7	13	14
8	15	16

Once enable the redundant backup setting function, only the Master fiber interface will work as a major fiber connection and the Slave fiber interface as a backup fiber connection. When the system detects Master fiber interface disconnects then the slave fiber interface will active as major fiber connection to avoid network downtime.

When the system detect the Master fiber interface of get recovery, then the Slave Fiber interface will disconnect automatically and become a backup fiber connection again.

Notice: LLCF must active on both Master and Slave devices. If not, then the redundant backup setting function will not work.

4.4.3.3 Set IP xxx,xxx,xxx,xxx,mmm,mmm,mmm,mmm, ggg,ggg,ggg,ggg

This command allows assign IP address, subnet mask and gateway of Managed Media Converter Chassis; the correct usage is shown as below:

`set ip 192.168.0.101 255.255.255.0 192.168.0.254` and press **<Enter>**

Then the following message appears under console interface:

`Set ip done`

Means the IP address was changed successfully, the IP subnet address setting screen in Figure 4-18 appears.

```
MC-1610MR> set ip 192.168.0.101 255.255.255.0 192.168.0.254
set ip done

MC-1610MR>
```

Figure 4-18 Set IP command screen

4.4.3.4 Set pass [oldpass] [newpass]

This command allows assign password of Managed Media Converter Chassis, the password setting screen in Figure 4-19 appears.

```
MC-1610MR> set pass admin planet

set password done.

MC-1610MR>
```

Figure 4-19 Set pass command screen

Notice: 1. For security reason, please change and memorize the new password after this first setup.

2. The maximum length is 15 characters.

4.4.4 Factory default

This command allows reset the Managed Media Converter Chassis to factory default mode. The factory default screen in Figure 4-20 & 4-21 appears.

```
 MC-1610MR> factory default


 Flash Set Default Done, System Will Auto Reboot.


The system is going down NOW!
Sending SIGTERM to all processes
Terminated
[3] + Terminated                 swctrl
[2] + Terminated                 reload
[1] + Terminated                 webs
SendingRestarting system.

--PLANET MC-1610MR bootloader v1.0 build 2009.01.20-13:50+0800 (16bit)
```

Figure 4-20 Factory default screen

```
Power 2 LED:     Fail
Power 1 Fan:     OK
Power 2 Fan:     OK
MC-1610MR Slot initial...
Slot 1 detected!
Slot 2 detected!
Slot 3 detected!
Slot 4 detected!
Slot 5 detected!
Slot 6 detected!
Slot 7 detected!
Slot 8 detected!
Slot 9 detected!
Slot 10 detected!
Slot 11 detected!
Slot 12 detected!
Slot 13 detected!
Slot 14 detected!
Slot 15 detected!
Slot 16 detected!
FLASH-ROM : EON EN29LV320AB (4M Byte)
Terminated

 login:
```

Figure 4-21 Factory default screen

4.4.5 Reboot

This command allows reboot the Managed Media Converter Chassis, the reboot screen in Figure 4-22 & 4-23 appears.

```
 MC-1610MR> reboot
The system is going down NOW!
Sending SIGTERM to all processes
Terminated
[3] + Terminated                 swctrl
[2] + Terminated                 reload
[1] + Terminated                 webs
SendingRestarting system.

--PLANET MC-1610MR bootloader v1.0 build 2009.01.20-13:50+0800 (16bit)
```

Figure 4-22 Managed Media Converter Chassis reboot screen

```
Power 2 LED:     Fail
Power 1 Fan:     OK
Power 2 Fan:     OK
MC-1610MR Slot initial...
Slot 1 detected!
Slot 2 detected!
Slot 3 detected!
Slot 4 detected!
Slot 5 detected!
Slot 6 detected!
Slot 7 detected!
Slot 8 detected!
Slot 9 detected!
Slot 10 detected!
Slot 11 detected!
Slot 12 detected!
Slot 13 detected!
Slot 14 detected!
Slot 15 detected!
Slot 16 detected!
FLASH-ROM : EON EN29LV320AB (4M Byte)
Terminated

 login:
```

Figure 4-23 Managed Media Converter Chassis reboot screen

4.4.6 Logout

This command provides logout the Managed Media Converter Chassis, the screen in Figure 4-24 appears.

```
MC-1610MR> logout

login:
```

Figure 4-24 Managed Media Converter Chassis Logout screen

5. WEB MANAGEMENT

Before login the Web interface of Managed Media Converter Chassis, please setup the **"IP Address"** with local serial console port (RS232 port) and use this IP address to configure Managed Media Converter Chassis through the **Web** interface.
Or modify your PC's IP domain to the same with Managed Media Converter Chassis then use the default IP address (***192.168.0.100***) to remote configure Managed Media Converter Chassis through the **Web** interface.

5.1 Login in to the Managed Media Converter Chassis

To access the Web-browser interface you must first enter the user name and password, the default user name and password is **"admin".** You will see the following screen comes out on the Web browser program:

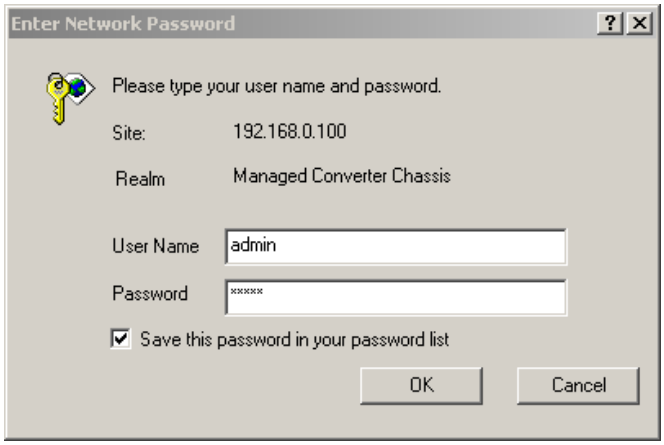


Figure 5-1 The Web login Page screen of Managed Media Converter Chassis

After the User name and Password is entered, you will see the web main menu screen.

Figure 5-2 The Web main menu screen of Managed Media Converter Chassis

The four major items and it description shown as below:

◆ **Module Status:** Provide Module Status function of Managed Media Converter Chassis. **Explained in section 5.2.**

◆ **Management:** Provide Management function of Managed Media Converter Chassis. **Explained in section 5.3.**

◆ **SNMP:** Provide SNMP configuration of Managed Media Converter Chassis. **Explained in section 5.4.**

◆ **Logout:** Provide Logout function of Managed Media Converter Chassis. **Explained in section 5.5.**

5.2 Module Status

This section provides Chassis Status, Converter Status, Location Setting and Redundant Backup Setting of Managed Media Converter Chassis, the screen in Figure 5-3 appears and table 5-1 describes the Module Status object of Managed Media Converter Chassis.

Figure 5-3 Module Status Web Page screen

Object	Description
Chassis Status	Display the power supply unit information of Managed Media Converter Chassis. **Explained in section 5.2.1.**
Converter Status	Provide detail settings from per slot parameters of Managed Media Converter Chassis. **Explained in section 5.2.2.**
Location Setting	Provide location setting of Managed Media Converter Chassis. **Explained in section 5.2.3.**
Redundant Backup Setting	Provide Redundant Backup setting of Managed Media Converter Chassis. **Explained in section 5.2.4.**

Table 5-1 Descriptions of the Module Status Web Page Screen Objects

5.2.1 Chassis Status

This section provides current status of power supply unit from Managed Media Converter Chassis, the screen in Figure 5-4 appears and table 5-2 describes the Chassis Status object of Managed Media Converter Chassis.

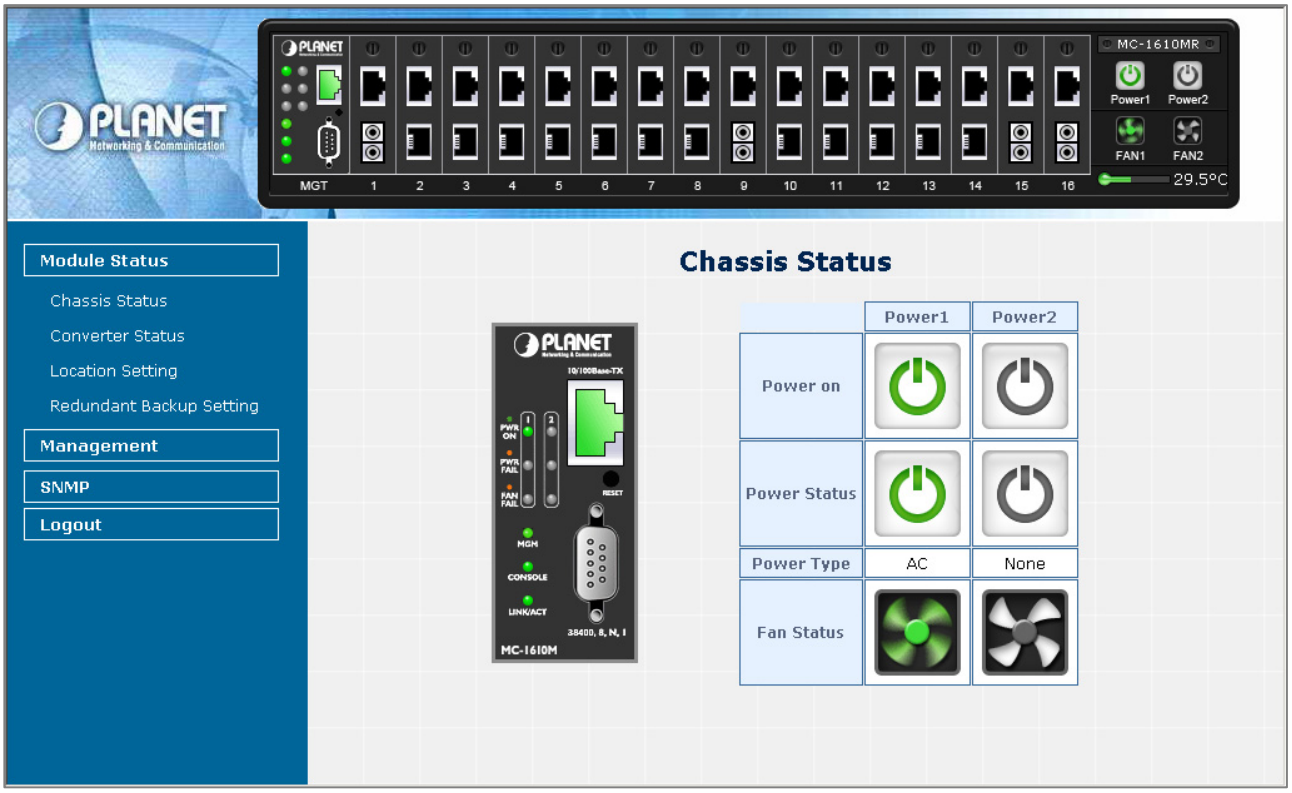


Figure 5-4 Chassis Status Web Page Screen

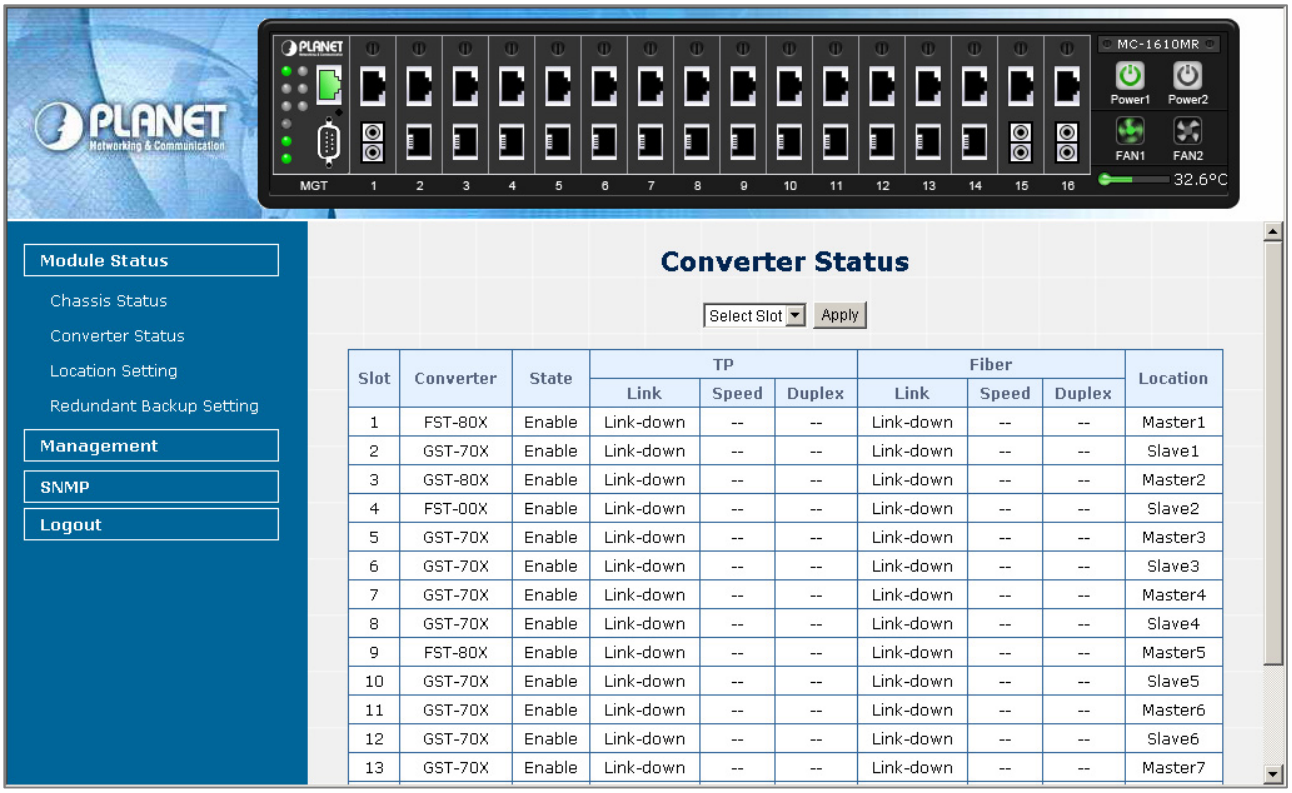
Item	Power 1	Power 2
Power on	**Gray:** indicate the power supply unit not install into the Management Converter Chassis. **Green:** indicate the power supply unit install into the Management Converter Chassis.	
Power Status	**Gray:** indicate the power supply unit not install into the Management Converter Chassis. **Green:** indicate the power supply unit has power. **Red:** indicate the power supply unit has no power or failure.	
Power Type	**AC:** indicate the AC power supply unit **(MC-RPS90)** install into the Management Converter Chassis. **DC:** indicate the DC power supply unit **(MC-RPS48)** install into the Management Converter Chassis.	
Fan Status	**Gray:** indicate the power supply unit not install into the Management Converter Chassis. **Green:** indicate the fan is operation normally. **Red:** indicate the fan is failure.	

Table 5-2 Descriptions of the Chassis Status Web Page Screen Objects

Notice: Once, installed the AC or DC power supply unit into Management Converter Chassis, the fan will start to working. Even, the AC or DC power supply unit has no power.

5.2.2 Converter Status

This section introduces detail settings of per slot parameters from Managed Media Converter Chassis; the screen in Figure 5-5 appears.



Slot	Converter	State	TP			Fiber			Location
			Link	Speed	Duplex	Link	Speed	Duplex	
1	FST-80X	Enable	Link-down	--	--	Link-down	--	--	Master1
2	GST-70X	Enable	Link-down	--	--	Link-down	--	--	Slave1
3	GST-80X	Enable	Link-down	--	--	Link-down	--	--	Master2
4	FST-00X	Enable	Link-down	--	--	Link-down	--	--	Slave2
5	GST-70X	Enable	Link-down	--	--	Link-down	--	--	Master3
6	GST-70X	Enable	Link-down	--	--	Link-down	--	--	Slave3
7	GST-70X	Enable	Link-down	--	--	Link-down	--	--	Master4
8	GST-70X	Enable	Link-down	--	--	Link-down	--	--	Slave4
9	FST-80X	Enable	Link-down	--	--	Link-down	--	--	Master5
10	GST-70X	Enable	Link-down	--	--	Link-down	--	--	Slave5
11	GST-70X	Enable	Link-down	--	--	Link-down	--	--	Master6
12	GST-70X	Enable	Link-down	--	--	Link-down	--	--	Slave6
13	GST-70X	Enable	Link-down	--	--	Link-down	--	--	Master7

Figure 5-5 Converter Status Web Page Screen

Different parameters provide on FST-8 / GST-7 / GST-8 Media Converter boards installation, the screen in Figure 5-6 & Figure 5-7 & Figure 5-8 appears and table 5-3 & 5-4 & 5-5 descriptions the slot configuration objects of Managed Media Converter Chassis.

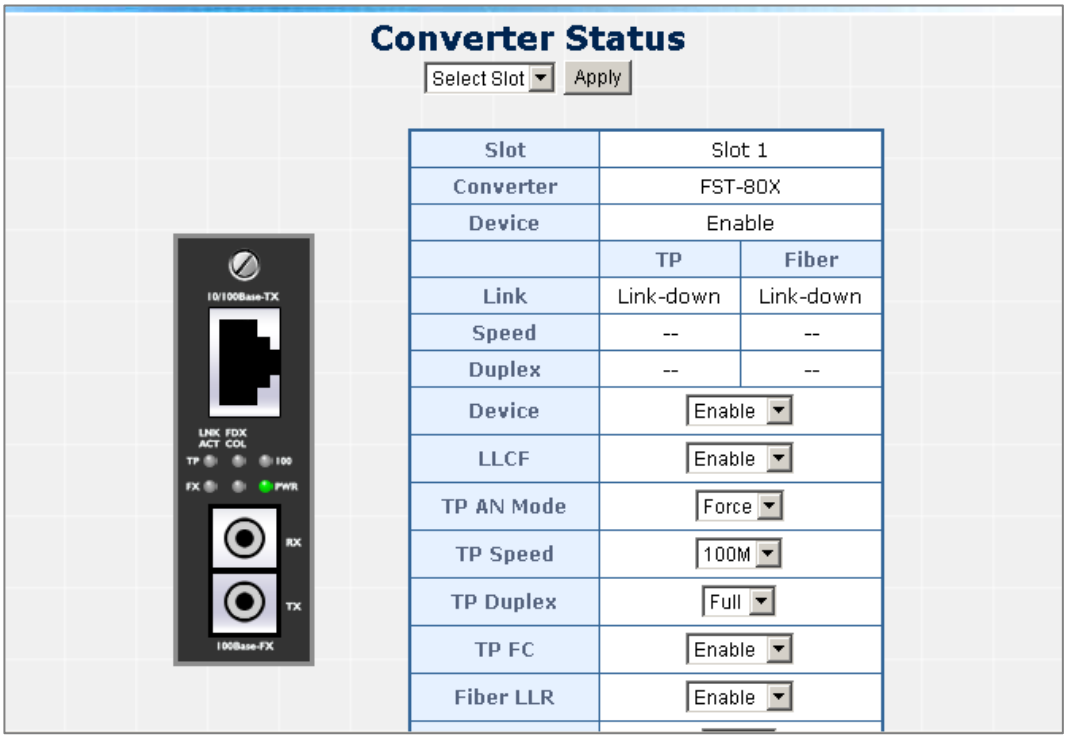


Figure 5-6 FST-80x Converter Status Web Page screen

Item	Description
Device	To enable or disable per FST-80x Converter board.
LLCF	To enable or disable the LLCF function from FST-80x Converter board.
TP AN Mode	To set the UTP port runs at Auto-negotiation or Forced Mode.
TP Speed *	To set the UTP port runs at 100Mbps or 10Mbps.
TP Duplex *	To set the UTP port runs at Full duplex or Half duplex mode.
TP FC	To set the Flow Control of the UTP port to enable or disable.
Fiber LLR	To enable or disable the LLR function of the Fiber port.
Fiber Duplex	To set the Duplex Mode of Fiber port to Full duplex or Half duplex mode.

Table 5-3 Descriptions of the FST-80x slot Configuration screen Objects

Notice:

*: Only set the TP port run at force mode, the TP speed and TP duplex function are available.

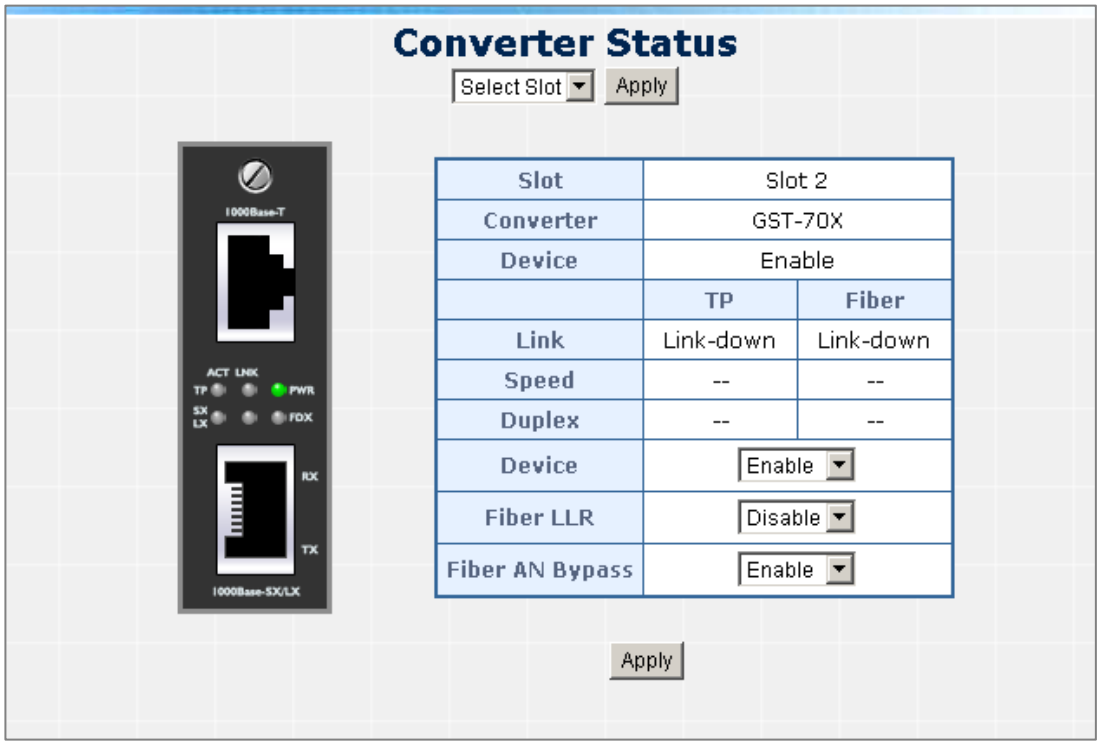


Figure 5-7 GST-70x Converter Status Web Page screen

Item	Description
Device	To enable or disable per GST-70x Converter board.
Fiber LLR	To enable or disable the LLR function of the Fiber port.
Fiber AN Bypass	To set the Auto negotiation bypass function of the Fiber port to enable or disable.

Table 5-4 Descriptions of the GST-70x slot Configuration screen Objects

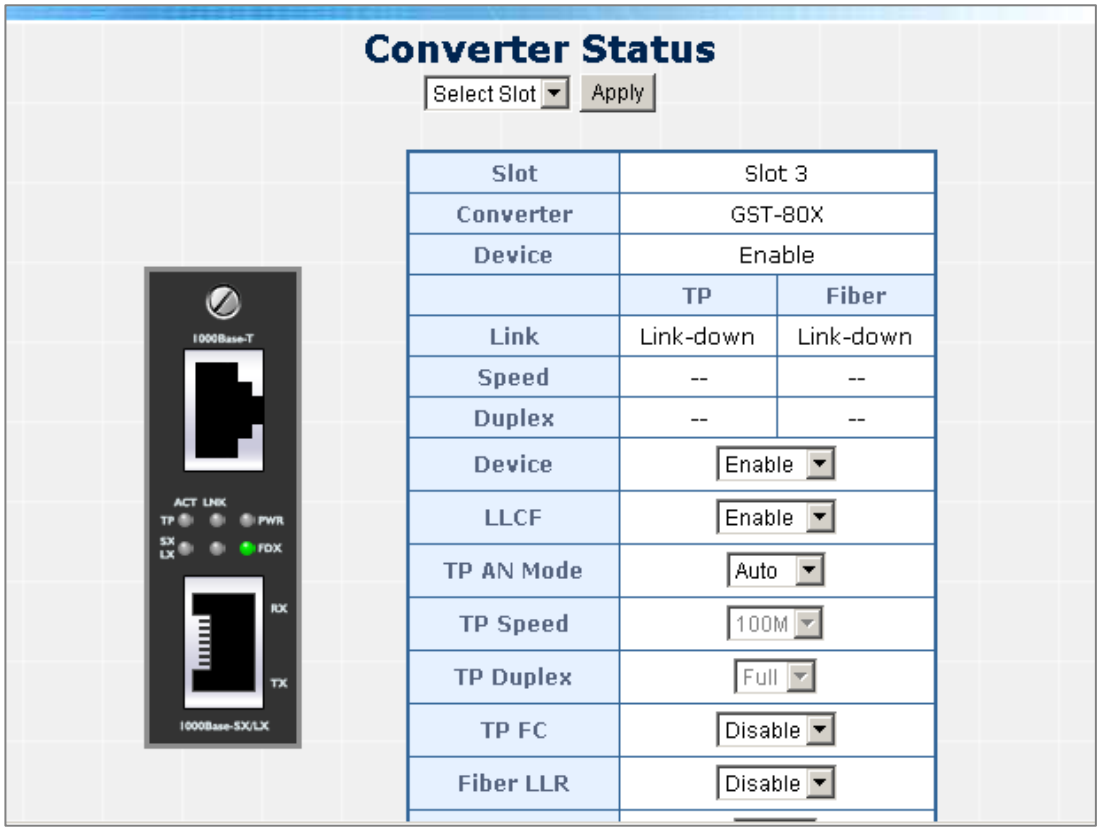


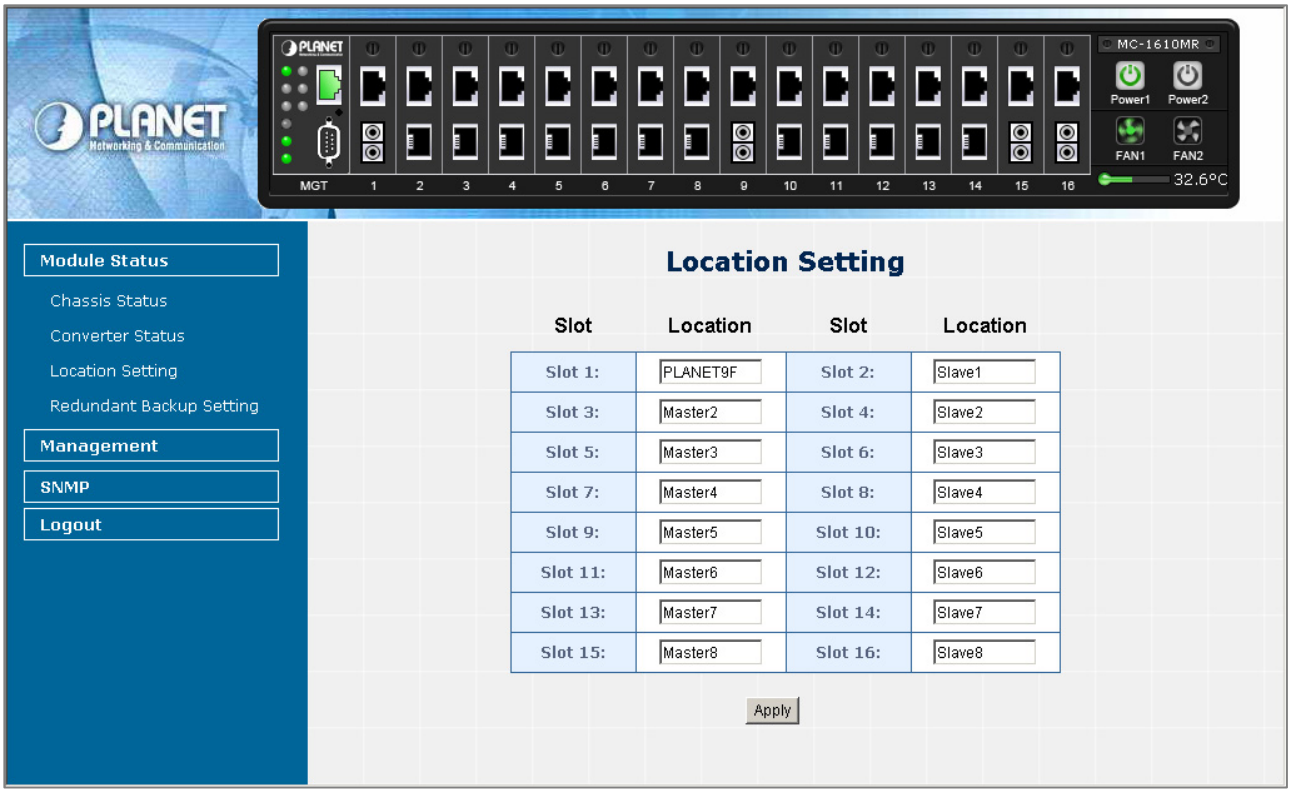
Figure 5-8 GST-80x Converter Status Web Page screen

Item	Description
Device	To enable or disable per GST-80x Converter board.
LLCF	To enable or disable the LLCF function from GST-80x Converter board.
TP AN Mode	To set the UTP port runs at Auto-negotiation or Forced Mode.
TP Speed*	To set the UTP port runs at 1000Mbps,100Mbps or 10Mbps.
TP Duplex*	To set the UTP port runs at Full duplex or Half duplex mode.
TP FC	To set the Flow Control of the UTP port to enable or disable.
Fiber LLR	To enable or disable the LLR function of the Fiber port.
Fiber AN Bypass	To set the Auto negotiation bypass function of the fiber port to enable or disable.

Table 5-5 Descriptions of the GST-80x slot Configuration screen Objects

5.2.3 Location Setting

This section allows you to add location description on each slot of Managed Media Converter Chassis, the screen in Figure 5-9



appears. After setup complete, press **"Apply"** button to save current configuration.

Figure 5-9 Location Setting Web Page Screen

Notice: The maximum length is 8 characters.

5.2.4 Redundant Backup Setting

This section allows you to enable or disable redundant backup setting function of Managed Media Converter Chassis, the screen in Figure 5-10 appears. After setup complete, press **"Apply"** button to save current configuration.

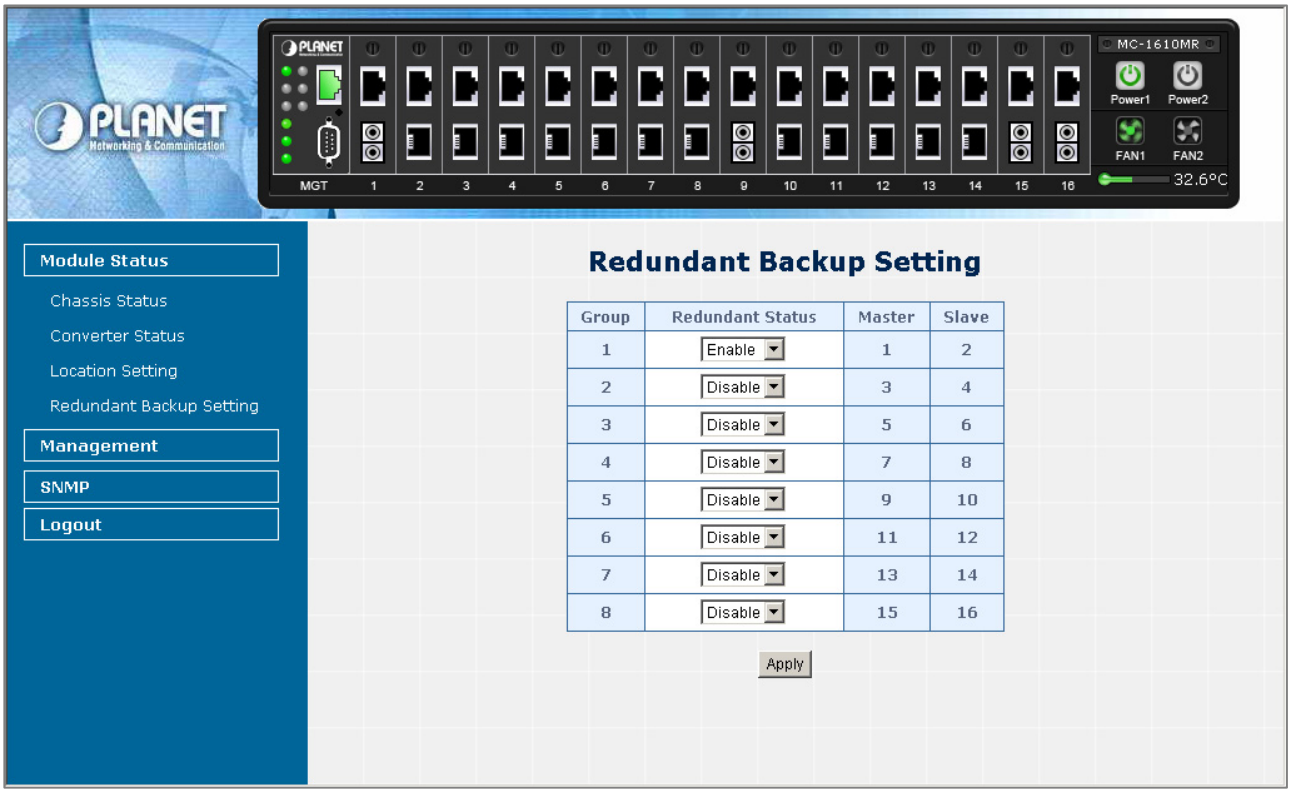


Figure 5-10 Redundant Backup Setting Web Page Screen

The redundant backup setting function already divides 8 redundant groups and each group includes 2 ports, the ports with an odd number will be **"Master"**. Vice versa, the ports with even number will be **Slave"**.

Once enable the redundant backup setting function, only the Master fiber interface will work as a major fiber connection and the Slave fiber interface as a backup fiber connection. When the system detects Master fiber interface disconnects then the slave fiber interface will active as major fiber connection to avoid network downtime.

When the system detect the Master fiber interface of get recovery, then the Slave Fiber interface will disconnect automatically and become a backup fiber connection again.

Notice: LLCF must active on both Master and Slave devices. If not, then the redundant backup setting function will not work.

5.3 Management

This section provides System Information, IP Configuration, NTP Configuration, Password Setting, Firmware Upgrade, Factory Default, Temperature, System Log and System reboot function of Managed Media Converter Chassis, the screen in Figure 5-11 appears and table 5-6 describes the Management object of Managed Media Converter Chassis.

Figure 5-11 Management Web Page screen

Object	Description
System Information	Display the System information of Managed Media Converter Chassis. **Explained in section 5.3.1.**
IP Configuration	Allow change the IP subnet address of Managed Media Converter Chassis. **Explained in section 5.3.2.**
NTP Configuration	Allow enable the Time Zone Setting of Managed Media Converter Chassis. **Explained in section 5.3.3.**
Password Setting	Allow proceed Password Setting of Managed Media Converter Chassis. **Explained in section 5.3.4.**
Firmware Upgrade	Allow proceed firmware upgrade process of Managed Media Converter Chassis. **Explained in section 5.3.5.**
Factory Default	Allow reset the Managed Media Converter Chassis to factory default mode. **Explained in section 5.3.6.**
Temperature	Display the current temperature information of Managed Media Converter Chassis. **Explained in section 5.3.7.**
System Log	Provide the System Logs function of Managed Media Converter Chassis. **Explained in section 5.3.8.**
System Reboot	Allow reboot the Managed Media Converter Chassis. **Explained In section 5.3.9**

Table 5-6 Descriptions of the Management Web Page Screen Objects

5.3.1 System Information

This section display system information of Managed Media Converter Chassis, the screen in Figure 5-12 appears and table 5-7 describes the system information object of Managed Media Converter Chassis.

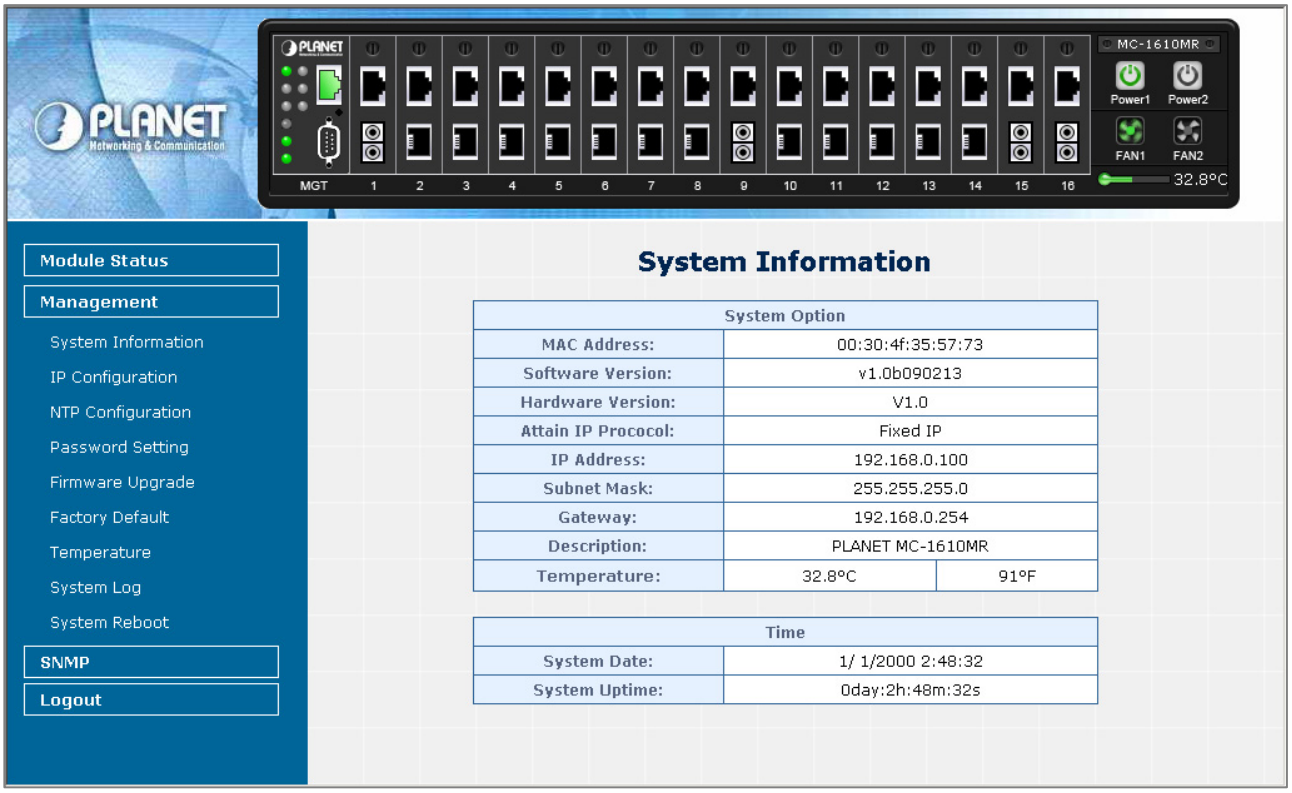


Figure 5-12 System Information Web Page Screen

Item	Description
System Option	
MAC Address	Display the MAC Address of Managed Converter Chassis.
Software Version	Display the current firmware version of Managed Converter Chassis.
Hardware Version	Display the hardware version of Managed Converter Chassis.
Attain IP Protocol	Displays the current attain IP protocol of Managed Converter Chassis.
IP Address	Displays the current IP address of Managed Converter Chassis.
Subnet Mask	Displays the current subnet mask address of Managed Converter Chassis.
Gateway	Displays the current gateway address of Managed Converter Chassis.
Description	Display the system description of Managed Converter Chassis.
Temperature	Display the current temperature information of Managed Converter Chassis.
Time	
System Date	Display the current system date of Managed Converter Chassis.
System Uptime	Display the system operation time of Managed Converter Chassis.

Table 5-7 Descriptions of the System Information Web Page Screen Objects

5.3.2 IP Configuration

This section provide the IP Configuration of Managed Media Converter Chassis, the screen in Figure 5-13 appears and table 5-8 describes the IP Configuration object of Managed Media Converter Chassis.

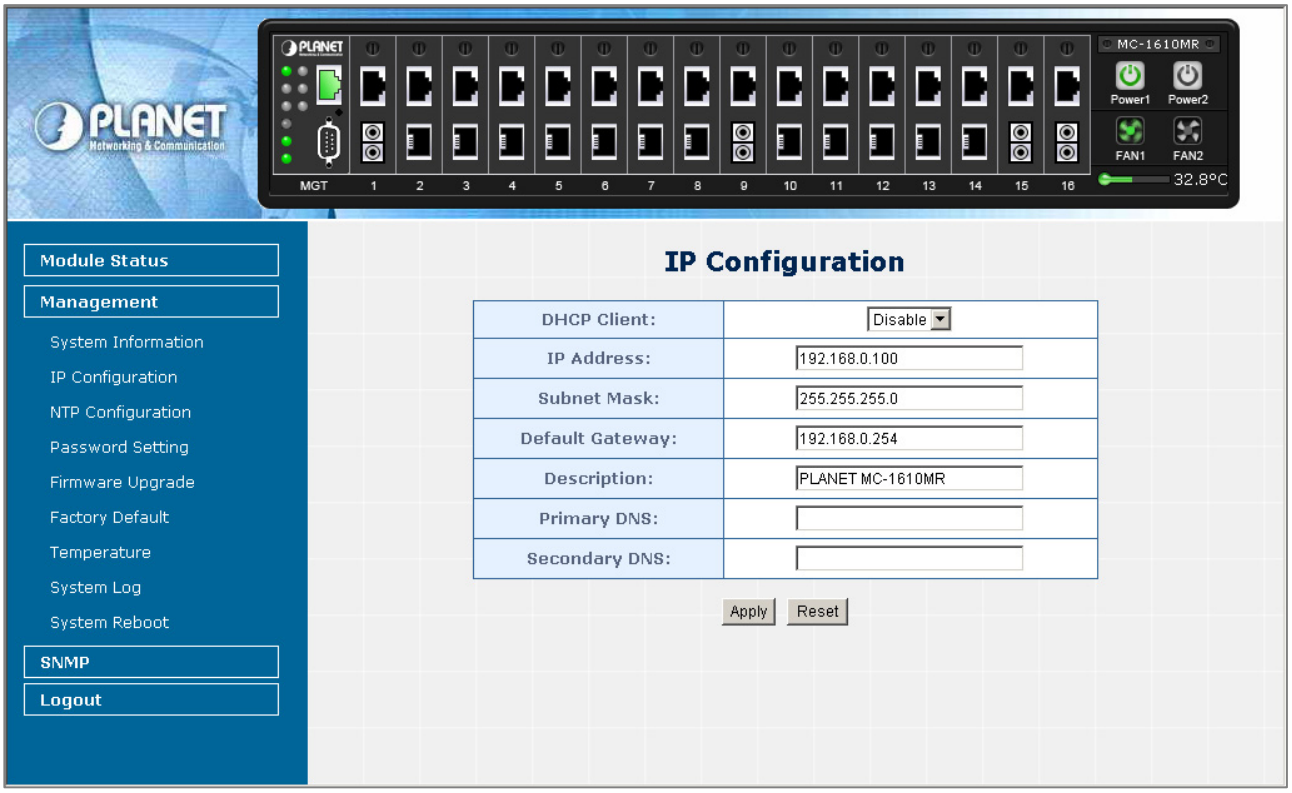


Figure 5-13 IP Configuration Web Page Screen

Item	Description
DHCP Client	Allow disable or enable the DHCP Client function of Managed Converter Chassis.
IP Address	Allow input new IP Address of Managed Converter Chassis.
Subnet Mask	Allow input new Subnet Mask Address of Managed Converter Chassis.
Default Gateway	Allow input new Default Gateway Address of Managed Converter Chassis.
Description	Allow input new system description of Managed Converter Chassis, the maximum length is 20 characters.
Primary DNS	Allow input Primary DNS IP Address of Managed Converter Chassis.
Secondary DNS	Allow input Secondary DNS IP Address of Managed Converter Chassis.
Apply	Press this button to take effect.
Reset	Press this button for resets not apply IP Configuration to default mode.

Table 5-8 Descriptions of the IP Configuration Web Page Screen Objects

5.3.3 NTP Configuration

This section provide the NTP Configuration of Managed Media Converter Chassis, the screen in Figure 5-14 appears and table 5-9 describes the NTP Configuration object of Managed Media Converter Chassis.

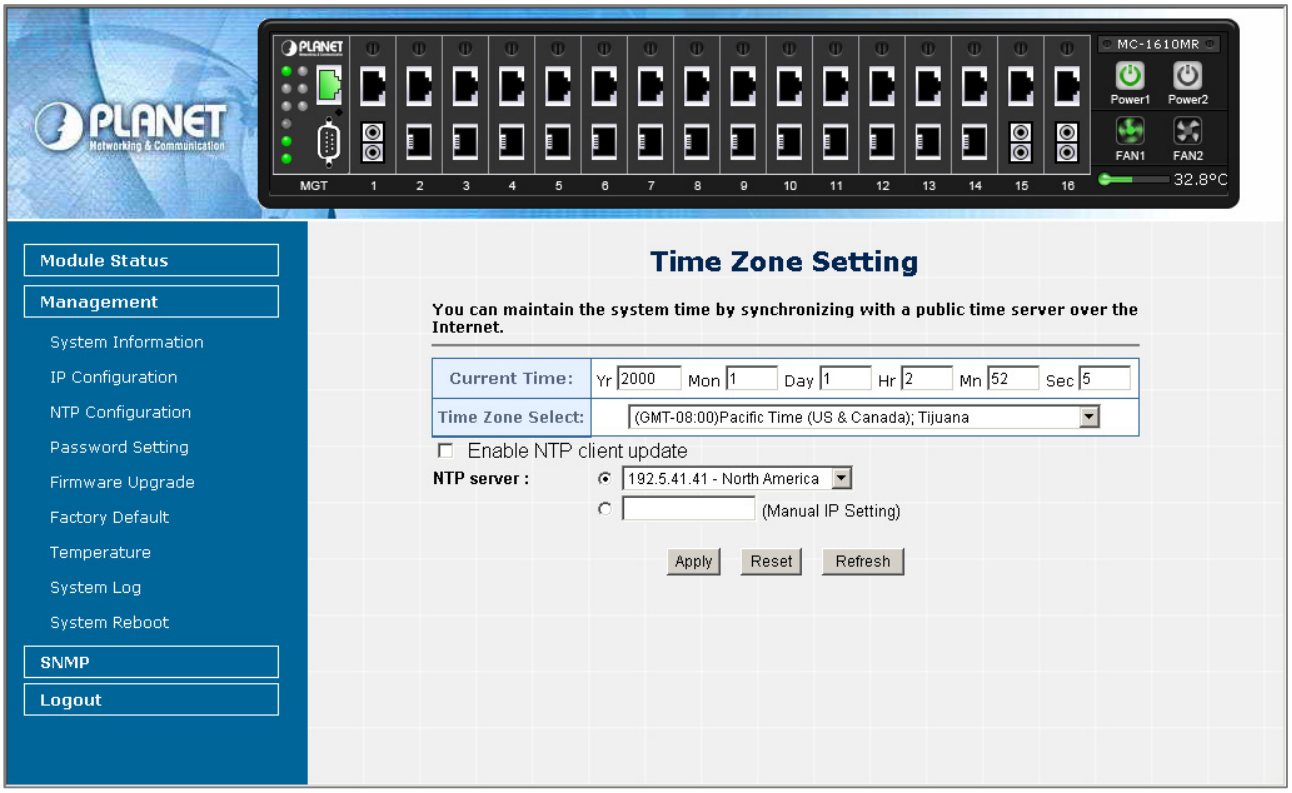


Figure 5-14 NTP Configuration Web Page Screen

Item	Description
Current Time	Allow input current time information of Managed Converter Chassis.
Time Zone Select	Allow select the time zone according to current location of Managed Converter Chassis.
Enable NTP client update	Allow disable or enable time update from NTP server of Managed Converter Chassis.
NTP Server	Allow choose one list NTP server or manual assign one NTP server IP address of Managed Converter Chassis.
Apply	Press this button to take effect.
Reset	Press this button for resets not apply Time Zone Setting to default mode.
Refresh	Press this button to refresh current Web page.

Table 5-9 Descriptions of the NTP Configuration Web Page Screen Objects

5.3.4 Password Setting

This section provide the Password Setting of Managed Media Converter Chassis, the screen in Figure 5-15 appears and table 5-10 describes the Password Setting object of Managed Media Converter Chassis.

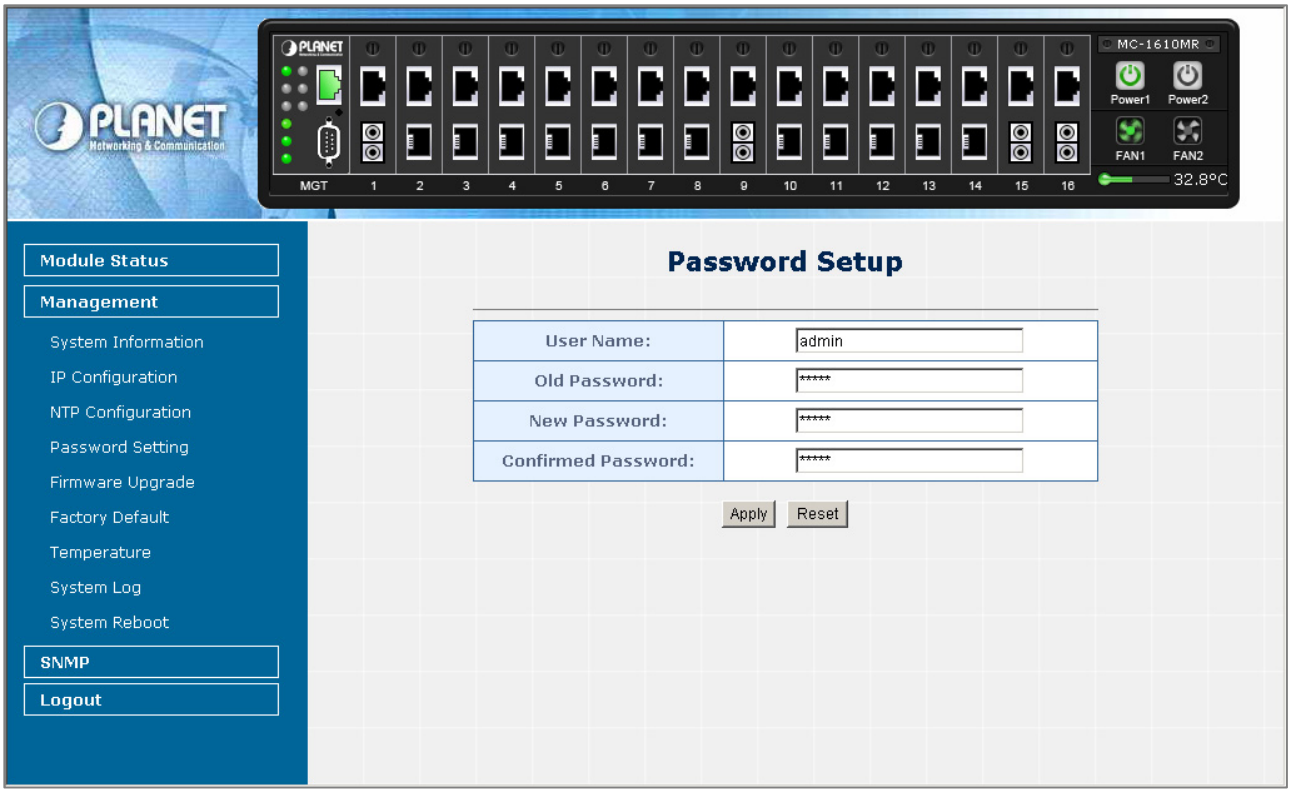


Figure 5-15 Password Setting Web Page Screen

Item	Description
User Name	Allow input current User Name of Managed Converter Chassis.
Old Password	Allow input current Password of Managed Converter Chassis.
New Password	Allow input new Password of Managed Converter Chassis.
Confirmed Password	Allow input new Password again for confirm of Managed Converter Chassis.
Apply	Press this button to take effect.
Reset	Press this button for resets not apply setting to default mode.

Table 5-10 Descriptions of the Password Setting Web Page Screen Objects

Notice:

1. For security reason, please change and memorize the new password after this first setup.
2. The maximum length is 15 characters.

5.3.5 Firmware Upgrade

This section provides the firmware upgrade of Managed Media Converter Chassis, the screen in Figure 5-16 appears.

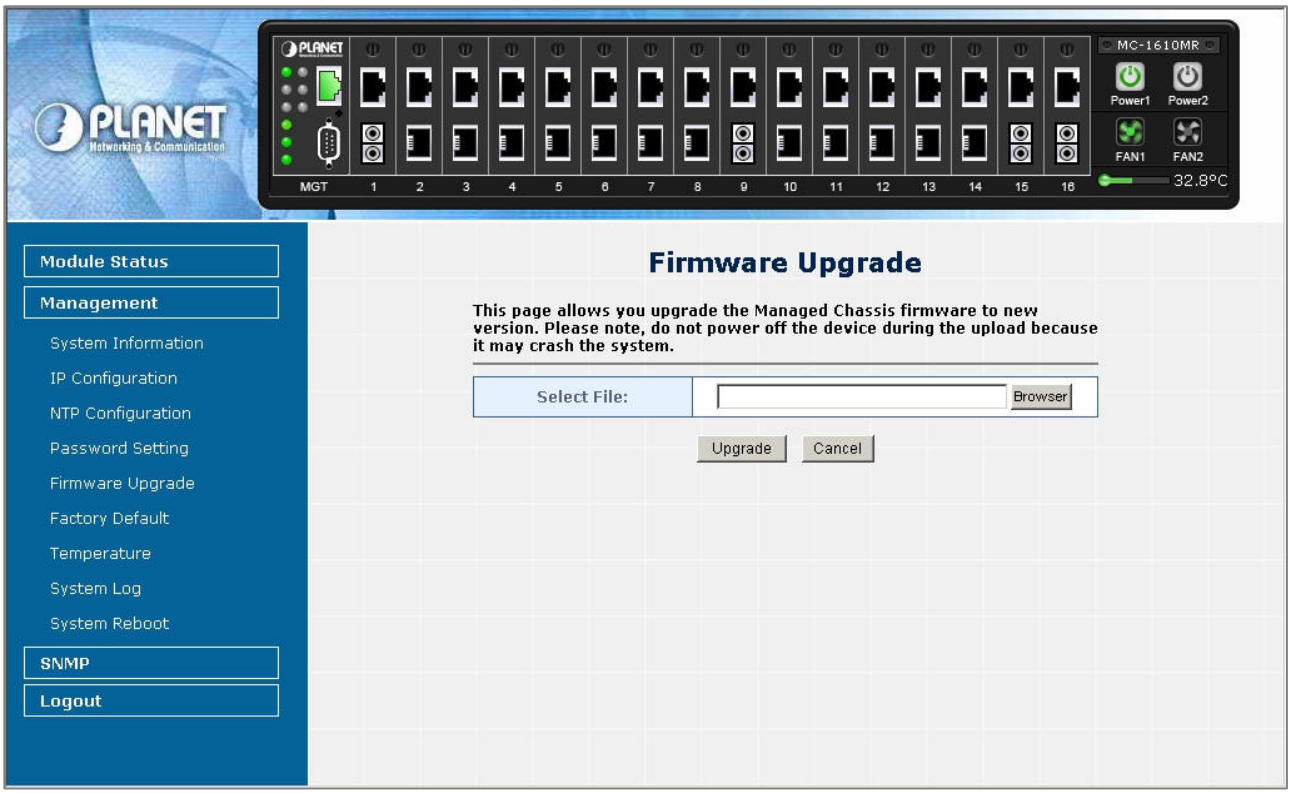


Figure 5-16 Firmware Upgrade Web Page Screen

Please press **"Browser"** to locate the latest firmware of Managed Media Converter Chassis that deposit in your PC. The screen in Figure 5-17 appears.

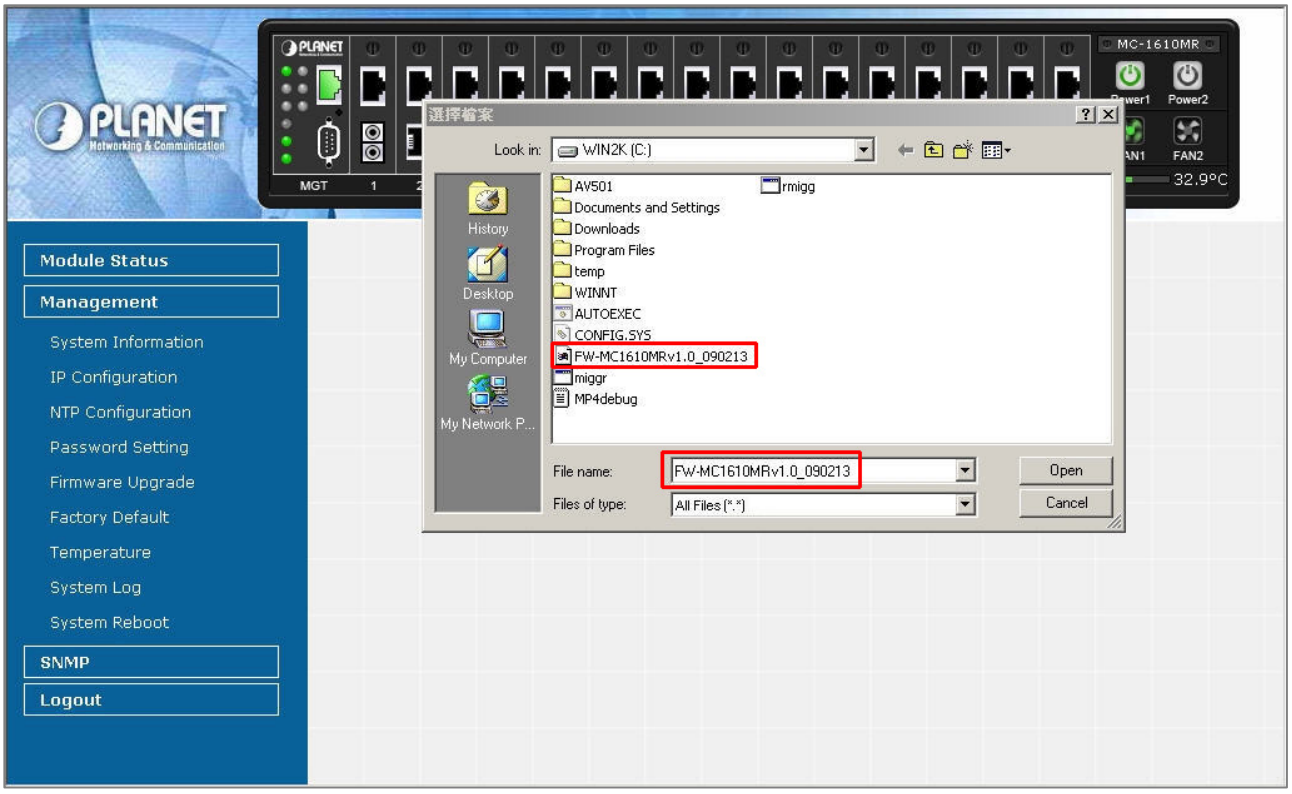


Figure 5-17 Firmware Upgrade Web Page Screen

Press **"Upgrade"** to start the firmware upgrade process, the screen in Figure 5-18 & 5-19 appears.

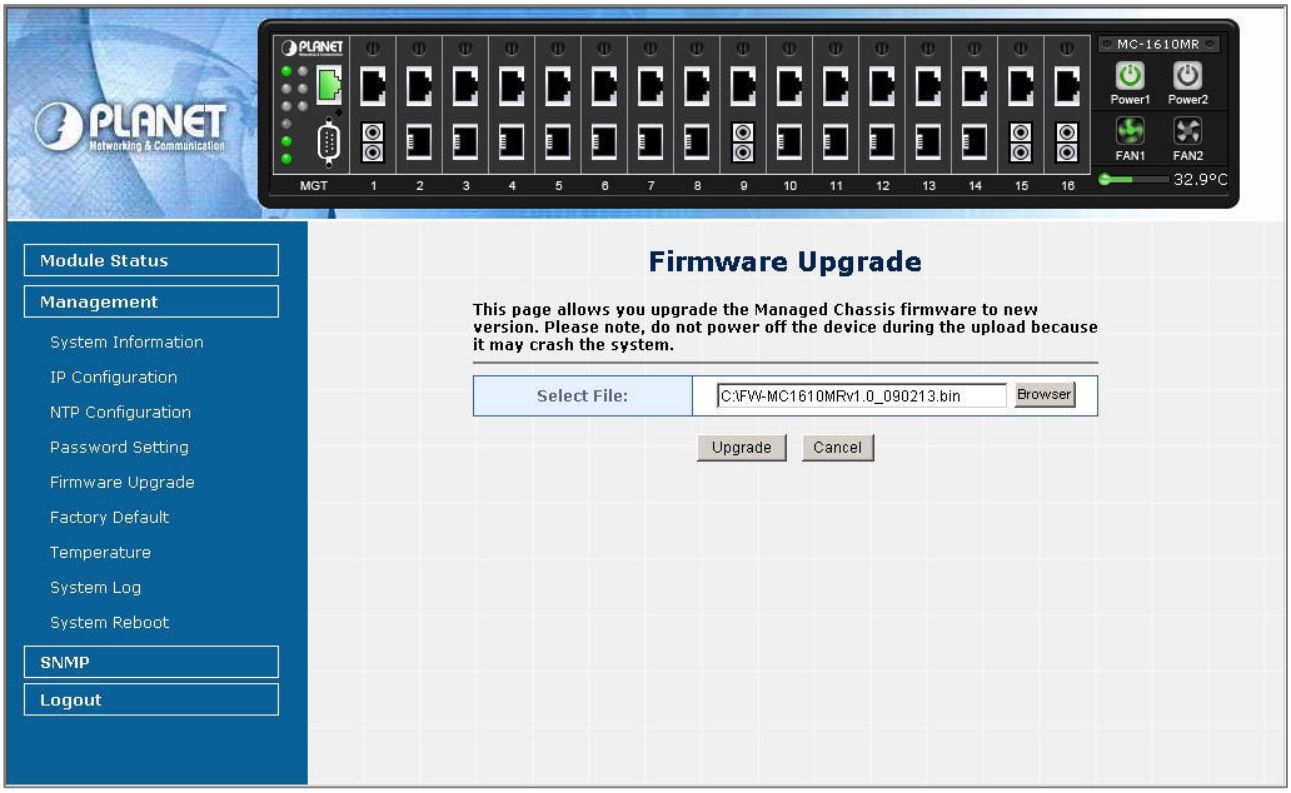


Figure 5-18 Firmware Upgrade Web Page Screen

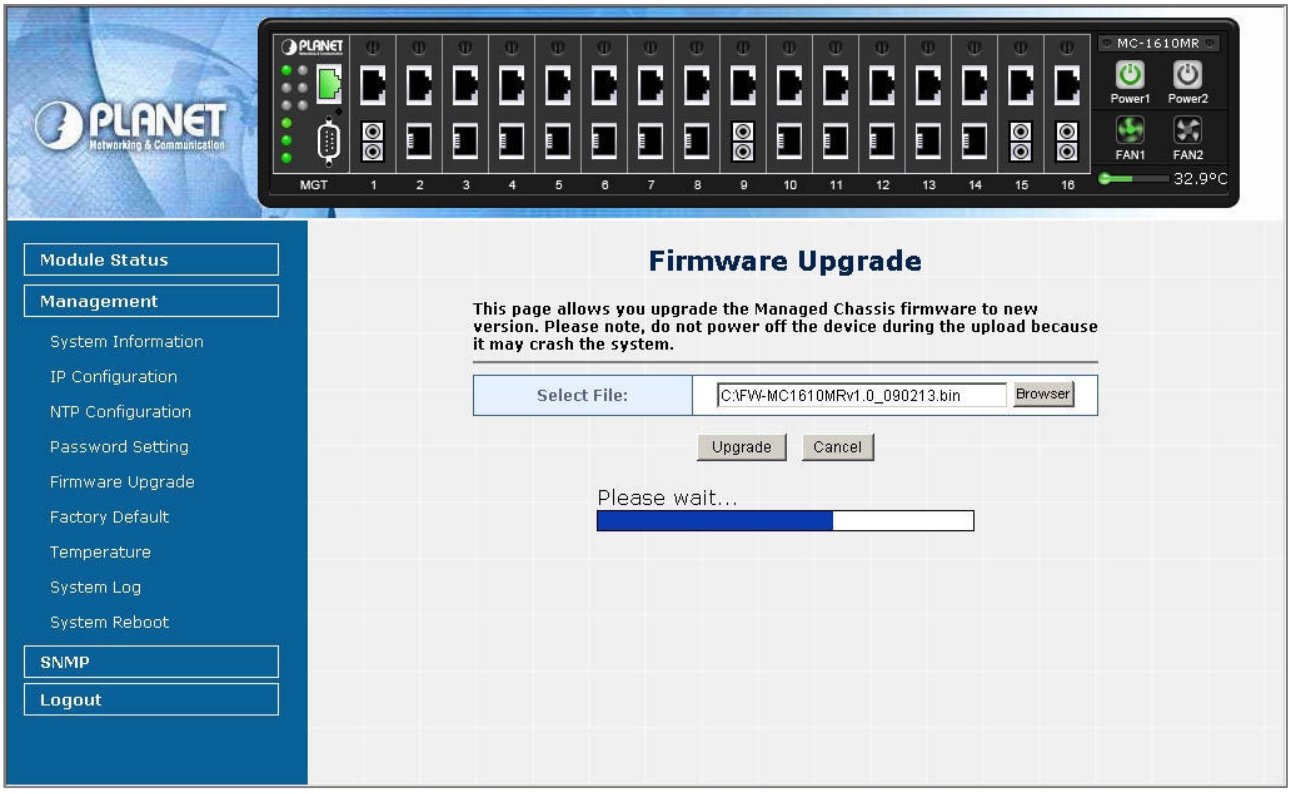


Figure 5-19 Firmware Upgrade Web Page Screen

Notice:

1. The firmware upgrade process needs 30 seconds to complete and system will reboot automatically. After Managed Media Converter Chassis power on complete, then you can use latest firmware.
2. Please do not power off the Managed Media Converter Chassis during firmware upgrade process.

5.3.6 Factory Default

This section provides reset the Managed Media Converter Chassis to factory default mode, the screen appears in Figure 5-20.

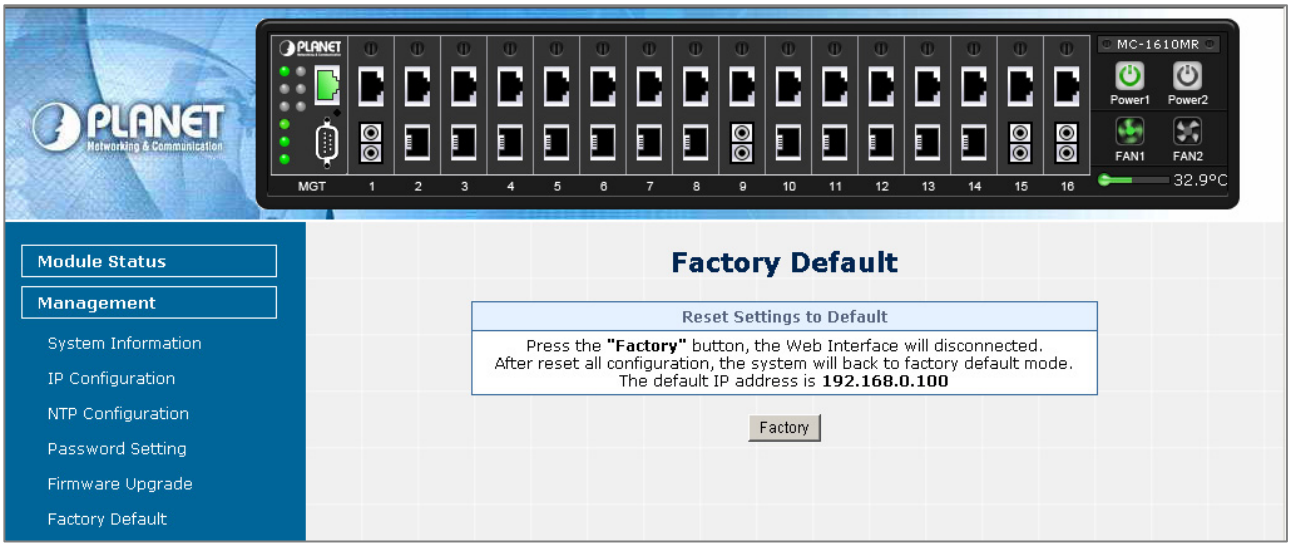


Figure 5-20 Factory Default Web Page Screen

Please press **"Factory"** button to take effect and the **"Do you really want to reset the current settings to default?"** pop window appears, please press **"OK"** button to continue the factory default process. The screen appears in Figure 5-21.

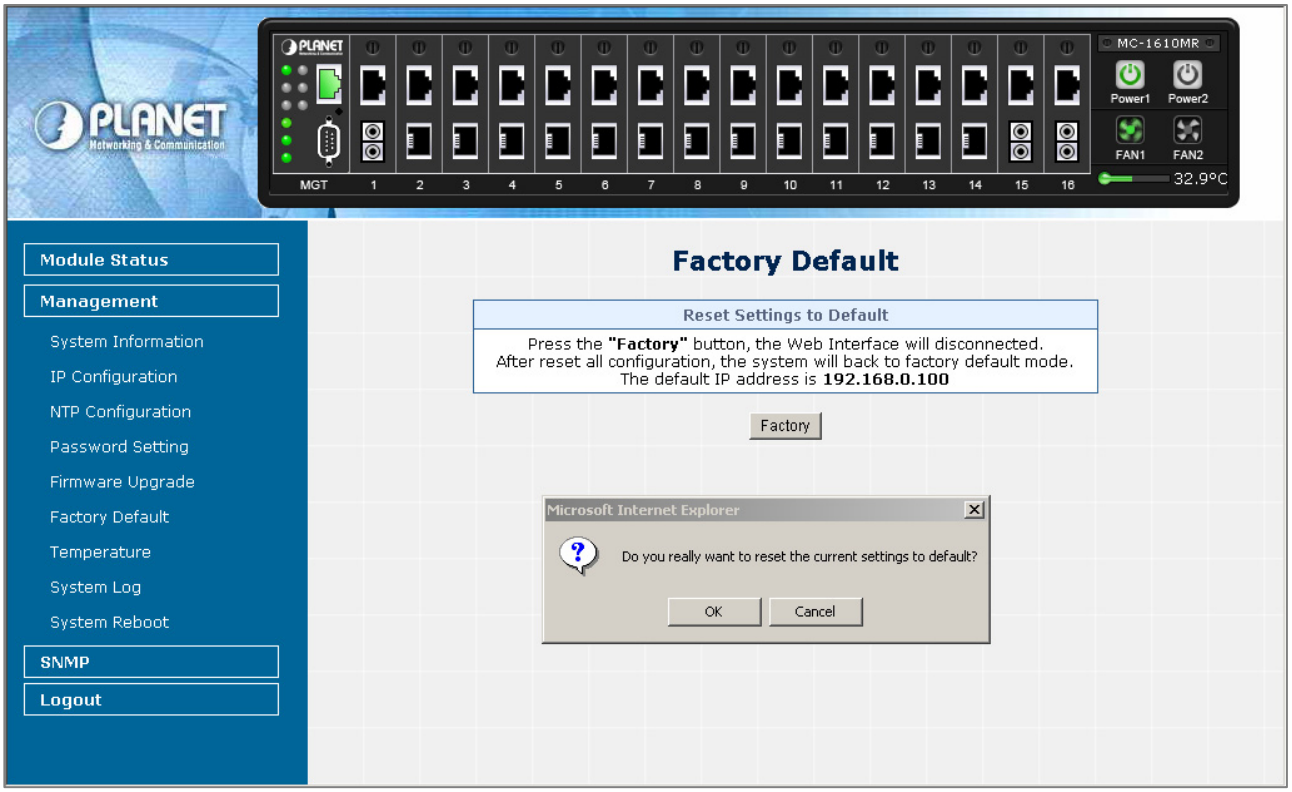


Figure 5-21 Factory Default Web Page Screen

Then the reboot screen appears in Figure 5-22 and press **"Reboot"** button for reboot the Managed Media Converter Chassis.

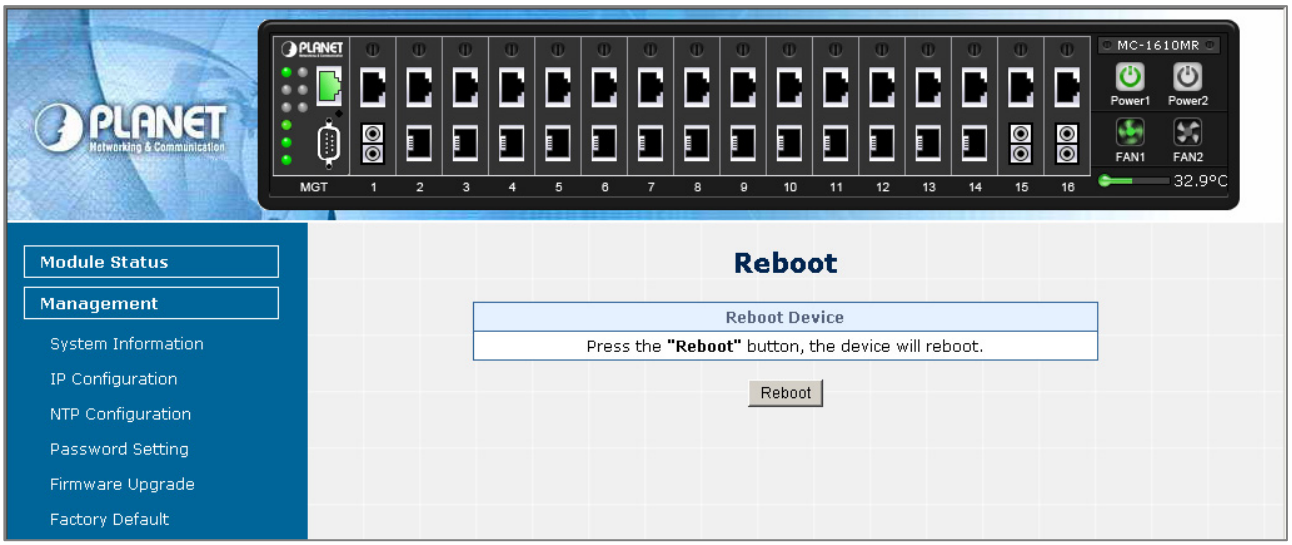


Figure 5-22 Factory Default Web Page Screen

The pop window with **"Wait for 30 seconds while rebooting"** appears, the screen in Figure 5-23 appears.

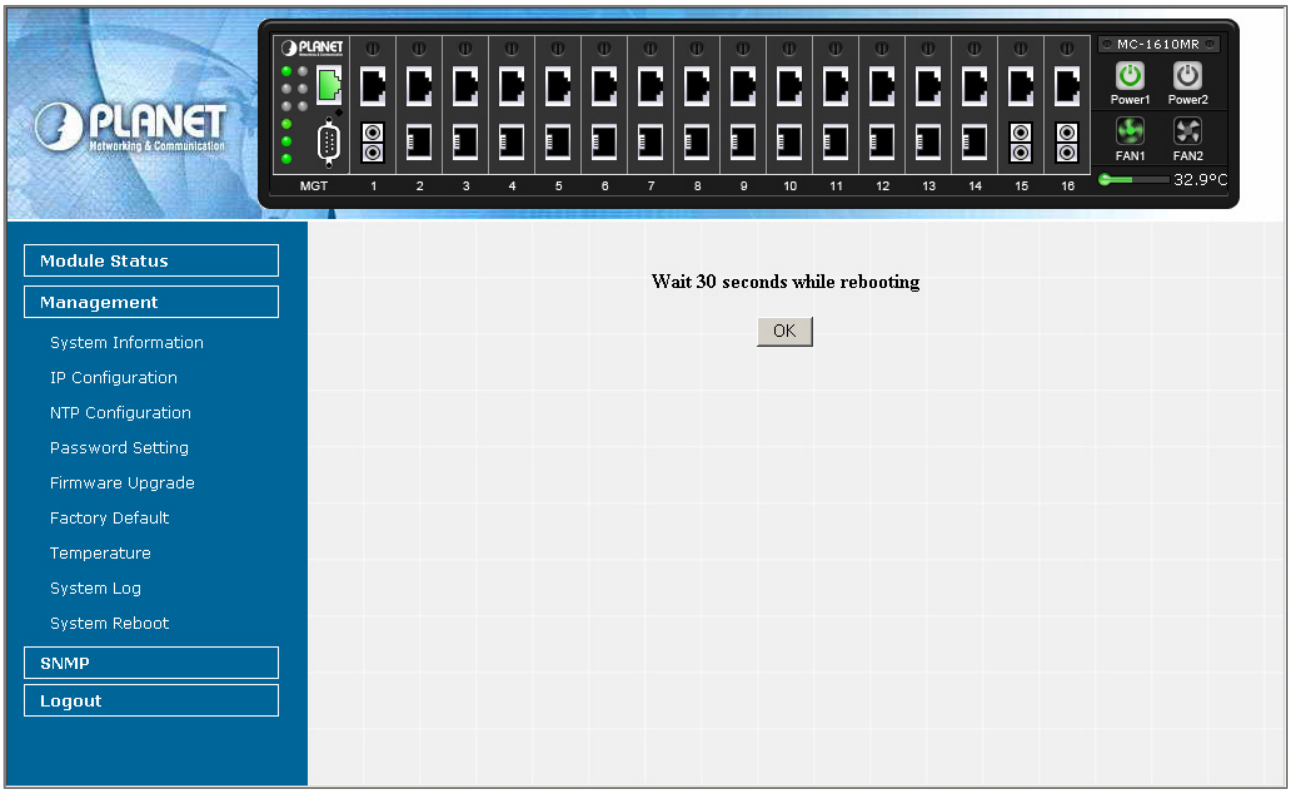


Figure 5-23 Factory Default Web Page Screen

Press **"OK"** button then the main menu Web page screen appears in Figure 5-24.

Figure 5-24 Main menu Web Page Screen

5.3.7 Temperature

This section display the system temperature information of Managed Media Converter Chassis, the screen in Figure 5-25 appears and table 5-11 describes the system temperature information object of Managed Media Converter Chassis.

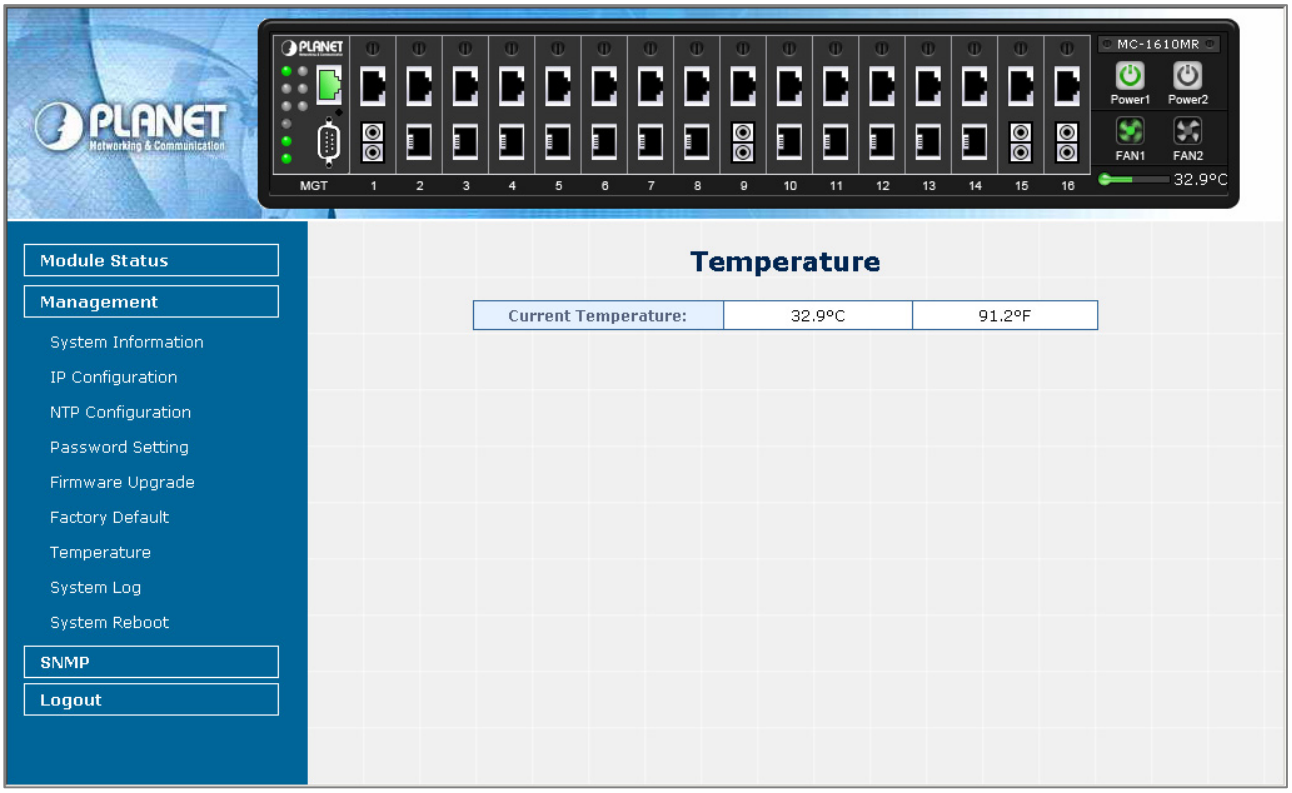


Figure 5-25 Temperature Web Page Screen

Item	Description
Current Temperature	Display the system temperature in Celsius and Fahrenheit.

Table 5-11 Descriptions of the Temperature Web Page Screen Objects

5.3.8 System Log

This section provide the system log setting and information display of Managed Media Converter Chassis, the screen in Figure 5-26 appears and table 5-12 describes the system log setting object of Managed Media Converter Chassis.

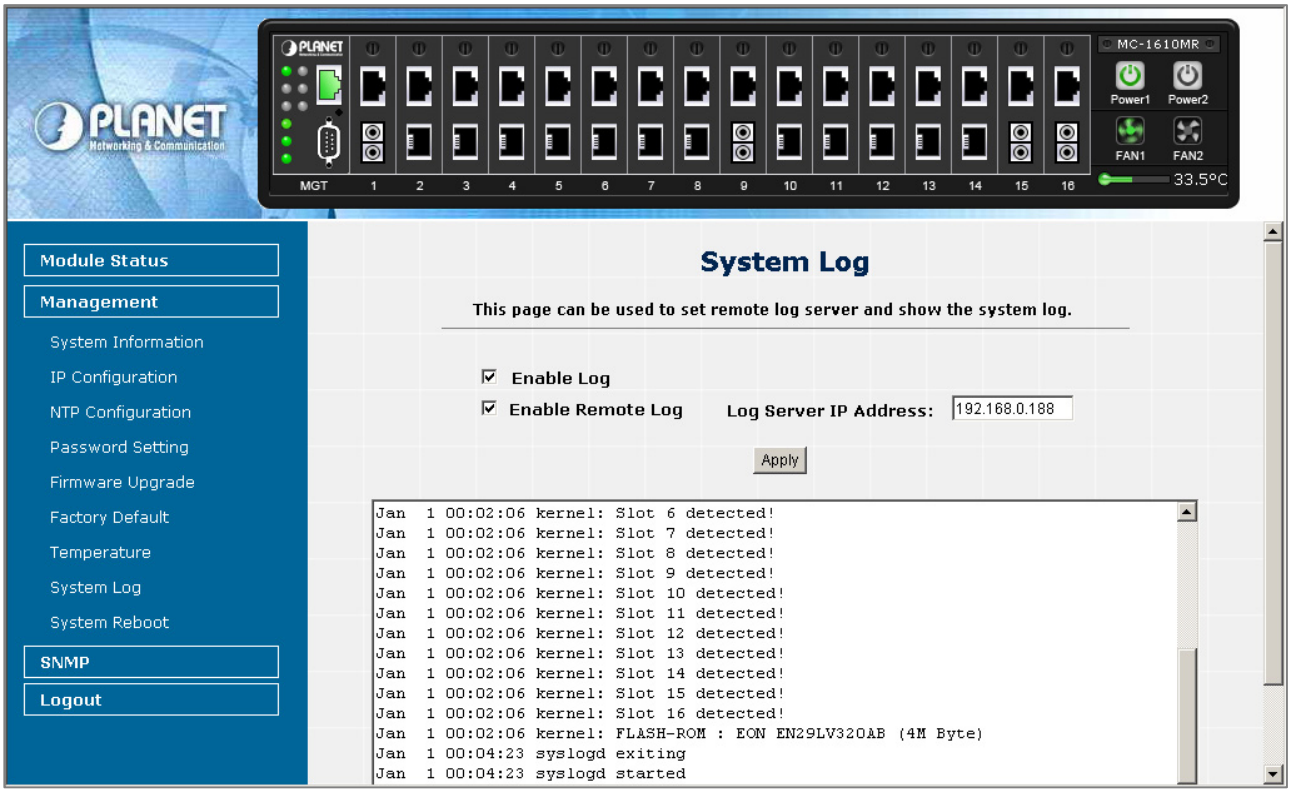


Figure 5-26 System Log Web Page Screen

Item	Description
Enable Log	Provide disable or enable the system log function of Managed Media Converter Chassis.
Enable Remote Log	Provide disable or enable the remote log function of Managed Media Converter Chassis.
Log Server IP Address	Allow manual input the Log Server IP Address of Managed Media Converter Chassis.
Apply	Press this button to take effect.
Refresh	Press this button to refresh current Web page.
Clear	Press this button to clear system log information.

Table 5-12 Descriptions of the System Log Web Page Screen Objects

5.3.9 System Reboot

This section provides the system reboot function of Managed Media Converter Chassis, the screen in Figure 5-27 appears.

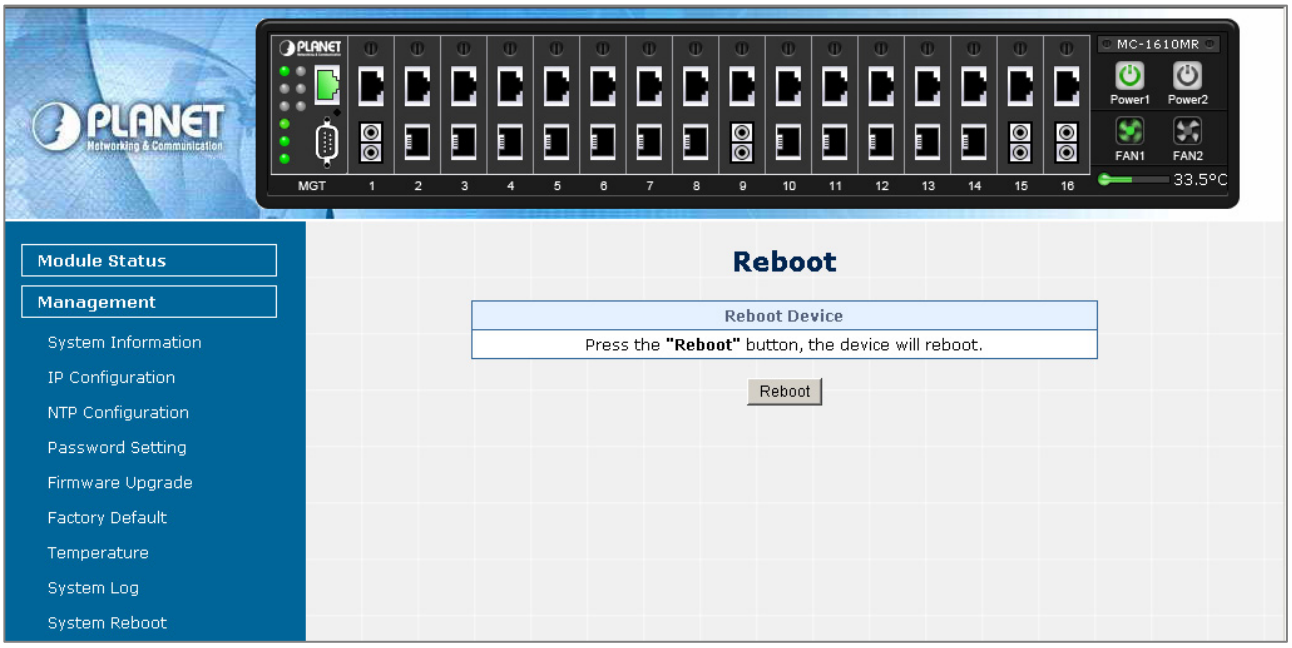


Figure 5-27 System Reboot Web Page Screen

Press **"Reboot"** button to reboot the Managed Media Converter Chassis, the screen in Figure 5-28 appears

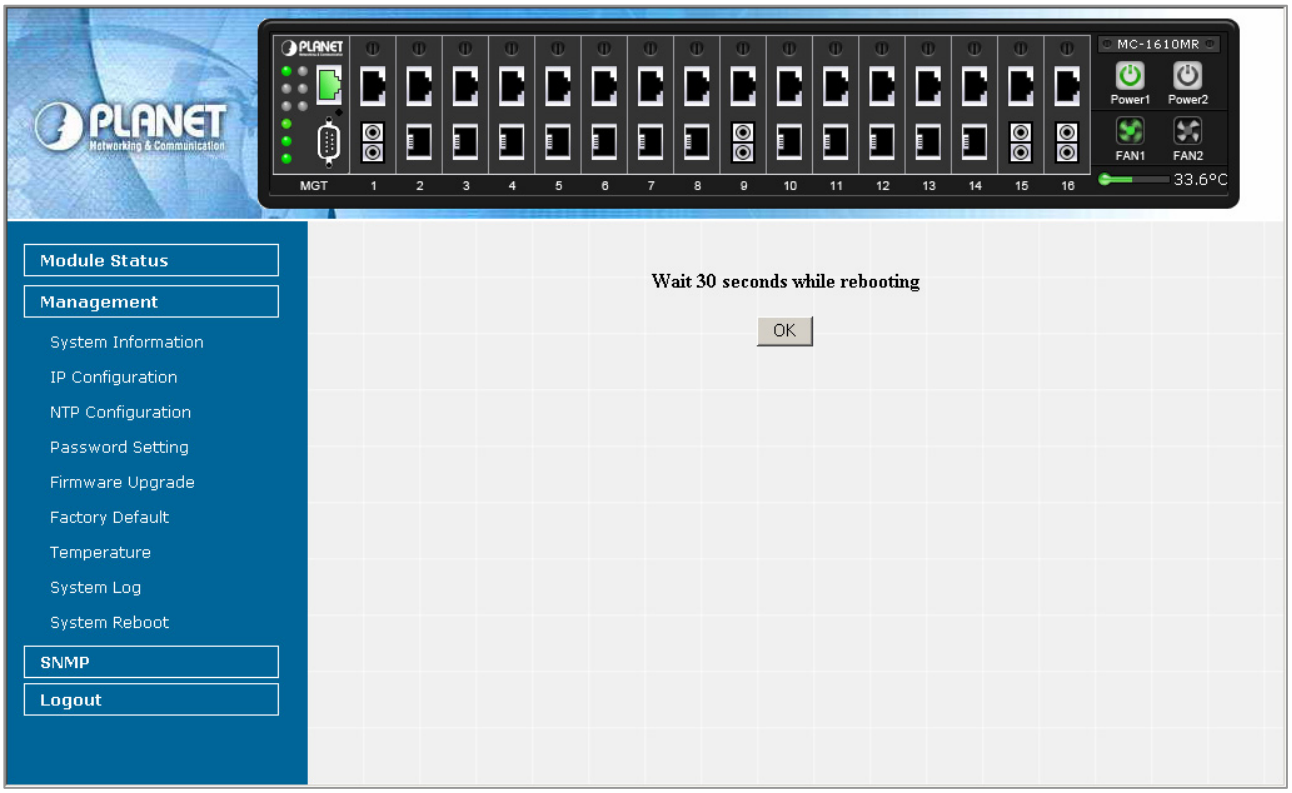


Figure 5-28 System Reboot Web Page Screen

Wait for 30 seconds for complete the reboot process of Managed Media Converter Chassis.

5.4 SNMP

This section provides SNMP setting of Managed Media Converter Chassis, the screen in Figure 5-29 appears and table 5-13 describes the SNMP object of Managed Media Converter Chassis.

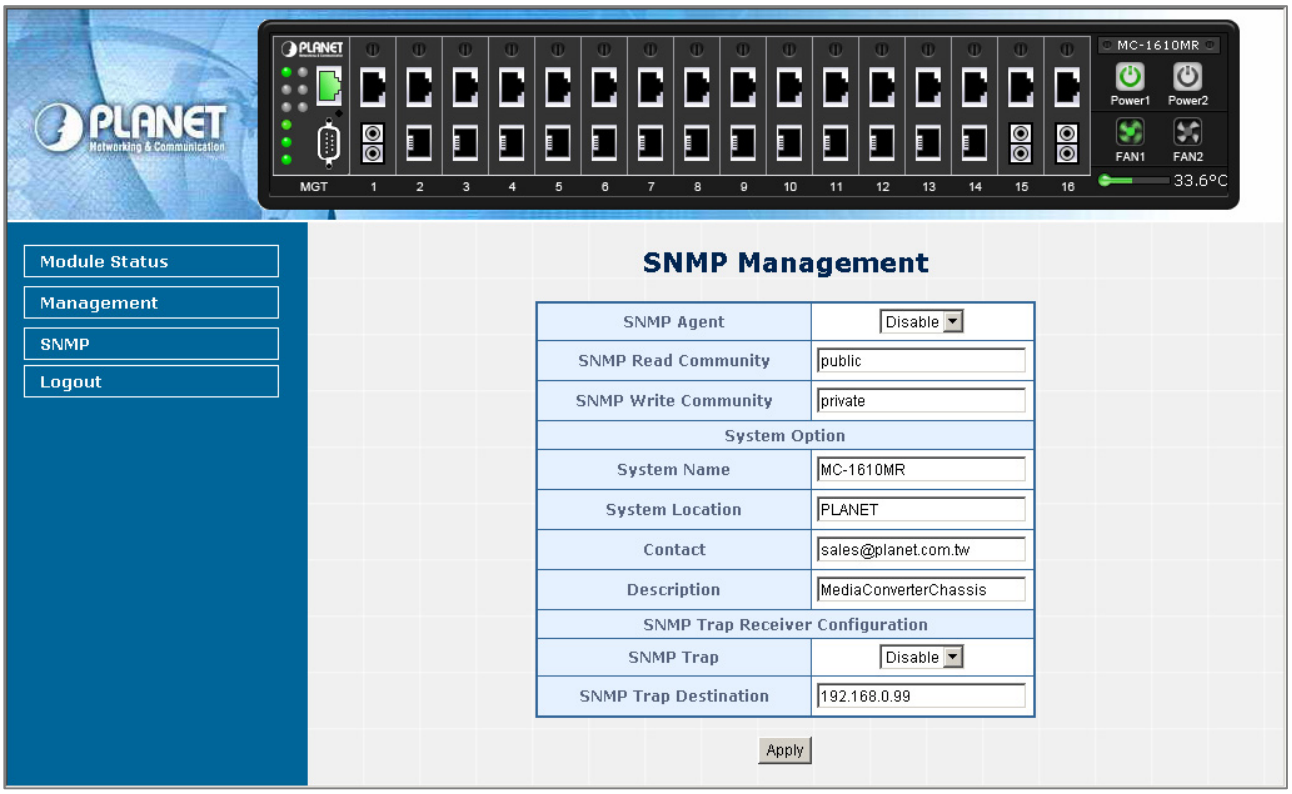


Figure 5-29 SNMP Web Page screen

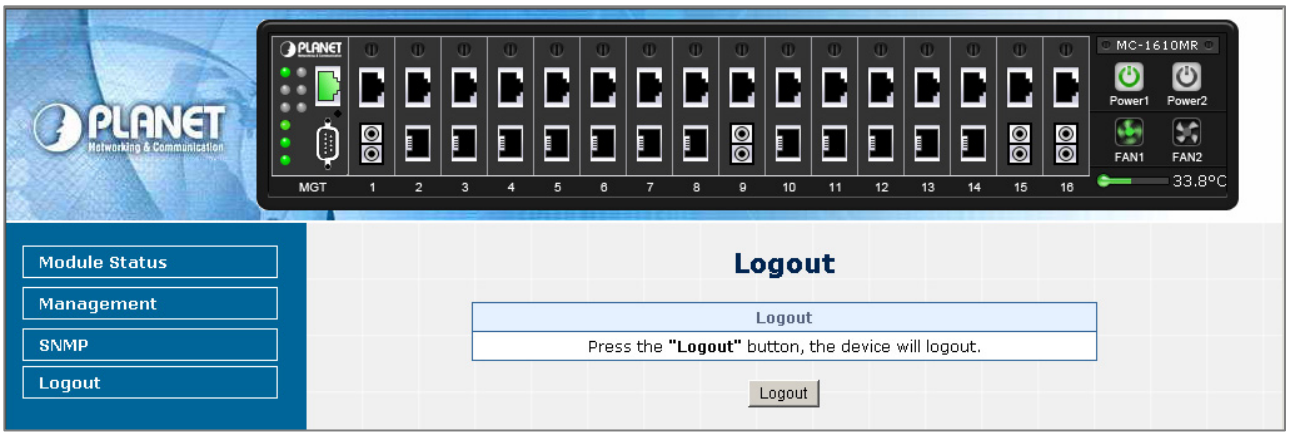
Object	Description
SNMP Agent	Provide disable or enable the SNMP Agent function of Managed Media Converter Chassis.
SNMP Read Community	Allow input characters for SNMP Read Community of Managed Media Converter Chassis, the maximum length is 30 characters.
SNMP Write Community	Allow input characters for SNMP Write Community of Managed Media Converter Chassis, the maximum length is 30 characters.
System Option	
System Name	Allow input characters for System Name of Managed Media Converter Chassis, the maximum length is 30 characters.
System Location	Allow input characters for System Location of Managed Media Converter Chassis, the maxi mum length is 30 characters.
Contact	Allow input characters for contact of Managed Media Converter Chassis, the maximum length is 30 characters.
Description	Allow input characters for description of Managed Media Converter Chassis, the maximum length is 30 characters.
SNMP Trap Receiver Configuration	
SNMP Trap	Provide disable or enable the SNMP Trap function of Managed Media Converter Chassis.
SNMP Trap Destination	Allow assign IP address for SNMP Trap Destination of Managed Media Converter Chassis.
Apply	Press this button to take effect.

Table 5-13 Descriptions of the SNMP Web Page Screen Objects

5.5 Logout

This section provides logout function of Managed Media Converter Chassis, the screen in Figure 5-30 appears.

Figure 5-30 Logout Web Page screen



Press **"Logout"** button then the pop window with re-login request appears, the screen in Figure 5-31 appears.

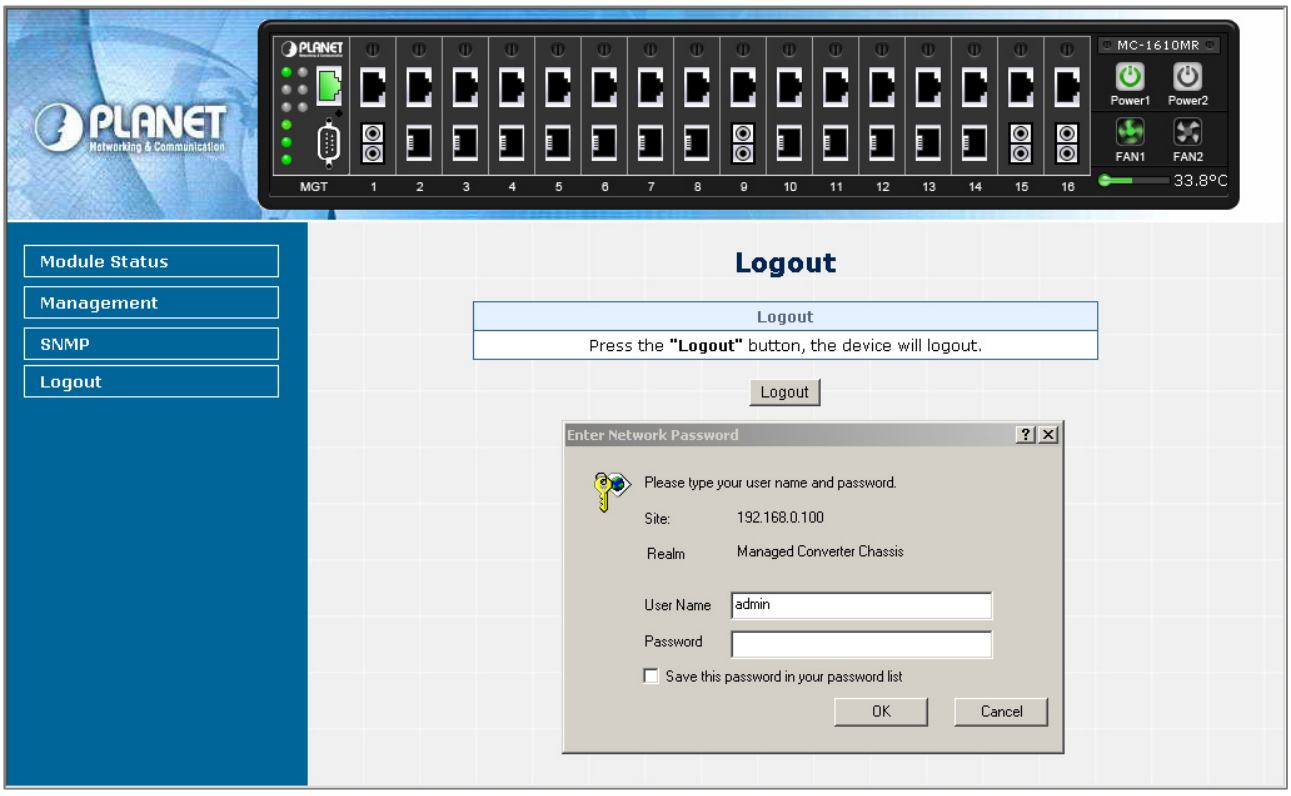


Figure 5-31 Logout Web Page screen

Please input the password for enters into Web main menu screen of Managed Media Converter Chassis, the screen in Figure 5-32 appears.

Figure 5-32 Main menu Web Page Screen

6. LINK PASS THROUGH FUNCTION

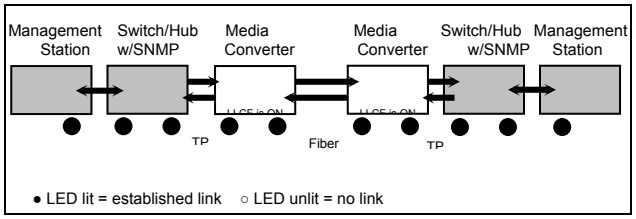
The LFP function includes the Link Fault Pass Through function (LLCF/LLR). LLCF/LLR can immediately alarm administrators the problem of the link media and provide efficient solution to monitor the net.

LLCF (Link Loss Carry Forward) means when a device connected to the converter and the TP line loss the link, the converter's fiber will disconnect the link of transmit. LLR (Link Loss Return) means when a device connected to the converter and the fiber line loss the link, the converter's fiber will disconnect the link of transmit. Both can immediately alarm administrators the problem of the link media and provide efficient solution to monitor the net.

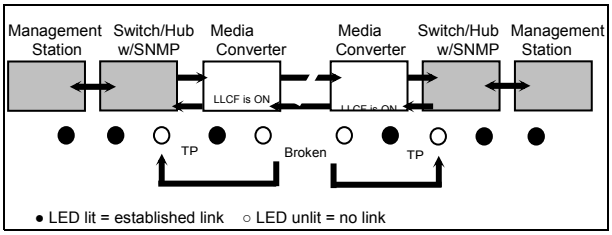
6.1 Link Loss Carry Forward (LLCF)

The LLCF function for troubleshooting a remote connection. When LLCF is enabled, the FL/TP ports do not transmit a link signal until they receive a link signal from the opposite port.

The diagram below shows a typical network configuration with a good link status using FST-8 / GST-7 / GST-8 Media Converter boards for remote connectivity.



If the connection breaks, FST-8 / GST-7 / GST-8 Media Converter boards that link loss forward to the switch/hub which generates a trap to the management station. The administrator can then determine the source of the issue.



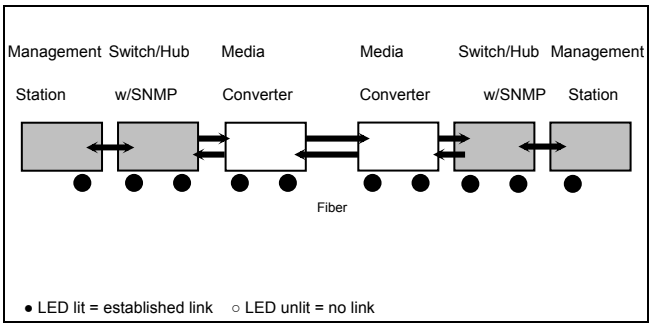
6.2 Link Loss Return (LLR)

The LLR function for troubleshooting a remote connection. LLR works in conjunction with LLCF.

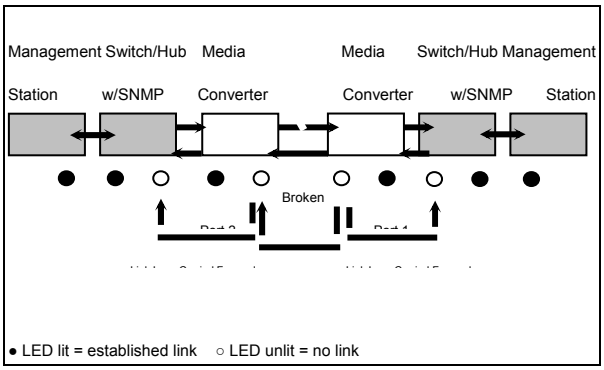
When LLR is enabled, the port's transmitter shuts down when its receiver fails to detect a valid receive link. LLR should only be enabled on one end of the link and is typically enabled on either the unmanaged or remote device.

The diagram below shows a typical network configuration with a good link status using FST-8 / GST-7 / GST-8 Media Converter boards for remote connectivity.

Note that LLR and LLCF are enabled as indicated in the diagram.



If one of the optical conductors is bad (as shown in the diagram box below), the converter with LLR enabled will return a no-link condition to its link partner. With LLCF also enabled, the no-link condition is carried forward to the switch/hub where a trap is generated to the management station, and the administrator can then determine the source of the loss.



7. TROUBLESHOOTING

This chapter contains information to help you solve issues. If the Managed Media Converter Chassis is not functioning properly, make sure the device was set up according to instructions in this manual.

The Power LED is not lit

Solution:

Check the power cable connection between power supply unit and Managed Media Converter Chassis.

What is the difference between MC-7/15 series chassis and MC-1610M series chassis?

Solution:

Except provide power supply to each slot and centralize management, the MC-1610M series chassis also provide local command line console and remote Web interface for efficient management.

Can I install FT-70x / FT-80x and GT-70x series Media converter into the Managed Media Converter Chassis?

Solution:

No. due to different hardware designed, the FT-70x / FT-80x and GT-70x cannot install into Managed Media Converter Chassis.

What if I forget current password of Managed Media Converter Chassis?

Solution:

1. Please enter into console interface, use username: planet and password: [^_^] to access console interface. Then use **"show pass"** command to display current password.
2. Please press **"Reset"** button from the management module for 10 seconds then the Managed Media Converter Chassis will reset to factory default mode (username and password is admin).

APPENDIX A NETWORKING CONNECTION

A.1 Switch's RJ-45 Pin Assignments

1000Mbps, 1000Base T

Contact	MDI	MDI-X
1	BI_DA+	BI_DB+
2	BI_DA-	BI_DB-
3	BI_DB+	BI_DA+
4	BI_DC+	BI_DD+
5	BI_DC-	BI_DD-
6	BI_DB-	BI_DA-
7	BI_DD+	BI_DC+
8	BI_DD-	BI_DC-

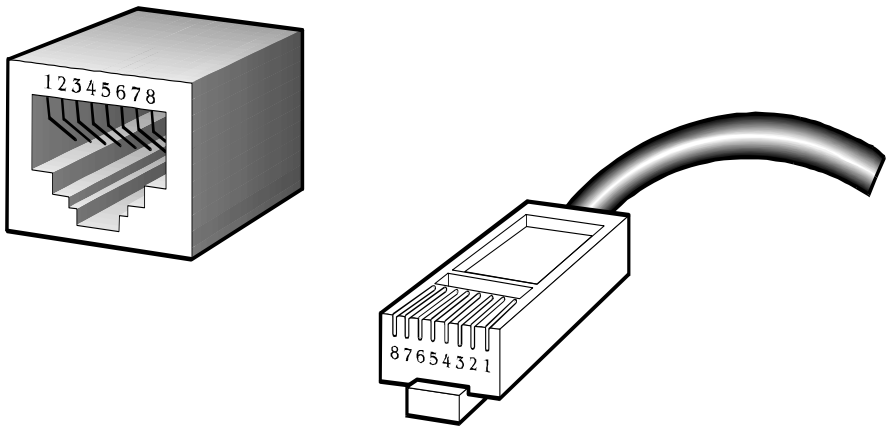
Implicit implementation of the crossover function within a twisted-pair cable, or at a wiring panel, while not expressly forbidden, is beyond the scope of this standard.

A.2 10/100Mbps, 10/100Base-TX

When connecting your 10/100Mbps Ethernet Switch to another switch, a bridge or a hub, a straight or crossover cable is necessary. Each port of the device supports auto-MDI/MDI-X detection. That means you can directly connect the Switch to any Ethernet devices without making a crossover cable. The following table and diagram show the standard RJ-45 receptacle/ connector and their pin assignments:

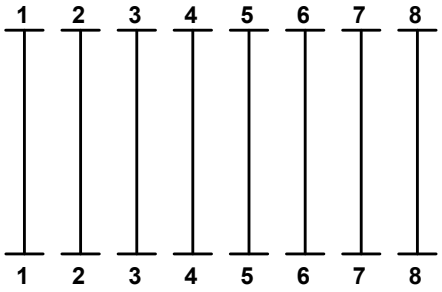
RJ-45 Connector pin assignment		
Contact	MDI Media Dependant Interface	MDI-X Media Dependant Interface-Cross
1	Tx + (transmit)	Rx + (receive)
2	Tx - (transmit)	Rx - (receive)
3	Rx + (receive)	Tx + (transmit)
4, 5	Not used	
6	Rx - (receive)	Tx - (transmit)
7, 8	Not used	

The standard cable, RJ-45 pin assignment

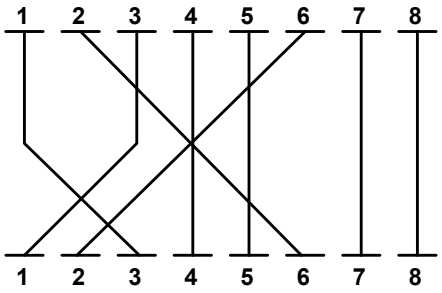


The standard RJ-45 receptacle/connector

There are 8 wires on a standard UTP/STP cable and each wire is color-coded. The following shows the pin allocation and color of straight cable and crossover cable connection:



	SIDE 1	SIDE2
SIDE 1	1 = White / Orange	1 = White / Orange
	2 = Orange	2 = Orange
	3 = White / Green	3 = White / Green
	4 = Blue	4 = Blue
	5 = White / Blue	5 = White / Blue
	6 = Green	6 = Green
	7 = White / Brown	7 = White / Brown
SIDE 2	8 = Brown	8 = Brown



	SIDE 1	SIDE2
SIDE 1	1 = White / Orange	1 = White / Orange
	2 = Orange	2 = Green
	3 = White / Green	3 = White / Orange
	4 = Blue	4 = Blue
	5 = White / Blue	5 = White / Blue
	6 = Green	6 = Orange
	7 = White / Brown	7 = White / Brown
SIDE 2	8 = Brown	8 = Brown

Figure A-1: Straight-Through and Crossover Cable

Please make sure your connected cables are with same pin assignment and color as above picture before deploying the cables into your network.