PLANET CS-6306R 6-slot Layer 3 IPv6 IPv4 Routing Chassis Switch Installation Guide

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Contents

Package Contents

Thank you for purchasing PLANET 6-slot Layer 3 IPv6/IPv4 Routing Chassis Switch, **CS-6306R**. "**Chassis Switch**" mentioned in this quick installation guide refers to the **CS-6306R.**

Open the box of the **Chassis Switch** and carefully unpack it. The box should contain the following items:

- The **CS-6306R** Chassis Switch x 1
- Quick Installation Guide x 1
- RJ45-to-DB9 Console Cable x 1
- Mini USB Console Cable x 1 (for CS6 Switch Modules)
- Power Cord x 1
- Wire Rack x 3
- Wire Rack Screw x 6
- Ground Cable x 1
- Rack Screw x 6
- Rack Screw Cap x 6
- If any item is found missing or damaged, please contact your local reseller for replacement.

Physical Description

The CS-6306R is a 19-inch, 9U Rack-mountable Chassis, with the standard dimensions (W x D x H) of 482 x 397 x 370 mm. The chassis consists of module slot and power supply slot.

- The fan block is located on the right side of the board rack, allowing one fan tray (4 axial fans for each fan tray).
- Dust gauze is provided on the left side of the board rack for filtering air circulation through the rack.
- The power block under the dust gauze provides power to the system, supporting up to three power modules. The power modules insert into the power slots from the front, with the distribution box at the back of the rack for maintenance.
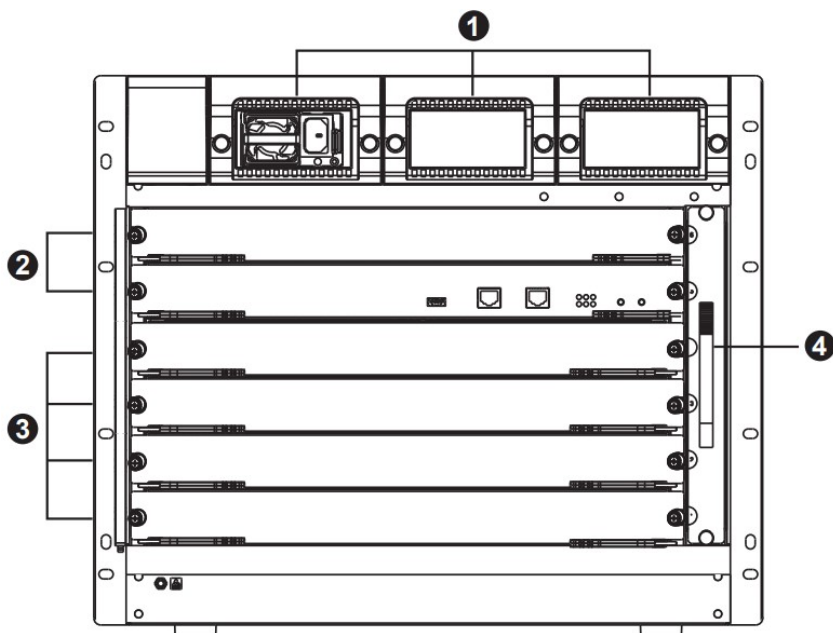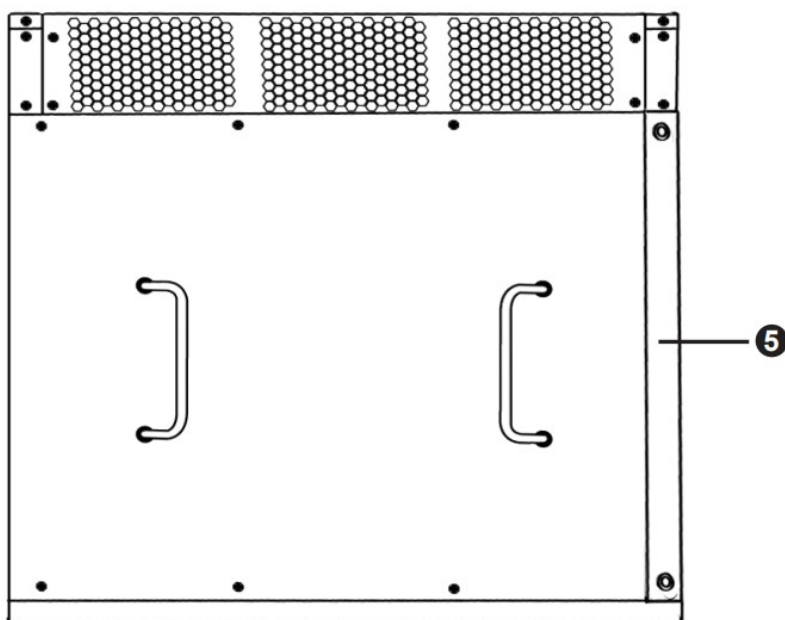
Figure 2-1 CS-6306R Front Panel

Figure 2-2 CS-6306R Rear Panel

1. Power slots	Used for system power supply modules and supports upto three 550W AC/DC modules (CS6-PWR550-AC/DC).
2. Management slots	Slots 5 and 6 support management module like CS6-MCU. (Slot 5 Master)
3. Switch slots	Slots 1 to 4 support Switch modules like CS6-S16X and CS6-S24S8X
4. Fan tray slot	Supports one system fan assembly with each assembly consisting of four axial fans.
5. Dust gauze slot	Exterior air inlet for the ventilation subsystem.

 Note

The Chassis Switch is equipped with only one Power Supply Module. The chassis will not include any Management/Switch Ethernet

Module on shipment.

Slots 5 and **6** must be installed with Management Module before powering on the Chassis Switch; otherwise, the Chassis Switch will not operate normally.

Hardware Installation

During the installation and use of the CS-6306R Chassis Switch, please follow the steps below:

1. Chassis Switch Mounting
     - Desktop installation
     - Rack-mounting installation
2. Chassis Switch grounding
3. Modules installation
4. Removing and installing the dust gauze
5. Removing and installing the fan tray
6. Remover and installing the power supply

Desktop Installation

 Caution

To avoid damage, do not place any weight on the CS-6306R. Maximum weight of various modules installed is 30kg and full configuration weight is 30kg.

The Chassis Switch is very heavy, so carry and install it by two people to avoid injury.

To install the CS-6306R on a desktop or shelf, simply complete the following steps:

Step 1 Choose a smooth level workbench.
Step 2 Verify that the workbench is strong enough to support the CS-6306R's fully configured weight.
Step 3 Plan a good position for your CS-6306R that is, to easily operate and have an appropriate power source and grounding point.
Step 4 Place the CS-6306R safely on the workbench; avoid obstructions on any side of the Chassis Switch.

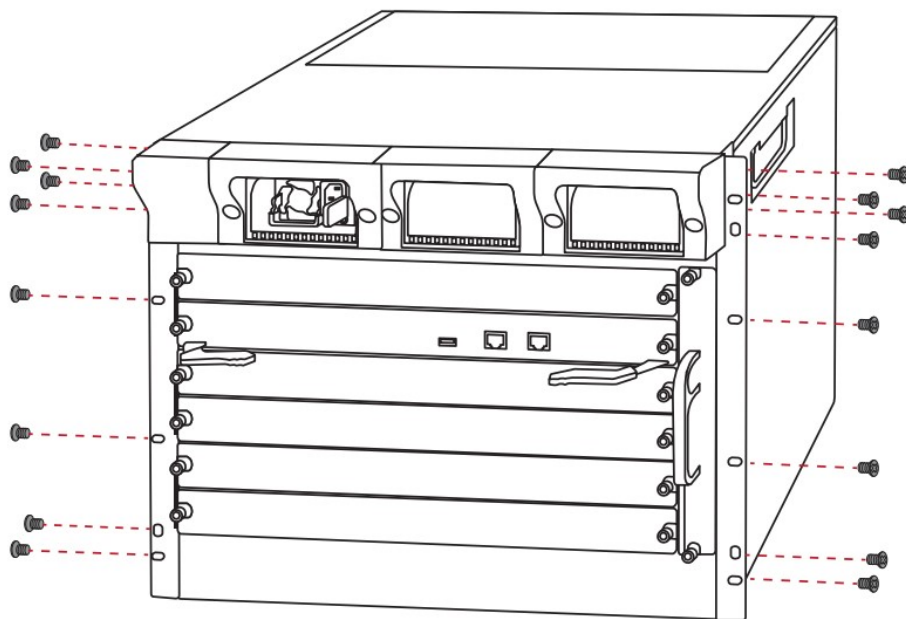### Rack-mounting Installation

 Caution
During the installation, please make sure the device does not slip from your grasp, or else it may cause damage to the device or may even hurt the installer. Please also note the hardware must be placed in the rack properly; if not, the hardware may fall off from the rack, causing harm to someone nearby. Double-check it after the installation.

To install the CS-6306R in a 19-inch standard rack, follow the instructions described below.

Step 1 Place your CS-6306R on a hard flat surface, with the front panel positioned towards your front side.
Step 2 Secure the brackets tightly on the CS-6306R as shown in Figure 3-1.

Figure 3-1 Rack-mounting Brackets

⚠️ **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 After the brackets are attached to the CS-6306R, use suitable screws to securely attach the brackets to the rack, as shown in Figure 3-2.
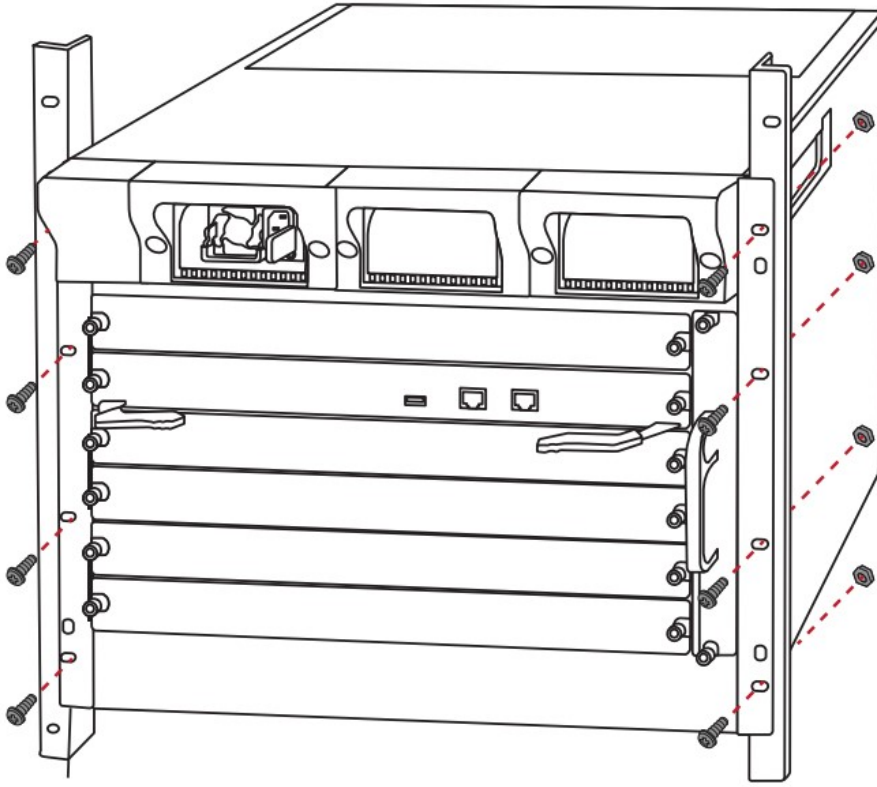
📝 **Note**

Please make sure the device does not slip through your grasp, or else it may cause damage to the device or may even hurt the installer.

The handles are designed for sliding into cabinet only; please don't use handles to lift the Chassis Switch.

Figure 3-2 Mounting the CS-6306R in a Rack

Chassis Switch Grounding

A good grounding system is the groundwork for the smooth and safe operation of the CS-6306R, and an excellent way to prevent lightning strikes and resistance interference. Please follow the CS-6306R grounding specification instructions, verify the installation site's grounding condition and ensure proper grounding accordingly.

Proper Grounding

When using an AC power source, the device must be grounded with the green and yellow ground cables; otherwise, shock hazards may occur when insulation resistance between the internal power supply and the chassis degrades.

Lightning Protection Grounding

The lightning protection system is an independent system consisting of a lightning rod, conductor and connection joint with the grounding system. The grounding system usually is shared with the power reference grounding, and green and yellow ground cable grounding. Lightning protection grounding is a building requirement, not a specific requirement of the Chassis Switch.

Electromagnetic Compliance Grounding

This refers to the grounding in compliance with CS-6306R electromagnetic compatibility requirements, including shielded grounding, filter grounds, noise, and interference control and level reference. The overall grounding requirements are the sum total of the above. Ground resistance value should be less than 1 ohm.

The CS-6306R provides chassis grounding post in the lower front chassis, marked as "GND". Chassis protection grounding should be properly connected to the rack grounding connector.

The ground cabling procedures are listed below:

Step 1 Remove the nuts from the front chassis grounding posts.
Step 2 Wrap one end of the green and yellow grounding cable to the grounding posts.
Step 3 Attach the grounding post nut and tighten well.
Step 4 Attach the other end of the grounding cable to the rack grounding connector.

The grounding cable should be made of a good conductor, and the diameter should be determined by the possible maximum current that may pass through. Bare conductor cabling is forbidden.

Ground resistance value: The combined grounding resistance should be less than 1 ohm

Module Installation
The installation procedure is the same for all cards, as shown below:

Slot 5 or Slot 6 should install with **Management Module** before powering on the Chassis Switch; otherwise, the Chassis Switch will not operate normally.

The Chassis Switch supports a maximum of 2 Management modules (CS6-MCU) for the purpose of management redundancy at **Slot 5 and Slot 6.**
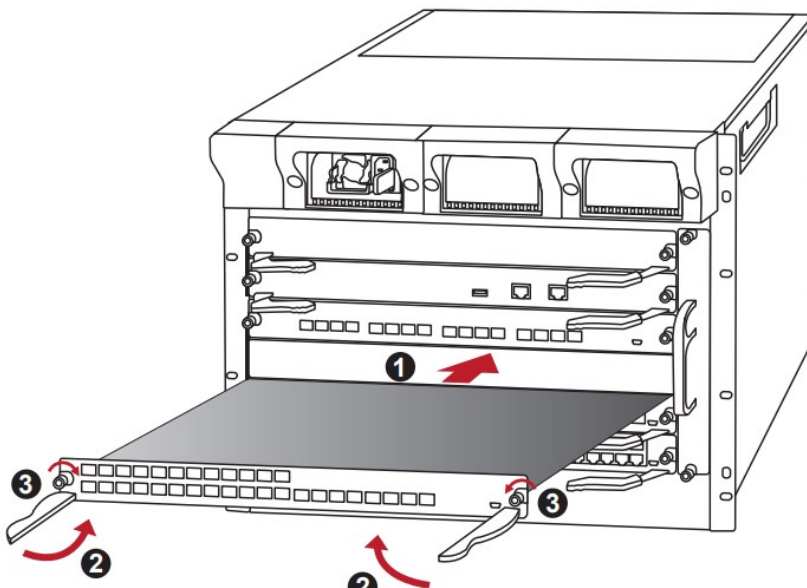
Step 1 Power down the CS-6306R (Hot-swapping is supported by optional modules for the CS-6306R. However, for better convenience, it is recommended to power down the CS-6306R before installing the modules, if no module in the Chassis Switch is running).

Step 2 Ensure proper grounding of the CS-6306R.

Step 3 Loosen the panel fasteners locking back plate counterclockwise and remove the back plate.

Step 4 Align the rail and insert the optional module into the slot; you can use the metal handle on the front plate of the module to ensure good contact. Then lock the module with panel fasteners in the front plate.

Figure 3-3 Inserting the Optional Module into the Slot of CS-6306R

Removing and Installing the Dust Gauze
Dust gauze is provided in the CS-6306R, which can be installed and removed from the back of the CS-6306R in right section. The dust gauze is meant to prevent large debris or particles in the air from being ingested into the

Chassis Switch. Please perform cleaning on a regular basis according to the site conditions.

Follow steps below:

Step 1 Loosen the 2 panel fasteners in the dust gauze.
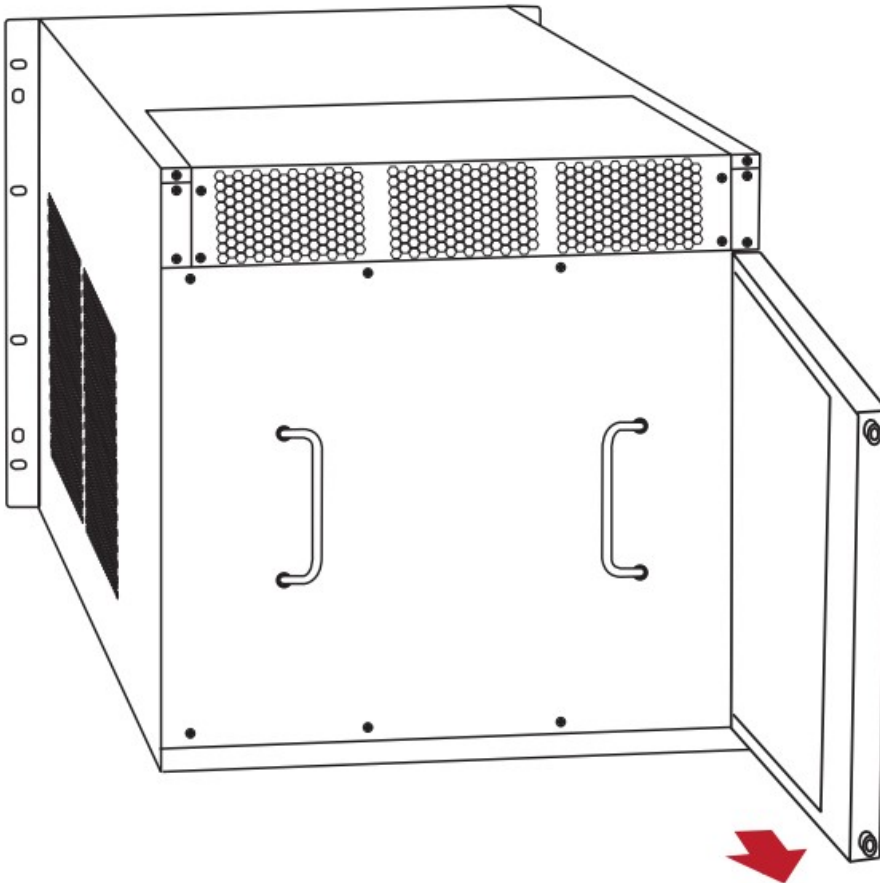**Step 2** Draw the dust gauze out smoothly by holding the 2 screws.
Step 3 Clean the dust gauze with a brush (never wash with any liquid).
Step 4 Insert the gauze back to its original position in the Chassis Switch.
Step 5 Tighten the panel fasteners.

The installation and removal of the dust gauze is shown below:

Figure 3-4 Installation and Removal of the CS-6306R Dust Gauze

Removing and Installing the Fan Tray
One fan tray in the right section of the CS-6306R can be serviced from the front.

The installation and removal of the fan tray is relatively simple. Please refer to the following procedure for reference.

Removing the Fan Tray
Step 1 Loosen the 2 screws on the front panel of the fan tray.
Step 2 Hold the handle on the front panel of the fan tray with your middle and ring fingers, press the locker slightly down, and the fan tray can be drawn out smoothly.
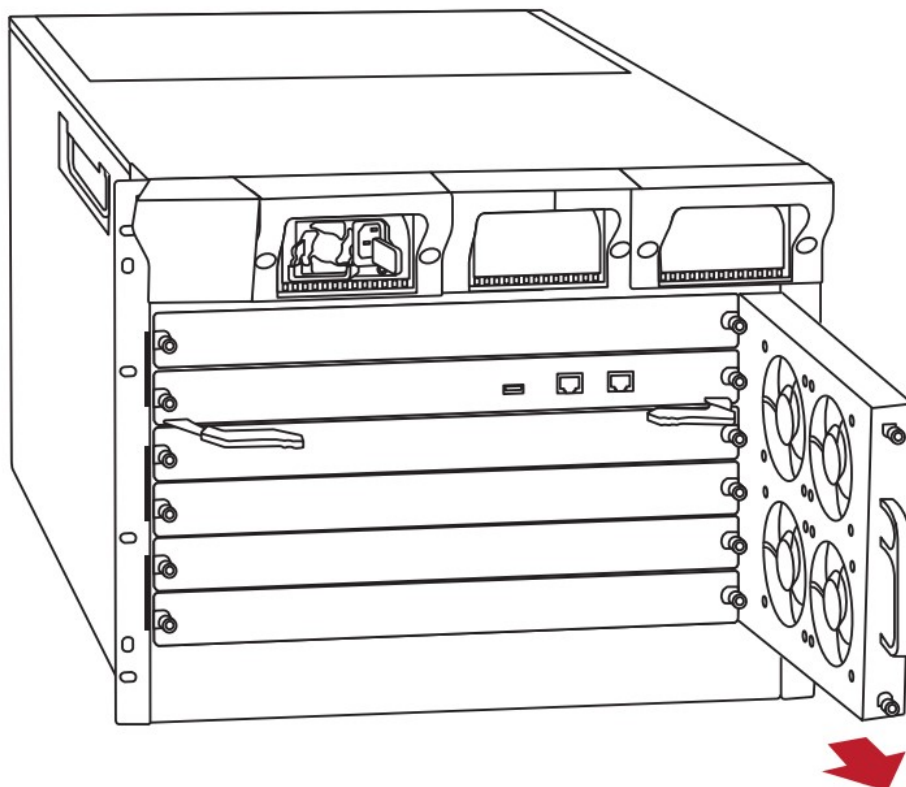
Installing the Fan Tray

Step 1 Just hold the fan tray in the correct direction, and align with the corresponding slot and push to secure.
Step 2 Tighten the panel fasteners on the front panel.

The installation and removal of a fan tray is shown below:

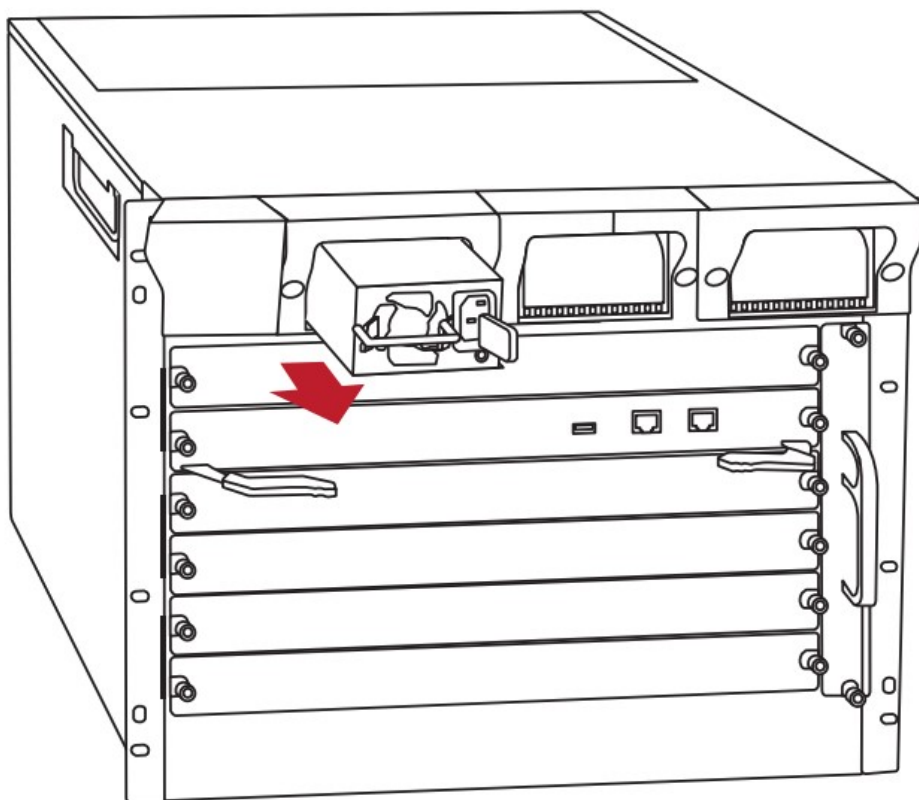**Figure 3-5** Installation and Removal of the Fan Tray

Installing and Removing the Power Supply Unit

Power down the CS-6306R (Hot-swapping is supported by power supply modules for the CS-6306R. However, for better convenience, it is recommended to power down the CS-6306R before installing the power supply modules)

To install a power supply unit into the CS-6306R, please slide it into the compartment.

To remove a power supply unit from the CS-6306R, press and hold the blue lever to the left till it is totally pulled out from the power supply unit.

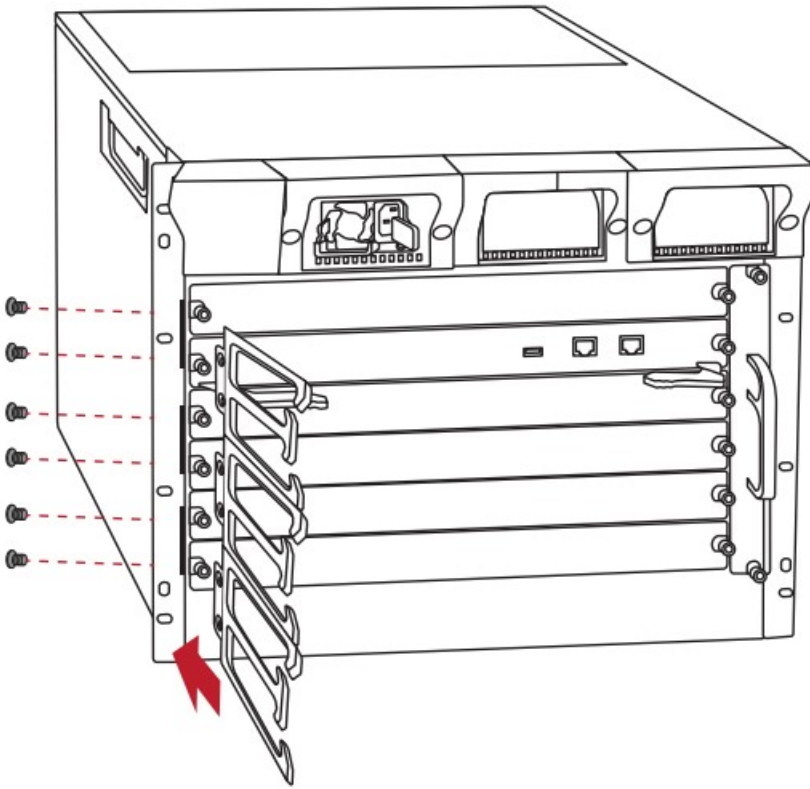**Figure 3-**6 Installing and Removing the Power Supply Unit

Installing Wire Rack in the Chassis Switch

You can see the front side of the CS-6306R with the wire rack slot in the left section .The installation and removal of the wire rack is relatively simple. Please refer to the following procedure for reference.

Step 1 Combine three of the wire rack unit.

Step 2 Install it in the wire rack and fasten 6 screws into the CS-6306R on the left section, as shown in Figure 3-7.

Figure 3-7 Installing It in the Wire Rack

Chassis Switch Management

To set up the Chassis Switch, the user needs to configure the Chassis Switch for network management. The Chassis Switch provides two management options:

Out-of-Band management and In-Band management.

- **Out-of-Band Management**

Out-of-band management is the management through Console interface.

- **In-Band Management**

In-band management refers to the management by logging to the Chassis Switch using Telnet, **HTTP,** or using **SNMP** management software to configure the Chassis Switch. In-band management enables the management of the Chassis

Switch to attach some devices to the Switch. The following procedure is required to enable In-band management:

1. Logging on to console
2. Assigning/Configuring IP addres
3. Creating a remote login account
4. Enabling HTTP or Telnet server on the Managed Switch

If in-band management fails, due to Chassis Switch configuration changes, out-ofband management can be used for configuring and managing the Chassis Switch.

Note

The Chassis Switch is shipped with Management Port IP address **192.168.1.1/24** assigned and **VLAN 1 interface** IP address **192.168.0.100/24** assigned by default. User can assign another IP address to the Chassis Switch via the Console interface to be able to remotely access the Chassis Switch through Telnet or HTTP.

Requirements

Workstations running Windows XP/2003/Vista/7/8/2008/10, MAC OS X or later, Linux, UNIX, or other platforms are compatible with TCP/IP protocols.

- **Serial Port Connection (Terminal)**
    - The above Workstations come with COM Port (DB9) or USB-to-RS232 converter.
    - The above Workstations have been installed with terminal emulator, such asc Tera Term or PuTTY.
    - Serial cable — one end is attached to the RS232 serial port, while the other end to the console port of the Managed Switch.
- **Ethernet Port Connection**
    - Network cables — Use standard network (UTP) cables with RJ45 connectors.
    - The above PC is installed with Web browser and JAVA runtime environment plug-in.
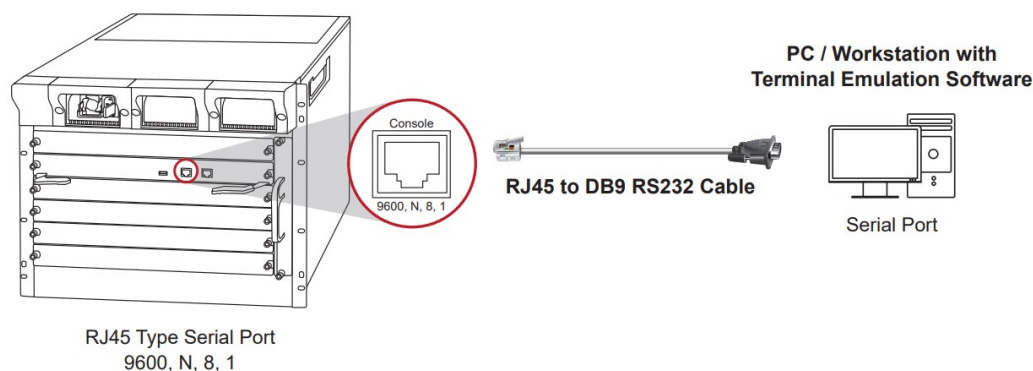

Note

It is recommended to use Internet Explorer 8.0 or above to access the Managed Switch. If the Web interface of the Managed Switch is not accessible, please turn off the anti-virus software or firewall and then try it again.

Terminal Setup

To configure the system, connect a serial cable to a COM port on a PC or notebook computer and to serial (console) port of the CS-6306R Chassis Switch. The console port of the Chassis Switch is DCE already, so that you can connect the console port directly through PC without the need of Null Modem.

Chassis Switch

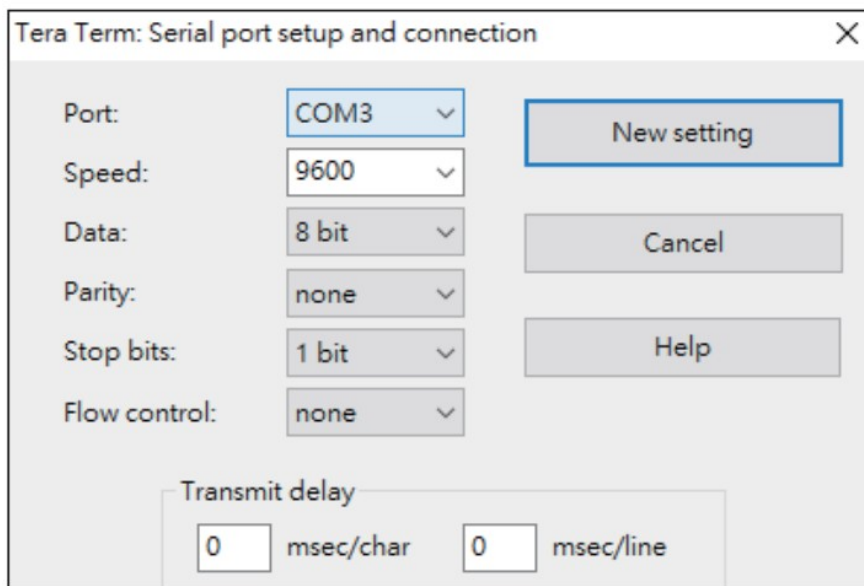**Figure 6-1** CS-6306R Chassis Switch Console Connection

A terminal program is required to make the software connection to the CS-6306R Chassis Switch. Putty or Tera

Term may be a good choice.

1. Run terminal program Tera Term on the OS.
2. When the following screen appears, make sure that the COM port should be configured as:

- Baud Rate: 9600
- Data Bits: 8
- Parity: None
- Stop: 1
- Flow Control: None

Figure 6-2 COM Port Configuration

Logging on to the Console
Once the terminal is connected to the Chassis Switch, power on the CS-6306R Chassis Switch, and the terminal will display "running testing procedures".

Then, the following message asks the login user name and password. The factory default user name and password are as follows and the login screen in Figure 6-3 appears.

Username: **admin**
Password: **admin**

Figure 6-3 CS-6306R Chassis Switch Console Login Screen

The user can now enter commands to manage the Chassis Switch. For a detailed description for the commands, please refer to the following chapters.

 Note

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.

Configuring IP Address

Management Port
The IP address configuration commands for Management module interfaces are listed below:

The configuration commands are as follows:

Switch# **confit**
Switch_ comfit# **interface clan 1**
Switch_config_v1# **ip address 192.168.0.100 255.255.255.0**

The previous command would apply the following settings for the CS-6306R.

IPv4 Address: 192.168.0.100
Subnet Mask: 255.255.255.0

Figure 6-4 Configuring IPv4 Address Screen

Interface VLAN 1

 Note

The Switch Module interface default setting is in the disable mode. To login and manage the Chassis Switch through the switch module, enabling interfaces on switch module is required.

The configuration commands are as follows:

Switch# config
Switch_ config# **interface vlan 1**
Switch_config_v1# **ip address 192.168.0.100 255.255.255.0**

The previous command would apply the following settings for the CS-6306R.

IPv4 Address: 192.168.0.100
Subnet Mask: 255.255.255.0

Figure 6-5 Configuring IPv4 Address of Interface VLAN 1 Screen

To check the current IP address or modify a new IP address for the Chassis Switch, please use the procedure as follows:

- **Show the current IP address**

1. On "Switch#" prompt, enter "show ip interface brief".
2. The screen displays the current IP address, Subnet Mask and Gateway as shown in Figure 6-6.

Figure 6-6 Show IP Information Screen

If the IP address is successfully configured, the Chassis Switch will apply the new IP address setting immediately. You can access the Web interface of the CS-6306R

Chassis Switch through the new IP address.

 Note

If you are not familiar with console command or the related parameter, enter **"help"** anytime in console to get the help description.
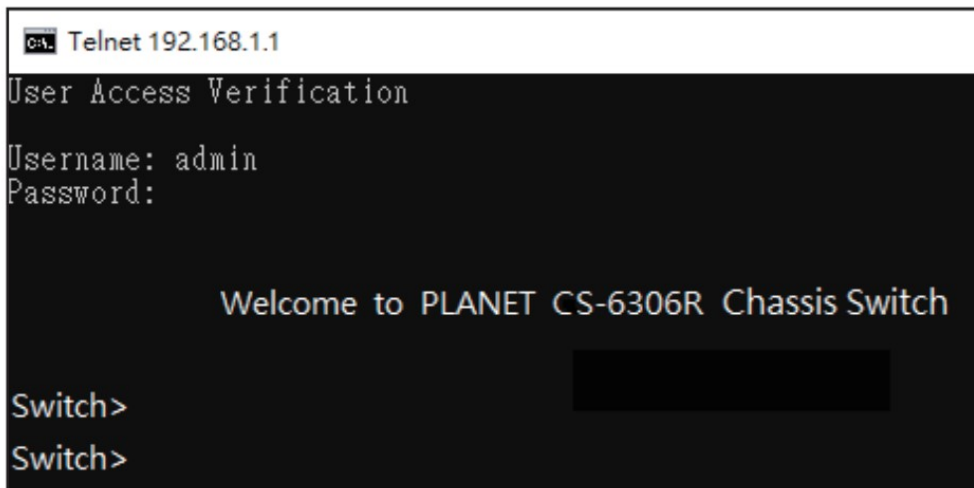
Telnet Management

Log in to the Telnet configuration interface. The commands used in the Telnet CLI interface after login is the same as that in the Console interface.

Default IP Address: **192.168.1.1**
Username: **admin**
Password: **admin**
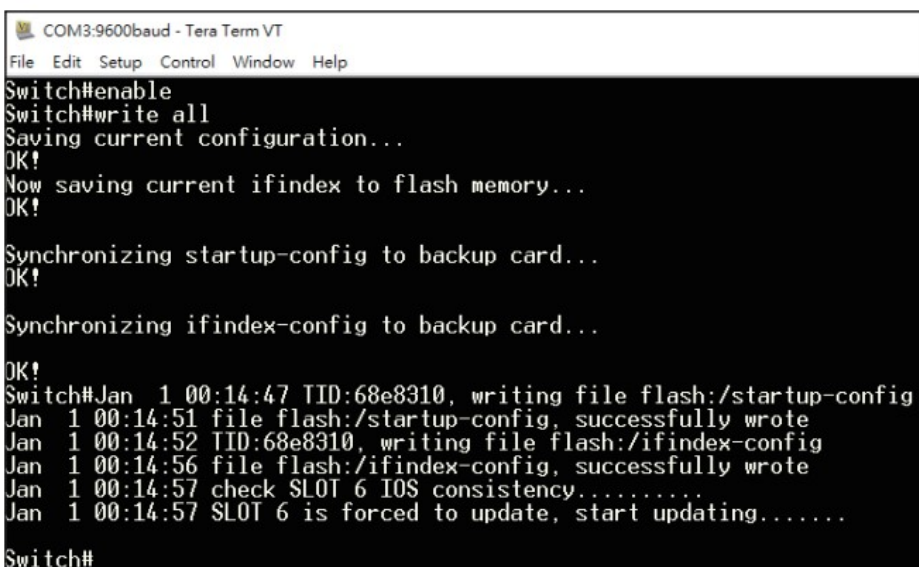
Figure 6-7 Telnet Configuration Interface

Saving the Configuration
In Chassis Switch, the running configuration file stores in the RAM. In the current
version, the running configuration sequence running-config can be saved from the
RAM to FLASH by write command, so that the running configuration sequence becomes the start up
configuration file, which is called configuration save.

Switch# **write all**

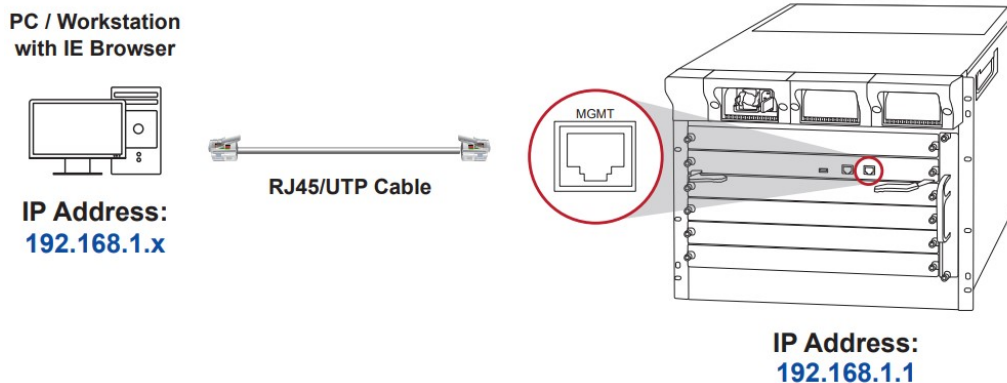**Figure 6-8** Copying Running-config Startup-config Screen

Starting Web Management

The CS-6306R, like the CS6-S16X and CS6-S24S8X, needs a switch module to configure to Web Management by Interface VLAN 1.

Chassis Switch

Figure 7-1 IP Management Diagram

The following shows how to start up the **Web Management** of the Managed Switch. Note the Managed Switch is configured through an Ethernet connection. Please make sure the manager PC must be set to the same **IP subnet address.**

1. **Start up in Web Management from Management Port.**

   The CS-6306R chassis switch default IP address is configured with 192.168.1.1 on Management Port, then the manager PC should be set to 192.168.1.x (where x is a number between 1 and 254, except 1), and the default subnet mask is 255.255.255.0

2. **Start up in Web Management from VLAN 1**

   The CS-6306R chassis switch, like (CS6-S16X and CS6-S24S8X), needs to include switch modules to enable the VLAN 1 switch port. The **Interface VLAN 1** default IP address is configured with **192.168.0.100**, then the manager PC should be set to 192.168.0.x (where x is a number between 1 and 254, except 100), and the default subnet mask is **255.255.255.0.**
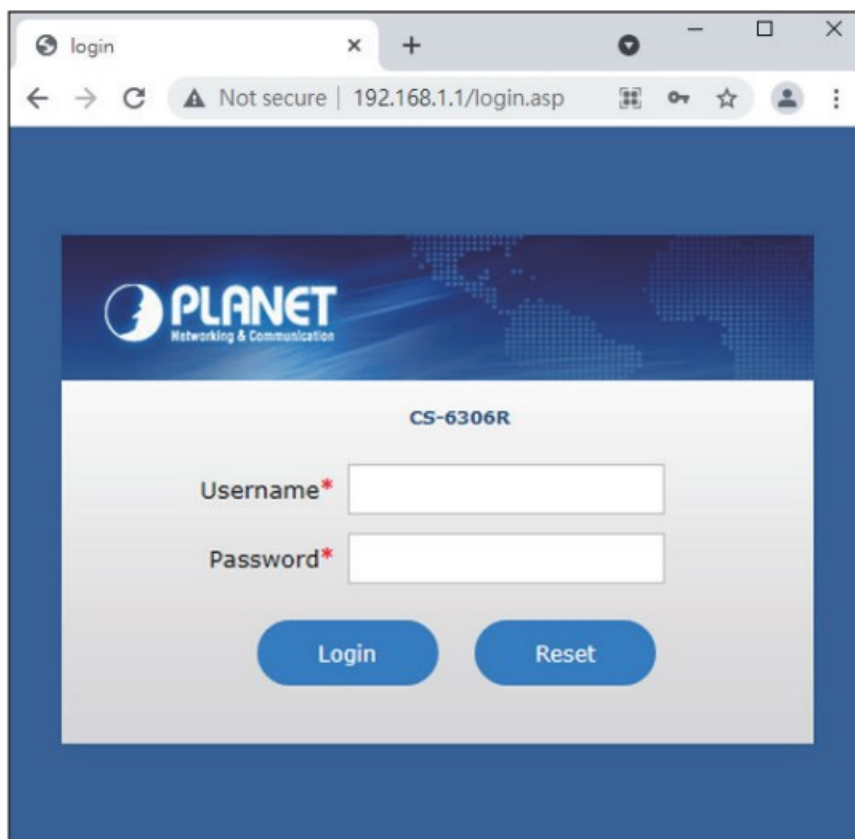
Web Login the Chassis Switch

1. Use Internet Explorer 8.0 or above Web browser, enter IP address **http://192.168.1.1** (that you have just set in console) to access the Web interface.
2. When the following dialog box appears, please enter the configured user name **"admin"** and password **"admin"** (or the username / password you have changed via console). The login screen in Figure 7-2 appears.

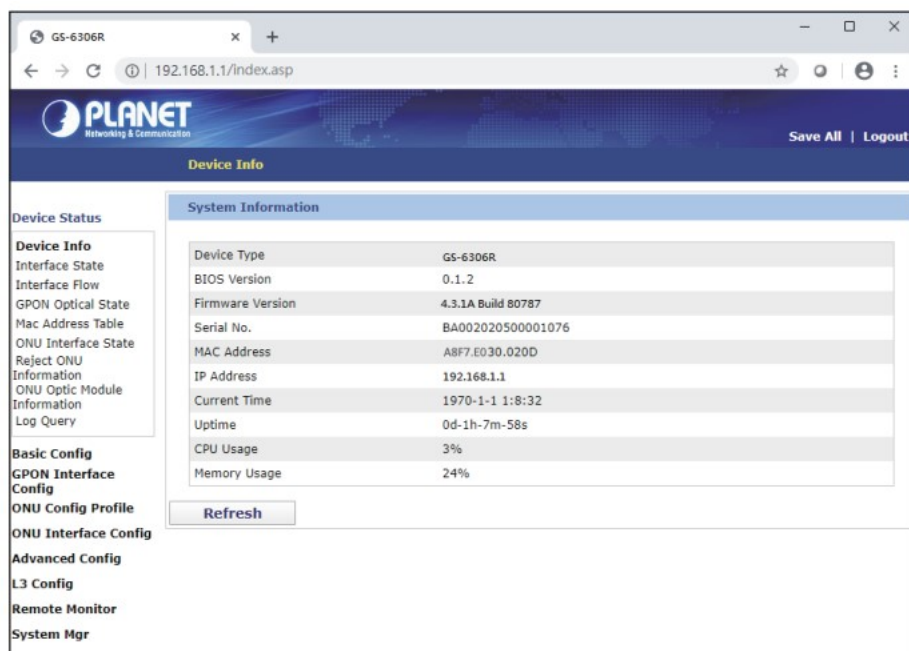Default IP Address: **192.168.1.1**
Username: **admin**
Password: **admin**

Figure 7-2 Web Login Screen

After entering the password, the main screen appears as shown in Figure 7-3.

Figure 7-3 Web Main Screen of CS-6306R Chassis Switch

The Chassis Switch Menu on the left side of the Web page lets you access all the commands and statistics the Chassis Switch provides.
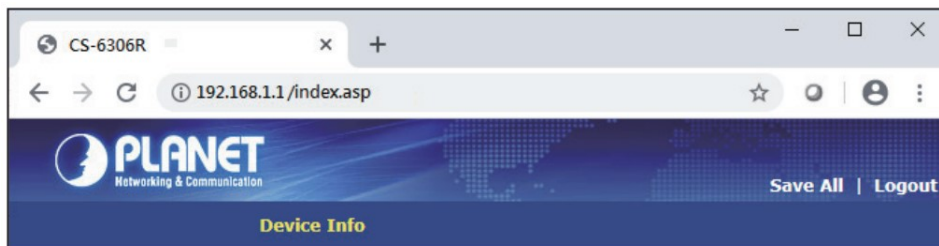
Now, you can use the Web management interface to continue the Chassis Switch management or manage the Chassis Switch by console interface. Please refer to the user manual for more detailed information.

Saving Configuration via the Web
To save all applied changes and set the current configuration as a startup configuration, the startup-configuration file will be loaded automatically across a system reboot.
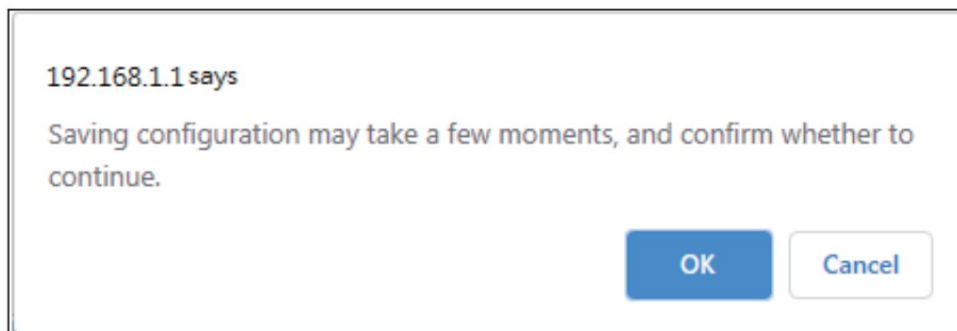
Click "**Save All**" on the top control bar. "**Save All**" function is equivalent to the execution of the **write all** command.

Figure 7-4 Save Configuration

Press the **"OK"** button to save current running-configuration to start up configuration

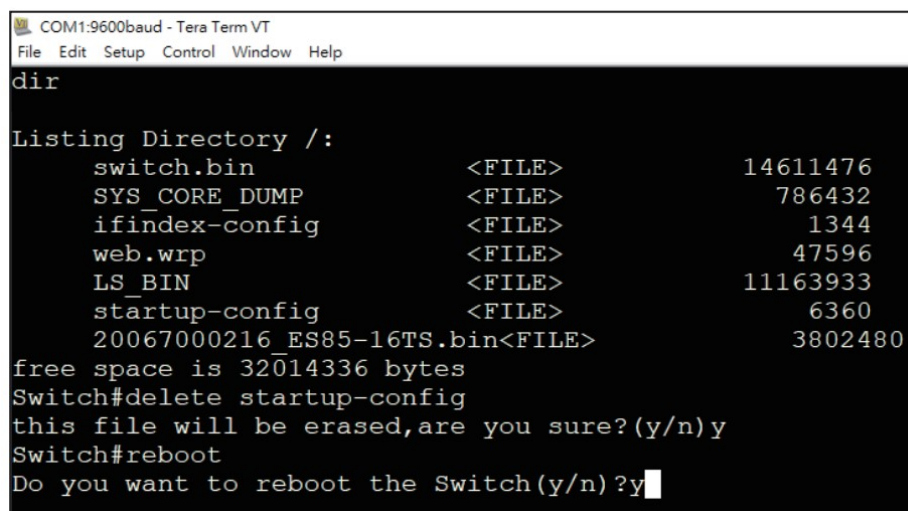**Figure 7-5** Save Configuration

Recovering Back to Default Configuration

Logging on to the console, the user can now enter commands to Recovering Back to Default Configuration. For a detailed description of the commands, please refer to the following sections.

Switch# **delete startup-config**
this file will be erased,are you sure?(y/n)y
Switch# **reboot**
Do you want to reboot the Switch(y/n)?y

Figure 8-1 CS-6306R Recovering Back to Default Configuration

The previous command would recover back to default settings for the Chassis Switch, The IP address to the default **VLAN 1 interface** is IP address **"192.168.0.100",** default **Management Port** IP address "**192.168.1.1**"

and the login password to default value user name "admin" and password **"admin".** After the device is rebooted, you can log in the management Web interface within the same subnet of 192.168.0.xx or 192.168.1.xx.

Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource at the PLANET Web site first to check if it could solve your issue. If you need more support information, please contact PLANET support team.

PLANET online FAQs:
http://www.planet.com.tw/en/support/faq.php?type=1
Support team mail address:
support@planet.com.tw

CS-6306R User's Manual
https://www.planet.com.tw/en/support/download.
php?&method=keyword&keyword=CS-6306R&view=3#list

Documents / Resources

6-slot Layer 3 IPv6/IPv4 Routing Chassis Switch CS-6306R Quick Installation Guide	**PLANET CS-6306R 6-slot Layer 3 IPv6 IPv4 Routing Chassis Switch** [pdf] Installation Guide CS-6306R 6-slot Layer 3 IPv6 IPv4 Routing Chassis Switch, CS-6306R 6-slot, Layer 3 IPv6 IPv4 Routing Chassis Switch, Routing Chassis Switch, Chassis Switch

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