DigiStar Ethernet over COAX (EoC) Aggregation Point (AP) Web User Interface (UI)

User Guide

For Your Safety

Explanation of Warning and Caution Icons

Avoid personal injury and product damage! Do not proceed beyond any symbol until you fully understand the indicated conditions.

The following warning and caution icons alert you to important information about the safe operation of this product:

You may find this symbol in the document that accompanies this product. This symbol indicates important operating or maintenance instructions.

You may find this symbol affixed to the product. This symbol indicates a live terminal where a dangerous voltage may be present; the tip of the flash points to the terminal device.

You may find this symbol affixed to the product. This symbol indicates a protective ground terminal.

You may find this symbol affixed to the product. This symbol indicates a chassis terminal (normally used for equipotential bonding).

You may find this symbol affixed to the product. This symbol warns of a potentially hot surface.

You may find this symbol affixed to the product and in this document. This symbol indicates an infrared laser that transmits intensity-modulated light and emits invisible laser radiation or an LED that transmits intensity-modulated light.

Important

Please read this entire guide. If this guide provides installation or operation instructions, give particular attention to all safety statements included in this guide.

Notices

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Copyright

Contents

Important Safety Instructions

Read and Retain Instructions

Carefully read all safety and operating instructions before operating this equipment, and retain them for future reference.

Follow Instructions and Heed Warnings

Follow all operating and use instructions. Pay attention to all warnings and cautions in the operating instructions, as well as those that are affixed to this equipment.

Terminology

The terms defined below are used in this document. The definitions given are based on those found in safety standards.

Service Personnel-The term service personnel applies to trained and qualified individuals who are allowed to install, replace, or service electrical equipment. The service personnel are expected to use their experience and technical skills to avoid possible injury to themselves and others due to hazards that exist in service and restricted areas.

User and Operator-The terms user and operator apply to persons other than service personnel.

Ground(ing) and Earth(ing)-The terms ground(ing) and earth(ing) are synonymous. This document uses ground(ing) for clarity, but it can be interpreted as having the same meaning as earth(ing).

Electric Shock Hazard

This equipment meets applicable safety standards. Refer to this equipment's data sheet for details about regulatory compliance approvals.

⚠ **WARNING**

Avoid electric shock! Opening or removing the equipment cover may expose you to dangerous voltages. Refer all servicing to qualified service personnel only.

Electric shock can cause personal injury or even death. Avoid direct contact with dangerous voltages at all times.

Know the following safety warnings and guidelines:

- Only qualified service personnel are allowed to perform equipment installation or replacement.

- Only qualified service personnel are allowed to remove equipment covers and access any of the components inside the chassis.

Equipment Placement

⚠ **WARNING**

Avoid personnel injury and damage to this equipment. An unstable mounting surface may cause this equipment to fall.

To protect against equipment damage or injury to personnel, comply with the following:

Install this equipment in a restricted access location (access restricted to service personnel).

Make sure the mounting surface or rack is stable and can support the size and weight of this equipment.

Important Safety Instructions, Continued

Strand (Aerial) Installation

> ⚠️ **CAUTION**
>
> **Be aware of the size and weight of strand-mounted equipment during the installation operation.**
>
> **Ensure that the strand can safely support the equipment's weight.**

Pedestal Installation

> ⚠️ **WARNING**
>
> **Avoid possibility of personal injury. Ensure proper handling/lifting techniques are employed when working in confined spaces with heavy equipment.**

Ensure this equipment is securely fastened to the mounting surface or rack where necessary to protect against damage due to any disturbance and subsequent fall.

Ensure the mounting surface or rack is appropriately anchored according to manufacturer's specifications.

Ensure the installation site meets the ventilation requirements given in the equipment's data sheet to avoid the possibility of equipment overheating.

Ensure the installation site and operating environment is compatible with the equipment's International Protection (IP) rating specified in the equipment's data sheet.

Connecting to Utility AC Power

Important: If this equipment is a Class I equipment, it must be grounded.

If this equipment plugs into an outlet, the outlet must be near this equipment, and must be easily accessible.

Connect this equipment only to the power sources that are identified on the equipment-rating label, which is normally located close to the power inlet connector(s).

- This equipment may have two power sources. Be sure to disconnect all power sources before working on this equipment.

- If this equipment **does not** have a main power switch, the power cord connector serves as the disconnect device.

- Always pull on the plug or the connector to disconnect a cable. Never pull on the cable itself.

Connection to Network Power Sources

Refer to this equipment's specific installation instructions in this manual or in companion manuals in this series for connection to network ferro-resonant AC power sources.

Important Safety Instructions, Continued

AC Power Shunts

AC power shunts may be provided with this equipment.

Important: The power shunts (where provided) must be removed before installing modules into a powered housing. With the shunts removed, power surge to the components and RF-connectors is reduced.

> ⚠️ **CAUTION**
>
> **RF connectors and housing seizure assemblies can be damaged if shunts are not removed from the equipment before installing or removing modules from the housing.**

Grounding (Utility AC Powered Equipment in Pedestals, Service Closets, etc.)

This section provides instructions for verifying that the equipment is properly grounded.

Safety Plugs（USA Only）

This equipment is equipped with either a 3-terminal (grounding-type) safety plug or a 2-terminal (polarized) safety plug. The wide blade or the third terminal is provided for safety. Do not defeat the safety purpose of the grounding-type or polarized safety plug.

To properly ground this equipment, follow these safety guidelines:

Grounding-Type Plug

For a 3-terminal plug (one terminal on this plug is a protective grounding pin), insert the plug into grounded mains, 3-terminal outlet.

Note: This plug fits only one way. If this plug cannot be fully inserted into the outlet, contact an electrician to replace the obsolete 3-terminal outlet.

Polarized Plug

For a 2-terminal plug (a polarized plug with one wide blade and one narrow blade), insert the plug into a polarized mains, 2-terminal outlet in which one socket is wider than the other.

Note: If this plug cannot be fully inserted into the outlet, try reversing the plug.

If the plug still fails to fit, contact an electrician to replace the obsolete 2-terminal outlet.

Grounding Terminal

If this equipment is equipped with an external grounding terminal, attach one end of an 18-gauge wire (or larger) to the grounding terminal; then, attach the other end of the wire to a ground, such as a grounded equipment rack.

Important Safety Instructions, Continued

Safety Plugs (European Union)

Class I Mains Powered Equipment

Provided with a 3-terminal AC inlet and requires connection to a 3-terminal mains supply outlet via a 3-terminal power cord for proper connection to the protective ground.

Note: The equipotential bonding terminal provided on some equipment is not designed to function as a protective ground connection.

Class II Mains Powered Equipment

Provided with a 2-terminal AC inlet that may be connected by a 2-terminal power cord to the mains supply outlet. No connection to the protective ground is required as this class of equipment is provided with double or reinforced and/or supplementary insulation in addition to the basic insulation provided in Class I equipment.

Note: Class II equipment, which is subject to EN 50083-1, is provided with a chassis mounted equipotential bonding terminal. See the section titled Equipotential Bonding for connection instructions.

Equipotential Bonding

If this equipment is equipped with an external chassis terminal marked with the IEC 60417-5020 chassis icon ( ), the installer should refer to CENELEC standard EN 50083-1 or IEC standard IEC 60728-11 for correct equipotential bonding connection instructions.

Important Safety Instructions, Continued

General Servicing Precautions

> ⚠️ **WARNING**
>
> **Avoid electric shock! Opening or removing the equipment cover may expose you to dangerous voltages. Refer all servicing to qualified service personnel only.**

> ⚠️ **CAUTION**
>
> **These servicing precautions are for the guidance of qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.**

Be aware of the following general precautions and guidelines:

- Servicing - Servicing is required when this equipment has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into this equipment, this equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.

- Wristwatch and Jewelry - For personal safety and to avoid damage of this equipment during service and repair, do not wear electrically conducting objects such as a wristwatch or jewelry.

- Lightning - Do not work on this equipment, or connect or disconnect cables, during periods of lightning.

- Labels - Do not remove any warning labels. Replace damaged or illegible warning labels with new ones.

- Covers - Do not open the cover of this equipment and attempt service unless instructed to do so in the instructions. Refer all servicing to qualified service personnel only.

- Moisture - Do not allow moisture to enter this equipment.

- Cleaning - Use a damp cloth for cleaning.

- Safety Checks - After service, assemble this equipment and perform safety checks to ensure it is safe to use before putting it back into operation.

Important Safety Instructions, Continued

Electrostatic Discharge

Electrostatic discharge (ESD) results from the static electricity buildup on the human body and other objects. This static discharge can degrade components and cause failures.

Take the following precautions against electrostatic discharge:

- Use an anti-static bench mat and a wrist strap or ankle strap designed to safely ground ESD potentials through a resistive element.

- Keep components in their anti-static packaging until installed.

- Avoid touching electronic components when installing a module.

Fuse Replacement

- To replace a fuse, comply with the following:

- Disconnect the power before changing fuses.

- Identify and clear the condition that caused the original fuse failure.

- Always use a fuse of the correct type and rating. The correct type and rating are indicated on this equipment.

Modifications

This equipment has been designed and tested to comply with applicable safety, laser safety, and EMC regulations, codes, and standards to ensure safe operation in its intended environment. Refer to this equipment's data sheet for details about regulatory compliance approvals.

Do not make modifications to this equipment. Any changes or modifications could void the user's authority to operate this equipment.

Modifications have the potential to degrade the level of protection built into this equipment, putting people and property at risk of injury or damage. Those persons making any modifications expose themselves to the penalties arising from proven non-compliance with regulatory requirements and to civil litigation for compensation in respect of consequential damages or injury.

Accessories

Use only attachments or accessories specified by the manufacturer.

Chapter 1
Introduction

Overview

About Web UI

The internal management system - Web User Interface (Web UI) is used to manage the AP via its Ethernet connection.

This document provides information on how to configure the AP via its internal management system using a laptop or PC.

Version Information

This document applies to the most recent version of AP Web UI firmware - 0.4.8. If you are using an earlier firmware version, please upgrade your firmware before proceeding to configure the AP. Refer to the **System Management** and choose **Upgrade Firmware**.

In This Guide

This User Guide is divided into the following sections:

Chapter 1: Introduction – This chapter provides a brief overview of the Web UI.

Chapter 2: Operation – This chapter describes how to operate the Web UI.

Chapter 3: Customer Support Information – This chapter contains information on obtaining technical support.

Additional Documentation

Use this document after you have finished the mounting of the AP.

If you have a Product Support Agreement (PSA), you can access/download the most current documentation which provides additional information at the knowledgebase web site at:

http://www.sciatldev.com/TNSDocs/DT/DigiStar(EoC)/digistar_io_cisco.htm

Note: You can download these guides separately, or find them on the CD that comes packaged with the master and end-point devices.

Important Notice

Please read the following notice before performing instructions in this guide.

> ⚠ **NOTICE:**
>
> **Although DigiStar EoC Aggregation Point (AP) and End Point (EP) contain various types of offerings, the DigiStar EoC E220 IP54 and E320 can be considered as a typical DigiStar EoC AP and EP. All instructions in this guide are based on the DigiStar EoC E220 IP54 and E320. All instructions are applicable to all types of DigiStar EoC offerings.**

Chapter 2
Operation

Overview

In This Chapter

Login Management System

Introduction

This section provides information on how to configure the AP via its internal management system using a laptop or PC.

Login Management System

1. Power up the AP, and connect the PC or laptop to the LAN interface with CAT5 Ethernet cable.

2. Login to the internal management system via the web browser. The default web management username and password are both 'admin'. The default IP address of the AP is 192.168.1.1. You can change the password and IP address in the management system.

   a) Start the **Internet Explorer** application. Internet Explorer version 7.0 or Mozilla Firefox is required.

   Note: When using Internet Explorer 8.0, click the **Compatibility View** button to display the AP web interface

   b) Type the **URL** http://192.168.1.1, which is the default IP address of the AP.

   c) Click **Enter**.

   Result: The login window is displayed.
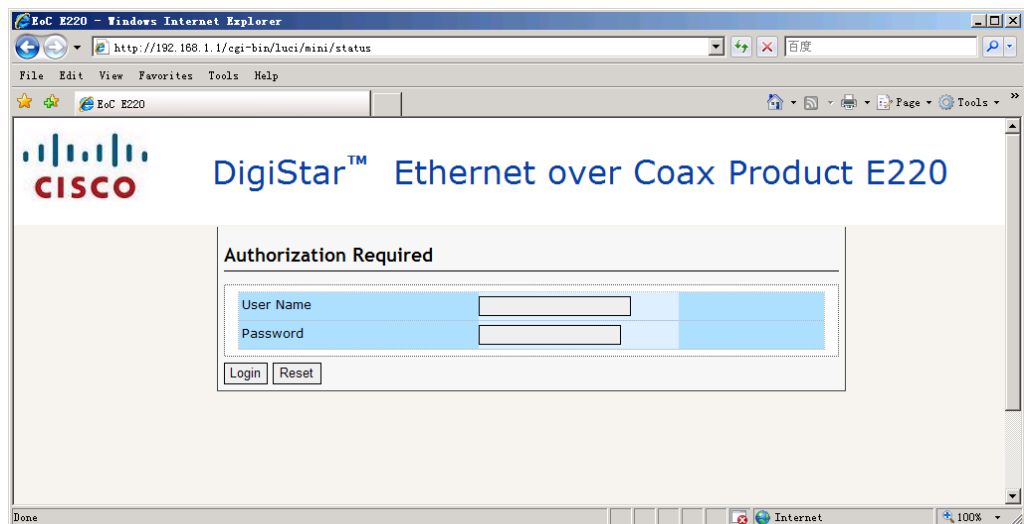
   d) Type the default User Name and password "**admin"** in the appropriate text box
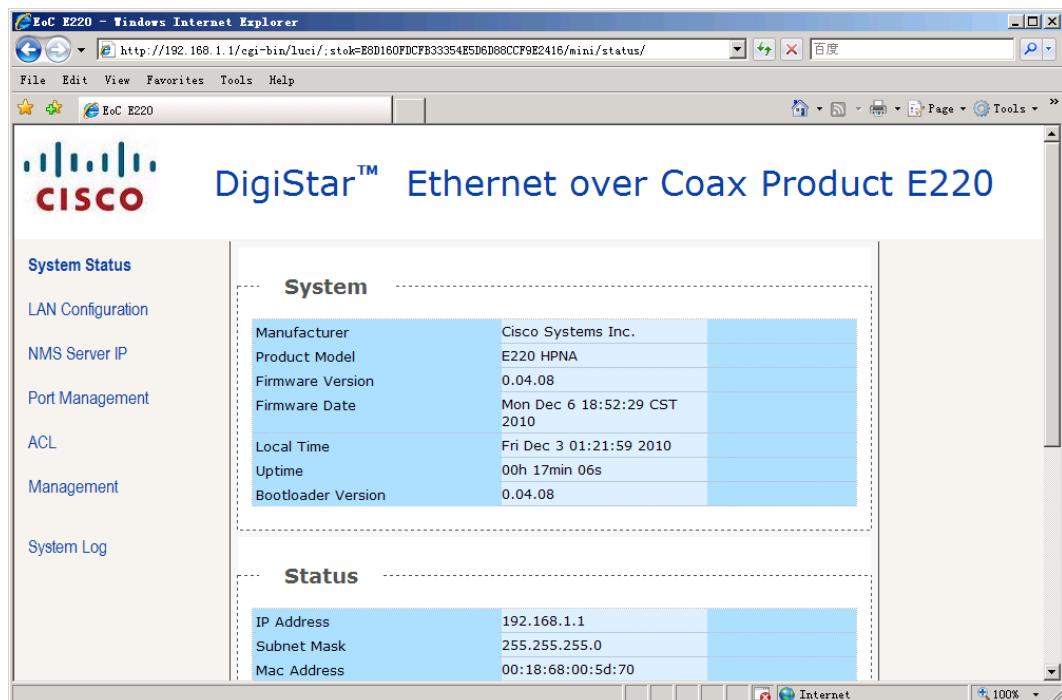
   e) Click **Login**.

Viewing Status Information

Introduction

The **Status** menu provides a brief overview of the system and LAN status.

System Status

Click **System Status** on the main menu.

Result: The system and status information is displayed.

System Information

The system information allows you to view system information, including manufacturer, product model, firmware version, firmware date, and so on.

The system information for the HPNA model is displayed as the following screen.

The system information for the HomePlug model is displayed as the following screen.

System

Manufacturer	Cisco Systems Inc.
Product Model	E220 HomePlug
Firmware Version	0.04.08
Firmware Date	Thu Nov 4 12:04:27 CST 2010
Local Time	Wed Nov 3 07:05:52 2010
Uptime	02h 27min 00s
Bootloader Version	0.04.08

Status Information

The status information allows you to view status information, including gateway IP address, subnet mask, MAC address, supported ports, received data, transmitted data, and so on.

The status information for the HPNA model is displayed as the following screen.

Status

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Mac Address	00:18:68:00:5d:70
Default Gateway	
Module 1	00:18:68:00:66:67
Module 2	00:18:68:00:66:ab
LAN Port Status	Link is up
LAN RX bytes	14075KB
LAN TX bytes	76388KB
WAN Port Status	Link is down
WAN RX bytes	0KB
WAN TX bytes	0KB
ONU Port Status	Link is down
ONU RX bytes	0KB
ONU TX bytes	0KB

The status information for the HomePlug model is displayed as the following screen.

Status

|	
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Mac Address	00:18:68:00:65:96
Default Gateway	
Module 1	00:1e:e3:77:e1:07
Module 2	00:00:00:00:00:01
RF Isolation	Mode 1
LAN Port Status	Link is down
LAN RX bytes	0KB
LAN TX bytes	0KB
WAN Port Status	Link is up
WAN RX bytes	553890KB
WAN TX bytes	1498405KB
ONU Port Status	Link is down
ONU RX bytes	0KB
ONU TX bytes	0KB

LAN Configuration

Introduction

This section provides information on how to configure the AP's LAN port.

LAN Configuration

Click **LAN Configuration** on the menu.

Result: The NMS LAN Configuration dialog box is displayed.
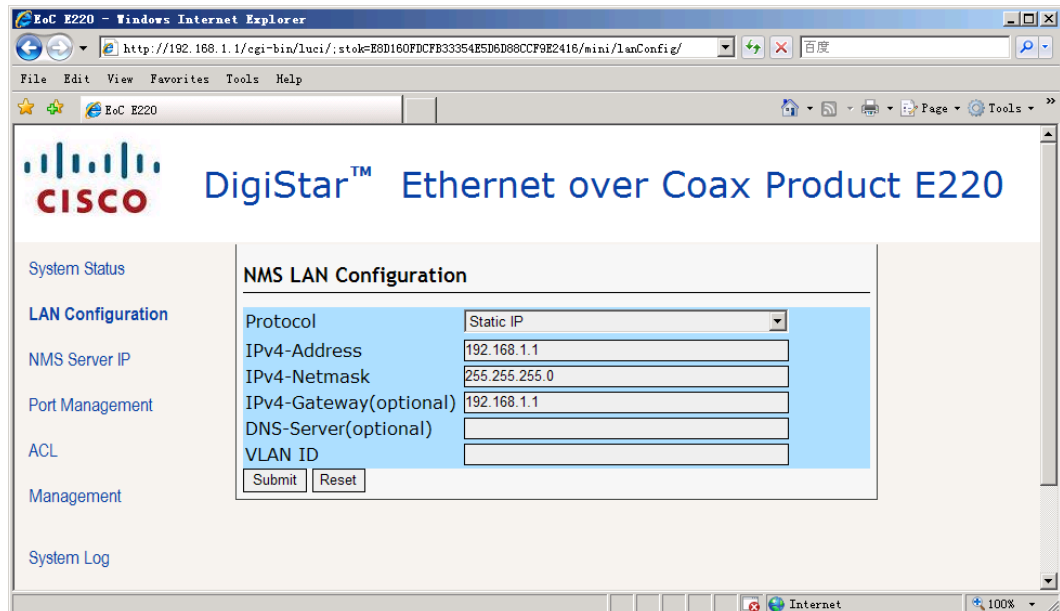
1. Choose the right option in the following Protocol drop-down box.

    a) Static IP: AP is using static IP address.

    b) DHCP Client: AP is a DHCP client and using address deployed by a DHCP server.

    c) VLAN Termination: You are intended to terminate VLAN on this AP.

2. Input the desired value in the following boxes.

    a) IPv4-Address: AP's default private IP address

    b) IPv4-Netmask: AP's default Netmask

    c) IPv4-Gateway: AP's Gateway

    d) DNS-Server: The IP address of DNS server

    e) VLAN ID: AP's VLAN ID number

3. Click **Submit** to submit your request or **Reset** to return to the default value.

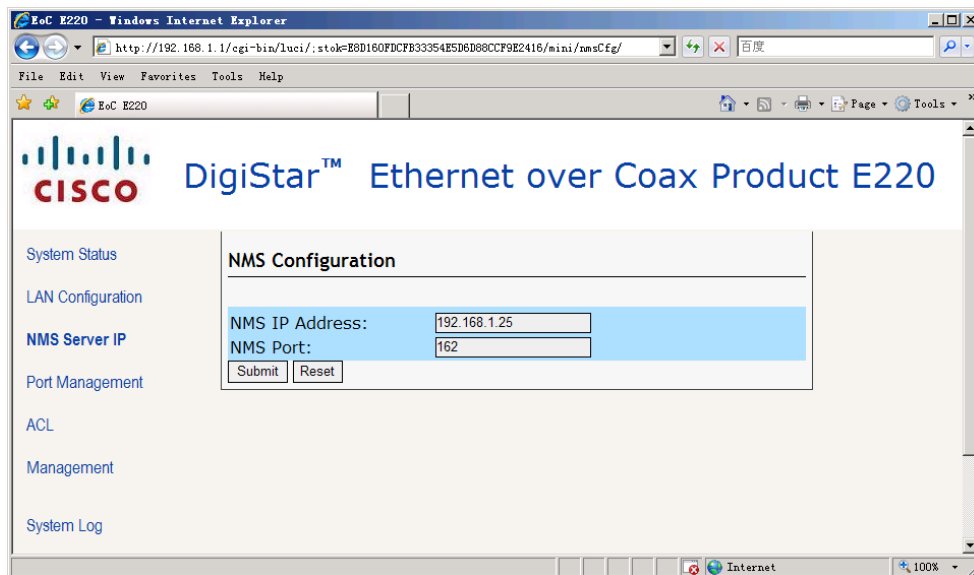# NMS Configuration and Port Management

Introduction

This section provides information on how to configure the AP's NMS and port management.

NMS Configuration

1. Click **NMS Server IP** on the main menu.

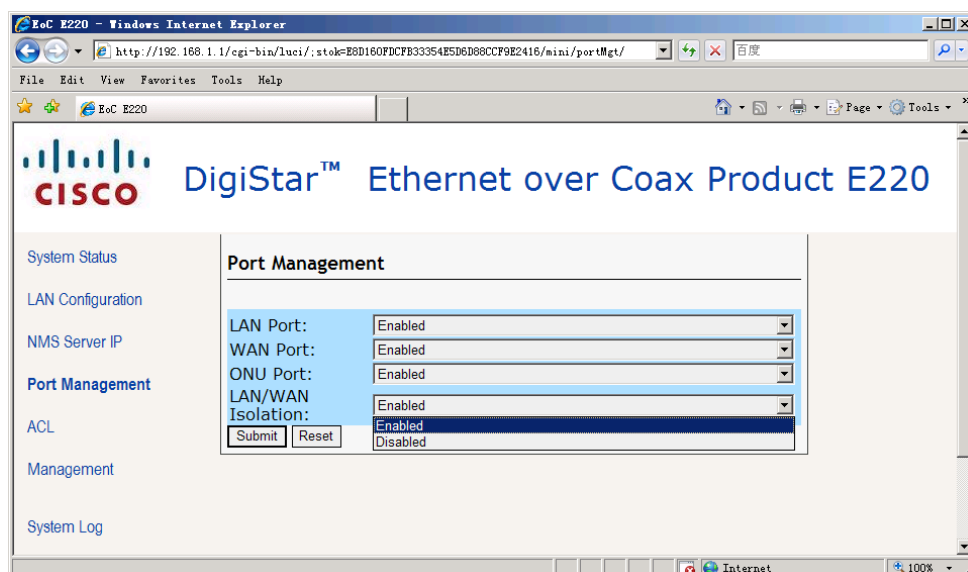   **Result:** The NMS Configuration dialog box is displayed.

2. Enter the desired NMS IP Address and NMS Port number.

3. Click **Submit** to submit a request or **Reset** to return to the default setting.

Port Management

1. Click **Port Management** on the main menu.

    Result: The Port Management dialog box is displayed.

2. Click on the drop-down box to enable or disable the desired port.

3. Click **Submit** to submit a request or Reset to return to the default setting.
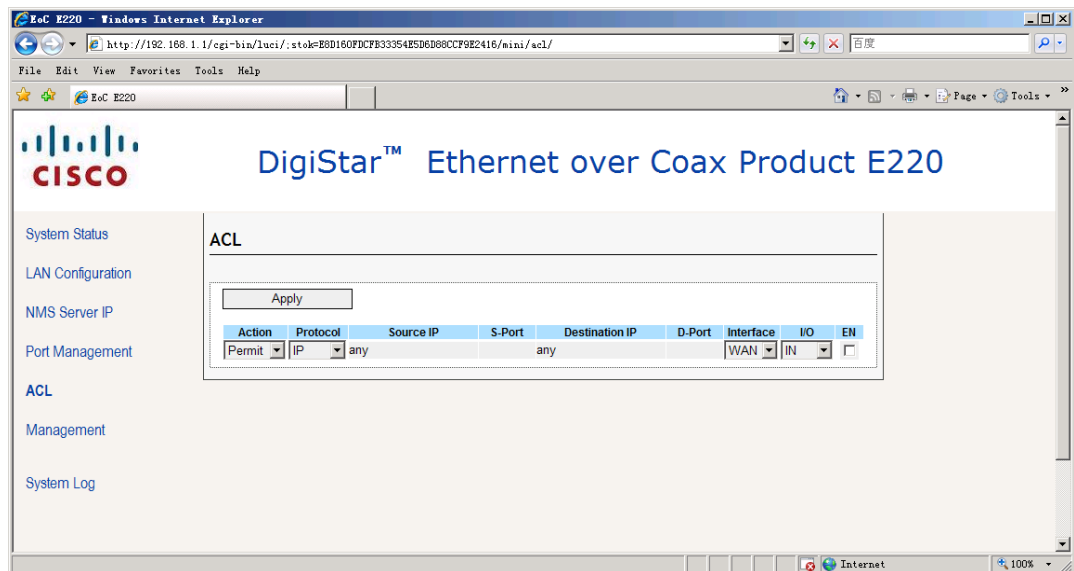
Access Control List

Introduction

This section provides information on how to configure the AP's Access Control List (ACL).

ACL

1. Click **ACL** on the main menu.

   Result: The dialog box to configure ACL is displayed.

2. Click on the drop-down boxes or enter the desired values in textboxes.

   a) Action: Permit or deny the item in the drop-down box

   b) Protocol: Choose the protocol in the drop-down box

   c) Source IP and S-Port: Input the source IP and source port number

   d) Destination IP and D-Port: Input the destination IP and destination port number

   e) Interface: Choose WAN/LAN Interface in the drop-down box

   f) I/O: Choose Input/output in the drop-down box

   g) EN: Tick or un-tick to enable or disable the list item.

3. Click **Apply** to list the item in the access control list.
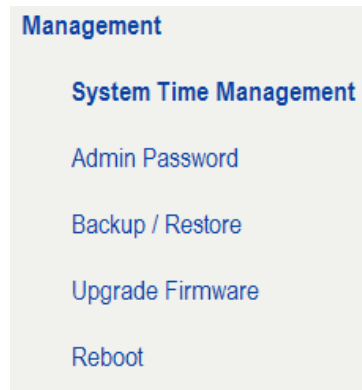
System Management

Introduction

This section provides information on how to manage the AP System Time, Password, Backup/Restore configuration, Upgrade Firmware, and Reboot.
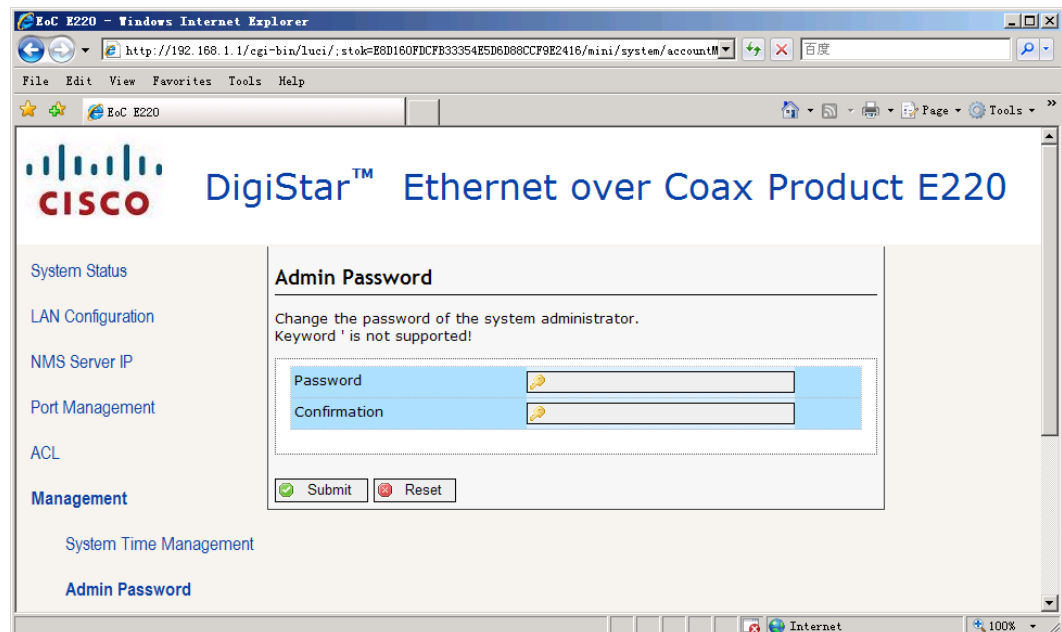
Click **Management** on the menu.

Result: The following screen is displayed.

Changing User Name and Password

1. Click **Admin Password.**

    Result: The Admin Password dialog box is displayed.

2. Input the new password in the **Password** textbox.

3. Input the same password in the **Confirmation** textbox.

4. Click **Submit** to change the password or **Reset** to return the default password.
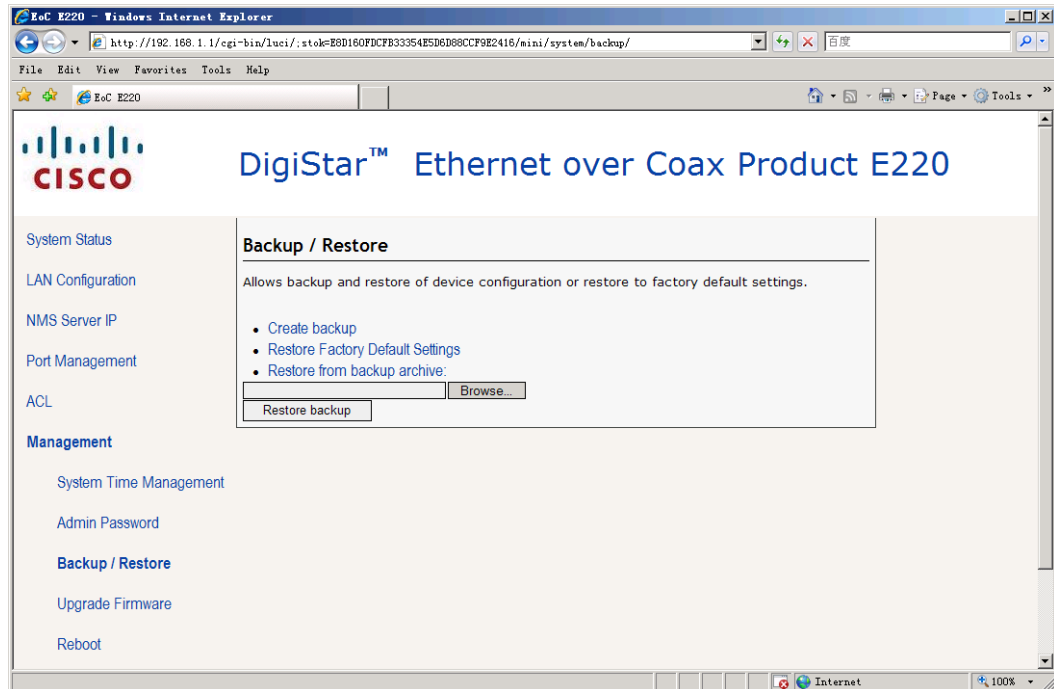
Note: The default Username password is admin. If the new password is lost, push the **reset** button on the AP to restore the default password, refer to Page 1, **Additional Documentation** to find the Guide for your AP.

Backup and Restore Settings

1. Click **Backup/ Restore**.

Result: The Backup/ Restore dialog box is displayed.



2. To back up the current configuration settings:

   a) Click **Create backup**.

   b) Click **Browse** to save the backup file to your local drive.

3. To restore to factory default:

   a) Click **Restore Factory Default Settings** to restore settings to factory default.

4. To restore to a previous configuration setting:

   a) Click **Restore from backup archive**.

   b) Click **Browse** to locate the backup file.

   c) Click **Restore Backup** to initiate the operation.

Upgrade Firmware

1. Click **Upgrade Firmware**.

    Result: The Upgrade Firmware dialog box is displayed.
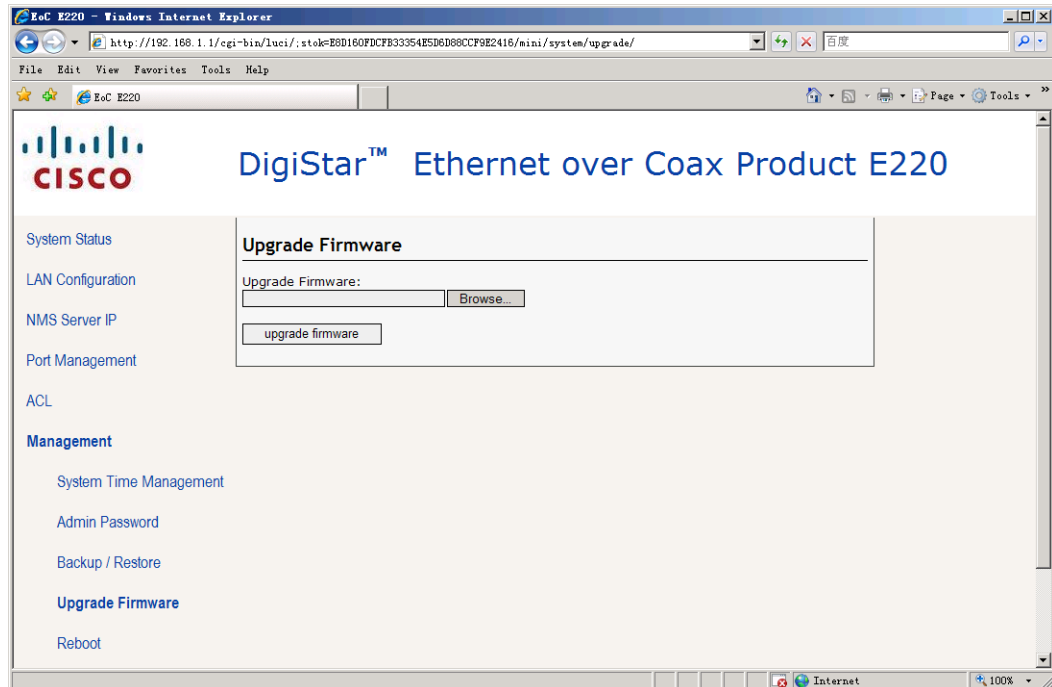
2. Click **Browse...** to select an appropriate firmware file (file extension is ".bin")

3. Click **Upgrade** Firmware to update the firmware.

    Result: The following warning appears. Make sure you follow the warnings during operation.
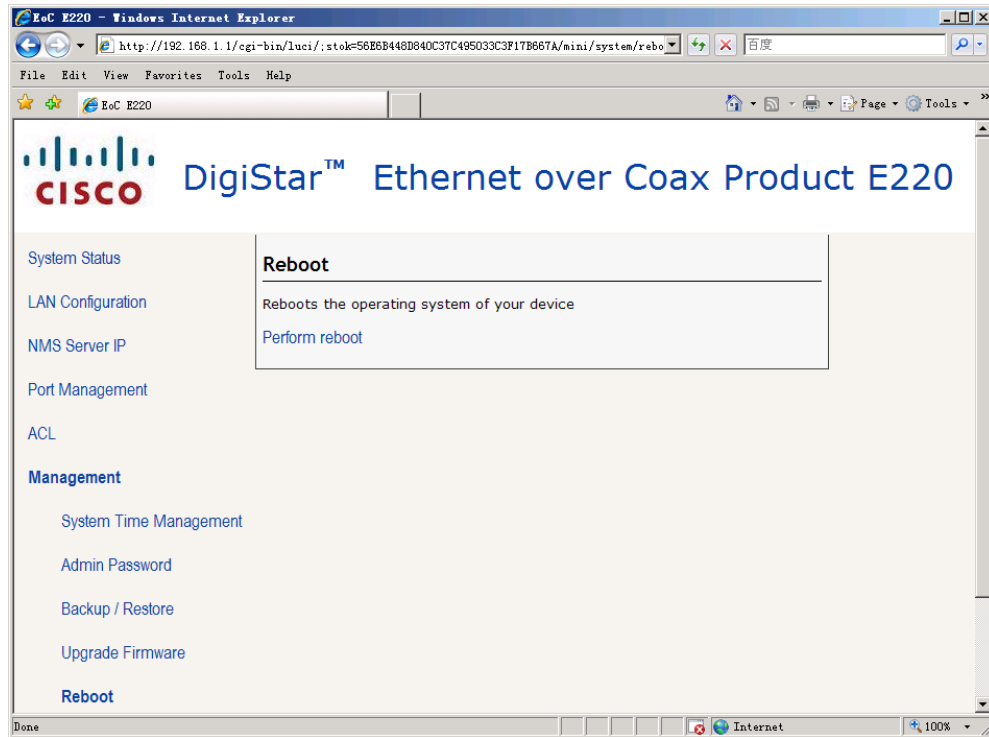

4. Click **continue** to start the upgrade.

System Management, Continued

Reboot

1. Click **Reboot**.

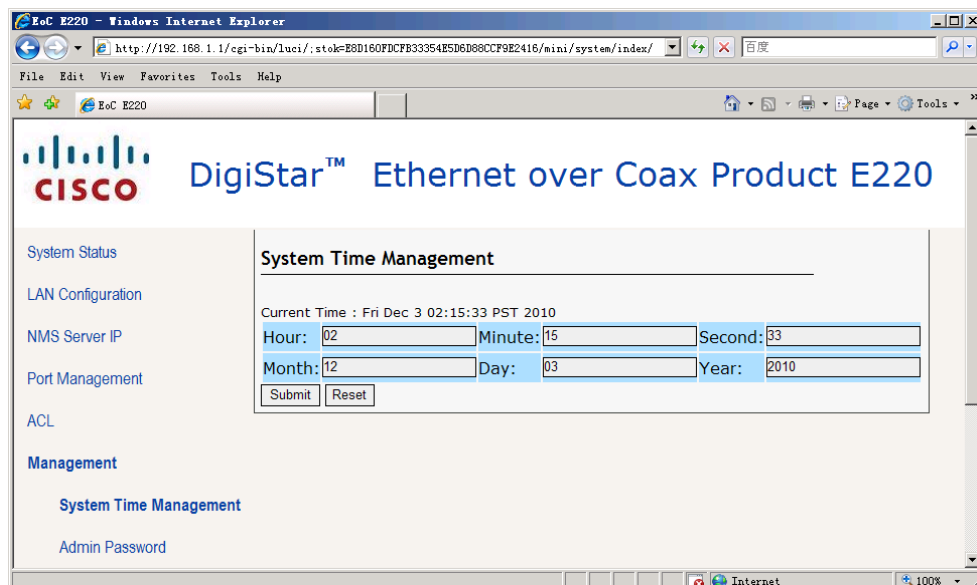**Result:** The Reboot Reminder box is displayed.

2. Click **Perform Reboot** to initiate the operation.

Configuring System Time

1. Click **System Time Management**.

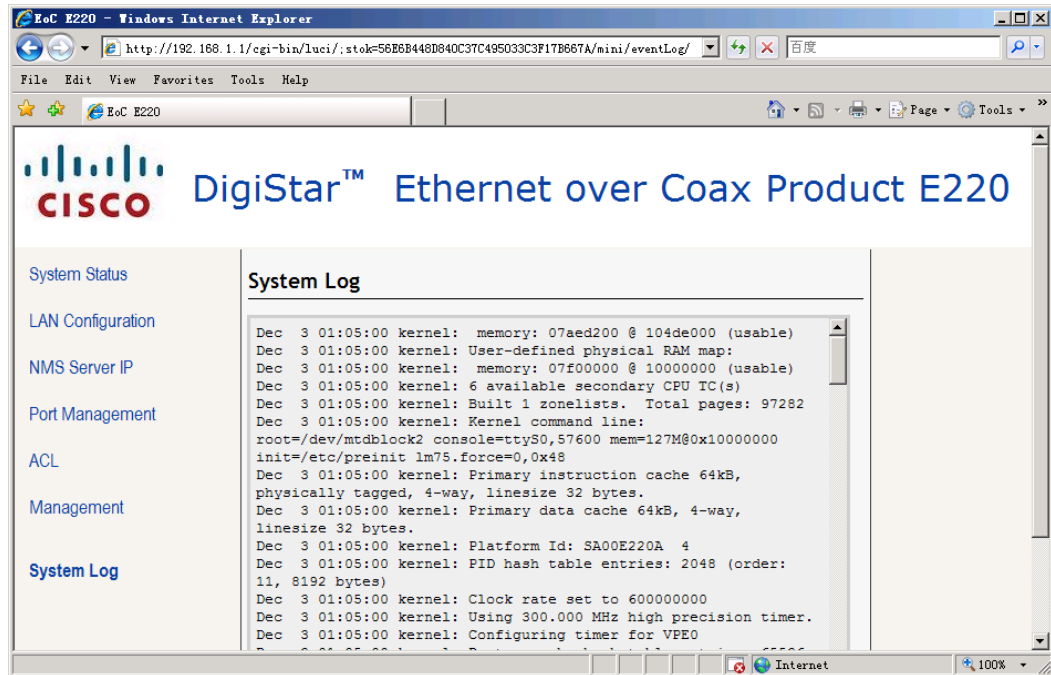**Result:** The System Management dialog box is displayed.

2. Input your local time in the appropriate text box.

3. Click **Upgrade** Firmware to update the firmware.

System Log

To View System Log

Click **System Log** on the main menu.

Result: The list of **System log** messages appears.

Note: Refer to this information when you need to troubleshoot the device.

Chapter 3
Customer Support Information

Overview

Introduction

This chapter contains information on obtaining technical support.

In This Chapter

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Obtaining Product Support

IF…	THEN…
you have general questions about this product	Contact your distributor or sales agent for product information or refer to product data sheets on www.cisco.com.
you have technical questions about this product	Call the nearest Technical Service center or Cisco office.
you have customer service questions or need a return material authorization (RMA) number	Call the nearest Customer Service center or Cisco office.

Support Telephone Numbers
Telephone Numbers

This table lists the Technical Support and Customer Service numbers for your area.

Region	Centers	Telephone and Fax Numbers
North America	Cisco Services Atlanta, Georgia United States	For *Technical Support*, call: Toll-free: 1-800-722-2009 Local: 678-277-1120 (Press **2** at the prompt) For *Customer Service*, call: Toll-free: 1-800-722-2009 Local: 678-277-1120 (Press **3** at the prompt) Fax: 770-236-5477 E-mail: customer-service@cisco.com
Europe, Middle East, Africa	Belgium	For *Technical Support*, call: Telephone: 32-56-445-197 or 32-56-445-155 Fax: 32-56-445-061 For *Customer Service*, call: Telephone: 32-56-445-444 Fax: 32-56-445-051 E-mail: service-elc@cisco.com
Japan	Japan	Telephone: 81-3-5908-2153 or +81-3-5908-2154 Fax: 81-3-5908-2155
Korea	Korea	Telephone: 82-2-3429-8800 Fax: 82-2-3452-9748 E-mail: songk@cisco.com
China (mainland)	China	Telephone: 86-21-2401-4433 Fax: 86-21-2401-4455 E-mail: eoc-support@cisco.com
All other Asia-Pacific countries & Australia	Hong Kong	Telephone: 852-2588-4746 Fax: 852-2588-3139 E-mail: support.apr@sciatl.com
Brazil	Brazil	Telephone: 11-55-08-9999 Fax: 11-55-08-9998 E-mail: fattinl@cisco.com or ecavalhe@cisco.com

Region	Centers	Telephone and Fax Numbers
Mexico, Central America, Caribbean	Mexico	For *Technical Support*, call: Telephone: 52-3515152599 Fax: 52-3515152599 For *Customer Service*, call: Telephone: 52-55-50-81-8425 Fax: 52-55-52-61-0893
All other Latin America countries	Argentina	For *Technical Support*, call: Telephone: 54-23-20-403340 ext 109 Fax: 54-23-20-403340 ext 103 For *Customer Service*, call: Telephone: 770-236-5662 Fax: 770-236-5888 E-mail: keillov@cisco.com