

100 Mbps PoE Switch Web

User Manual

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Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Preface

Applicable Models

This manual is applicable to DS-3E13XXP-SI series switches.

About the Default

- Default administrator account: admin.
- Default IP address: 192.168.1.64.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

| Symbol | Description |
|---------|---|
| Danger | Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury. |
| Caution | Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results. |
| iNote | Provides additional information to emphasize or supplement important points of the main text. |

Safety Instruction



- This is a class A product and may cause radio interference in which case the user may be required to take adequate measures.
- Ensure that your devices powered via the PoE port have their shells protected and fire-proofed, because the switches are not compliant with the Limited Power Source (LPS) standard.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- The socket-outlet shall be installed near the device and shall be easily accessible.
- The device must be connected to an earthed mains socket-outlet.
- Install the device according to the instructions in this manual.

- *f* indicates hazardous live and the external wiring connected to the terminals requires installation by an instructed person.
- Keep body parts away from fan blades. Disconnect the power source during servicing.
- Never place the device in an unstable location. The device may fall, causing serious personal injury or death.
- This device is not suitable for use in locations where children are likely to be present.
- CAUTION: Risk of explosion if the battery is replaced by an incorrect type.
- Improper replacement of the battery with an incorrect type may defeat a safeguard (for example, in the case of some lithium battery types).
- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.
- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
- Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas. Dispose of used batteries according to the instructions.

A Caution

- CAUTION: Double pole/Neutral fusing. After operation of the fuse, parts of the device that remain energized might represent a hazard during servicing.
- The device has been designed, when required, modified for connection to an IT power distribution system.
- This device is suitable for mounting on concrete or other non-combustible surface only.
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains, etc. The openings shall never be blocked by placing the device on a bed, sofa, rug or other similar surface.
- No naked flame sources, such as lighted candles, should be placed on the device.
- The device shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the device.
- Burned fingers when handling the cover area of the device. Wait one-half hour after switching off before handling the parts.
- CLASS 1 LASER PRODUCT



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Chapter 1 Product Introduction

DS-3E13XXP-SI series switches (hereinafter referred to as "the device") are layer 2 PoE switches, providing advanced PoE power supply technology on the basis of high-performance access. The switches support client management, network topology management, link aggregation, port management and so on. The switches are suitable for small-scale LAN device access.

Chapter 2 Activation and Login

For the first time usage, you must activate the switch and configure the password.

Before You Start

The computer and the switch are on the same network segment.

Steps

iNote

Take DS-3E1510P as an example. All figures in this manual are for illustration purpose only.

1. Enter the default IP 192.168.1.64 in the browser address bar.

| ctivation | | |
|------------------|---|--------|
| User Name | admin | |
| Password | ••••• | 0 |
| | 8 to 16 characters allowed, including at least 2 of the following types: digits, lower-case letters, upper-case letters, and special characters. | Strong |
| Confirm Password | ••••• | |
| | | ОК |

Figure 2-1 Activation

iNote

You are recommended to use the newest version of the following browsers: IE 10+, Edge, and Chrome 31+.

- 2. Configure the password and confirm it.
- 3. Click OK.

Go to the login page.

| _ | |
|---|----------|
| 1 | |
| | |
| | Password |
| | |
| | |
| | Log III |

Figure 2-2 Login

- 4. Enter the User Name and Password, and click Log In.
- 5. Optional: Change the network configuration.

1) Go to System Management \rightarrow Network Configuration .

| IP Address | |
|------------------------|-------------------|
| Mask Address | |
| Gateway Address | |
| MAC Address | b4:a3:82:f2:46:d3 |
| DNS | 114.114.114.114 |
| Alternative DNS Server | 114.114.115.115 |
| | |
| | Save |

Figure 2-3 Network Configuration

2) Change the IP address, mask address, the gateway address, DNS and alternative DNS as needed. You can log in to the switch with the new IP address next time.

iNote

You are recommended to change the network configuration to better manage the switch.

Chapter 3 Device Management

After logging in to the Web, you can go to **Device Status** to view the device status, including the device information, working status, port status, port statistics, and PoE status.

Device Information

| Device Model | DS-3E1510P-E |
|----------------------------|---------------------------------------|
| Device Serial No | Dr. H. 1998 C. 2018 RESERVED AND ADDR |
| Device Program Version | 111.0.2 (sale 100012 |
| Number of Ports | 10 |
| Management VLAN | 1 |
| MAC Address Aging Time (s) | 300 sec |
| | Save |

Figure 3-1 Device Information

- Management VLAN: The management VLAN is VLAN 1 by default that cannot be edited.
- MAC Address Aging Time: Aging time for MAC address table entries. The default is 300 seconds that cannot be edited.

Working Status



Figure 3-2 Working Status

View the device running time, memory usage, and CPU usage.

Port Status

| Port Name | Connection Status | Rate | Duplex | Flow Control |
|-----------|-------------------|-------|-------------|--------------|
| Ge1 | Disconnected | | | |
| Ge2 | Connected | 1000M | Full-Duplex | Off |
| Ge3 | Disconnected | | | - |
| Ge4 | Connected | 1000M | Full-Duplex | Off |
| Ge5 | Disconnected | | | - |
| Ge6 | Disconnected | | | - |
| Ge7 | Disconnected | | | - |
| Ge8 | Connected | 1000M | Full-Duplex | On |
| Ge9 | Connected | 1000M | Full-Duplex | On |
| Ge10 | Disconnected | - | - | - |

Figure 3-3 Port Status

View the connection status, rate, duplex, and flow control of all ports.

Port Statistics

| | Refreshing Rate 30 sec | ~ | Refresh | Reset | | |
|------|------------------------|------------------------|--------------|--------------------------|----------------------------|----------------|
| Port | Number of Bytes Sent | Number of Packets Sent | Sending Rate | Number of Bytes Received | Number of Packets Received | Receiving Rate |
| Ge1 | - | - | - | | - | |
| Ge2 | - | - | - | | | |
| Ge3 | 122429454 | 338425 | 28.650Kbps | 6796845 | 18694 | 768bps |
| Ge4 | - | - | - | | - | |
| Ge5 | - | - | - | | ÷ | |
| Ge6 | - | - | - | | - | - |
| Ge7 | - | - | - | | - | |
| Ge8 | 23731162 | 43851 | 34.656Kbps | 119619685 | 339806 | 29.388Kbps |
| Ge9 | - | - | - | | - | |
| Ge10 | 121936735 | 324630 | 27.620Kbps | 4769366 | 11181 | 522bps |

Figure 3-4 Port Statistics

- Refreshing Rate: 10 sec, 30 sec, 60 sec, and Manually Refresh is available.
- Refresh: When you choose Manually Refresh, you can click Refresh to refresh the statistics.
- Reset: You can click Reset to clear all the statistics.

PoE Status

| Complete Appliance PoE Status | | 2.0 W used/110.0 W in total |
|-------------------------------|------------------|-----------------------------|
| Port Name | Output Power (W) | |
| Ge1 | | |
| Ge2 | | |
| Ge3 | 2.0 | |
| Ge4 | 0.0 | |
| Ge5 | 0.0 | |
| Ge6 | 0.0 | |
| Ge7 | 0.0 | |
| Ge8 | 0.0 | |
| Ge8 | 0.0 | |

Figure 3-5 PoE Status

View the complete appliance PoE status and the output power of each PoE port.

Chapter 4 Switch Configuration

4.1 Port Configuration

4.1.1 Attribute Configuration

The basic parameters can influence the working status of ports. Configure the parameters according to the actual situation.

Steps

1. Go to Switch Configuration → Basic Configuration → Port Configuration → Attribute Configuration .

| Attribute Configuration | Port Mirroring Port Rate-Limiting | Storm Control | Long-Range Mode | | |
|-------------------------|-----------------------------------|---------------|-----------------|--------------|--------|
| Port Name | Speed | | Duplex | Flow Control | Enable |
| Ge1 | 10M | ~ | auto 🗸 | | |
| Ge2 | auto | ~ | auto 🗸 | | |
| Ge3 | auto | ~ | auto 🗸 | | |
| Ge4 | auto | ~ | auto 🗸 | | |
| Ge5 | auto | ~ | auto 🗸 | | |
| Ge6 | auto | ~ | auto 🗸 | | |
| Ge7 | auto | ~ | auto 🗸 | | |
| Ge8 | auto | ~ | auto 🗸 | | |
| Ge9 | 1000M | ~ | full 🗸 | | |
| Ge10 | 1000M | ~ | full 🗸 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | Save | | | | |

Figure 4-1 Port Attribute Configuration

2. Configure the parameters.

Speed

The speed of data transmission of the port.

- PoE port: The default is **auto**.
- SFP fiber optical port: The default is **auto** that cannot be edited.

Duplex

The duplex mode of the port.

- PoE port: The default is **auto** that cannot be edited.
- SFP fiber optical port: The default is **auto** that cannot be edited.

Flow Control

Enabling the flow control can prevent data loss in data transmission.

Enable

Enable or disable the port link.

3. Click **Save** to complete the configuration.

4.1.2 Configure Port Mirroring

Port mirroring monitors network traffic by sending copies of all incoming and outgoing packets from one port to a mirroring port.

Steps

- 1. Go to Switch Configuration → Basic Configuration → Port Configuration → Port Mirroring .
- 2. Check Enable of Port Mirroring.
- **3.** Select one port as **Mirror Port**, which monitors and analyzes the packets from mirror source ports.
- 4. Select Mirror Direction.

Disable Mirror

The port is not under surveillance.

Inbound

The data received by the mirror source port is under surveillance.

Outbound

The data sent from the mirror source port is under surveillance.

Inbound and Outbound

Both received and sent data of the mirror source port are under surveillance.

5. Switch on **Set as Mirror Source** if you want to select certain ports from the list as mirror source that is under surveillance.

iNote

You can set one or more ports as the mirror source.

6. Click Save to complete the port mirroring configuration.

4.1.3 Long-Range Mode Configuration

When long-range mode is enabled, the transmission distance of the port can reach 300 meters, and the rate is 10 Mbps.

Steps

1. Go to Switch Configuration \rightarrow Basic Configuration \rightarrow Port Configuration \rightarrow Long-Range Mode .

| Attribute Configuration | Port Mirroring | Port Rate-Limiting | Storm Control | Long-Range Mode |
|-------------------------|----------------|--------------------|---------------|-----------------|
| Port Name | | Enable | | |
| Ge1 | | | | |
| Ge2 | | | | |
| Ge3 | | | | |
| Ge4 | | | | |
| Ge5 | | | | |
| Ge6 | | | | |
| Ge7 | | | | |
| Ge8 | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | Save | | |

Figure 4-2 Long-Range Mode Configuration

- 2. Check Enable of the port.
- 3. Click Save to complete the configuration.

4.1.4 Configure Port Isolation

Set ports to different VLAN in order to isolate different packets on Layer 2. Ports in the same isolation group cannot communicate with each other while can communicate with the ports of different group.

Steps

- **1.** Go to Switch Configuration → Basic Configuration → Port Configuration → Port Isolation .
- **2.** Select the ports to isolation group.
- 3. Click Save.

4.2 Link Aggregation Configuration

Link aggregation is used to aggregate physical ports to create a logical channel. The advantages of link aggregation are higher transmission speed with wider bandwidth.

Steps

1. Go to Switch Configuration → Basic Configuration → Link Aggregation → Load Balancing Configuration to configure Load Balancing Mode.

| Load Balancing Configuration Agg | regation Group Configuration |
|----------------------------------|------------------------------|
| Load Balancing Mode | Source and Destination MAC |
| | Save |

Figure 4-3 Load Balancing

Source and Destination MAC

Load balancing is performed based on source and destination MAC addresses on all the packets.

2. Add a link aggregation group in Aggregation Group Configuration.



Figure 4-4 Link Aggregation Group

1) Click Add.

| Aggregation Group | |
|--|---------------------|
| Available Port List | Group Members (0) |
| Ge1 Ge2 Ge3 Ge4 Ge5 Ge6 Ge7 Ge8 | Add >> << Delete |
| | |

Figure 4-5 Add a Link Aggregation Group

- 2) Enter the group number in the Aggregation Group field. The range is from 1 to 8.
- 3) Move the ports that are to be assigned to the group from the **Available Port List** to the **Group Members** list.

iNote

- You can delete the ports from the Group Members by clicking Delete.
- The rate, duplex, flow control, VLAN, and long-range configuration of all ports in one aggregation group must be the same.
- 4) Click **OK** to add a link aggregation group.

4.3 VLAN Configuration

A Virtual Local Area Network (VLAN) is a group of devices located on different LAN segments that are configured to communicate as if they were attached to the same wire. LANs are based on logical instead of physical connections, which is flexible for device connection.

4.3.1 Add a VLAN

Steps

1. Go to Switch Configuration → Basic Configuration → VLAN → 802.1Q VLAN .

2. Click Add.

| 802.1Q VLAN Port Configuration | |
|--------------------------------|------------------|
| $+$ Add \times Delete | |
| VLAN ID | |
| 1 | |
| | |
| | Add |
| | |
| | VLAN ID (1~4094) |
| | |
| | OK |

Figure 4-6 Add a VLAN

3. Enter a VLAN ID.

iNote

- A maximum of 128 VLANs are supported.
- The range is from 1 to 4094.
- 4. Optional: You can also delete a VLAN by clicking Delete.

iNote

You cannot delete the VLAN 1, because VLAN 1 is the Management VLAN.

4.3.2 Configure a Port

Steps

1. Select a port to configure on the **Port Configuration** page.

| 802.1Q VLAN | Port Configuration | _ | | |
|-------------|--------------------|-----------|------|-----------------|
| 🖉 Edit | | | | |
| Port Name | | VLAN Type | PVID | Accessible VLAN |
| Ge1 | | ACCESS | 1 | 1 |
| Ge2 | | ACCESS | 1 | 1 |
| Ge3 | | ACCESS | 1 | 1 |
| Ge4 | | ACCESS | 1 | 1 |
| Ge5 | | ACCESS | 1 | 1 |
| Ge6 | | ACCESS | 1 | 1 |
| Ge7 | | ACCESS | 1 | 1 |
| Ge8 | | ACCESS | 1 | 1 |
| Ge9 | | ACCESS | 1 | 1 |
| Ge10 | | ACCESS | 1 | 1 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | Save | | |

Figure 4-7 VLAN Port Configuration

- 2. Click Edit.
- **3.** Configure the port VLAN.
 - Access Port
 - An access port transports traffic to and from only the specified VLAN, usually the default VLAN, VLAN 1.
 - Select Port VLAN Type as ACCESS, and select the PVID.

| Edit Port VLAN | |
|----------------|--|
| Port | Ge1 |
| Port VLAN Type | • ACCESS O TRUNK |
| PVID | 1 ~ |
| | (i) All ports in the aggregation group will be edited. |
| | OK Cancel |

Figure 4-8 Edit an Access Port VLAN

iNote

All ports in the same aggregation group will be edited automatically at the same time.

- Trunk Port

- A trunk port is a port that is assigned to carry traffic for all the VLANs.
- Select **Port VLAN Type** as **TRUNK**, select the **PVID** and enter the **VLAN** that are allowed to be accessed.

| Ge1 |
|---|
| ⊖ ACCESS ● TRUNK |
| 1 ~ |
| 1-3 (1~4094) |
| All VLANs are allowed to be accessed. |
| () All ports in the aggregation group will be edited. |
| OK Cancel |
| |

Figure 4-9 Edit a Trunk Port VLAN

iNote

- All ports in the same aggregation group will be edited automatically at the same time.
- You can check **All VLANS are allowed to be accessed.** to assign the port to all the VLANs.
- 4. Click OK.
- 5. Click Save to save the configuration.

4.4 QoS Configuration

Quality of Service (QoS) includes the transmission bandwidth, delay, packet loss rate and etc. Increasing network bandwidth, decreasing network delay, and reducing packet losses can improve QoS in network service. You can configure the scheduling mode and port priority of QoS.

Steps

Go to Switch Configuration → Basic Configuration → QoS → Scheduling Mode to select a scheduling type.

| Scheduling Mode | Port Priority | | | | |
|-----------------|-------------------------|------|-----|-------|---|
| | Scheduling Type | | ⊖sp | • WRR | |
| W | eight for Low Priority | 1 | | | ~ |
| We | eight for High Priority | 8 | | | ~ |
| | | Save | | | |
| | | | | | |

Figure 4-10 Scheduling Mode

NORMAL

First In First Out (FIFO) mode. Transmit the message coming in first. QoS is not enabled.

SP

Strict Priority mode. Transmit the message according to the actual priority configuration.

WRR

Weighted Round Robin mode. Transmit the message according to the respective weight for low priority and high priority.

2. Configure the port priority in Port Priority.

| Scheduling Mode | Port Priority | |
|-----------------|---------------|-----------------|
| Port Name | | Priority |
| Ge1 | | High Priority 🗸 |
| Ge2 | | High Priority 🗸 |
| Ge3 | | Low Priority |
| Ge4 | | Low Priority |
| Ge5 | | Low Priority |
| Ge6 | | Low Priority |
| Ge7 | | Low Priority |
| Ge8 | | Low Priority |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | Save |

Figure 4-11 Port Priority

3. Click Save to complete the configuration.

4.5 SNMP Configuration

Simple Network Management Protocol (SNMP) is a widely used application-layer communication protocol for monitoring network performance. SNMP network is composed of the Network Management System (NMS) and the Agent. NMS is the SNMP manager, and Agent sends Traps to NMS.

4.5.1 SNMP Proxy Settings

Steps

1. Go to Switch Configuration → L2 Configuration → SNMP Configuration → SNMP Proxy Settings to configure SNMP proxy.

| SNMP Proxy Settings | SNMP Trap Settings | | |
|---------------------|--------------------|-------------|---|
| | SNMP | | |
| Community Name | | Access Mode | |
| public | | Read-Only | ~ |
| private | | Read/Write | ~ |
| | | | |

Figure 4-12 Proxy Settings

- 1) Enable SNMP.
- 2) Define the Community Name.

Community Name

The community name is an authentication mechanism, similar to a password, which is used to limit the data transmission between NMS and Agent.

- **Read-Only Community Name**: The Community name accessible to NMS with read permission. The default is **public**.
- **Read/Write Community Name**: The Community name accessible to NMS with read and write permission. The default is **private**.
- 3) Click Save.

4.5.2 SNMP Trap Settings

Steps

1. Enable Trap on the SNMP Trap Settings page.

| SNMP Proxy Settings | SNMP Trap Settings | | |
|---------------------|--------------------|---------------|--------------|
| | Trap | | |
| $+$ Add \times De | lete | | |
| Trap Targe | et Host Co | ommunity Name | SNMP Version |
| | | | |
| | | | |

Figure 4-13 Trap Settings

2. Click Add to add a trap.

| Add | | | |
|----------------|------|----|--------|
| Target Host IP | | | |
| Community Name | | | |
| SNMP Version | v1 ~ | | |
| | | ок | Cancel |

Figure 4-14 Add a Trap

Table 4-1 Parameters of a Trap

| Parameter | Description |
|----------------|---|
| Target Host IP | The IP address of NMS. It cannot be the broadcast or multicast address. |
| Community Name | The password used for authentication. Up to 32 bytes can be set. |
| SNMP Version | The Agent supports SNMP Version 1 (SNMPv1) and SNMP Version 2c (SNMPv2c). |
| | i Note |
| | The prerequisite of successful connection between NMS and Agent is that the SNMP version of NMS and Agent must be the same. |

- 3. Click OK.
- **4.** Click **Save** to add a trap.
- 5. Optional: You can check the trap and click **Delete** to delete a trap.

4.6 STP Configuration

Spanning-Tree Protocol (STP) is a Layer 2 link management protocol that provides path redundancy while preventing loops in the network. The STP uses a spanning-tree algorithm to select one switch as the root of a spanning tree. STP determines the topology by transmitting Bridge Protocol Data Unit (BPDU) packets between devices. Spanning-tree operation creates a stable network.

4.6.1 Global Configuration

Steps

1. Go to Switch Configuration → L2 Configuration → STP Configuration → Global Configuration .

2. Check Enable STP.

| Global Configuration STP Port Confi | guration STP Status | |
|-------------------------------------|---|--|
| | (i) The maximum aging time must meet the Maximum Aging Time ≥ 2 × (Hello Time Maximum Aging Time ≤ 2 × (Forwardi) | he following conditions: ne + 1) ng Delay - 1) |
| Enable STP | \checkmark | |
| STP Mode | RSTP V | |
| Bridge Priority | 32768 | 0 |
| Hello Time | 2 | s 🤣 |
| Maximum Aging Time | 20 | s 🤣 |
| Forwarding Delay | 15 | s 🤡 |
| | Save | |

Figure 4-15 Global Configuration

3. Configure the parameters.

| Parameter | Description |
|--------------------|---|
| STP Mode | STP: Spanning-tree protocol. RSTP: Rapid spanning-tree protocol. RSTP provides faster spanning tree convergence after a topology change. |
| Bridge Priority | The lower the number is, the higher the priority is. The range is from 0 to 61,440 seconds, in increments of 4096; the default is 32,768. Valid values are 0, 4096, 12288, 16384 and 61440. A switch with higher bridge priority is more likely to become a root bridge. |
| Hello Time | The time between each BPDU that is sent on a port, which is used for port link diagnosis. The range is from 1 to 10 seconds. The default is 2 seconds. |
| Maximum Aging Time | The maximum length of time that passes before a bridge port saves its configuration BPDU information. |

| Parameter | Description |
|------------------|--|
| | The range is from 6 to 40 seconds. The default is 20 seconds. |
| | i Note |
| | The maximum aging time must meet the following conditions: |
| | Maximum Aging Time ≥ (Hello Time + 1) Maximum Aging Time ≤ (Forwarding Delay - 1) |
| | |
| Forwarding Delay | The time interval that is spent in the listening and learning state when the topology changes. The range is from 4 to 30 seconds. The default is 15 seconds. |

4. Click Save.

4.6.2 STP Port Configuration

If a loop occurs, you can set port priority so that the spanning tree can select the port with the highest priority to forward data.

Steps

1. The port is enabled by default on the **STP Port Configuration** page.

| Global Configuration | STP Port Configuration | STP Status |
|----------------------|------------------------|---------------|
| Port Name | Port | Port Priority |
| Ge1 | | 128 |
| Ge2 | | 128 |
| Ge3 | | 128 |
| Ge4 | | 128 |
| Ge5 | | 128 |
| Ge6 | | 128 |
| Ge7 | | 128 |
| Ge8 | | 128 |
| Ge9 | | 128 |
| Ge10 | | 128 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | Si | ave |

Figure 4-16 Port Priority

2. Configure the Port Priority.

Port Priority

- The lower the number is, the higher the priority is, the more probably the port becomes the root port.
- The range is from 0 to 240, in increments of 16; the default is 128. Valid values are 0, 16, 32, 48, 64, 80, 96, 112, 128, 144, 160, 176, 192, 208, 224, and 240.

iNote

If the priority of the port is the same, spanning tree uses the port ID to select a port as the root port.

3. Click Save.

4.6.3 STP Status View

You can check the global status of STP settings and the status of each port.

Go to Switch Configuration \rightarrow L2 Configuration \rightarrow STP Configuration \rightarrow STP Status .

| Global Configuration STP Port Configuration | STP Status | | | |
|---|-------------------------|-----------------|-------------|---|
| Global Status | | | | |
| Bridge ID | 32768:b4-a3-82-ec-03-af | | | |
| Root Bridge ID | 32768:b4-a3-82-ec-03-aa | | | |
| Root Bridge Hello Time | 2 | | | |
| Root Bridge Maximum Aging Time | 20 | | | |
| Root Bridge Forwarding Delay | 15 | | | |
| Port Status | | | | |
| Port Name | Path Cost | Port Role | Port Status | |
| Ge1 | 20000 | Disable Port | disabled | ^ |
| Ge2 | 20000 | Disable Port | disabled | |
| Ge3 | 200000 | Designated Port | forwarding | |
| Ge4 | 20000 | Disable Port | disabled | |
| Ge5 | 20000 | Disable Port | disabled | |
| Ge6 | 20000 | Disable Port | disabled | |
| Ge7 | 20000 | Disable Port | disabled | ~ |
| | | | | |

Figure 4-17 STP Status

4.7 PoE Management

PoE Settings

| PoE Settings | PoE Watchdog | |
|--------------|--------------|-----|
| Port Name | | PoE |
| Ge1 | | |
| Ge2 | | |
| Ge3 | | |
| Ge4 | | |
| Ge5 | | |
| Ge6 | | |
| Ge7 | | |
| Ge8 | | |

Figure 4-18 PoE Settings

You can enable PoE to supply power for the powered devices (PDs).

iNote

Enabling or disabling PoE has no influences on data transmission of the port.

PoE Watchdog

| | PoE Watchdog | PoE Settings |
|---|--------------|--------------|
| | PoE Watch | |
| С | PoE Watche | |

Figure 4-19 PoE Watchdog

You can enable PoE watchdog to auto-detect and restart cameras that do not respond.

Chapter 5 System Management

5.1 Time Sync

Steps

1. Go to **System Settings** → **Time Settings** . You can view the **Device Time**.

| Time Settings | |
|-------------------|---------------------------------------|
| Time Zone | (GMT+00:00) Dublin, Edinburgh, London |
| Device Time | 2019-09-12 21:50:51 |
| Time Sync. Method | Manual Time Sync. ONTP Time Sync. |
| Time Sync | 2019-09-12 21:50:45 |
| | Save |

Figure 5-1 Time Settings

- 2. Select Time Zone.
- 3. Select Time Sync. Method
- **4.** Set time synchronization mode.
 - Manual Time Sync.: Click 📾 or check Sync. with computer time to synchronize the device time.

| Time Sync. Method | Manual Time Sync. | O NTP Time Sync. | |
|-------------------|---------------------|------------------|--------------------------|
| Time Sync | 2019-09-12 22:36:13 | # | Sync. with computer time |

Figure 5-2 Manual Sync

- NTP Time Sync.: Enter the NTP Server Address, and set the time sync. interval.

| Time Sync. Method | O Manual Time Sync. | NTP Time Sync. | |
|----------------------|---------------------|----------------|-----------------------|
| Server Address | | | Sincorrect IP Address |
| NTP Port | 123 | | • |
| Interval Calibration | 60 | | min🥑 |

Figure 5-3 NTP Sync

5. Click Save.

5.2 Device Operation

When the switch malfunctions or fails to work properly, you can go to **System Management** \rightarrow **System Maintenance** \rightarrow **Device Operation** to restart or restore the switch.

| Device Operation | | |
|----------------------------|--------------------|---|
| Device Restart | Restart | Restart the device. |
| Restore Default Parameters | Simply Restore | Except network parameters and user parameters, the parameters are restored to the default settings. |
| | Completely Restore | Completely restore the parameters to default settings. |

Figure 5-4 Device Operation

iNote

Enter the login page automatically after you restart or restore the switch.

Restart

Click Restart to remotely restart the switch.

Restore

- **Simply Restore**: Except network configuration and user parameters, all of the other parameters are restored to the default settings.
- Completely Restore: Completely restore the parameters to default settings.

Parameters cannot be recovered after being restoring to default settings.

5.3 Configuration File Export

You can export the configuration file for local backup.

Steps

- 1. Go to System Management → System Maintenance → Export & Import .
- 2. Click Export.
- 3. Set a password for the exported configuration file.

| Export & Import | | |
|---------------------------|--------|------------|
| Export Configuration File | Export | |
| Import Configuration File | | Import |

Figure 5-5 Export Configuration file

iNote

Please remember the password, because you need to enter the password when importing the configuration files.

4. Click OK.

5.4 Configuration File Import

You can import the configuration file to configure the system easily.

Steps

1. Go to System Management → System Maintenance → Export & Import .

| port & Impor | t | | |
|--------------|---------------------------|--------|------------|
| | Export Configuration File | Export | |
| | Import Configuration File | | Import |
| | | | |

Figure 5-6 Export Configuration file

- 2. Click --- to select the configuration file.
- 3. Click Import.

The device will restart automatically to enter the login page when the configuration file is imported.

5.5 Device Upgrade

You can upload the upgrade file to upgrade your switch.

Steps

```
1. Go to System Management → System Maintenance → Device Upgrade
```

Device Upgrade
Select Upgrade File
Upgrade File
Upgrade
The upgrading process will take 1 to 10 minutes, and please do not turn off the device during the process. The device will go to the login page automatically after upgrade.

Figure 5-7 Upgrade

- **2.** Click … to select an upgrade patch.
- 3. Click Upgrade.

iNote

If upgrading failed or the device cannot function, please contact our technical support engineers.

Result

The device will restart automatically to enter the login page when upgrade finished.

5.6 Log Management

System operation logs can be searched and exported for backup.

Steps

1. Go to System Management → Log Management .

| | Major Type | Operation | ~ | Start Time | 1970-01-01 00:00:00 | 2 | Search | |
|-----------|---------------------|------------|---------------------|-----------------|---------------------|----------|--|---|
| | Minor Type | All Types | ~ | End Time | 2019-09-12 23:59:59 | 2 | | |
| C, Exp | ort | | | | | | | |
| No. | Operation Time | Major Type | Minor Type | Remote Operator | Remote Host Address | | Description | |
| 1 | 2019-09-12 21:34:57 | Operation | Remote Login | admin | 10.6.114.16 | | Remote Login(web) | ^ |
| 2 | 2019-09-12 19:33:06 | Operation | Remote Login | admin | 10.6.114.16 | | Remote Login(web) | |
| 3 | 2019-09-12 17:38:38 | Operation | Remote Login | admin | 10.6.114.16 | | Remote Login(web) | |
| 4 | 2019-09-12 16:45:55 | Operation | Remote Export Confi | admin | 10.6.114.16 | | REMOTE_CFGFILE_OUTPUT | |
| 5 | 2019-09-12 16:27:20 | Operation | Remote Login | admin | 10.6.114.16 | | Remote Login(web) | |
| 6 | 2019-09-12 16:24:29 | Operation | Remote Login | admin | 10.12.99.11 | | Remote Login(web) | |
| 7 | 2019-09-12 16:24:14 | Operation | Start Up | | | | Power On | |
| 8 | 2019-09-12 16:23:33 | Operation | Remote Import Confi | admin | 10.12.99.11 | | REMOTE_CFGFILE_INPUT | |
| 9 | 2019-09-12 16:22:46 | Operation | Remote Export Confi | admin | 10.12.99.11 | | REMOTE_CFGFILE_OUTPUT | |
| 10 | 2019-09-12 15:56:54 | Operation | Remote Login | admin | 10.6.114.16 | | Remote Login(web) | |
| 11 | 2019-09-12 15:43:19 | Operation | Remote Login | admin | 10.25.207.111 | | Remote Login(web) | |
| 12 | 2019-09-12 15:36:36 | Operation | Remote Login | admin | 10.25.219.170 | | Remote Login(web) | |
| 13 | 2019-09-12 15:36:09 | Operation | Remote Login | admin | 10.12.99.11 | | Remote Loain(web) | |
| 15 PCs in | total Page 1/1 | | | | | Κ < | > > 20 ✓ PCs per page 1 Go | |

Figure 5-8 Log Management

- 2. Set search conditions, including Major Type, Minor Type, Start Time and End Time.
- 3. Click Search.

iNote

A maximum of 2000 search results can display. Please narrow down the search scope if there are too many search results.

4. Optional: Click Export to export all the search results.

iNote

Logs can be exported in Excel. A prompt window will pop up when the logs are exported successfully.

5.7 Network Diagnostics

With network diagnostics, troubleshooting engineers can locate network faults quickly.

Steps

1. Go to System Management → System Tools → Network Diagnostics .

| Network Diagnostics | | | | |
|---------------------|---|--|--|--|
| IP Address | 10.12.99.90 PING | | | |
| Collected Data | a PING 10.12.99.90 (10.12.99.90): 56 data bytes | | | |
| | 64 bytes from 10.12.99.90: icmp_seq=0 ttl=64 time=0.0 ms | | | |
| | 64 bytes from 10.12.99.90: icmp_seq=1 ttl=64 time=0.0 ms | | | |
| | 64 bytes from 10.12.99.90: icmp_seq=2 ttl=64 time=0.0 ms | | | |
| | 64 bytes from 10.12.99.90: icmp_seq=3 ttl=64 time=0.0 ms | | | |
| | | | | |
| | 10.12.99.90 ping statistics | | | |
| | 4 packets transmitted, 4 packets received, 0% packet loss | | | |
| | round-trip min/avg/max = 0.0/0.0/0.0 ms | | | |
| | | | | |

Figure 5-9 Network Diagnostics

2. Enter the IP address of the server, and click PING.

5.8 User Management

Regularly change the password can guarantee the security of the device.

Steps

- **1.** Go to **System Management** → **User Management** .
- 2. Click Edit.

| 🖉 Edit | | | |
|--------|------|---|--|
| No. | | User Name | |
| 1 | | admin | |
| | Edit | User Name Old Password New Password Confirm Password | admin 8 to 16 characters allowed, including at least 2 of the following types: digits, lower-case letters, upper- case letters, and special characters. |
| | | | OK Cancel |

Figure 5-10 User Management

- **3.** Enter the old password.
- 4. Enter a new password and confirm it.
- 5. Click OK.

5.9 Security Management

SSH



Figure 5-11 Security Management

The device supports SSH security service. SSH can prevent the information leakage in the remote management of the device. SSH is disabled by default.

iNote

The user name of SSH is *root*, and the password is the device login password.

SADP

After enabling SADP, you can activate the device, change the password and the network information, and etc. SADP is enabled by default.

5.10 Configure Network

Configure network and Ezviz parameters for the device.

Steps

- 1. Configure basic network parameters.
 - 1) Go to System Management → Network Configuration → Basic Config.
 - 2) Enter IP Address, Mask Address, Gateway Address, DNS, and Alternative DNS Server.
 - 3) Click Save.
- 2. Set and check Ezviz information.
 - 1) Go to System Management → Network Configuration → Ezviz Config.
 - 2) Enable or disable Ezviz.
 - 3) Enter operation code of Ezviz.
 - 4) Click Save.

