



**SANGFOR**

# **IAM**

## Multi Bridge Mode Deployment Guide

Version 12.0.13

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## Change Log

Date	Change Description

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## Chapter 1 Functionality Summary

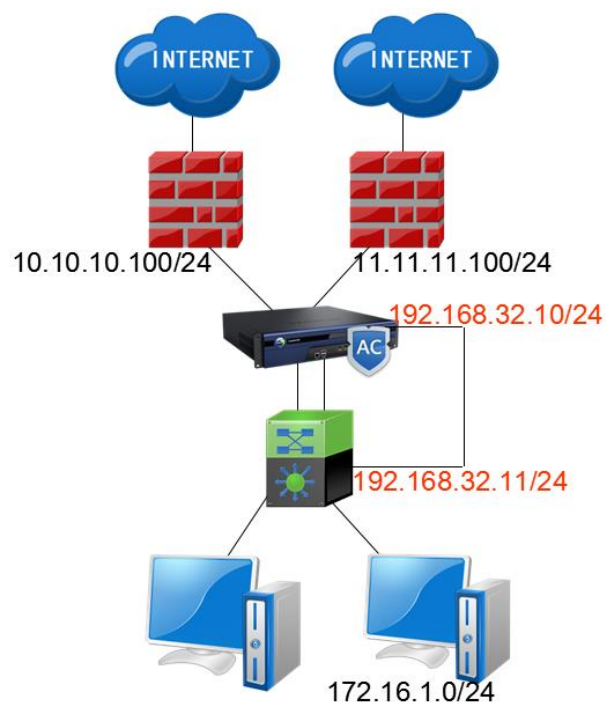
1. The device needs to be serve as a network cable with filtering function. It is generally enabled when it is not convenient to change the original network topology.
2. Connect the device between the original gateway and the intranet users. If the original gateway and the intranet users do not need to make any configuration changes, they can use the device by doing some configuration.
3. The existence of the device is not known for the original gateway and intranet users which is transparent to the original gateway and intranet users. The main feature of the bridge mode is that the bridge mode is completely transparent to the user.

## Chapter 2 Application Scenario

When the device is deployed in multi-bridge mode, there is basically no change to the customer's original network. When the IAM is deployed in the bridge mode, the IAM is a transparent device for the customer. If IAM device is causing netowrk down, hardware bypass function can be enabled to resume network communication.

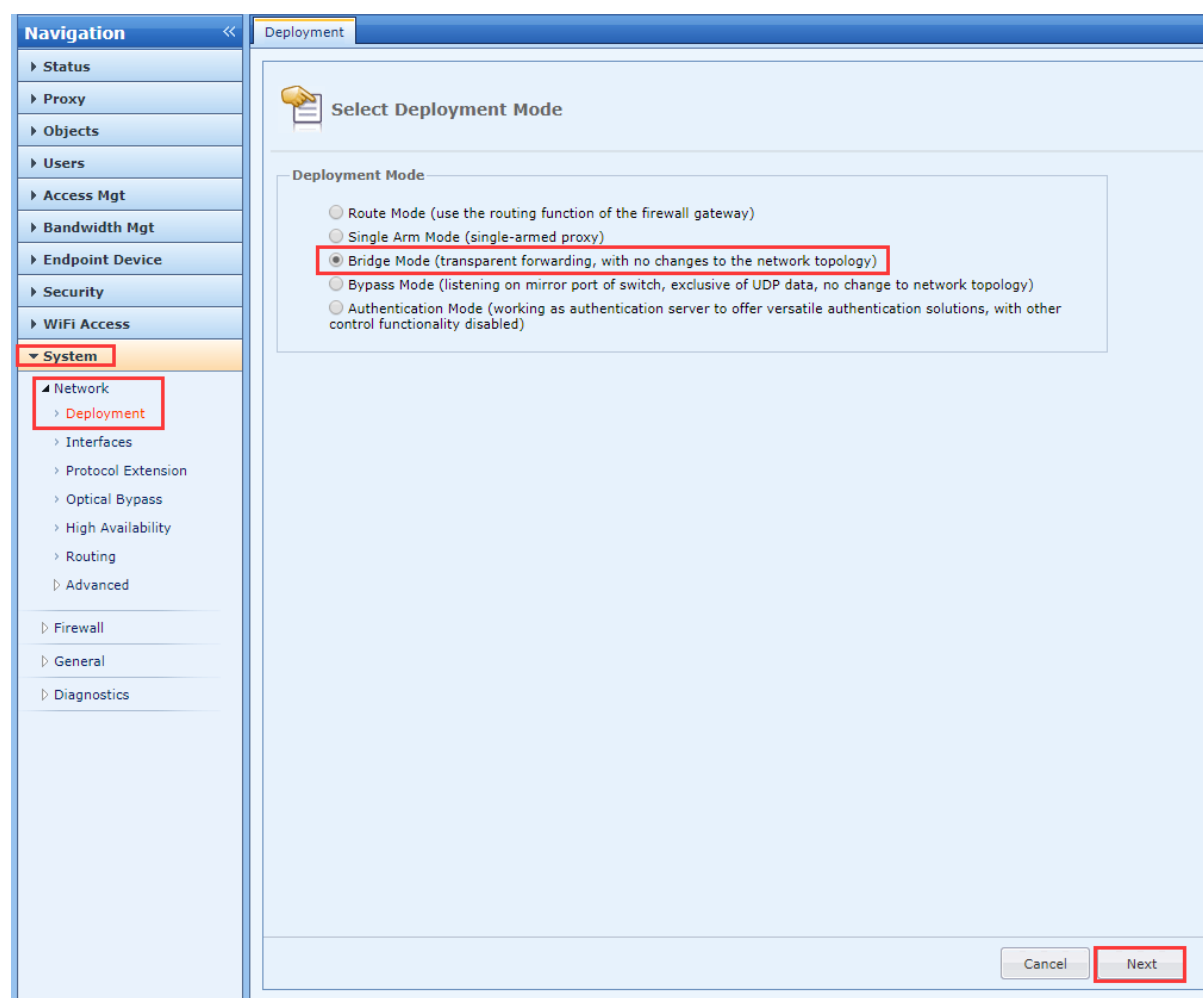
## Chapter 3 Configuration

### 3.1 Scenario 1 : Recommend to use DMZ port to manage device



The configuration on the IAM can be divided into the configuration for deployment mode and static routes. The details are as follows:

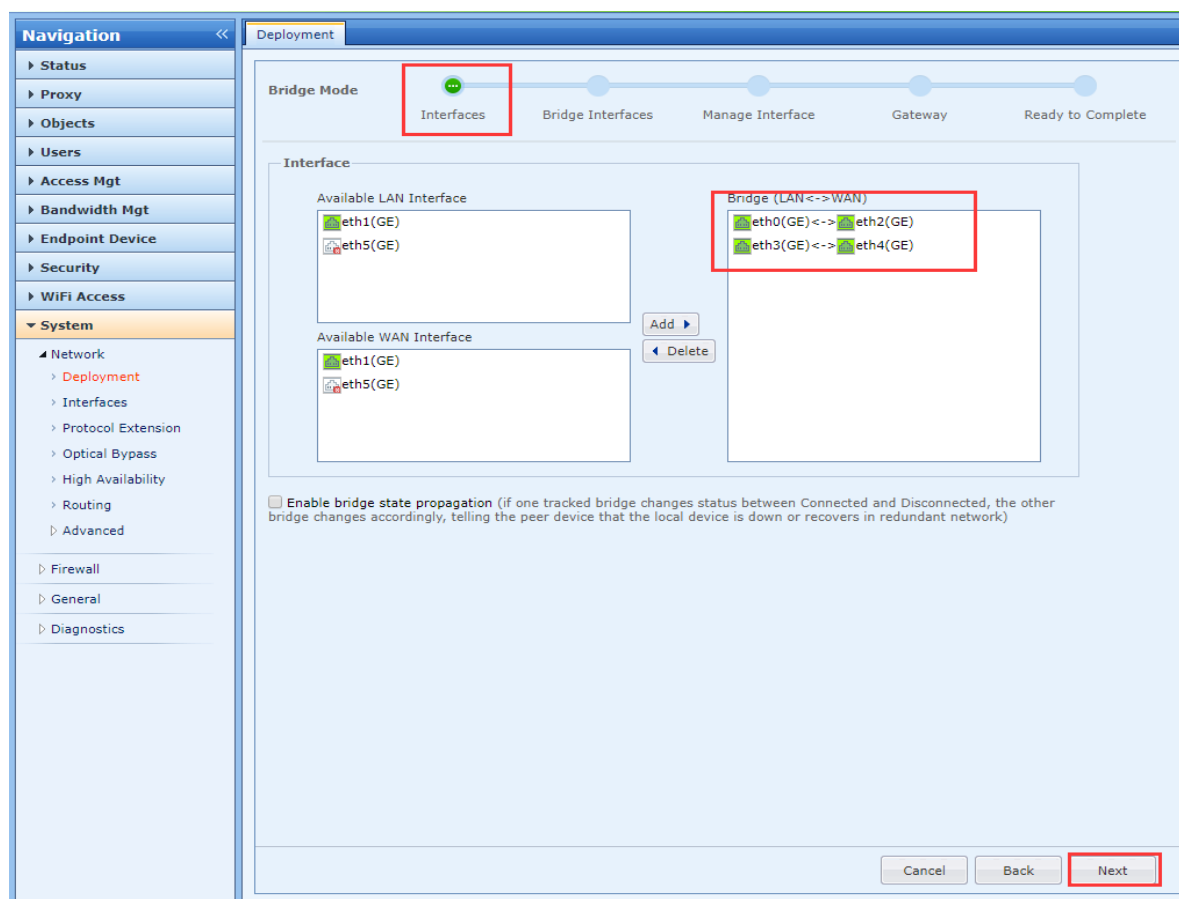
1. In **Deployment**, start the configuration by selecting Bridge Mode as shown below.



In **Interfaces**, select Bridge (LAN $\longleftrightarrow$ WAN), bridge state propagation is enable by default.

[Note]

- “Enable bridge state propagation” function is enable by default, the selected Bridge (LAN $\longleftrightarrow$ WAN) whether support state propagation will show in Interfaces Tracking.
- You can select one pair of interfaces for a bridge or multiple pair of interfaces for multi-bridge based on customer’s network environment.



b. In **Bridge Interfaces**, do not need to configure bridge IP.

**Navigation**

- Status
- Proxy
- Objects
- Users
- Access Mgt
- Bandwidth Mgt
- Endpoint Device
- Security
- WiFi Access
- ▼ **System**
  - Network
    - **Deployment**
    - Interfaces
    - Protocol Extension
    - Optical Bypass
    - High Availability
    - Routing
    - Advanced
  - Firewall
  - General
  - Diagnostics

**Deployment**

Bridge Mode

Interfaces Bridge Interfaces Manage Interface Gateway Ready to Complete

**Bridge1(eth0<->eth2)** Bridge2(eth3<->eth4)

☐ IPv4

IP Address: One entry per row. IP address, subnet and VLAN ID support. Examples:  
200.200.20.1/255.255.255.0, 88/200.200.20.5/255.255.255.0  
192.168.19.76/255.255.255.0

☐ IPv6

Cancel Back Next



**Navigation**

- Status
- Proxy
- Objects
- Users
- Access Mgt
- Bandwidth Mgt
- Endpoint Device
- Security
- WiFi Access
- ▼ **System**
  - ▴ Network
    - **Deployment**
    - Interfaces
    - Protocol Extension
    - Optical Bypass
    - High Availability
    - Routing
    - Advanced
  - Firewall
  - General
  - Diagnostics

**Deployment**

Bridge Mode

Interfaces Bridge Interfaces Manage Interface Gateway Ready to Complete

Bridge1(eth0<->eth2) **Bridge2(eth3<->eth4)**

☒ **IPv4**

IP Address: One entry per row. IP address, subnet and VLAN ID support. Examples:  
200.200.20.1/255.255.255.0, 88/200.200.20.5/255.255.255.0  
Examples: 200.200.20.1/255.255.255.0  
88/200.200.20.5/255.255.255.0

☐ **IPv6**

Cancel Back **Next**

b. In **Manage Interface**, configure manage interface IP.

**Navigation** << Deployment

**Bridge Mode**

Interfaces Bridge Interfaces **Manage Interface** Gateway Ready to Complete

Manage Interface: eth1

☒ IPv4

IP Address: One entry per row. IP address, subnet and VLAN ID support. Examples:  
200.200.20.1/255.255.255.0, 88/200.200.20.5/255.255.255.0  
192.168.32.10/255.255.255.0

☐ IPv6

Cancel Back **Next**

c. In **Gateway**, configure gateway IP address. Gateway point to device address that IAM manage interface connected.

The screenshot displays the 'Deployment' configuration page in the IAM interface. The left sidebar shows a navigation menu with categories like Status, Proxy, Objects, Users, Access Mgt, Bandwidth Mgt, Endpoint Device, Security, WiFi Access, and System. The 'System' category is expanded, showing sub-items like Network, Deployment, Interfaces, Protocol Extension, Optical Bypass, High Availability, Routing, Advanced, Firewall, General, and Diagnostics. The main content area is titled 'Bridge Mode' and shows a progress bar with five steps: Interfaces, Bridge Interfaces, Manage Interface, Gateway, and Ready to Complete. The 'Gateway' step is currently active. Below the progress bar, there are two sections: 'IPv4' and 'IPv6'. The 'IPv4' section is selected and contains three input fields: 'Default Gateway' (192.168.32.11), 'Preferred DNS' (8.8.8.8), and 'Alternate DNS' (8.8.4.4). The 'IPv6' section is unselected. Below these sections, there is a checkbox for 'Bypass firewall rule' (recommended, this allows data flow between WAN and LAN interfaces), which is checked. At the bottom right, there are three buttons: 'Cancel', 'Back', and 'Next'. The 'Next' button is highlighted with a red border.

Navigation: << Deployment

Bridge Mode

Progress: Interfaces (✓) Bridge Interfaces (✓) Manage Interface (✓) Gateway (●) Ready to Complete

IPv4 configuration:

- Default Gateway: 192.168.32.11
- Preferred DNS: 8.8.8.8
- Alternate DNS: 8.8.4.4

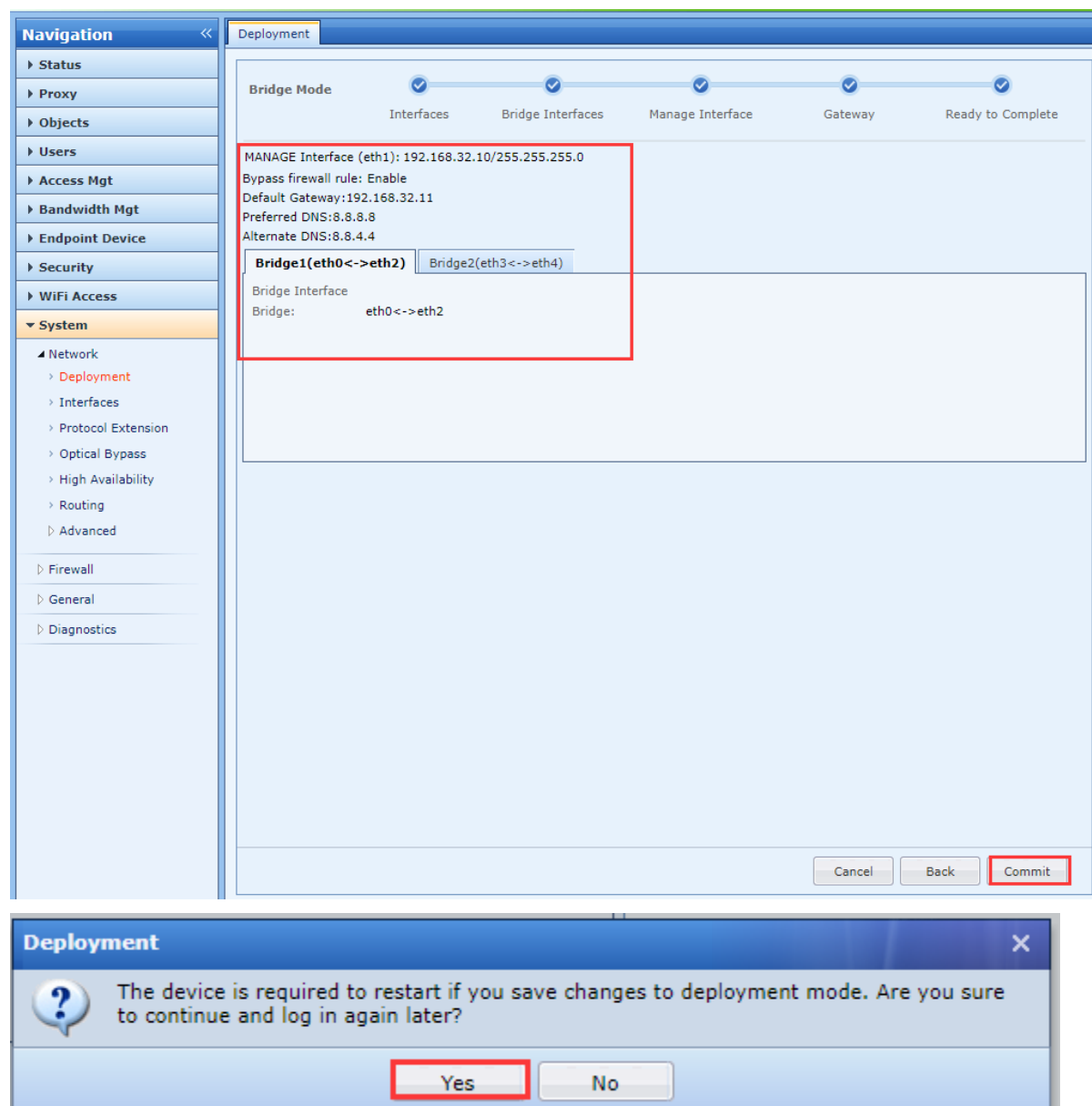
IPv6 configuration:

- ☐ IPv6

Bypass firewall rule (recommended, this allows data flow between WAN and LAN interfaces)

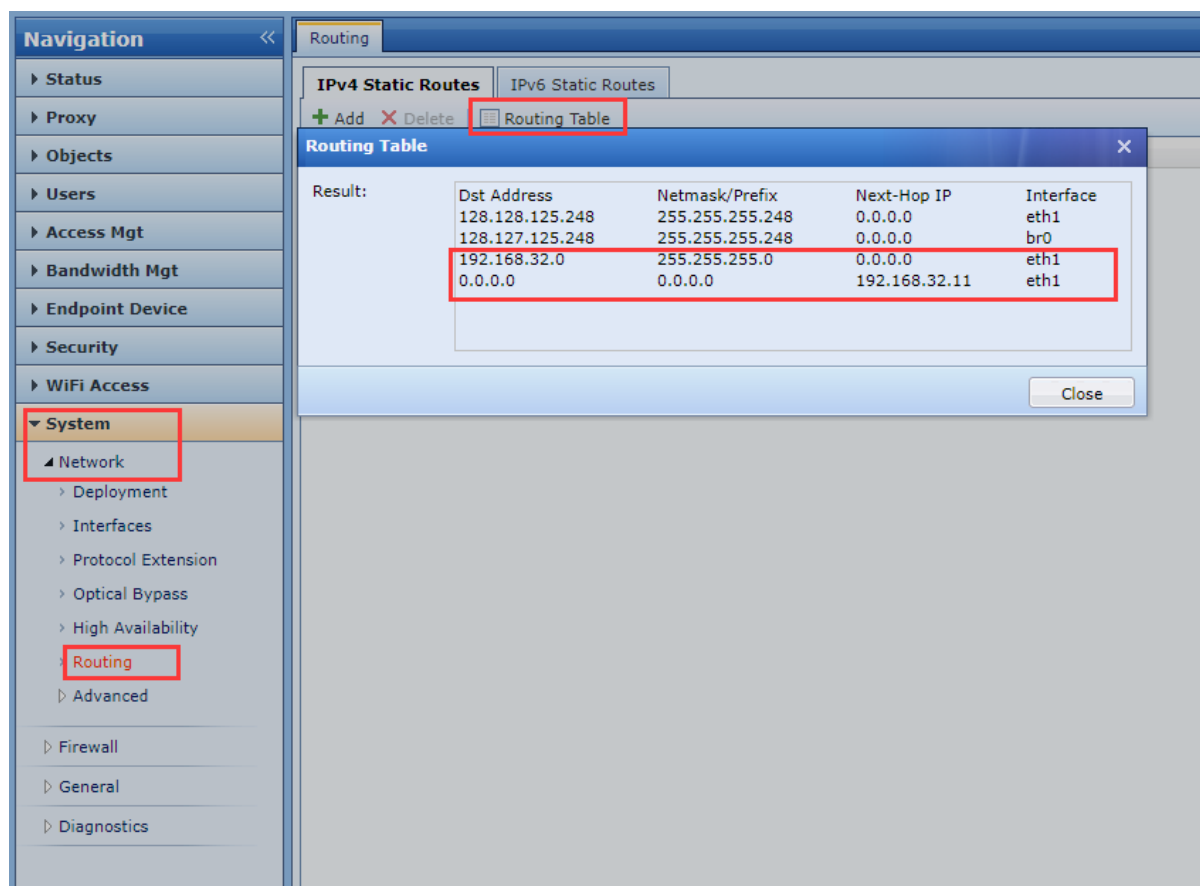
Buttons: Cancel Back Next

d. When click “Commit” in **Ready to Complete**, it will remind the device require to restart. When the device restart successfully after select “Yes”, the manage interface able to manage the device.



## 2. Add new static route

The default gateway already configure in deployment mode will automatically generate default route.

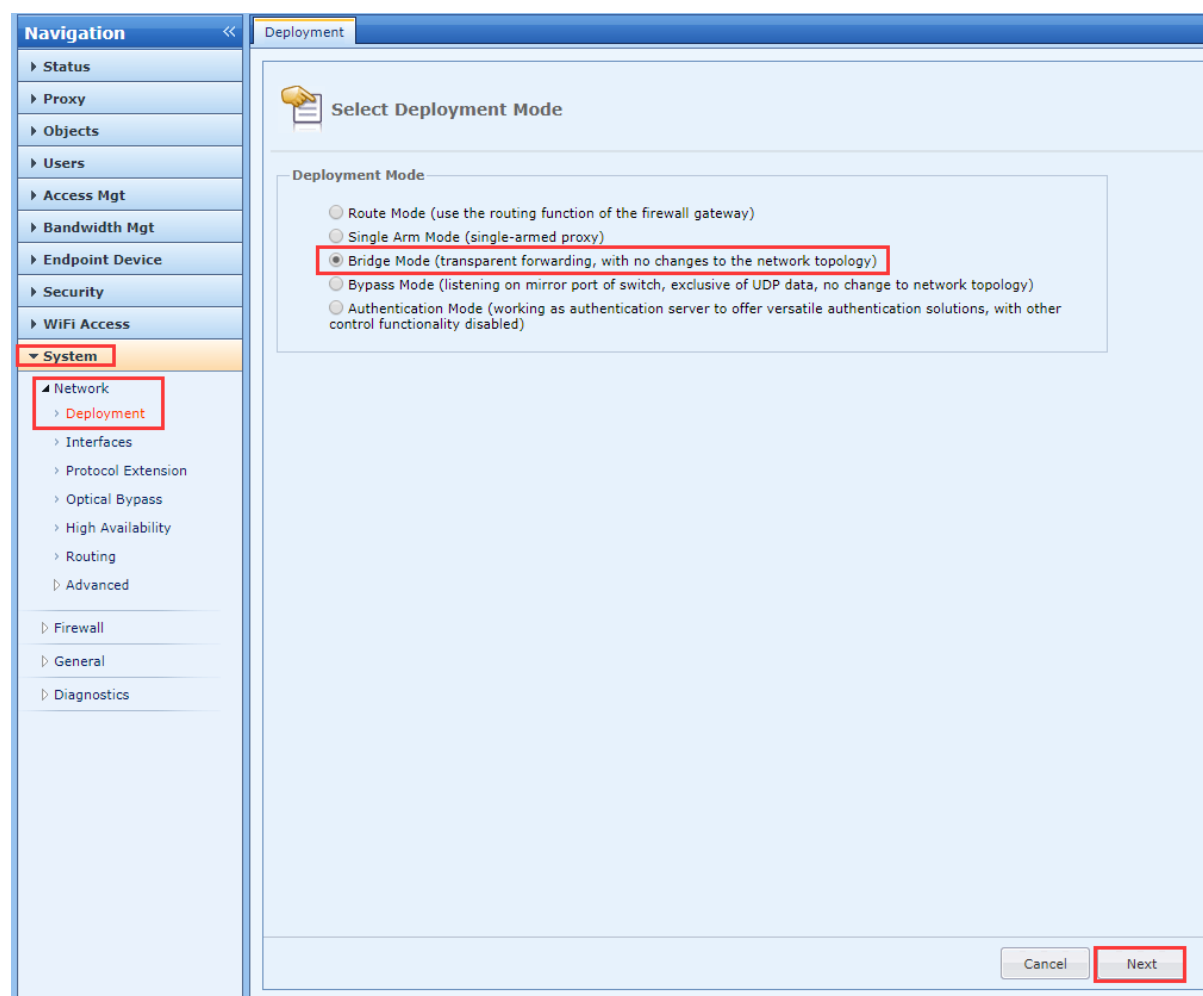


3. Add new authentication policy.

Based on the customer requirement to configure relevant authentication policy and the device is ready to be used in the network.

## 3.2 Scenario 2: The device does not have idle interface and require to use bridge IP to manage devices.

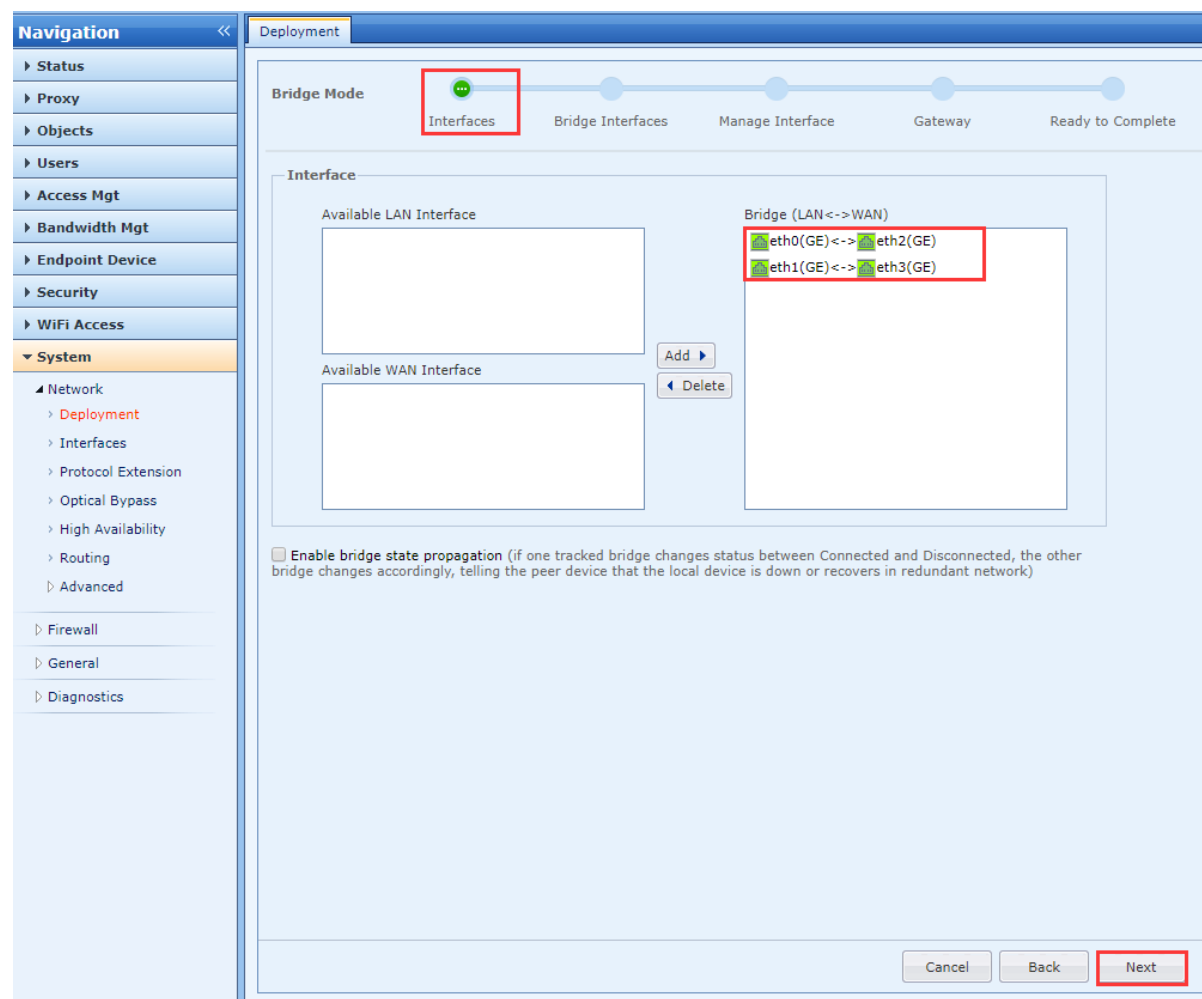
1. In **Deployment**, start the configuration by selecting Bridge Mode as shown below.



a. In **Interfaces**, select Bridge (LAN $\longleftrightarrow$ WAN), bridge state propagation is enable by default.

[Note]

- “Enable bridge state propagation” function is enable by default, the selected Bridge (LAN $\longleftrightarrow$ WAN) whether support state propagation will show in Interfaces Tracking.
- You can select one pair of interfaces for a bridge or multiple pair of interfaces for multi-bridge based on customer’s network environment.



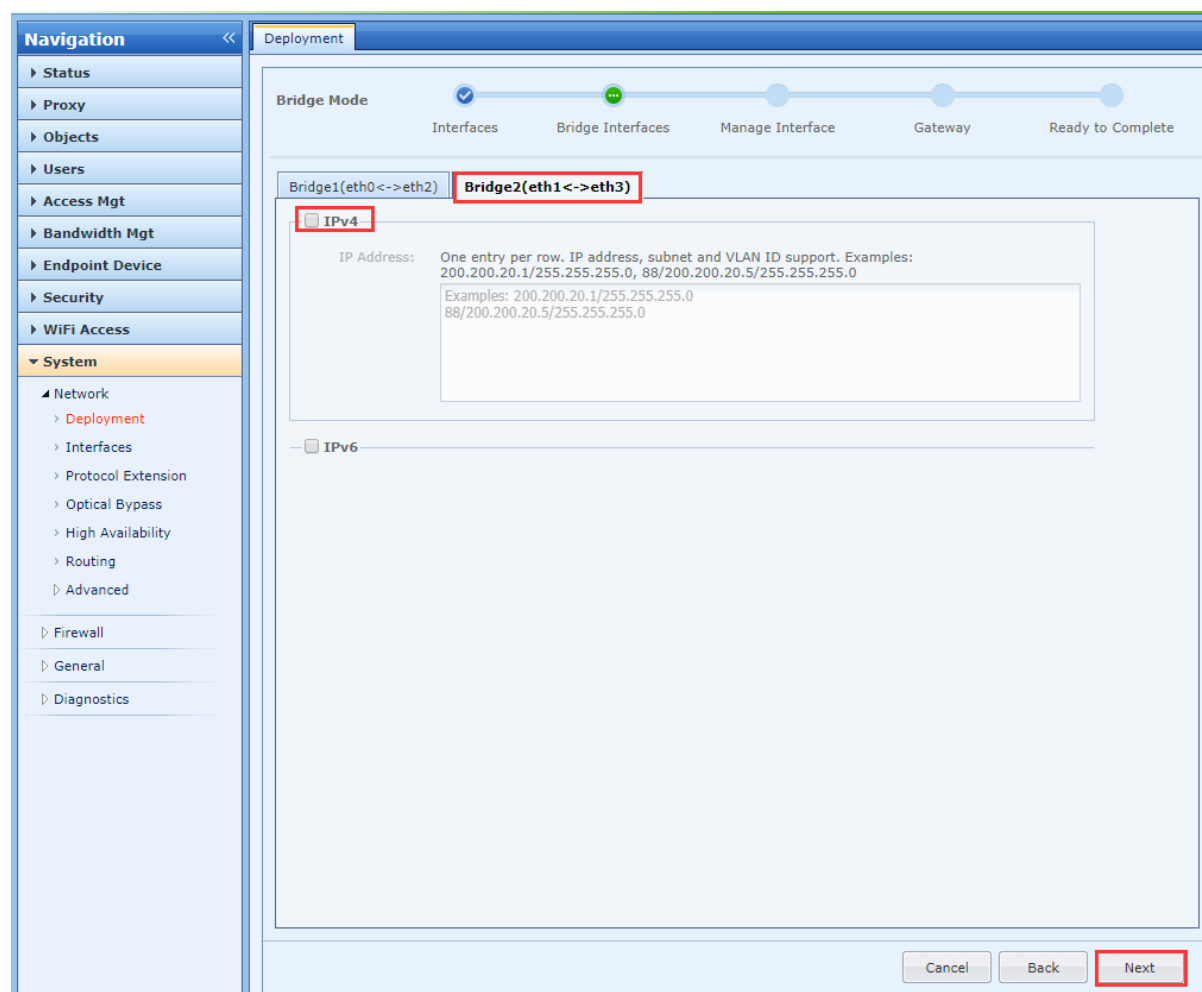
b. In **Bridge Interfaces**, configure a usable bridge IP for the bridge to manage the device. Bridge IP configuration support both IPV4 and IPV6, select based on the network environment.

### 1. Configure IP for Bridge 1.

The screenshot shows the 'Bridge Mode' configuration window. The 'Deployment' tab is active, and the progress bar indicates the current step is 'Bridge Interfaces'. The 'Bridge1(eth0<->eth2)' tab is selected. Under the 'IPv4' section, the 'IP Address' field is configured with '10.10.100.200/24'. The 'IPv6' section is collapsed. Navigation buttons 'Cancel', 'Back', and 'Next' are at the bottom right.

### 1. No configuration for another Bridge.





[Note]

No matter how many sets of bridges are configured, select one set of bridges to configure the bridge IP to manage the devices. Other bridges do not need to configure the bridge IP.

c. In **Manage Interface**, select **None** for the interface.

The screenshot displays the 'Deployment' configuration page for Bridge Mode. The left sidebar shows the 'System' menu with 'Network' expanded. The main content area features a progress bar with five steps: 'Interfaces', 'Bridge Interfaces', 'Manage Interface' (current step), 'Gateway', and 'Ready to Complete'. Below the progress bar, the 'Manage Interface' dropdown is set to 'None'. The 'IP Address' field contains the following text: 'One entry per row. IP address, subnet and VLAN ID support. Examples: 200.200.20.1/255.255.255.0, 88/200.200.20.5/255.255.255.0' and '10.252.252.252/255.255.255.0'. The 'Next' button is highlighted in red.

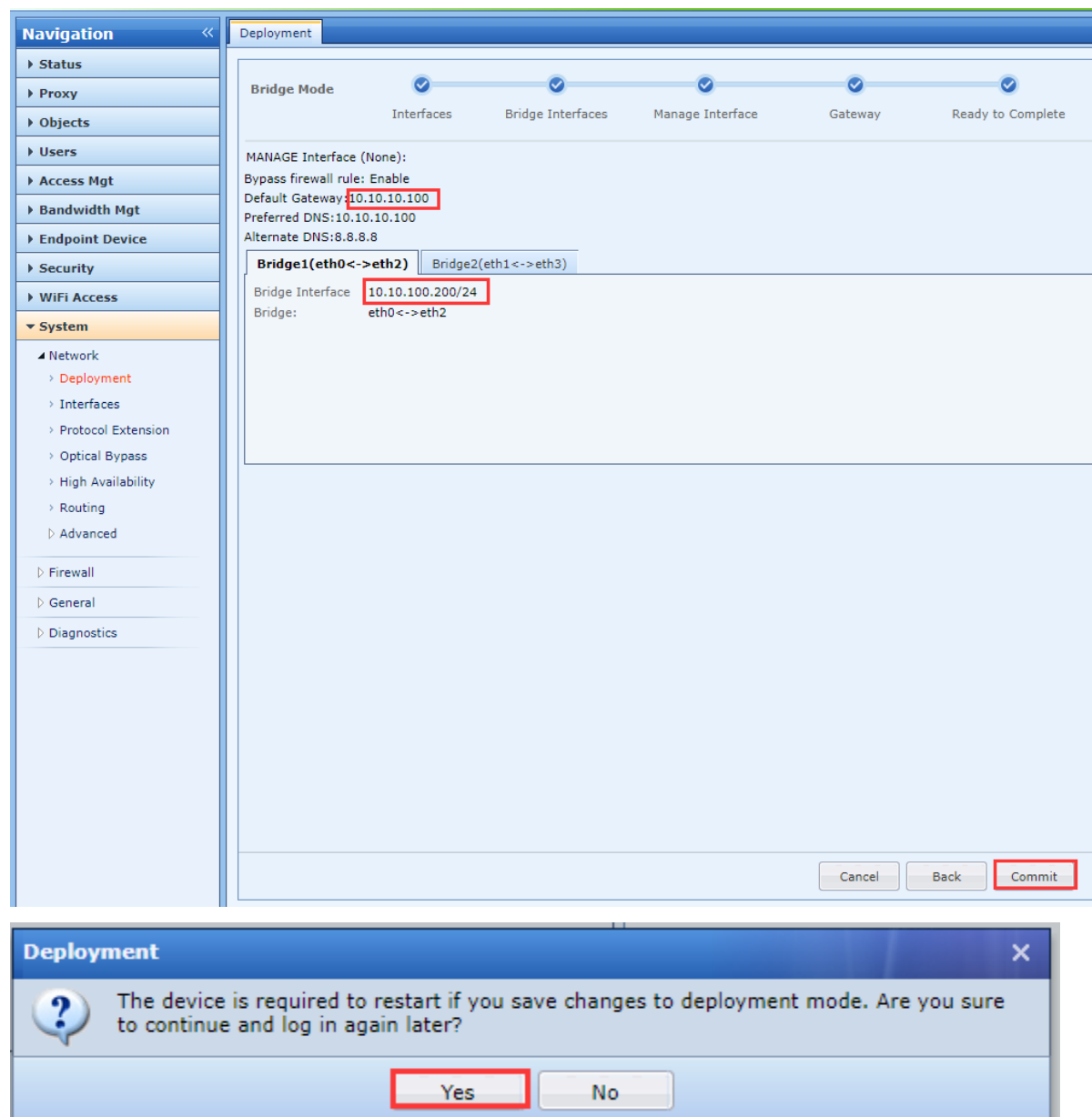
d. In **Gateway**, configure gateway IP address. Gateway point to device address that IAM WAN interface connected.

The screenshot displays the IAM configuration interface. On the left is a navigation menu with categories: Status, Proxy, Objects, Users, Access Mgt, Bandwidth Mgt, Endpoint Device, Security, WiFi Access, and System. The System category is expanded, showing sub-items: Network (with Deployment, Interfaces, Protocol Extension, Optical Bypass, High Availability, Routing, and Advanced), Firewall, General, and Diagnostics. The main panel is titled 'Deployment' and shows a progress bar with five steps: Interfaces, Bridge Interfaces, Manage Interface, Gateway (current step), and Ready to Complete. The 'Gateway' step is highlighted with a green circle. Below the progress bar, the 'Bridge Mode' section is active. It contains a red-bordered box with the following fields: 'IPv4' (checked), 'Default Gateway' (10.10.10.100), 'Preferred DNS' (10.10.10.100), and 'Alternate DNS' (8.8.8.8). Below this box, there is an unchecked 'IPv6' option and a checked 'Bypass firewall rule' option with a note: '(recommended, this allows data flow between WAN and LAN interfaces)'. At the bottom right, there are three buttons: 'Cancel', 'Back', and 'Next' (highlighted with a red border).

[Note]

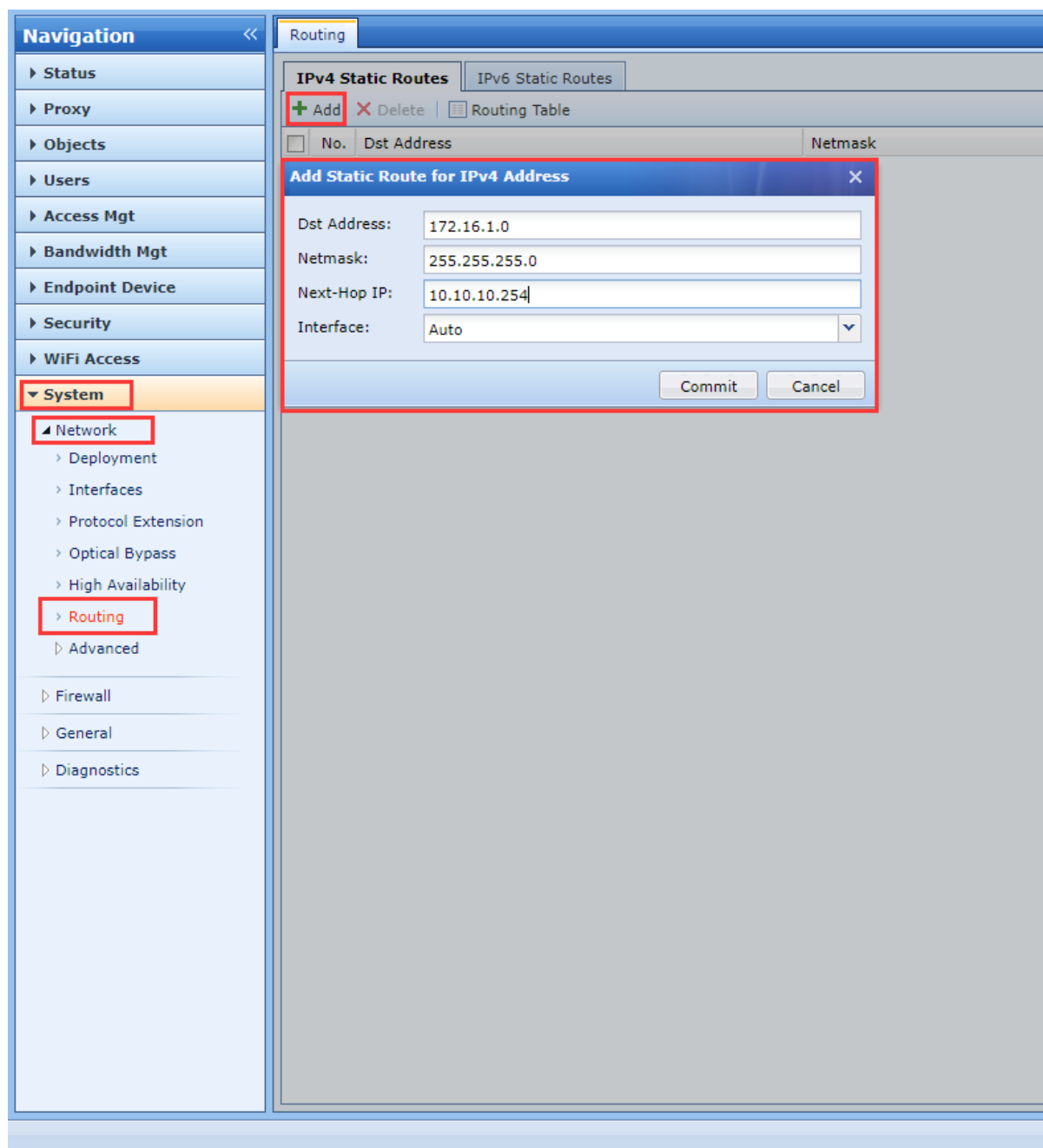
In a multi-bridge environment, you only need to configure one gateway address which can access the Internet.

e. When click “Commit” in **Ready to Complete**, it will remind the device require to restart. When the device restart successfully after select “Yes”, the bridge interface able to manage the device.



## 2. Add new statis route.

If the internal network and the IAM are in a layer three environment, static route need to be configure for the internal network. Otherwise, the device cannot be redirected which cause some pages unable to be redirect such as authentication page.



### 3. Add new authentication policy.

Based on the customer requirement to configure relevant authentication policy and the device is ready to be deploy in the network.

## Chapter 4 Precautions

4.1 Multi-bridge has no special protocol redirection function. By default, the device virtual address is used for redirection. No configuration is required here, keep the default.

4.2 The Layer 3 switch connected to the IAM management port enables the trunk to manage the device through the management port. The management port also needs to enable VLAN.



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