



**SANGFOR**

# Sangfor NGAF 8.0.6 Associate

Deployment





1 Introduction

2 Route mode

3 Bridge mode

4 Virtual wire mode

5 Mirror Mode

6 Configuration Wizard

7 Hybrid mode

# 1. Introduction

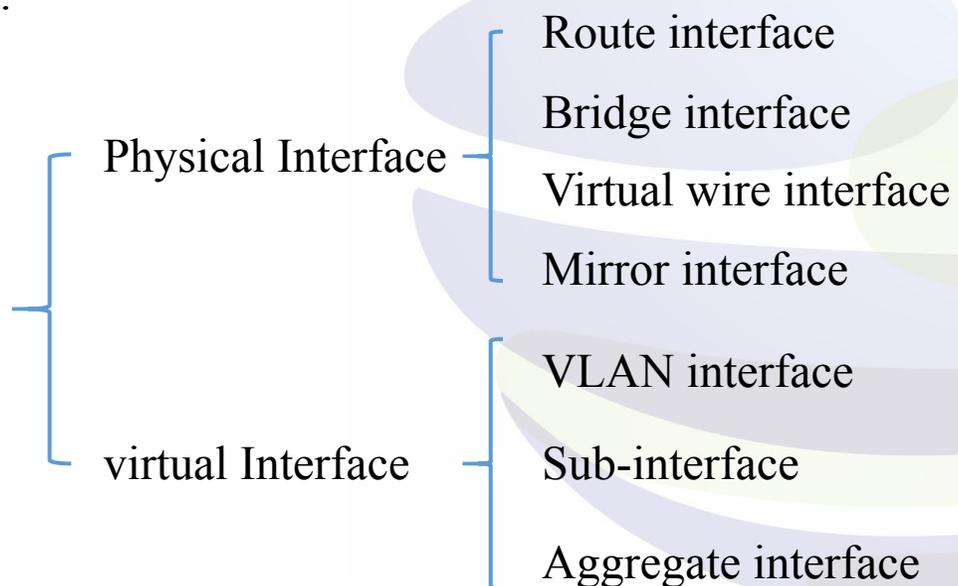
---



# Deployment Introduction

In order to make NGAF adopt various scenario and improve the network expandability of NGAF, there is no definite deployment of NGAF to choose, it depends on the attributes of each network port.

Port type:



## 2. Route mode

---

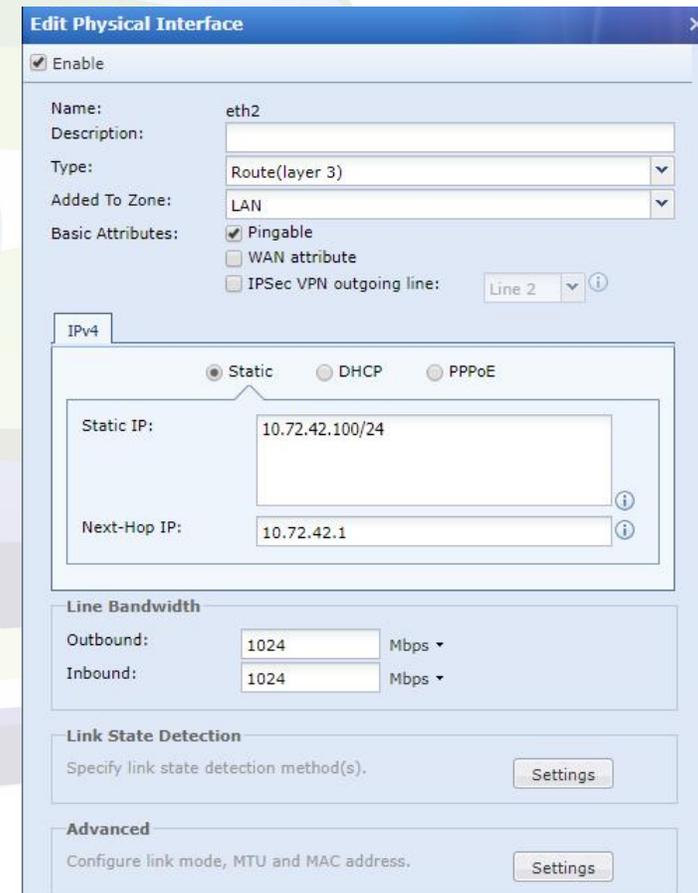
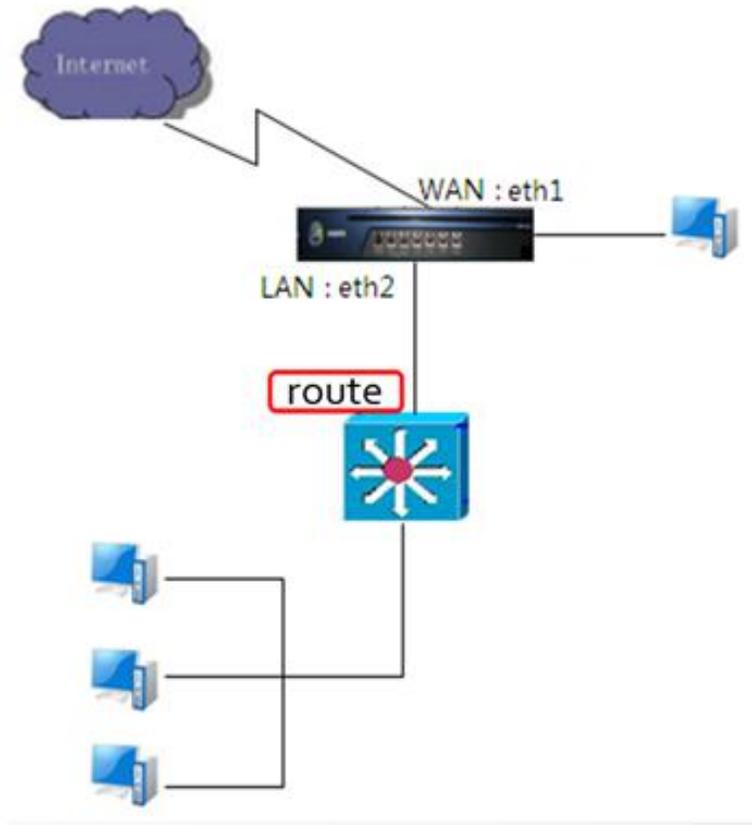


**SANGFOR**  
深信服科技

# Route Mode

The peer interface of Lan interface is route.

Tip: You can set Lan interface as a route mode

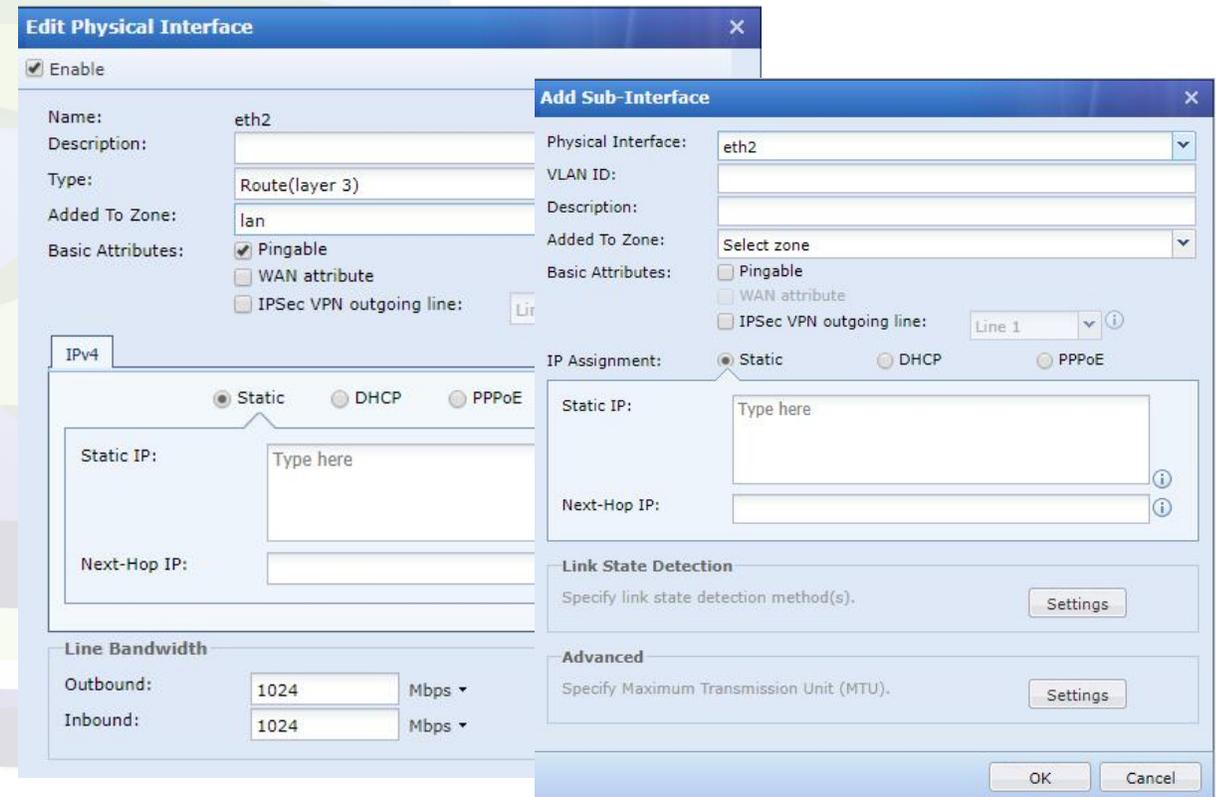
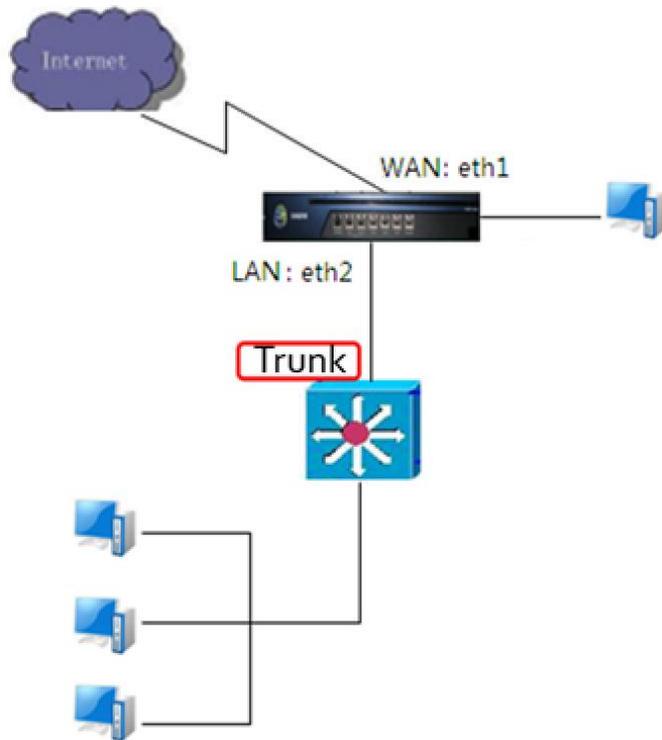


The screenshot shows the 'Edit Physical Interface' configuration window for interface 'eth2'. The 'Enable' checkbox is checked. The 'Name' is 'eth2'. The 'Type' is set to 'Route(layer 3)'. The 'Added To Zone' is 'LAN'. Under 'Basic Attributes', 'Pingable' is checked, while 'WAN attribute' and 'IPSec VPN outgoing line' are unchecked. The 'IPv4' tab is active, showing 'Static' IP configuration with a 'Static IP' of '10.72.42.100/24' and a 'Next-Hop IP' of '10.72.42.1'. The 'Line Bandwidth' section shows 'Outbound' and 'Inbound' both set to '1024' Mbps. The 'Link State Detection' section has a 'Settings' button. The 'Advanced' section also has a 'Settings' button.

# Route Mode (trunk)

The opposite interface of Lan interface is trunk.

Tip 1: You can set Lan interface as a route, and then set the corresponding sub-interface.



# 3. Bridge mode

---

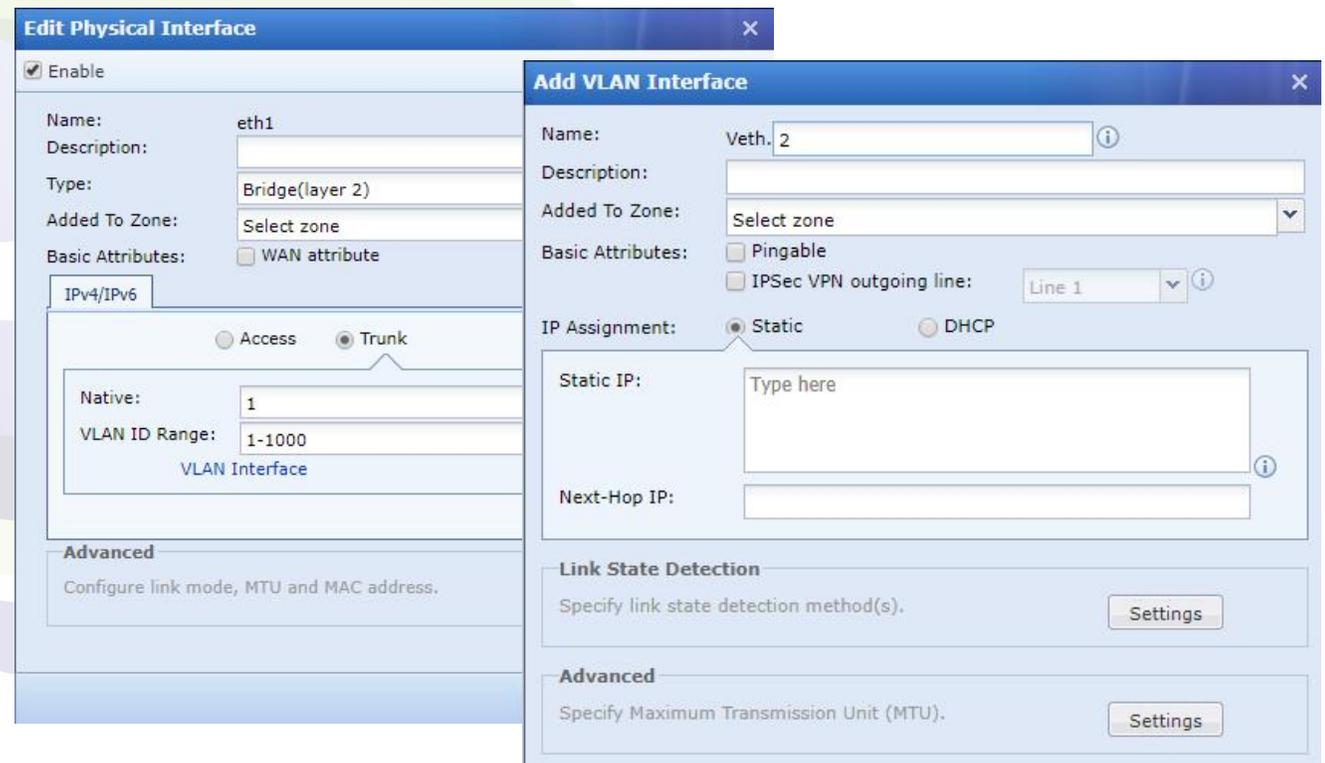
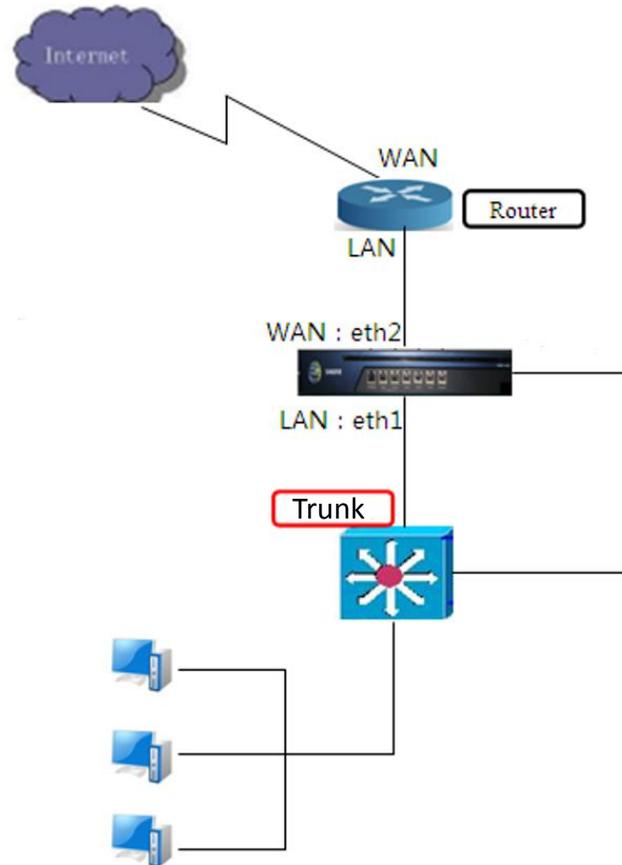


**SANGFOR**  
深信服科技

# Bridge Mode (Trunk)

More than one VLAN on a link.

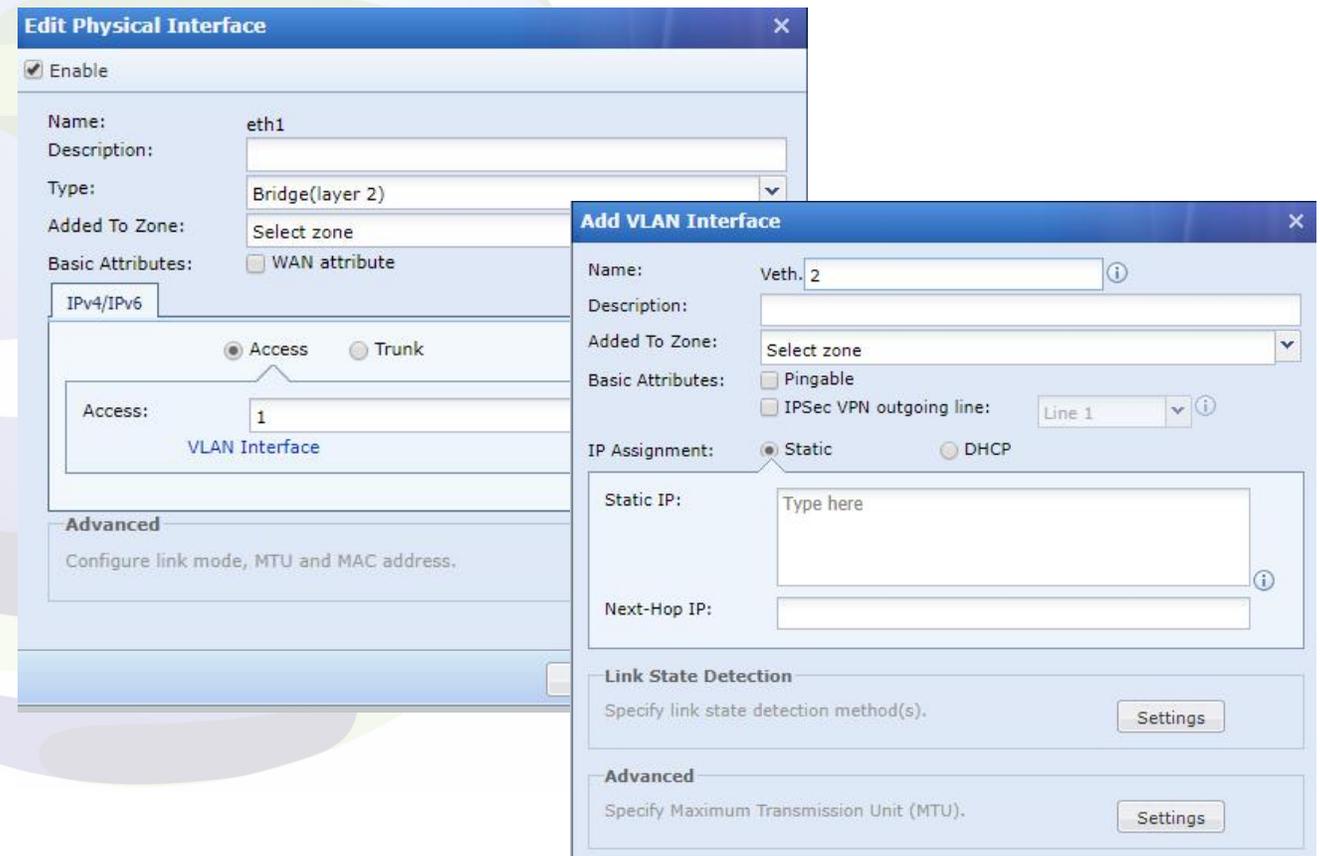
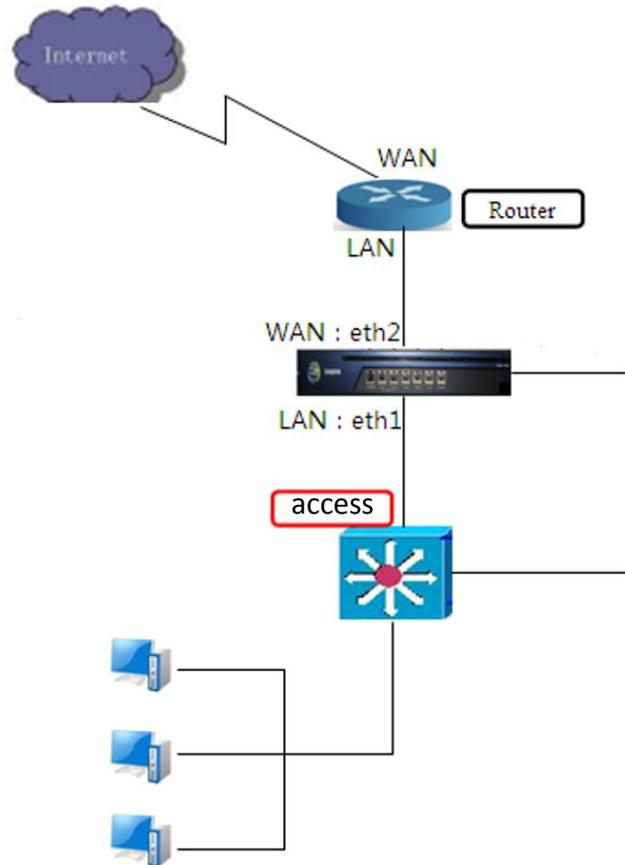
Tip: If there are more than one vlan at the link, the interface of NGAF can set as a trunk, and allow the corresponding vlan. You can set more than one vlan IP address on NGAF for Internet accessing or NGAF management.



# Bridge Mode (access)

Deploy NGAF without change their network.

Tip: Set the interface as access and then configure the corresponding vlan and IP address.



## 4. Virtual wire mode

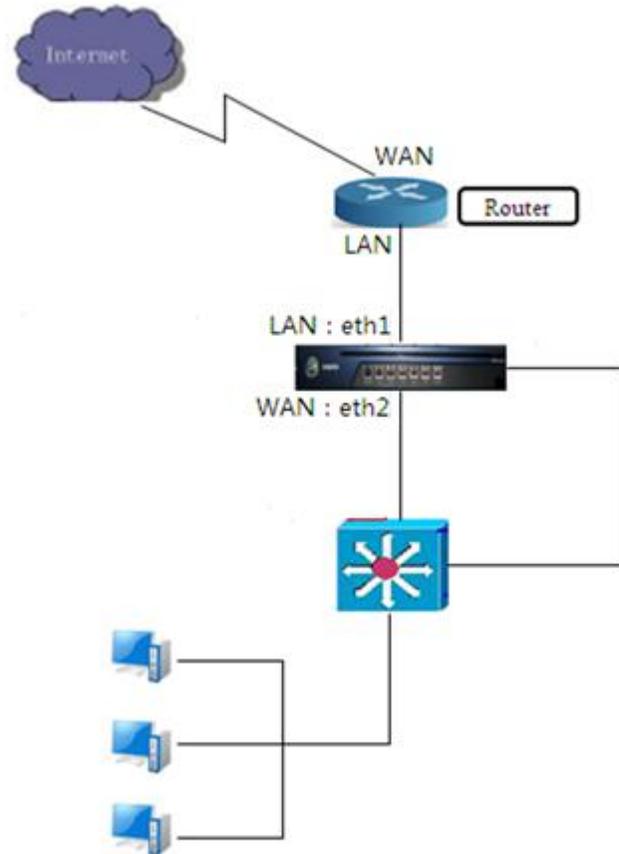
---



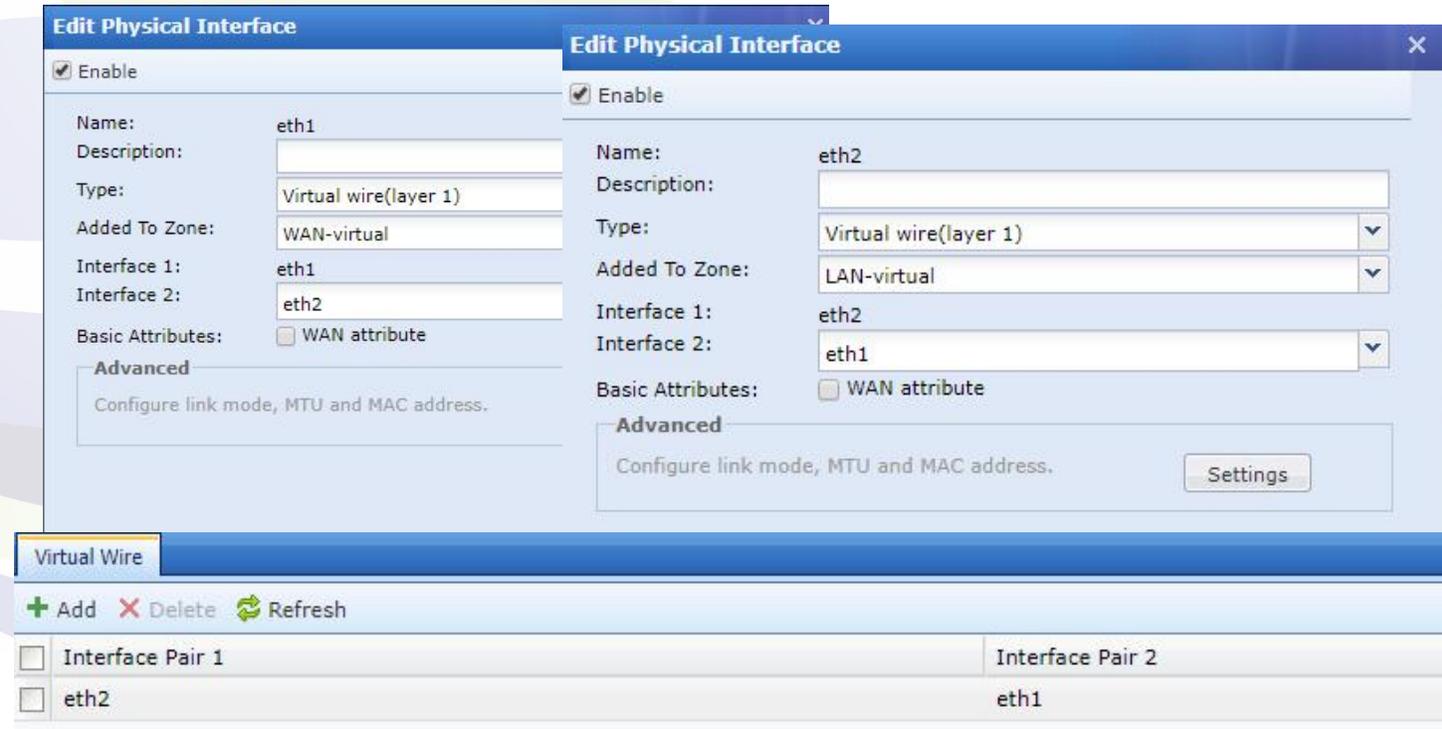
**SANGFOR**  
深信服科技

# Virtual Wire Mode

Deploy NGAF without change their network.



We don't need to consider about the opposite interface when we deploy NGAF as a virtual wire mode, but we need configure more than one port as a route mode to manage NGAF or access the internet for database updating.



The screenshot shows two 'Edit Physical Interface' windows. The left window is for 'eth1' and the right window is for 'eth2'. Both windows have the 'Enable' checkbox checked. The 'eth1' window has 'Type' set to 'Virtual wire(layer 1)', 'Added To Zone' set to 'WAN-virtual', 'Interface 1' set to 'eth1', and 'Interface 2' set to 'eth2'. The 'eth2' window has 'Type' set to 'Virtual wire(layer 1)', 'Added To Zone' set to 'LAN-virtual', 'Interface 1' set to 'eth2', and 'Interface 2' set to 'eth1'. Both windows have 'Basic Attributes' set to 'WAN attribute' (unchecked) and an 'Advanced' section with the text 'Configure link mode, MTU and MAC address.' and a 'Settings' button.

| Virtual Wire                              |                  |
|---|------------------|
| <input type="checkbox"/> Interface Pair 1 | Interface Pair 2 |
| <input type="checkbox"/> eth2             | eth1             |

# 5. Mirror mode

---



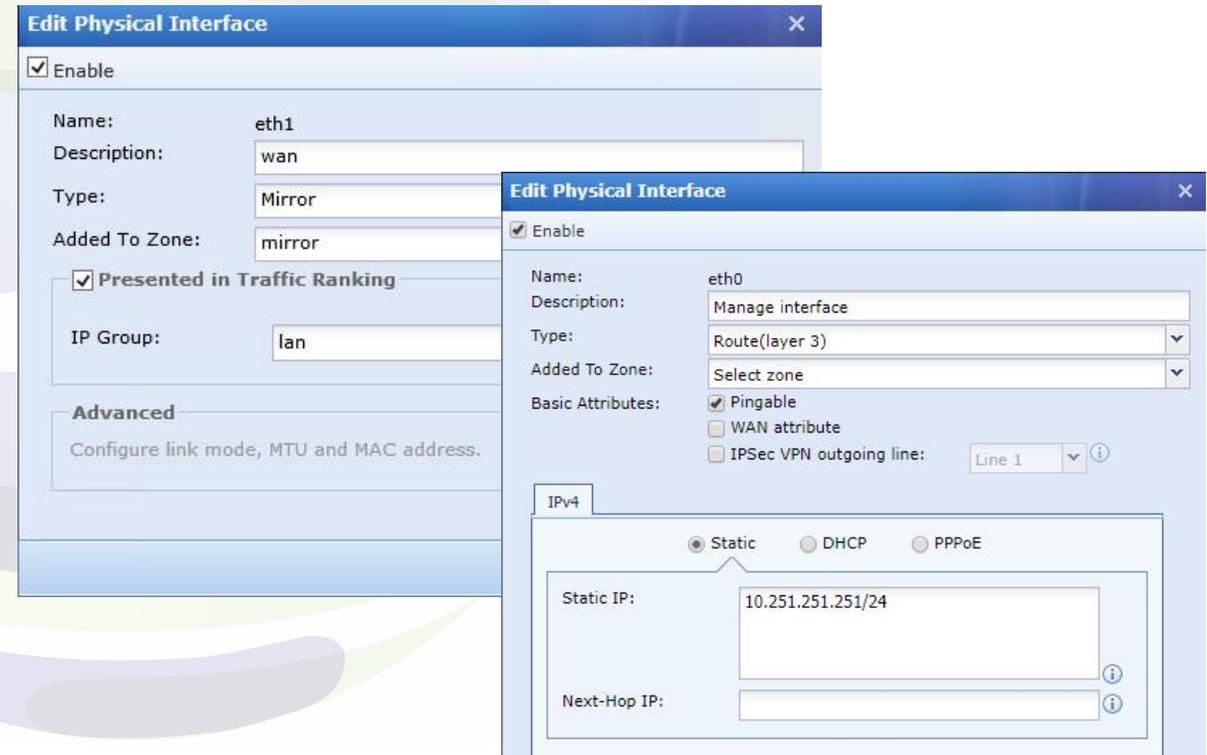
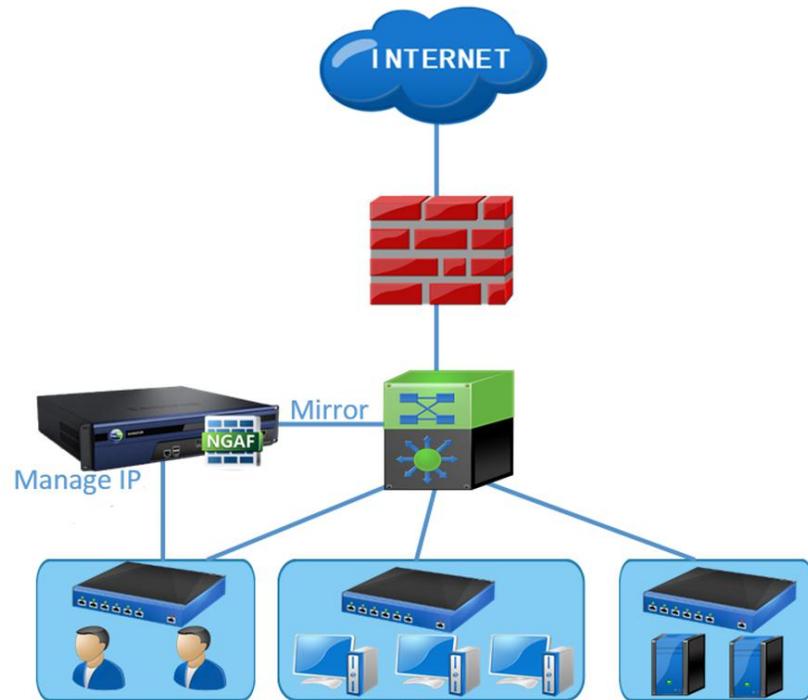
**SANGFOR**  
深信服科技

# Mirror mode

Requirements:

Detect the network risk but don't interrupt the network.

Tip: Link the mirror mode to core switch and configure another route port to manage NGAF or access the internet for database updating.



# 6. Configuration Wizard

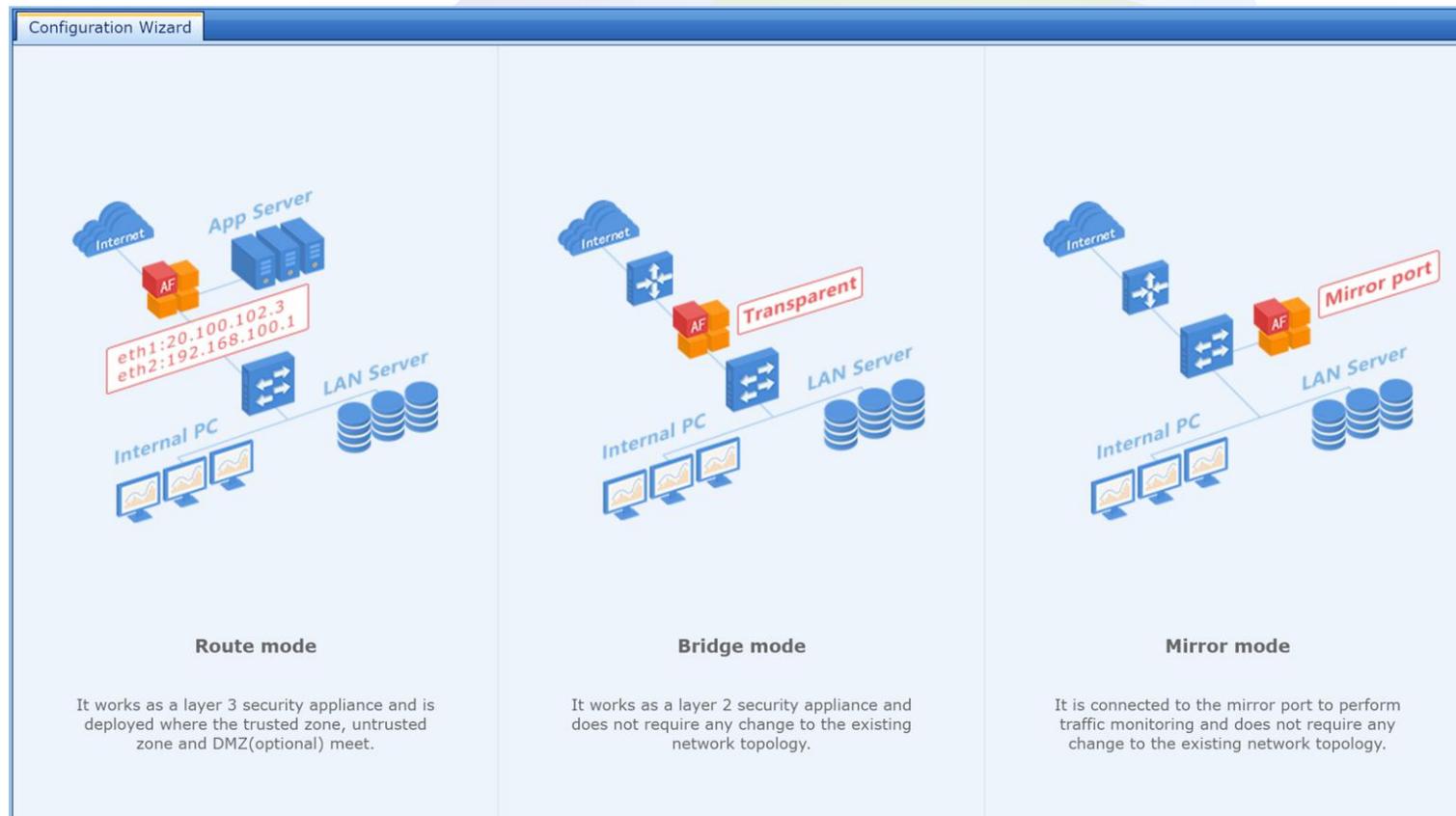
---



**SANGFOR**  
深信服科技

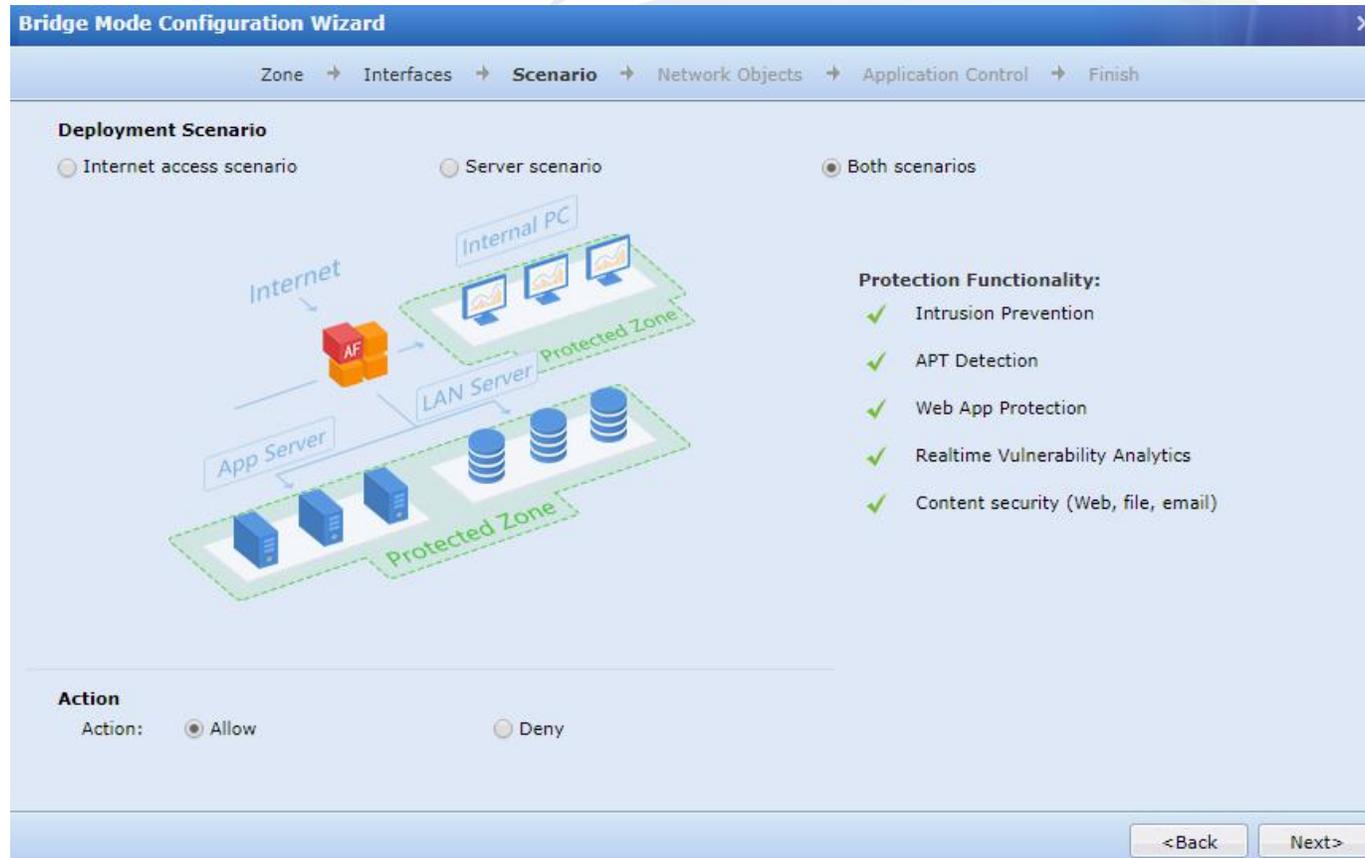
# Configuration Wizard

When NGAF is installed in a new network at first time, Configuration Wizard can help us deploy easily. Configuration wizard will pop up automatically after we first time login the NGAF. It provide route mode, bridge mode, mirror mode quick installation.



# Configuration Wizard

Configuration wizard not only configure the network part, but also can generate the policy automatically with a few settings.



About security policy, we will introduce it in later slide.

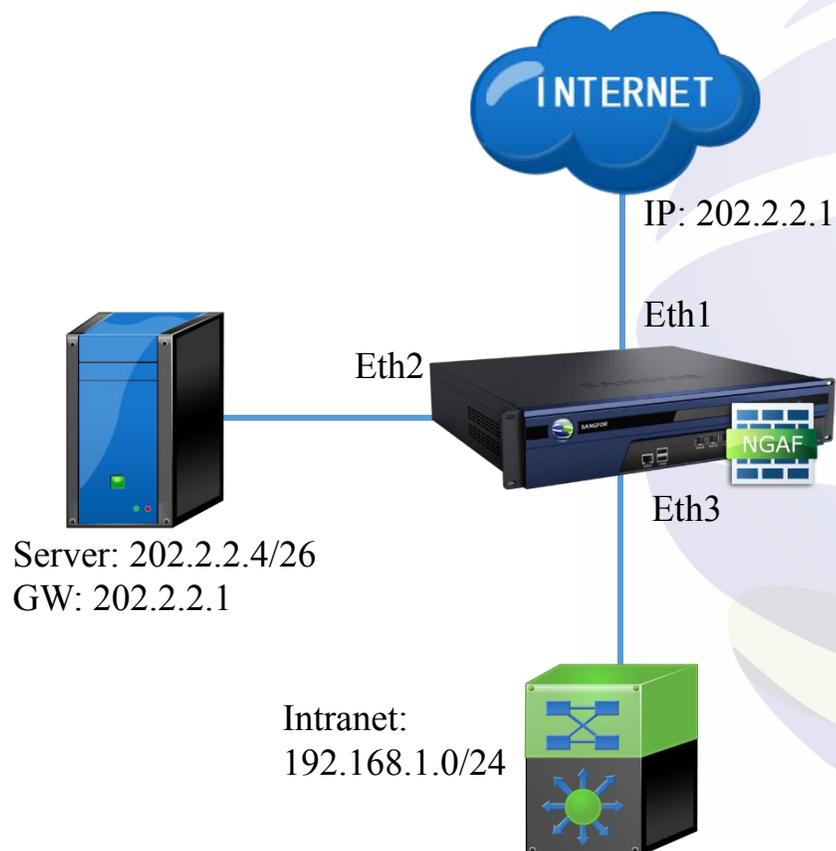
# 7. Hybrid mode

---



**SANGFOR**  
深信服科技

# Hybrid Mode

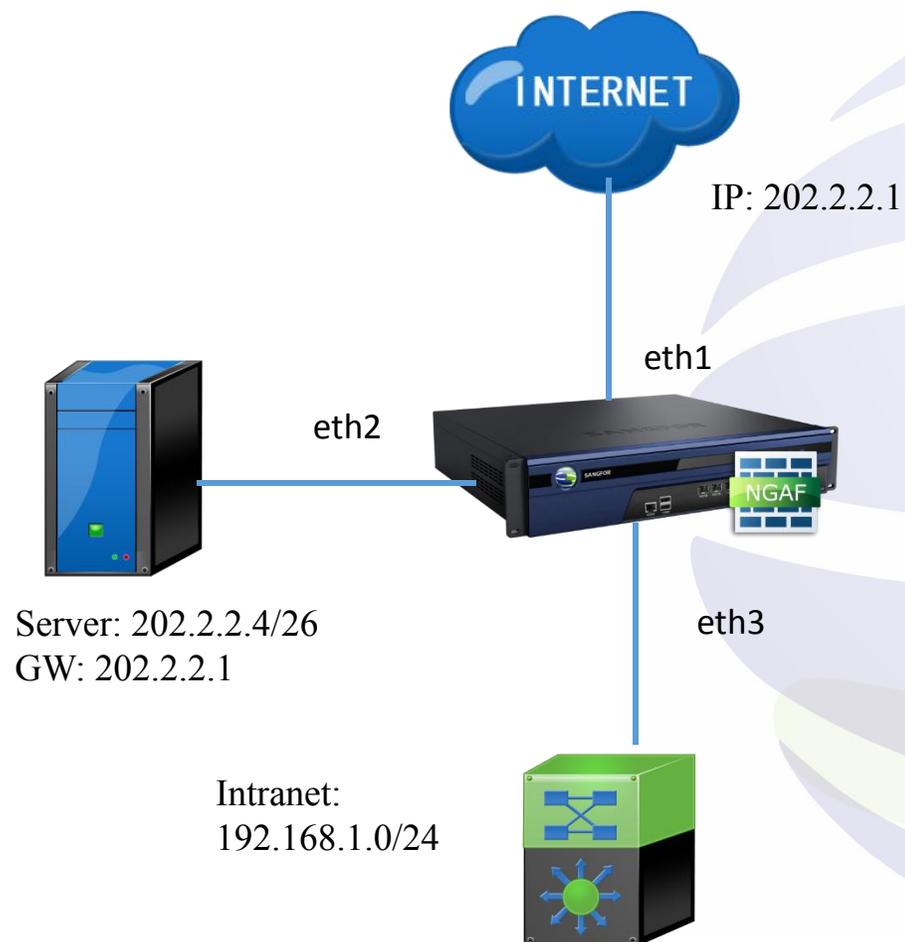


Hybrid mode means there are not only layer 2 network interfaces, but also layer 3 network interfaces, especially when the DMZ server set as the public IPs.

## Configuration steps:

1. Set the eth1 and eth2 as bridge interface with layer 2 zone.
2. Set the eth3 as route interface port with 3 zone.
3. Establish a VLAN interface corresponded the eth2 and eth3, and fill in the public IP address for it.
4. Set the source NAT policy, route and application policy.

# Hybrid Mode Case Study



## Requirement:

Customer have a server farm and all server configure Public IP as IP address. Internal user configure as Private IP address and through NAT to access internet. NGAF need to deploy as a internet Gateway to protect Server and internal user.

## Recommendations :

Deploy as Hybrid mode(gateway mode + bridge mode). NGAF connect internet and server by bridge interface , internal user connect to route interface.

# Hybrid Mode Case Study

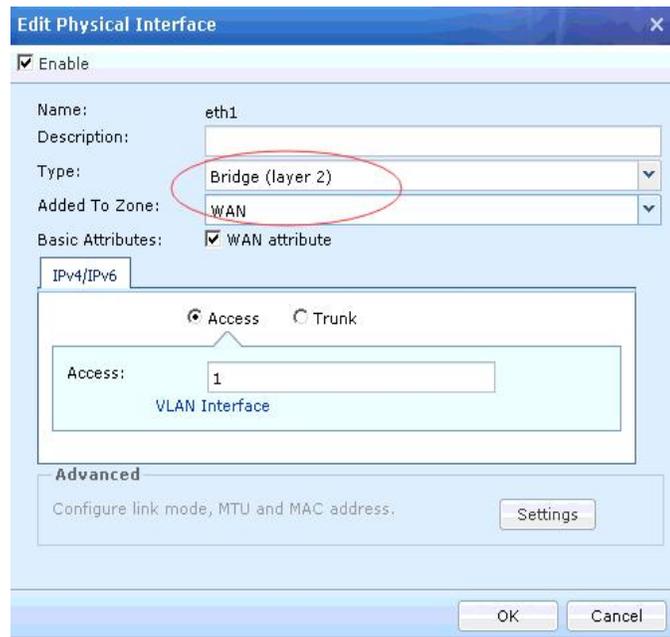
## NGAF deployment:

1. Because server hosting a Public IP address and all user want to access server via public IP , therefore NGAF will connect eth1 to internet and eth2 to server farm and both interface will configure as bridge + access interface and same VLAN ID.
2. Base on the requirement, define eth1 and eth2 as layer 2 zone , define eth3 as layer 3 zone , “LAN zone” select eth3 , “WAN zone” select VLAN interface.
3. Add in a new VLAN11 interface , configure a public IP address.
4. Internal interface will be configure as route interface , configure internal IP address and configure static route for communication between server and internal users.
5. Internal user access internet by translating Lan IP range to the VLAN11 IP address.
6. Set the Application control policy to allow the traffic. (**Configuration omitted**)

# Hybrid Mode Case Study

## Configuration Step:

1. Configure interface eth1, eth2 and eth3:



**Edit Physical Interface**

Enable

Name: eth1  
Description:

Type: **Bridge (layer 2)**

Added To Zone: WAN

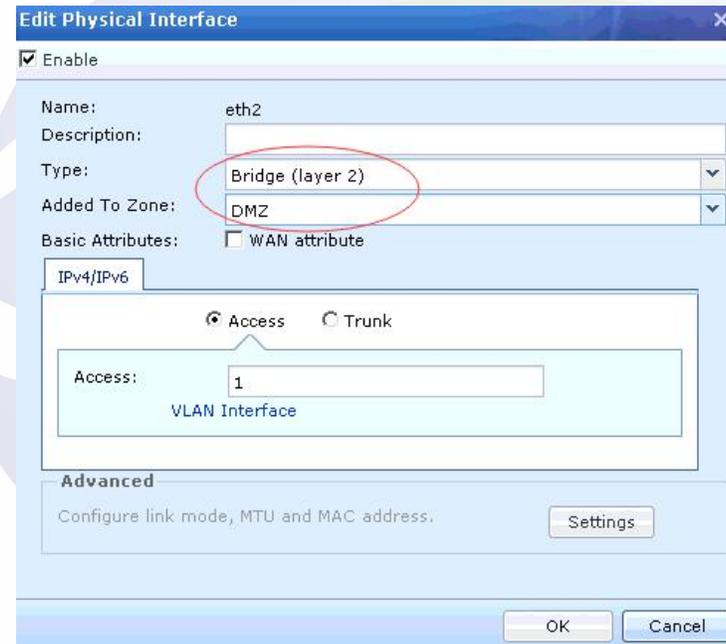
Basic Attributes:  WAN attribute

IPv4/IPv6

Access  Trunk

Access: 1  
VLAN Interface

Advanced  
Configure link mode, MTU and MAC address.



**Edit Physical Interface**

Enable

Name: eth2  
Description:

Type: **Bridge (layer 2)**

Added To Zone: DMZ

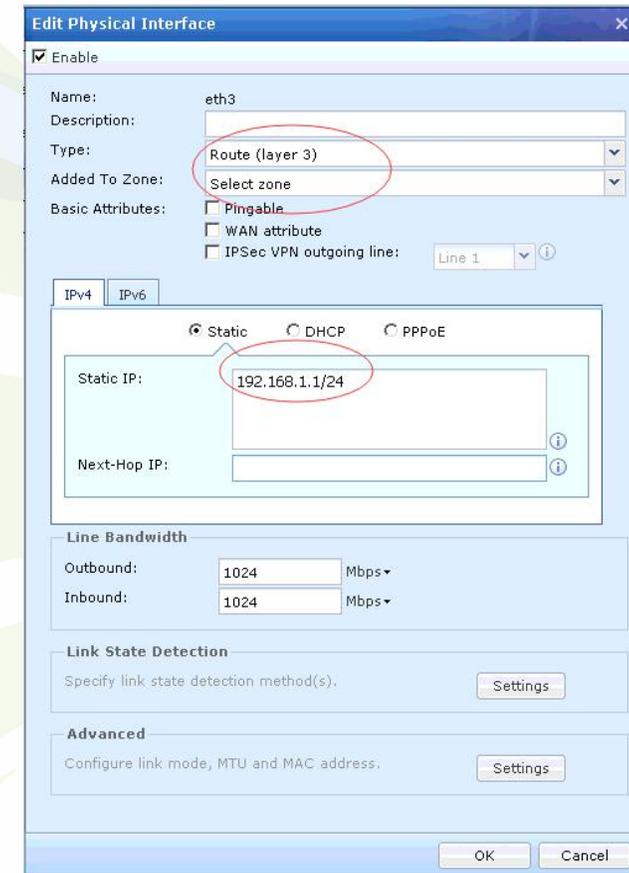
Basic Attributes:  WAN attribute

IPv4/IPv6

Access  Trunk

Access: 1  
VLAN Interface

Advanced  
Configure link mode, MTU and MAC address.



**Edit Physical Interface**

Enable

Name: eth3  
Description:

Type: **Route (layer 3)**

Added To Zone: Select zone

Basic Attributes:  Pingable  
 WAN attribute  
 IPsec VPN outgoing line: Line 1

IPv4 IPv6

Static  DHCP  PPPoE

Static IP: 192.168.1.1/24  
Next-Hop IP:

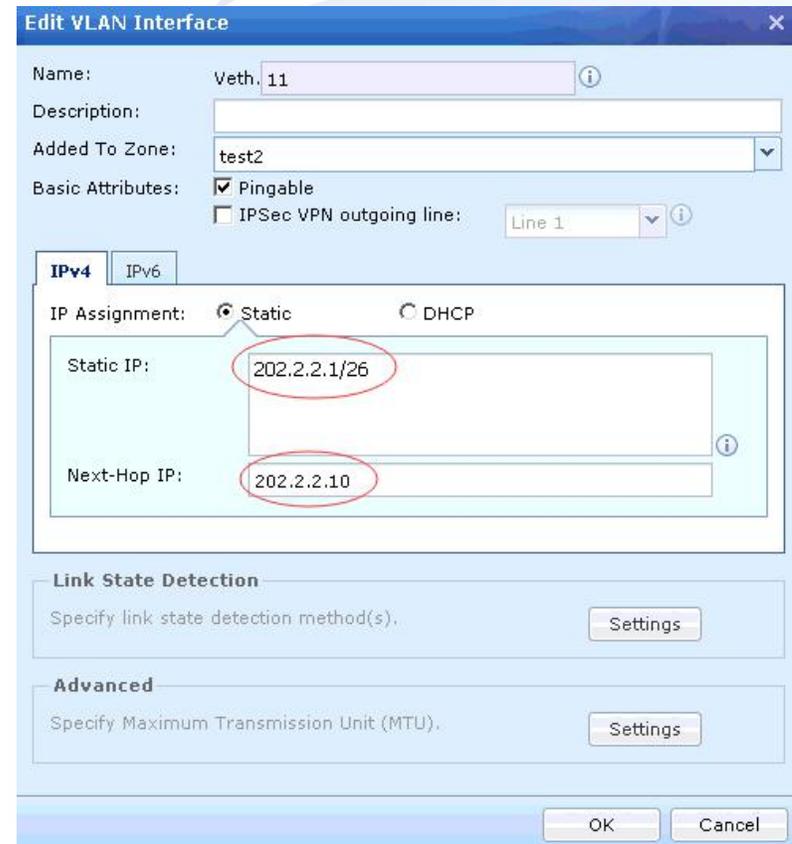
Line Bandwidth  
Outbound: 1024 Mbps  
Inbound: 1024 Mbps

Link State Detection  
Specify link state detection method(s).

Advanced  
Configure link mode, MTU and MAC address.

# Hybrid Mode Case Study

## 2. VLAN interface:



**Edit VLAN Interface**

Name: Veth. 11

Description:

Added To Zone: test2

Basic Attributes:

- Pingable
- IPsec VPN outgoing line: Line 1

**IPv4** | IPv6

IP Assignment:  Static  DHCP

Static IP: 202.2.2.1/26

Next-Hop IP: 202.2.2.10

**Link State Detection**

Specify link state detection method(s). [Settings](#)

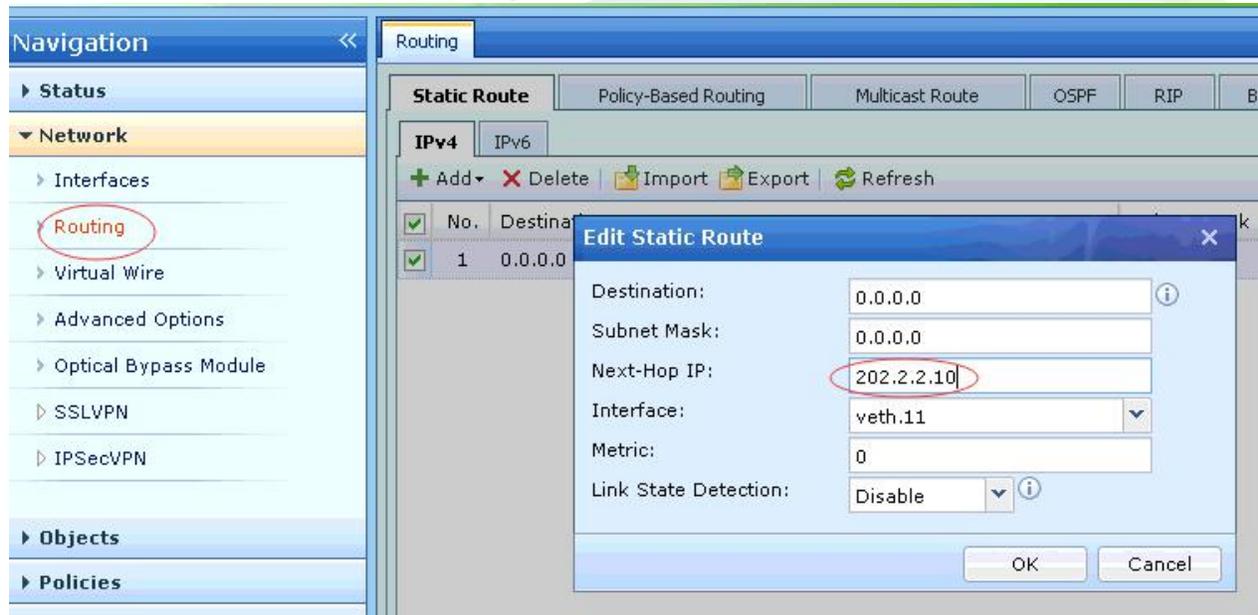
**Advanced**

Specify Maximum Transmission Unit (MTU). [Settings](#)

OK Cancel

# Hybrid Mode Case Study

## 3. Route:



The screenshot displays the Sangfor network management interface. On the left, the 'Navigation' pane shows the 'Routing' option under the 'Network' section, which is circled in red. The main window is titled 'Routing' and shows the 'Static Route' configuration page for IPv4. A table lists a single route with ID 1 and destination 0.0.0.0. An 'Edit Static Route' dialog box is open, showing the following configuration:

| Field                | Value      |
|----------------------|------------|
| Destination          | 0.0.0.0    |
| Subnet Mask          | 0.0.0.0    |
| Next-Hop IP          | 202.2.2.10 |
| Interface            | veth.11    |
| Metric               | 0          |
| Link State Detection | Disable    |

The 'Next-Hop IP' field is circled in red. The dialog box includes 'OK' and 'Cancel' buttons at the bottom.

# Hybrid Mode Case Study

## 4. Configure the IP group and source NAT.



**Edit IP Group**

**Basic Settings**

Name: Lan IP Range

Description: [empty]

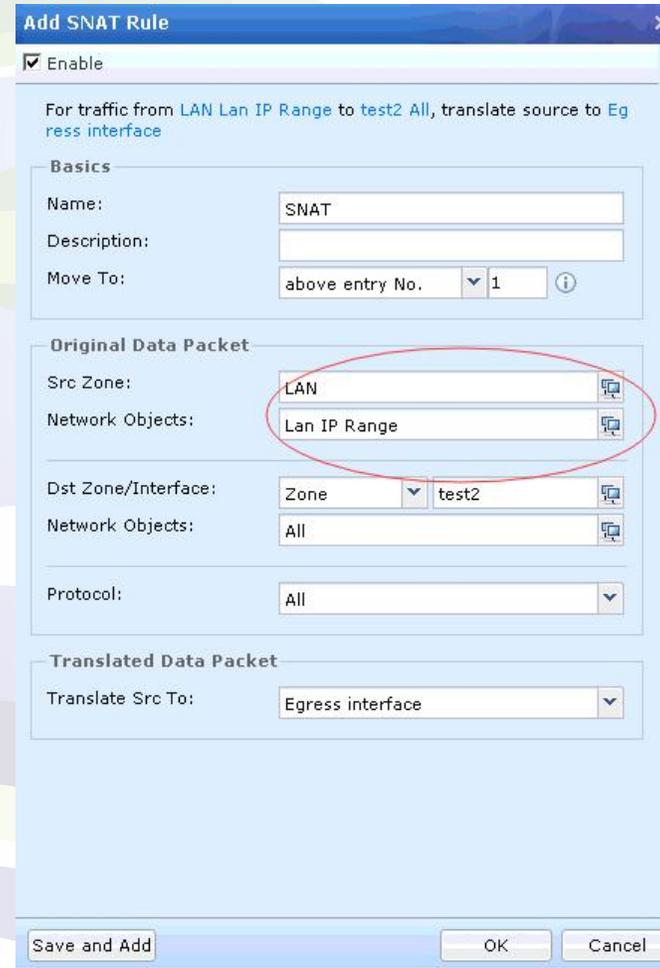
IP Version:  IPv4  IPv6

**IP Address**

192.168.1.0/24

Resolve Domain

OK Cancel



**Add SNAT Rule**

Enable

For traffic from LAN Lan IP Range to test2 All, translate source to Egress interface

**Basics**

Name: SNAT

Description: [empty]

Move To: above entry No. 1

**Original Data Packet**

Src Zone: LAN

Network Objects: Lan IP Range

Dst Zone/Interface: Zone test2

Network Objects: All

Protocol: All

**Translated Data Packet**

Translate Src To: Egress interface

Save and Add OK Cancel

# Thank you !

tech.support@sangfor.com

community.sangfor.com

## **Sangfor Technologies (Headquarters)**

Block A1, Nanshan iPark, No.1001

Xueyuan Road, Nanshan District,

Shenzhen, Guangdong Province,

P. R. China (518055)

