



SANGFOR

SANGFOR_NGAF_v7.4_ Sangfor VPN Configuration Guide

SANGFOR Technologies Inc.

15 May 2018

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Declaration

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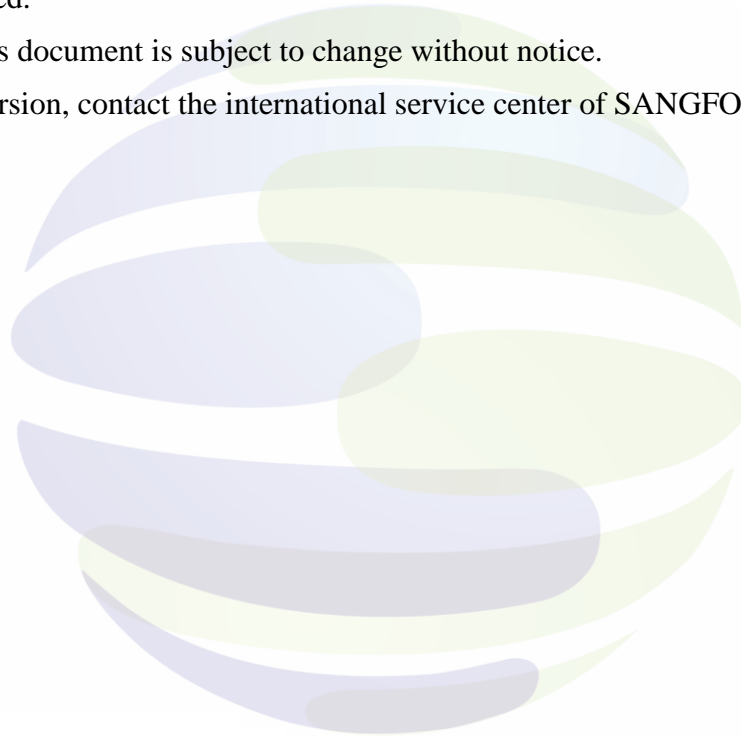
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1 Introduction

1.1 Abbreviations and conventions

NGAF in this article refers to the SANGFOR NGAF device.

VPN in this article refers to the SANGFOR VPN function.

1.2 Feedback

If you find any questions of this documents, please feel free to give us feedback, email: tech.support@sangfor.com.

2 Background

VPN full name “Virtual Private Network” is “Specialize for Virtual Network”. VPN is define by pass through the internet and build a temporary safe connection, is a safe connection tunnel that pass through internet. By using this tunnel, the data able to encrypt few times and achieve to surf the internet safely. VPN is expand on company internal network. VPN able to help remote on customer site, company branch, business partner and supplier able to establish a save internal network connection, it is cost efficiency for business partner and company to connect to each other through VPN. VPN mainly is use tunnel, encrypt and key management with device credential technology.

3 Test scenario

Brief introduction for topology for SANGFOR VPN.

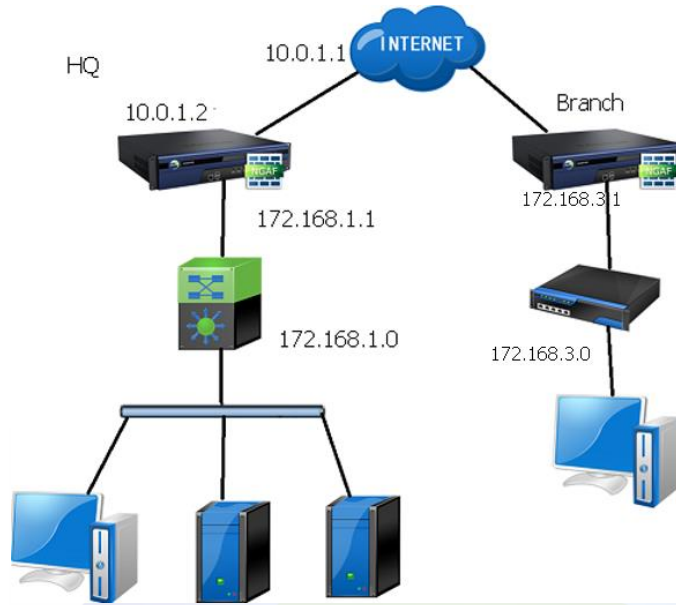
- 1) Suitable for Windows User to connect to SANGFOR VPN for access the company application
- 2) Suitable for HQ and Branch to establish network connection using SANGFOR VPN:

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Network topology briefly describe:

HQ:

- 1) AF device route mode is deploy on the top of core switch, internal network port ETH1 in connect with internal network core switch, ETH2 port will connect to public network, ETH1 info: 172.168.1.1 ETH2 info:10.0.1.2/24, core switch interface port IP as 172.168.1.0
- 2) Device that connect to core switch, internal network as:172.168.1.0/24

Branch:

- 1) Branch AF as route mode also, ETH1 port as internal network:172.168.3.1/24
- 2) The internal layer 2 device as switch, internal network device gateway point to AF interface, network as:172.168.3.0/24

4 Requirement

- 1) 1 AF device with usable user
- 2) The user is use to install Pdlan in the Windows PC
- 3) Another AF device on branch site

5 Configuration Checking

- 1) AF device have license for VPN User
- 2) Install PDLAN on Windows PC
- 3) Configure VPN correctly on the NGAF device using Web UI.
- 4) Configure correctly on PC's VPN

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- 5) VPN to VPN connection from site to site, the branch SANGFOR unit also need to have correct configuration on Branch VPN.

6 Configuration and Guide

6.1 License checking

- 1) Kindly confirm AF device have Mobile VPN license as below:

The screenshot displays the Sangfor AF device web interface. On the left, the 'Navigation' menu shows the 'System' category expanded, with 'System' highlighted. The main content area is titled 'System' and contains several tabs: 'System Time', 'Network', 'Web UI', 'SMTP Server', 'Licensing' (highlighted with a red box), and 'Privacy Options'. The 'Licensing' tab shows the 'Device License' section, which includes the following information:

- Device License**
(In gateway mode, it decides how many WAN links to branch sites are allowed)
- Gateway ID:** D88CB6EC
- License Key:** C4P5O47GMW9WG3GS
- Status:** Valid
- 1. Branch VPN Sites:** 5
- 2. Lines:** 2
- 3. Mobile VPN Users:** 10

Below the 'Device License' section is an 'Edit' link. The 'License of Function Modules' section is also visible, showing the following details:

- License of Function Modules**
(Activated as customer required)
- 1. SSL VPN:** 20 users
- 2. Antivirus**
- 3. SSL Decryption**
- 4. Advanced Functionality**

6.2 Install PDLAN software

- 1) Download Link:
<http://community.sangfor.com/plugin.php?id=service:download&action=tool>
Kindly install the software into Windows PC.

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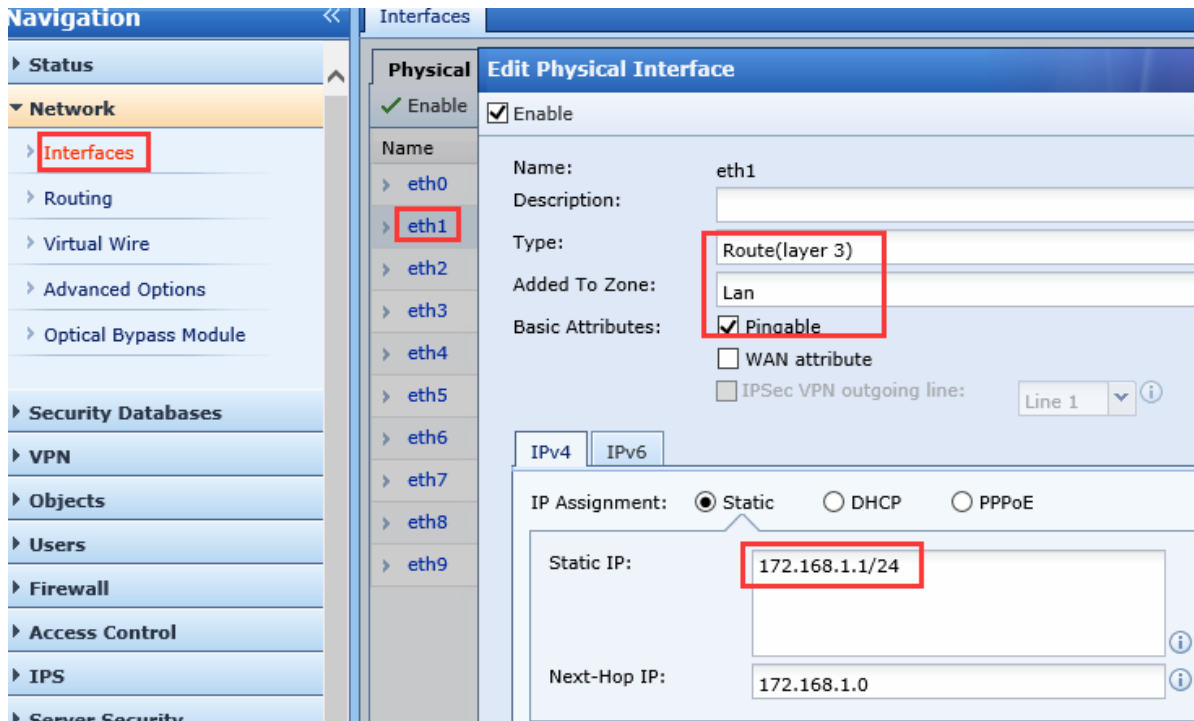
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6.3 Configure VPN

HQ AF configuration

1) [Network] -> [Interface] -> [Edit physical Interface] -> ETH1 port, as shown picture below:



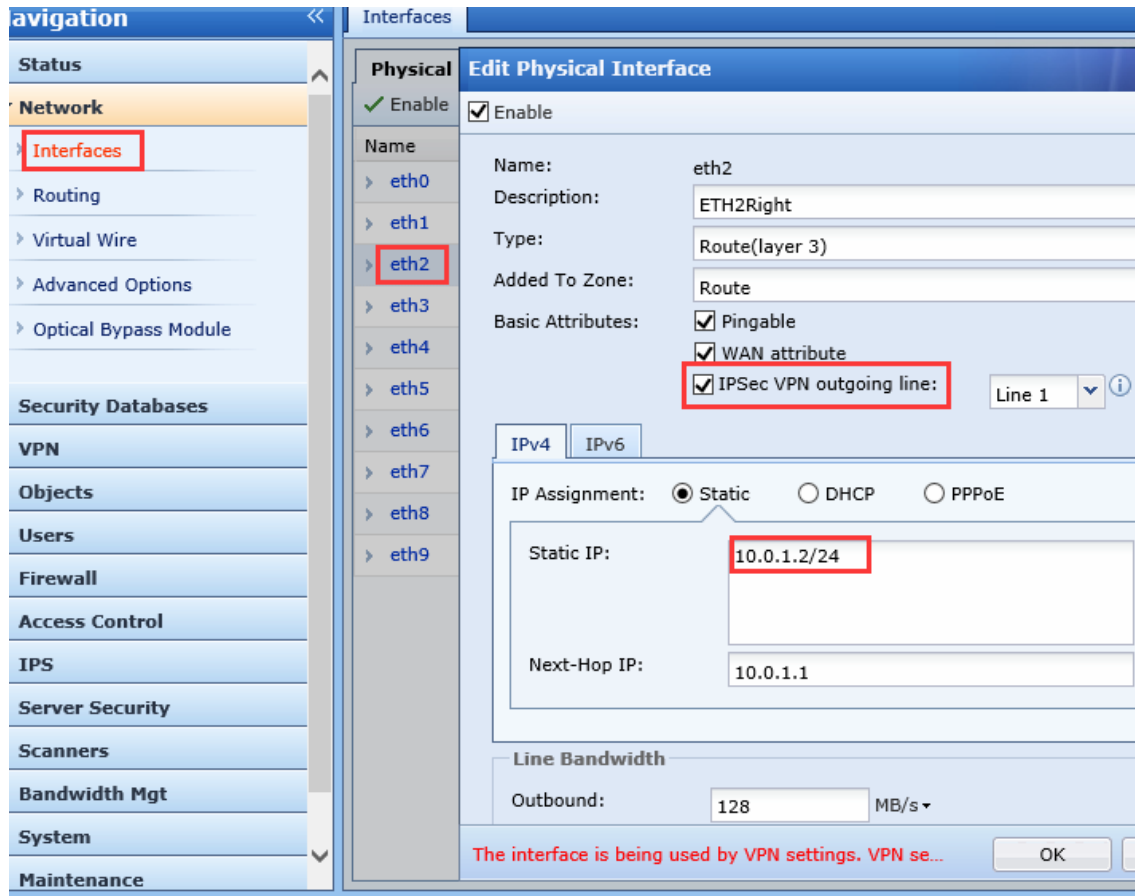
[Network] -> [Interface] -> [Edit Physical Interface]—ETH2 port, as shown picture below:

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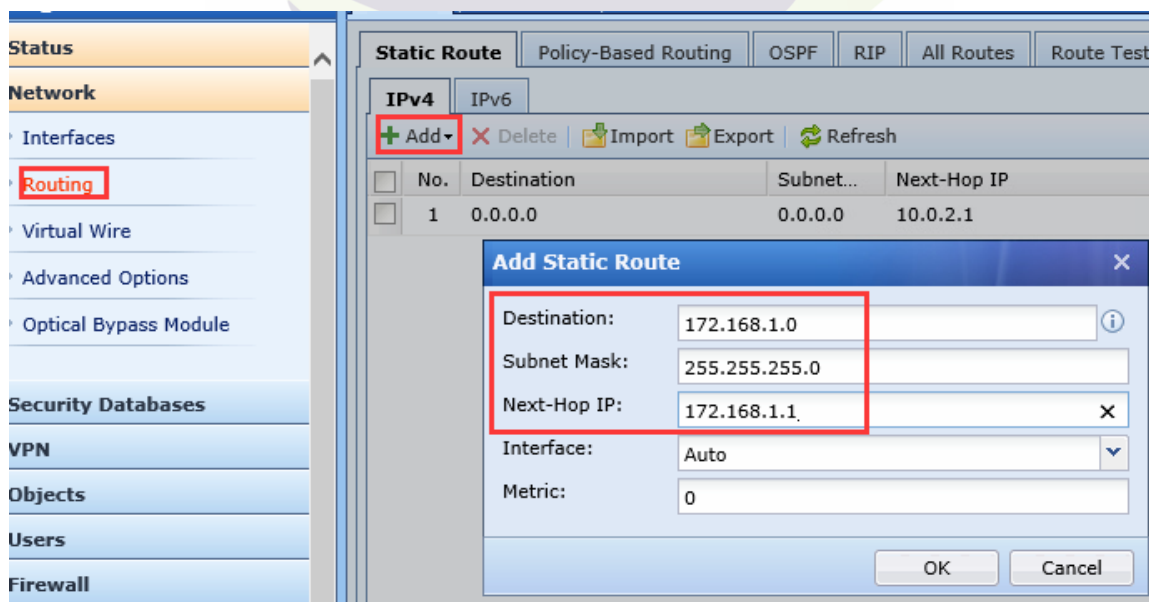
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2)[Network]->[Routing]->[Add]->[Static Route], add new static route, insert internal network IP address as destination, and next hop insert IP as layer 3 device, as shown on picture below:



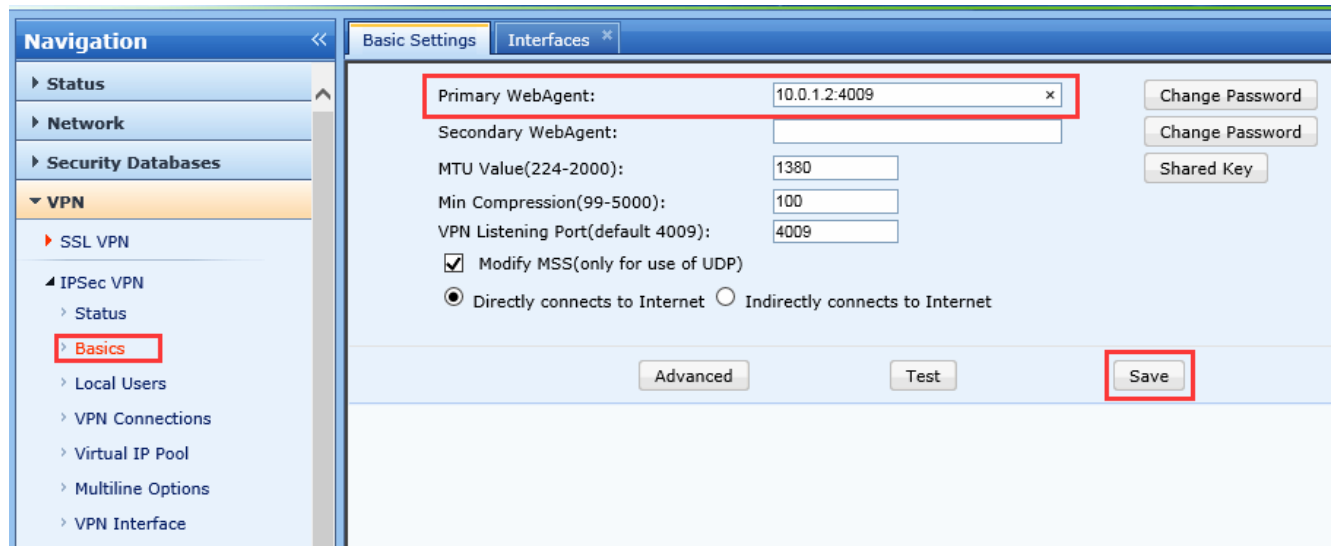
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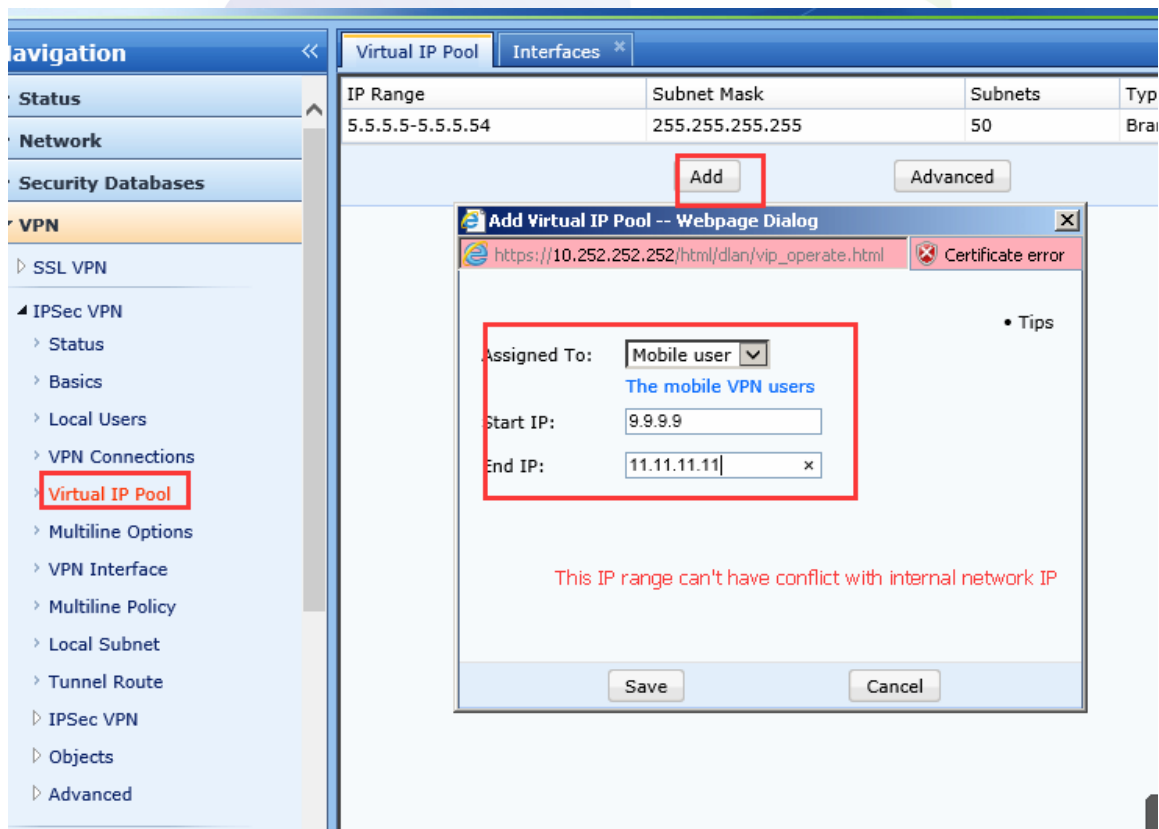
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3) [VPN] -> [IPSec VPN] -> [Basic], insert [Primary Web Agent] as own public IP address on ETH2.



The screenshot shows the 'Basic Settings' tab for IPsec VPN. The 'Primary WebAgent' field is highlighted with a red box and contains the IP address '10.0.1.2:4009'. Other fields include 'Secondary WebAgent', 'MTU Value(224-2000): 1380', 'Min Compression(99-5000): 100', and 'VPN Listening Port(default 4009): 4009'. There are checkboxes for 'Modify MSS' and radio buttons for 'Directly connects to Internet' (selected) and 'Indirectly connects to Internet'. At the bottom, the 'Save' button is highlighted with a red box.

4) Add [Virtual IP pool] (If peer site is hardware device, you may ignore this), configuration as shown below:



The screenshot shows the 'Virtual IP Pool' configuration dialog. The 'Add' button is highlighted with a red box. A table lists the IP Range, Subnet Mask, Subnets, and Type. The 'Add Virtual IP Pool -- Webpage Dialog' window is open, showing the 'Assigned To' dropdown set to 'Mobile user', 'Start IP' as '9.9.9.9', and 'End IP' as '11.11.11.11'. A red box highlights these fields. A red error message at the bottom states: 'This IP range can't have conflict with internal network IP'. The 'Save' button is also visible.

IP Range	Subnet Mask	Subnets	Type
5.5.5.5-5.5.5.54	255.255.255.255	50	Bra

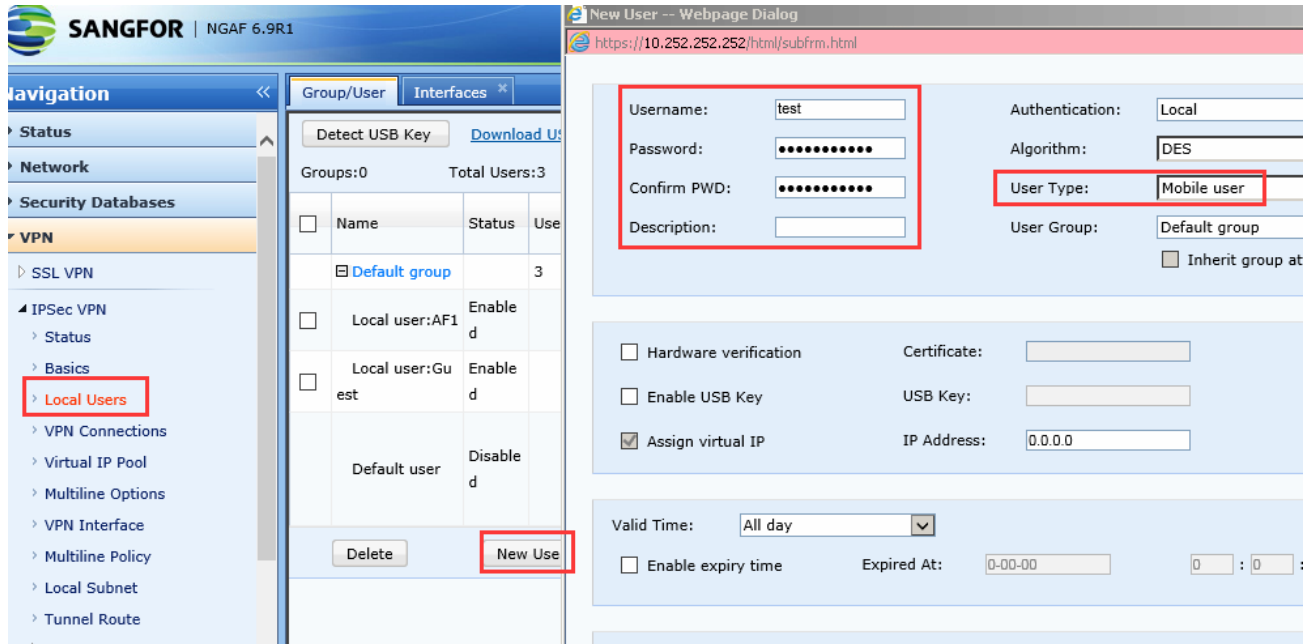
5) In [Local User] menu add [New User], If is mobile user kindly configure as picture below:

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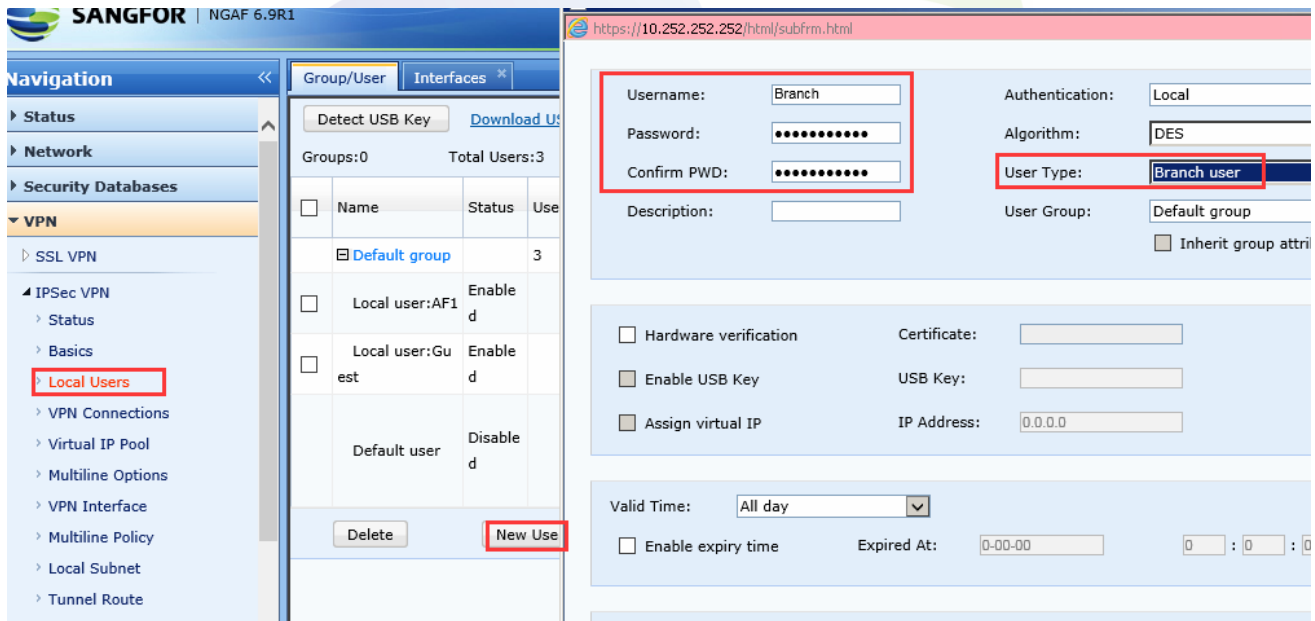
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If the peer site is Sangfor Device, kindly configure as below:



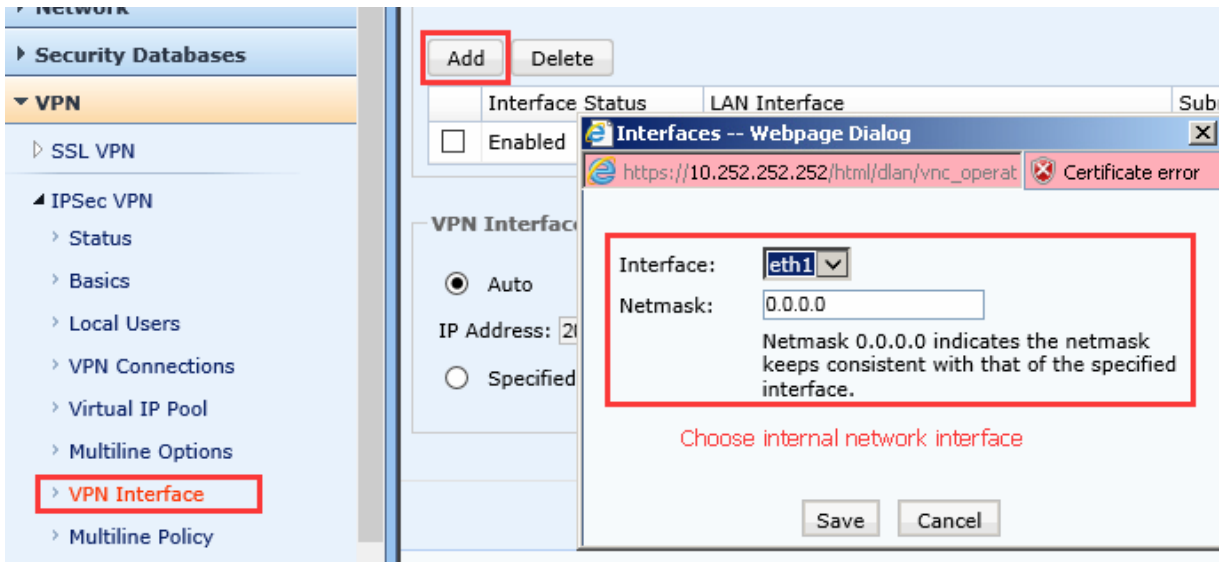
6) Configure [VPN Interface], [Add] then choose internal interface as shown picture below:

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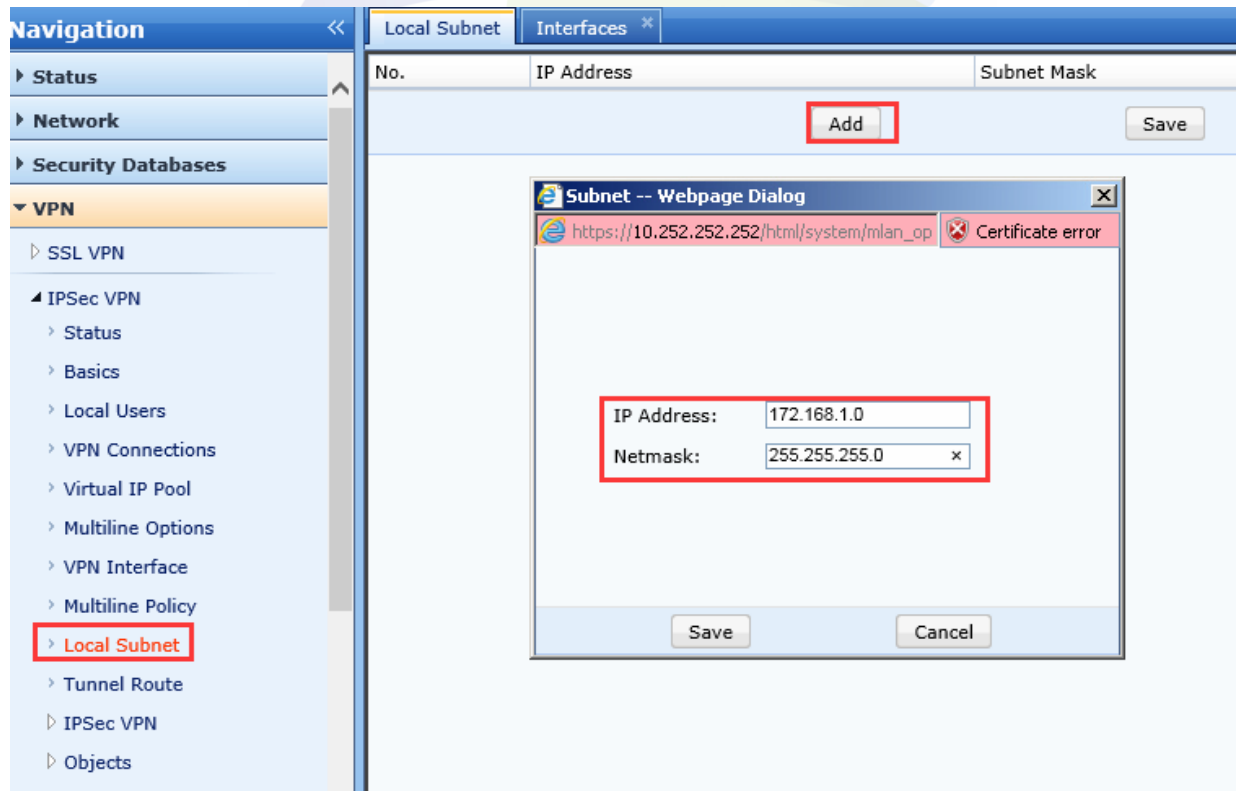
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7) Add [Local Network IP], as shown as below:



Branch site Configuration

- 1) Configure [VPN connection], add HQ web agent IP address and HQ new User name and password as shown below:

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2) Configure the [VPN Interface], add internal network port, as shown below:

Mobile User End Point configuration:

Configure the main connection, as show on picture below:

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Username:

Password: Change

Trans Mode: Change Online

Cross-ISP Optimization

☐ Enable Packet lost rate(%)

Apply

Change Username and Password

You can change username and password here. In case of Dkey user, only password can be changed.

Name:

New PSW:

Confirm:

OK Cancel

7 Attention

- 1) Branch and HQ need to configure the VPN interface setting.
- 2) If WAN interface use PPPOE to go to internet, you can call to Sangfor for apply WEBAGENT address.

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