

VSM Quick Guide

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VSM Type: VSM600 ~ VSM7000

ABLOOMY Technologies, Inc.




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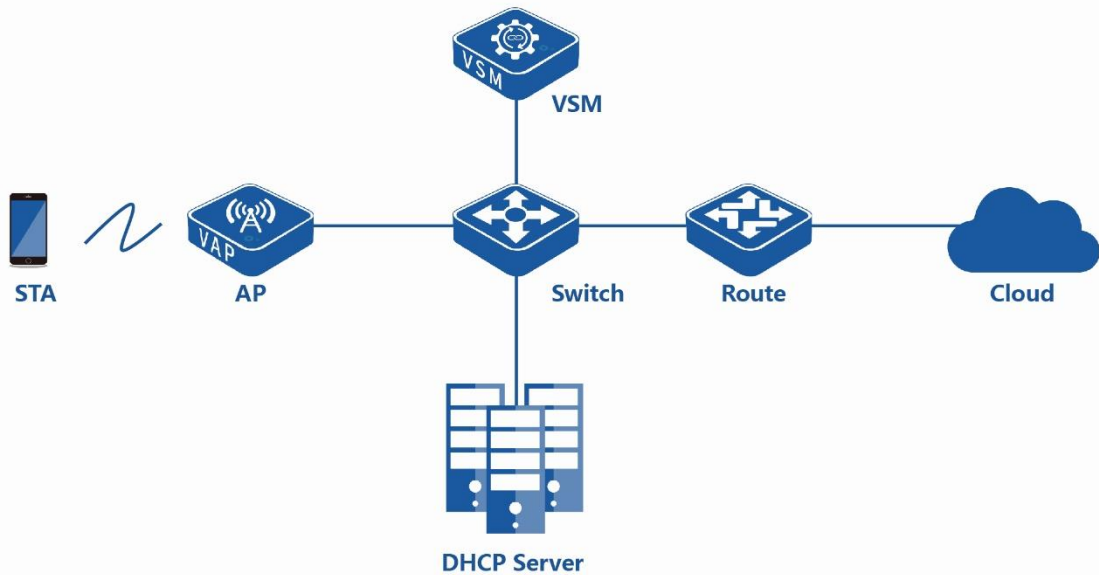
Website: www.abloommy.com

Contents

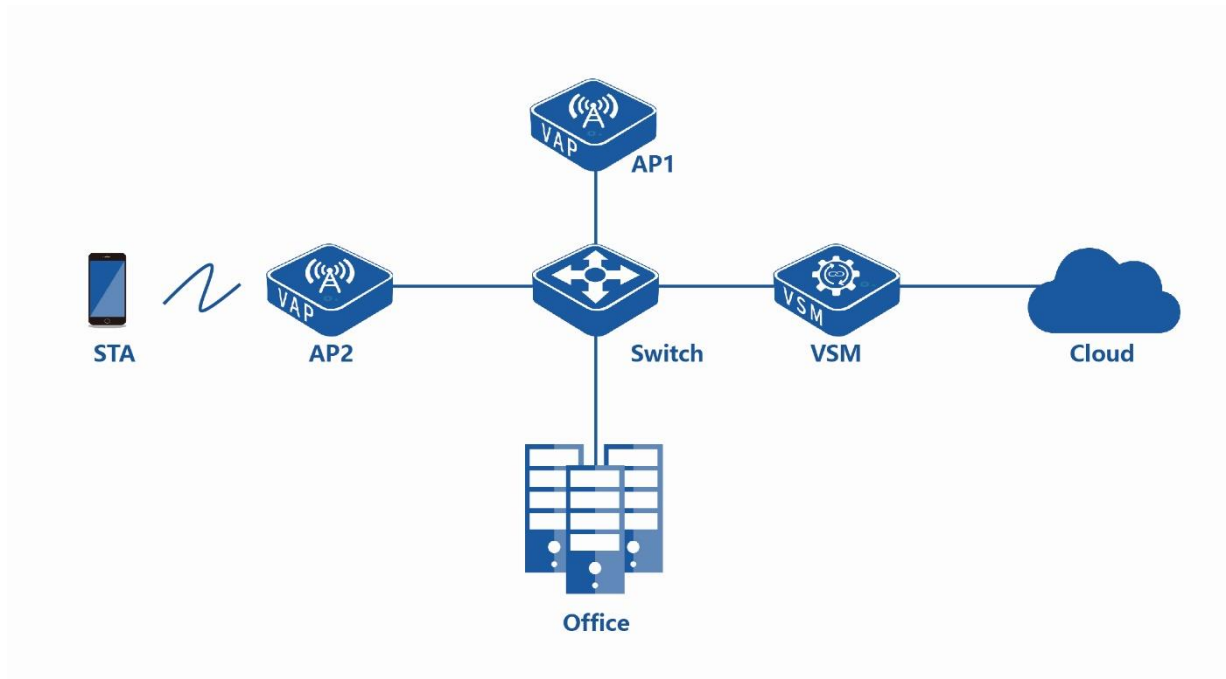
1. TOPOLOGY	3
1.1 VSM BYPASS	3
1.2 VSM GATEWAY	3
1.3 VSM BRIDGE	4
2. VSM CONFIGURATION	4
2.1 READY	4
2.2 ADD VSM TO CLOUD PLATFORM (ACS/CSP)	5
2.2.1 Login Cloud Platform (ACS/CSP).....	5
2.2.1 Add VSM	7
2.3 CONFIG VSM	7
2.3.1 Web UI config.....	7
2.3.2 CLI config.....	11
2.3.3 Modify VSM username & password.....	12
2.3.4 Config DNS	13
2.3.5 Config DHCP server	14
2.4 ASSIGN POLICY TO THE PORT	17
2.5 CONFIG NAT	18
2.5.1 Config SNAT.....	18
2.6 MODIFY VSM TIME	19
2.7 SAVE	20
3. CLI COMMAND	21

1. Topology

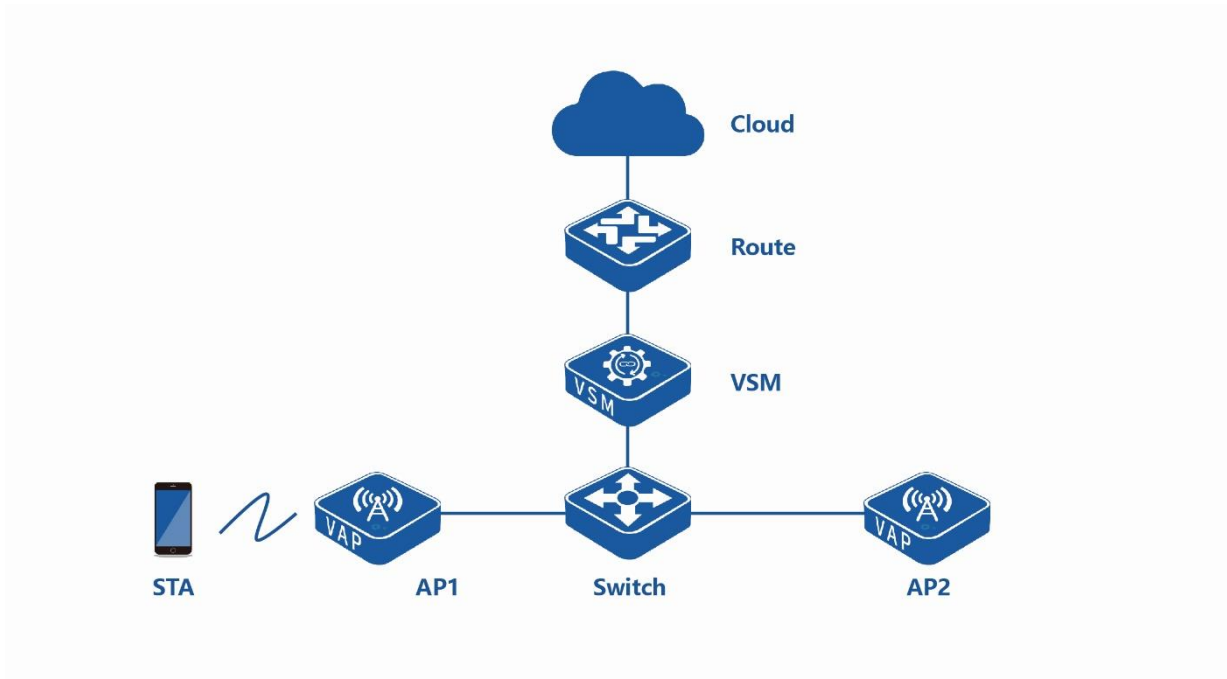
1.1 VSM bypass



1.2 VSM gateway



1.3 VSM bridge



2. VSM configuration

2.1 Ready

Name	Num
PC	1
Console cable	1
COM to USB	1
Cable	1
Xshell/ SecureCRT	1

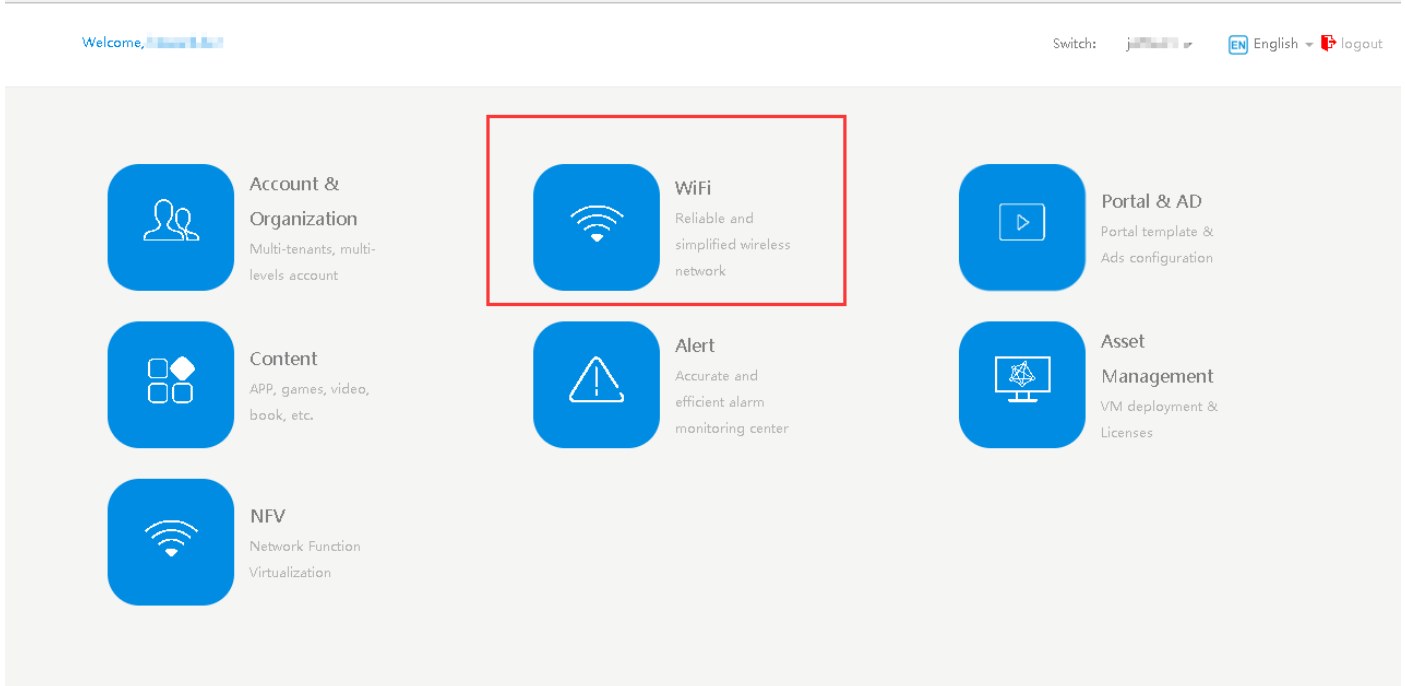
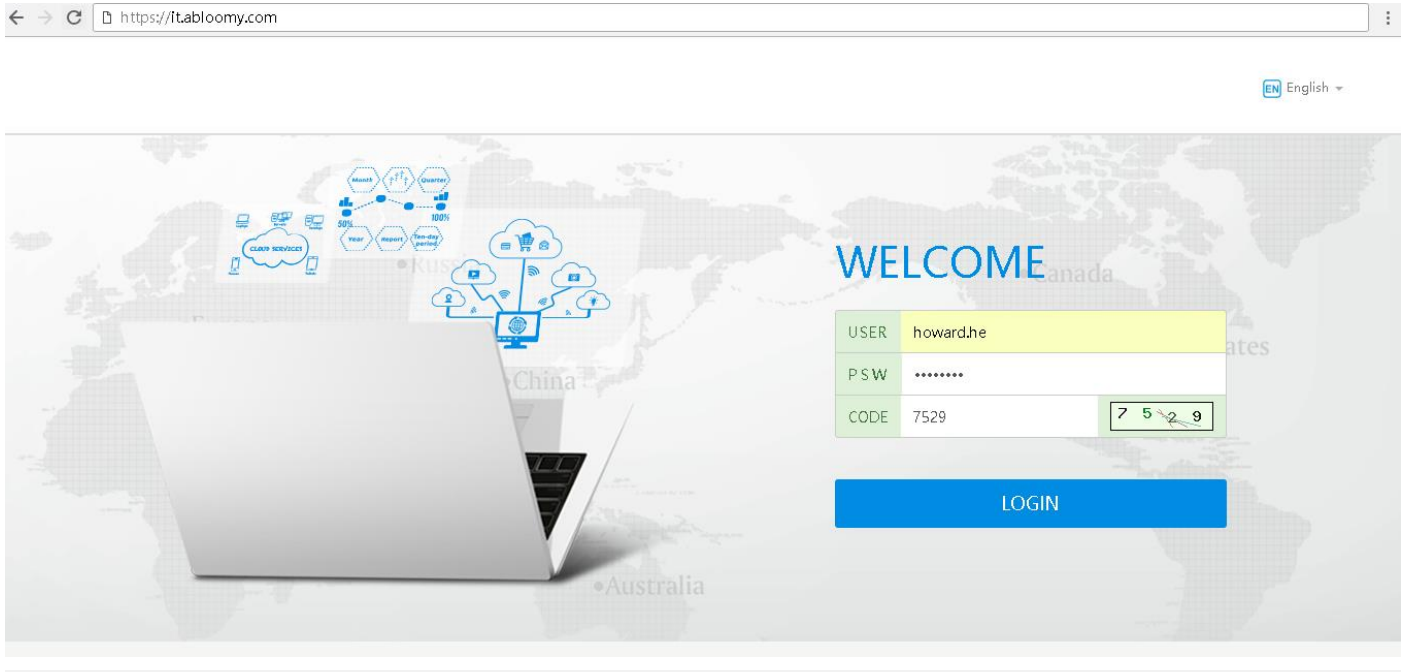
2.2 Add VSM to Cloud Platform (ACS/CSP)

2.2.1 Login Cloud Platform (ACS/CSP)

For ACS:

Login to <https://it.abloomy.com> (ACS domain or IP)

Click on WiFi button

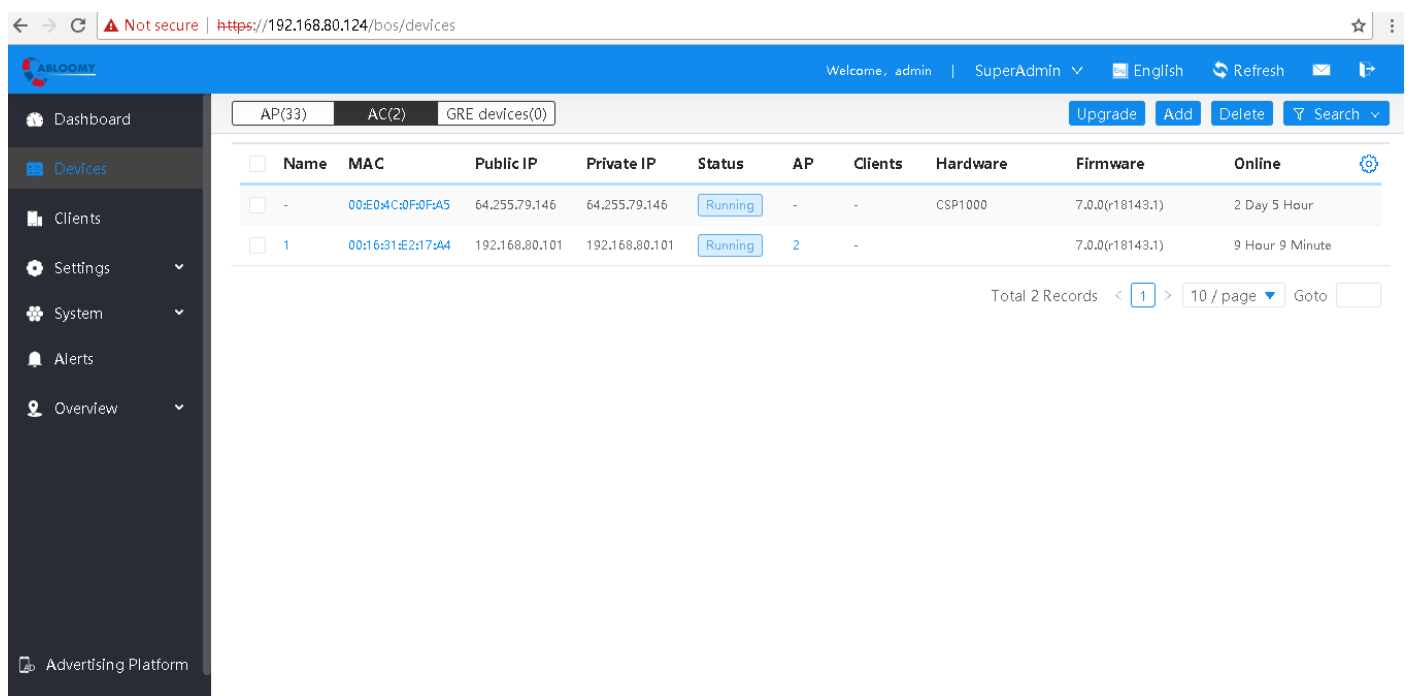
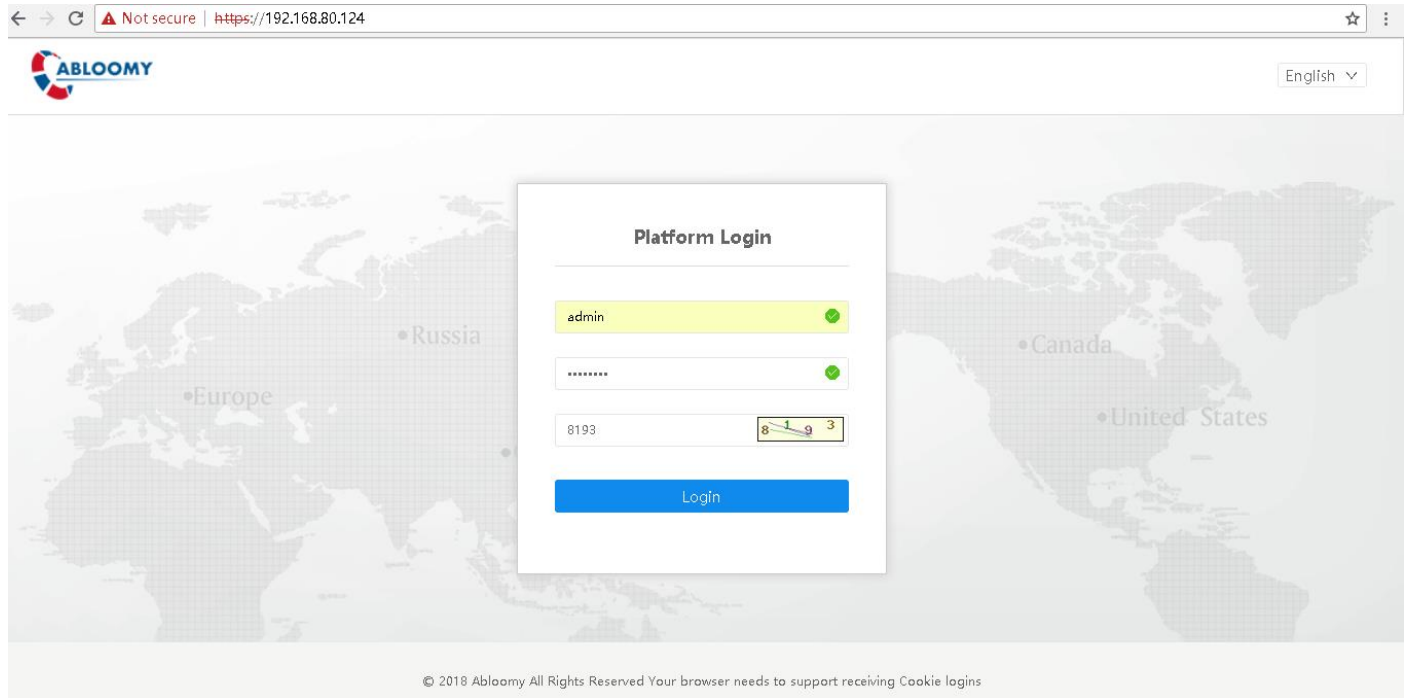


Note: <https://it.abloomy.com> is an unique ACS address

For CSP:

Login to <https://XX.XX.XX.XX> (CSP IP or domain)

Click on WiFi button



2.2.1 Add VSM

Click Devices—AC—Add

The screenshot displays the ABLOOMY web interface. The top navigation bar includes the logo, user information, language, and refresh options. The left sidebar contains navigation links for Dashboard, Devices, Clients, Settings, and System. The main content area shows a table of devices with columns for Name, MAC, Public IP, Private IP, Status, AP, Users, Hardware Type, Firmware Version, and Connection Time. Below the table, there are tabs for Summary and Modify. The Modify form includes fields for Name, MAC, Device Type, Location, Organization, Tag, and Address, along with a map showing the location of Zhongshan Park.

Name	MAC	Public IP	Private IP	Status	AP	Users	Hardware Type	Firmware Version	Connection Time
001631f1b810	00:16:31:F1:B8:10	58.48.77.55	192.168.106.120	Offline	-	-	1200064	8.1.0(r18095)	-
60CDA9D33E8A	60:CD:A9:D3:3E:8A	125.120.189.127	192.168.20.3	Offline	-	-	VSM600	8.1.0(r18119)hi	-
VSM800-2	00:16:31:F6:D0:E0	119.96.98.44	192.168.106.33	Offline	-	-	1450030	8.1.0(r17832)	-

Name, MAC and Device Type is required, fill in and save.

2.3 Config VSM

We have two way to config VSM:

1. Web UI
2. CLI

2.3.1 Web UI config

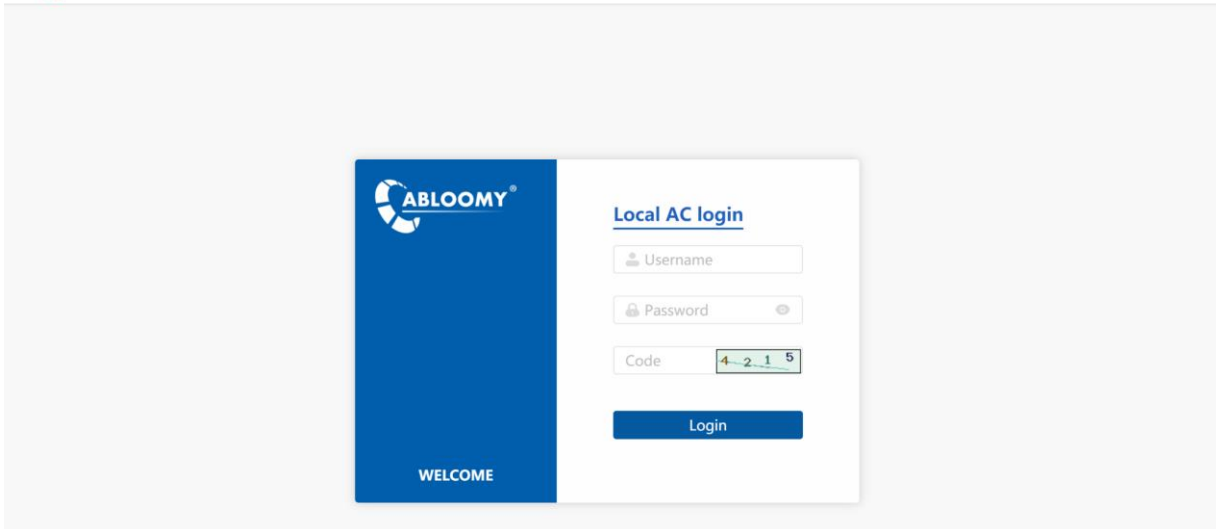
VSM port 0/1 is WAN default, the rest port is LAN. PC can connect LAN port and get IP address by DHCP.

Login in address: <https://192.168.186.1/wan>

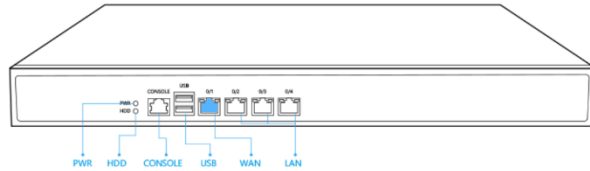
Username: admin

Password: admin.01

Note: We suggest Chrome & Firefox web browser.

**Status: Run well**

Product Model: VSM800E
Software Version: 8.1.0(r18095)
MAC: 00:16:31:F8:AF:42
Access AP **64**
authorization:
Interface State: **Already connected**



Note: The diagram is the device factory configuration information

**WAN Configuration: Access to address success**

G0/1 Ports [dropdown] [close]

PPPOE	DHCP	<u>Static</u>	status information
Ip Address:	<input type="text" value="192.168.106.200"/>		Connection Ty...Static
Subnet Mask:	<input type="text" value="255.255.255.0"/>		Ip Address: 192.168.106.200
Gateway:	<input type="text" value="192.168.106.1"/>		Subnet Mask: 255.255.255.0
DNS Server:	<input type="text" value="114.114.114.114"/>		Gateway: 192.168.106.1
Alternative DNS S...	<input type="text" value="8.8.8.8"/>		DNS Server: 114.114.114.114 8.8.8.8
Vlan ID	<input type="text" value="Please Enter"/>		

Add Interface ▾

Save

**Cloud service connection: Already connected**

Cloud service *it.abloom.com*
platform address:

For more, please click here

2.3.1.1 Config WAN port

WAN port can select three kinds of mode: PPPOE, DHCP and Static

DHCP (default): When WAN port connect to DHCP network, status information will show the detail.

Note: DNS will be obtained automatically from the network or you can config static DNS by yourself.


G0/1 Ports

PPPOE DHCP Static

Click Save, the interface configuration will be changed to automatic access

DNS Server:

Alternative DNS S...

Vlan ID :

status information

Connection Ty... *DHCP*

Ip Address: 192.168.106.120

Subnet Mask: 255.255.255.0

Gateway: 192.168.106.1

DNS Server: 202.103.24.68 | 202.103.44.150


Add Interface ▼

Save


PPPOE: Enter username, password and save. Status information will show the detail if connected successfully.

G0/3 Ports

PPPOE DHCP Static

Account :

Password:

Vlan ID :

status information

Connection Ty... -

Ip Address: -

Subnet Mask: -

Gateway: -

DNS Server: -

Add Interface ▼

Save

Static: Enter IP, mask, gateway and DNS

G0/1 Ports

PPPOE DHCP Static

status information

Connection Ty...*Static*

Ip Address: 192.168.106.200

Subnet Mask: 255.255.255.0

Gateway: 192.168.106.1

DNS Server: 114.114.114.114

Alternative DNS S... 8.8.8.8

Vlan ID ? : Please Enter

Ip Address: 192.168.106.200

Subnet Mask: 255.255.255.0

Gateway: 192.168.106.1

DNS Server: 114.114.114.114 | 8.8.8.8

Add Interface ▾

Save

WAN Configuration will display “Access to address success” when WAN connect to the network.



WAN Configuration: **Access to address success**

G0/2 Ports

2.3.1.2 Config cloud platform address

Cloud service *it.abloomy.com*

platform address:

Platform Address ? :

Save

After cloud service address is configured, and WAN port is connected to internet, VSM will register to ACS/CSP automatically.



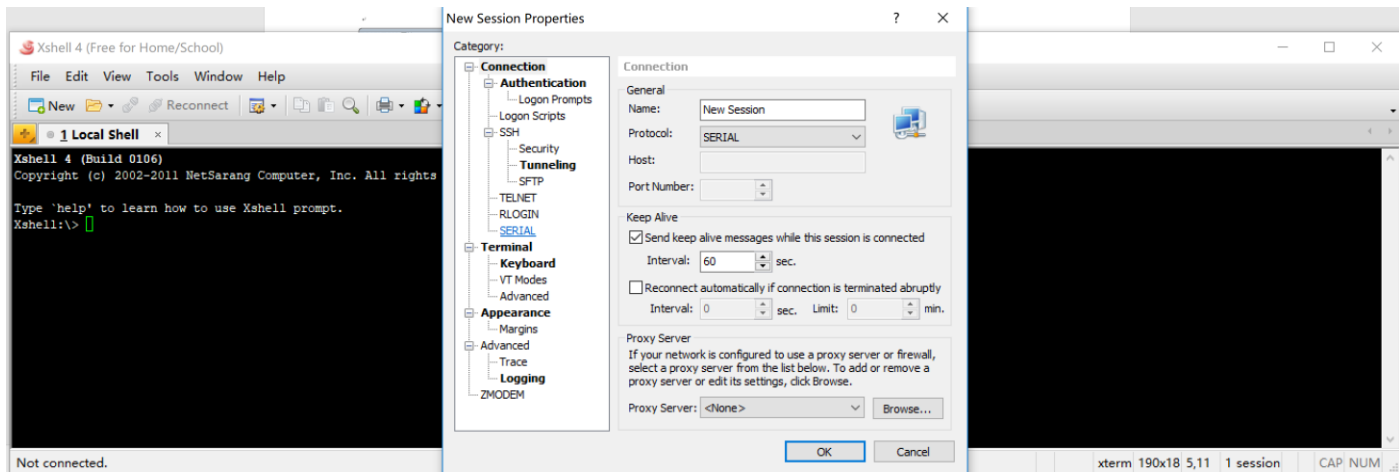
Cloud service connection: **Already connected**

Enter WiFi module, and we can see VSM Status is “Running” under AC.

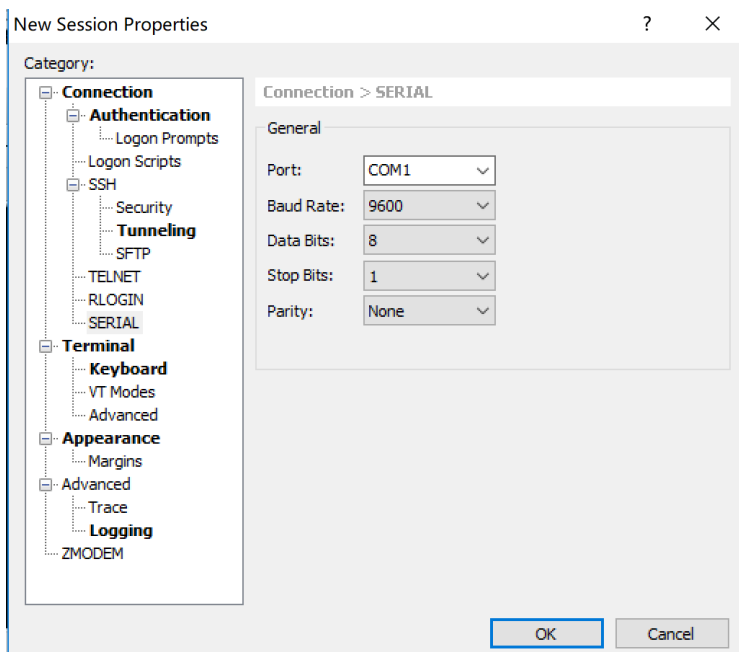
Name	MAC	Public IP	Private IP	Status	AP	Users	Hardware Type	Firmware Version	Connection Time
001631f1b810	00:16:31:F1:B8:10	58.48.77.55	192.168.106.120	Running	-	-	1200064	8.1.0(r18095)	23 Minute 15 Second

2.3.2 CLI config

Console cable connect to VSM console port and PC NIC.
Open Xshell, click new—connection—Protocol—SERIAL.



Select the right COM port and click ok.



Enter VSM username and password to login.

Username: admin

Password: admin.01

2.3.2.1 Config WAN port

1. WAN get IP by DHCP

```
set wan 0/1 dhcp weight 1
```

```
Abloomy@[192.168.106.158]: set wan 0/1 dhcp weight 1
```

2. WAN get IP by PPPOE

```
set wan 0/1 pppoe abloomy 123456 weight 1
```

Note: abloomy 123456 is the username password for pppoe.

```
Abloomy@[192.168.106.158]: set wan 0/1 pppoe abloomy 123456 weight 1
```

3. WAN get IP by Static

```
set wan 0/1 192.168.106.200/24 gateway 192.168.106.1 weight 1 114.114.114.114 8.8.8.8
```

```
Abloomy@[192.168.106.158]: set wan 0/1 192.168.106.200/24 gateway 192.168.106.1 weight 1 114.114.114.114 8.8.8.8
```

2.3.2.2 Config cloud platform address

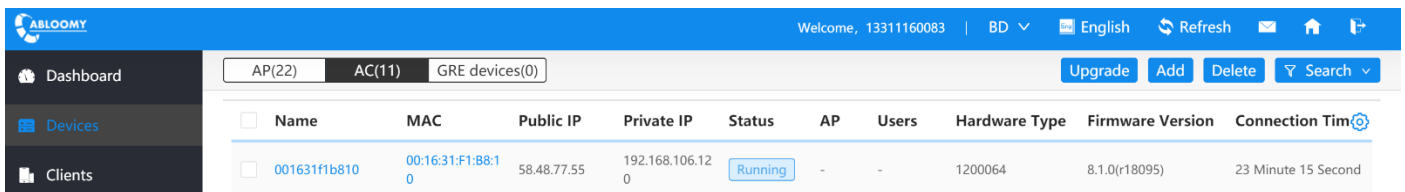
set controlserver it.abloomy.com (ACS IP or domain) or `XX.XX.XX.XX` (CSP IP or domain)

```
Abloomy@[192.168.106.158]: set controlserver it.abloomy.com.cn
Set controlserver: it.abloomy.com - successful!

Abloomy@[192.168.106.158]: show controlserver
Control Server: it.abloomy.com
```

After cloud service address is configured, and WAN port is connected to internet, VSM will register to ACS/CSP automatically.

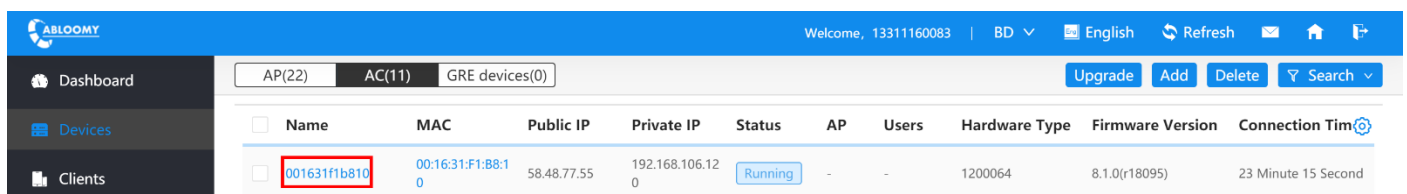
Enter WiFi module, and we can see VSM Status is “Running” under AC.



Name	MAC	Public IP	Private IP	Status	AP	Users	Hardware Type	Firmware Version	Connection Time
001631f1b810	00:16:31:F1:B8:10	58.48.77.55	192.168.106.120	Running	-	-	1200064	8.1.0(r18095)	23 Minute 15 Second

2.3.3 Modify VSM username & password

- Enter WiFi Module, Click Devices—AC, select your VSM.



Name	MAC	Public IP	Private IP	Status	AP	Users	Hardware Type	Firmware Version	Connection Time
001631f1b810	00:16:31:F1:B8:10	58.48.77.55	192.168.106.120	Running	-	-	1200064	8.1.0(r18095)	23 Minute 15 Second

Click Modify—Admin to modify VSM username & password

The screenshot shows a configuration page for a VSM device. At the top, there are tabs for 'AP(22)', 'AC(11)', and 'GRE devices'. Below the tabs are 'Summary' and 'Modify' buttons, with 'Modify' highlighted in a red box. A 'Back' button is in the top right corner. The 'Summary' section is expanded, showing fields for 'Name' (001631f1b810), 'MAC' (00:16:31:F1:B8:10), and 'System ID' (00:16:31:F1:B8:10). The 'Admin' section is also expanded, showing 'SSH' settings with 'Enable' and 'Technical Support' toggles. Below this is the 'Admin' section with fields for 'Name' (placeholder: EnterName), 'Password', and 'Confirm Password', all with masked input. At the bottom, there are 'Save' and 'Cancel' buttons.

2.3.4 Config DNS

➤ Click Modify—DNS Server, set DNS Address manually.

The screenshot shows the 'DNS Server' configuration page. The top navigation bar includes the 'ABLOOMY' logo, user information 'Welcome, 13311160083', and language 'English'. A sidebar on the left contains navigation items: Dashboard, Devices, Clients, Settings, System, Alerts, and Map topology. The main content area has tabs for 'AP(22)', 'AC(11)', and 'GRE devices', with 'Modify' highlighted in a red box. A 'Back' button is in the top right. The 'DNS Server' section is expanded, showing 'Enable' (checked), 'DNS Address' (radio buttons for 'Auto' and 'Manual', with 'Manual' selected and highlighted in a red box), and a 'Customized domain name' dropdown menu with 'Please Select'.

2.3.5 Config DHCP server

2.3.5.1 Config subnet IP

Click Network—Subnets—Add.

The screenshot shows the ABLOOMY web interface. At the top, there's a navigation bar with 'Welcome, howard.he | SuperAdmin | English | Refresh'. Below it, a sidebar contains 'Dashboard', 'Devices', 'Clients', and 'Settings'. The main content area has tabs for 'Network', 'NAT', 'Route', 'Subnets', and 'Domain'. Under 'Subnets', there are sub-tabs for 'Subnet' and 'Network group'. A table lists existing subnets:

Name	IP Version	IP	IP/DHCP Mask	DHCP	Default	Operation
VPN-Server-01	IPv4	192.168.199.1	255.255.255.0 (/24)	<input type="checkbox"/>	<input type="checkbox"/>	Edit Delete
VPN-Server-02-Office	IPv4	192.168.181.1	255.255.255.0 (/24)	<input type="checkbox"/>	<input type="checkbox"/>	Edit Delete

Below the table, there's a form to add a new subnet. The 'Add' button is highlighted with a red box. The form fields are:

- Name: Please enter name
- IP Protocol Version: IPv4 IPv6
- IP allocation mode: None Static
- DHCP: DHCP Server, DHCP Relay
- Default: (toggle)
- description: Please enter the description

At the bottom, there are 'Save' and 'Cancel' buttons.

2.3.5.2 Config DHCP pool

Click IP Mode to Static and you can set DHCP pool

The screenshot shows the ABLOOMY web interface. At the top, there's a navigation bar with 'Welcome, howard.he | SuperAdmin | English | Refresh'. Below it, a sidebar contains 'Dashboard', 'Devices', 'Clients', and 'Settings'. The main content area has tabs for 'Network', 'NAT', 'Route', 'Subnets', and 'Domain'. Under 'Subnets', there are sub-tabs for 'Subnet' and 'Network group'. A table lists existing subnets:

Name	IP Version	IP	IP/DHCP Mask	DHCP	Default	Operation
VPN-Server-01	IPv4	192.168.199.1	255.255.255.0 (/24)	<input type="checkbox"/>	<input type="checkbox"/>	Edit Delete
VPN-Server-02-Office	IPv4	192.168.181.1	255.255.255.0 (/24)	<input type="checkbox"/>	<input type="checkbox"/>	Edit Delete

Below the table, there's a form to add a new subnet. The 'Add' button is highlighted with a red box. The form fields are:

- Name: Enter name
- IP Version: IPv4 IPv6
- IP Mode: None Static
- IP Address/Subnet Mask: 0.0.0.0 - 0.0.0.0 (/0)
- DHCP: DHCP Server

At the bottom, there are 'Save' and 'Cancel' buttons.

DHCP

DHCP Server

Default Lease Time 0 days 1 hours 0 minutes

Max Lease Time 1 days 0 hours 0 minutes

Gateway 0.0.0.0

DNS Mode WAN Manual

IP Range 0.0.0.0 - 0.0.0.0 [Add](#)

Start IP	End IP	Action
No data		

Static IP

Host name 0.0.0.0 00:00:00:00:00:00 [Add](#)

Host name	IP	MAC	Operation
No data			

Advanced

DHCP Relay

Default

2.3.5.3 Config DHCP lease time

Default lease time is 1 hours and max lease time is 1day. You can modify by yourself.

DHCP

DHCP Server

Default Lease Time 0 days 1 hours 0 minutes

Max Lease Time 1 days 0 hours 0 minutes

Gateway 0.0.0.0

DNS Mode WAN Manual

2.3.5.4 DHCP pool gateway

Set subnet IP address/mask as a DHCP pool gateway address

Network NAT Route **Subnets** Domain

Subnet Network group Back

Name

IP Version IPv4 IPv6

IP Mode None Static

IP Address/Subnet Mask -

2.3.5.5 Config DHCP Pool DNS

You can get DHCP pool DNS IP by WAN or Manual.

DNS Mode WAN Manual

Primary DNS

Secondary DNS

2.3.5.6 DHCP Pool IP range

Set IP Range and click Add. For example: 192.168.1.1~192.168.1.200.

IP Range - Add

Start IP	End IP	Action
No data		

2.3.5.7 Static IP and MAC binding

Set static IP and mac to binding

Static IP Add

Host name	IP	MAC	Operation
No data			

Note: this is optional

Advanced

Set Domain name and DHCP Option 43 if you need.

▼ Advanced

The screenshot shows a configuration panel with two main sections. The first section is labeled 'Domain' and contains a text input field with the placeholder text 'Enter Domain'. The second section is labeled 'DHCP Option 43' and contains a toggle switch that is currently turned off.

2.3.5.8 Default

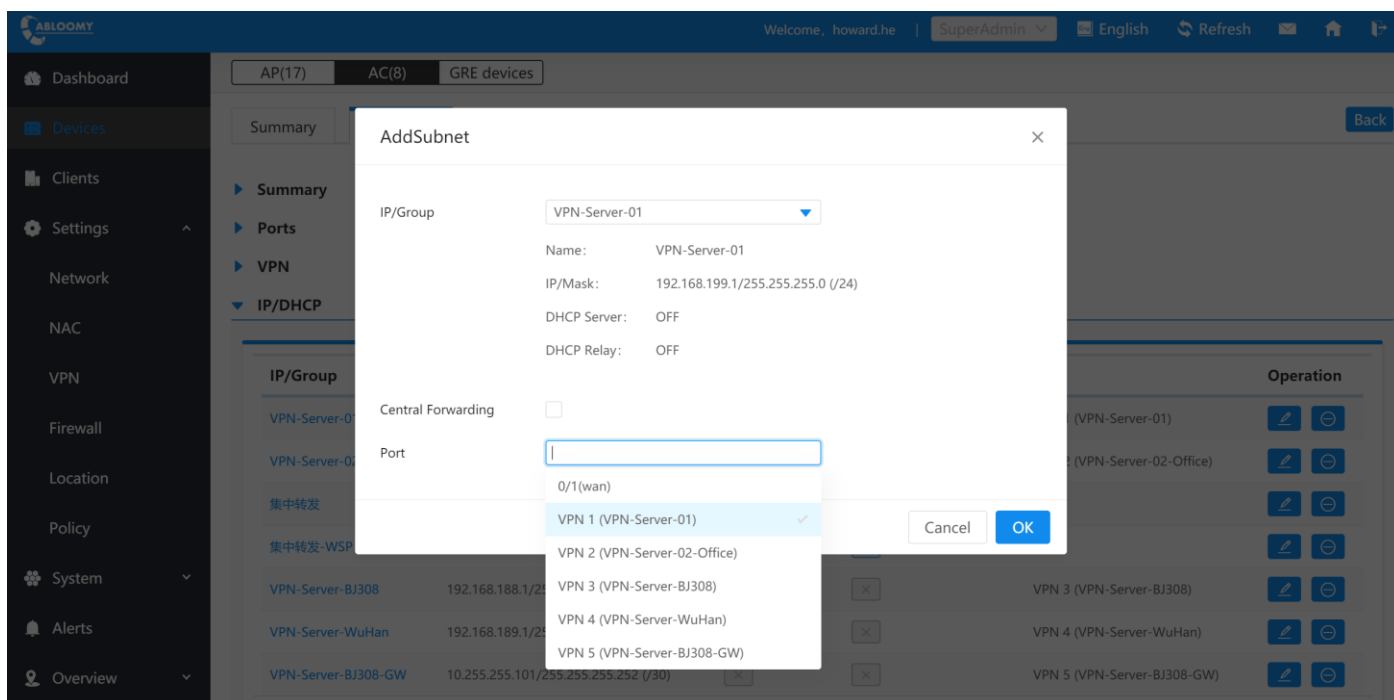
Default 



Except of VSM WAN port (0/1), the rest ports will follow the subnet DHCP default policy.

2.4 Assign policy to the port

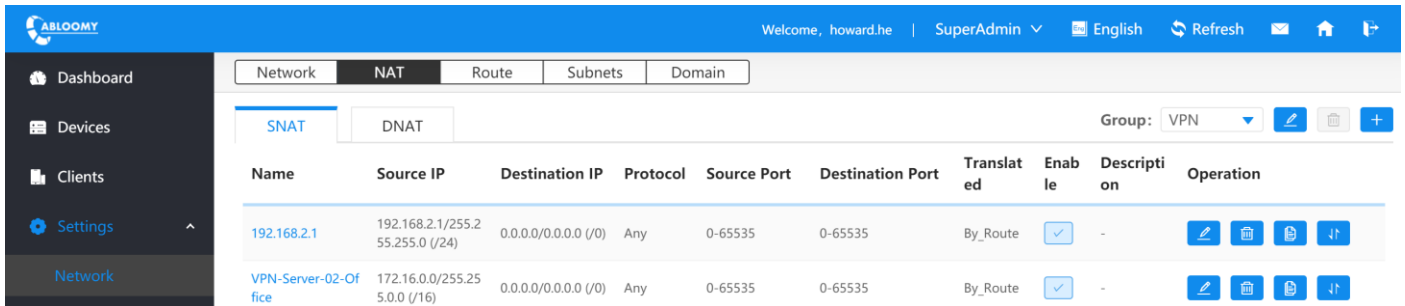
- Click Devices—AC, select your VSM
- Click Modify—IP/DHCP—Add
- Choose subnet policy under Port.



2.5 Config NAT

2.5.1 Config SNAT

Click Network—NAT, Create a new Group

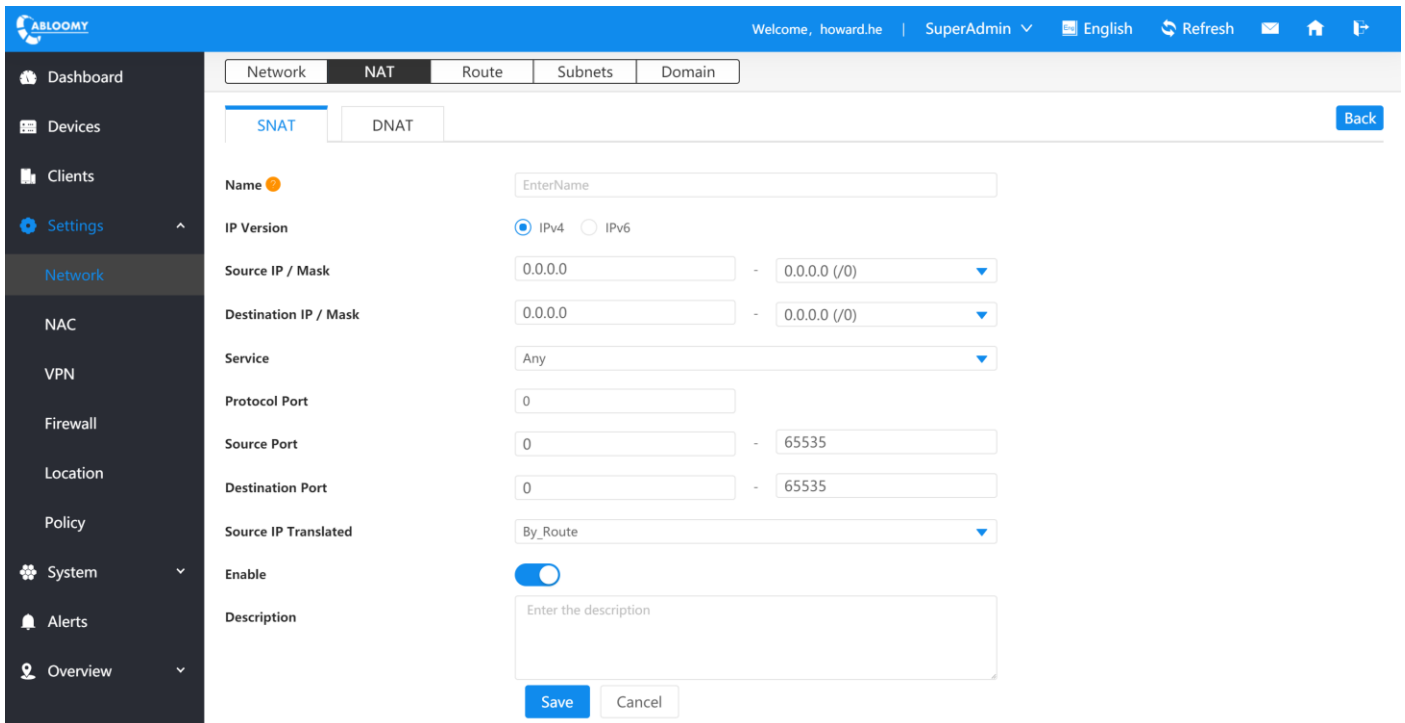


The screenshot shows the ABLOOMY web interface. The top navigation bar includes the logo, user name 'howard.he', role 'SuperAdmin', language 'English', and a 'Refresh' button. The left sidebar contains a menu with 'Dashboard', 'Devices', 'Clients', 'Settings', and 'Network'. The main content area has tabs for 'Network', 'NAT', 'Route', 'Subnets', and 'Domain'. Under the 'NAT' tab, there are sub-tabs for 'SNAT' and 'DNAT'. A 'Group' dropdown is set to 'VPN'. Below this is a table with columns: Name, Source IP, Destination IP, Protocol, Source Port, Destination Port, Translated, Enable, Description, and Operation. Two rows are visible:

Name	Source IP	Destination IP	Protocol	Source Port	Destination Port	Translated	Enable	Description	Operation
192.168.2.1	192.168.2.1/255.255.0 (/24)	0.0.0.0/0.0.0.0 (/0)	Any	0-65535	0-65535	By_Route	<input checked="" type="checkbox"/>	-	[Edit] [Delete] [Refresh] [Down Arrow]
VPN-Server-02-Office	172.16.0.0/255.255.0 (/16)	0.0.0.0/0.0.0.0 (/0)	Any	0-65535	0-65535	By_Route	<input checked="" type="checkbox"/>	-	[Edit] [Delete] [Refresh] [Down Arrow]

Click Add--SNAT

Add



The screenshot shows the 'Add' form for a new SNAT rule. The interface is similar to the previous screenshot. The 'Name' field is empty with a placeholder 'EnterName'. The 'IP Version' is set to 'IPv4'. The 'Source IP / Mask' is '0.0.0.0' and the 'Destination IP / Mask' is '0.0.0.0 (/0)'. The 'Service' is 'Any'. The 'Protocol Port' is '0'. The 'Source Port' is '0' and the 'Destination Port' is '65535'. The 'Source IP Translated' is 'By_Route'. The 'Enable' toggle is turned on. The 'Description' field is empty with a placeholder 'Enter the description'. At the bottom are 'Save' and 'Cancel' buttons.

Enter Name

All default is ok, click save.

The system can do SNAT by route.

- Click Devices—AC, select your AC
- Click Modify—SNAT, select your SNAT rule

Organization: All Selected

- Ports
- VPN
- IP/DHCP
- Route
- DNS Server
- Firewall
- SNAT

SNAT Rules: **VPN**

Name	Source IP	Destination IP	Protocol	Source Port	Destination Port	Translated	Enable	Description
192.168.2.1	192.168.2.1/24	0.0.0.0/0	Any	0-65535	0-65535	By_Route	<input checked="" type="checkbox"/>	
VPN-Server-02-Office	172.16.0.0/16	0.0.0.0/0	Any	0-65535	0-65535	By_Route	<input checked="" type="checkbox"/>	
JZ-LYB	192.168.88.1/24	0.0.0.0/0	Any	0-65535	0-65535	By_Route	<input checked="" type="checkbox"/>	
集中转发-WSP	192.168.89.1/24	0.0.0.0/0	Any	0-65535	0-65535	By_Route	<input checked="" type="checkbox"/>	

If you customize by yourself, you should understand the following:

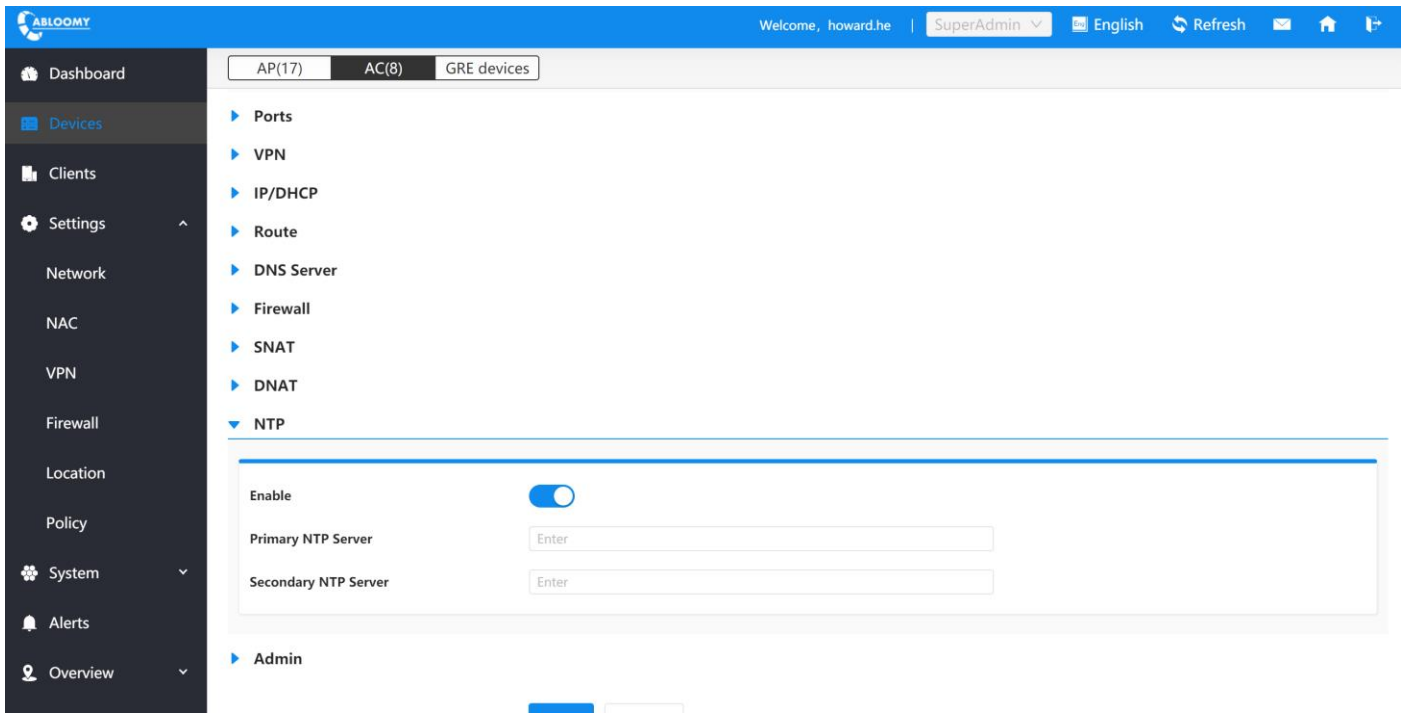
Source IP/ Mask: IP network segment which need to network address transform as a source

Destination IP/ Mask: IP network segment which you want to access, 0.0.0.0 mean all.

Source IP Translated: Transform Source IP network segment to specified IP. Default route will select automatically.

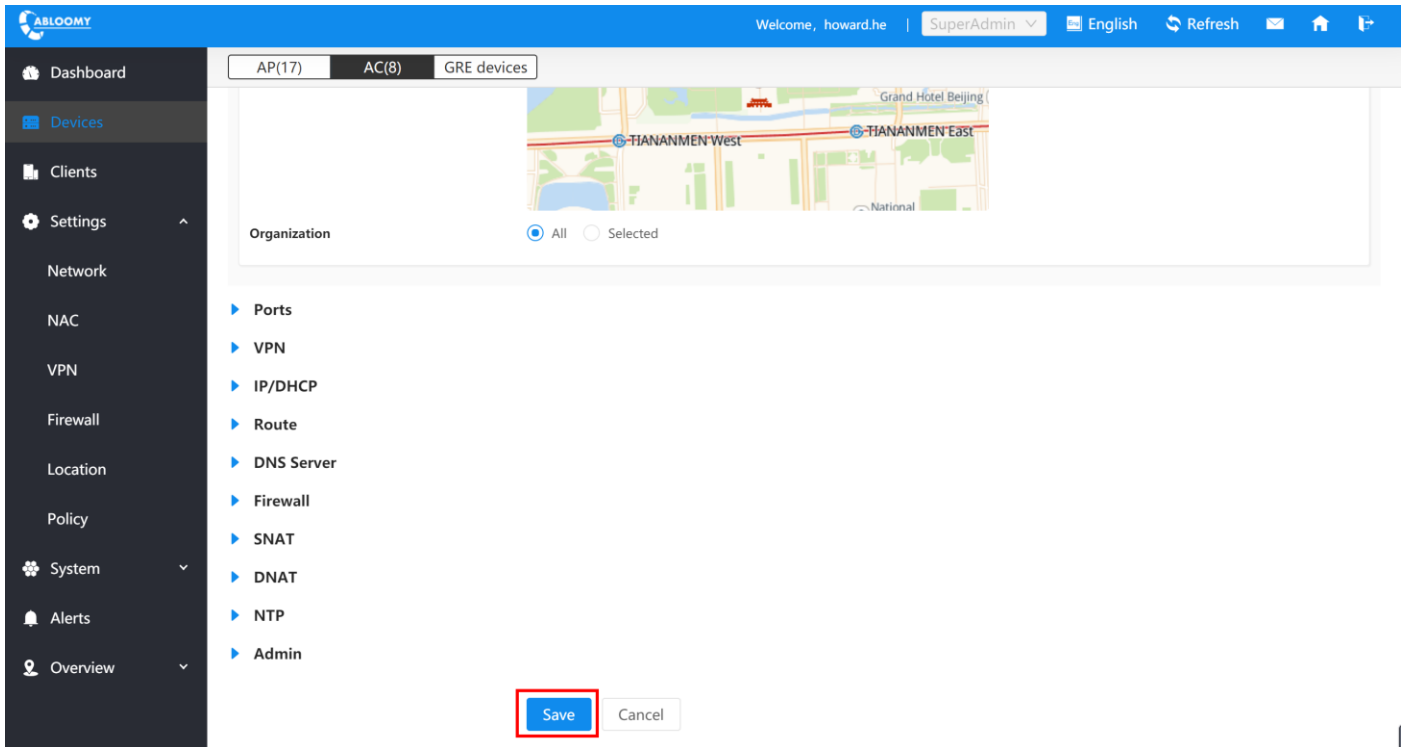
2.6 Modify VSM time

- Click Devices—AC, select your VSM
- Click NTP—Enable, enter Primary NTP server and Secondary NTP server address, make sure VSM and ACS/CSP time is synchronized.



2.7 Save

Click Save button after all config is done. If you forget to click Save button, all configuration will be lost.



3. CLI command

- show ip (show ip configuration)

```
Abloomy@[192.168.100.122]: show ip
Interface          IP/Netmask          CS_Control  TYPE      Admin
Slot/Port 0/1      192.168.100.122/255.255.255.0  on          STATIC    on
VSLAN 1          1.1.1.1/128.0.0.0  off         STATIC    off
```

- show ports (show ports configuration)

```
Abloomy@[192.168.100.122]: show ports
Slot 0: 4 ports
Slot/Port  MAC          Type  Mtu  Mode  Br      Trunk  Speed  VSLAN  ByIP  Status  PseudoMac  PPPoE_user
-----
0/1         00:16:31:f1:65:ac  Uplink  1500 Route -      Off    Auto   1      Off  Enable  00:00:00:00:00:00
0/2         00:16:31:f1:65:ad  Uplink  1500 Route -      Off    Auto   1      Off  Enable  00:00:00:00:00:00
0/3         00:16:31:f1:65:ae  Downlink 1500 Route -      Off    Auto   1      Off  Enable  00:00:00:00:00:00
0/4         00:16:31:f1:65:af  Downlink 1500 Route -      Off    Auto   1      Off  Enable  00:00:00:00:00:00
```

- show route (show route configuration)

```
Abloomy@[192.168.100.122]: show route
DestIP/Netmask    Gateway      Metric
0.0.0.0/0.0.0.0  192.168.100.1  0
```

- show controlserver (show ACS/CSP address)

```
Abloomy@[192.168.100.122]: show controlserver
Control Server: 192.168.100.166
```

- show vlanif (show vlan ports configuration)

```
Slot/Port  MAC          Mtu  Mode  Br      VSLAN  ByIP  Status
Slot/Port 0/2.100    00:16:31:f1:65:ad  1500 Switch VSLAN 1  1      off  Enable
Abloomy@[192.168.100.122]: Write failed: Broken pipe
```

- show time

```
Abloomy@[192.168.100.122]: show time
Timezone:      Asia/Shanghai
NTP Service:   Enabled
NTP Servers:   ntp.nasa.gov
Time:          2014/11/26 13:31:18
```

- show dhcpserver

```
Abloomy@[192.168.100.122]: show dhcpserver ?
```

```
show dhcpserver ;
show dhcpserver status;
show dhcpserver default_lease_time;
show dhcpserver max_lease_time;
show dhcpserver if;
show dhcpserver subnet ...;
show dhcpserver fixaddress ...;
show dhcpserver client
show dhcpserver ?
```

- show ambit ip (show DNS configuration)

```
Abloomy@[192.168.100.122]: show ambit_ip
  Hostname:
  Domain Name:
  IP address:      192.168.100.122/24
  DHCP enabled:   No
  Default gateway: None configured
  DNS servers:    202.106.0.20 8.8.8.8
  Management VLAN: Not_tagged
```

- save main

```
Abloomy@[192.168.100.122]: save main
  saving configuration...
  save configuration success _
```

- factoryreset

```
Abloomy@[192.168.100.122]: factoryreset
```

```
This operation will erase all configuration information and
return this system to factory default settings.
```

```
Are you sure you want to perform a factory reset [n]? 
```