

# Configure Zabbix to Monitor N Series Switches via SNMP

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Models: N5850-48S6Q; N8550-48B8C; N8550-32C

## Contents

<b>1. Preface</b>	<b>2</b>
<b>2. Operation Guide</b>	<b>2</b>
<b>2.1 Operation Steps</b>	<b>2</b>
<b>2.2 Operation Process</b>	<b>2</b>
2.2.1 Configure the Switch	2
2.2.2 Log in to Zabbix to Import Templates	2
2.2.3 Create Host Groups	4
2.2.4 Create Hosts	4
2.2.5 Link Template and Host Group	5
2.2.6 Monitoring Switch Data	6
<b>2.3 Zabbix Personalized Customization</b>	<b>7</b>
<b>2.4 FAQ</b>	<b>9</b>
2.4.1 Template Import Failed	9
2.4.2 Monitor Host Failed	10

## 1. Preface

Zabbix is an open-source monitoring software for networks and applications. It can monitor many network parameters and the health and integrity of servers, virtual machines, and any other kind of network device. This document will guide you to import the FS template in Zabbix and apply the template to monitor the FS Switches. The version of Zabbix in this document is 4.4.4 (CentOS Linux version is 7.7, Mysql version is 5.6.46), and taking N5850-48S6Q FSOS switch as an example to monitor the switch.

## 2. Operation Guide

### 2.1 Operation Steps

- Configure SNMP function of the switch
- Log in to Zabbix to import the "N5850-Series and N8550-Series FSOS" template
- Create host group N5850-Series-FSOS and link "N5850-Series and N8550-Series FSOS" template
- Create host, link N5850-Series-FSOS host group, link "N5850-Series and N8550-Series FSOS" template
- Monitor host data

### 2.2 Operation Process

#### 2.2.1 Configure the Switch

Take N5850-48S6Q FSOS Switch as an example to configure the SNMP function

```
FS#configure
FS(config)# snmp version v2
FS(config)# snmp community public ro
```

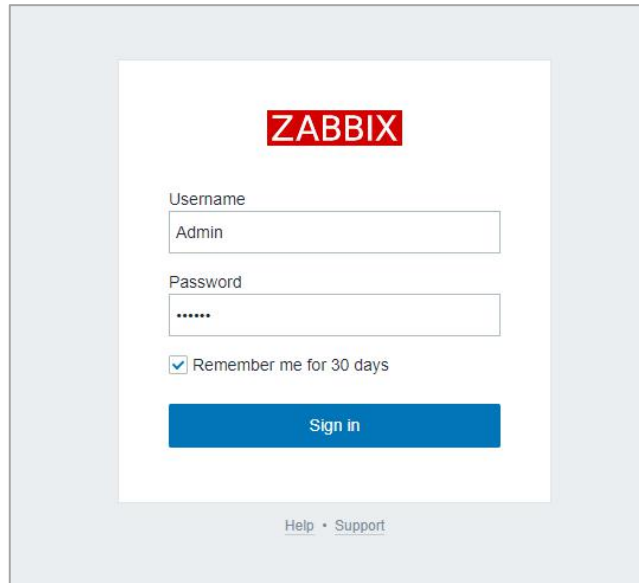
NOTE: As Cumulus system supports SNMPV2, the SNMP configuration commands of Cumulus and FSOS are different.

In the case of using Cumulus system, the configuration command of N5850-48S6Q Cumulus Switch SNMPV2 is as follows:

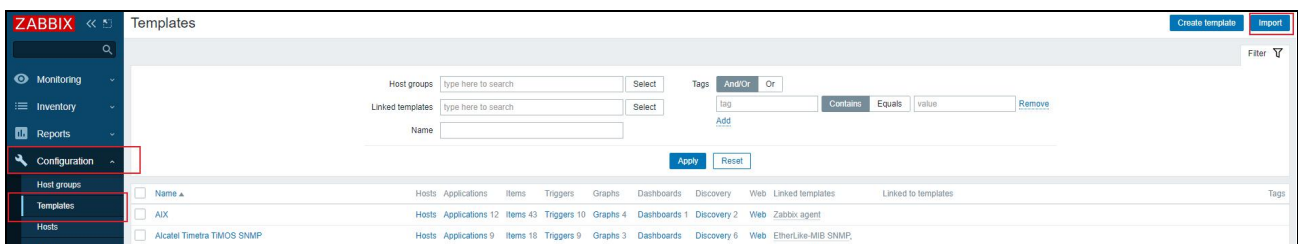
```
cumulus@switch:~$ net add snmp-server listening-address all
cumulus@switch:~$ net add snmp-server listening-address all-v6
cumulus@switch:~$ net add snmp-server readonly-community public access any
cumulus@switch:~$ net pending
cumulus@switch:~$ net commit
```

#### 2.2.2 Log in to Zabbix to Import Templates

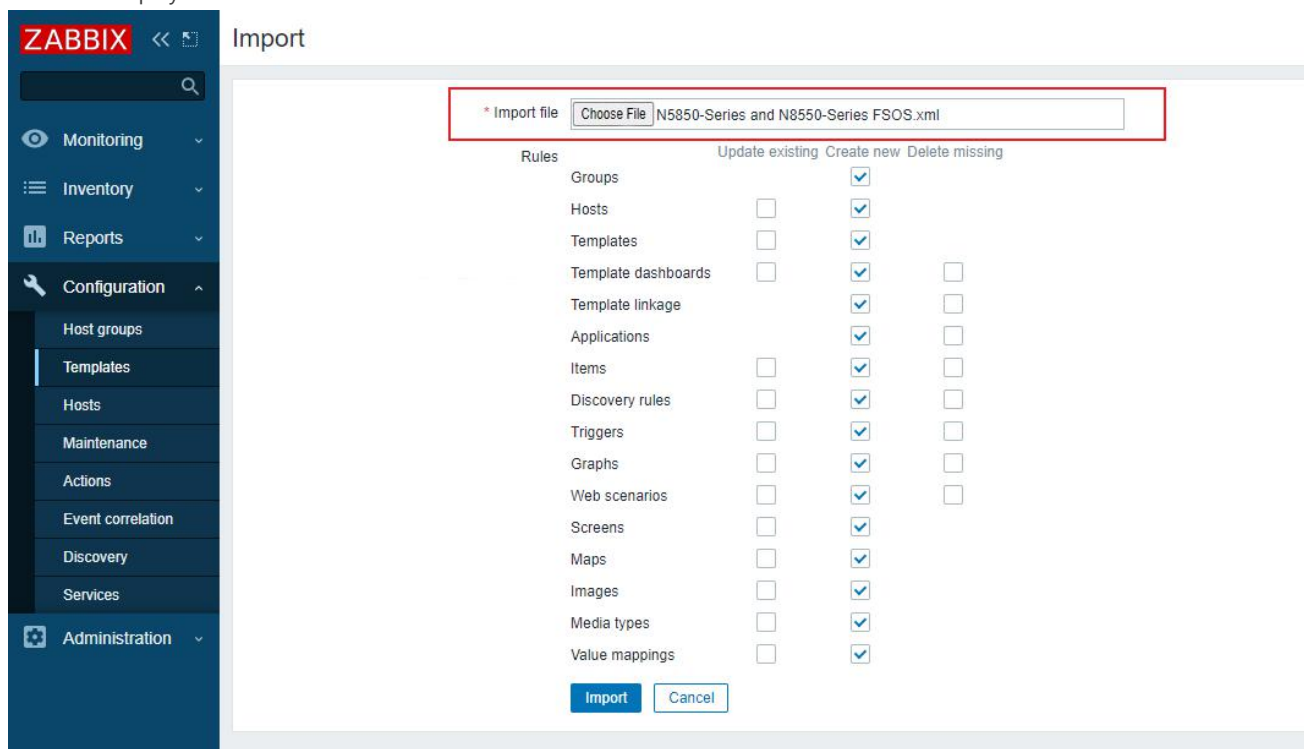
Step 1: Open Zabbix login interface and enter the user name and password to log in to the Zabbix software.

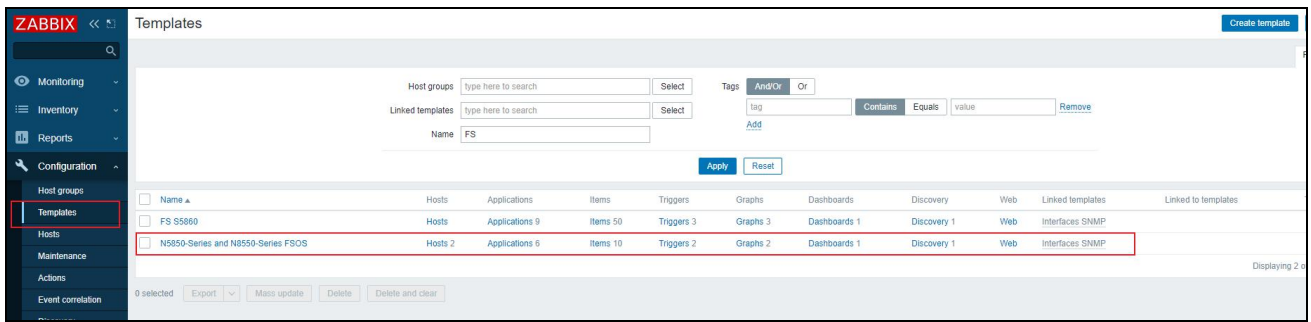


Step 2: Select the **Templates** under Configuration category, and click **Import** in the upper right corner to enter the template import interface.



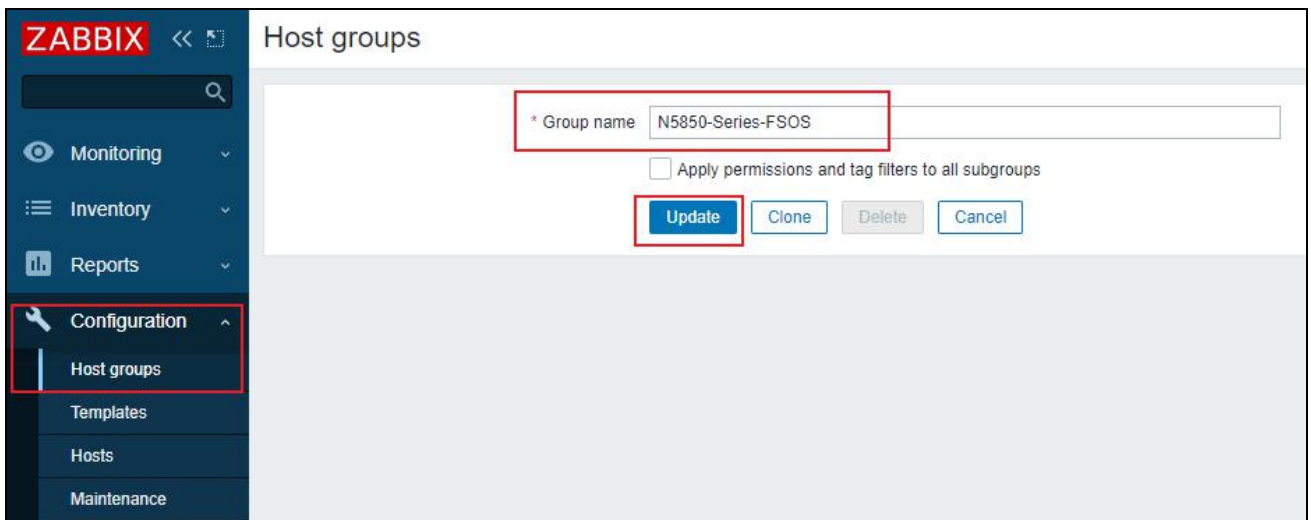
Step 3: Select the 'N5850-Series and N8550-Series FSOS', click the **Import** button to import it, and then you can see the "N5850-Series and N8550-Series FSOS" templates that have been successfully imported in the template list after the import success is displayed.



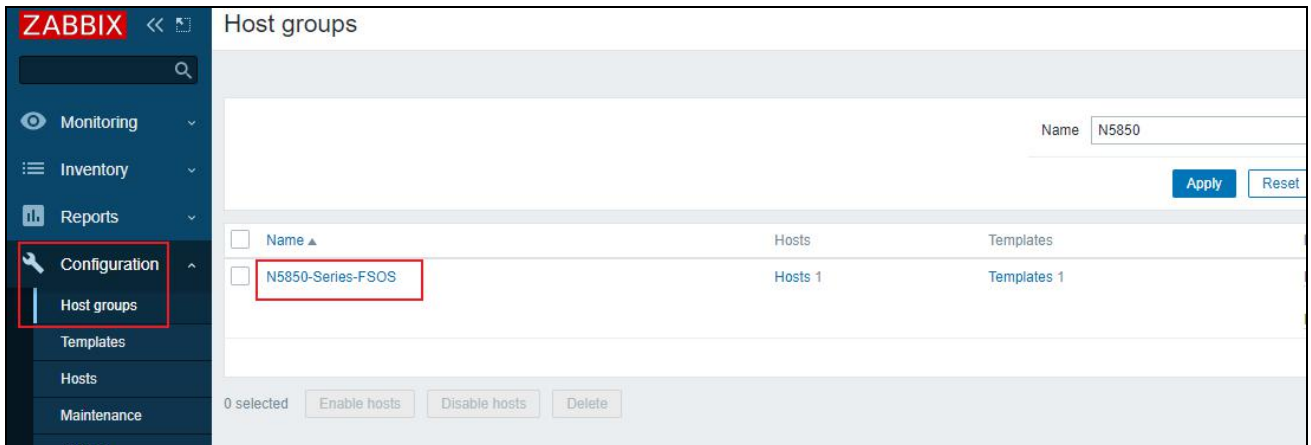


### 2.2.3 Create Host Groups

Step 1: Select the host groups and click the **Create host group** button in the upper-right corner.

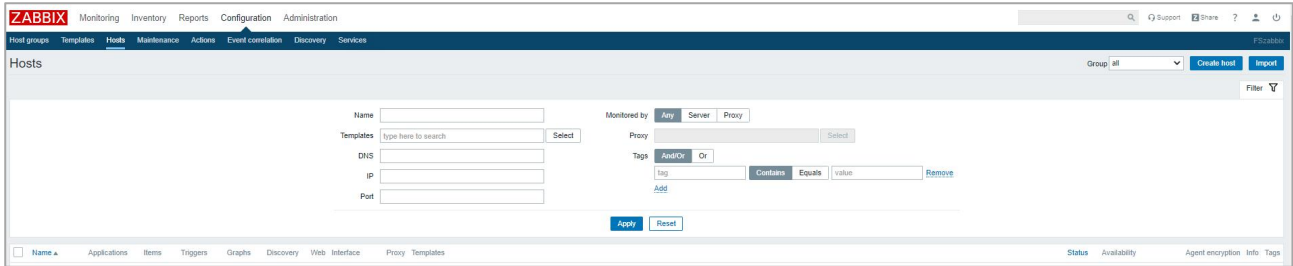


Step 2: Create a host group named 'N5850-Series-FSOS' host group, then view the successfully created host group.

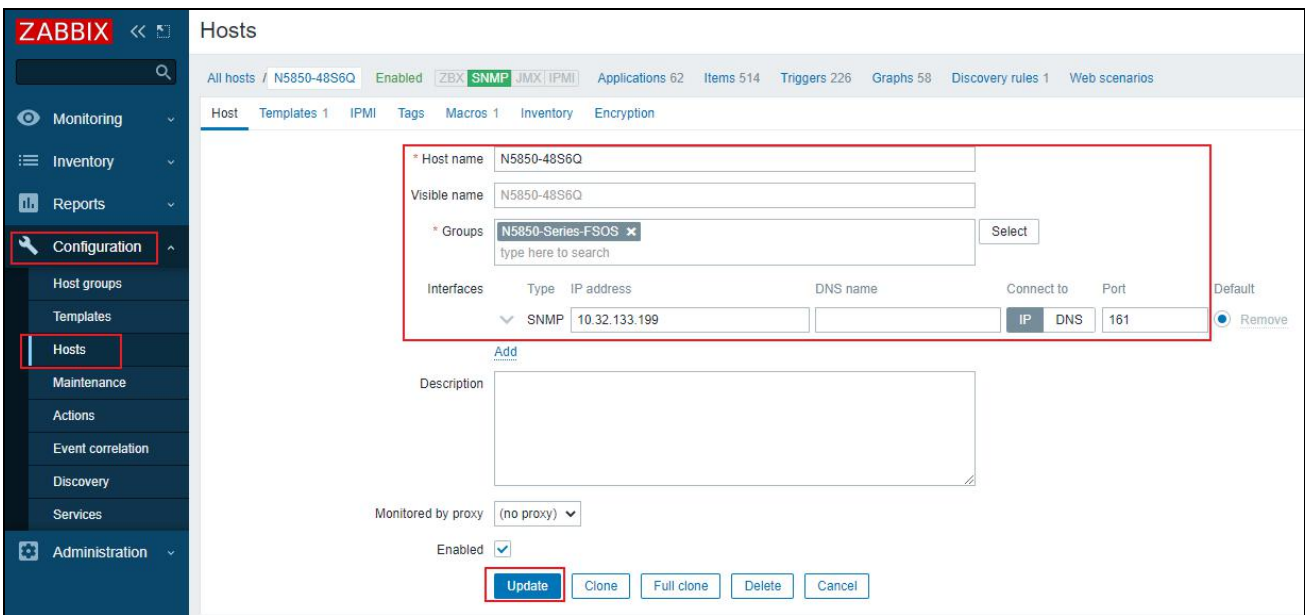


### 2.2.4 Create Hosts

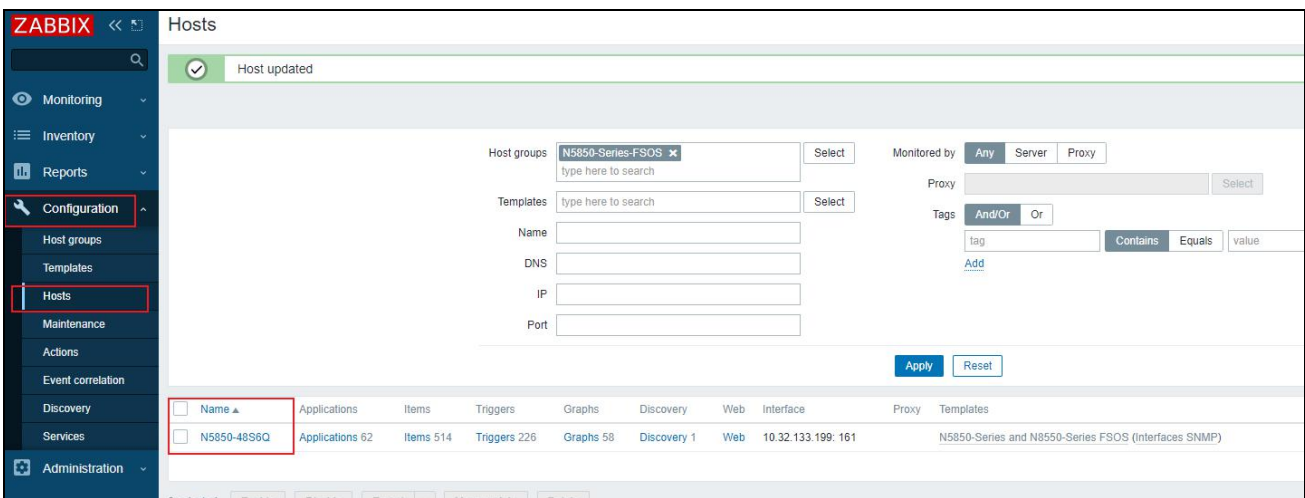
Step 1: Enter Hosts page under **Configuration**, click on the **Create Host** button in the upper right corner to create the host.



Step 2: Create a host named N5850-48S6Q, select the N5850-Series-FSOS host group, enter the management IP address of the switch in the SNMP interfaces, remove the check box before Use bulk requests, and click Add.



Step 3: You can view the created hosts under the host list.

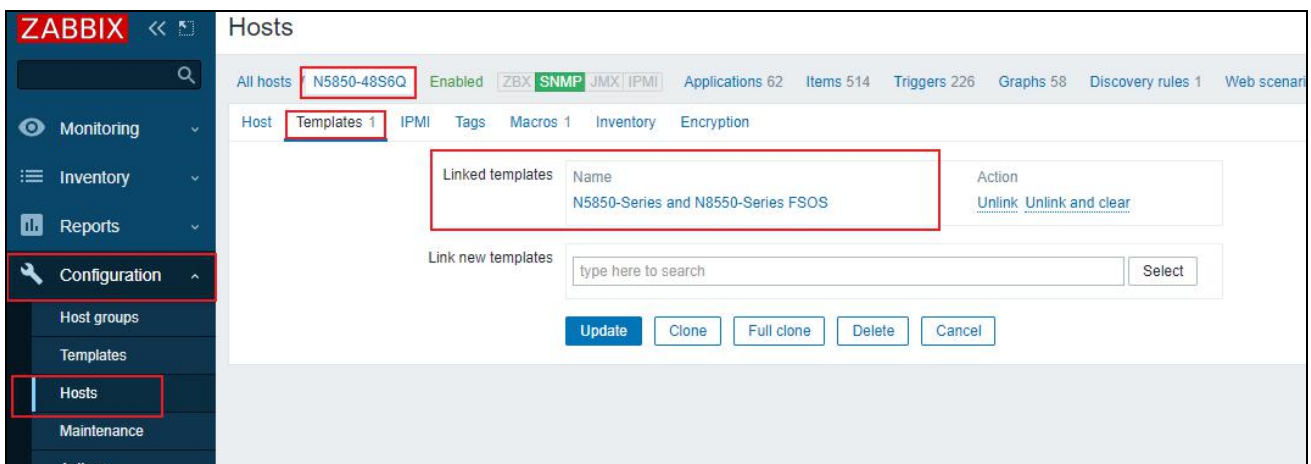


## 2.2.5 Link Template and Host Group

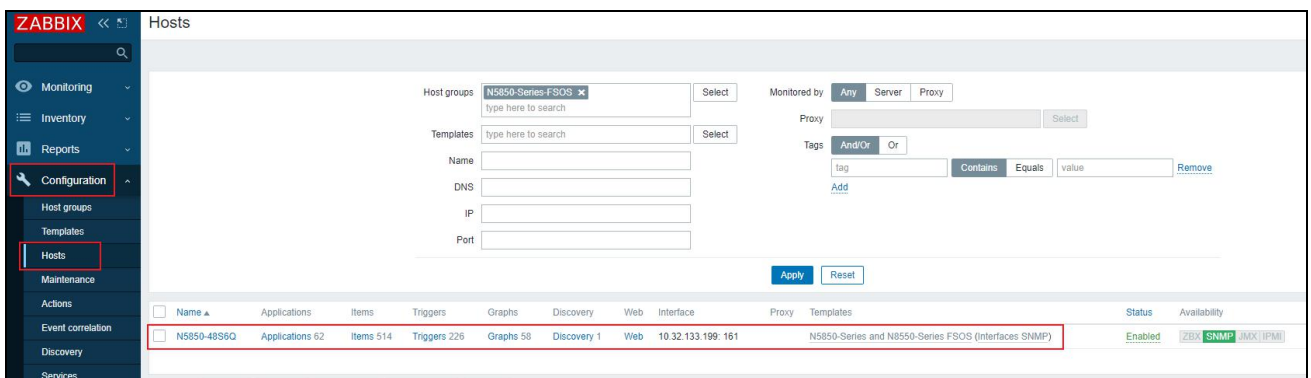
Step 1: Link the N5850-Series-FSOS host group in the "N5850-Series and N5850-Series FSOS" template.



Step 2: Link "N5850-Series and N8550-Series FSOS" template under N5850-48S6Q host.

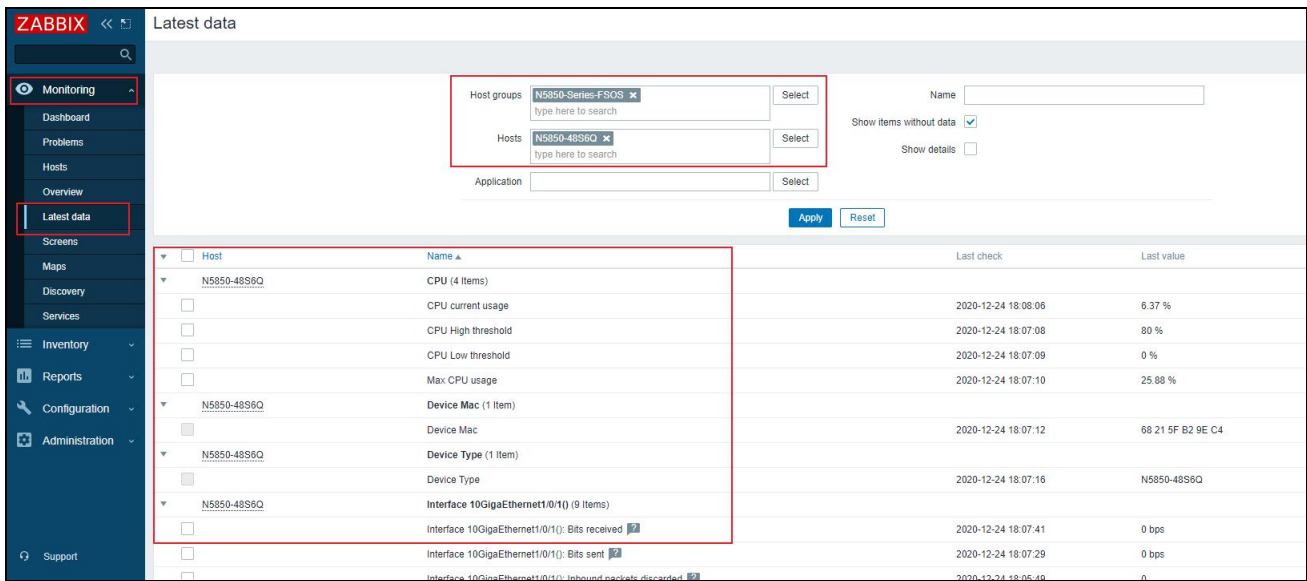


Step 3: Return to the host interface, you can view the information that has been linked to the template in the host.



## 2.2.6 Monitoring Switch Data

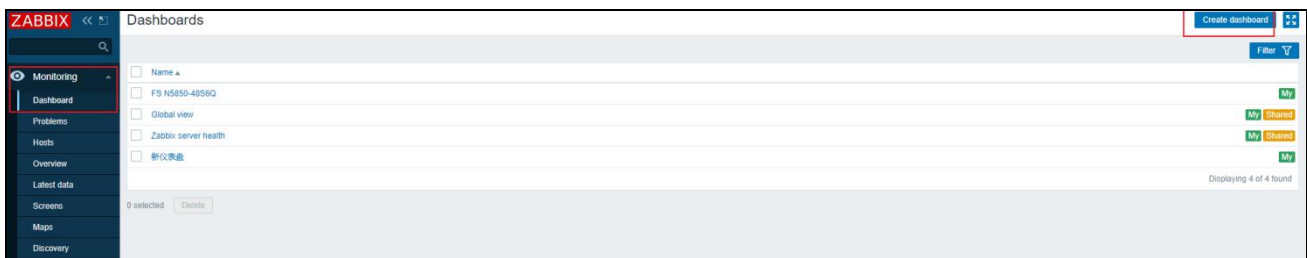
Select N5850-Series-FSOS Host groups and N5850-48S6Q Hosts, you can view that Zabbix has monitored the relevant information and data of the N5850-48S6Q FSOS Switch.



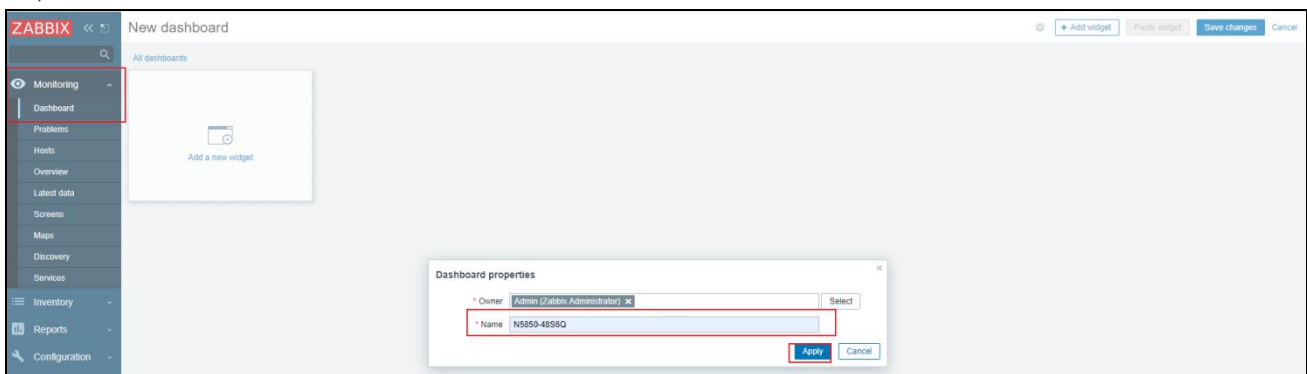
### 2.3 Zabbix Personalized Customization

Zabbix's Dashboard can display visualized information and data (overview, map, chart, clock, etc.). Here we take the creation of CPU utilization as an example.

Step 1: Click Create dashboard in the upper right corner to create a dashboard.

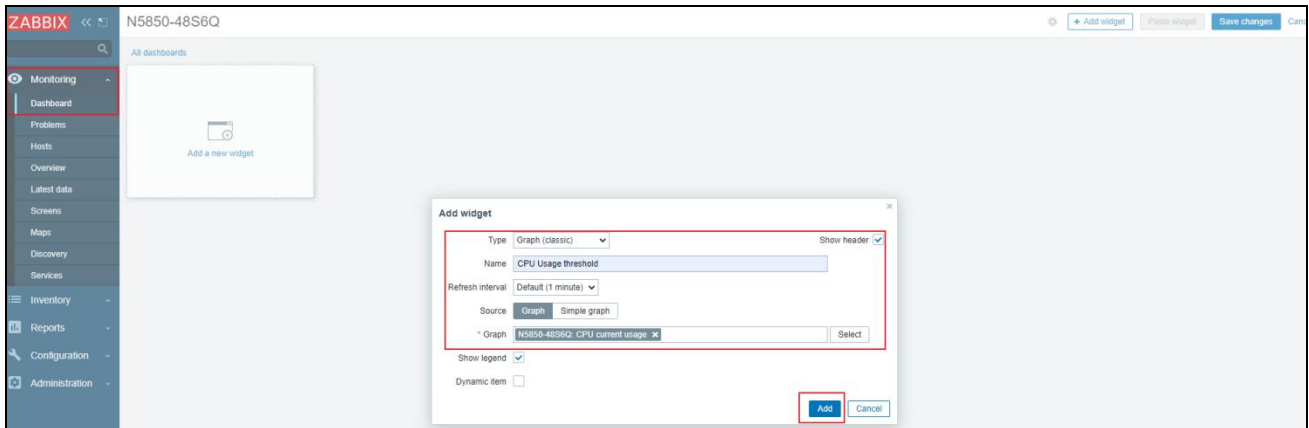


Step 2: Create a dashboard named N5850-48S6Q dashboard.



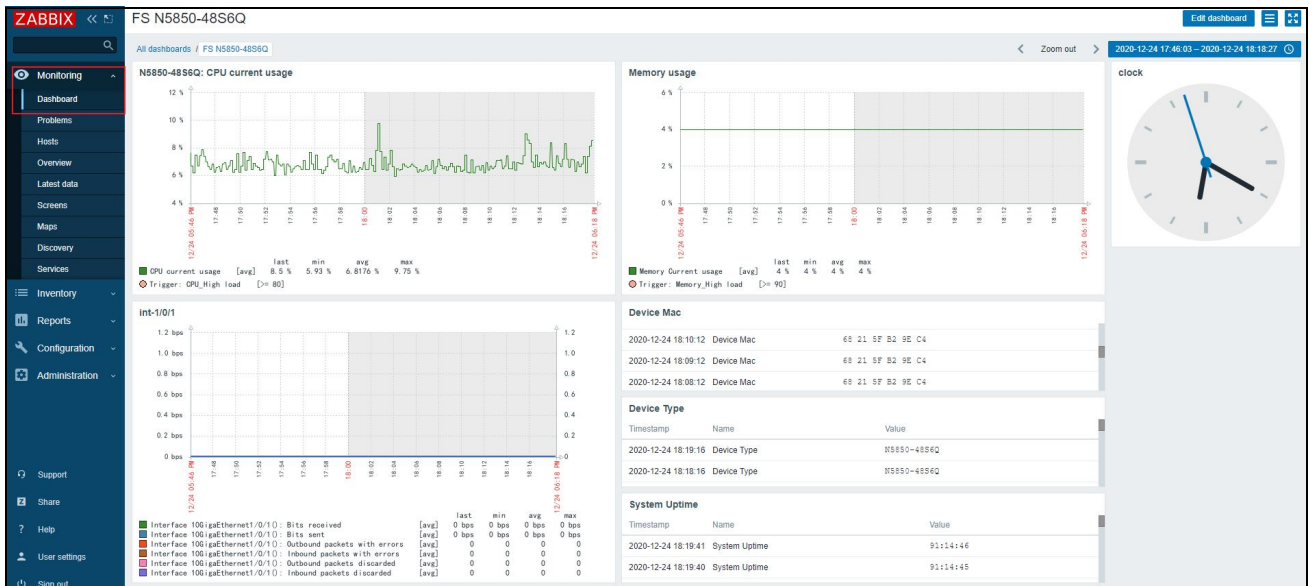
Step 3: Click anywhere on the dashboard to create a component, for example named as cpu Utilization, select N5850-48S6Q host pattern, CPU item pattern of Data set, and click Create.





Step 4: View the created components and save the dashboard.

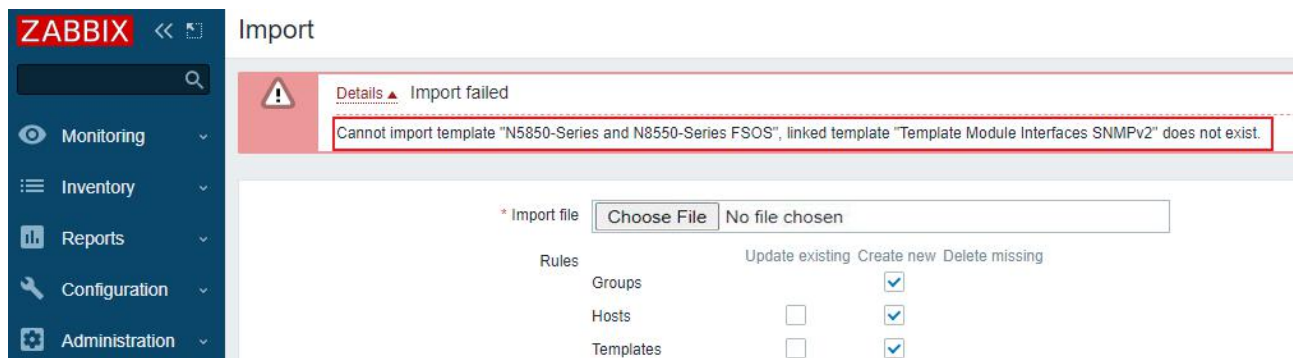
Of course, you can also configure the visualized information in the dashboard according to personal preferences.



## 2.4 FAQ

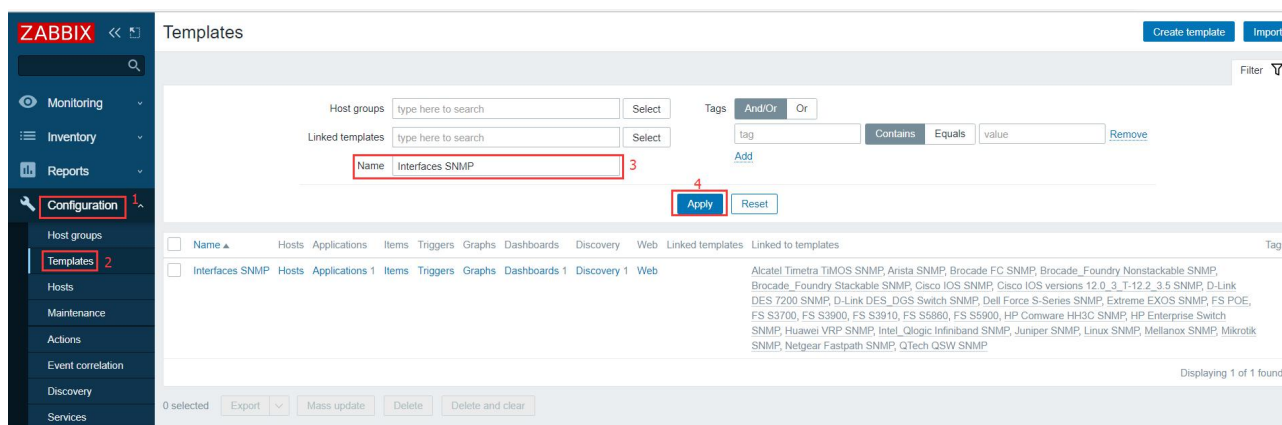
### 2.4.1 Template Import Failed

Due to the iteration of Zabbix version, the name of the public template provided by Zabbix may change. The template provided by FS refers to the public template "Template Module Interfaces SNMPv2". During the template import process, if the import fails, it prompts that the template is not found like below:

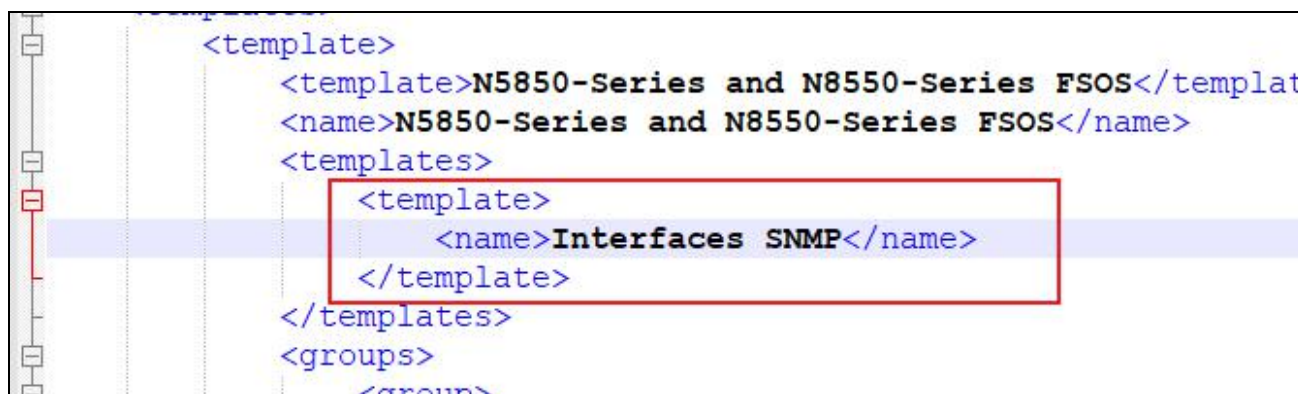


Please refer to below solution:

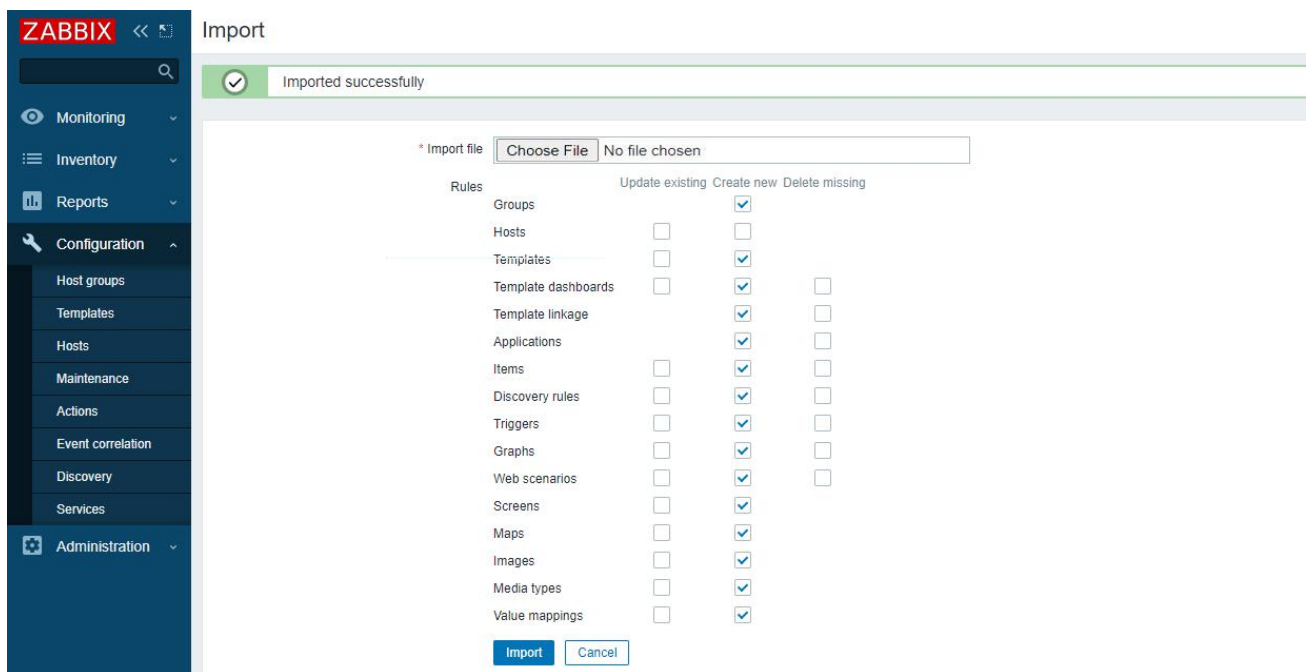
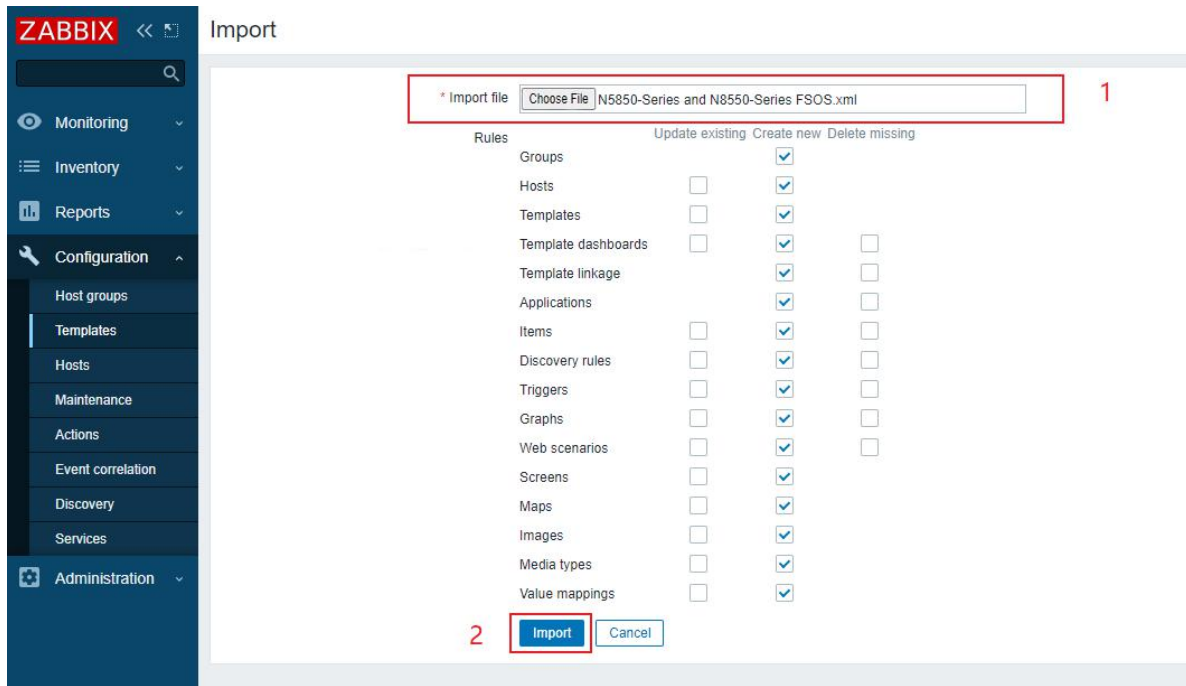
Step 1: Search for the keyword "Interfaces SNMP" in Zabbix, find the template, and record the template name.



Step 2: Edit the template in text mode and replace "Template Module Interfaces SNMPv2" with the searched template name.

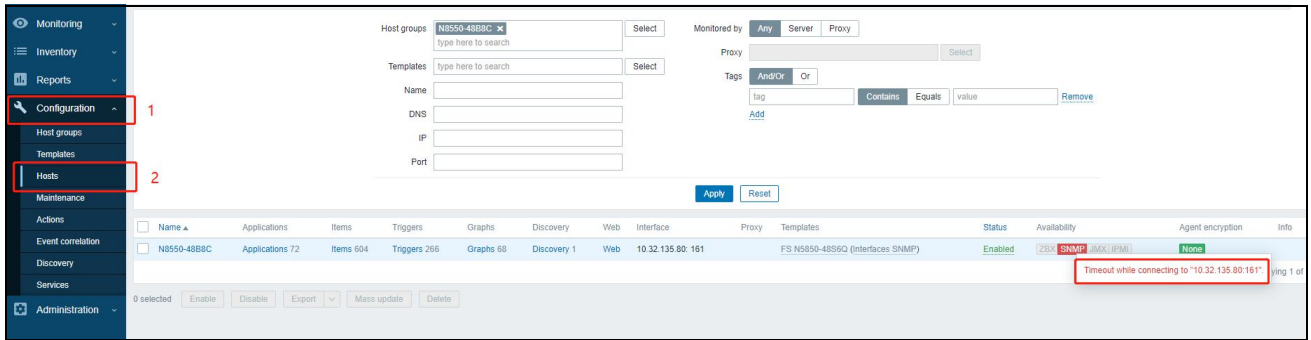


Step 3: Save the modified template and re-import the template.



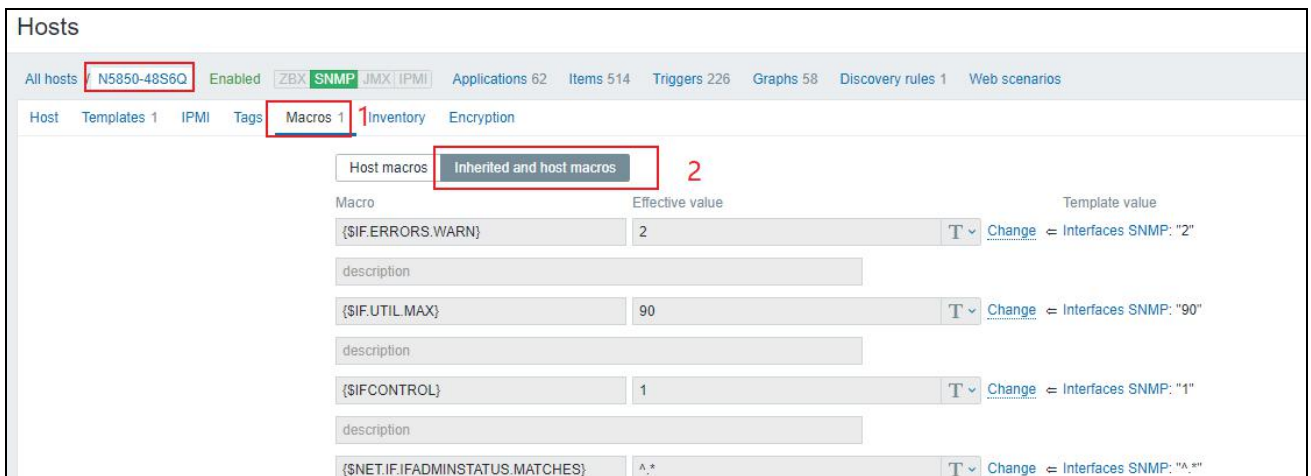
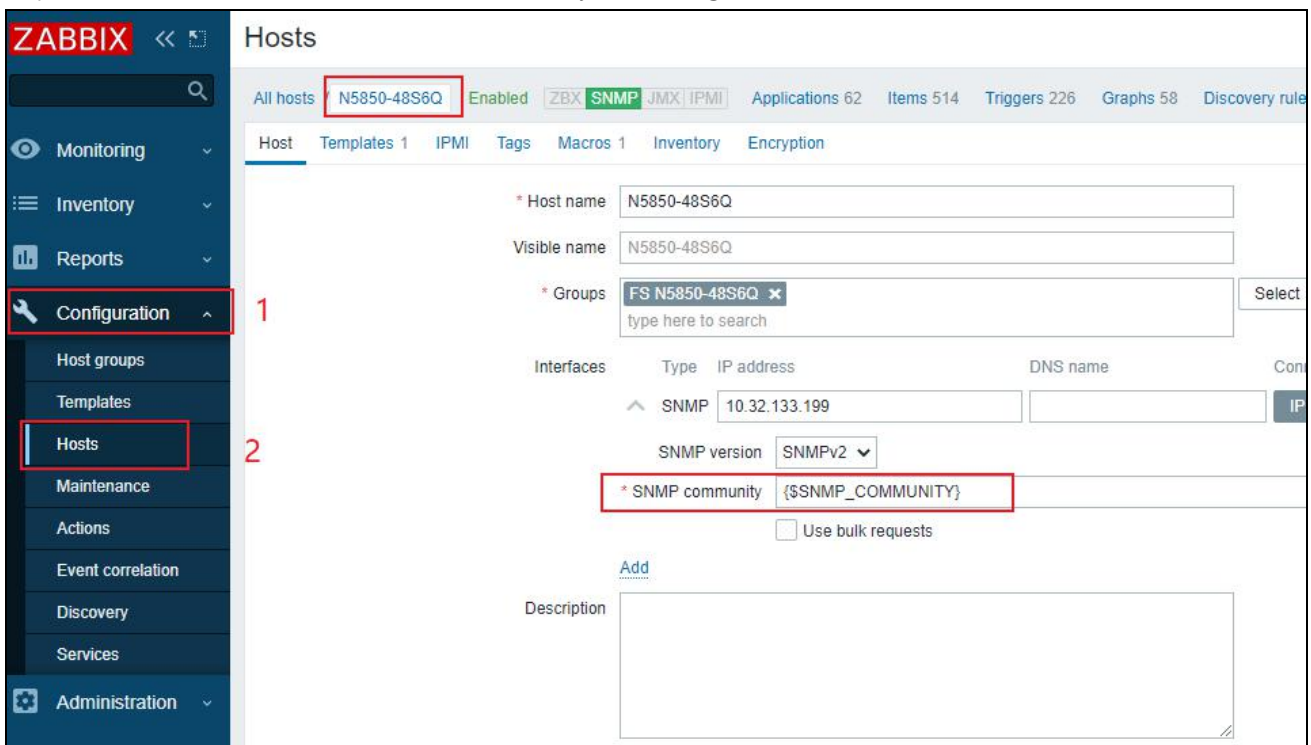
### 2.4.2 Monitor Host Failed

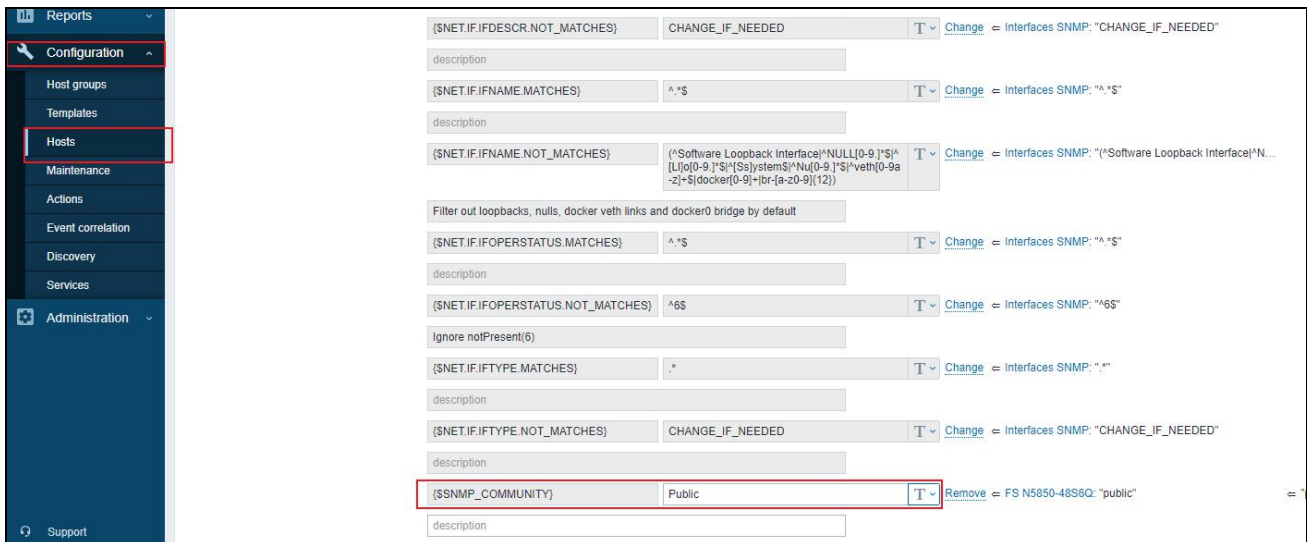
Due to the configuration of the SNMP community name of the switch(case-sensitive), the switch may not be monitored and managed by Zabbix, as shown in the following figure:



Please refer to below solution:

Step 1: View and record the Zabbix host SNMP community name configuration.





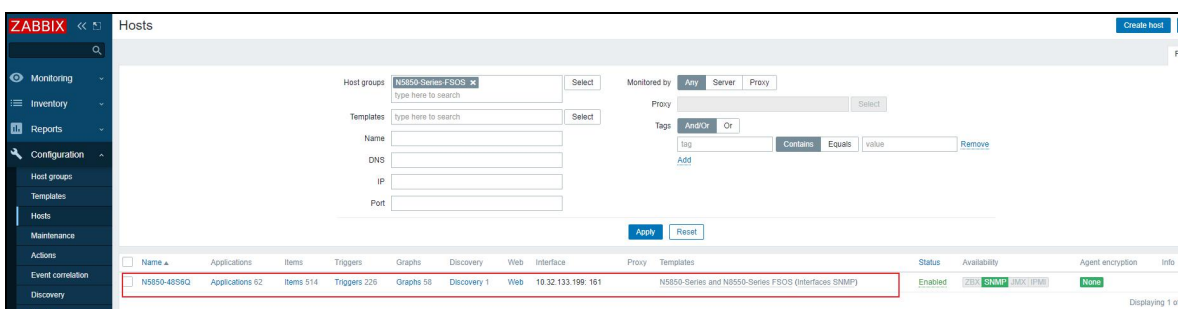
Step 2: Check whether the SNMP community name configuration of the switch is consistent with the Zabbix host SNMP community name configuration.

```
N5850-48S6Q#show run
!Device running configuration:
!version V100R201
!2001/01/04 16:58:56
!
!hostname N5850-48S6Q
!
!username admin group administrators password $1$skijv$b1P5gEaeX6
!
!snmp community Public ro plain view internet
!
vlan 1
!
line console 1
```

Step 3: Modify the SNMP community name configuration of the switch to keep it consistent with the Zabbix host SNMP community name configuration.

```
N5850-48S6Q(config)#snmp community public ro
N5850-48S6Q(config)#end
N5850-48S6Q#show run
!Device running configuration:
!version V100R201
!2001/01/04 16:59:46
!
!hostname N5850-48S6Q
!
!username admin group administrators password $1$skijv$b1P5gEaeX6wG6eQLeT3Di0
!
vlan 1
!
line console 1
  length 24
  monitor
  timeout 10 0
  login authentication local
```

Step 4: Wait for Zabbix to reconnect to the host, and finally connect to the host successfully.





 <https://www.fs.com>



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