

How to Add CISCO Switch or Router in Zabbix Server for Monitoring

Step 1: Configure SNMP on the Cisco Switch or Router

Configure SNMPv2c on Cisco routers and switches with one command as shown below:

```
switch> enable
switch# configure terminal
switch(config)# snmp-server community MyCommunity RO
switch(config)# exit
switch# copy running-config startup-config
```

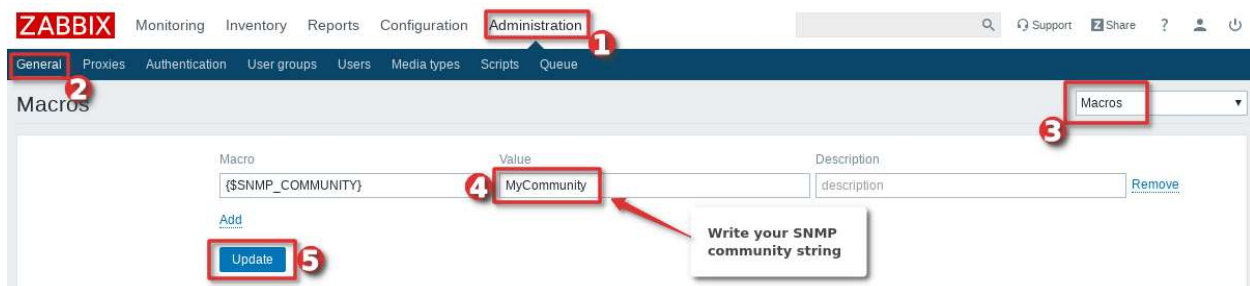
Run the following Net-SNMP command from Linux machine to **verify that SNMP is working as configured** on the device:

```
snmpwalk -v2c -c MyCommunity 192.168.1.1 1.3.6.1.2.1.1.1
iso.3.6.1.2.1.1.1.0 = STRING: "Cisco IOS Software, Catalyst 4500 L3 Switch
Software (cat4500-ENTSERVICESK9-M), Version 12.2(54)SG1, RELEASE SOFTWARE
(fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2011 by Cisco Systems, Inc.
Compiled Thu 27-Jan-11 11:39 "
```

Step 2: Change global SNMP community string for all devices

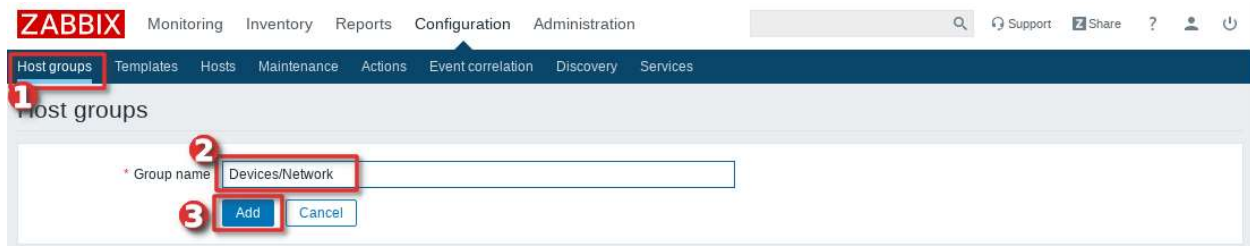
Zabbix needs SNMP community string to retrieve data from SNMP enabled devices. A community string is like a password. Global SNMP community string in Zabbix is "public" and if you are using something else than you need to change it.

You can change community string for all devices by changing value for macro “{\$SNMP_COMMUNITY}” under **Administration**→**General**→**Macros** just as shown in the picture below.



Step 3: Create hostgroup for Network devices

You can add a host to some existing hostgroup or you can create new hostgroups for your devices. I will create hostgroup “Devices/Network”:



Step 4: Add host to Zabbix with appropriate SNMP template

Go to "Host" menu under "Configuration" tab and then click "Create host" option to create a host in Zabbix:

ZABBIX Monitoring Inventory Reports **Configuration** Administration

Host groups Templates **Hosts** Maintenance Actions Event correlation Discovery Services

Hosts Group: all **Create host** Import

Name: DNS:
Templates: Select IP:
Monitored by: Port:
Proxy: Select

<input type="checkbox"/>	Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info		
<input type="checkbox"/>	Zabbix server	Applications 11	Items 110	Triggers 50	Graphs 25	Discovery 2	Web	127.0.0.1:10050	Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX	SNMP	JMX	IPMI	NONE

Displaying 1 of 1 found

0 selected

Define "Hostname" and set "Groups" using your newly created hostgroup. Then remove "Agent interfaces" (because we can't use Zabbix agent on router or switch) and add "SNMP interfaces":

ZABBIX Monitoring Inventory Reports **Configuration** Administration

Host groups Templates **Hosts** Maintenance Actions Event correlation Discovery Services

Hosts

Host Templates IPMI Macros Host inventory Encryption

* Host name:

Visible name:

* Groups: Select

Agent interfaces: Select to: Port: Default: ☐ Remove

SNMP interfaces:

JMX interfaces:

Under the *"SNMP interfaces"* set the management IP address or DNS name of the device:

The screenshot shows the Zabbix web interface. The top navigation bar includes 'Monitoring', 'Inventory', 'Reports', 'Configuration', and 'Administration'. Below it, a sub-navigation bar highlights 'Hosts' and includes 'Host groups', 'Templates', 'Maintenance', 'Actions', 'Event correlation', 'Discovery', and 'Services'. The main page title is 'Hosts'. Underneath, there are tabs for 'Host', 'Templates', 'IPMI', 'Macros', 'Host inventory', and 'Encryption'. The 'Host' tab is active. The form contains several sections: 'Host name' with the value 're01internetgw'; 'Visible name' (empty); 'Groups' with a dropdown showing 'Devices/Network' and a 'Select' button; a note '* At least one interface must exist.'; 'Agent interfaces' with a table header 'IP address', 'DNS name', 'Connect to', 'Port', 'Default' and an 'Add' button; 'SNMP interfaces' with a table containing one row with IP '10.7.2.7', a 'Use bulk requests' checkbox, and a 'Remove' button; and 'JMX interfaces' with an 'Add' button. The IP address '10.7.2.7' in the SNMP interfaces table is highlighted with a red box.

Then switch to tab *"Templates"* and choose the appropriate template for your Cisco device under section *"Link new template"* by typing *"net cisco"*. Use *"Template Net Cisco IOS SNMPv2"* if you are not sure what to choose:

The screenshot shows the Zabbix web interface with the 'Templates' tab selected. The 'Link new templates' section is active. A search box contains the text 'net cisco', which is highlighted with a red box and labeled with a red circle '2'. Below the search box, a dropdown menu shows three suggestions: 'Template Net Cisco IOS prior to 12.0_3_T SNMPv2', 'Template Net Cisco IOS SNMPv2' (highlighted with a red box and labeled with a red circle '3'), and 'Template Net Cisco IOS versions 12.0_3_T-12.2_3.5 SNMPv2'. A 'Select' button is to the right of the dropdown. The 'Host' tab is also visible and labeled with a red circle '1'.

After you have selected appropriate template click little “Add” button to link the template with the device and then press the big “Add” button:

