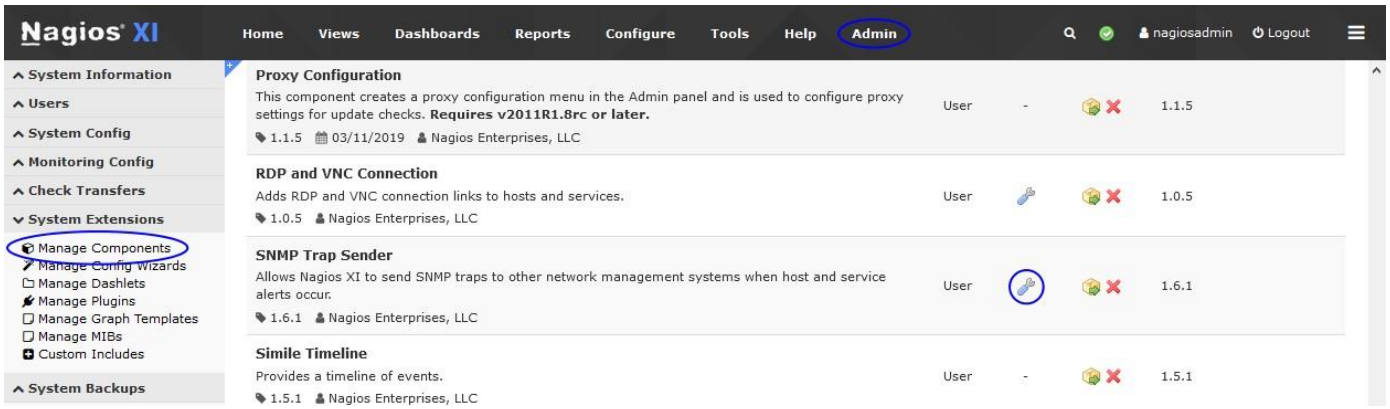
How To Send SNMP Traps In Nagios XI 5

Purpose

This document is intended for use by Nagios XI v5 Administrators who want to know how to configure Nagios XI to send SNMP Traps to other management hosts or network management systems whenever host or service state changes (alerts) occur.

Configuring SNMP Traps

1. To configure Outbound SNMP traps, navigate to **Admin > System Extensions > Manage Components**.

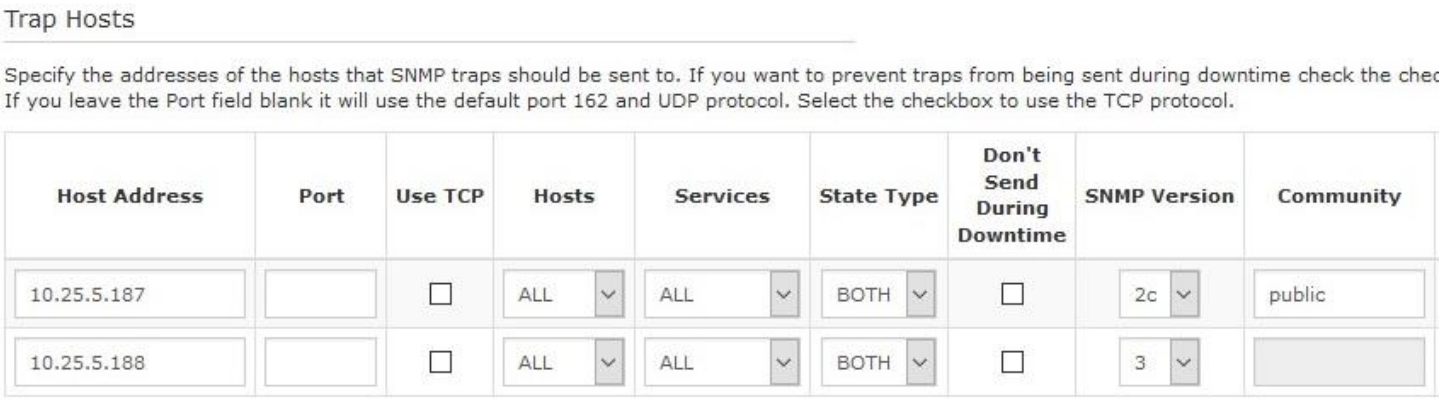


2. Find the **SNMP Trap Sender** component and click on the **Edit Settings** Icon.

3. The **SNMP Trap Sender** component configuration screen allows you to define trap hosts that Nagios XI should send SNMP traps to when host and service changes (alerts) occur.

   - **Integration Settings**
     - Check the **Enable SNMP trap sender integration** box to enable this component.
     - Check the **Enable Debug Logging** box to enable advanced logging for this component.

- **Trap Hosts**
  - The first required field is **Host Address** in order to send SNMP traps to a host.
  - If the **Port** field is left blank, then it will default to **162 UDP**.
  - **SNMP Version**
    - SNMP v1 & v2c requires an SNMP **Community** string to be defined for a valid configuration.
    - SNMP v3 has several options available, the amount required depends on the **Security Level** chosen. SNMP v3 configuration is not explained here, instead please refer to the following KB article: Nagios XI – SNMP Trap v3 Configuration
    - In the screenshots below, you can see that if you select SNMP v1 & v2c the v3 options are grayed out and vice versa.


Trap Hosts

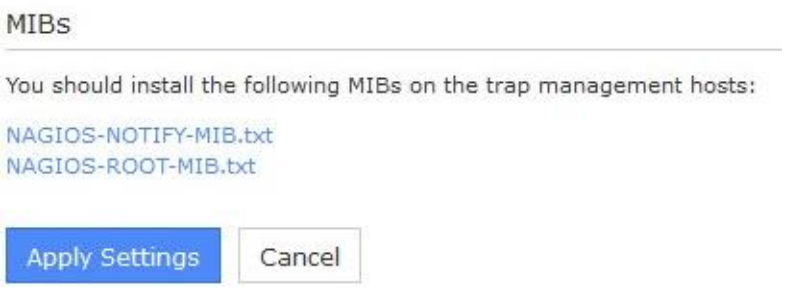
Specify the addresses of the hosts that SNMP traps should be sent to. If you want to prevent traps from being sent during downtime check the chec
If you leave the Port field blank it will use the default port 162 and UDP protocol. Select the checkbox to use the TCP protocol.

Host Address	Port	Use TCP	Hosts	Services	State Type	Don't Send During Downtime	SNMP Version	Community
10.25.5.187		☐	ALL	ALL	BOTH	☐	2c	public
10.25.5.188		☐	ALL	ALL	BOTH	☐	3	

Note: The **Trap Hosts** settings span to the right due to the number of available options for v3.

SNMP Version	Community	Security Level	Username	Auth Password	Privacy Password	Engine ID	Auth Protocol	Priv Protocol
2c	public	noAuthNoPriv					None	None
3		authPriv	trapuser	authpass	privpass	0x0102030405	SHA	AES

- **MIBs**
  - There are two MIB .txt files that can be downloaded. You can upload these files to the system that is receiving the SNMP Traps being sent from Nagios XI.



4. Click **Apply Settings** to save your settings.

This is the extent of the configuration options available for the **SNMP Trap Sender** component.

Verifying SNMP Traps

There are a couple of ways to verify that the SNMP traps are being sent and received.

The Sender - Nagios XI Server

You can watch the `/usr/local/nagiosxi/var/eventman.log` file to see the events and `snmptrap` commands. For example:

```
tail -f /usr/local/nagiosxi/var/eventman.log
```

Which will output something like:

```
PROCESSING:
Array
( [address] => 10.25.5.2
[port] =>
[community] => public
[hoststateid] => 0
[servicestateid] => 0
[statetype] => BOTH
)
RUNNING COMMAND: /usr/bin/snmptrap -v 2c -c public 10.25.5.2 '' NAGIOS-NOTIFY-
MIB::nSvcEvent nSvcHostname s "10.25.14.3" nSvcDesc s "Application Log Warnings" nSvcStateID I 3
nSvcOutput s "UNKNOWN - The WMI query had problems. The target host (10.25.14.3) might not be
reachable over the network. Is it down? Looks like a valid name/IP Address. 10.25.14.3 is
probably not even pingable. Wmic error text on the next line."
```

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The Receiver

The device that is receiving the SNMP Traps should have some functionality to watch the incoming SNMP traffic.

In this example the receiving device was a CentOS server running `SNMPTRAPD` and `SNMPTT`. You can watch the `/var/log/snmptt.log` and `/var/log/snmpttunknown.log` files to see the incoming traps. For example:

```
tail -f /var/log/snmptt/snmptt.log /var/log/snmptt/snmpttunknown.log
```

Which will output something like:

```
Fri Dec 16 11:02:47 2016: Unknown trap (.1.3.6.1.4.1.20006.1.7) received from xi-c6x-x86 at:
Value 0: xi-c6x-x86
Value 1: 10.25.5.11
Value 2: 15:0:23:05.80
Value 3: .1.3.6.1.4.1.20006.1.7
Value 4: 10.25.5.11
Value 5:
Value 6:
Value 7:
Value 8:
Value 9:
Value 10:
Ent Value 0: .1.3.6.1.4.1.20006.1.3.1.2=win7-02.box293.local
Ent Value 1: .1.3.6.1.4.1.20006.1.3.1.6=Memory Usage
Ent Value 2: .1.3.6.1.4.1.20006.1.3.1.7=3 Ent Value 3: .1.3.6.1.4.1.20006.1.3.1.17=UNKNOWN - The
WMI query had problems. The target host (10.25.14.3) might not be reachable over the network. Is
it down? Looks like a valid name/IP Address. 10.25.14.3 is probably not even pingable. Wmic error
text on the next line.
```

Finishing Up

This completes the documentation on how to send SNMP Traps in Nagios XI. If you have additional questions or other support-related questions, please visit us at our Nagios Support Forum, Nagios Knowledge Base, or Nagios Library:

Visit Nagios Support Forum Visit Nagios Knowledge Base Visit Nagios Library