

Nagios XI - Receiving SNMP Traps From Nagios Network Analyzer

Article Number: 554 | Rating: Unrated | Last Updated: Wed, Oct 19, 2016 at 2:07 AM

Overview

This KB article explains how to configure Nagios XI to receive SNMP traps from Nagios Network Analyzer (NNA).

It is assumed that Nagios XI is already configured to receive SNMP traps, if it is not please follow the steps in this documentation:

[Documentation - How to Integrate SNMP Traps With Nagios XI](#)

Nagios XI - Configure Traps

To receive the traps from NNA you need to import the traps definitions into the `/etc/snmp/snmpd.conf` file using this command:

```
/usr/local/bin/addmib /usr/share/snmp/mibs/NAGIOS-NOTIFY-MIB.txt
```

Next you will update the trap EXEC line and replace "\$s" with "\$3" to allow the correct numeric service state to be passed through to Nagios XI.

Edit the `/etc/snmp/snmpd.conf` file using the `vi` text editor:

```
vi /etc/snmp/snmpd.conf
```



When using the `vi` editor, to make changes press `i` on the keyboard first to enter insert mode. Press `Esc` to exit insert mode.

Find the following EVENT line:

```
EVENT nSvcEvent .1.3.6.1.4.1.20006.1.7 "Status Events" Normal
```

In the EXEC line change "\$s" to "\$3" as per:

From:

```
EXEC /usr/local/bin/snmptraphandling.py "$r" "SNMP Traps" "$s" "$@" "$-*" "The SNMP trap that is generated as a result of an event requ
```

To:

```
EXEC /usr/local/bin/snmptraphandling.py "$r" "SNMP Traps" "$3" "$@" "$-*" "The SNMP trap that is generated as a result of an event requ
```

The change should look like:

```
EVENT nSvcEvent .1.3.6.1.4.1.20006.1.7 "Status Events" Normal
FORMAT The SNMP trap that is generated as a result of an event with the service $*
EXEC /usr/local/bin/snmptraphandling.py "$r" "SNMP Traps" "$3" "$@" "$-*" "The SNMP trap that is generated as a result of an event with
SDESC
The SNMP trap that is generated as a result of an event with the service
in Nagios.
Variables:
 1: nHostname
 2: nHostStateID
 3: nSvcDesc
 4: nSvcStateID
 5: nSvcAttempt
 6: nSvcDurationSec
 7: nSvcGroupName
 8: nSvcLastCheck
 9: nSvcLastChange
10: nSvcOutput
EDESC
```

When you have finished, save the changes in `vi` by typing `:wq` and pressing `Enter`.

Now restart the `snmpd` service:

```
service snmpd restart
```

The file `/usr/local/bin/snmptraphandling.py` also needs to be updated to allow numeric states.

Edit the `/usr/local/bin/snmptraphandling.py` file using the `vi` text editor:

```
vi /usr/local/bin/snmptraphandling.py
```

Find this section:

Find the section:

```
def get_return_code(severity):
    severity = severity.upper()
    if severity == "INFORMATIONAL":
        return_code = "0"
    elif severity == "NORMAL":
        return_code = "0"
    elif severity == "SEVERE":
        return_code = "2"
    elif severity == "MAJOR":
        return_code = "2"
    elif severity == "CRITICAL":
        return_code = "2"
    elif severity == "WARNING":
        return_code = "1"
    elif severity == "MINOR":
        return_code = "1"
    else:
        printusage()
    return return_code
```

Change it to:

```
def get_return_code(severity):
    severity = severity.upper()
    if severity == "INFORMATIONAL":
        return_code = "0"
    elif severity == "NORMAL":
        return_code = "0"
    elif severity == "0":
        return_code = "0"
    elif severity == "SEVERE":
        return_code = "2"
    elif severity == "MAJOR":
        return_code = "2"
    elif severity == "CRITICAL":
        return_code = "2"
    elif severity == "2":
        return_code = "2"
    elif severity == "WARNING":
        return_code = "1"
    elif severity == "MINOR":
        return_code = "1"
    elif severity == "1":
        return_code = "1"
    elif severity == "3":
        return_code = "3"
    else:
        printusage()
    return return_code
```

You can see these lines were added:

```
elif severity == "0":
    return_code = "0"
```

```
elif severity == "2":
    return_code = "2"
```

```
elif severity == "1":
    return_code = "1"
```

```
elif severity == "3":
    return_code = "3"
```

When you have finished, save the changes in vi by typing `:wq` and pressing **Enter**.

NNA - Define SNMP Receivers

Before you can define an alert to be sent via SNMP we need to define an SNMP receiver to sent the traps to.

Login to NNA and navigate to the **Alerting** menu.

Click the **SNMP Receivers** tab

Click the **New SNMP Receiver** button

Name: **XI Server**

IP Address: *IP Address of Nagios XI server*

Port: **162**

SNMP Version: **2c**

Community String: *public*

By default Nagios XI does not require a community string for SNMP v2c traps

Click the **Finish & Save** button

Nagios NA - Create Alert Check

Now you need to define a check that will trigger an SNMP Trap to be sent to Nagios XI. In this example it will send an SNMP Trap if the source port has no data. This might seem like a simple check, but it requires a few steps. Login to NNA and navigate to the **Alerting** menu.

Click the **Checks** tab

Click the **New Check** button

Name: **Source Has Data**

Source & View: Select the **Source** and **View** (if required) to run the check against

Click the **Step Two** button

Analyze traffic for: **Bytes**

Warning threshold is: **:0**

Critical threshold is: **:0**

Where The: **Source Port is 5050**

Click the **Step Three** button

Click the **SNMP Traps** tab

Select **XI Server** from the list

Click the **Finish & Save** button

Nagios XI - Check Logs & Unconfigured Objects

Now that you have created the check in NNA, within five minutes a SNMP trap will be received by the Nagios XI server. This can be observed by watching the `snmptt.log` file in an ssh session:

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

The trap will be logged similar to the following:

```
Wed Oct 19 16:55:04 2016 .1.3.6.1.4.1.20006.1.7 Normal "Status Events" na-c6x-x64 - The SNMP trap that is generated as a result of an e
```

When the trap is received by Nagios XI it will be an unconfigured object first.

Log into your Nagios XI web interface.

Navigate to Admin > Monitoring Config > **Unconfigured Objects**

You'll see the **NNA** host in the list with the **SNMP Traps** service.

To add it as a service:

Click the **check** box next to the host

Next to **With Selected** click the **gear** icon (Configure)

The Unconfigured Passive Object wizard will start

Step through the wizard and make any changes required

Once the Wizard is finished there will now be a host and service object created

Within five minutes of adding the **SNMP Traps** service you will see it update with the data from the received trap.

Final Thoughts

For any support related questions please visit the [Nagios Support Forums](#) at:

<http://support.nagios.com/forum/>

Posted by: **tlea** - Mon, Oct 17, 2016 at 1:47 AM. This article has been viewed 2415 times.

Online URL: <https://support.nagios.com/kb/article/nagios-xi-receiving-snmp-traps-from-nagios-network-analyzer-554.html>

