Purpose

This document describes how to monitor Microsoft Windows using the NSClient++ monitoring agent. There are two different methods for communicating with NSClient++ and this documentation explains them both.

Target Audience

This document is intended for use by Nagios XI Administrators who are interested in monitoring Windows machines using NSClient++.

Overview

NSClient++ must be installed on the target Windows machine before Nagios XI can monitor system metrics, services, processes, or performance data on the target machine. If you haven't installed the NSClient++ agent on the remote machine, please, refer to our documentation on installing the XI Windows agent: Installing The Windows Agent NSClient++ For Nagios XI

The two methods for communicating with NSClient++ are explained as follows:

- **check_nt**
  - This is the most common method used
  - The Windows Server and Windows Desktop configuration wizards use this method
  - It provides basic functionality, cannot be customized much

- **check_nrpe**
  - Uses the NRPE communication protocol
  - The NRPE configuration wizard uses this method
  - It allows more advanced monitoring functionality and customization

You can use a combination of both methods in Nagios XI, it is not a choice of one or the other.
To use the **Windows Server** and **Windows Desktop** configuration wizards you need to have NSClient++ installed as per the following our documentation:

**Installing The Windows Agent NSClient++ For Nagios XI**

No additional configuration steps are required after following this documentation.

To begin using one of the Windows wizards navigate via the top menu bar to **Configure > Run a configuring wizard** and select the desired wizard. This documentation will focus on the **Windows Server** wizard. In the following screenshot you can see how the search field allows you to quickly find a wizard.

On Step 1 you will be asked to supply the **address** of the Windows machine running NSClient++.

Click Next to progress to step 2.
On step 2 you will configure all of the options for monitoring.

To start off with make sure a valid Host Name has been entered.

The Windows Agent section has a field for the password you provided the NSClient++ installer. If you did not use a password then you can leave this field blank.

Select the server metrics you wish to monitor and adjust the thresholds as required.

The Disk Usage checks allow you to add the disks you wish to monitor, adjust the thresholds as required.
With the Services checks, select any of the predefined services in the list or add your own.

<table>
<thead>
<tr>
<th>Windows Service</th>
<th>Display Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>W3SVC</td>
<td>IIS Web Server</td>
</tr>
<tr>
<td>MSSQLSERVER</td>
<td>SQL Server</td>
</tr>
<tr>
<td>usbsredirctorsrv</td>
<td>USB Redirector Service</td>
</tr>
</tbody>
</table>

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With the Processes checks, select any of the predefined services in the list or add your own.

<table>
<thead>
<tr>
<th>Windows Process</th>
<th>Display Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>explorer.exe</td>
<td>Explorer</td>
</tr>
</tbody>
</table>

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With the Performance Counter checks, select any of the predefined counters in the list or add your own.

<table>
<thead>
<tr>
<th>Performance Counter</th>
<th>Display Name</th>
<th>Counter Output Format</th>
<th>Warning</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>\Server\Errors Logon</td>
<td>Logon Errors</td>
<td>Login Errors since last reboot is %</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>\Server Work Queues\Queue</td>
<td>Server Work Queues</td>
<td>Current work queue (an indicator)</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

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< Back  Next >
Once you've finished selecting all the items you wish to monitor click Next and then complete the wizard by choosing the required options in Step 3 - Step 5.

To finish up, click on Finish in the final step of the wizard. This will create the new hosts and services and begin monitoring. Once the wizard applies the configuration, click the View status details for <your host> link to see the new host and services that were created.

This completes using the Windows Server wizard.

NRPE Configuration Wizard

To use the NRPE configuration wizard you need to have NSClient++ installed as per the following our documentation:

Installing The Windows Agent NSClient++ For Nagios XI

Once that is installed you will also need to configure NSClient++ to enable the NRPE Listener, this is explained in the following documentation:

Enabling the NRPE Listener In NSClient++ 0.4.x

To begin using the NRPE wizard navigate via the top menu bar to Configure > Run a configuring wizard and select the NRPE wizard. In the screenshot on the following page you can see how the search field allows you to quickly find a wizard.
On Step 1 you will be asked to supply the **address** of the machine running NSClient++.

You will also have to select the **Operating System**, in this case it is Windows.

Click Next to progress to step 2.

On step 2 you will configure all of the options for monitoring.

To start off with make sure a valid **Host Name** has been entered.
The NRPE Agent section can be ignored because you have installed NSClient++. Under Server Metrics you can see that I've unchecked the Ping box as I'm not interested in a ping service.

The next step is to define the NRPE Commands you want issued to the NSClient++ agent. You will need to refer to the online documentation for a complete list of the commands at the following location: 

http://docs.nsclient.org/0.4.3/reference/index.html#windows-modules

Here are some example commands and their arguments, they provide similar functionality to that of the previous wizard and the services it created.

**Display Name:** CPU Usage  
**Remote NRPE Command:** check_cpu  
**Command Args:** 'warn=load>80' 'crit=load>90'

**Display Name:** Drive C: Disk Usage  
**Remote NRPE Command:** check_drivesize  
**Command Args:** drive=C: 'warn=free<20%' 'crit=free<10%' show-all

**Display Name:** Explorer  
**Remote NRPE Command:** check_process  
**Command Args:** process=explorer.exe show-all
### Logon Errors
- **Remote NRPE Command:** `check_pdh`
- **Command Args:**
  - 'counter:Login Errors since last reboot=\Server\Errors Logon'
  - 'warn=value>2' 'crit=value>20'

### Memory Usage
- **Remote NRPE Command:** `check_memory`
- **Command Args:**
  - `type=physical 'warn=used>80%' 'crit=used>90%'`

### Uptime
- **Remote NRPE Command:** `check_uptime`
- **Command Args:**
  - 'warn=uptime<1d' 'crit=uptime<20m'

### USB Redirector Service
- **Remote NRPE Command:** `check_service`
- **Command Args:**
  - 'service=usbredirectorsrv' `show-all`

### NRPE Commands
Specify any remote NRPE commands that should be monitored on the server. Multiple command arguments should be separated with a space.

<table>
<thead>
<tr>
<th>Display Name</th>
<th>Remote NRPE Command</th>
<th>Command Args</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Usage</td>
<td><code>check_cpu</code></td>
<td>'warn=load&gt;80' 'crit=load&gt;90'</td>
</tr>
<tr>
<td>Drive C: Disk Usage</td>
<td><code>check_drivesize</code></td>
<td><code>drive=C: 'warn=free&lt;20%' 'crit=free&lt;10%' show-i</code></td>
</tr>
<tr>
<td>Explorer</td>
<td><code>check_process</code></td>
<td><code>process=explorer.exe show-all</code></td>
</tr>
<tr>
<td>Logon Errors</td>
<td><code>check_pdh</code></td>
<td>'counter:Login Errors since last reboot=\Server\Errors Logon'</td>
</tr>
<tr>
<td>Memory Usage</td>
<td><code>check_memory</code></td>
<td><code>type=physical 'warn=used&gt;80%' 'crit=used&gt;90%'</code></td>
</tr>
<tr>
<td>Uptime</td>
<td><code>check_uptime</code></td>
<td>'warn=uptime&lt;1d' 'crit=uptime&lt;20m'</td>
</tr>
<tr>
<td>USB Redirector Service</td>
<td><code>check_service</code></td>
<td>'service=usbredirectorsrv' <code>show-all</code></td>
</tr>
</tbody>
</table>

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Once you've finished selecting all the items you wish to monitor click Next and then complete the wizard by choosing the required options in Step 3 - Step 5.

To finish up, click on Finish in the final step of the wizard. This will create the new hosts and services and begin monitoring. Once the wizard applies the configuration, click the View status details for <your host> link to see the new host and services that were created.

This completes using the NRPE wizard.

Finishing Up

This completes the documentation on how to monitor Microsoft Windows with Nagios XI using NSClient++. If you have additional questions or other support related questions, please visit us at our Nagios Support Forums:

https://support.nagios.com/forum

The Nagios Support Knowledgebase is also a great support resource:

https://support.nagios.com_kb