Purpose

This document will walk you through the steps on how to get the VMware Virtualization Wizard installed and running on your Nagios XI system in order to efficiently and effectively monitor your virtual environment. This document will include instructions for the following:

- How to set up a vMA appliance for the box293_check_vmware plugin
- Installation of the VMware vMA Settings Manager Component
- Configuration and Testing of the vMA Host
- Adding and Testing vCenter or ESX(i) Host
- Installation of the VMware Virtualization Wizard
- Running the Wizard to Monitor your environment

Target Audience

This document is intended for use by Nagios XI Administrators who wish to monitor their VMware Virtualization environment(s).

Important Note

Throughout this document there are references to your vCenter or ESX(i) host(s). If you have a vCenter server, you only need to provide settings / credentials for this vCenter server. You will not need to add settings / credentials for each ESX(i) host that this vCenter server manages.

Note: The only time you would add settings / credentials for ESX(i) servers is if you DO NOT have a vCenter server.

box293_check_vmware Plugin

The first step that we need to complete is to deploy a vMA appliance to run the box293_check_vmware plugin AND to configure Nagios XI to talk to this appliance.

These steps are documented clearly in the box293_check_vmware manual starting on page 6. The plugin and manual are both located on the Nagios Exchange:

http://exchange.nagios.org/directory/Plugins/Operating-Systems/*-Virtual-Environments/VMWare/box293_check_vmware/details

Use the manual to perform the following steps:

- Deploy vMA Appliance
- Transfer the box293_check_vmware plugin to the vMA
- Create directory for ssh certificates AND configure plugin permissions
- Configure Nagios server
- Create Certificates
- Configure vMA Credentials
- Plugin Test From Nagios Host

Please complete all of these steps before continuing.

VMware vMA Settings Manager - Install

Now we will install the VMware vMA Settings Manager component.

- Download the component from the Nagios Exchange website:
  - http://exchange.nagios.org/directory/Addons/Components/VMware-vMA-Settings-Manager/details
In your Nagios XI interface, login as an Administrator
Click the Admin menu
On the left pane under System Extensions click Manage Components
Click the Browse button
Navigate to the VMware vMA Settings Manager component you downloaded and open it
Click the Upload Component button
The screen will refresh and say Component installed
Scroll down the page and you will see the component listed like so:

<table>
<thead>
<tr>
<th>VMware vMA Settings Manager</th>
<th>User</th>
<th>2014-08-08</th>
</tr>
</thead>
</table>
This component is used for defining how this Nagios XI host is configured to use the plugin box293_check_vmware (via a vMA host). It is required for the VMware Virtualization Wizard.

<table>
<thead>
<tr>
<th>Configuration Steps REQUIRED:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish an SSH session to the Nagios XI host as user root</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type mkdir /var/www/.ssh and press Enter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type cp /home/nagios/.ssh/known_hosts /var/www/.ssh/ and press Enter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type cp /home/nagios/.ssh/id_dsa /var/www/.ssh/ and press Enter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type setfacl -R -m u:apache:r-x /var/www/.ssh/ and press Enter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type exit and press Enter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After performing these steps refresh the Manage Components page and this message will disappear.

Version: 2014-08-08 Date: 2014-08-08 Author: Troy Lea, Nagios Enterprises, LLC

You can see here that there are some configuration steps required:

- Establish an SSH session to your Nagios XI host as root
  - Type mkdir /var/www/.ssh and press Enter
  - Type cp /home/nagios/.ssh/known_hosts /var/www/.ssh/ and press Enter
  - Type cp /home/nagios/.ssh/id_dsa /var/www/.ssh/ and press Enter
  - Type setfacl -R -m u:apache:r-x /var/www/.ssh/ and press Enter
  - Type exit and press Enter

VMware vMA Settings Manager - Configure vMA Host

Now we will configure the VMware vMA Settings Manager component.

This records the required address of the vMA appliance along with the vCenter or ESXi host(s) which the wizard requires when it runs.

- Return to the Nagios XI web interface.
- Click the Admin menu.
- On the left pane under System Extensions click Manage Components.
- Scroll down the page and you will see the component listed like so:

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- Click the Configure icon (spanner / screwdriver)
  - NOTE: When you followed the box293_check_vmware manual to Transfer certificates to the vMA you had to provide
either the **IP Address** or **DNS name** of the vMA appliance. You must use the **same** IP Address or DNS name of the vMA appliance here

- The first step is to define a **vMA host**.
- At the bottom of the screen, tick the **checkbox**.
- Type the **IP Address** or **DNS name** of the vMA appliance in the vMA Host Address field.
- Type a **Name** in the **Name** field.
- Click the **Apply Settings** button.

### VMware vMA Settings Manager - Test vMA Host

Now that we have added the vMA host we can perform a test to ensure SSH is correctly configured.

You will see the vMA host you just added:

- **Select** the **Test** radio button.
- In the **Select a vMA Host Test** list select **SSH Configuration**.
- Click the **Perform vMA Host Test** button.
- If everything is correctly configured then the result should return **SSH Configuration is correct!**

### VMware vMA Settings Manager - Add vCenter or ESX(i) Host

Now we need to add the vCenter or ESX(i) host to the VMware vMA Settings Manager component.

**NOTE:** When you followed the box293_check_vmware manual to **Configure vMA Credentials** you had to provide either the **IP Address** or **DNS name** of the vCenter or ESX(i) host

- You must use the **same** IP Address or DNS name of the vMA appliance here.
• Click the **VMware Settings** tab.
• At the bottom of the screen, **Tick** the checkbox.
• Type the **IP Address** or **DNS name** of the vCenter server or ESX(i) Host.
• Select the **Type** of host from the drop-down menu.
• Click the **Apply Settings** button.

![VMware Settings - Add](image)

**Address Example:** 192.168.1.211 or vcenter.domain.Local

- Address of vCenter Server OR ESX(i) Host
- Type

![Apply Settings](image)

**VMware vMA Settings Manager - Test vCenter or ESX(i) Host**

Now that we have added the vCenter or ESX(i) host host we can perform a test to ensure the credentials are correctly configured.

Under **VMware Settings** you will see the vCenter or ESX(i) host you just added:

• **Select** the **Test** radio button.
• In the **Select a VMware Test** list select **Credentials**
• Click the **Perform VMware Test** button.
• If everything is correctly configured then the result should return **Credentials tested OK!**

This completes all the steps required for the VMware vMA Settings manager.

**VMware Virtualization Wizard - Install**

Now we will install the VMware Virtualization Wizard.

• Download the wizard from the Nagios Exchange:
• Login to the Nagios XI web interface as an Administrator.
• Click the **Admin** menu.
• On the left pane under System Extensions click **Manage Config Wizards**
Click the **Browse** button.
- Navigate to the VMware Virtualization Wizard you downloaded and open it
- Click the **Upload Wizard** button.
- The screen will refresh and say **Wizard installed**.

**VMware Virtualization Wizard - Run**

Now you can run the VMware Virtualization Wizard to add objects to monitor.

- Click the **Configure** menu.
- Click **Run the Monitoring Wizard**.
- Find **VMware Virtualization Wizard** in the list.
- Click it (or you can select the radio button and click Next at the bottom of the page).
- You can see the vMA and VMware settings we populated previously.

- For this example, we will select the **Check Type Hosts**.
- Click the **Retrieve Hosts** button.

*Wait while the hosts are retrieved from the vCenter server.*

The screen is updated with a list of hosts. You can see in the screen shot that we have selected both hosts (Select Host) check boxes. These hosts have not been monitored by Nagios XI before so new Nagios host objects need to be created, which you need to provide a name and address for.

- Click **Next**.

On the next screen you are presented with blue tabs that allow you to select different monitoring checks. For example the screen shot here shows the CPU tab selected. Each check type (for example CPU Info) can be selected for each different host. This allows you to define individual monitoring for different hosts. If you define specific check options for one host, you can propagate these options to all the other hosts for this check type.

- Navigate through all the different tabs until you have selected all of the checks you want to monitor.
- Click **Next** when you are finished.
- Continue through the wizard steps to select the remaining wizard options to determine your Check Interval, Notification Settings, etc.

Once you have finished and Nagios XI has begun checking your system, you should see the check results on the Service Detail page in the Nagios XI interface. On the next page is a sample screenshot of what your dashboard will look like after running the VMware Virtualization Wizard.
 VMware Virtualization Wizard - Summary

At this point you can re-run the wizard as often as you require.

The VMware Virtualization Wizard can be used to monitor vCenter clusters, hosts, datastores and guests.

The wizard allows you to take advantage of the multitude of options that the box293_check_vmware plugin provides. If you require clarification on what the checks and options do please refer to the manual as it has exhaustive options.

Final Thoughts

For any support related questions please visit the Nagios Support Forums at:

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