



Seagate® Nytro™ vCenter Plug-In  
Solution Rev 1.0.0  
User Guide

100769979, Rev.C  
May 2015

---

## Revision History

Revision	Date	Description of Changes
Rev. C	May 2015	<ul style="list-style-type: none"><li>■ Updated the document with the appropriate product name.</li><li>■ Replaced the cover page boilerplate and corrected the version details.</li><li>■ Updated the Seagate support page.</li></ul>
Rev. B	March 2015	<ul style="list-style-type: none"><li>■ Updated the Nytro vCenter information.</li><li>■ Added Nytro Event Monitoring Service plug-in information.</li></ul>
Rev. A	December 2014	Initial release of the document.

© 2015, Seagate Technology LLC All rights reserved.

Publication number: 100769979, Rev.C, May 2015

Seagate reserves the right to change, without notice, product offerings or specifications.

Seagate, Seagate Technology and the Wave logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. Nytro, Nytro WarpDrive and SeaTools are either trademarks or registered trademarks of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners.

No part of this publication may be reproduced in any form without written permission of Seagate Technology LLC. Call 877-PUB-TEK1(877-782-8351) to request permission.

When referring to drive capacity, one gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes. Your computer's operating system may use a different standard of measurement and report a lower capacity. In addition, some of the listed capacity is used for formatting and other functions, and thus will not be available for data storage. Actual quantities will vary based on various factors, including file size, file format, features and application software. Actual data rates may vary depending on operating environment and other factors. The export or re-export of hardware or software containing encryption may be regulated by the U.S. Department of Commerce, Bureau of Industry and Security (for more information, visit [www.bis.doc.gov](http://www.bis.doc.gov)), and controlled for import and use outside of the U.S.

---

---

<b>Seagate Technology Support Services</b> .....	<b>4</b>
<b>Chapter 1: Nytro vCenter Plug-In Overview</b> .....	<b>5</b>
1.1 Supported Controllers .....	5
1.2 Supported Operations .....	6
<b>Chapter 2: Installing and Registering the Nytro vCenter Plug-In</b> .....	<b>7</b>
2.1 Hardware and Software Requirements .....	7
2.1.1 Supported Platforms .....	7
2.2 Prerequisites to Use the Nytro vCenter Plug-In .....	7
2.3 Deploying the Nytro vCenter Plug-In .....	8
2.4 Installing the Nytro vCenter Plug-In .....	8
2.5 Registering the Nytro vCenter Plug-In .....	8
2.6 Enabling the Nytro vCenter Plug-In .....	9
2.7 Disabling the Nytro vCenter Plug-In .....	9
2.8 Unregistering the Nytro vCenter Plug-In .....	9
2.9 Installing the Nytro vCenter EMS Plug-In .....	10
2.10 Registering the Nytro vCenter EMS Plug-In .....	11
2.11 Enabling the Nytro vCenter EMS Plug-In .....	12
2.12 Disabling the Nytro vCenter EMS Plug-In .....	12
2.13 Unregistering the Nytro vCenter EMS Plug-In .....	12
<b>Chapter 3: Using the Nytro vCenter Plug-In</b> .....	<b>14</b>
3.1 Logging On to the VMware vSphere Web Client .....	14
3.2 Navigating to the Nytro vCenter Plug-In environment .....	14
3.2.1 Controller Grid .....	15
3.2.2 Controller Summary View .....	16
3.2.3 Controller Physical View .....	17
3.2.4 Controller Logical View .....	18
3.2.5 Controller Events Log View .....	20
3.3 Managing the Storage Device .....	20
3.3.1 Creating a Virtual Drive .....	20
3.3.2 Renaming a Virtual Drive .....	21
3.3.3 Deleting a Virtual Drive .....	22
3.3.4 Physical Drive Secure Erase .....	23
3.3.5 Clearing the Configuration On the Nytro Controller .....	23
3.3.6 Formatting the Nytro WarpDrive .....	24
<b>Chapter 4: Using the Nytro vCenter Event Monitoring Service Plug-In</b> .....	<b>25</b>
4.1 Nytro vCenter Event Monitoring Service Plug-In Operations .....	25
4.2 Navigating to the Event Console .....	25
4.2.1 Exporting the Events .....	28
<b>Appendix A: Troubleshooting the Nytro vCenter Plug-In Issues</b> .....	<b>29</b>
<b>Glossary</b> .....	<b>30</b>

---

## Seagate Technology Support Services

For information regarding online support and services, visit: <http://www.seagate.com/about/contact-us/technical-support/>

Available services include:

- Presales & Technical support
- Global Support Services telephone numbers & business hours
- Authorized Service Centers

For information regarding Warranty Support, visit: <http://www.seagate.com/support/warranty-and-replacements/>

For information regarding data recovery services, visit: <http://www.seagate.com/services-software/data-recovery-services/>

For Seagate OEM and Distribution partner portal, visit: <http://www.seagate.com/partners>

For Seagate reseller portal, visit: <http://www.seagate.com/partners/my-spp-dashboard/>

---

# Chapter 1: Nytro vCenter Plug-In Overview

The Nytro™ vCenter plug-in enables you to manage the Seagate® controllers in the vSphere® environment to provide all of the major system integrators or OEMs with a single window to manage the Seagate controllers in the VMware® ESXi operating system. The plug-in coexists with the VMware ecosystem to provide seamless control over the Seagate controllers.

The Nytro vCenter plug-in includes the Nytro vCenter plug-in and Nytro vCenter Event Monitoring Service (EMS) plug-in, hereon called Nytro vCenter EMS plug-in.

- The Nytro vCenter plug-in enables you to create basic configurations, rename the virtual drive (VD), and monitor the health status of the controllers. The plug-in leverages the core vCenter server capabilities, such as authentication. The plug-in includes storage monitoring, hardware status, management and monitoring of physical and virtual resources, and alert notifications. The Nytro vCenter plug-in empowers you to effectively manage your storage resources, that is, your physical and virtual storage infrastructure through a vSphere web client. See [Chapter 3, Using the Nytro vCenter Plug-In](#).
- The Nytro vCenter EMS plug-in enables you to view all of the controller events occurring at the vCenter level in a single common event console. You can monitor the connected controllers by using the events generated on the controllers. See [Chapter 4, Using the Nytro vCenter Event Monitoring Service Plug-In](#).

You can use the Nytro vCenter plug-in without any additional hardware resources.

## 1.1 Supported Controllers

- Nytro XP 6209
- Nytro XP 6210
- Nytro XP 730X
- WDELP4X100
- WDELP4X200
- NWD-BLP4-1365
- NWD-RLP4-1860
- NWD-6209-4A1024
- NWD-6210-4A2048
- MLSI800M
- MLSI400S
- NWD-BLP3-300
- NWD-WLP3-300
- NWD-BLP3-600
- NWD-BLP4-800
- NWD-WLP4-200
- NWD-WLP4-400
- NWD-BLP4-400
- NWD-BLP4-800
- NWD-BLP4-1600
- NXD-BLP4-400
- NXD-BLP4-800
- NXD-BLP4-1600
- NWD-BFH6-1200

- NWD-BFH8-1600
- NWD-BFH8-3200

## 1.2 Supported Operations

The Nytro vCenter plug-in supports the operations provided in the following table.

<b>Operation Supported</b>	<b>MLSI/NWD/NXD/WDELP/Nytro XP62xx</b>	<b>Nytro XP 73xx/Nytro XP 64xx</b>
Create or Delete virtual drive (VD)	Not supported	Supported
Format controller	Supported	Not supported
Format Nytro Flash Modules	Supported (if there are no VDs)	Not supported
Erase physical drive (PD)	Not supported	Supported
Clear configuration	Not supported	Supported
VD rename	Not supported	Supported
Event Monitoring	Supported	Supported

---

## Chapter 2: Installing and Registering the Nytro vCenter Plug-In

This chapter provides you the steps to install and register the Nytro vCenter plug-in. The Nytro vCenter plug-in installation includes the installation of Nytro vCenter plug-in and Nytro vCenter EMS plug-in into the vSphere environment.

### 2.1 Hardware and Software Requirements

The Nytro vCenter plug-in is supported on the following hardware and software components.

#### 2.1.1 Supported Platforms

- vCenter Server 5.5
- vSphere web client 5.5
- ESXi 5.5

**NOTE** Refer to your vCenter server documentation and to the operating system documentation for more information.

### 2.2 Prerequisites to Use the Nytro vCenter Plug-In

- Seagate provided CIM provider (included in the release package; the Nytro vCenter plug-in works with version 80.101.V0.08) installed on the ESXi host
- vCenter Server 5.5 Visit:  
[http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=2053142](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=2053142)

**NOTE** vCenter installation must have the Single sign-on, inventory service modules, and vSphere Web Client installed (visit:  
<https://www.vmware.com/support/pubs/vsphere-esxi-vcenter-server-pubs.html>).

- vSphere web client 5.5
- Nytro vCenter plug-in
- Nytro vCenter EMS plug-in (included in the release package)
- ESXi host version 5.5 with the Seagate controllers attached

**NOTE** Known issue with ESXi 5.5:

**sfc** service might fail to open the ESXi firewall for CIM indication delivery if more than one destination listens to the indication on different ports.

The Nytro vCenter plug-ins work with ESXi 5.5 hosts and the fix for this issue is available with only ESXi 5.5 U2. To work around this issue, disable the firewall on the ESXi hosts to be able to view the events passing from into the Nytro vCenter plug-ins. For more information, visit:

<https://www.vmware.com/support/vsphere5/doc/vsphere-esxi-55u2-release-notes.html>

- ESXi host must be configured as a part of a domain.





---

The **Register Plug-in** dialog appears.

9. Click the **Browse** button, and select the path to the `PluginExtension.xml` file as provided in Step 3 in [Section 2.4, Installing the Nytro vCenter Plug-In](#).
10. Click **Register Plug-in**.
11. Open a new web client session to the vCenter, and click the **Nytro XM** tab under **Manage**.  
This action triggers the deployment of the plug-in on the web client host.

## 2.6 Enabling the Nytro vCenter Plug-In

You can access the Nytro vCenter plug-in interface in a separate tab when an ESXi host is selected.

To enable the Nytro vCenter plug-in, perform the following steps:

1. From the Applications menu, select `System Administration > Plug-in Management`.
2. Right-click the **Nytro XM Plug-in**, and select `Other > Enable`, from the **Context** menu.
3. Click **Yes**.

**NOTE** By default, the plug-ins are enabled.

## 2.7 Disabling the Nytro vCenter Plug-In

You can disable the Nytro vCenter plug-in. The plug-in remains installed, but will be inoperative. You can re-enable the plug-in anytime later.

1. From the **Applications** menu, select `System Administration > Plug-in Management`.
2. Right-click **Nytro XM Plug-in**, and select `Other > Disable` from the context menu.
3. Click **Yes**.
4. Click **Yes** on the **Reload vSphere Web Client** dialog that appears.

## 2.8 Unregistering the Nytro vCenter Plug-In

You can unregister the Nytro vCenter plug-in that you had previously registered with the vCenter server. You can manually delete the extension (for more information, look up for [com.Seagate.vCenterPlugin.NytroXM](http://com.Seagate.vCenterPlugin.NytroXM)) by using the vCenter Managed Object Browser (MOB) interface in your Web browser (refer to the vCenter documentation for the MOB interface usage).

Unregistering a Nytro vCenter plug-in package on the vCenter server does not delete the Nytro vCenter plug-in package files that are installed locally on the vSphere Web Client Virgo server. The files are not used after you unregister the package. To remove the files for clean-up purposes, you must delete the Nytro vCenter plug-in package files manually.

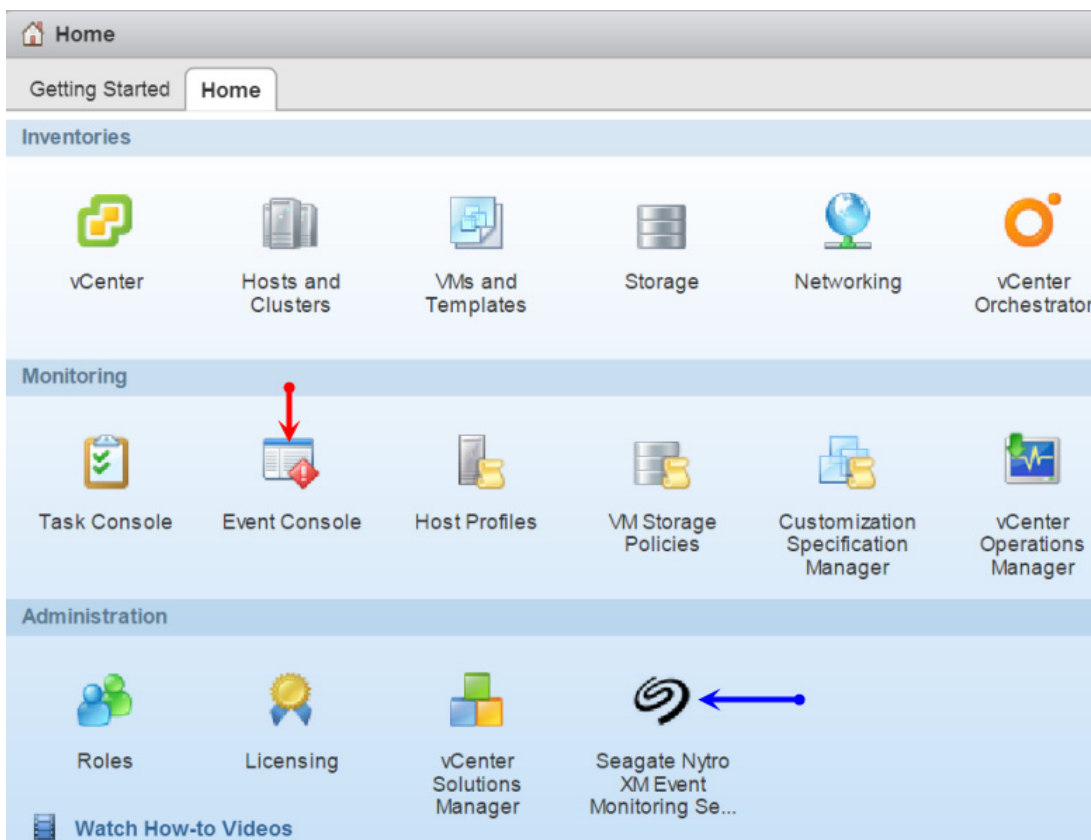
Perform the following steps to unregister the plug-in:

1. Open the VMware vSphere API Browser (MOB interface),  
[https://<vCenter\\_IP\\_Address>/mob/?moid=ExtensionManager](https://<vCenter_IP_Address>/mob/?moid=ExtensionManager).
2. Log on to the vCenter server.
3. Under the *Methods* list that appears, click the **UnregisterExtension** method.



The Home page appears.

**Figure 1 Nytro vCenter EMS Plug-in Home Page**



## 2.10 Registering the Nytro vCenter EMS Plug-In

To register the Nytro vCenter EMS plug-in, perform the following steps:

1. Pick up the respective zip file, `nytro-xm-ems.zip` bundled within the release package.
2. Host the `nytro-xm-ems.zip` on an HTTP location.
3. To ensure that the HTTP location is working correctly, type the URL, for example, `http://<Webserver IP>:Port/nytro-xm-ems.zip` in a browser, and press **Enter**.  
Downloading starts.
4. In the `PluginExtension.xml` XML file, change the package location URL (zip file downloadable HTTP location) with the HTTP path provided in Step 2, and then save the XML file on the machine where you have the vSphere Client 5.5 installed.

**NOTE** vSphere Client 5.5 is a pre-requisite to register the Nytro vCenter EMS plug-in.

5. Modify the web client properties file, `webclient` under `C:\ProgramData\VMware\vSphere Web Client` on the vCenter machine to add a new line as shown in the following example:

```
allowHttp=true
```

6. Run vSphere client and connect it to the vCenter server.
7. Go to Plug-ins->Manage Plugins.

- 
- The **Plug-in Manager** dialog appears.
- Right-click the blank space in the dialog, and select **New Plug-in**.  
The **Register Plug-in** dialog appears.
  - Click the **Browse** button, and select the path to the `PluginExtension.xml` file as provided in Step 3 in [Section 2.9, Installing the Nytro vCenter EMS Plug-In](#).
  - Click **Register Plug-in**.
  - Open a new web client session to the vCenter, and go to the vCentre home page.  
This action triggers the deployment of the plug-in on the web client host.

## 2.11 Enabling the Nytro vCenter EMS Plug-In

You can access the Nytro vCenter EMS plug-in interfaces in a separate tab when an ESXi host is selected.

To enable the Nytro vCenter EMS plug-in, perform the following steps:

- From the **Applications** menu, select `System Administration > Plug-in Management`.
- Right-click the **Nytro XM EMS** plug-in, and select `Other > Enable`, from the **Context** menu.
- Click **Yes**.

**NOTE** By default, the plug-in is enabled.

## 2.12 Disabling the Nytro vCenter EMS Plug-In

You can disable the Nytro vCenter EMS plug-in. The plug-in remains installed, but will be inoperative. You can re-enable the plug-in anytime later.

- From the **Applications** menu, select `System Administration > Plug-in Management`.
- Right-click **Nytro XM EMS Plug-in**, and select `Other > Disable` from the context menu.
- Click **Yes**.
- Click **Yes** on the **Reload vSphere Web Client** dialog that appears.

## 2.13 Unregistering the Nytro vCenter EMS Plug-In

You can unregister the Nytro vCenter EMS plug-in that you had previously registered with the vCenter server. You can manually delete the extension (for more information, look up for [com.Seagate.vCenterPlugin.nytro-xm-ems](http://com.Seagate.vCenterPlugin.nytro-xm-ems)) by using the vCenter Managed Object Browser (MOB) interface in your Web browser (refer to the vCenter documentation for the MOB interface usage).

Unregistering a Nytro vCenter EMS plug-in package on the vCenter server does not delete the Nytro vCenter EMS plug-in package files that are installed locally on the vSphere Web Client Virgo server. The files are not used after you unregister the package. To remove the files for clean-up purposes, you must delete the Nytro vCenter EMS plug-in package files manually.

Perform the following steps to unregister the plug-in:

- Open the VMware vSphere API Browser (MOB interface),  
[https://<vCenter\\_IP\\_Address>/mob/?moid=ExtensionManager](https://<vCenter_IP_Address>/mob/?moid=ExtensionManager).

- 
2. Log on to the vCenter server.
  3. Under the *Methods* list that appears, click the **UnregisterExtension** method.  
A pop-up dialog appears.
  4. Enter the extension key for the plug-in, and then click **Invoke Method** at the bottom of the dialog.

**NOTE** The extension key is, *com.Seagate.vCenterPlugin.nytro-xm-ems*.

The preceding steps will unregister the plug-in extension. However, unregistering the plug-in on the vCenter server does not delete the plug-in files that are installed locally on the vSphere Web Client Virgo server. The files are not usable after you unregister the package. To remove the files for clean-up purposes, you must delete the plug-in files manually; typically from the following location on a Windows host

C:\ProgramData\VMware\vsphere Web Client\vc-packages\vsphere-client-serenity path.

---

## Chapter 3: Using the Nytro vCenter Plug-In

This chapter helps you configure/setup the Nytro vCenter plug-in, and perform all of the controller-related operations.

The plug in enables you to perform the following operations:

- Viewing the health and status of the controllers.
- Viewing the information of the events generated.
- Issuing management and administration commands to the VDs.
- Creating, configuring, or deleting VDs.
- Discovering the controllers, physical disk, virtual drive and viewing the controller properties.



### 3.1 Logging On to the VMware vSphere Web Client

Log on to the **vmware vSphere Web Client** interface with your user credentials.

After you log on to the VMware vSphere® Web Client, go to the Nytro vCenter plug-in environment to perform the Nytro controller-related operations.

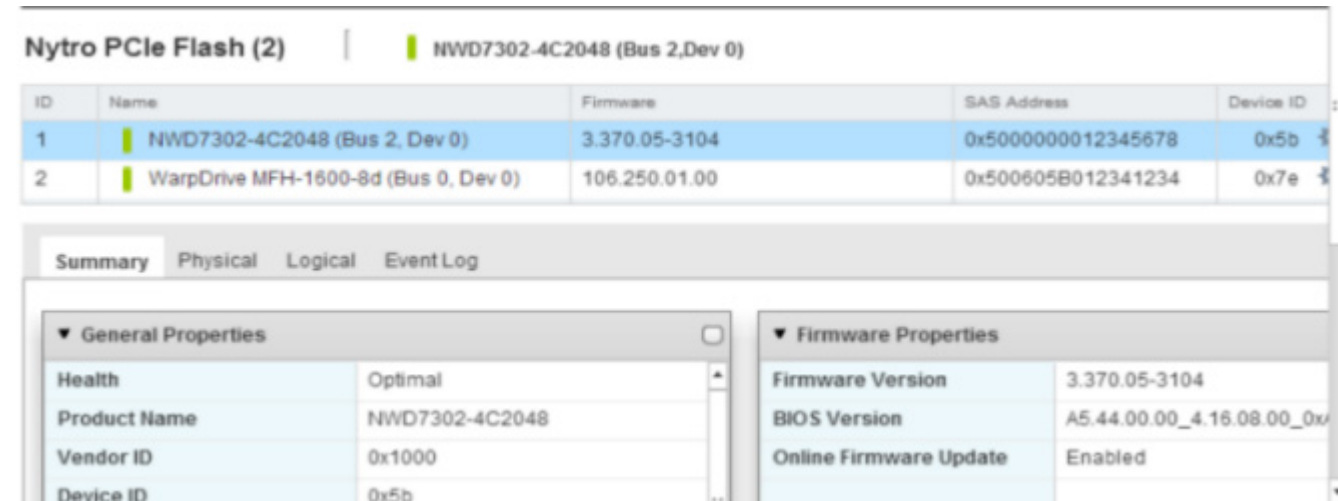
### 3.2 Navigating to the Nytro vCenter Plug-In environment

To navigate to a Nytro vCenter Core plug-in, perform the following steps:

1. Click the  icon on the **vmware vSphere Web Client** window or click  **vCenter** on the left pane of the VMware vSphere Web Client window.
2. In the vCenter Home tree, expand **Inventory Lists**, and click **Hosts**.  
The **Hosts** window appears on the right pane.
3. Select the host where the Seagate controllers are attached and can be viewed or managed.
4. Under the host view, select the **Manage** tab to view the plug-in-specific **Nytro XM** tab.

The **Nytro vCenter Plug-In** main window appears.

**Figure 2 Nytro vCenter Plug-In Main Window**

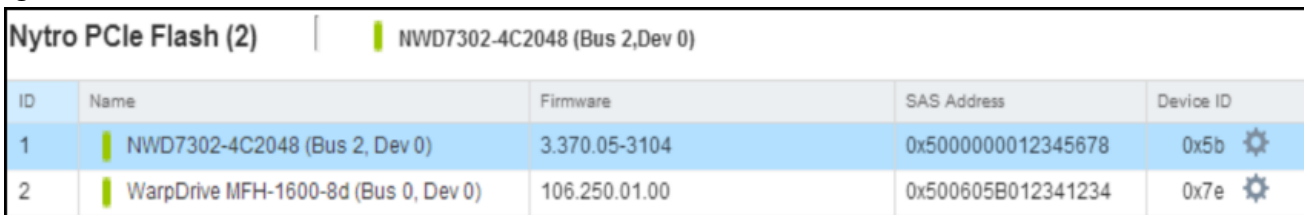


### 3.2.1 Controller Grid

The Grid view shows an overview of the system and shows the controller name, controller firmware version, the SAS address of the controller, and device ID. After you log onto the vCenter server, in the **Managed Hosts** page, select any controllers as shown in the following figure.

The selected controller is highlighted.

**Figure 3 Controller Grid**



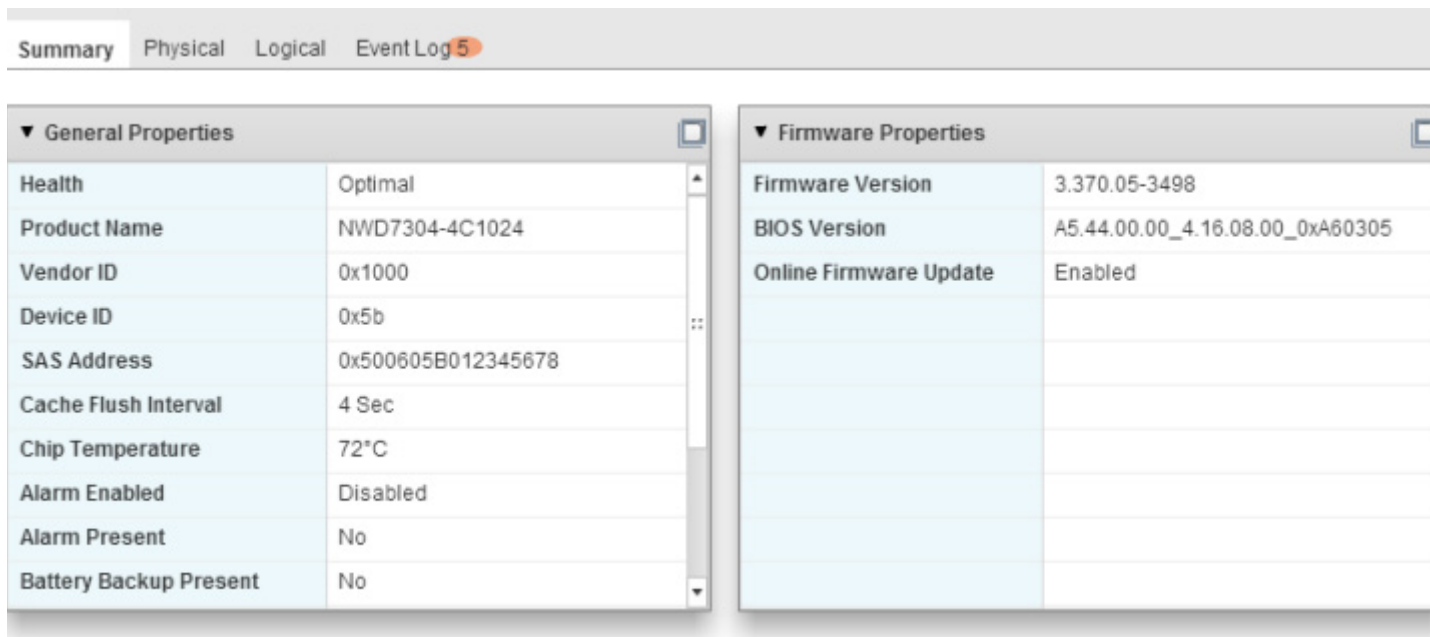
The following table shows the GUI icons that appear in the Nytro vCenter plug-in application.

Icons	Description
	Alarm to indicate the critical events.
	Alarm to indicate the warning events.
LED status of the controller.	
	Indicates that the controller status is critical or needs attention (  ).
	Indicates that the controller status is in an optimal state.

### 3.2.2 Controller Summary View

The summary view is the default window. This view shows the information about the selected controller. The information on this dialog is read-only and cannot be modified directly. The available operations on the Nytro vCenter plug-in are, viewing the controller properties, drive properties, VD properties, health information, and other information. The properties shown might vary based on the controller that is being monitored.

**Figure 4 Nytro vCenter Plug-in Summary View**



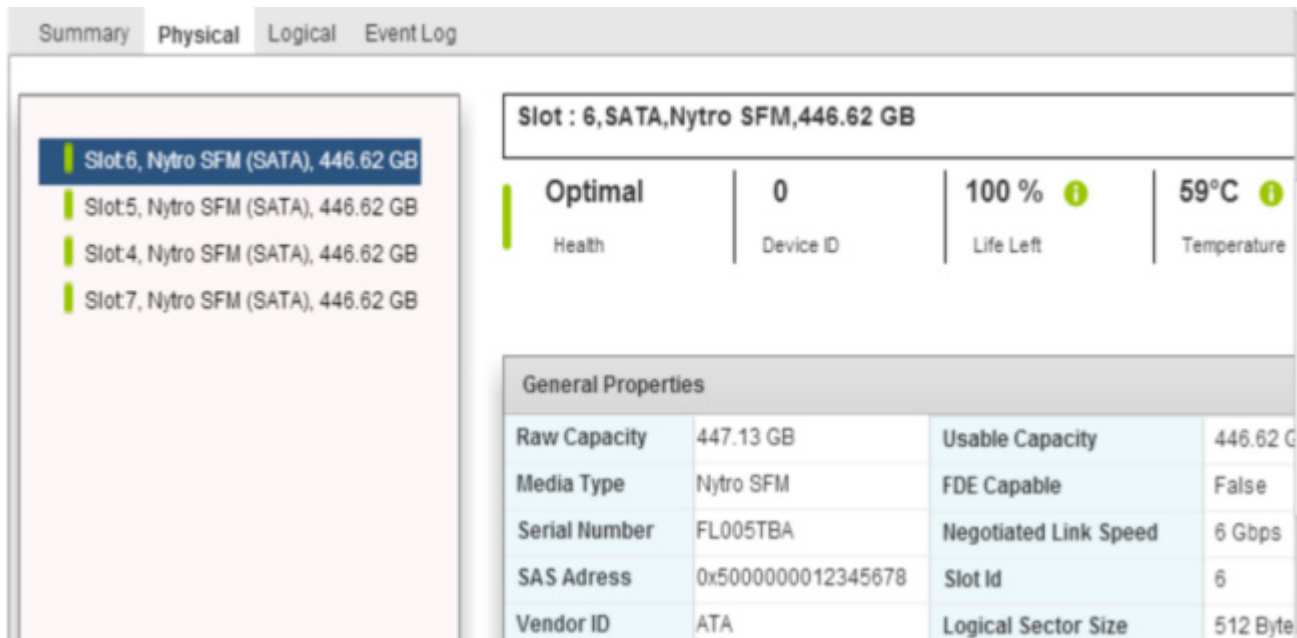
Property	Description
<b>General Properties</b>	
Health	Shows the controller health.
Product Name	Shows the name of the controller.
Vendor ID	Shows the vendor ID.
Device ID	Shows the device ID.
SAS Address	Shows the SAS address for the drive.
Cache Flush Interval	The interval (in seconds) at which the contents of the on-board data cache are flushed. The default is 4 seconds.
Controller Temperature	Shows the controller temperature; based upon this value, the controller functionality can be monitored and managed.
Alarm Enabled	Indicates if the controller alarm is enabled.
Alarm Present	Indicates if the alarm is present in the controller.
Battery Backup Present	Indicates if the battery backup unit is present.
<b>Firmware Properties</b>	
Firmware Version	Shows the controller firmware version supported.
BIOS Version	Shows the server BIOS version supported.
Online Firmware Upgrade	Shows if the online firmware upgrade operation is enabled.



### 3.2.3 Controller Physical View

The Physical view shows the hierarchy of physical devices that are a part of the controller.

Figure 5 Controller Physical View



Property	Description
Health	The drive health information.
Device ID	Shows the drive ID. Each of the drive has a unique ID.
Life Left	Nytrio Flash module Life Left values (based on the Nytrio controller life).
Temperature	Shows the temperature of the controller.
<b>General Properties</b>	
Raw Capacity	Shows the original storage capacity.
Media Type	A drive property, either Nytrio Flash module or Nytrio Serviceable Flash module.
FDE Capable	Indicates whether the drive is capable of encryption. This option is available only if the controller supports security, and if security is configured.
SAS Address	Shows the SAS address for the drive.
Vendor ID	Shows the physical device vendor ID.
Serviceable	Shows if the Serviceable Flash module or Nytrio Flash module is serviceable.
State	Shows the drive state (online or offline).
Thermal IO Status	Shows whether the current drive temperature is in a critical, warning, or normal state.
Usable Capacity	Usable storage varies depending on what RAID level you use on an array. If you select drives of varying sizes, the usable space on each drive is restricted to the size of the smallest selected drive
Serial Number	Shows the serial number of the enclosure. Each of the enclosures has a unique serial number.

Property	Description
Negotiated Link Speed	The negotiated link speed for data transfer to and from the drive.
Slot ID	Shows the slot ID of the drive.
Logical Sector Size	Shows the logical sector size of this virtual drive.

### 3.2.4 Controller Logical View

The **Logical** view shows the hierarchy of controllers, virtual drives, and the drives and drive groups that make up the virtual drives.

Figure 6 Controller Logical View

Pool_1, RAID 0			
<b>Optimal</b>	<b>1.74 TB</b>	<b>1.74 TB</b>	<b>RAID 0</b>
Health	Configured Capacity	Remaining Capacity	Raid Level

▼ Properties			
Drive Group Name	Pool_1	Configured Capacity	1.74 TB
Raid Level	RAID 0	Remaining Capacity	1.74 TB

▼ Contributing Drives			
Slot	Media Type	Interface	Usable Capacity
6	Nytro SFM	SATA	446.62 GB
5	Nytro SFM	SATA	446.62 GB

Property	Description
Health	The drive group health information.
Configured Capacity	The entire drive group capacity.
Remaining Capacity	The remaining capacity in the drive group.
RAID Level	The RAID level of the drive group.
Drive Group Name	The name given to a group of drives that is attached to a RAID controller on which one or more virtual drives can be created.
Contributing Drives	The drives that are part of the drive group.

**Figure 7 Controller Logical View VD Information**

Virtual Drive:0, StorageVolume, 3.91 GB			
Optimal	No read ahead	Always write through	Direct IO
Health	Read Policy	Write Policy	IO Policy

Properties			
State	Optimal	Read Policy	No read ahead
Raid Level	0	Current Write Policy	Always write through
Capacity	3.91 GB	Default Write Policy	Always write through
IO Policy	Direct IO	Disk Cache Policy	None

Property	Description
Health	The virtual drive health information.
Read Policy	Read policy of the virtual drive.
Write Policy	Write policy of the virtual drive.
State	Indicates the status of the drive.
RAID Level	The RAID level of the virtual drive.
Capacity	The amount of storage space on a virtual drive.
I/O Policy	The I/O policy on a specific virtual drive.

### 3.2.5 Controller Events Log View

This window shows the firmware event log entries. The new event log entries appear during the session. Each entry has an ID, an error level indicating the severity of the event, the timestamp and date, and a brief description of the event. You can filter the view based on your requirement.

To access the event log entries, perform the following steps:

1. Click the **Event Log** tab.

Figure 8 Controller Event Log

ID	Seq. No	Event Level	Time	Description
0	267	Information	Wed Jul 02 09:30:21 2014	Firmware initialization started (PCI ID 007e/1000/027e/1000)
1	266	Information	Wed Jul 02 08:34:08 2014	Firmware initialization started (PCI ID 007e/1000/027e/1000)
2	265	Information	Tue Jul 01 12:30:30 2014	Firmware initialization started (PCI ID 007e/1000/027e/1000)
3	264	Information	Tue Jul 01 12:29:19 2014	Deleted LD 00
4	263	Information	Tue Jul 01 11:57:52 2014	Created LD 00
5	262	Information	Tue Jul 01 11:56:44 2014	Deleted LD 00
6	261	Information	Tue Jul 01 11:08:14 2014	Created LD 00
7	260	Information	Tue Jul 01 11:07:06 2014	Deleted LD 00
8	259	Information	Tue Jul 01 11:05:44 2014	Created LD 00
9	258	Information	Tue Jul 01 11:04:37 2014	Deleted LD 00
10	257	Information	Tue Jul 01 11:03:04 2014	Created LD 00
11	256	Information	Tue Jul 01 11:01:56 2014	Deleted LD 00
12	255	Information	Tue Jul 01 06:53:04 2014	Firmware initialization started (PCI ID 007e/1000/027e/1000)
13	254	Information	Mon Jun 30 09:50:40 2014	Firmware initialization started (PCI ID 007e/1000/027e/1000)

## 3.3 Managing the Storage Device

### 3.3.1 Creating a Virtual Drive

The following steps help you can create a virtual drive (VD).

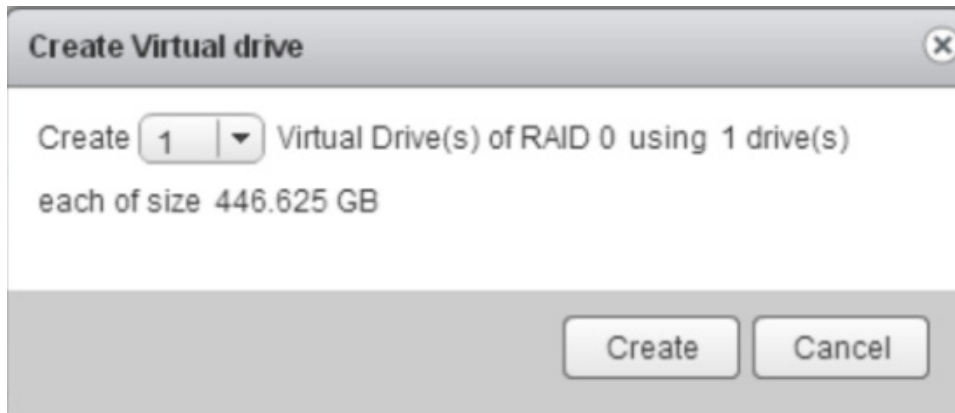
Figure 9 Create Virtual Drive

ID	Name	Firmware	SAS Address	Device ID
1	NWD7302-4C2048 (Bus 2, Dev 0)	3.370.05-3104	0x5000000012345678	0x5b
2	WarpDrive MFH-1600-8d (Bus 0, Dev 0)	106.250.01.00	0x500605B012341234	0x7e

1. Select the required controller, and right-click the icon.
2. Select **Create VD**.

The create virtual drive dialog appears.

**Figure 10 Create Virtual Drive**

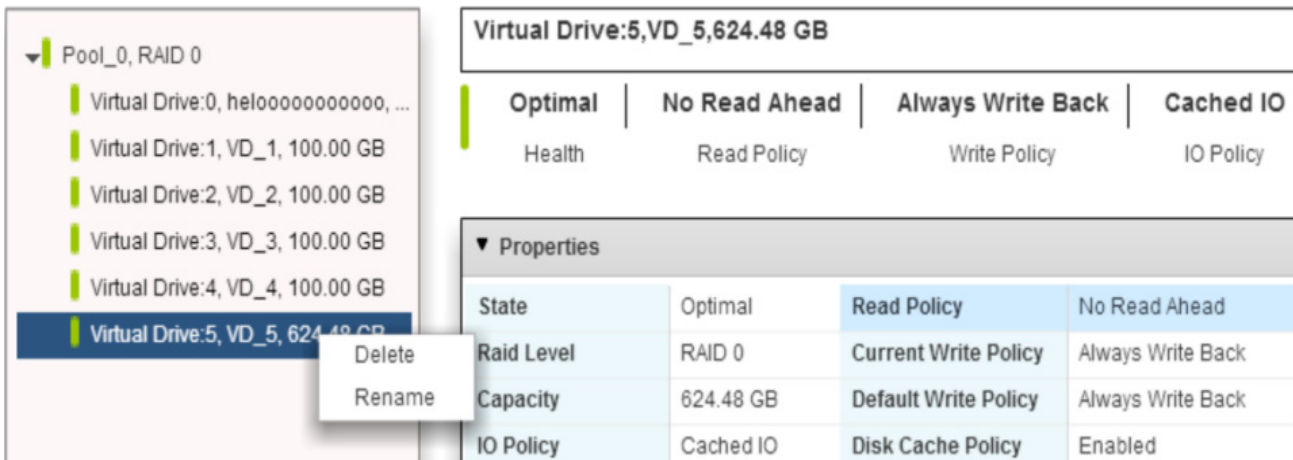


- From the drop-down list, select the desired number of VDs to create, and click **Create**.

### 3.3.2 Renaming a Virtual Drive

The following steps help you rename the VD.

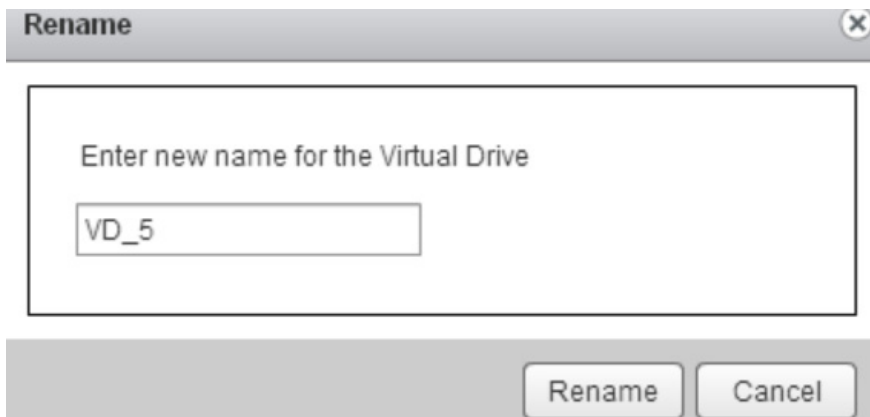
**Figure 11 Rename Virtual Drive**



- Expand the drive group, and select the VD that you want to rename.
- Right-click the VD.
- Select **Rename**.

The **Rename** dialog appears.

**Figure 12 Rename**



4. Enter the new VD name, and click **Rename**.

### 3.3.3 Deleting a Virtual Drive

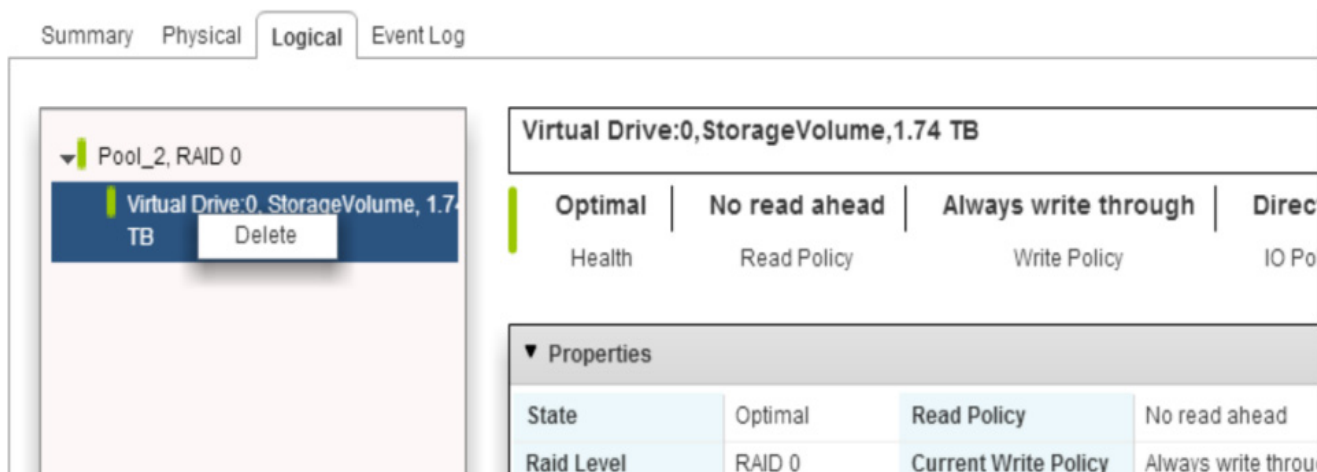
The following steps help you delete a VD.

**CAUTION** This operation is not recommended. Back up any data that is on the virtual drive that you want to keep before you delete the virtual drive. Make sure that the operating system is not installed on this VD.

You can delete any virtual drive on the controller if you want to reuse that space for a new virtual drive. If multiple virtual drives are defined on a single drive group, you can delete a VD without deleting the whole drive group.

1. Click the **Logical** tab.
2. Expand the drive group, and select the VD that you want to delete.
3. Right-click the VD that you want to delete.
4. Select **Delete** as shown in the following figure.

**Figure 13 Delete Virtual Drive**



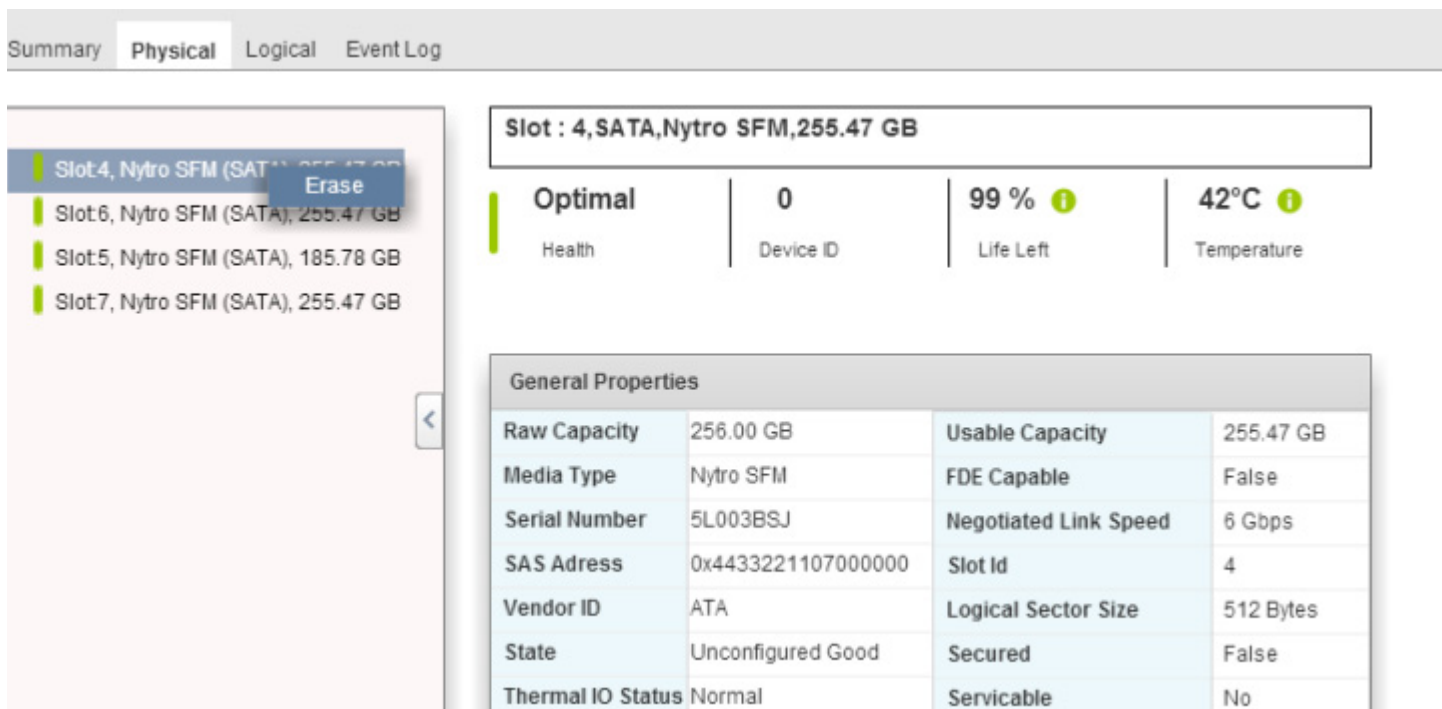
5. When the warning messages appear, click **Yes** to confirm that you want to delete the virtual drive.

**NOTE** You are asked for a confirmation if you want to delete a VD to avoid accidental deletion of the VD.

### 3.3.4 Physical Drive Secure Erase

The secure erase operation is not supported on all of the controllers.

**Figure 14 Secure Erase Physical Drive**

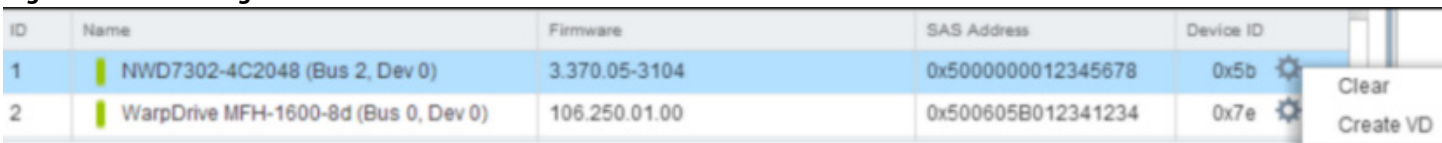



1. Right-click the SFM that you want to erase.
2. Select **Erase**.

### 3.3.5 Clearing the Configuration On the Nytro Controller

The clear configuration operation is not supported on all of the controllers.

**Figure 15 Clear Configuration**






1. Select the required controller, and right-click the  icon.
2. Select **Clear**.

### 3.3.6 Formatting the Nytro WarpDrive

The format operation is supported only on the Nytro WarpDrive card.

**Figure 16 Format Controller**

Name	Firmware	SAS Address	Device ID	
NWD7302-4C2048 (Bus 1, Dev 0)	3.370.05-3104	0x5000000012345678	0x5b	
WarpDrive MFH-1600-8d (Bus 0, Dev 0)	106.250.01.00	0x500605B012341234	0x7e	

 Format



## Chapter 4: Using the Nytro vCenter Event Monitoring Service Plug-In

This chapter helps you monitor the connected controllers by using the events generated on the controllers. You can view the generated events in a single interface.

### 4.1 Nytro vCenter Event Monitoring Service Plug-In Operations

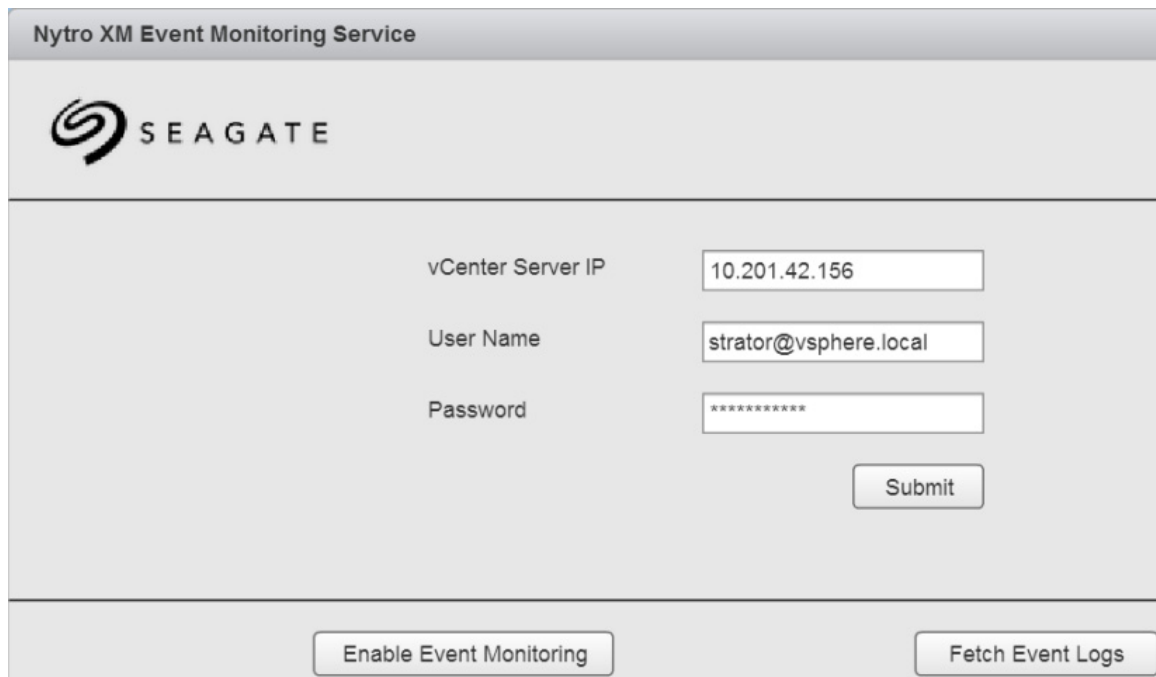
The plug in enables you to perform the following operations:

- View the run-time events in the Event console.
- Fetch and view the event logs (up to a maximum of 32 events per ESXi host).

### 4.2 Navigating to the Event Console

1. Click the **Nytro XM Event Monitoring Service** icon (marked in blue arrow in [Figure 1](#)). If you are the first user for the day, the following window appears.

**Figure 17 Nytro vCenter Event Monitoring Service**



Nytro XM Event Monitoring Service

SEAGATE

vCenter Server IP: 10.201.42.156

User Name: strator@vsphere.local

Password: \*\*\*\*\*

Submit

Enable Event Monitoring

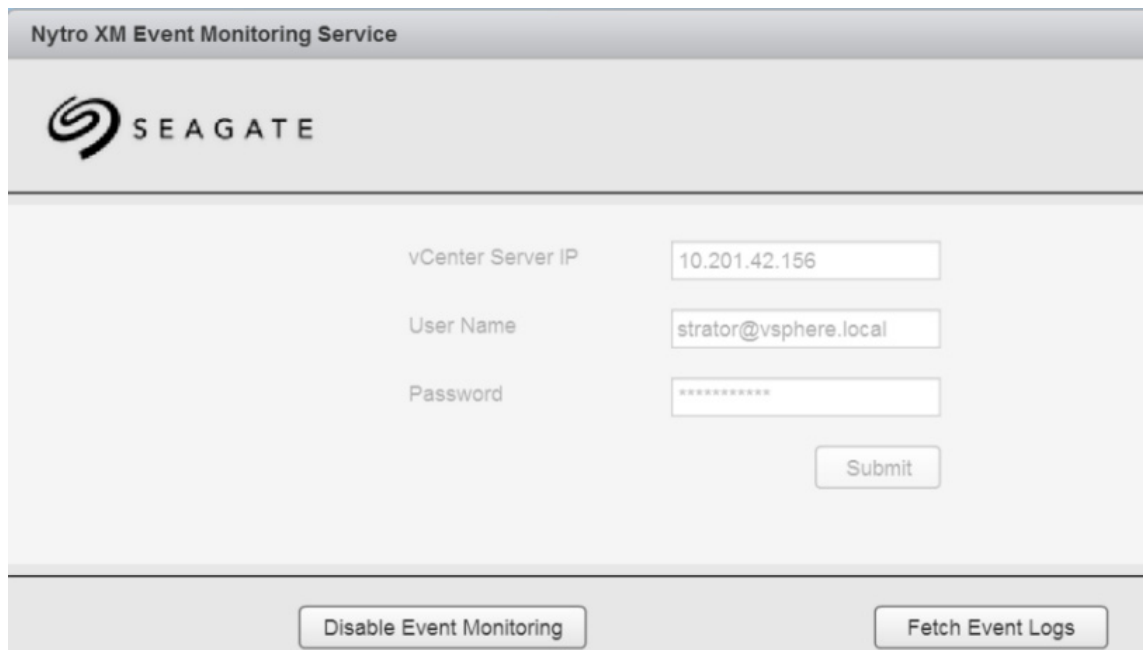
Fetch Event Logs

2. Enter the vCenter server IP, your user name and password that are provided to you, and click **Submit**.
3. Click **Enable Event Monitoring**.

---



If the Nytro vCenter EMS plug-in is running, the following window appears.

**Figure 18 Nytro vCenter Event Monitoring Service**



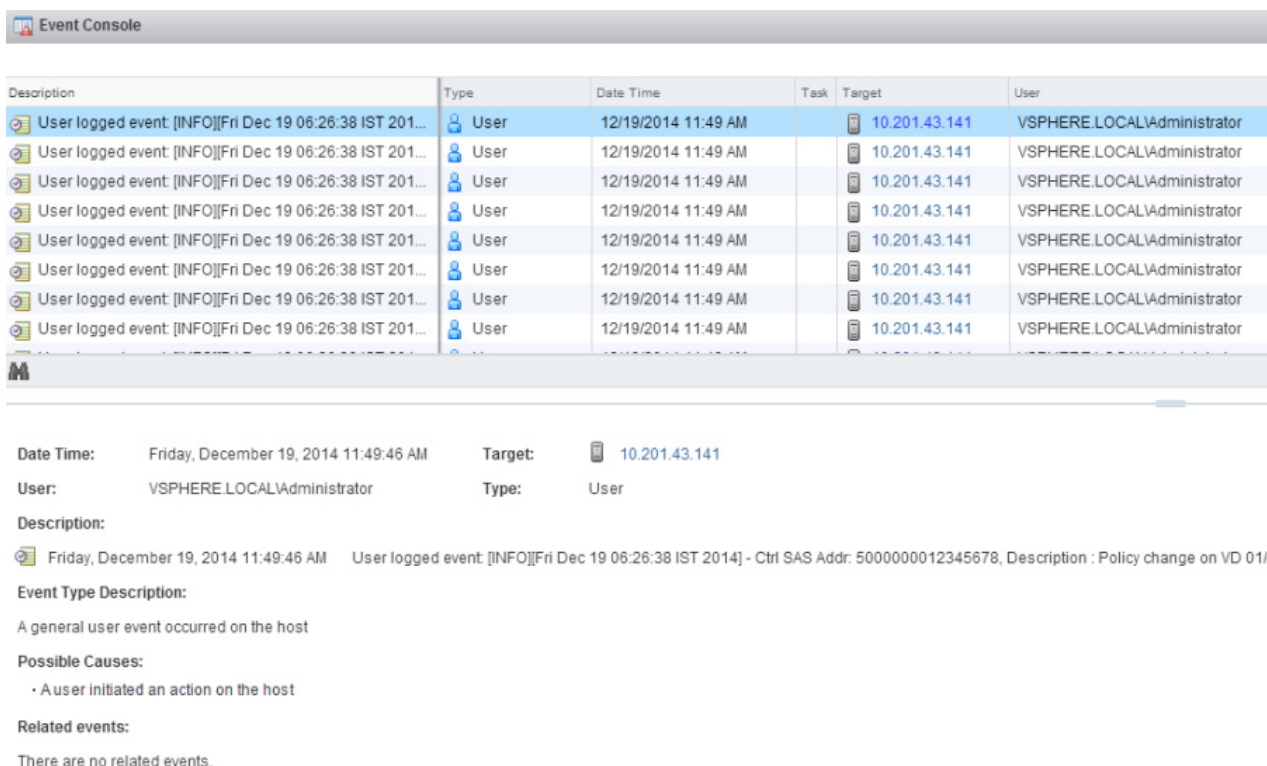
The screenshot shows a web interface for the Nytro XM Event Monitoring Service. At the top, it says "Nytro XM Event Monitoring Service" and features the Seagate logo. Below the logo, there are three input fields: "vCenter Server IP" with the value "10.201.42.156", "User Name" with the value "strator@vsphere.local", and "Password" with a masked value "\*\*\*\*\*". A "Submit" button is located to the right of the password field. At the bottom of the window, there are two buttons: "Disable Event Monitoring" on the left and "Fetch Event Logs" on the right.

To navigate to the Event console, perform the following steps:

1. Click the  icon on the top of the window. The **Home** window as shown in [Figure 1](#) appears.
2. On the **Home** window, lick **Event Console** (see marked in red arrow in [Figure 1](#)) or click the  **Events** icon on the left pane of the Nytro vCenter EMS plug-in window.

The **Event Console** window appears.

**Figure 19 Event Console**



3. Highlight and click the event to be viewed as shown in the preceding figure. The detailed information appears in the lower section of the window.  
Click the **Target** hyperlink to navigate directly to the host machine that is responsible for this event. This information helps you take corrective action.

**NOTE** To view the new events, refresh the **Event Console** by using the refresh (  ) button.

### 4.2.1 Exporting the Events

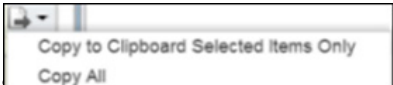

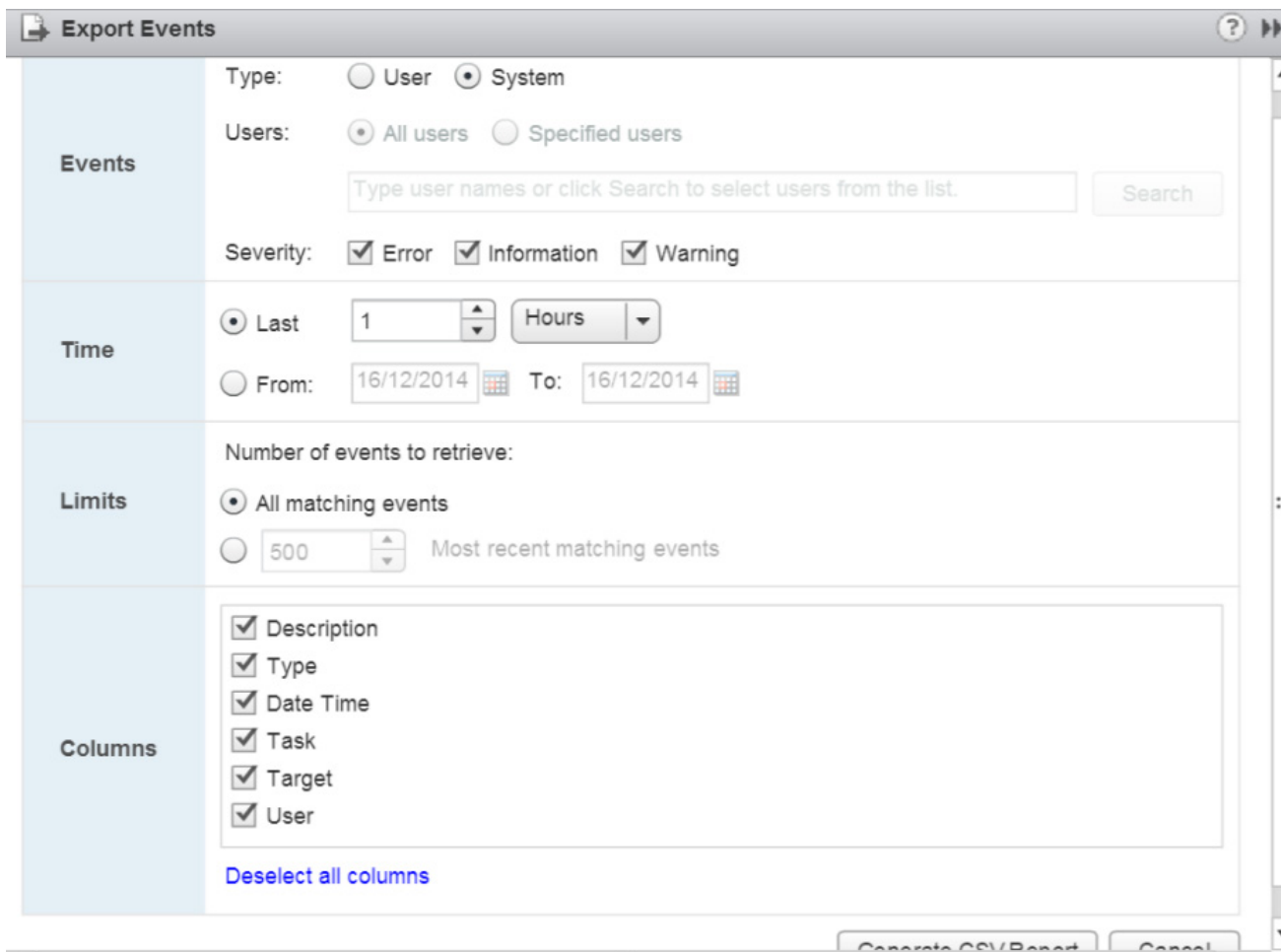




1. Click the  icon to export the events list into the clipboard.
  2. Click the  icon.
- The **Export Events** dialog appears.

Figure 20 Export Events



3. Select the required columns or fields to be included in the list, and then click **Generate CSV Report**.  
The following table provides the error icons with their description.

ICONS	DESCRIPTION
	Indicates error in the controller.
	Indicates the warning status of any of the components of the controller.
	Indicates that the event type is user.
	Indicates that the event type is information.

---

## Appendix A: Troubleshooting the Nytro vCenter Plug-In Issues

### A.1 Nytro vCenter Plug-In Issues

The Nytro vCenter plug-in uses the logging framework (which is used by vSphere Web Client plug-ins). If there are any issues while retrieving the data, the Nytro vCenter plug-ins log the debug statements to a log file. These logs can provide useful information to debug the issues, if any. This log file can be identified by the timestamp, *vSphere\_client\_virgo*. If you face any issues while working with the Nytro vCenter plug-in, retrieve the log file from its location, and contact Seagate Technical Support for further assistance at <http://www.seagate.com/about/contact-us/technical-support/>

- You can find the Log file in the following locations based on the platform used:
  - On Windows: <OS\_DISK>:\ProgramData\VMware\vsphere Web Client\serviceability\logs
  - On Linux: /var/log/vmware/vsphere-client/

### A.2 Nytro vCenter Event Monitoring Service Plug-In Issues

- I am unable to view the events in my event console.  
This could be because of one of the following reasons:
  - You might not have copied the Nytro vCenter EMS plug-in package.
  - You might not have correctly installed the Nytro vCenter EMS plug-in.
  - You might not have enabled Event Monitoring.

Perform the following steps to enable Event Monitoring.

1. Go to Home icon > Administration > Client Plug-Ins.
2. Check if the Nytro vCenter EMS plug-in is enabled. If it is not enabled, go back to the home screen, click the **Nytro vCenter Event Monitoring Service** icon.
3. Log on with your vCenter credentials, and remember to click **Enable Event Monitoring**.

---

## Glossary

This appendix provides a glossary for terms used in this document.

	<b>C</b>	
Controller		A controller that transfers data between the microprocessor and memory, or between the microprocessor and a peripheral device, such as a drive. The controllers perform functions, such as striping and mirroring to provide data protection.
	<b>D</b>	
Device ID		A controller or drive property indicating the manufacturer-assigned device ID.
Drive group		A group of drives attached to a RAID controller on which one or more virtual drives can be created. All virtual drives in the drive group use all of the drives in the drive group.
Drive state		A drive property indicating the status of the drive.
	<b>G</b>	
GUI		Graphical User Interface
	<b>P</b>	
Product name		A controller property indicating the manufacturing name of the controller.
	<b>V</b>	
VC		vCenter
Virtual drive		A storage unit created by the controller card from one or more drives. Although a virtual drive (logical drive) can be created from several drives, it is seen by the operating system as a single drive. Depending on the RAID level used, the virtual drive can retain redundant data in case of a drive failure.



**Seagate Technology LLC**

*AMERICAS Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, 408-658-1000*

*ASIA/PACIFIC Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888*

*EUROPE, MIDDLE EAST AND AFRICA Seagate Technology SAS 16-18 rue du Dôme, 92100 Boulogne-Billancourt, France, 33 1-4186 10 00*

*Publication Number: 100769979, Rev.C*

*May 2015*