# ETERNUS Veritas Operations Manager Storage Insight Plug-in 1.2 User's Guide



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# Preface

This manual explains how to use and operate the ETERNUS Veritas Operations Manager Storage Insight Plugin.

This manual is designed for administrators of a Veritas Operations Manager Management Server that is used with the ETERNUS storage system.

Knowledge of functions and terms for Veritas Operations Manager and the ETERNUS storage system is required.

If Veritas InfoScale Operations Manager is used, replace the following terms as described below while reading this manual.

- Replace "Veritas Operations Manager Management Server" with "Veritas InfoScale Operations Manager Management Server"
- Replace "Veritas Operations Manager" with "Veritas InfoScale Operations Manager"

This manual is created based on the GUI of Veritas Operations Manager. For Veritas InfoScale Operations Manager, details such the a menu name may be different from the descriptions in this manual.

Third Edition August 2016

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# About This Manual

## Organization

This manual is composed of the following seven chapters: Make sure to read this manual before installing the ETERNUS Veritas Operations Manager Storage Insight Plug-in.
Chapter 1 Introduction
This chapter provides an overview of the ETERNUS Veritas Operations Manager Storage Insight Plug-in.
Chapter 2 Operating Environment
This chapter provides support information, required resources, and preliminary settings for the ETERNUS Veritas Operations Manager Storage Insight Plug-in.
Chapter 3 Installation
This chapter provides the installation procedure for the ETERNUS Veritas Operations Manager Storage Insight Plug-in.
Chapter 4 Registration and Operation Procedure
This chapter explains how to use the ETERNUS Veritas Operations Manager Storage Insight Plug-in.
Chapter 5 Function Overview
This chapter provides a functional overview of the ETERNUS Veritas Operations Manager Storage Insight Plug-in.
Chapter 6 Uninstallation
This chapter provides the uninstallation procedure for the ETERNUS Veritas Operations Manager Storage Insight Plug-in.
<ul> <li>Chapter 7 Obtaining the Required Information for Investigating Failures</li> </ul>
This chapter explains how to obtain the required information for investigating a failure when an error occurs with the ETERNUS Veritas Operations Manager Storage Insight Plug-in.

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### Naming Conventions

The following abbreviations are used for the ETERNUS storage system and its related products.

• "ETERNUS storage system" refers to a storage system that is supported by the ETERNUS Veritas Operations Manager Storage Insight Plug-in. Details on the supported storage systems are available at the following URL.

http://www.fujitsu.com/global/support/products/computing/storage/download/vomp.html

• "ETERNUS Web GUI" refers to the Web GUI of an ETERNUS storage system.

### **Reference Materials**

- ETERNUS storage system product information http://www.fujitsu.com/global/products/computing/storage/
- Download page for the ETERNUS Veritas Operations Manager Storage Insight Plug-in where product information is also available.

http://www.fujitsu.com/global/support/products/computing/storage/download/vomp.html

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# Chapter 1 Introduction

This chapter provides an overview of the ETERNUS Veritas Operations Manager Storage Insight Plug-in.

### 1.1 ETERNUS Veritas Operations Manager Storage Insight Plug-in

The ETERNUS Veritas Operations Manager Storage Insight Plug-in is provided to link a Veritas Operations Manager Management Server with ETERNUS storage systems. By installing this plug-in, multiple storage information can be managed collectively with the centralized console of Veritas Operations Manager.

Veritas Operations Manager displays the following information.

- Physical Disks
- Raid Groups
- Volumes (Logical Disks)
- Thin Pools
- Volume Mapping to Hosts (Host Affinity)
- Ports
- Adapters
- Replications

More details on Veritas Operations Manager are available on the following Veritas site.

https://www.veritas.com/product/storage-management/infoscale-operations-manager

# Chapter 2 Operating Environment

This chapter provides support information, required resources, and preliminary settings for the ETERNUS Veritas Operations Manager Storage Insight Plug-in. Make sure to read this chapter before installing the ETERNUS Veritas Operations Manager Storage Insight Plug-in.

### 2.1 Support Information

Information on the ETERNUS storage system models, the firmware versions, and the OSs that support the ETERNUS Veritas Operations Manager Storage Insight Plug-in is available at the following URL.

http://www.fujitsu.com/global/support/products/computing/storage/download/vomp.html

### 2.2 Operation Configuration

The ETERNUS Veritas Operations Manager Storage Insight Plug-in is installed in the server in which the Veritas Operations Manager Management Server is installed.



## 2.3 Required Resources

#### 2.3.1 Required Disk Capacity for Installation

The disk capacity that is required to install the ETERNUS Veritas Operations Manager Storage Insight Plug-in is as follows.

Table 2.1 Required Disk Capacity for Installation

No.	Explanation	Capacity	Folder
1	Plug-in file	5MB	Any folder

#### 2.3.2 Required Disk Capacity for Operation

The disk capacity that is required to operate the ETERNUS Veritas Operations Manager Storage Insight Plug-in is as follows.

Table 2.2 I	Required	Disk Ca	pacity	for O	peration
-------------	----------	---------	--------	-------	----------

No.	Explanation	Capacity	Folder
1	Plug-in file	5MB	
2	Trace log	2MB x Number of registered ETERNUS storage systems	Veritas Operations Manager installation directory

### 2.4 Preliminary Settings

#### Account registration for the ETERNUS storage system

To access the ETERNUS storage system from the ETERNUS Veritas Operations Manager Storage Insight Plug-in, a user account with "Admin", "Storage Admin", or "Maintainer" as the user level is required. Use the ETERNUS Web GUI or the ETERNUS CLI to register the user account in the ETERNUS storage system. For more details on registration, refer to "ETERNUS Web GUI User's Guide" or "ETERNUS CLI User's Guide".

#### SSH setting of the ETERNUS storage system

Enable the SSH connection to the management target ETERNUS storage system. For details on this procedure, refer to "ETERNUS Web GUI User's Guide".

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#### Network setting for the server and the ETERNUS storage system

Make sure to enable a network connection between the Veritas Operations Manager Management Server and the ETERNUS storage system.

If the server and the storage system are on different sub-networks, the Allowed IP List setting is required for the ETERNUS storage system. For detailed procedure, refer to "ETERNUS Web GUI User's Guide".

#### Installation of the Storage Insight Add-on

To obtain the Storage information, the Storage Insight Add-on must be installed in Veritas Operations Manager.

The procedure to install Storage Insight Add-on is as follows:

#### Procedure

**1** Start the Veritas Operations Manager Management Server and input the following URL in the browser.

https :// IP address for the server to which Veritas Operations Manager is installed:14161

**2** Click the [Settings] button for the Veritas Operations Manager Management Server.



**3** Click the [Deployment] button.

🛞 Veritas	Operations Ma	inager - Management Server 6	0					Home   Welcome[ADMINISTRATOR]	•   🕜 Heb
Add Hosts •	Auto Configure	Configure Virtualization Server	Upload Solutions Confi	gure Endosure	Configure Switch	Configure LDAP/AD	Show Permasions		
Overview	Settings								_
		3							
		Host		Device			Virtualization	Security	
	De	playment	L.	ert & Rules			Faults & Reks	SORT	
		*		b					
	Manage	ement Server	Au	dit & Tasks		1	Policy Signatures	Extended Attribute	

**4** Select "Storage Insight".

006	Overview Faults				
ontrol Host	Add-on Summary			a #	
stribution Manager bric Insight	Name	Status	Available Update	Scope	
itch Installer	Control Host	Not Installed	-	MH Only	
torage Insight	Distribution Manager	Not Installed	-	MS Only	
torage Insight SDK	Fabric Insight	Not Installed		MS and MH	
corage Provisioning and	Patch Installer	Not Installed		MS Only	
Es Oblicles - Manage V Rixes	Storage Insight	Not Installed		MS Only	
tenance Releases	Storage Insight SDK	Enabled	-	MH Only	
Releases	Storage Provisioning and Enclosure Migration	Not Installed	-	MS Only	
	VCS Utilities - Manage VCS User Passwords	Not Installed	-	MS Only	
	Host Hot By Status Distribution		Host Maintenaure Release Status Distribution		
	27		2		
	4	Un-to-date	t		
	Int	Un-tu-date	t	_	
	Count	Un-to-date Missing Critical Hot Fixes Missing Non-Critical Hot Fixes	Count	Up-10-date	viaronce Ba

**5** Right-click "Storage Insight" and select "Install".

877 A. 1										
Repository	Add-ons	Requests								
Control Host	<search></search>	×						2	Properties for 8	Storage Ins 🔅
A Distribution Manager	Name		Version	Status	Is Obsoleti	e Platform	Scope	Release Date	Name 🔺	Value
A Fabric Insight	A Storage 1	Instal	5.0.0.0	Not Installed	No	Linux, Windows	MS Only		Description	Veritas Operatio
Storage Insight	L	a rocali Uninetral	_						Size	
A Storage Insight SDK		Remove							Superseded By	
Storage Provisioning and									User Generated	No
Maintenance Releases	14 4 Pag	e 1 of 1 )	N   2					Displaying 1 - 1 of 1		
	Applicable H	losts							1	
	<search></search>	×						3		
	Name +		Status		Architecture	Platform 0	5 Version	MH Version		
	d vCenter		Not Insta	led	ж64	Windows M	icrosoft Windows S	6.0.0.0		

**12** ETERNUS Veritas Operations Manager Storage Insight Plug-in 1.2 User's Guide **6** Click the [Yes] button.



7 Click the [OK] button.



End of procedure

# Chapter 3 Installation

This chapter provides the installation procedure for the ETERNUS Veritas Operations Manager Storage Insight Plug-in.

Before starting installation, download the zip file required for installation from the URL provided below. Extract the downloaded zip file in the terminal to start the management screen of Veritas Operations Manager.

http://www.fujitsu.com/global/support/products/computing/storage/download/vomp.html

To install the ETERNUS Veritas Operations Manager Storage Insight Plug-in, upload the data that was extracted in the terminal to the Veritas Operations Manager Management Server. The plug-in file that must be installed depends on the ETERNUS storage system model. Make sure to select the appropriate file.

Plug-in file	Supported models
SI_FUJITSU_ETERNUS_DXL_PERL-1.2.0.sfa	ETERNUS DX80 S2/DX90 S2 ETERNUS DX60 S3/DX100 S3/DX200 S3 ETERNUS DX200F
SI_FUJITSU_ETERNUS_DXM_PERL-1.2.0.sfa	ETERNUS DX500 S3/DX600 S3
SI_FUJITSU_ETERNUS_DXH_PERL-1.2.0.sfa	ETERNUS DX8700 S3/DX8900 S3
SI_FUJITSU_ETERNUS_DX400_PERL-1.2.0.sfa	ETERNUS DX410 S2/DX440 S2
SI_FUJITSU_ETERNUS_DX8000_PERL-1.2.0.sfa	ETERNUS DX8100 S2/DX8700 S2

#### Table 3.1 Extracted File Configuration

#### Procedure

**1** Start the Veritas Operations Manager Management Server and input the following URL in the browser.

https :// IP address for the server to which Veritas Operations Manager is installed:14161

- <page-header>
- **2** Click the [Settings] button for the Veritas Operations Manager Management Server.

#### **3** Click the [Deployment] button.

🛞 Veritas	s <sup>®</sup> Operations Ma	inager - Management Server 6	.0				A Home   Welcome[ADMINISTRATOR] *   🕢 Heb
Add Hosts •	Auto Configure	Configure Virtualization Server	Upload Solutions Configure En	losure Configure Switch	Configure LDAP/AD	Show Permasions	
Overview	Settings						
		3				-	
		Host	Device			Virtualization	Security
	De	ployment	Alert & Ru	er.		Faults & Rinks	SORT
				2		5	

4 Click the [Upload Solutions] button.

Actionality       Add-on Summary         Actionality       Analable Update       Scope         Actionality       Status       Available Update       Scope         Actionality       Status       Not Installer       Not Scole         Actionality       Status       Not Scole       Not Scole         Actionality       Scope       Not Scole       Not Scole         Actionality       Not Scole       Not Scole       Not Scole         Actionality       Scone       Not Scole       Not Scole         Stone       Scone       Not Scole       Not Not Scole       Not Not Scole         Stone						Overview Faults	Repository
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Storage Provisioning and Stork     Fabric Unsight     Not Strataled     -     NS and H4       Storage Provisioning and Storker     Not Strataled     -     NS Ordy       VCS Utities - Manage     Not Strataled     -     NS Ordy       Storage Provisioning and Storker     Not Strataled     -     NS Ordy       With Traina C Reases     Storage Provisioning and Enclosure Migration     Not Strataled     -     NS Ordy       Storage Provisioning and Enclosure Migration     Not Strataled     -     NS Ordy       Storage Provisioning and Enclosure Migration     Not Strataled     -     NS Ordy       VCS Utilities - Manage VCS User Passwords     Not Strataled     -     NS Ordy		MS Only	-		Not Installed	Distribution Manager	📤 Storage Insight
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Maintenance Releases         Storage Inspir SDX         Ended         -         NH Only           Base Balazes         Storage Invisioning and Endoure Mgretion         Not Installed         -         NS Only           VCS Ublice - Manage VCS User Passwords         Not Installed         -         NS Only		MS Only			Not Installed	Storage Insight	Hot Fixes
Base Releases         Storage Provisioning and Enclosure High ston         Not Installed         -         NSI Celly           VCS Utilities - Manage VCS User Passwords         Not Installed         -         NSI Celly		MH Only	-		Enabled	Storage Insight SDK	Maintenance Releases
VCS Utilities - Manage VCS Laar Passwords Not Installed - MS Only		MS Only	-		Not Installed	Storage Provisioning and Enclosure Migration	Base Releases
		MS Only			Not Installed	VCS Utilities - Manage VCS User Passwords	
Host Hot Fix Status Distribution 8 4 Host Maintenance Release Status Distribution	8		ase Status Distribution	Host Maintenance Rele	8 8	Host Hot Fix Status Distribution	
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te Unterdate te				ŧ	Un-tu-date	ţ	
Nissing Critical Hot Pixes	Up-to-date			0	Missing Critical Hot Fixes		

**5** Click the [Browse...] button.

oad Solutions to Repository		3
Select Solution file to upload	Ti Brownon Utoland	
	Update	
D	Cose	

**6** Select the plug-in file that is to be uploaded, and click the [Open] button.

🖉 Choose File to Upload					×
🕒 🖓 - Computer	Local Disk.(C:)		🔹 🔛 Sea	ch VOM	
Organize 🔻 New folder				)H •	
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File g	anne: SLFUUTSU_ETERNUS_DX401_PERL-1.0.0.16			Qpen Ca	ncel

7 Click the [Upload] button.

ad Solutions to Repository	
Select Solution file to upload	
C:'Users'/idministrator'/Desktop/VOM\SI_PUJITSU_ETERNUS_DX400_[ Browse ]	beolqU
	Close

**8** Click the [Close] button.

Jplo	ad Solutions to Repository	
	Select Solution file to upload	
	Browse Upload	
	Status:	
	Fie: SI_FUJITSU_ETERNUS_DX400_PERL-1.0.0.sfa	
	E Success	
?		Close
-		Lose

**9** Confirm that the correct plug-in file is selected and click the [OK] button.



**10** Right-click the uploaded plug-in file and select "Install".

Add.ons	Add-ons	Requests								
Control Host	<search></search>	×						1	Properties for	FujitsuDX4 🔌
A Distribution Manager	Name		Version	Status	Is Obsolete	Platform	Scope	Release Date	Name 🔺	Value
A Fabric Insight	📥 Fujitsu		1.0.0	Not Installed	No	Linux, Windows	MS Only		Description	SI Plugin for Ver
FujitsuDX400Perl		Instal							Download count	t -
FujitsuDXLPerl	1	Uninstall	•						Size	÷
Storage Insight		Remove							Superseded By	-
torage Insight SDK		Readme							User Generated	No
torage Provisioning and		The barrie							VOM web server	r Not required
CS Utilities - Manage V										
ot Fixes										
intenance Releases	14 - 4   F	Page 1 of 1 🗼	N   2					Displaying 1 - 1 of 1		
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**12** Click the [OK] button.



**13** To upload and install another plug-in file, start the procedure from <u>Step 4</u>.

End of procedure

# Chapter 4 Registration and Operation Procedure

This chapter describes how to use Veritas Operations Manager (for registering, updating, or deleting ETERNUS storage systems).

### 4.1 Registration of the ETERNUS Storage System

The procedure to register the ETERNUS storage systems in Veritas Operations Manager is as follows.

#### Procedure

**1** Start the Veritas Operations Manager Management Server and input the following URL in the browser.

https :// IP address for the server to which Veritas Operations Manager is installed:14161

**2** Click the [Settings] button for the Veritas Operations Manager Management Server.



**3** Click the [Device] button.

🛞 Veritas	Operations Ma	nager - Management Server 6	0					A Home   Welcome[ADMINISTRATOR] •   0	Help
Add Hosts -	Auto Configure	Configure Virtualization Server	Upload Solutions	Configure Enclosure	Configure Switch	Configure LDAP/AD	Show Permesions		
Overview	Settings								
			_		-				
		3		1					
		Host		Device			Virtualization	Security	
	De	ployment		Alert & Rules			Faults & Roks	SORT	
				<u></u>			5		
	Manage	ement Server		Audit & Tasks		P	olcy Signatures	Extended Attribute	

**4** Click [Configure Enclosure].

🛞 Veritas <sup>™</sup> Operations Ma	nager - Management Server 6.0	A Home   Welcome(ADMINISTRATOR) - 0 Help
Configure Enclosure Co	infigure Switch	
🕒 🔜 Data Center	Overview Enclosure Configurations Switch Configurations	
a 💼 Enclosures a 🚞 Switches	Endosure Configuration Inventory	
	No enclosures are configured using the No switches are configured using 'fabric 'Storage Insight Add-on' Insight Add-on'	
Recent Tasks		

**5** Set "FUJIITSU" for "Enclosure Vendor". Select the plug-in for the ETERNUS storage system that is to be registered and click the [Next] button.

ж

	appropriate discovery metricut
Product	Discovery Method
ETERNUS DX400	Using peri
ETERNUS_DXL	Using perf
Additional Informa	tion
This plug-in enab DX90S2, DX100S	les deep discovery support for Fujitsu ETERNUS DX80S2, 3 and DX200S3 arrays. The discovery uses the Perl scripting
System Requirem NA.	ents:
The plugin uses a Physical disks	a discovery.pl script to discovery information for:
Raid Groups Volumes (Logical Disks)	
This Deals	

#### Caution

If the selected plug-in does not support the target ETERNUS storage system, the following error screen appears and the storage system cannot be registered.

Discovery Host:  User:  passwd:  p:	

**6** Input the required information for "Discovery Host", "user", "passwd", and "ip", and click the [Next] button.

Enclosure Vendor;	FUJITSU		
Product: Discovery Method:	ETERNUS_DXL Using perf		
Discovery Host: user: passwd:	chodiane>	•	
þ:			

Item	Setting contents
Discovery Host	Veritas Operations Manager Management Server host name
user	User account for the ETERNUS storage system
	<b>Caution</b> Select a user account with "Admin", "Storage Admin", or "Maintainer" as the user level.
passwd	User password for the ETERNUS storage system
ір	IP address for the ETERNUS storage system

7 Input a name for "Configuration Name". Select the checkbox for the ETERNUS storage system that is to be registered and click the [Finish] button.

Configuration Nam	e 1	3		
Enclosures to be	configured for discovery			
Display Name	Enclosure VendorId Serial	Vendor	Model	Product
koponta	FUJITSU_ETERNUS_ 1104EC	FUIITSU	ET092DC	ETERNUS_DOL

**8** Click the [OK] button to register the selected ETERNUS storage system.



**9** To register another ETERNUS storage system, perform the procedure from <u>Step 4</u>.

End of procedure

### 4.2 Updating of the ETERNUS Storage System Information

The ETERNUS storage system information that is registered in Veritas Operations Manager is updated once every 360 minutes.

To update the information immediately, right-click the registered ETERNUS storage system and select "Refresh Configuration".

Data Center	FUJITSU Configuration	ons							
FUJITSU	U Prop								
🔁 Switches	Name ~ Macha ponta Remove Config Edit Configurat Refresh Configu	Using perl Using perl Using perl uration	Discovery Host vCenter vCenter	Device Manager	Configured Enclosures 1 1	Name ^ #Discovered Install Dir Perm File Port Scope User Name	Value 1		
	{     Page 1 of 1   > >     .@ Deploying 1-2 of 2 Configured Endosures								
					2				
	Name 🔺	Serial	Product	State	Last Update Time				
	🗟 koponta	1104EC	ETERNUS_DOL	Healthy	2013/12/16 14:32:48				
	14 4 Page 1	of1 ▷ ▷ □			Displaying 1 - 1 of 1				

### 4.3 Deletion of the ETERNUS Storage System

To delete a registered ETERNUS storage system, right-click the target storage system and select "Remove Configuration".

🛞 Veritas <sup>™</sup> Operations Mana	ager - Managemen	t Server 6.0			🖨 Home 🕴 Welcon	e[ADMINISTRAT	OR) - 🛛 🕜 Help -
💠 🛛 Configure Enclosure Conf	figure Switch						
Data Center     Data Center     Data Center	FUJITSU Config	urations					
E FUJITSU						Properties to	r MachineName 🔌
😐 🧰 Switches	Name ~	Discovery Method	Discovery Host	Device Manager	Configured Enclosures	Name ~	Value
	Mach	Using perl	vCenter		1	#Discovered	1
	pont Kernove C	Using peri	vCenter		1	Install Dir	-
	Edit Confi	guration				Pern File	
	Refresh C	onfiguration				Port	-
						Scope	
						User Name	-
						Version	-
	4 4   Page 1	2					
	Configured End						
					2		
	Name +	Serial	Product	State	Last Update Time		
	🗟 koponta	1104EC	ETERNUS_DOL	Healthy	2013/12/16 14:32:48		
	14 4 Page	1 of1 ⊨ ≥। दी			Displaving 1 - 1 of		
Recent Tasks							8

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# Chapter 5 Function Overview

This chapter provides a functional overview of the ETERNUS Veritas Operations Manager Storage Insight Plugin.

Display the ETERNUS storage system information by using the Veritas Operations Manager Management Server.

#### Procedure

**1** Start the Veritas Operations Manager Management Server and input the following URL in the browser.

https :// IP address for the server to which Veritas Operations Manager is installed:14161

**2** Click the [Storage] button for the Veritas Operations Manager Management Server.



- Vertus
   Operations Manager Management Server 6.0
   At non
   Q seach
   Vector(ADMUSTRATCO)
   Q Heth

   Hamage
   Overview
   Exclosures
   Faults
   Task
   Rales

   Interview
   Exclosures
   Exclosures</td
- **3** Select "Uncategorized Enclosures" for Manager.

**4** Select which ETERNUS storage system to display information for. By clicking the tabs, "Overview", "Physical Disks", "Replications", and "Hosts" can be displayed.

Manage –	🗄 koponta 📀 Healthy	FUJITSU FUJITSU(ETE	RNUS_DXL)				
Lota Center     Linczespried Enclosures     Site Unczespried Enclosures     Site Unczespr	Overview         Physical Disks           Enclosure Storage Sum         30000           27000         24000           21000         21000           10000         21000           10000         1000           10000         1000           10000         1000           10000         1000           10000         1000           9000         900	Replications Hosts many	Performance Physical: Configured Physical: Spare G300 Physical: Spare G300 Physical: Uncenfiger Raid Group: Address Raid Group: Avallab Lagical Disk: Allorah Lagical Disk: Admini	(20084.0 GB) 0 GBU 0 GBU 0 0 GBU 0 0 GBU 0 0 0 GBU 0 0 0 GBU 0 0 0 0 GBU 0 0 0 0 GBU 0 0 0 0 GBU 0 0 0 0 CBU 0 0 0 0 CBU 0 0 C	Thin Pool Storage Summary	<ul> <li>Row (4035, 44 GR)</li> <li>Consumed (67,63 GR)</li> <li>Subscribed (6864.0 GR)</li> </ul>	
Solutions +	6000 - 3000 - Physical Faults and Risks Condition	Raid Group Lastral Disk	Logical Disk: Replica Logical Disk: UnaBoc Source Object	ition Target (134.02 C ated (5127.44 GB)	Top Thin Pool Consumption Dis	kribution         (a) (b)           SCVMM TPP : 64.31 GB         SmpDataPool : 1.59 GB           SmpDataPool : 1.59 GB         smin TPP : 1.33 GB	

#### O Note

- Note that the "Performance" tab is not displayed for the ETERNUS Veritas Operations Manager Storage Insight Plug-in function.
- For the "Hosts" tab, host information is displayed only when the selected ETERNUS storage system is connected to the Veritas Operations Manager Management Server via an FC connection.

ltem	Information
Raid Groups	<ul><li> RAID groups</li><li> Volume layout in the RAID group</li></ul>
Thin Pools	<ul> <li>Thin Provisioning Pools</li> <li>Flexible Tier Pools</li> <li>Snap Data Pools</li> <li>Volume layout in the pool</li> </ul>
Logical Disks	<ul> <li>Volume layout</li> <li>Physical disks that configure volumes</li> <li>Caution</li> <li>Note that RAID groups and physical disks for the following volumes are not displayed. <ul> <li>TPV</li> <li>FTV</li> </ul> </li> <li>For the following volume type, the information of the RAID group and the physical disk that is first in the concatenation order is displayed. <ul> <li>LUN concatenated volumes</li> <li>WSV</li> </ul> </li> </ul>
Adapters	Channel Adapter
Array Ports	Port
HBAs	Host HBA  Caution  This item is only displayed when an FC connection is used to connect to the host.

**5** When one of the items described below is selected, the following information is displayed.

End of procedure

# Chapter 6 Uninstallation

This chapter provides the uninstallation procedure for the ETERNUS Veritas Operations Manager Storage Insight Plug-in.

#### Procedure

1 Right-click the plug-in that is to be uninstalled and select "Uninstall".

<ul> <li>Upload Solutions</li> </ul>										
Repository	Add-ons	Requests								
Control Host	ctearch> 8						3	Properties for FujitsuDX4		
A Distribution Manager	Name		Version	Status	Is Obsole	te Platform	Scope	Release Date	Name -	Value
Fabric Insight	A FujtsuDX	400Perl	1.0.0	Er	No	Linux, Windows	MS Only		Description	SI Plugin for Ve
				Instal					Download count	
PujtsuDXLPeri				Uninstall					Size	(F)
Storage Insight				Remove					Superseded By	*
A Storage Insight SDK				Readme					User Generated	No
📤 Storage Provisioning an									VOM web server	Not required
📥 VCS Utilities - Manage V										
Hot Fixes			~							
Mantenance Keleases	1( 5 Page 1 of 1 7 F) 42 Displaying 1-1of 1									
m pase meleases	Applicable	Hosts								
	<pre>caearch&gt;</pre>							3		
	Name -		Status		Architecture	Platform O	5 Version	MH Version		
	C vCenter Enabled (1.		(1.0.0)	x64	Windows M	crosoft Windo	NS 5 6.0.0.0	1		
	d vCenter		Enviren	7810104						
	d vCenter		Endoted							
	d vCenter		Endored							
	d vCenter		Entoity							
	J vCenter		CHORY	Transfer (						
	J vCenter		ENOR	(and)						
	d vCenter	or to oft	Direction of the second s					Demission: 1 - 1 of		

2 Click the [Yes] button.



**3** Click the [OK] button.



**4** Right-click the plug-in that is to be uninstalled and select "Remove".

<ul> <li>Upload Solutions</li> </ul>										
Repository	Add-ons	Requests						_		
A Control Host	csearch> (M.							Properties for	FujitsuDX4 >>	
A Distribution Manager	Name		Version	Status	Is Obsole	te Platform	Scope	Release Date	Name ~	Value
Fahric Insight	A FujitsuDi	(400Perl	1.0.0	Er	No	Linux, Windows	MS Only		Description	SI Plugin for Ven
				imatel					Download cour	ic -
A Patch Installer				Remous					Superseded Ry	
📤 Storage Insight				NCH YE					User Generated	No
A Storage Insight SDK				Readme					VOM web serve	er Not required
Storage Provisioning an	1									
Hot Fixes										
Maintenance Releases	ii i Page 1 of 1 i ii 🖓 Deplaying 1-1 of 1									
🚰 Base Releases	Applicable Hosts									
		1 M I						2		
	<teerch></teerch>					The second se	- 11 million			
	Name +		Status		Architecture	Platform O	5 Version	MH Version		
	Name -	,	Status Enabled	(1.0.0)	Architecture x64	Vindows M	s version icrosoft Windov	MH Version vs 5 6.0.0.0		
	Name +		Status Enabled	(1.0.0)	Architecture x64	Vindows M	s version icrosoft Windov	MH Version vs 5 6.0.0.0		
	Name -		Status Enabled	(1.0.0)	Architecture x64	Platform O Windows M	s verson crosoft Windov	MH Version vs 5 6.0.0.0		
	Name +		Status Enabled	(1.0.0)	Architecture x64	Platform O Windows M	s verson krosoft Windov	MH Version vs 5 6.0.0.0		
	Name +		Status Enabled	(1.0.0)	ArchRecture x64	Platform O Windows M	s verson crosoft Windov	MH Version vs 5 6.0.0.0		
	Name -	-	Status Enabled	(1.0.0)	Architecture x64	Platform O Windows M	crosoft Windov	MH Version vs 5 6.0.0.0		

**5** Click the [Yes] button.



#### **6** Click the [OK] button.



End of procedure

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# Chapter 7

# Obtaining the Required Information for Investigating Failures

When an error occurs, obtain the following information for failure investigations before contacting a Fujitsu engineer.

#### Windows

- The drive in which Veritas Operations Manager is installed/ProgramData/Symantec/VRTSsfmh/tmp
- The drive in which Veritas Operations Manager is installed/ProgramData/Symantec/VRTSsfmh/Plug-in name

#### 📕 Linux

- /var/opt/VRTSsfmh/tmp
- /var/opt/VRTSsfmh/Plug-in name

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#### P2X0-1290-03ENZ0

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