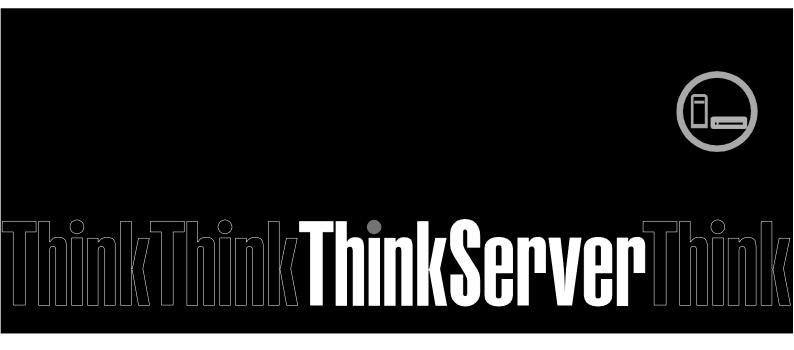


Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager User Guide



Note: Before using this information and the product it supports, ensure that you read and understand Appendix A "Notices in page 30".

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1 Introduction

The purpose of this guide is to explain the processes involved in monitoring and managing Lenovo servers through the Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager.

1.1 System Overview

The Lenovo Partner Pack for Microsoft System Center Operations Manager (SCOM) automatically discovers and provides a detailed system information about the Lenovo ThinkServer managed servers, including component inventory, and component and sensor status. The Partner Pack also enables additional tasks, such as restarting or powering off the ThinkServer and accessing the Remote Desktop Console via RDP and accessing the Lenovo ThinkServer System Manager interface. Implemented as a Management Pack for SCOM, the Partner Pack is integrated into SCOM by using the native Management Pack interface allowing IT administrators to manage ThinkServers by using familiar tools and "one pane of glass" management.

The Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager manages the Lenovo ThinkServer with only Intel® Xeon® processor E5-2600 v3 or Intel® Xeon® processor E5-2600 v2 product family and above.

Knowledge on other tools is not necessary to use the Lenovo ThinkServer Partner Pack.

1.2 Key Features and Benefits

The Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager provides the following features:

- Power-off and restart through in-band functionality.
- Directly launch the remote console of a selected host (Remote Desktop).
- Launch the Lenovo ThinkServer System Manager web page of the selected host by using the Link and Launch options.
- Launch the Host Console out of band.
- The Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager provides:
 - Detailed Server information of the Lenovo ThinkServer at the Host level from the **Hosts** view.
 - Information including the number of Virtual Machines and Operating System version from the **Server Information** view.
 - Inventory of the detailed Server information including Memory, Processors, Server Information. In addition to this, FAN, Temperature Sensor, FRU & PSU information is available out of band.
 - o Details of the System board such Server model, Serial number and UUID.
 - SEL information of each monitored BMC.

1.3 User Roles and Responsibilities

The Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager can be accessed through the SCOM console. By using the Lenovo ThinkServer Partner Pack, you can perform various operations based on your roles.

Role	Responsibilities
Administrator	• Runs the setup wizard, installs and exports the package.
	• Deletes and uninstalls the package.
	• Accesses Lenovo ThinkServer partner pack to view various components.
	• Uses the start and stop maintenance mode for the components through the Lenovo ThinkServer partner pack.
	• Restarts, shuts down or remotely connects to the servers through SCOM.
	• Configures Lenovo Hosts by Add/Edit the username and password for each BMC Lenovo ThinkServer System Manager IPv4.
	Launches Lenovo Web Console.
	• Refresh Host Data for the selected server.
	• View, export and clear Extended SEL of each monitored BMC.
Read-only	Views Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager
User	Launches Lenovo Web Console.
	Views Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager

Table 1: Roles and Responsibilities

2 Installing Lenovo ThinkServer Partner Pack

Run the LenovoThinkServerPartnerPackSCOM. EXE installation file from the installation package and follow the prompts. This will extract the Lenovo Partner Pack for System Center Operations Manager into the directory you choose during the installation process. The default location is C:\Program Files\LenovoThinkServerPartnerPack. Later, this package can be imported through the SCOM console. For detailed information please refer to the Installation Guide.

3 Working with Lenovo ThinkServer Partner Pack

This section explains the various functionalities of the Lenovo ThinkServer Partner Pack's user interface.

3.1 Monitoring Overview Screen

On the left pane, click the Monitoring tab to view the Monitoring Overview screen.

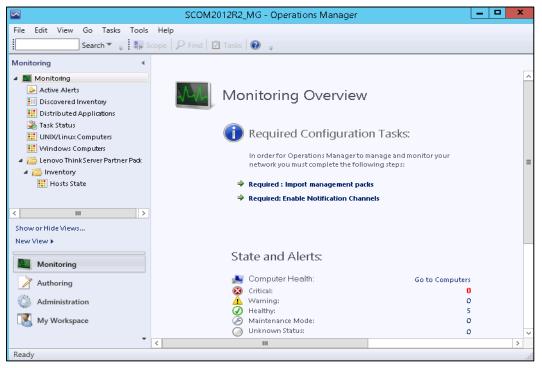


Figure 1: Monitoring Overview Screen

The **Monitoring Overview** screen displays the various sections such as: Required Configuration Tasks, Actions, State and Alerts, Key Concepts, Learn About and Online Resources.

3.2 Accessing Hosts State

On the left pane, under the **Monitoring** folder, you can find the **Lenovo ThinkServer Partner Pack** folder once the Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager management pack is imported.

The Inventory folder is located under the Lenovo ThinkServer Partner Pack folder. The Hosts State folder is under the Inventory folder.

Click Hosts State to open the main screen.

The Main Screen displays **Hosts State**. The Hosts State section contains a list of hosts that are identified. Along with the host name, the path of the Host server and the overall status of each component are also displayed.

Hosts State - SCOM2012R2_MG - Operations Manager									
File Edit View Go Tasks Tools Help									
Search 👻 👙 S	cope 🔎 Find 🗹 Tasks 🔞	÷							
Monitoring <	Hosts State (4)						<		
4 🔳 Monitoring	🔍 Look for:		Find	Now Clear	r				
Active Alerts Discovered Inventory	Name	Path 🔺	🕢 Fan	🕢 Memory	Processor	♂ Server Informati			
Distributed Applications Task Status	RD340.LAB2.com	RD340.LAB2.com	🕢 Healthy	y 🕜 Healthy	🕢 Healthy	🕢 Healthy			
UNIX/Linux Computers	RD440.LAB2.com	RD440.LAB2.com	🕢 Healthy	y 🕢 Healthy	🕢 Healthy	🕢 Healthy			
🔢 Windows Computers	SCOM2012R2VM.LAB2.com	SCOM2012R2VM.LA		🕢 Healthy	🕢 Healthy	🕢 Healthy			
a 📁 Lenovo Think Server Partner Pack	Vcenter	Vcenter		🕢 Healthy	🕢 Healthy	🕢 Healthy			
Inventory Hosts State	<	Ш				>			
moso state	Detail View					*	Tas		
< III >	Host properties of RD34	0.LAB2.com				~	Task Pane		
Show or Hide Views	Display Name RD340.L	Display Name RD340.LAB2.com							
New View >		AB2.com\RD340.LAB2.cor AB2.com	n						
	TSM IPV4 192.168								
Monitoring									
Authoring									
🚳 Administration									
My Workspace									
•						\sim			
Ready									

Figure 2: Main Screen Displaying Hosts State

The various components displayed include:

- Power Supply Unit
- Fan
- Temperature Sensor
- FRU
- Processor
- Memory
- System Board
- Server Information

The status displayed for these components are Healthy, Critical and Warning.

Furthermore, on the right of the screen, on the **Task Pane**, the **Host Tasks** section contains the console tasks of Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager.

The various Host tasks include:

- Configure Lenovo Hosts
- Extended SEL
- Launch Lenovo Host Console
- Launch Lenovo Web Console
- Launch Remote Desktop
- Power On
- Refresh Host Data
- Restart
- Shut down

3.2.1 Hosts State-Detailed View

For each selected Host, along with the Name and Path, the following additional details for the SCOM server are displayed in the **Detail** view as shown in Figure 2:

- Display Name
- Full Path Name
- Host
- Lenovo ThinkServer System Manager IPV4

3.3 Monitoring Detailed Inventory Information

Detailed Inventory information is provided by double clicking the overall status of the following components:

- Power Supply Unit
- Fan
- Temperature Sensor
- FRU
- Processor
- Memory
- System Board
- Server Information

3.3.1 Power Supply Unit

To view the overall status of the Power Supply Unit (PSU), select the power supply overall status for the server. In the below image, the RD440.LAB2.com server is selected. Double-click the power supply unit for the overall status of the host server. In this image, the overall status is healthy.

🖙 Hosts State - SCOM2012R2_MG - Operations Manager 📃 🗖 🗙										x
File Edit View Go Tasks Tools Help Search 🕆 🚎 🕻 🌆 Scope 🔎 Find 😰 Tasks 😰 👙										
Monitoring Autive Alerts Constraints Monitoring Autive Alerts Discovered Inventory Distributed Applications Task Status UNIX/Linux Computers Windows Computers Mile Unix/Server Partner Pack Aution Inventory Hosts State Currentory Currentory Mile Views New View > Currentory Monitoring Monitoring	Hosts S	tate (4) ok for: Name RD340.LAB2 RD440.LAB2 SCOM2012R Vcenter il View	.com .com 2VM.LAB2.com III	Path RD340.LAB2.com RD440.LAB2.com SCOM2012R2VM.I Vcenter Vcenter	LA	ind Now Power Supply Unit Warning Warning Warning Configuration Not monito Not monito	Clear Fan Healthy Healthy Performance Not monito	<u> </u>	 V V<	Task Pane
Authoring Administration My Workspace	<									
Ready									>	

Figure 3: Power Supply Unit Status on the Hosts State Screen

Elle Edit Yiew Go Tasks State (2) Path Display Name PSUI Power PSUI Power PSU2 Power WIN-RAFALE.plugin.com PSU2 Power WIN-RAFALE.plugin.com PSU2 Power State Actions State Actions State Actions State Actions State Actions State Actions State Actions State Actions State Actions PSU2 Power WIN-RAFALE.plugin.com PSU2 Power State Actions State Actions State Actions Power Supply Unit properties of PSU1 Power State View Display Name PSU1 Power Power Supply Display Name PSU1 Power Name For Power Reading Not Available Actions Status Normal Status Normal			State - plugin - Operation	s Manager		_ 🗆 X
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Display Name PSUI Power Full Path Name WINRAFALE.plugin.com\WIN-RAFALE.plugin.com\PSU1 Power Name Of Power Supply PSUI Power Description Not Available Status Normal Name For Power Reading Not Available Current Reading 88 Watts Patholic Power Current Reading Current Reading Not Available Current Reading Current Reading Current Reading Not Available Current Reading Current Reading Not Available Current Reading Current Read		Power Supply Unit properties of PSU1 Pow	er			*
Name Of Power Supply PSUI Power Description Not Available Status Normal Name For Power Reading Not Available Current Reading 88 Watts Querent Reading 88 Watts Querent Reading Current Reading	0	Display Name PSU1 Power				·
Description Not Available Report Tasks A Status Normal Image: Agent Counts by Date, Management Name For Power Reading 88 Watts Image: Agent Counts by Date, Management Current Reading 88 Watts Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Image: Agent Counts by Date, Management Imagement Image: Agent Counts by Da			m\WIN-RAFALE.plugin.com\PSU1 Power			Network Vicinity Dashboard
Name For Power Reading Not Available Part Counts by Date, Management Part Counts by Date, Management Part Logging Latency Part Logging Latency Part Logging Latency Part Part Part Part Part Part Part Part					Re	port Tasks
Current Reading 88 Watts In Alert Logging Latency	-				-	Agent Counts by Date, Management
V Availability						Alert Logging Latency
Configuration Changes						Alerts
					~ I=	Availability
	Re	adv			10	Configuration Changes

Figure 4: Power Supply Unit Details on the Grantley Hosts State Screen

Double-click the power supply overall status to display the detailed view.

	State - SCOM2012R2_MG - Operations Manager		_ D X
	Tasks Tools Help ch ~ ↓ 事⊮ Scope ♀ Find CTasks ☯ ↓		
State (1) Name PSUI Status	Path RD440.LAB2.com		
Detail View	t properties of PSU1 Status	~	Tasks ^
Display Name Full Path Name Name Of Power Supply Description Status Name For Power Reading Current Reading	PSU1 Status RD440.LAB2.com\RD440.LAB2.com\ PSU1 Status PSU1 Status PowerSupplyPresenceDetected Normal g Power Reading of RD440.LAB2.com 92 Watts		Navigation Alert View Alert View Diagram View Diagram View Performance View State View Network Vicinity Dashboard

Figure 5: Power Supply Unit Details on the IVB Hosts State Screen

In the detail view, the Display name, full path name, name of power supply, description, status, name for power reading and current reading are displayed.

3.3.2 Fan

The Fan view provides details such as Name, Path, Rotational Speed (RPM), Display Name, Full Path Name and Status of the fans used in the servers.

Hosts State - SCOM2012R2_MG - Operations Manager										
File Edit View Go Tasks Tools	File Edit View Go Tasks Tools Help									
Search 👻 🝦 👫 S	Search 🔻 🝦 👬 Scope 👂 Find 💟 Tasks 🕖 👙									
Monitoring <	Hosts St	tate (4)						<		
4 🧱 Monitoring	🔍 Loo	ok for:			Find Now	Clear				
 Active Alerts Discovered Inventory Distributed Applications 	꼥 м	Name		Path	A Power 🔨 🔺 🔺 Power Unit	🕢 Fan	🕢 Memory	Ø		
Task Status		RD340.LAB2.	om	RD340.LAB2.com	🛕 Warning	🕢 Healthy	🕢 Healthy	Ø		
📰 UNIX/Linux Computers		RD440.LAB2.		RD440.LAB2.com	🕢 Healthy	🕢 Healthy	🕢 Healthy	Ø		
🔢 Windows Computers	SCOM2012R2VM.LAB2.com			SCOM2012R2VM.	🕢 Healthy	Ø				
a 📁 Lenovo Think Server Partner Pack	_	Vcenter		Vcenter			🕢 Healthy	Ø		
4 🚰 Inventory	<		ш					>		
🔛 Hosts State	Detai	l View						× .	H	
< III >	State	Ø	Instance	Availability	Configuration	Performance	Security		ol Dan	
Show or Hide Views	🕢 Hea	Ithy	FAN5	🕢 Healthy	🔘 Not monito	🔘 Not monito	. 🔵 Not mo	nito a	ð	
New View 🕨	🕢 Hea	Ithy	FAN1	🕢 Healthy	🔘 Not monito	🔘 Not monito	. 🔘 Not mo	nito		
	🕢 Hea	lthy	FAN2	🕢 Healthy	🔘 Not monito 🔘 Not monito		. 🔘 Not mo	nito		
Monitoring	🕢 Hea	Ithy	FAN3	🕢 Healthy	🔘 Not monito	🔘 Not monito	. 🔘 Not mo	nito		
Authoring 🕢 Healthy		lthy	FAN6	🕢 Healthy	🔘 Not monito	🔘 Not monito	. 🔘 Not mo	nito		
🚳 Administration										
🔣 My Workspace										
•	<			Ш				>		
Ready										

Figure 6: Fans Status on the Hosts State Screen

	State - SCOM2012R2_MG	- Operations Manager		_ 🗆 X
File Edit View Go Tasks Tools	Help			
Search 👻 📮 🌆 S	cope 👂 Find 🚺 Tasks 🔞 📮			
State (5)			> 1	Tasks
Name	Path			
FANS	RD440.LAB2.com		Ż	0
FAN1	RD440.LAB2.com		Stat	te Actions ^
FAN2	RD440.LAB2.com			Start Maintenance Mode
FAN3	RD440.LAB2.com			Edit Maintenance Mode Settings
FANG	RD440.LAB2.com			Stop Maintenance Mode
1800	10440220011			
				Personalize view
Detail View			Tas	ks ^
Detail view				Entity Properties
Fan properties of FAN5		~		Health Explorer
Display Name	FAN5		48	nearth Explorer
Full Path Name	RD440.LAB2.com\RD440.LAB2.com\FAN5		Nav	vigation ^
Fan Name	FAN5			Alert View
Rotational Speed (RPM) Lower Critical Threshold (RPM)	5376 1984		-	
Lower Non-Critical Threshold (RPM)	2496			Event View
Lower Non-Recoverable Threshold (RPM	128			
				Performance View
			8	Network Vicinity Dashboard
		*		Activate Windows
Ready				Go to System in Control Pane

Figure 7: Fans Status—Detailed View

The Fan detail view provides details such as Name, Path, Rotational Speed (RPM), Display Name, Full Path Name, Lower Critical Threshold (RPM), Lower Non-Critical Threshold (RPM) and Lower Non-Recoverable Threshold (RPM).

3.3.3 Temperature Sensors

The Temperature Sensor Detail view displays the Display Name, Full Path Name, Temperature Sensor Name, Current Temperature, Upper Threshold Critical Temperature, Upper Threshold Fatal Temperature, Upper Threshold Non Critical Temperature and status. The server's temperature is displayed in degree Celcius units.

🖾 Hosts State - SCOM2012R2_MG - Operations Manager 📃 🗖 💌									x	
File Edit View Go Tasks Tools Help Search 🕆 👙 : 🌆 Scope 👂 Find 🗹 Tasks 🔞 👙										
	Hosts State (4) Look for: Name RD340.LAB2.com RD440.LAB2.com SCOM2012R2VM.LAB: Vcenter Detail View	2.com Instance SystemBo Processor Processor SystemBo	Path D340.LA82.com RD440.LA82.com SCOM2012R2VM.LA Vcenter III ard 1 PCI Zone2 Temp ard 1 PCI Temp 2 CPU2 Temp 1 CPU1 Temp ard 1 PSU Inlet Temp		Healthy Healthy Availability Healthy Healthy Healthy Healthy Healthy	Fan Fan Fan Falthy Healthy Gonf Not N	▲ Su Ur ▲ W	ealthy Peri Not Not Not	Men	
 Administration My Workspace 	Healthy		ard 1 Inlet Amb Temp) Healthy	ž	monito	ž	t monito	
Ready	<		III						>	

Figure 8: Temperature Sensor Status on the Hosts State Screen

	State - SCOM2012R2_MG - Operations Manager			_ 🗆 X
File Edit View Go Tasks Tools Help				
Search 👻 📮 🌆 Scope 👂	Find 🔃 Tasks 🕡 🝦			
State (5)			→ Ta	asks
Name	Path			0
Processor 1 CPU1 Temp	RD440.LAB2.com		_	-
SystemBoard 1 PCH Temp	RD440.LAB2.com		State	e Actions
SystemBoard 1 DIMM Zone1 Temp	RD440.LAB2.com		- S	Start Maintenance Mode
SystemBoard 1 Inlet Amb Temp	RD440.LAB2.com			Edit Maintenance Mode Settings
SystemBoard 1 PSU Inlet Temp	RD440.LAB2.com		18	Stop Maintenance Mode
-3				Personalize view
				Personalize view
Detail View		~	Tasks	s ^
				Entity Properties
Temperature Sensor properties of Processor	CPU1 Temp	~		Health Explorer
Display Name	Processor 1 CPU1 Temp		48	neartri Explorer
Full Path Name	RD440.LAB2.com\RD440.LAB2.com\Processor 1 CPU1 Temp		Navi	gation ^
Temperature Sensor Name	Processor 1 CPU1 Temp			Alert View
Current Temperature (Degree C)	30			
Upper Threshold Critical Temperature (Degree C) Upper Threshold Fatal Temperature (Degree C)	N/A N/A			Diagram View
Upper Threshold Non-Critical Temperature (Degree C)			?	Event View
-pp	-,		×	Performance View
				State View
				Network Vicinity Dashboard
		\sim		Activate Windows
Ready				

Figure 9: Temperature Sensor Status-Detailed View

3.3.4 FRU

The Field Replaceable Unit (FRU) Detail view displays the Display name, Full Path Name, Chassis Type, Chassis Part Number, Chassis Serial Number, Custom Chassis Info, Board Manufacturing Data, Board Manufacturer, Board Product Name, Board Serial Number, Board Part Number, Product Manufacturer Name, Product Name, Product Model Number, Product Version, and Product Serial Number.

	Hosts State - SCOM2	012R2_MG - Operat	ions Manager	_ □	x			
File Edit View Go Tasks Tools	File Edit View Go Tasks Tools Help							
Search 👻 🖕 🌆 Scope 👂 Find 😰 Tasks 🔞 📮								
Monitoring <	Hosts State (4)		Find Now Clear		<			
Active Alerts Discovered Inventory Distributed Applications	Name	Path 🔺	FRU Temperatu Sensor	V Fan A Powe Supp Unit				
Task Status UNIX/Linux Computers	RD340.LAB2.com RD440.LAB2.com SCOM2012R2VM.LAB2.com	RD340.LAB2.com RD440.LAB2.com SCOM2012R2VM.LA	 Healthy Healthy Healthy Healthy Healthy 	 ∂ Healthy A Warr ∂ Healthy ∂ Heal 				
🗰 Windows Computers 🖉 🚈 Lenovo Think Server Partner Pack 🖉 Inventory	Vcenter	Vcenter		>				
III Hosts State	Detail View			~	Tas			
< III >	State 🛞 Instance	🔘 Availability	Configuration O Perfo	rmance 🔘 Security	Task Pane			
Show or Hide Views New View >		ormation 🕜 Healthy	🔿 Not monito 🔿 Not r	monito 🔘 Not monito	ō			
Monitoring								
Authoring								
Administration								
My Workspace								
•	<	III		>				
Ready								

Figure 10: FRU Status on the Hosts State Screen

	State - SCOM2012R2_MG - Operations Manage		
le <u>E</u> dit <u>V</u> iew <u>G</u> o Ta	s <u>k</u> s <u>T</u> ools <u>H</u> elp		
Search 🔻	′ _∓ 👫 Scope 🔎 Fi <u>n</u> d 🚺 T <u>a</u> sks 🔞 _∓		
ate (1)			 Tasks
Name	Path		
FRU Information of RD44	0.LAB2.com RD440.LAB2.com		
,			State Actions
			Start Maintenance Mode
Detail View		~	
Vetali view		Ť	Edit Maintenance Mode Settings
C EDU proportion of EDU	Information of RD440.LAB2.com	~	Stop Maintenance Mode
FRU properties of FRU	Information of KD440.LAB2.com		Personalize view
Display Name	FRU Information of RD440.LAB2.com		
ull Path Name	RD440.LAB2.com\RD440.LAB2.com\FRU Information of RD440.LAB2.com		Tasks
Chassis Type	RackMountChassis		
Chassis Part Number	Not Available		Entity Properties
Thassis Serial Number Tustom Chassis Info	To Be Filled By O.E.M. Not Available		🙀 Health Explorer
Soard Manufacturing Date			
Soard Manufacturer	Lenovo		Navigation
Soard Product Name	Reno/Raleigh		Alert View
Soard Serial Number	To be filled by O.E.M.		
Board Part Number	Not Available		≤ Diagram View
Product Manufacturer Name	Lenovo		Event View
Product Name	Lenovo ThinkServer RD330		Reformance View
Product Model Number	Not Available		
	FFFFFF		🔛 State View
Product Version	1234567		Network Vicinity Dashboard
Product Version Product Serial Number			

Figure 11: FRU-Detailed View

3.3.5 Processors

The processor detail view displays the Display Name, Full Path Name, Processor Manufacturer, Model Name, Speed (MHz), Socket Number, Number of Logical Processors, Number of Cores, L2 Cache Size(KB), L3 Cache Sixe(KB) and Status.

Hosts State - SCOM2012R2_MG - Operations Manager								
File Edit View Go Tasks Tools								
Search 👻 🝦 🌆 Scope 👂 Find 😰 Tasks 🔞 🖕								
Monitoring <	Hosts State (4)							۲
4 🧱 Monitoring	🔍 Look for:			Find No	w Clear			
 Active Alerts Discovered Inventory Distributed Applications 	Name	Ρ	'ath 🔺	🕢 Processor	🕢 Memory		🕢 Fan	
🛃 Task Status 🏢 UNIX/Linux Computers	RD340.LAB2.com RD440.LAB2.com	R	:D340.LAB2.com :D440.LAB2.com	 Healthy Healthy Healthy 	 Healthy Healthy 	𝒜 Healthy𝒜 Healthy	 ✓ Healthy ✓ Healthy 	
🗰 Windows Computers 4 🚈 Lenovo Think Server Partner Pack	SCOM2012R2VM.LAB2 Vcenter		COM2012R2VM.LA (center					
4 🚰 Inventory	<		III				>	
iii Hosts State	Detail View						~	Ta
< III >	State 🔗	Instance	🔘 Availability	🔵 Configu	iration 🔘 Pe	rformance 🔘	Security	Task Pane
Show or Hide Views	🕢 Healthy	GenuineInte	el 🕜 Healthy	🔘 Not ma	onito 🔿 No	ot monito 🔘	Not monito	ē
New View 🕨	🕢 Healthy	GenuineInte	el 🕜 Healthy	🔘 Not ma	onito 🔘 No	ot monito 🔘	Not monito	
Monitoring								
Authoring								
🚳 Administration								
My Workspace								
•	<						>	
Ready								

Figure 12: Processor Status on the Hosts State Screen

	State - SCOM2012R2_MG - Op	perations Manager	_ 🗆 X				
File Edit View Go Tas	ks Tools Help						
Search 🔻	Search 🕆 🝦 🌆 Scope 👂 Find 📝 Tasks 🔞 🖕						
State (2)			> Tasks				
Name	Path						
GenuineIntel	RD340.LAB2.com		2				
GenuineIntel	RD340.LAB2.com		State Actions				
			🛒 Start Maintenance Mode				
			Kaintenance Mode Settings				
			Stop Maintenance Mode				
			Personalize view				
Detail View		~	Tasks ^				
			Entity Properties				
Processor properties of	GenuineIntel	^	A Health Explorer				
Display Name	GenuineIntel						
Full Path Name	RD340.LAB2.com\RD340.LAB2.com\GenuineIntel		Navigation ^				
Processor Manufacturer Model Name	GenuineIntel Genuine Intel(R) CPU @ 1.60GHz		Alert View				
Speed (GHz)	1.6		< Diagram View				
Socket Number	CPU 2		Event View				
Number of Logical Processor	s 16 8		Performance View				
Number of Cores L2 Cache Size (KB)	o 2048		State View				
L3 Cache Size (KB)	4096						
			Retwork Vicinity Dashboard				
		\checkmark	A stiret A A (in star				
			Activate Windows				
Ready			Go to System in Control Pane				

Figure 13: Processor Status-Detailed View

3.3.6 Memory

The Memory detail view displays details such as Display Name, Full Path Name, Manufacturer of each DIMM, Type of each DIMM, Location of each DIMM, Capacity of each DIMM (MB), Serial Number for each DIMM, Part Number of each DIMM and Status.

	Hosts State - SCOM2012R2_MG - Operations Manager							
File Edit View Go Tasks Tools								
Search 👻 📮 👫 S	cope 🔎 Find 🚺 Tasks 🕡	Ŧ						
Monitoring <	Hosts State (4)			<				
4 🧱 Monitoring	🔍 Look for:		Find Now Clear					
 Active Alerts Discovered Inventory Distributed Applications 	Name	Path 🔺 🕻		🕢 Fan				
III Distributed Applications Task Status III UNIX/Linux Computers	RD340.LAB2.com RD440.LAB2.com	RD440.LAB2.com (Healthy Healthy Healthy Healthy Healthy Healthy 	 ✓ Healthy ✓ Healthy 				
III Windows Computers I Computer Partner Pack	SCOM2012R2VM.LAB2.com Vcenter	Vcenter (Healthy Healthy Healthy Healthy Healthy 					
 Inventory Hosts State 	< Detail View	Ш		∧ ≯				
< III >	State 🖉 Instance	Availability	O Configuration O Performance O	Security Pane				
Show or Hide Views	Healthy DIMMB1	🕢 Healthy	O Not monito O Not monito O	Not monito				
New View 🕨	Healthy DIMMA1	Healthy		Not monito				
Monitoring	Healthy DIMMB2 DIMMA2 DIMMA2			Not monito Not monito				
Authoring	U	•	0					
🚳 Administration								
My Workspace								
•	<	Ш		>				
Ready								

Figure 14: Memory Status on the Hosts State Screen

	State - SCOM2012R2_MG - Operations Manager		_ 🗆 🗙
File Edit View Go Tasks			
Search 🔻	🖕 🗽 Scope 👂 Find 🔯 Tasks 🕢 🖕		
State (4)		>	Tasks
🖉 Name	Path	2	0
CPU1 DIMMB1 CPU1 DIMMA1	RD440.LAB2.com RD440.LAB2.com	Sta	te Actions
CPUT DIMMAT CPU1 DIMMB2	RD440.LAB2.com RD440.LAB2.com		Start Maintenance Mode
CPU1 DIMMA2	RD440.LAB2.com		Edit Maintenance Mode Settings
		1	Stop Maintenance Mode
			Personalize view
		Tas	-ke 🔥
Detail View		~	Entity Properties
Memory properties of CF	PU1 DIMMB1	~	Health Explorer
	CPU1 DIMMB1		-
Full Path Name Manufacturer of each DIMM	RD440.LAB2.com\RD440.LAB2.com\CPU1 DIMMB1		vigation ^
Type of each DIMM	DDR3		Alert View
Location of each DIMM Capacity of each DIMM (MB)	CPU1_DIMMB1 4095		Diagram View
Serial Number for each DIMM	223D8D67		Event View Performance View
Part Number for each DIMM	M393B5270DH0-YK0		State View
			Network Vicinity Dashboard
		0	receiver wenny basiloord
		×	Activate Windows
Ready			Go to System in Control Pane

Figure 15 Memory Status-Detailed View

3.3.7 System Board

The System Board detail view displays the Display Name, Full Path Name, System Board Manufacturer, Server Model, Serial Number and UUID.

	Hosts State	e - SCOM2	012R2_MG	- Operat	ions N	Nanager				x
File Edit View Go Tasks Tools		Tasks 🕡	÷							
Monitoring <	Hosts State (4)							۲		
Active Alerts Discovered Inventory Distributed Input of Input	Name		Path			ostem 🥑	Processor	🕢 Memory		
Distributed Applications Task Status Tusk Status UNIX/Linux Computers Windows Computers Windows Tomputers	RD340.LAB2.com RD440.LAB2.com SCOM2012R2VM.L. Vcenter	AB2.com	RD340.LAB2 RD440.LAB2 SCOM20121 Vcenter	2.com	-	ealthy 🥥		 Healthy Healthy Healthy Healthy Healthy 	 ✓ Health ✓ Health 	
 Inventory Hosts State 	< Detail View		Ш						>	Ta
< III >	State	Ø Instance		🔵 Availab	ility	🔘 Configu	ration 🔘 P	erformance	Security	「ask Pane
Show or Hide Views New View 🕨	🕢 Healthy	ThinkSer	ver RD340	🕢 Health	у	O Not mo	nito 🔿 M	lot monito	🔿 Not mo	ē
Monitoring										
Authoring										
🔣 My Workspace										
	<			Ш					>	

Figure 16: System Board Status on the Hosts State Screen

State - SCOM2012R2_MG - Operations Manager	_ D X
File Edit View Go Tasks Iools Help	
State (1) Image: Stat	
Detail View System Board properties of ThinkServer RD440	Navigation Alert View Constraint View Constra
Display Name ThinkServer RD440 Full Path Name RD440.LAB2.com\RD440.LAB2.com\ThinkServer RD440 System Board Manufacturer LENOVO Server Model ThinkServer RD440 Server Model Serial Number Not Available UUID 20202020-2020-2020-2020-2020-2020202020	State View Network Vicinity Dashboard Tasks Entity Properties Health Explorer
Ready	li.

Figure 17: System Board Status-Detailed View

3.3.8 Server Information

The Server Information detail view displays the Display Name, Full Path Name, OS Version, Number of VMs, BIOS Version, Number of Threads, Number of Processors and Number of Cores.

Hosts State - SCOM2012R2_MG - Operations Manager								
File Edit View Go Tasks Tools Help								_
Search 🔻 🝦 🏭 Scope 😥 Find 🗹 Tasks 🔞 👙								
Monitoring <	Hosts State (4)							۲.
4 🔳 Monitoring	🔍 Look for:			Find Nov	v Clear			
Active Alerts Discovered Inventory Distributed Applications	Name	Path	*	Server Information	System Board	🕢 Processor	🕢 Me	
📓 Task Status	RD340.LAB2.com		LAB2.com	🕢 Healthy	🕢 Healthy	🕢 Healthy	🕢 He	
🔢 UNIX/Linux Computers	RD440.LAB2.com		LAB2.com	Healthy	Healthy		√ He	
🗰 Windows Computers 4 🚰 Lenovo Think Server Partner Pack	SCOM2012R2VM.LAB2.con Vcenter	m SCOM Vcente	2012R2VM.LA				√ He	
 Icenovo ThinkServer Partner Pack Inventory 	<	III		Treatery	• ricularly	• readiny	>	
Hosts State	Detail View						*	T.
< III >	State 🛞 Ins	tance	 Availability 	🔘 Configur	ation 🔘 Perfo	rmance 🔘 Sec	urity	Task Pane
Show or Hide Views		440.LAB2.com	🕢 Healthy	🔵 Not mor	nito 🚫 Not r	nonito 🔵 No	t monito	e
New View >								
Monitoring								
Authoring								
🚳 Administration								
Wy Workspace								
•	<		III				>	
Ready								

Figure 18: Server Information Status on the Hosts State Screen

Sta	te - SCOM2012R2_MG - Operations Manager		_ 🗆 X
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>G</u> o Tas <u>k</u> s <u>T</u> ools <u>H</u> elp			
Search 👻 📮 🌆 Scope 👂 Fi <u>n</u> d			
State (1)			> Tasks
Name	Path		
RD440.LAB2.com	RD440.LAB2.com		State Actions
			🗳 Start Maintenance Mode
			Edit Maintenance Mode Settings
			Stop Maintenance Mode
			Personalize view
			Tasks ^
			Entity Properties
			A Health Explorer
Detail View		~	M
Server Information properties of RD440.LAB2.com		~	Navigation ^
			Alert View
Display Name RD440.LAB2.com Full Path Name RD440.LAB2.com\RD440.LAB2.com	PD440 482 com		S Diagram View
OS Version Microsoft Windows Server 2008 R			Event View
Number of VMs 3			Performance View
BIOS Version A0TS03A			State View
Number of Threads 16 Number of Processors 1			
Number of Processors 1 Number of Cores 8			Network Vicinity Dashboard
		\sim	
Ready			

Figure 19: Server Information-Detailed View

3.4 Operating Host Tasks

This section details the various Host tasks.

3.4.1 Configure Lenovo Hosts:

It provides an easy to use interface to enter and store the user name and password for the BMC Lenovo ThinkServer System Manager IPV4 data.

3.4.2 Extended SEL

It provides an easy user interface to view and export the Extended SEL of each BMC.

6	•			1	92.168.8.14	9 - E	xtende	d SEL			×
Γ	Severity	All	•	SensorType	All	•	Events:		Search	Clear	
	Severity	Time		Sensor	Types	Even	t Details				
	Info							isabled Assert: Log A			
					Security			y Assert: General Cha	ssis Intrusio	on	
	Warning	1979/12/	/31 16:00	:11 Process	or	Proce	ssor Asser	t: IERR			
				_		-					
		< All		>		Exp	ort	Clear SEL	Cano	tel	

Figure 20: Extended SEL window

3.4.3 Launch Lenovo Host Console:

By using the **Launch Lenovo Host Console** task, you can remotely connect to the machine out of band. You can connect to the machine even if the Operating System is not up/panic state.

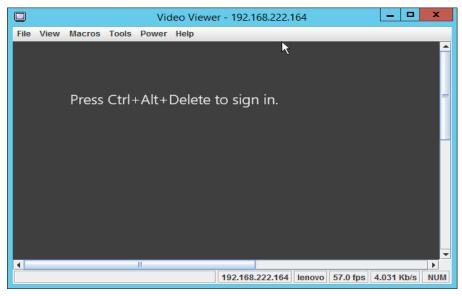


Figure 21: Video Viewer Screen

3.4.4 Launch Lenovo Web Console:

By using the Launch Lenovo Web Console task, which is above the RDP console, you can open the Lenovo ThinkServer System Manager(TSM) Website login screen. You need to enter the user name and password to log in.

Remote Management Controller - Windows Internet Ex	blorer	the second se	
🚖 Favorites 🛛 🚔 🙋 Suggested Sites 👻 🙋 Web Slice	Gallery 👻		
🟠 🕶 🔝 👻 🚍 🖶 👻 <u>P</u> age 🕶 <u>S</u> afety 🕶 T <u>o</u> ols	• 🕢 🔻 🔊		
			Support Help About
ThinkServer Management Module			lenovo.
	Logon to:		
	Logon to.		
	Username:		
	Password:		
	Fassword.		
	ОК Са	icel	

Figure 22: Remote Management Controller

3.4.5 Launch Remote Desktop:

By using the Launch Remote Desktop task, you can remotely connect to the servers. You need to enter the credentials to get the access.



Figure 23: Remote Desktop Login Screen

3.4.6 Refresh Host Data

Select the host server from the Host State section and click on the **Refresh Host Data** console task. The **Refresh Host Data** console task fetches the latest inventory details for the selected host server and the refreshed data will be displayed on the console window for the selected host server.

3.4.7 Restart

Upon clicking the Restart link, the selected server will restart.

3.4.8 Shut down

Upon clicking the Shut Down link, the selected server will shutdown.

3.5 Configure interval

3.5.1 Configure discovery interval

Select the Authoring navigation pane and navigate to Authoring \rightarrow Management Pack Object \rightarrow Object discoveries and search and select the inventory item.

Eg: Temperature sensor discovery as shown in the below screen shot.

	Object Discoveries - SCOM201	2R2_MG - Operations Mar	nager	_ 0	х	
<u>File E</u> dit <u>V</u> iew <u>G</u> o Tas	<u>k</u> s <u>T</u> ools <u>H</u> elp					
Search 🔻	🝦 🛛 Overrides 🔻 🝦 🗱 Scope 🔎 Find 🔯 Tasks 🔞	÷				
Authoring <	Object Discoveries (2)				<	
4 📝 Authoring	Q Look for: temp	Find Now Clear				
Management Pack Temp	Name	Target	Management Pack	Enabled by de	fa	
Distributed Applications Groups	A Discovered Type: Temperature Sensor (1)					
 Groups Management Pack Object 	TemperatureSensor Discovery	Windows Computer	Lenovo ThinkServer Partner Pack	Yes		
E Attributes						
Object Discoveries						
Overrides						
Rules						
Service Level Tracking						
Tasks Views						
					Tas	
	<	ш		>	Task Pane	
	Object Discovery Details:			~		
< III >	TemperatureSensor Discovery		Object Discovery Description:	^		
Add Monitoring Wizard						
New Distributed Application	Management Pack: Lenovo ThinkServer Partner Pack		Description for the new discovery	s		
New Group	Target: Windows Computer			=		
Monitoring	Knowledge: View knowledge					
Authoring						
Administration	Created: 09-04-2014 18:13:24					
	Scope categories, relationships, and their attributes:		Activate Wind	OWS		
My Workspace	Type: Temperature Sensor	^	Go to System in Co	ntrol Panel to		
*	Current Temperature (Degree C) (String) Upper Threshold Non-Critical Temperature (Deg	aree () (String)	activate Windows.	~	,	
Ready						

Figure 24: Object discoveries - Search Object

	Object Discoveries - SCOM2012R2	MG - Operations Manage	er	_ 0 ×
<u>Eile Edit View Go Tasks</u>	-			
Search 🔻 🝦 🛛	Dyerrides 🔻 🝦 🌆 Scope 🔎 Find 🖸 Tasks 🔞 🝦			
Authoring <	Object Discoveries (2)			Tasks
▲ Authoring	Q Look for: temp	Find Now Clear		2
 Management Pack Templates Distributed Applications 	Name	Target	Management Pack	Object Discovery ^
Groups				Properties
4 📷 Management Pack Objects	A Discovered Type: Temperature Sensor (1)			Disable
Attributes Monitors	TemperatureSensor Discovery	Windows Computer	Lenovo ThinkServer Partner	📷 Overrides 🕨
Object Discoveries	Properties	findens compater		🗡 Delete
Solution Overrides	Disable			
Rules Service Level Tracking	Soverrides Disable the Object Disco	very 🕨		
Tasks	X Delete Del Override the Object Disc		bjects of class: Windows Comp	outer
Views	Refresh F5	For a gro	· ·	Committee
			ecific object of class: Windows bjects of another class	Computer
< III >				
Add Monitoring Wizard				
New Distributed Application				
New Group				
Monitoring				
	K III		>	
Authoring	Object Discovery Details:		~	
Administration	D		Object Discovery Descr	
My Workspace	TemperatureSensor Discovery			
	< III		activate Windov	
Ready				
	3 🐼 🧠		Ģ	8 🕼 🕩 19:03 10-04-2014

Figure 25: Object discoveries - Override the Object Discovery

Right click the object to which the discovery interval will be set. Select Overrides \rightarrow Override the Object Discovery \rightarrow For all objects of class... from the displayed popup.

	Override Properties							
Object D	Object Discovery name: TemperatureSensor Discovery							
Category	Category: Discovery							
Override	Overrides target: Class: Windows Computer							
Override	Override-controlled parameters: Show Object Discovery Properties							erties
			Parameter Type	Default Value	Override Value	Effective Value	Change Status	Er
		Enabled	Boolean	True	True	True	[No change]	
		IntervalSeconds	Integer	120	120	120	[Added]	
<				111				>
				III				>
Details:								
The new ThinkSe	IntervalSeconds Description Edit The new custom override will be created in the 'Lenovo ThinkServer Partner Pack'.Click apply to view the new effective value for this parameter. Edit Edit							
	Management pack							
Manag	ement pa	ick						
		management pack:						
Select d	estination						✓ Ne <u>w</u>	[

Figure 26: Object discoveries – Set interval

Set the interval value in the screen displayed above and click **OK**. These steps will set the interval value.

3.5.2 Configure monitoring interval

Select the Authoring navigation pane and navigate to Authoring \rightarrow Management Pack Object \rightarrow Monitors and search and select the inventory item.

Eg: FAN unit monitor as shown in the below screen shot.

Monitors - SCOM2012R2_MG - Operations Manager							
<u>File Edit V</u> iew <u>G</u> o Tas	<u>k</u> s <u>T</u> ools <u>H</u> elp						
Search 🔻	_ Create a Monito	👻 🚊 Overrides 👻 🚊 🌆 Scope	🔎 Find 🔽 Tasks 🔇	0 -			
Authoring <	Monitors			- •			
5	_					`	
 Authoring Management Pack Temp 		n	<u>Find Now</u> <u>Clear</u>				
Distributed Applications	Target		Type	Inherited From	Management Pack	^	
Groups	⊿ Fan						
a 📷 Management Pack Objec			Aggregate Rollup	Object	Health Library		
E Attributes	4 😹 Availabil	1	Aggregate Rollup	Object	Health Library	=	
Monitors	C Fan Unit		Lenovo.TMM.Ser		Lenovo ThinkServer Partner Pack		
Object Discoveries	4 😹 Configu		Aggregate Rollup		Health Library		
Source Stress	4 器 Perform	ance	Aggregate Rollup		Health Library		
Rules	4 😹 Security		Aggregate Rollup	Object	Health Library		
Service Level Tracking Tasks	⊿ Host						
Views	A Structure Control of Control		Aggregate Rollup	Object	Health Library		
		an Dependency Monitor	Dependency Roll	-	Lenovo ThinkServer Partner Pack		
	Host.Baseb	oard.Dependency.Monitor	Dependency Roll	(Not inherited)	Lenovo ThinkServer Partner Pack	sk i	
	Monitor details:					Task Pane	
	wonitor details.					° O	
< III >	Fan Unit Mon	itor	Monitor De	escription:		^	
Add Monitoring Wizard							
New Distributed Application	Management Pack:	Lenovo ThinkServer Partner Pack	Description f	for the new unit monitor			
New Group	Target:	Fan					
Monitoring	-						
wonitoring	Inherited From:	(Not inherited)					
Authoring	Knowledge:	View knowledge					
Administration	Monitor Type:	Lenovo.TMM.Server.Fan.Status.Monitor					
	Generates Alerts:	No			Activate Windows		
My Workspace	A Warning				Go to System in Control Panel	to	
*	Critical				activate Windows.	~	
Ready	Citacai						

Figure 27: Monitors – Search

Right click on the unit monitor and select Overrides \rightarrow Override the Monitor \rightarrow For all objects of class from popup.

	Monitors - SCOM2012R2_MG - Operations Manager							l X
<u>File Edit View Go Tas</u>	<u>k</u> s <u>T</u> ools <u>H</u> elp							
Search 🔻	🝦 Create a <u>M</u> onit	or 🔻 🝦 🛛 Overrides 👻 📮 🕴	🙀 Sco <u>p</u> e 👂 I	Find 🗹 Tasks 🤇				
Authoring <	Monitors							<
4 📝 Authoring	🔍 Look for: 🛛	an	Eir	d Now <u>C</u> lear				
Management Pack Temp	Target		•	Type	Inherited From	Management Pack		^
Distributed Applications Groups	⊿ Fan							
 Groups Management Pack Object 	4 😹 Entity He	alth		Aggregate Rollup	Object	Health Library		
E Attributes	a 🔐 Availat	pility		Aggregate Rollup	Object	Health Library		=
Monitors	O Fa	Create a Monitor	-	enovo.TMM.Ser	· · · · · · · · · · · · · · · · · · ·	Lenovo ThinkServer Pa	tner Pack	
Object Discoveries	⊿ 😹 C	Disable		Aggregate Rollup	Object	Health Library		-
Overrides	⊿ 🎇 P 🎽 ⊿ 🎇 S 👼	Overrides +		Aggregate Rollup	Object	Health Library Health Library		
Service Level Tracking	4 Host	Overrides Summary		the Monitor	Object	s of class: Fan	7	
Tasks	4 🎆 Entil 🗙	Delete Del			For a group.		_	
🖉 Views	the Hos			Diagnostic Diagnostic		object of class: Fan	her Pack	
	tos 🐪	Refresh F5				s of another class	her Pack	Task Pane
	<	Properties	Disable F	Recovery			>	Pa
	Monitor details		Override	Recovery				ne >
< III > Add Monitoring Wizard	🔵 🛛 Fan Unit Me	onitor		Monitor De	escription:			^
New Distributed Application New Group	Management Pack:	Lenovo ThinkServer Partner P	Pack	Description f	or the new unit monitor.			
	Target:	Fan						
Monitoring	Inherited From:	(Not inherited)						
Authoring	Knowledge:	View knowledge						
Administration	Monitor Type:	Lenovo.TMM.Server.Fan.Sta	tus.Monitor					
	Generates Alerts:	No				Activate Windo	WS	-
My Workspace	🔥 Warning	,				Go to System in Con	rol Panel t	
•	Critical					activate Windows.		~
Ready								

Figure 28: Monitors – Override the Monitor

Set the interval as shown in below screen shot and press OK.

	Override Properties							
Ionitor	unitor name: Fan Unit Monitor							
ategor								
-	errides target: Class: Fan							
)verrid	erride-controlled parameters: Show Monitor Propertie							erties
	Override		Parameter Type	Default Value	Override Value	Effective Value	Change Status	
		Alert On State	Enumeration	The monitor	The monitor i	The monitor is	[No change]	
		Alert Priority	Enumeration	Low	Low	Low	[No change]	
		Alert severity	Enumeration	Critical	Critical	Critical	[No change]	
		Auto-Resolve Alert	Boolean	False	False	False	[No change]	
		Enabled	Boolean	True	True	True	[No change]	
		Generates Alert	Boolean	False	False	False	[No change]	
Þ	 Image: A start of the start of	IntervalSeconds	Integer	120	120 🗘	120	[Added]	
		SyncTime	String				[No change]	
etails:								
etails: Inter	valSecond	-		cription				
etails: Inter The ne ThinkS	valSecond ew custom o Server Partn	verride will be created er Pack'.Click apply to	in the 'Lenovo					
etails: Inter The ne ThinkS	valSecond ew custom o Server Partn	verride will be created	in the 'Lenovo					
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Figure 29: Monitors – Set interval

4 Troubleshooting

4.1 Error messages

This table displays the common error messages and their resolutions.

Error Message	Resolution
SCOM - Importing a Management Pack failed.	Delete the old version of the management pack and import the new version of the management pack.
Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager is not displaying data after importing the pack.	Right-click the inventory folder and click Refresh . Please wait for few minutes, as the system will take some time to populate the data after importing it from the pack.
Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Manager is not displaying data.	Refer to the Operations Manager event log.

Table 2: Common error messages and their resolutions

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