

***lenovo***

Lenovo ThinkServer Partner Pack for System  
Center  
User Guide



ThinkThink**ThinkServer**Think

**Note:** Before using this information and the product it supports, ensure that you read and understand Appendix A “Notices in page 22”.

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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 System Center.

## 1.1 System Overview

The Lenovo ThinkServer Partner Pack for Microsoft System Center Operations Management (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 ThinkServer Management Module (TMM) 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 System Center 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 System Center 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 ThinkServer Management Module (TMM) 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 System Center 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.
  - Details of the System board such Server model, Serial number and UUID.

## 1.3 User Roles and Responsibilities

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

<b>Role</b>	<b>Responsibilities</b>
Administrator	<ul style="list-style-type: none"> <li>• Runs the setup wizard, installs and exports the package.</li> <li>• Deletes and uninstalls the package.</li> <li>• Accesses Lenovo ThinkServer partner pack to view various components.</li> <li>• Uses the start and stop maintenance mode for the components through the Lenovo ThinkServer partner pack.</li> <li>• Restarts, shuts down or remotely connects to the servers through SCOM.</li> <li>• Configures Lenovo Hosts by Add/Edit the username and password for each BMC TMM IPv4.</li> <li>• Launches Lenovo Web Console.</li> <li>• Refreshes Host Data for the selected server.</li> </ul>
Read-only	<ul style="list-style-type: none"> <li>• Views Lenovo ThinkServer Partner Pack for System Center</li> </ul>
User	<ul style="list-style-type: none"> <li>• Launches Lenovo Web Console.</li> <li>• Views Lenovo ThinkServer Partner Pack for System Center</li> </ul>

Table 1: Roles and Responsibilities

## 2 Installing Lenovo ThinkServer Partner Pack

Run the *LenovoThinkServerPartnerPack.EXE* installation file from the installation package and follow the prompts. This will extract the Lenovo ThinkServer 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.

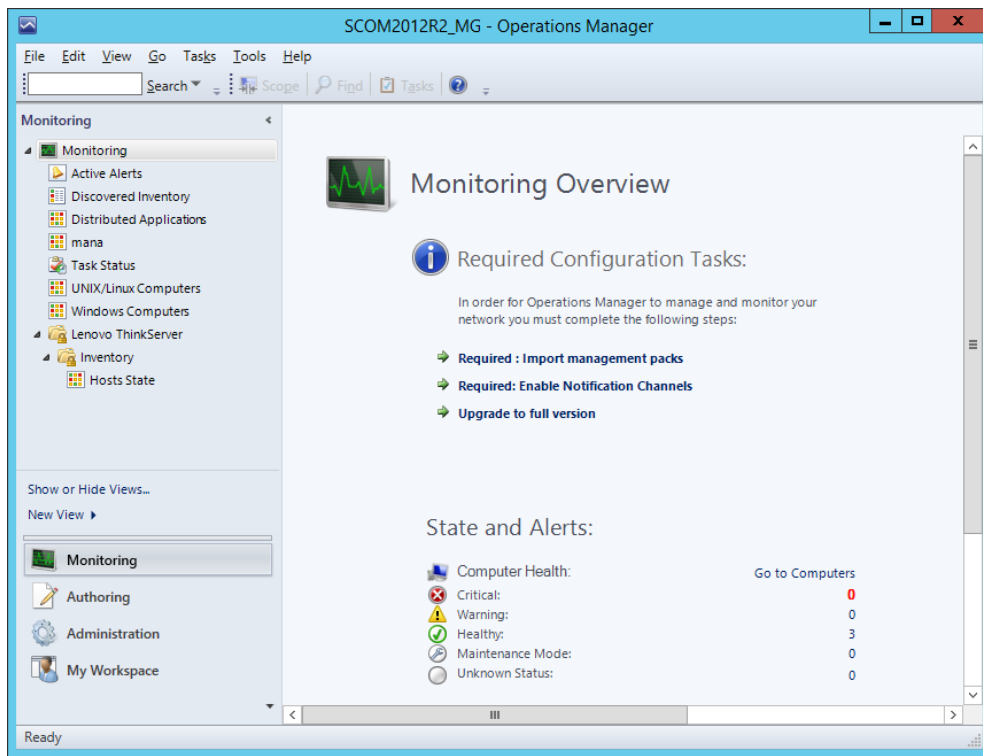


Figure 1: Monitoring Overview Screen

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** folder once the Lenovo ThinkServer Partner Pack for System Center management pack is imported.

The **Inventory** folder is located under the **Lenovo ThinkServer** 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.



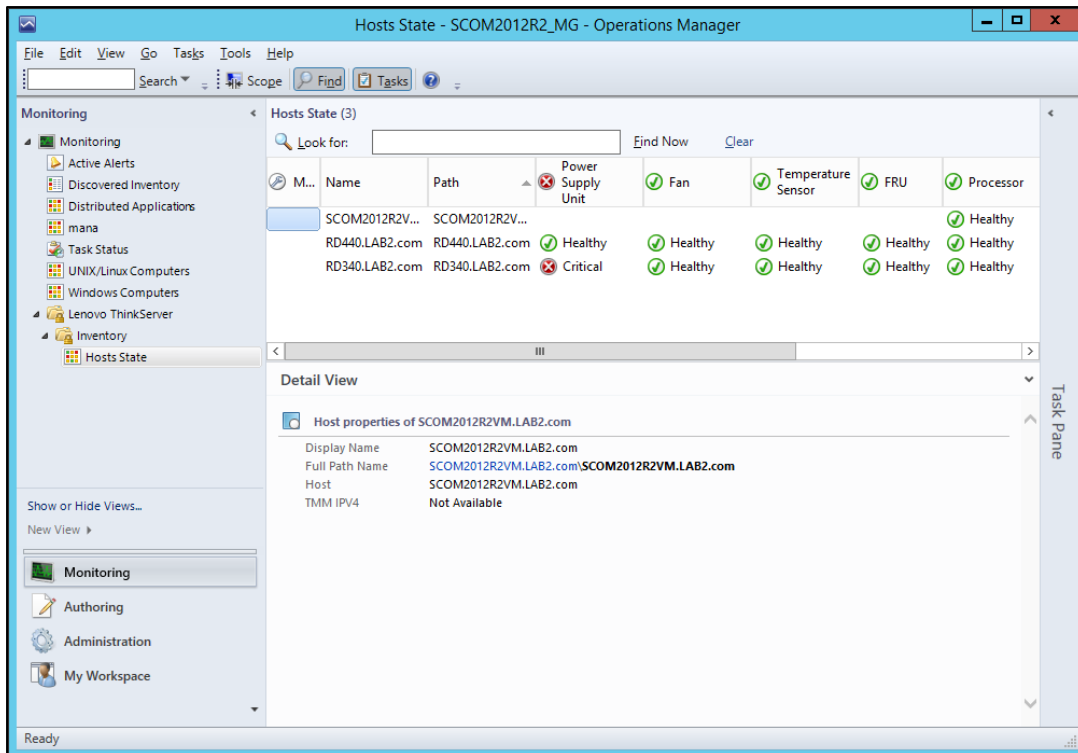


Figure 2: Main Screen Displaying Hosts State

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 Task** section contains the console tasks of Lenovo ThinkServer Partner Pack for System Center.

The various Host tasks include:

- Configure Lenovo Hosts
- Launch Lenovo Host Console
- Launch Lenovo Web Console
- Launch Remote Desktop
- 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
- TMM 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.

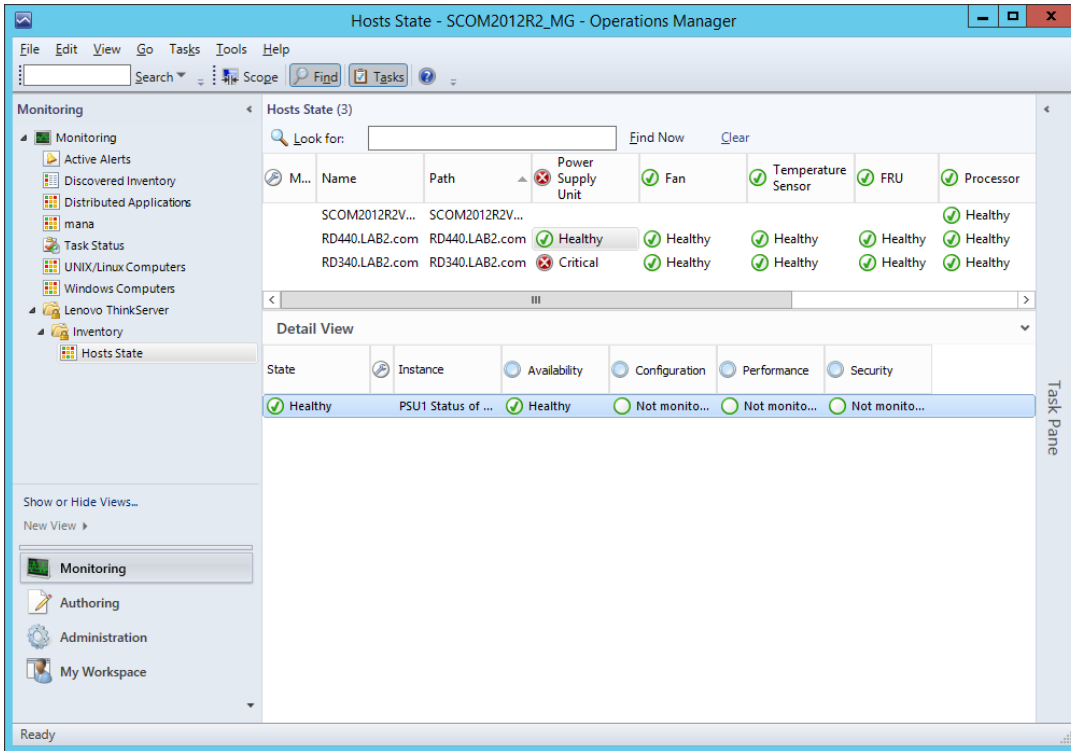


Figure 3: Power Supply Unit Status on the Hosts State Screen

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

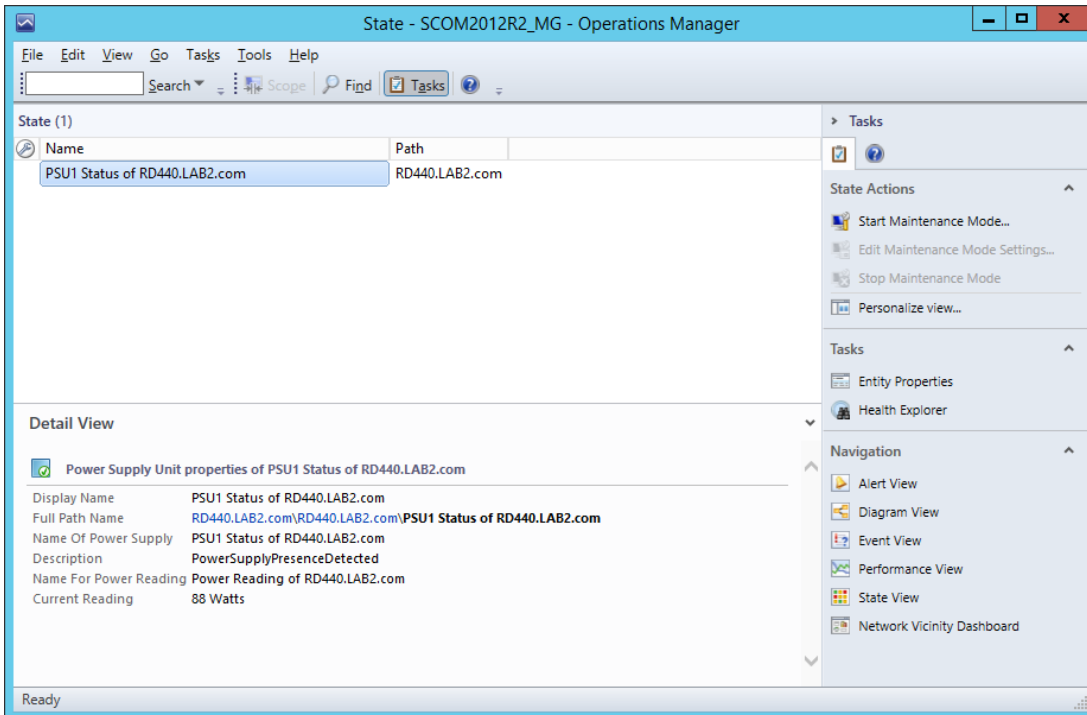


Figure 4: Power Supply Unit—Detailed View

In the detail view, the Display name, full path name, name of power supply, description, 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, Description and Status of the fans used in the servers.

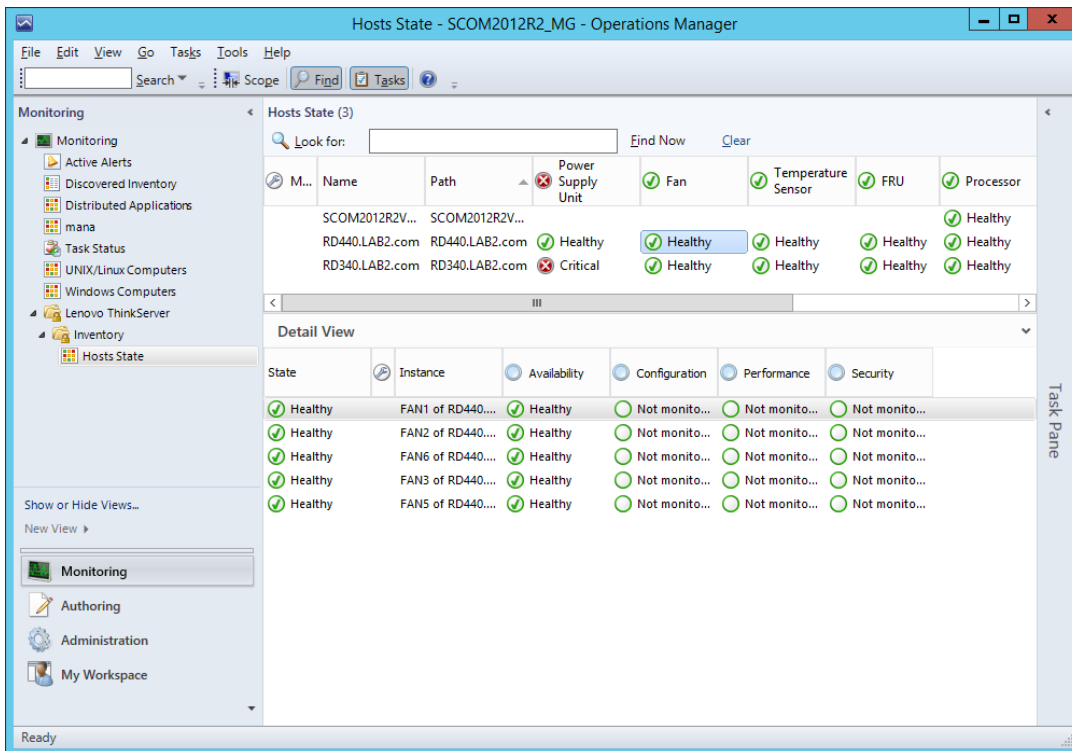


Figure 5: Fans Status on the Hosts State Screen

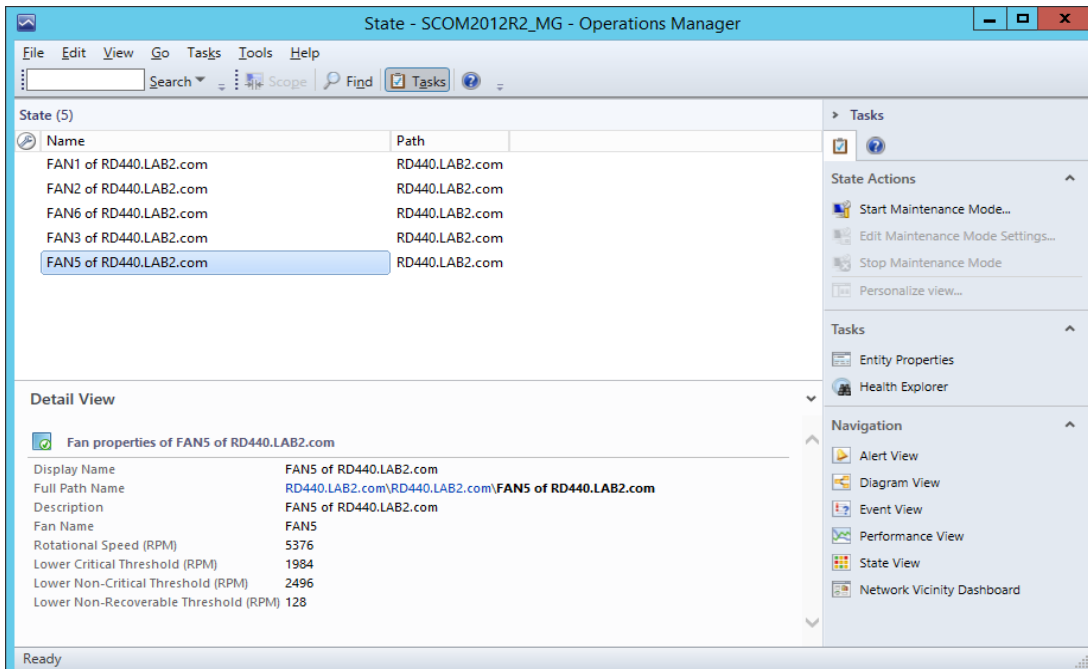


Figure 6: Fans Status—Detailed View

The Fan detail view provides details such as Name, Path, Rotational Speed (RPM), Display Name, Full Path Name, Description, 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, Description, 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.

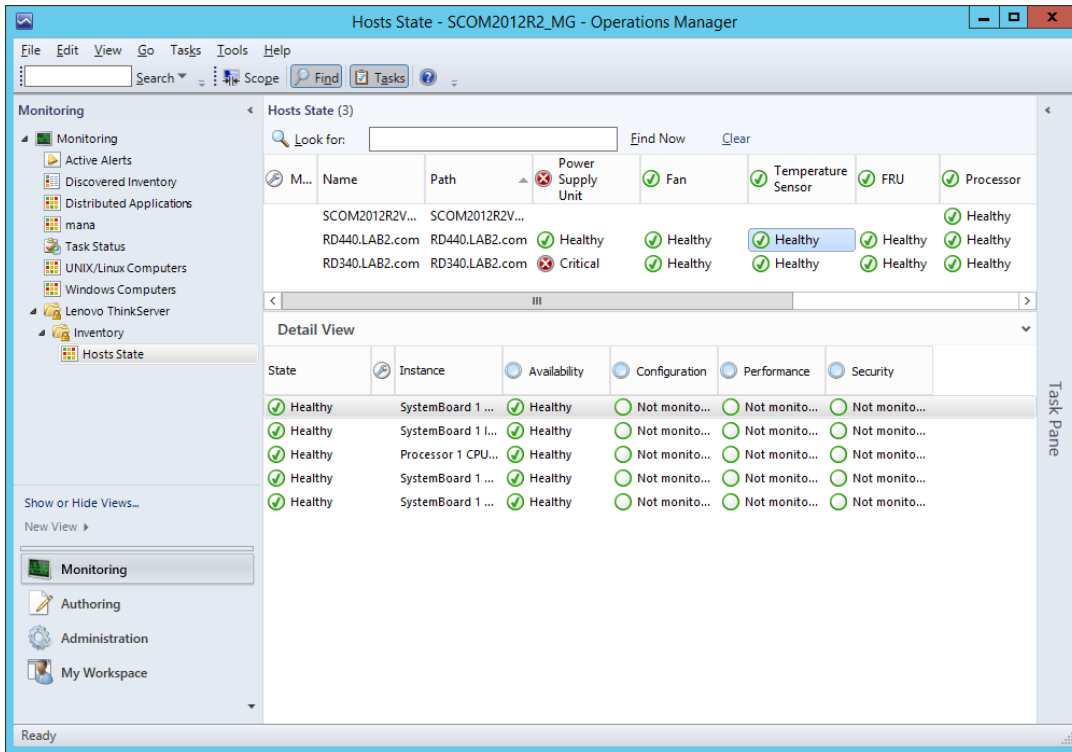


Figure 7: Temperature Sensor Status on the Hosts State Screen

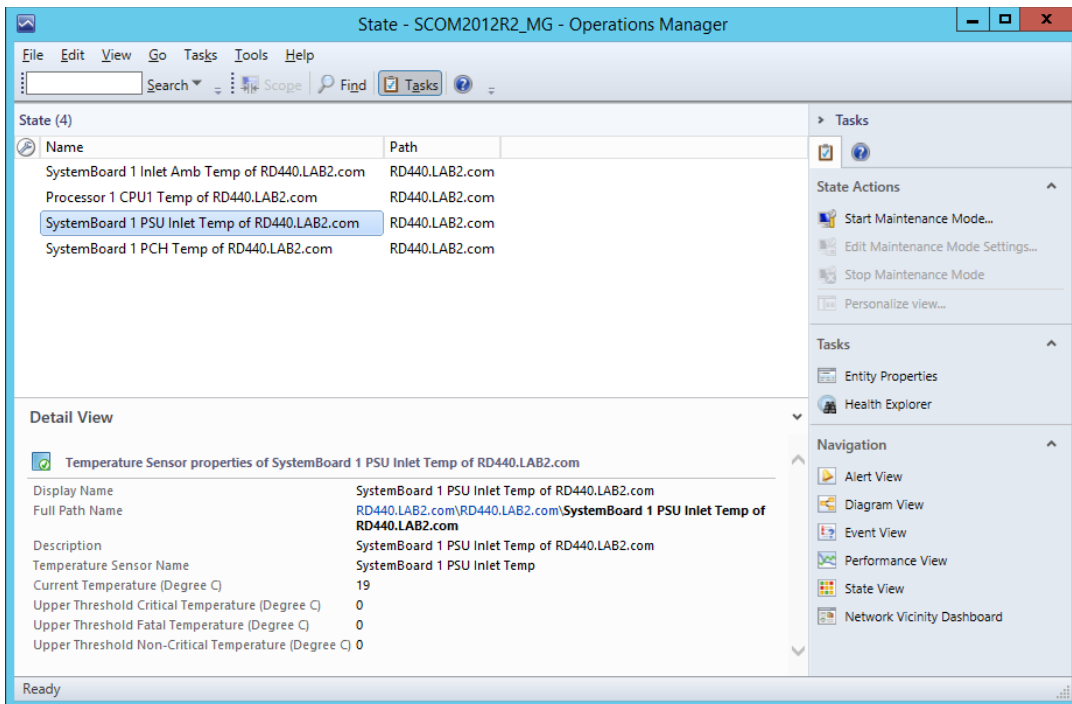


Figure 8: Temperature Sensor Status—Detailed View

### 3.3.4 FRU

The Field Replaceable Unit (FRU) Detail view displays the Display name, Full Path Name, Chassis Type, Chassis Part Number, 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.

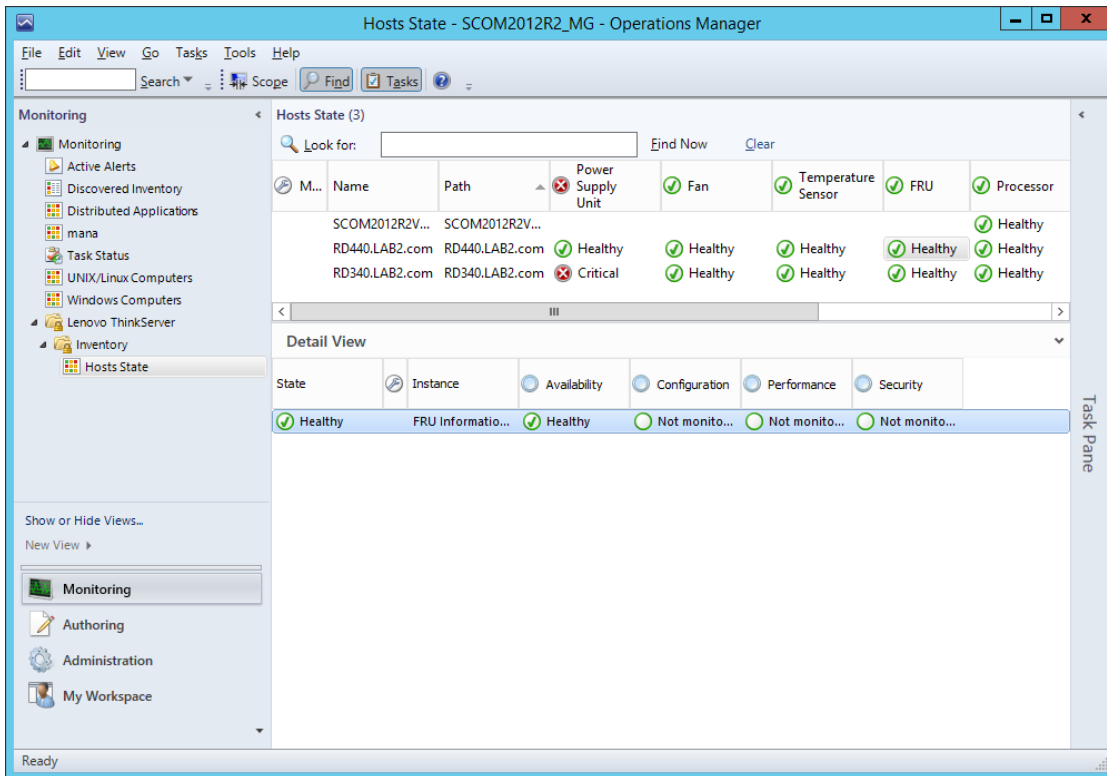


Figure 9: FRU Status on the Hosts State Screen

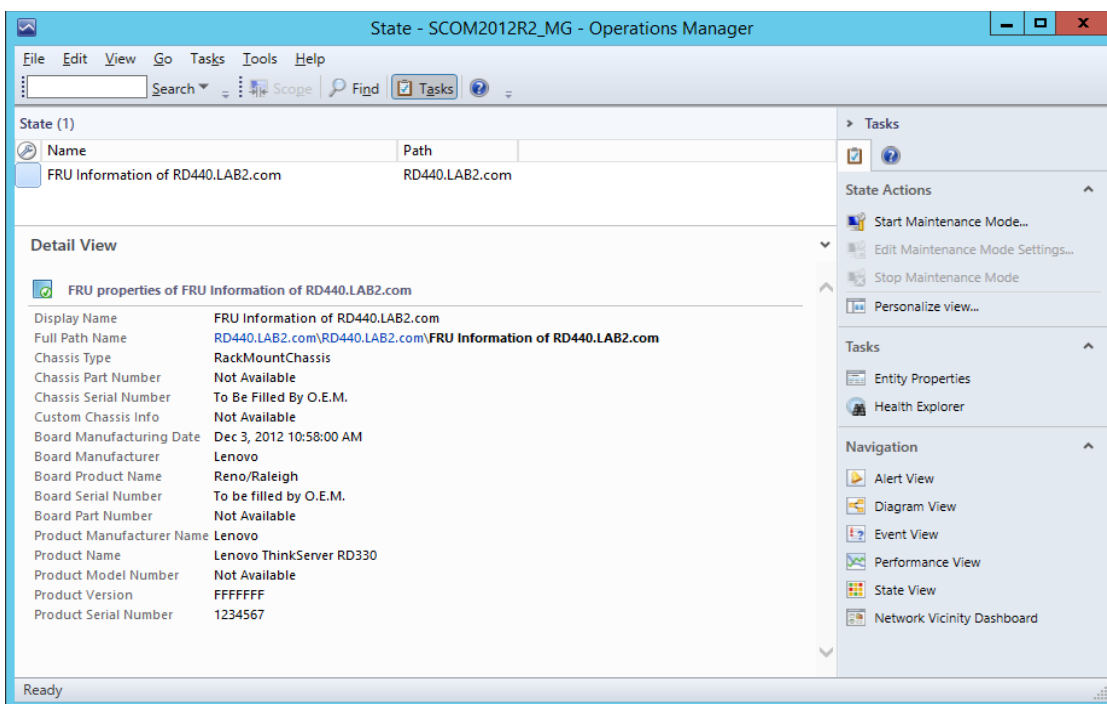


Figure 10: FRU-Detailed View

### 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(MB), L3 Cache Size(MB) and Status.

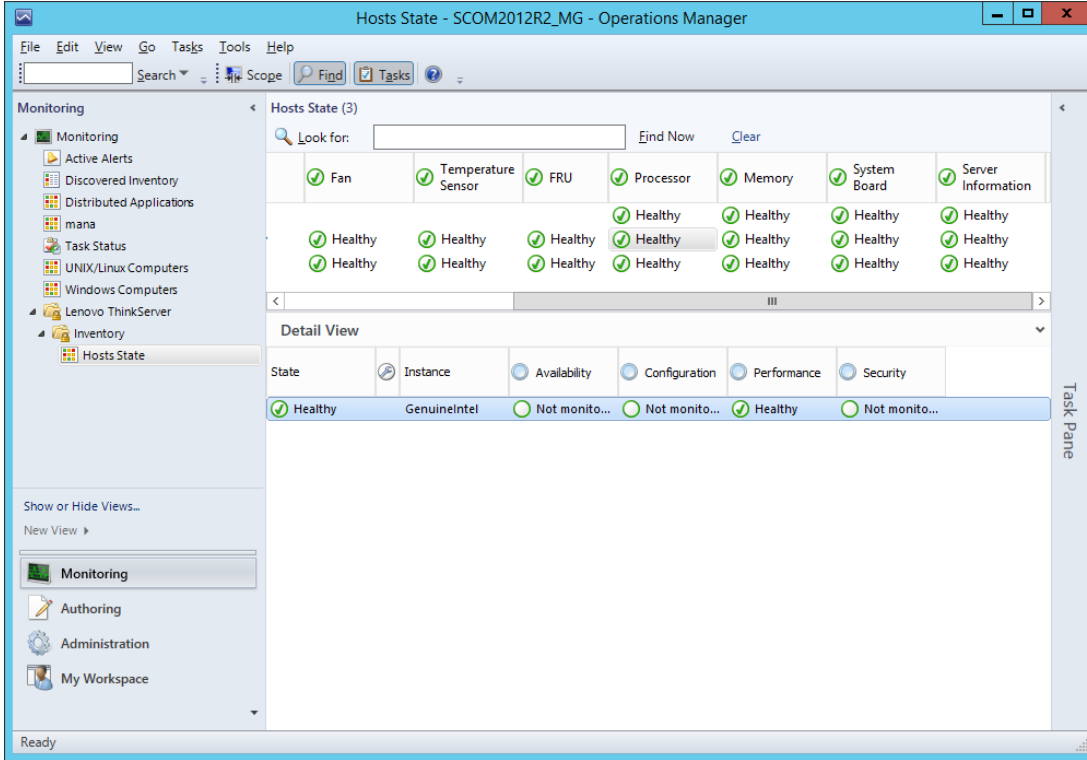


Figure 11: Processor Status on the Hosts State Screen

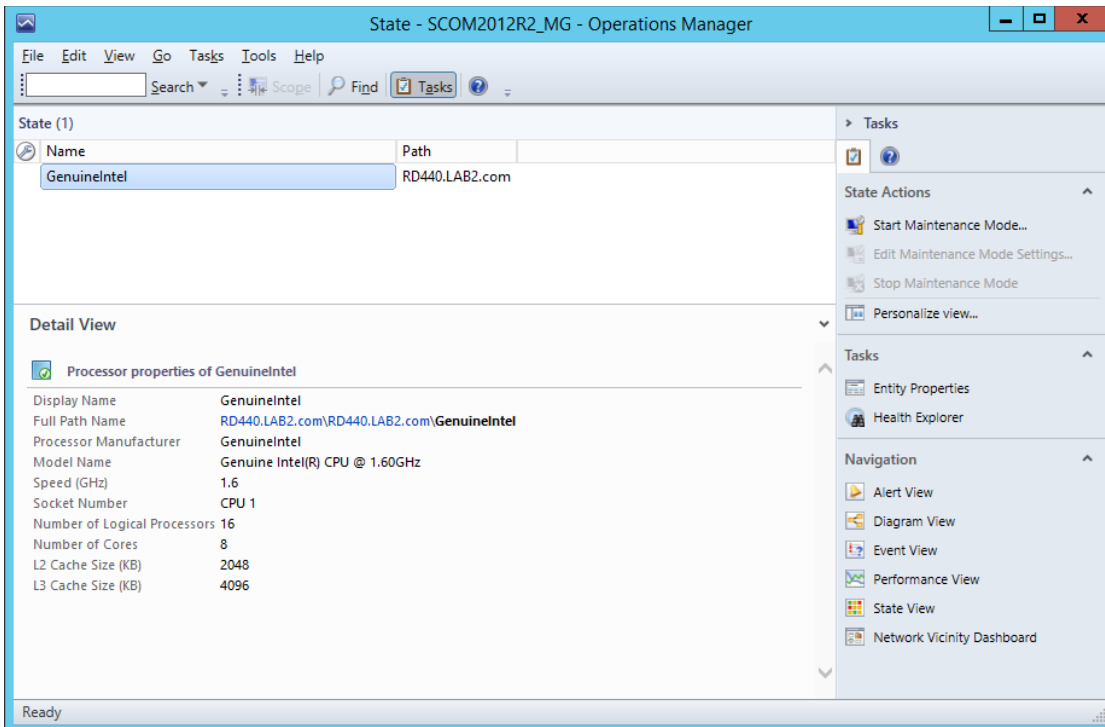


Figure 12: Processor Status-Detailed View

### 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.

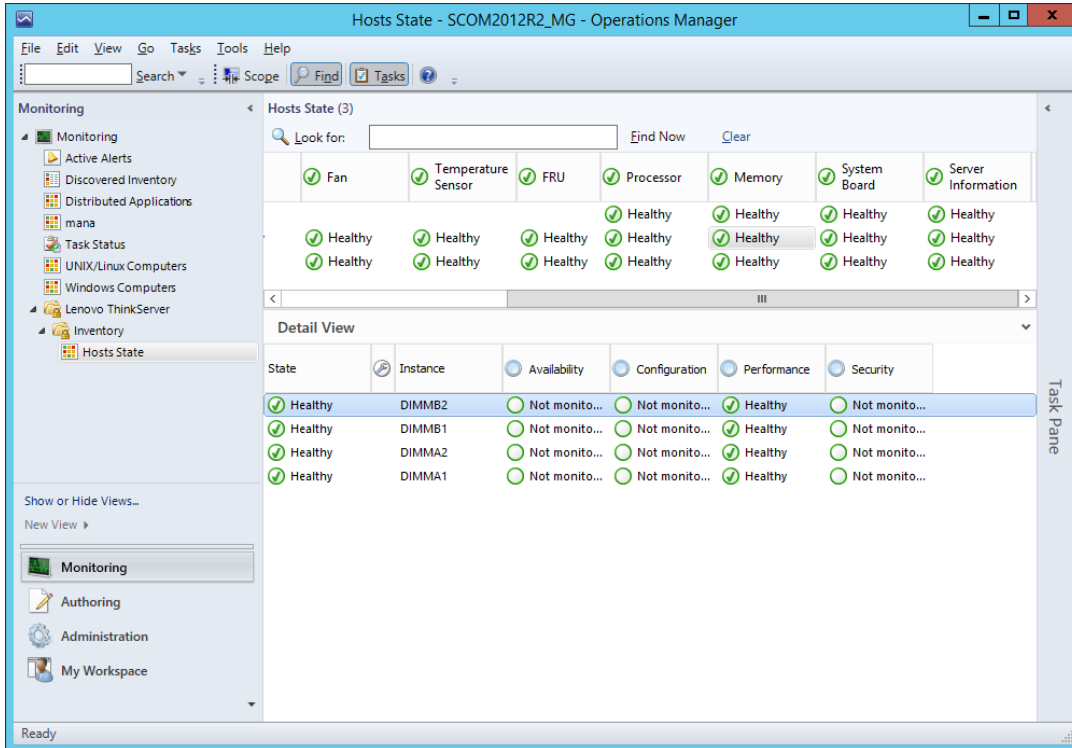


Figure 13: Memory Status on the Hosts State Screen

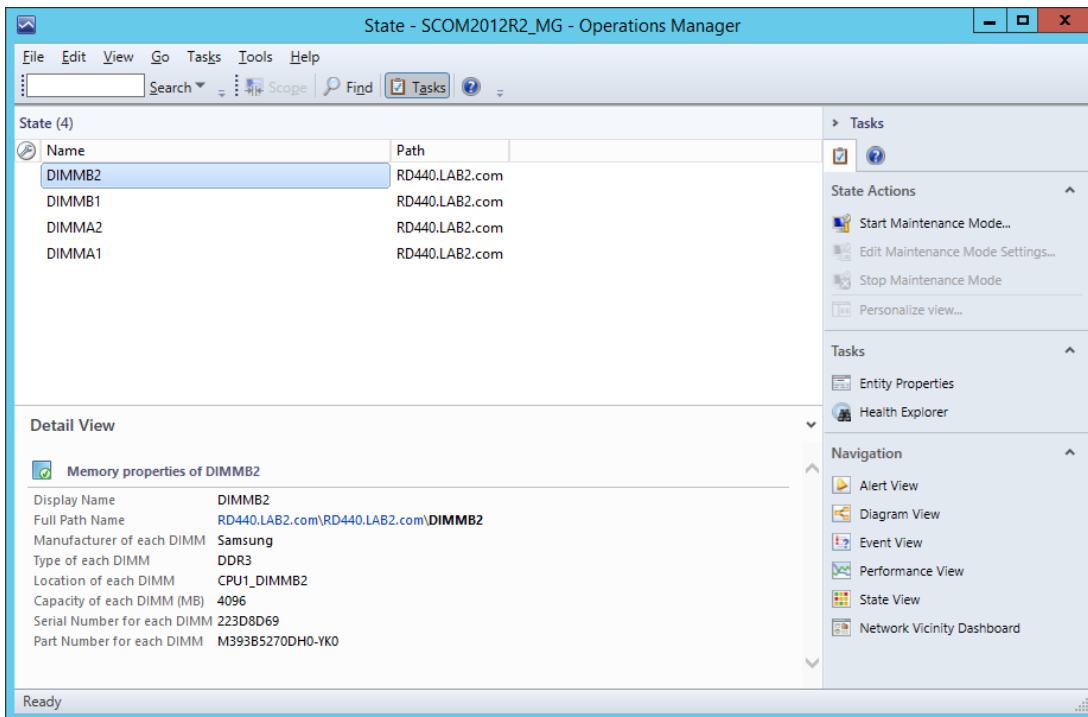


Figure 14 Memory Status-Detailed View



### 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 Details.

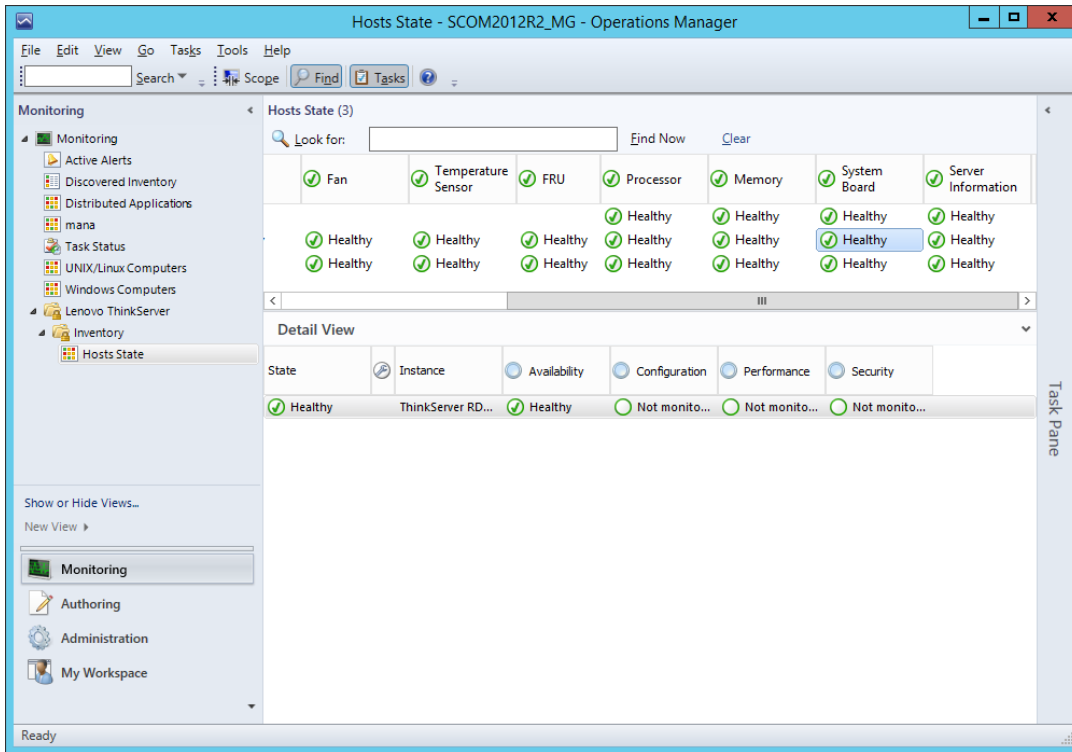


Figure 15: System Board Status on the Hosts State Screen

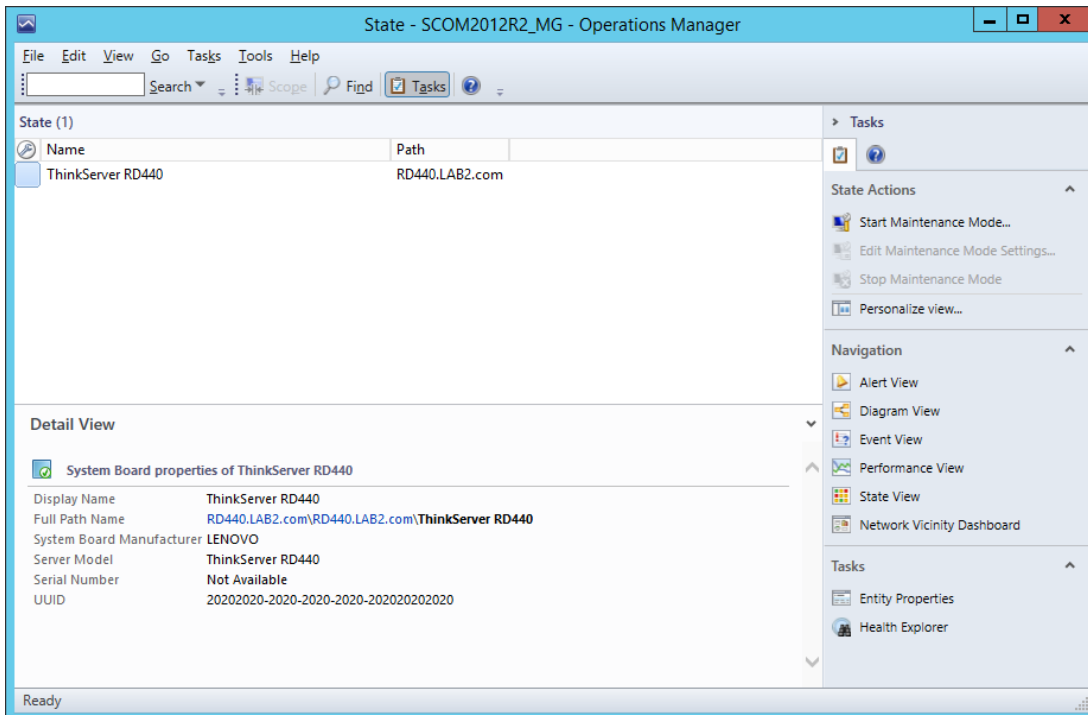


Figure 16: System Board Status—Detailed View

### 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.

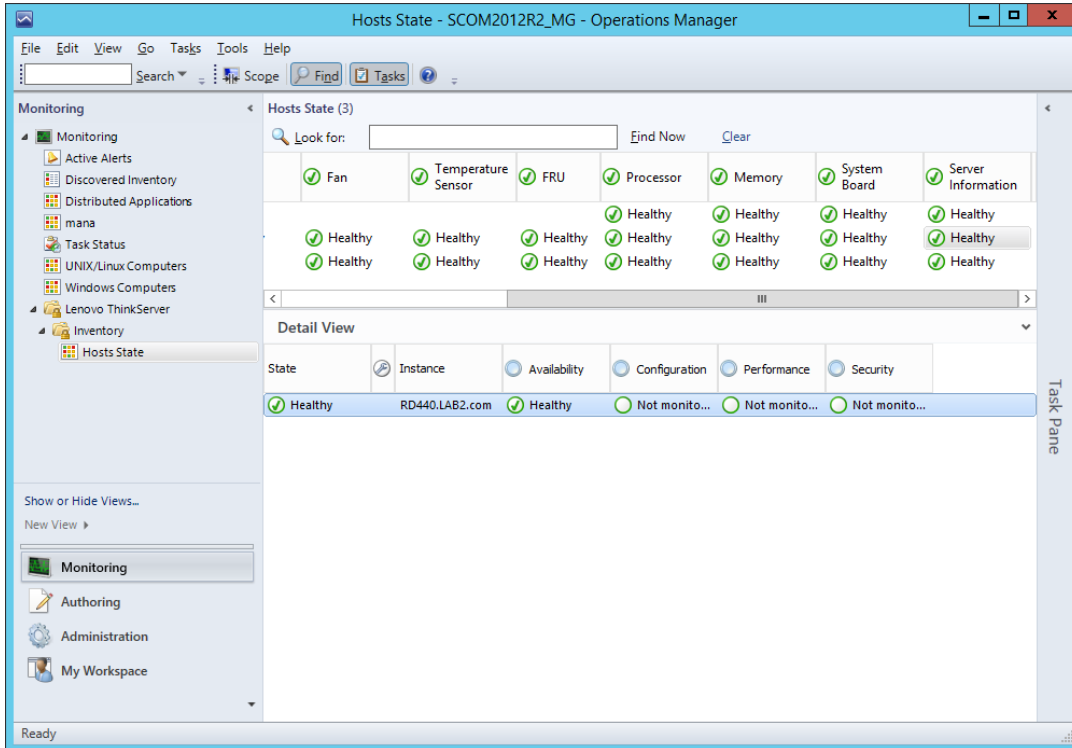


Figure 17: Server Information Status on the Hosts State Screen

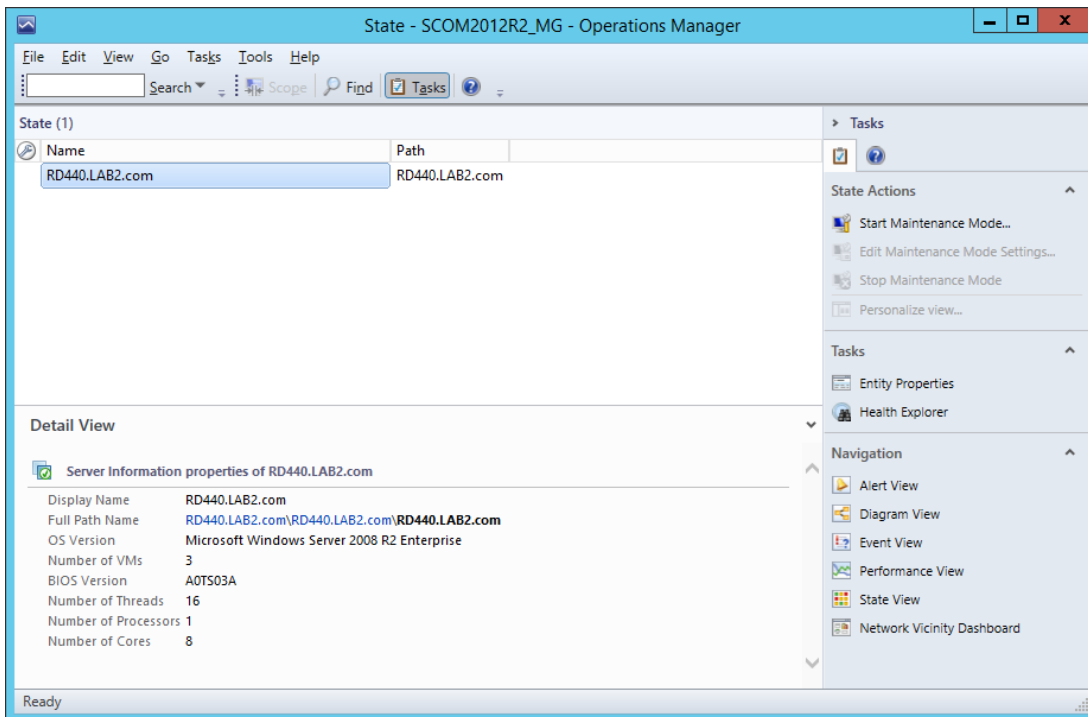


Figure 18: Server Information-Detailed View

## 3.4 Operating Host Tasks

This section details the various Host tasks.

### 3.4.1 Configure Lenovo Hosts:

It provides an easy use interface to enter and store the user name and password for the BMC TMM IPV4 data.

### 3.4.2 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 or in panic state.

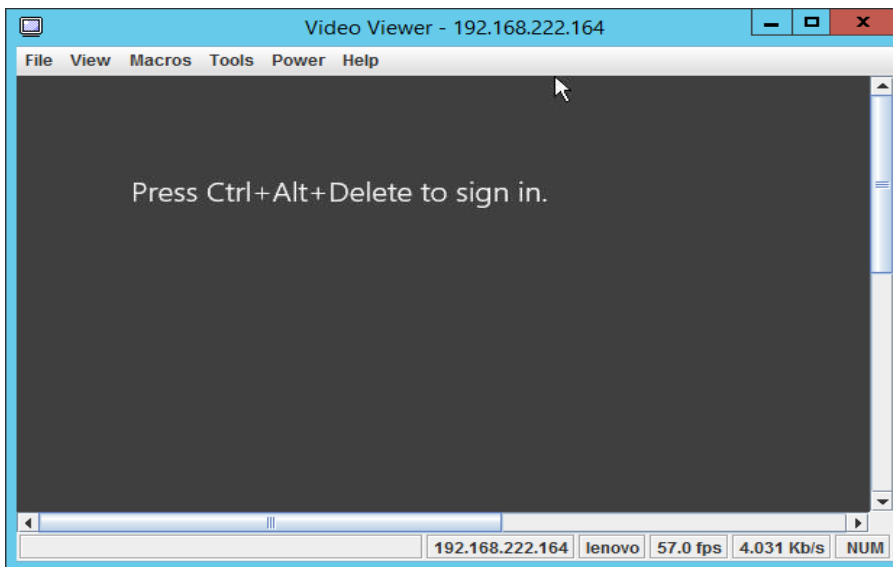


Figure 19: Video Viewer Screen

### 3.4.3 Launch Lenovo Web Console:

By using the **Launch Lenovo Web Console** task, which is below the RDP console, you can open the TMM Website login screen. You need to enter the user name and password to log in.

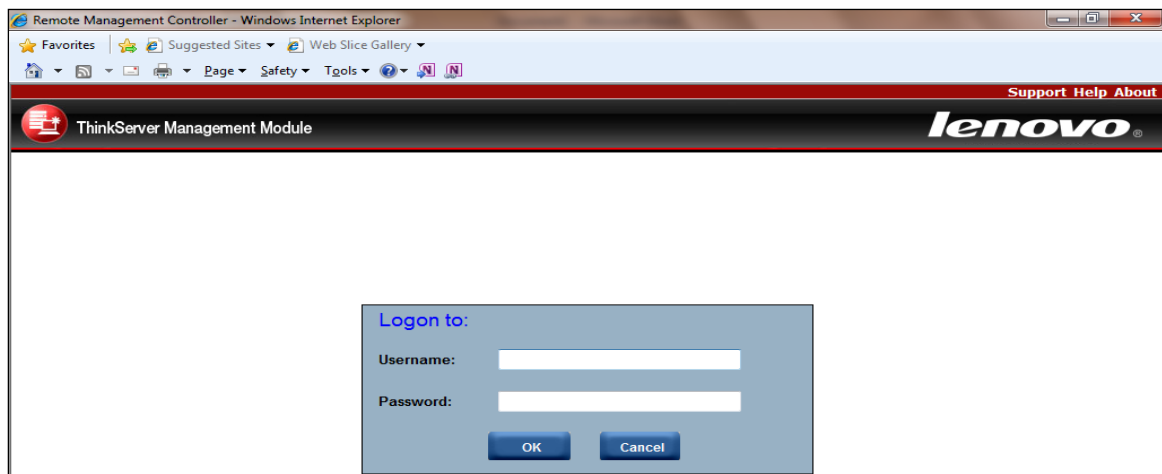


Figure 20: Remote Management Controller

### 3.4.4 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.

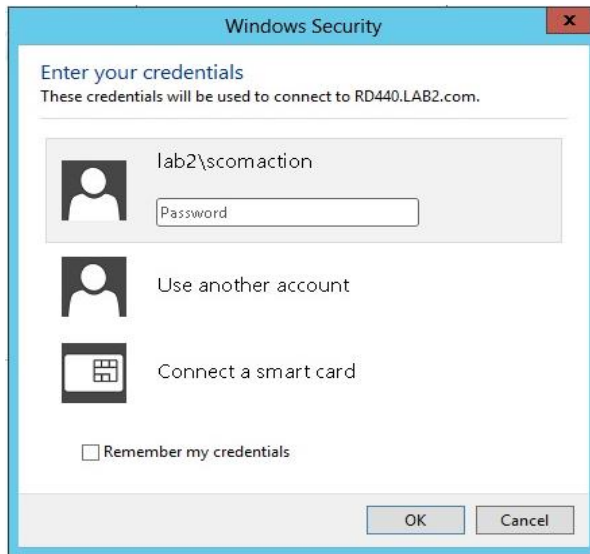


Figure 21: Remote Desktop Login Screen

### 3.4.5 Refresh Host Data

Select the host server from 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.

### 3.4.6 Restart

On clicking the **Restart** link, the selected server gets restarted.

### 3.4.7 Shut down

On clicking the **Shut Down** link, the selected server gets shutdown.

## 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 System Center is not displaying data after importing the pack.	Right-click the inventory folder and click <b>Refresh</b> . Please wait for a few minutes, as the system will take some time to populate the data after importing it from the pack.
Lenovo ThinkServer Partner Pack for System Center is not displaying data.	Refer to the <b>Operations Manager</b> event log.

Table 2: Common error messages and their resolutions

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