Important Notice
RAID System Monitoring on
VMware ESXi 5 using NEC ESMPRO Manager

This document includes important notice for using NEC ESMPRO Manager for monitoring the status of RAID System on VMware ESXi 5.
Please read carefully and follow the instructions when you use your system.

The following symptoms occur when you monitor RAID System using NEC ESMPRO Manager with LSI SMI-S Provider on VMware ESXi 5.

Number information of Logical Drive in Disk Array

For "Disk Array Information" in Logical Drive Property, NEC ESMPRO Manager does not display the part "order n/m". Therefore, if multiple logical drives are created for one disk array, you do not know what number drive a certain logical drive is in the disk array.

The display of VMware ESXi5 Server

The display of Windows/ Linux/ VMware ESX4 Server

Display of Cache Mode (Current)

In Logical Drive Property, NEC ESMPRO Manager does not display "Cache Mode (Current)" with some RAID Controllers. In addition, no correct information of "Cache Mode (Current)" is registered in the RAID log when "Cache Mode (Setting)" is changed manually.

See the value of "Cache Mode (Setting)" to check the Cache Mode.

The display of VMware ESXi5 Server

Logical Drive Property

Property/Setting

Item	Value
General	
Number	2
ID	1
Disk Array Information	3
RAID Level	RAID 1
Capacity	33GB
Stripe Size	64KB
Type	SSD Cache Drive
Status	✅ Online
Option	
Cache Mode (Setting)	Write Back

These values may not be displayed depending on RAID Controller.

Check here if they are not displayed.

RAID log

Type	Date/Time	ID	Description
ℹ Information	2012/08/18 16:00:37 (+09:00)	417	<RU0417> [CTRL:1(ID=1) LD:1 (ID=0)] The Cache Mode of Logical Drive was changed.

The display of Windows/ Linux/ VMware ESX4 Server

Logical Drive Property

Property/Setting

Item	Value
General	
Number	2
ID	1
Disk Array Information	3
RAID Level	RAID 1
Capacity	33GB
Stripe Size	64KB
Cache Mode (Current)	Write Back
Type	Logical Drive
Status	✅ Online
Option	
Cache Mode (Setting)	Write Back

RAID log

Type	Date/Time	ID	Description
ℹ Information	2012/08/18 16:00:37 (+09:00)	417	<RU0417> [CTRL:1(ID=1) LD:1 (ID=0)] The Cache Mode of Logical Drive was changed Value : Write Through

The number of Disk Arrays which you can select for a Dedicated Hot Spare

You can select only one Disk Array for a Dedicated Hot Spare.

For the Logical Drive which belongs to more than one Disk Arrays, you can also select only one Disk Array in the Hot Spare creation screen. In this case, however, the Dedicated Hot Spare will be created for every Disk Array where the Logical Drive belongs to.
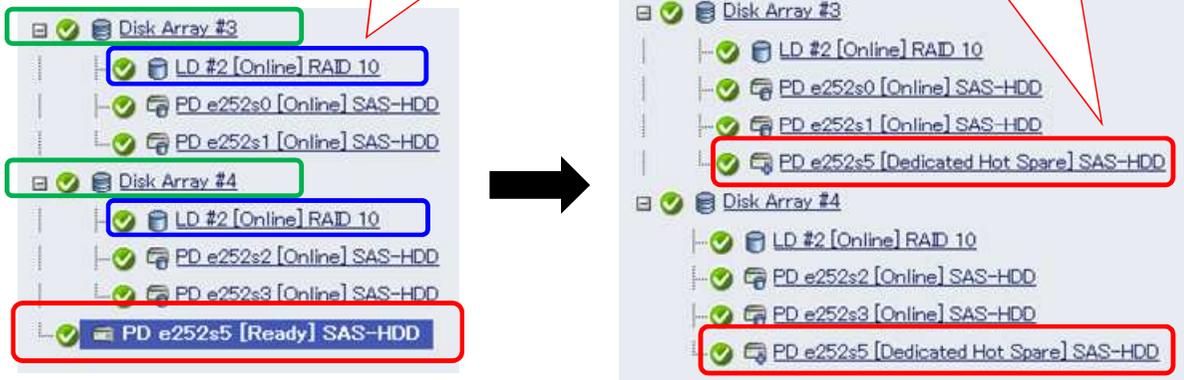
Display of Dedicated Hot Spare which belongs to more than one Disk Array

When you create a Dedicated Hot Spare for Logical Drive belonging to more than one Disk Array and then execute "Make Offline" to Physical Device, the device may be displayed as "Global Hot Spare" despite actually being a "Dedicated Hot Spare".

This change is only cosmetic. It functions as a Dedicated Hot Spare.

Display of capacity for SSD Cache Drive

The "Capacity" property for SSD Cache Drive displays capacity at the point when SSD Cache Drive was created.

This property value does not change when the Physical Device which constitutes the SSD Cache Drive fails, although the actual capacity decreases according to the capacity of the failed Physical Device.

Display of Physical Device which constitutes SSD Cache Drive

When you remove the Physical Device which constitutes SSD Cache Drive once and then insert it again, the Physical Device is displayed as a member of SSD Cache Disk Array, although it is supposed to be displayed outside the Disk Array.
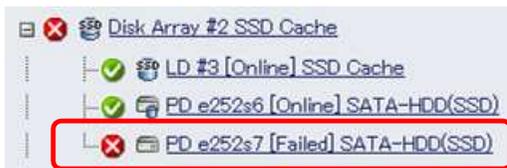
Unused Capacity on Disk Array which has more than one unused space

If Disk Array has more than one unused space, NEC ESMPRO Manager cannot display correct Unused Capacity value on Disk Array Property.

Event notification about HDD Power Status change

From VMware ESXi 5 to NEC ESMPRO Manager, event notification may delay in the event of HDD Power Status change (Power Saving/ Transitioning/ On).
As a result, NEC ESMPRO Manager may delay in reflecting HDD Power Status to the WebGUI and RAID log.
If you want to get most recent HDD Power Status, please rescan RAID System.

Creating Hot Spare after degrading Logical Drive

When you create Hot Spare after degrading Logical Drive, NEC ESMPRO Manager may display a message indicating that creating Hot Spare failed, even if it was created successfully.
If you want to get correct information, please rescan RAID System.
If you create Hot Spare before degrading Logical Drive, this phenomenon does not happen.

Connection between vSphere Client and VMware ESXi 5

VMware ESXi5 may fail to send information to vSphere Client if the RAID System configuration changes frequently in a short period of time, for example, if a physical device is removed and inserted at intervals of approximately 90 seconds. In this case, please wait for 10 minutes to recover from the communication failure or restart the VMware ESXi 5 Management Agents. You can restart the Management Agents in the following procedure.

[How to restart the Management Agents]

1. Press F2 on the console of VMware ESXi 5 and log in to the management window.
2. Select Troubleshooting Options and press Enter.
3. Select Restart Management Agents and press Enter.
4. Press F1 on the confirmation windows to restart Management Agents.

Failed Physical Devices that were part of offlined Logical Drive

When the Logical Drive is offline due to failure of Physical Devices, please remove these failed Physical Devices as soon as possible.
The RAID System Information may not get until failed Physical Devices are removed.

Executing Scheduled Consistency Check for Logical Drive using Remote Batch

When Executing Scheduled Consistency Check for Logical Drive using Remote Batch to ESXi 5 Server which mounts more than one RAID Controller, the status of Consistency Check on some RAID Controller may be not reflect to NEC ESMPRO Manager.
In fact, Consistency Check is executed on all RAID Controllers that have Logical Drive.
If you want to get most recent Consistency Check status, please rescan RAID System.