

# BROCADE MANAGEMENT PACK FOR MICROSOFT SYSTEM CENTER



## DATA CENTER

## Maintain Business Continuity While Virtualizing the Data Center

### HIGHLIGHTS

- Improves business continuity as organizations integrate server virtualization into the data center
- Enables the management of physical and virtual assets in the data center using Microsoft System Center
- Supports the Performance and Resource Optimization (PRO) feature in Microsoft System Center Virtual Machine Manager (SCVMM) 2008
- Extends Brocade advanced fabric services and Host Bus Adapter (HBA) management capabilities to System Center Operations Manager
- Bridges the “virtualization management gap,” helping organizations to optimally place workloads running on Virtual Machines (VMs)
- Increases productivity by automating tasks and simplifying operations
- Integrates seamlessly with Microsoft System Center to provide a holistic approach to data center management

Brocade® Management Pack for Microsoft System Center provides Brocade Host Bus Adapter (HBA) performance and health monitoring capabilities to Microsoft System Center Operations Manager (SCOM). As IT organizations monitor the health and performance of their Brocade HBA-to-SAN connections, they can use that information to dynamically optimize server resources in virtualized data centers via Microsoft System Center Virtual Machine Manager (SCVMM). This solution enables real-time monitoring of Brocade HBA links through Microsoft SCOM, along with proactive remediation action in the form of recommended Performance and Resource Optimization (PRO) Tips handled by SCVMM.

Leveraging the extension of Brocade advanced fabric services to the HBA level, this management integration solution helps organizations easily deploy and manage end-to-end SAN services across next-generation virtualized data centers.

### KEY MANAGEMENT CHALLENGES

With the increased storage resource sharing required for server consolidation in virtualized environments, an error on the storage network could easily impact more than one Virtual Machine (VM). This poses a new management challenge: how to correlate the impact of storage network resources on VMs. Complicating matters, VM mobility requires a management solution that not only monitors and relays SAN health to administrators, but also provides mitigation tools and automation when and where appropriate.

### BROCADE MANAGEMENT PACK

To address these challenges, Brocade Management Pack reviews HBA link parameters to maximize the performance of virtualized environments. It monitors the health and performance of HBA-to-SAN connections, providing intelligent recommendations for dynamically optimizing the performance of virtualized workloads. In addition, Brocade Management Pack supports specified policies that Microsoft SCVMM 2008 can act upon automatically or that can be implemented manually.

## MONITORING FIBRE CHANNEL LINKS TO THE SAN

To show how Brocade Management Pack works, this example follows the health of a Fibre Channel link from an HBA in a physical server to switches in the SAN. Some of the events that can be monitored and are relevant in this example include:

- Cyclic Redundancy Check (CRC) errors
- Synchronization errors
- Link initializations
- Link resets

When Brocade Management Pack identifies deterioration in the Fibre Channel link that could impact performance, it creates a PRO Tip to System Center so VMM can take the recommended action (see Figure 1).

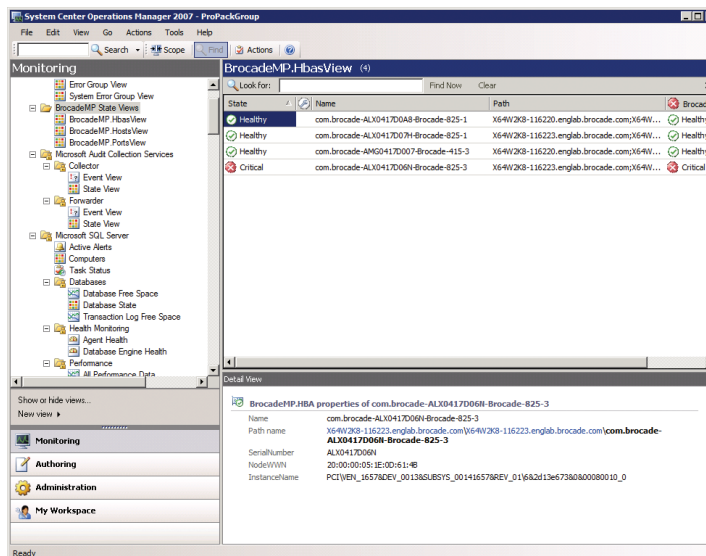
In this example, the recommended action would be to identify all the VMs that use the affected link and migrate them to the next cluster node (based on VMM intelligent placement). The recommended action could be performed automatically or manually, based on predefined policies.

## MAXIMIZING INVESTMENTS

To help optimize technology investments, Brocade and its partners offer complete solutions that include education, support, and services. For more information, contact a Brocade sales partner or visit [www.brocade.com](http://www.brocade.com).

**Figure 1.**

Brocade Management Pack is an intuitive tool that helps organizations manage their physical and virtual assets from Microsoft System Center.



## BROCADE MANAGEMENT PACK SYSTEM REQUIREMENTS

Component	Requirement
Processor	Recommended: 2 GHz or faster
Memory	Minimum: 1 GB RAM Recommended: 2+ GB RAM
Available disk space	Minimum: 10 GB
Drive	DVD-ROM drive
Display	Super-VGA (800×600) or higher-resolution monitor
Other	Keyboard and Microsoft Mouse or compatible pointing device

*Note: Microsoft System Center Operations Manager and Virtual Machine Manager must be installed prior to the installation of Brocade Management Pack.*

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