

# Addressing Common Challenges in Small and Medium Businesses and Midsized Organizations with Hitachi Data Systems and Microsoft® Solutions

An Application Brief

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# Contents

<b>Learning to Thrive in Microsoft Environments .....</b>	<b>1</b>
<b>The Most Common Challenges .....</b>	<b>1</b>
Providing SAN Benefits for Midsized Organizations and SMBs .....	2
Monitoring E-mail Running on Exchange .....	2
Monitoring SQL Applications .....	2
Recovering Exchange E-mail from a Virus Attack .....	3
Protecting Your Most Important Asset—Your Data .....	3
Aggregating and Leveraging Diverse Storage Assets .....	3
<b>Hitachi Data Systems Solutions for Microsoft Environments—SMBs and Midsized Organizations .....</b>	<b>4</b>



# Addressing Common Challenges in Small and Medium Businesses and Midsized Organizations with Hitachi Data Systems and Microsoft® Solutions

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## Learning to Thrive in Microsoft Environments

Hitachi Data Systems works closely with Microsoft to offer tightly integrated solutions that help improve availability of key applications based on Microsoft Windows applications, such as Microsoft Exchange and Microsoft SQL Server.

Ask yourself:

- “How heavily does my business rely on e-mail and various database applications running on Microsoft platforms?”
- “Am I seeing that applications based on Microsoft Windows are often challenged by hackers and virus attacks?”

For most organizations, an outage in either Exchange or SQL Server essentially shuts down operations. Thus, the cost of any outage is steep. And repeated outages are simply not acceptable.

Today's escalating storage demands challenge you to simultaneously increase capacity, support rapid access to enterprise information and maintain 24/7 operations—all without additional budget or head count.

This application brief addresses critical questions about your business and your Microsoft Environment. It offers suggestions on how to solve common challenges facing small and medium businesses (SMBs) and midsized organizations in the areas of application and storage management via Hitachi Data Systems and Microsoft solutions.

## The Most Common Challenges

Below is a list of common challenges that midsized organizations often face within their IT organizations. Read further and you will see what Hitachi Data Systems and Microsoft can deliver as possible solutions to these business challenges.

- We are a midsized organization (or an SMB) and do not have the manpower or experience to deploy complex network storage solutions and leverage the benefits of a storage area network (SAN).
- How can I monitor the availability and performance of my e-mail application running on Microsoft Exchange?
- How can I monitor the availability and performance of my Microsoft SQL applications?
- What if I have problems recovering Microsoft Exchange e-mail quickly from a virus attack?

- How do I aggregate and leverage the diverse storage assets I now have across my Microsoft Windows platform?
- How can I implement an inexpensive data protection solution?

## Providing SAN Benefits for Midsized Organizations and SMBs

*We are a midsized organization (or an SMB) and do not have the manpower or experience to deploy complex networked storage solutions and leverage the benefits of a SAN.*

Microsoft and Hitachi Data Systems are working together to diminish the complexity of SANs by ensuring interoperability of storage resources with the Windows platform and simplifying hardware setup. Hitachi Data Systems offers the Plug-and-play SAN Kit for Hitachi Modular Storage, compatible with the Microsoft Simple SAN Initiative, to give smaller organizations enterprise-class storage flexibility and reliability without the costs and complexity associated with traditional SANs.

Even the smallest enterprise can now enjoy the benefits of the [Plug-and-play SAN Kits](#) for their Microsoft platforms. These customer-installable SANs are shipped with easy-to-follow instructions. With these kits, Microsoft Windows Server users can fully exploit the enterprise-level quality of Hitachi Adaptable Modular Storage or Hitachi Workgroup Modular Storage. This SAN solution from Hitachi Data Systems allows your storage manager(s) to meet application service levels for business critical and development data by monitoring and managing storage more efficiently. This helps increase productivity, and it improves employee performance with higher availability/accessibility to application data on Hitachi modular storage.

## Monitoring E-mail Running on Exchange

*How can I monitor the availability and performance of my e-mail application running on Microsoft Exchange?*


Managing the performance and availability of Exchange has been labor intensive and inefficient because no single tool monitored the entire path from Exchange databases to the disk storage system. [Hitachi HiCommand® QoS for Microsoft Exchange](#) software extends the capabilities of [Hitachi HiCommand Storage Services Manager](#) software inside Exchange environments (including Exchange 2007). It auto-discovers your Exchange application infrastructure, charting the dependencies of Exchange storage groups and databases on hosts, host bus adapters, SAN switches and disk systems. By drilling down from Exchange performance and availability issues to the underlying cause, and by issuing alerts when storage infrastructure changes impact Exchange, QoS for Exchange software helps administrators satisfy service-level requirements, respond more efficiently to help desk calls, increase uptime and plan for effective disaster recovery.

QoS for Exchange software delivers all Exchange topology, configuration, capacity and performance information right to your fingertips. When “Exchange-is-slow” calls come in, you can quickly identify performance bottlenecks and reduce contention for overutilized infrastructure resources. When a storage infrastructure failure occurs, you instantly know the impact on users and can react appropriately. When you need to proactively plan for future performance and capacity demands, QoS for Exchange extrapolates for you based on historical data. Dependency information helps you plan maintenance or disaster recovery routines to minimize application downtime.

## Monitoring SQL Applications

*How can I monitor the availability and performance of my Microsoft SQL applications?*

Traditional storage resource management practices can be labor intensive and inefficient, which often impacts productivity and puts the most important corporate asset—information—at risk. Hitachi performance optimization solutions provide automated, intelligent data gathering combined with path-aware storage resource management tools that map, monitor, analyze and review your storage network resources from the application to the storage device.



Designed especially for organizations without deep performance expertise, the [Storage Platform Assessment Service](#) from Hitachi Data Systems Global Solution Services assists in the lightweight, nondisruptive data collection and analysis process required for identifying system bottlenecks and/or underutilized aspects of key storage system resources. Once the data is collected, consultants present you with recommendations for optimizing resources, which help your storage meet expected service levels.

## Recovering Exchange E-mail from a Virus Attack

*What if I have problems recovering Microsoft Exchange e-mail quickly from a virus attack?*

[Hitachi HiCommand Protection Manager](#) software protects your mission-critical applications running in Exchange Server and SQL Server environments. Protection Manager software automates disk-to-disk backup and rapid recovery using proven Hitachi replication technologies. As a result, outages are minimized in terms of both occurrences and duration.

In addition to providing a complete disk-to-disk backup solution, Protection Manager software offers enormous improvements in reliability and recoverability for existing systems when used as the first part of a three-tier disk-to-disk-to-tape backup strategy—using existing disk-tape products as the third tier. This can result in enormous improvements in reliability and recoverability for existing systems.

Protection Manager software automates nondisruptive online backup of Exchange Server and SQL Server while providing rapid recovery in case of a database corruption or an outage. It uses the Microsoft Volume Shadow Copy Service (VSS) and Virtual Device Interface (VDI) framework to synchronize and automate operations with those applications. Microsoft has worked with both Hitachi, Ltd., and Hitachi Data Systems to ensure the compatibility of this solution with Microsoft environments, and it is therefore fully supported by Microsoft, Hitachi Data Systems and Hitachi, Ltd.

## Protecting Your Most Important Asset—Your Data

*How can I implement an inexpensive data protection solution?*


Hitachi Data Systems offers a wide range of storage systems for SMBs and midsized environments; as well as storage solutions for large-scale enterprise environments. The [Hitachi Workgroup Modular Storage](#) and [Adaptable Modular Storage](#) systems were designed with SMBs and midsized organizations in mind; each solution is scalable for customer growth needs. Complementing the Hitachi modular storage line is the comprehensive, and also modular, [Hitachi Data Protection Suite](#), powered by CommVault®.

The Hitachi Data Protection Suite is based on a single Common Technology Engine, upon which all functional modules are tightly integrated. Interoperability is designed in from the start, as opposed to other vendors' solutions, often a result of numerous company acquisitions. The Data Protection Suite provides data management components for backup/recovery, archiving, replication and migration—all managed by a single management interface. This comprehensive solution enables customers to customize their data management solution to their particular needs, as well as provide the flexibility to add more functionality as needs change.

## Aggregating and Leveraging Diverse Storage Assets

*How do I aggregate and leverage the diverse storage assets I now have across my Windows platform?*

Storage environments have grown far too large, too complex and, most importantly, too critical to the operation of business to be managed on an ad hoc basis, as has been the prevailing practice. In ad hoc storage management, administrators mix pen and pencil, electronic spreadsheets, and a smattering of unrelated tools in an attempt to control the storage environment. With incomplete, often inaccurate information about the makeup of the storage environment, no way to correlate applications to the storage components they depend on and poor visibility into storage infrastructure events, your storage administrators cannot ensure consistent delivery of the necessary quality of storage service to the applications that drive your business.



Networked storage solutions from Hitachi Data Systems can help consolidate, reduce management complexity and leverage the assets you already have. The [Hitachi Universal Storage Platform™ VM](#) and [Hitachi Network Storage Controller](#) let you create centralized storage pools that can be consistently managed from a single point of view. Consolidating and aggregating resources in this way helps you to contain costs while improving utilization of resources.

## Hitachi Data Systems Solutions for Microsoft Environments—SMBs and Midsized Organizations

Hitachi Data Systems prioritizes [Microsoft](#) as a key alliance partner and provides mutual customers the optimal storage environment for their Windows-based solutions. Hitachi Data Systems is a Microsoft Gold Certified Partner and offers a complete line of solutions optimized for Microsoft application environments. The Hitachi Data Systems objectives for the alliance with Microsoft are to build tightly integrated storage solutions complementing the Windows environment, and to enable customers of all sizes to implement scalable, available and reliable architectures in a cost-effective way.

Hitachi Data Systems Solutions for Microsoft Environments significantly increase availability of mission-critical Microsoft Exchange, SQL and SharePoint Server applications.

With these comprehensive solutions, organizations can solve most data management challenges, while providing for simplified and unified management across all data copies and source applications.

For more information, go to the [Hitachi Data Protection page](#) on [www.hds.com](http://www.hds.com).

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