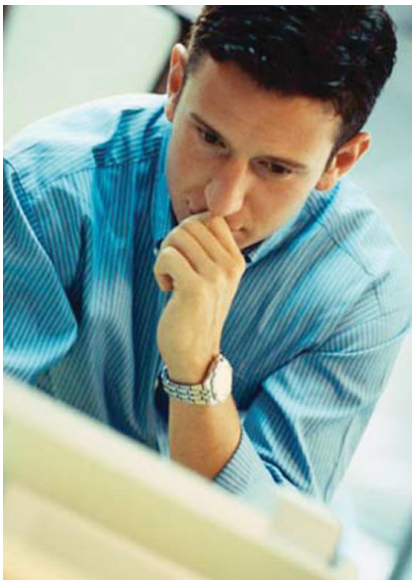
IBM System Storage™ ESRP-Storage Solutions for Microsoft Exchange and Unified Communications



Highlights

- *Help ensure interoperability for your Microsoft environments and optimize your IT infrastructure with proven Microsoft Exchange ESRP-tested solutions*
- *Enjoy best-of-breed solutions based on close collaboration with the Microsoft product teams*
- *Reduce complexity with IBM Information Infrastructure field-proven capabilities that help lower total cost of ownership*
- *Realize improved service levels, protect your data and help attain maximum value from your e-mail information*

Storage solutions for Microsoft Exchange production and archiving environments

As today's preferred business communication tool, email is mission-critical for most companies. Email access is expected 24x7 and volume is growing at an unprecedented rate, creating a sharp increase in storage capacity needs, administrative difficulties, and escalating information infrastructure costs. A majority of organizations trust Microsoft Exchange to deliver their mission-critical communication services.

With Exchange databases at the core of most organizations' critical operations, their rapid growth can impact productivity if the volume of data begins to degrade performance. So how can companies maximize email availability to ensure ongoing business productivity?

IBM provides outstanding System Storage solutions for Microsoft Exchange that help address today's customer challenges surrounding email production environments as well as archiving environments. Cost-effectively manage your growing Microsoft Exchange environments, help manage the growth of email databases, and potentially reduce your database size while improving application performance and availability. Simplify and consolidate infrastructure with ESRP-tested IBM System Storage.

IBM ESRP-tested System Storage

Microsoft's Exchange Solution Reviewed Program (ESRP)-Storage is designed to facilitate third-party storage testing and solution publishing for Microsoft Exchange Server 2003 and 2007 software. The program combines a storage testing harness (JetStress) with solution publishing guidelines. Test results are submitted and thoroughly reviewed by Microsoft prior to posting on Microsoft's as well as vendor websites.

IBM is a Microsoft Gold partner, and uses the ESRP framework to test and validate its storage solutions targeted to help optimize your Microsoft Exchange deployments. IBM has now completed ESRPs with DS3000, DS4000, DS5000, DS8000, N series, and SVC for varying size configurations and continues to participate in ESRP-Storage validations.

IBM was the very first vendor to complete an ESRP-Storage submission for Exchange 2007, and generated the first ESRP solution/sizing guide for Microsoft Exchange Server 2007 with IBM's System Storage DS4800 for an 8,000-user email environment. IBM has also tested a wide range of ESRPs using IBM's broad portfolio of storage systems with mail databases ranging from 1,000 mailboxes to over 80,000 mailboxes.

Uniquely designed for a Microsoft environment

Microsoft Exchange is mainly a transaction-oriented application using databases to store its messages and attachments. It is a client-server technology that requires high performance, low-latency storage systems to support its database and log files. According to Microsoft's Technet site, DAS and SAN storage are recommended for Exchange 2007, as well as NAS if using iSCSI or FC. Low-latency means that Exchange needs higher performance, faster spinning hard drives for faster data retrieval and storage.

For very large hosted or production Microsoft environments requiring the highest availability and performance, consider deploying DS8000 for your Microsoft Exchange applications. IBM also offers many solutions for Microsoft Exchange through its N series storage products for NAS or mixed environments.

With IBM's SAN Volume controller (SVC), customers can virtualize their Exchange storage environment. SVC combines the capacity of multiple disk storage controllers into a single storage resource. These disk controllers can be from many different vendor companies. From a single resource, operators can apply copy services across all the disk controllers in this resource, as well as perform point-in-time copies (FlashCopy) or replicate data using Metro Mirror or Global Mirror. SVC also has the ability to perform many tasks within the storage infrastructure using the data stored on the disk controllers – without disrupting the Exchange application. This capability is especially versatile during Microsoft 2003 to Microsoft 2007 upgrades. SVC helps reduce disk latency of back-end storage in Exchange environments via its large physical cache and intelligent caching algorithms.

New functionality within Exchange 2007 reduces the IOPS requirements of the Exchange platform using new 64-bit architectures, while optional features such as Unified Messaging, larger mailboxes, mobile devices, replication, and other features will drive additional storage IOPS and capacity. Reference the Exchange 2007 sizing tool for more information on these features: http://msexchangeteam.com/archive/2007/01/15/432207.aspx

Collaboration and the EEC

IBM works with Microsoft to develop complementary storage solutions that can help Microsoft and IBM customers realize significant benefit from their storage investment. Through ongoing participation in the ESRP, we help ensure comprehensive, program-approved, product feature support. Our ESRP submissions help to complete SMB or enterprise IT implementations, using Microsoft best practices guidelines and frameworks.

So how can a customer test how IBM storage functions in a controlled Microsoft environment? The **Enterprise Engineering Center (EEC)** on Microsoft's Redmond campus showcases the latest Microsoft technologies. The EEC improves quality, drives capabilities, and accelerates the adoption of Microsoft products by capturing and testing real customer scenarios prior to product release.

- IBM System Storage equipment is readily available within the EEC and customers are encouraged to use it to test their Exchange environments on IBM storage.
- The EEC provides enterprise customers with IT access and visibility in a vendor-agnostic environment, and it is fully supported and endorsed by Microsoft. IBM System Storage DS4000, DS6000, DS8000 and SVC storage systems are currently available at the EEC, and IBM continues to place new products.
- The EEC is available for customers to test Proof-of-Concepts (POCs), performance, perform problem resolution, or test large-scale deployment scenarios.

To engage the EEC for enterprise customer opportunities, send an email to askEEC@Microsoft.com.

Scalable and Available: Exchange 2007 and DS3000, DS4000 and DS5000

The IBM DS product line demonstrates outstanding horizontal and vertical scalability. JetStress tests demonstrate the performance and scalability of the DS entry and mid-range line, including large mailbox configurations over 55,000 users. The DS5000 storage system can scale up to 256 drives and support as many as 98,000 IOPS without degradation of IOPS. This linear scalability helps solve business needs such as increased company productivity and demand for email availability, and improved business continuity in the event of disasters.

Top Reasons to Consider IBM for your Exchange 2007 Infrastructure

1. With IBM, you have access to industry skills and many years of real-world experience in helping the Microsoft Exchange platform meet and exceed user expectations. IBM's consultants, through its Enterprise Services for Microsoft Technologies Practice service organization, provide a full range of services for customers who have selected Microsoft technology. They regularly meet with clients to better understand their requirements and help them achieve maximum levels of performance and information protection for Microsoft Exchange.

2. IBM was the very first vendor to complete an ESRP with Exchange 2007, and generated the first ESRP solution/sizing guide for Microsoft Exchange Server 2007. IBM System Storage has supplied Microsoft Exchange labs with enterprise storage since 2004 and helped pioneer Exchange storage calculation techniques.

3. Outstanding performance and scalability are demonstrated by ESRP-Storage as well as independent and objective non-profit Storage Performance Council SPC-1 tests. IBM System Storage technology undergoes extensive IBM and Microsoft testing and validation, offering high performance block-level storage.

4. IBM participates in major Microsoft initiatives and furnishes IBM storage to various Microsoft labs and the EEC for internal and customer testing and PoCs.

5. For the enterprise, IBM supports a wide variety of non-disruptive Exchange data protection solutions using Tivoli software, Symantec NetBackup and Backup Exec, Microsoft DPM, and CommVault software.

6. IBM uses a broad range of best practices materials for Microsoft Exchange environment implementation, tuning, availability, and data protection.

7. IBM offers many complementary solutions for the Exchange environment, including VSS-enabled backup and restore, disaster recovery, and archive solutions.

8. We offer one of the industry's lowest Total Cost of Ownership (TCO) results with our storage system packaging and always included functionality.

Why IBM?

The performance and availability of your storage environment can enhance your business processes and improve your total cost of ownership. IBM can help you address your Microsoft Exchange environment needs. IBM delivers:

- Unified storage and security management software
- Comprehensive tape, disk and network hardware
- Field-tested, integrated business solutions
- Deep and proven industry expertise
- Flexible financing

What is the IBM advantage? You get some of the best storage products, technologies, services and solutions for your Microsoft Exchange environment.

Table 1: IBM ESRP-Storage solutions for Exchange 2007
http://www-03.ibm.com/systems/storage/solutions/isv/index.html#microsoft

DS5300 – 55,000 mailboxes
DS4800 – 8,000 mailboxes (very first vendor submission - April 12, 2007)
DS4800 – 15,000 mailboxes
DS4700 – 8,000 mailboxes with Local Continuous Replication (LCR)
DS8100 – 24,000 mailboxes
DS8300 – 80,000 mailboxes with LCR
DS3200 – 2,000 mailboxes with LCR
DS3300 – 1,000 mailboxes with CCR
DS3400 – 3,000 1GB mailboxes
DS4200 – 4,000 1GB mailboxes
SAN Volume Controler (SVC) – 15,000-1GB mailboxes with DS8100
SVC – 40,000 mailboxes with SVC, DS8100 and DS4800
N5600 – 26,000 mailboxes with Fibre Channel
N3600 – 5,000 mailboxes with iSCSI

For more information

For more information, please contact your IBM representative or visit:

IBM System Storage ISV solutions, complementary storage solutions for Exchange	http://www-03.ibm.com/systems/storage/solutions/isv/index.html/#microsoft
IBM System Storage	http://www-03.ibm.com/systems/storage
IBM System Storage and TotalStorage products	http://www-03.ibm.com/systems/storage/product/i.html
Microsoft ESRP v2.1 (Exchange Server 2007)	http://technet.microsoft.com/en-us/exchange/bb412164.aspx
Microsoft ESRP v1.2 (Exchange Server 2003)	http://technet.microsoft.com/en-us/exchange/bb412165.aspx

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