

Hitachi Data Systems Helps Global Enterprises Gain Big Benefits from Microsoft® Exchange Server 2010



Meet the Storage Needs of Today's Enterprise with Hitachi Data Systems Solutions

In today's business world, email represents an ever-increasing portion of an enterprise's total data. This leads to ever-increasing demands on storage, especially as large organizations retain a growing number of email records indefinitely in order to comply with regulatory requirements and handle tougher email-related service level agreements.

Many organizations are deploying Microsoft Exchange Server 2010 to help manage their increasing email workloads. Hitachi Data Systems offers storage solutions that provide the predictability, scalability and flexibility required for Exchange 2010 environments. Hitachi Data Systems storage solutions fully embrace the latest Microsoft technologies, including database availability groups, and offer support for up to 10GB mailboxes with SAS and SATA disk drives.

The following success stories illustrate how Hitachi storage solutions for Exchange 2010 maximize the effectiveness of enterprise Exchange deployments while reducing complexities, costs and risks. These success stories represent a range of industries, including technology, financial services and government.

Global IT Organization Reduces TCO and Gains Scalability on Microsoft Exchange 2010 with Hitachi Modular Storage

Overview: Upgrade 165,000 Mailboxes in Multiple Locations

A leading global IT and consulting organization decided to upgrade from Microsoft Exchange 2007 to Microsoft Exchange 2010. This would allow administrators to leverage new features, such as Information Rights Management, and support 165,000 mailboxes in geographically distributed locations. Through its hardware refresh, the company wanted to meet the performance and capacity requirements of Exchange 2010, provide daily full backups to tape and achieve data center resiliency, all without considerable investment.

The customer considered several solutions to meet its growing needs, including just a bunch of disks (JBODs), the Microsoft Public Cloud and solutions from Dell and Hewlett-Packard. The IT organization's existing solutions from Hitachi Data Systems had suffered no downtime in five years. Ultimately, the company decided to implement the Hitachi Adaptable Modular Storage 2100 (AMS 2100) SAN solution at all locations. The company determined that the AMS 2100 provided the best combination of low total cost of ownership (TCO), complete reliability, simple deployment and management, dynamic provisioning, data protection and scalability.

Challenge: Support Growth and Keep Costs Low

The IT organization's primary challenge was to find a server and storage solution that would fully support its rapid and continued growth while keeping costs low. The IT

organization's mailbox size was doubling, and a new hardware infrastructure was essential to support 165,000 mailboxes in multiple locations around the world. With the move from Exchange 2007 to 2010, the IT organization sought a solution that could meet the performance and capacity requirements of Exchange 2010, while maintaining full resiliency.

The new architecture needed to provide redundancy across data centers and be simple to deploy, so the IT organization could quickly add new locations and thousands of new users. Another key challenge was to find a secure and reliable backup solution for Exchange 2010 that could provide daily full backups to tape.

Solution: Hitachi AMS 2100 and Hitachi Content Platform

After evaluating several alternatives, the IT organization chose to deploy the AMS 2100 SAN solution at every location. The AMS 2100 provides the ability to scale capacity to 118TB, performance to 400K IOPS and connectivity to 512 virtual server ports. In addition, the solution minimizes disruptions and risk with no single point of failure and mirrored cache with battery backup. After a simple, wizard-based installation and configuration, the AMS 2100 is now connected to two mailbox servers at every location.

Along with the support for traditional backup and recovery, Hitachi supports Fibre Channel tape libraries. The Hitachi solution also requires fewer database availability groups and reduces overall requirements to help keep costs low. The IT organization also integrated the Hitachi Content Platform in one location to support regulatory and

compliance long-term archives and a future e-discovery solution.

Results: Unprecedented Availability, Increased Scalability and Lower TCO

The AMS 2100 provides the features the IT organization was looking for, including low TCO, 99.999% availability, improved backup for service level agreements (SLAs), dynamic provisioning and scalability. The IT organization deployed the solution quickly and can now configure storage on demand from a single location.

The AMS 2100 also meets the increased capacity and performance requirements of Exchange 2010 and enables the IT organization to maintain resiliency without significantly increasing costs. In fact, the Hitachi Data Systems solution reduced the overall cost of mailboxes by up to 25% while doubling the mailbox size. When compared to the Microsoft Public Cloud (Exchange online) solution, the IT organization found that the AMS 2100 provides better security, control, user experience and TCO. The solution also provides a lower TCO than comparable JBOD solutions, with a smaller footprint, lower overhead, SAN-based backups and better manageability.

Leading Financial Services Firm Lowers Costs, Simplifies Management with Upgrade to Microsoft Exchange 2010 on Hitachi AMS 2500

Overview: Move to Exchange 2010 Simply and Cost-effectively

When a global leader in financial services decided to upgrade from its existing Microsoft Exchange 2003 solution to

From global IT and financial services to government organizations, Hitachi Data Systems helps enterprises in any industry get the most from Microsoft Exchange Server 2010.



Microsoft Exchange 2010, it considered several storage alternatives, including remaining with its existing provider. After performing a proof of concept (POC) at two sites, however, the financial firm realized that it could switch to Hitachi Adaptable Modular Storage 2500 and Hitachi Dynamic Replicator for less cost than upgrading with the incumbent storage provider. In fact, the Hitachi solution was so affordable, the firm was able to purchase enough equipment to support three years of anticipated growth, which will lead to the need for 64,000 mailboxes and 108TB of storage. In addition, the Hitachi solution provided better performance, enhanced reliability and improved functionality. It also allowed greater simplicity through native integration and dynamic balancing, tiering and distribution.

Challenge: Find a Solution that Integrates and Scales Easily

The financial firm was running Exchange 2003 on Network Appliance storage systems and wanted to upgrade to Exchange 2010. The primary challenge was to identify a storage solution that would integrate easily with Microsoft Windows® Server 2008 and Exchange 2010, and provide performance and capacity scalability for three years of anticipated growth. In addition, the solution needed to offer a low TCO, even as the financial firm doubled the number of mailboxes and rapidly increased its overall storage needs. The financial firm's Microsoft Exchange team also wanted the ability to manage and allocate their own storage, and they wanted to continue to have snapshot integration with Exchange that would allow them to control their own snapshots and replication.

Solution: Hitachi AMS 2500 and Hitachi Dynamic Replicator

After running a POC at two of its five data centers and comparing the Hitachi solution to the incumbent solution, the financial firm decided to switch to Hitachi AMS 2500. The company purchased seven Hitachi AMS systems in all, with two each at the two largest sites. Each site also received a pair of clustered Hitachi Dynamic Replicator management appliances and a pair of Brocade 1500 switches. The POC impressed the financial firm's Exchange team with a powerful display of performance, reliability and scalability, as well as functionality, including message-level



mailbox restore. The Hitachi solution enables the firm to perform recoveries and take snapshots at the local site, while still allowing Exchange to handle remote replications. Instead of performing snapshots at regular time frames, the Hitachi solution actually provides continuous data protection, in which every transaction is recorded, with the ability to fast-forward and/or rewind to any point in time. The firm also has the optional ability to back up one site from another site.

Results: Higher Performance, Lower Cost and Three Years of Anticipated Growth

The financial firm's projections included expanding to 64,000 mailboxes over the next three years for a total of 108TB. The firm found the entire Hitachi solution so economical that it purchased a solution large enough to cover its entire three-year projection. With multiple RAID, local, remote and other copies included, the entire shipment was for 600TB of storage. This solution's cost totals are less than an upgrade to the existing Network Appliance storage solution. The AMS 2500 provides all the features the firm was looking for, including low TCO, 99.999% data availability with no single point of failure and scalability up to 480 disk drives. And, thanks in part to thin provisioning, the Hitachi solution can support the company's anticipated growth without having to tear down the environment.

In addition to performance and reliability, the company was particularly impressed with the simplicity of the Hitachi Data Systems solution. In part thanks to Hitachi Dynamic Replicator, the solution is self-tuning, with "set it and forget it" functionality. The firm also benefits from dynamic balancing, tiering and distribution. Further, the solution offers native integration, meaning the company can integrate with Windows servers easily, and without adding costly additional technology. In addition, when it's time to scale, the financial firm can simply add AMS building blocks, with known performance and cost, without having to worry about other components in the storage system.

Government Agency Doubles Performance after Migrating to Microsoft Exchange 2010 with Hitachi AMS 2500 Systems

Overview: Consolidation Project Expands to Include Migration to Exchange 2010

A government agency needed to consolidate and move its data center from one location to another. The agency initially looked for a vendor that could provide the necessary performance and capacity to support the data migration for Microsoft Exchange 2003. Midway through the process, the agency's needs shifted, and a storage solution was required that would

integrate with Exchange 2010. Through the entire process, Hitachi Data Systems stood out from the competition. The Hitachi solution, including the Hitachi Adaptable Modular Storage 2500, doubled performance and, based on detailed five-year projections, provided the lowest TCO. Just as importantly, the Hitachi team worked closely with the agency to understand the shifting requirements and deliver a customized solution to meet the agency's current and future needs.

Challenge: Finding an Affordable Solution that Integrates with Exchange 2010

The agency's initial challenge was to consolidate a data center from one location to another. They also wanted to use a storage infrastructure model that would provide additional capacity to support workload migrations. Later, the project's complexity increased when the agency decided to upgrade from Exchange 2003 to Exchange 2010. The agency considered several vendor solutions to deliver improved performance over the existing EMC DMX solution with the lowest TCO. The agency also wanted a solution that would be easy to transfer to a new host location; this move was scheduled to happen within 24 months.

Solution: Hitachi AMS 2500 Storage Systems

After direct meetings with Microsoft's on-site Exchange 2010 architect and the systems integrator's architect, the superiority of the Hitachi Data Systems approach became apparent. Hitachi engineers gathered the details of the agency's requirements from these trusted advisors to the agency. With this level of understanding, the Hitachi team was able to quickly turn around quotes, develop a custom solution and provide the information the agency needed to make its final decision. As a result, the agency

implemented Hitachi AMS 2500 systems at both production and disaster recovery sites to support the migration from Exchange 2003 to 2010 and support Microsoft SQL Server®, Oracle, VMware, file shares and Microsoft Distributed File System (DFS). The ability to intermix Exchange 2010 with other applications, (a marked improvement over previous versions of Exchange) coupled with the ability of the AMS 2500 systems to service multiple workloads was a key contribution to the customer's price-to-performance model.

The agency is also considering the Hitachi archive solution. Along with the Hitachi AMS 2500, each storage system includes Hitachi ShadowImage® Replication in-system software, Hitachi Dynamic Provisioning, Hitachi Storage Navigator, Hitachi Command Suite, Hitachi Storage Capacity Reporter, powered by APTARE®, and disk retention option for a classified environment.

Results: Double the Performance, Lower Cost of Ownership

The combination of price, performance and outstanding service convinced the agency to choose Hitachi for its data center consolidation and Exchange 2010 migration. The Hitachi team worked closely with the agency as the scope of the project grew, ultimately creating a customized solution that delivered the lowest possible TCO. Weekly calls with the agency's IT team kept all parties on the same page throughout the successful installation.

The Hitachi AMS 2500 is a cost-effective solution that provides 99.999% data availability with no single point of failure, and Hitachi demonstrated five-year projections for costs that were vastly superior

to competitor offers. The consolidated, single-vendor solution also doubles performance over the previous solution. It is easy to manage and provides tight integration with Exchange 2010. In addition, when the agency makes its anticipated move to a new host for its Exchange applications, the transition will be much easier because the new host also runs its applications on Hitachi architecture.

Hitachi Data Systems Helps Enterprises in Any Industry Get the Most from Microsoft Exchange Server 2010

Hitachi Data Systems solutions for Microsoft Exchange 2010 are a smart choice for addressing the key business challenges of today's dynamic enterprise environment. Hitachi storage systems include the Hitachi Adaptable Modular Storage 2000 family. AMS 2000 family systems offer industry-leading capabilities, exceptional price performance and 99.999% availability, and with Hitachi Dynamic Provisioning software provide the essential characteristics for a highly resilient Exchange environment.

Hitachi Data Systems solutions for Exchange 2010 deliver the predictable performance and availability as well as the dynamic scalability and flexibility large global organizations need to achieve the most from their Exchange environment today, and as those needs evolve in the future.

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