

Hitachi Converged Platform for Microsoft® Exchange 2010



Hitachi Data Systems Delivers the First Converged Compute, Storage and Networking Solution for Microsoft Exchange 2010

Email is a mission-critical application for many enterprises, and organizations of all sizes rely on email as the main communications channel with customers, partners and colleagues. Microsoft Exchange Server 2010 is the cornerstone of many companies' communications systems, and the IT infrastructure that supports it must be resilient and stable, yet scalable and flexible. Hitachi Converged Platform for Microsoft Exchange 2010 is the first in a portfolio of pre-tested, application-optimized, converged data center solutions from Hitachi Data Systems.

Hitachi Converged Platform for Microsoft Exchange 2010 is engineered for rapid deployment and tightly integrated with powerful new features in Microsoft Exchange 2010 for resilience, predictable performance and seamless scalability. Supported by Hitachi Data Systems Global Solution Services and delivered in an easy-to-order, standardized package, Converged Platform is part of the growing portfolio of converged data center solutions that feature integrated Hitachi storage and servers along with standard networking components and management capabilities.

Hitachi solutions help you easily, cost-effectively and reliably build an infrastructure that is cloud-ready and that makes the most sense for your business. Ultimately, these solutions help transform data centers into automated information centers that closely align business objectives with infrastructure performance to optimize return on assets. You can quickly deploy optimized technologies with predictable, reliable and repeatable results. Or, if your business is considering Microsoft's public cloud email services, Converged Platform is designed to work with Exchange Online.

Hitachi Converged Platform for Microsoft® Exchange 2010 delivers predictable performance and availability as well as dynamic scalability and flexibility. It is not only the best solution to address today's email requirements, but it also supports positioning for what could be the email requirements of tomorrow.

As your email and communication needs expand, a well-designed IT environment provides predictable performance, continuous availability, dynamic scalability and flexibility. This enables your organization to achieve the most benefits from your Exchange environment. Hitachi Converged Platform for Microsoft Exchange 2010 maximizes speed of deployment, performance and availability of your Exchange email services while reducing complexities, costs and risks.

Converged Platform features enterprise-class hardware, with Hitachi Compute Blade 2000 and Hitachi Adaptable Modular Storage (AMS) 2000 family systems, software and services. Additionally, Hitachi Data Systems provides technical guides, best practices and checklists specifically for Exchange. These resources help size the optimal solution for your environment in addition to providing expert guidance for deployment, configuration and ongoing maintenance. The convergence of server, storage and network elements delivers significant advantages in deployment speed, performance, reliability and manageability that provide you with quantifiable results.

Considerations for Your Microsoft Exchange 2010 Environment

Regardless of the size of an organization, Microsoft Exchange administrators are constantly faced with shifting and adjusting resources to meet user and business requirements in a predictable and scalable manner. Or, they may request that their IT departments make adjustments on

their behalf. Capacity, performance and availability needs are often at odds with budget constraints, as well as each other; this requires careful balancing in order to meet data and application expectations. Shouldn't your IT infrastructure be as flexible and agile?

In engineering and developing the Hitachi Converged Platform for Microsoft Exchange 2010, we listened to our customer's needs and identified key questions to help us better identify their challenges:

Business and Executive Challenges

1. Are your Exchange applications not meeting performance and availability expectations?
2. Is your IT budget and head count for email services aligned with your actual expenditures?
3. Do your operating expenses (OPEX) increase as additional and more varied solutions have to be integrated, managed and maintained, without standards, and usually in parallel to legacy systems?
4. Do you need to deploy predictable, consistent Exchange environments on a global basis more quickly?
5. Are you unsure how to make the transition from the traditional data center of today to the cloud of tomorrow?

IT and Infrastructure Challenges

1. Does your current infrastructure support the performance and resilience required for your desired mailbox count, mailbox size and mailbox quotas as well as third-party remote mail clients?
2. Are your server, network and storage infrastructure easily scalable to manage email growth as your business grows?
3. Are reduced staff levels and shorter deployment time frames limiting your ability to address the demands associated with email growth?
4. Are you confident that you can measure and report on capital expenditure (CAPEX) and OPEX savings and that you are leveraging best-in-class virtualization and automation solutions?
5. Are you positioning your infrastructure to allow for easy and seamless evolution to a cloud or IT-as-a-service model in the future?

Hitachi Converged Platform for Microsoft Exchange 2010: The Best Choice for Scalable, Reliable and Highly Available Exchange 2010 Services

It can be difficult to design, deploy, manage and support Microsoft Exchange Server 2010 environments with hardware components from multiple vendors. This solution reduces the complexity of Exchange environments by using pre-packaged integrated servers and storage from Hitachi Data Systems.

An optimized and integrated unit, the Hitachi Data Systems solution offers triple-protected high-availability platform support with:

- Hitachi Compute Blade 2000 with automated failover and logical partitioning (LPAR)
- Hitachi Adaptable Modular Storage 2000 family with RAID-1+0 and Hitachi Dynamic Provisioning
- AMS 2000 family storage sizing tool for Exchange 2010
- Microsoft Exchange 2010 Database Availability Group (DAG)
- Enterprise scalability using a building block approach for up to 96K users
- Prevalidated reference architectures tested for performance and scalability
- Integrated server and storage sizing tool (will be added in the second half of 2011)

Effective implementation and management of Exchange 2010 environments calls for predictable, scalable and flexible solutions. Business demands predictable services, and for Exchange environments that means reliable performance and exceptional availability that is cost-effective.

Hitachi Data Systems is the only vendor offering a solution with all Hitachi infrastructure hardware and software. The converged database platform offered by Hitachi Data Systems can deliver cost-effective, high-performance computing with:

- Integrated components
- Solution assembly
- Technical assistance

This one-vendor offering simplifies support and minimizes support costs.

Delivering significant advantages in deployment speed, performance, reliability and

manageability, this convergence of server storage and network elements provides quantifiable results. This proven Hitachi solution is a preconfigured, optimized, integrated and ready-to-implement unit that:

- Leverages industry-leading Hitachi storage and server solutions
- Provides predictable and enterprise-grade reliability, availability and scalability
- Is pretested, optimized and validated with the entire set of ordered components
- Requires shorter cycles to design and implement (as a single-vendor solution)

Hitachi Converged Platform for Microsoft Exchange 2010 significantly reduces total cost of ownership by:

- Lowering operational and management costs with Hitachi virtualization and dynamic provisioning solutions

Hitachi Compute Blade 2000 offers:

- Balanced system architecture that eliminates bottlenecks in performance and throughput
- Embedded Hitachi LPAR virtualization
- Unprecedented configuration flexibility
- Eco-friendly power-saving features and capabilities
- Fast recovery from blade server failures due to N+1 cold standby design, which allows you to respond to failed servers within minutes instead of hours or days
- If hardware failure occurs, failover to standby blade is performed automatically
- Hardware-related information is transferred automatically over the blades during the failover with no need to change SAN/LAN configuration

- Highly intuitive management software that includes easy-to-use configuration and management utilities
- Ability to scale performance to more than 900K IOPS and to scale capacity to 472TB
- Seamless expansion due to data-in-place upgrades from AMS 2100 to AMS 2300 and to AMS 2500

Hitachi Converged Platform for Microsoft Exchange 2010 Positions Your IT Environment for the "Future in the Cloud"

Today, you need predictable, scalable and flexible solutions for Microsoft Exchange Server 2010 environment. But what will you need tomorrow? Will some or all of your corporate communications reside in a private or public cloud? Should you start to look at testing and



Hitachi Converged Platform for Microsoft® Exchange 2010 is a smart choice for addressing the key business challenges of today's dynamic enterprise environment.

- Lowering complexity with integrated package for ease of deployment
- Providing a single point of support for servers, storage and networking

Superior Performance and Reliability with Enterprise-class Platform: Hitachi Compute Blade 2000

Hitachi Compute Blade 2000 is an enterprise-class platform. This blade server features a balanced system architecture that eliminates bottlenecks in performance and throughput, offers embedded LPAR virtualization and supports unprecedented configuration flexibility. With its unique combination of power, efficiency and flexibility, you can now extend the benefits of virtualization to new areas of the enterprise data center. Virtualization can serve mission-critical application servers and database servers with minimal cost and maximum simplicity.

Hitachi Adaptable Modular Storage Offers Enterprise-class Performance and Resilience at a Midrange Price

Hitachi Adaptable Modular Storage 2000 family provides a reliable, flexible, scalable and cost-effective modular storage system for Exchange 2010. Hitachi AMS 2000 family delivers enterprise-class performance, capacity and functionality at a midrange price. The only midrange storage products with symmetric active-active controllers, AMS 2000 family systems provide integrated, automated, front-to-back-end I/O load balancing that is hardware-based. AMS 2000 family is flexible and scalable, and it features high availability.

Hitachi AMS 2000 family offers:

- Ability to add capacity, connectivity and performance as needed
- Dynamic load balancing controllers, which automatically ensure there will be no performance bottlenecks

validating Microsoft Exchange Online? How can you test and validate these new public cloud services without the cost of building entirely new redundant infrastructures?

The unique, embedded, Hitachi LPAR virtualization feature enables you to create secure, isolated parallel test environments within Hitachi Converged Platform for Microsoft Exchange 2010 solution. There is no requirement to build a separate dedicated infrastructure to test and validate the capabilities of public cloud offerings, such as Microsoft Exchange Online. Exchange Online is a cloud-based Exchange service based on Microsoft Exchange Server, and hosted directly by Microsoft in one of their global data centers. By leveraging the unique feature capabilities of the Converged Platform solution you can test and evaluate new public cloud offerings, such as Exchange Online, without the need to build a separate, physically isolated infrastructure. Additionally, by leveraging the coexisting support capabilities provided by Exchange Online, you can test and validate the viability

of these new cloud-based services with little risk and at minimal cost. Hitachi Converged Platform for Microsoft Exchange 2010 is not only the best solution to address today's email requirements, but it also supports positioning for what could be the email requirements of tomorrow.

Hitachi Data Systems Global Solution Services

Hitachi Data Systems Global Solution Services offers proven methodologies and a comprehensive Professional Services portfolio to help plan, implement and manage storage infrastructure. Our team of storage professionals also understands the latest in integrated solutions and related technologies and complex IT architectures, and takes a strategic approach to services by linking technology to business requirements. That means we can deliver a best fit, high-performance solution tailored to meet precise business needs.

For the Hitachi Converged Platform for Microsoft Exchange 2010, Global Solution Services provides best practices and knowledge on how best to design, plan and implement your storage infrastructure to optimize Exchange migrations and management. Hitachi Consulting provides a wide range of application services for Exchange environments, including assessments and readiness, architecture design, solution implementation and deployment.

Summary

Hitachi Converged Platform for Microsoft Exchange 2010 delivers 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.

If your business demands your Exchange email services to grow as the business grows, then the Converged Platform is the ideal solution. With a preconfigured, pretested and integrated solution support by the Hitachi world-class services and support organization, you get cost-effective, reliable, flexible and scalable solutions for your Exchange 2010 infrastructure. You can extend the benefits of virtualization with minimal cost and maximum simplicity, and achieve rapid recovery within minutes instead of hours or days.

Contact your Hitachi Data Systems Global Solution Services representative to develop a custom solution for your environment. They can bring in the appropriate resources from Hitachi Data Systems, Hitachi Consulting and our other partners to develop the right solution for you.



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