Reap the benefits of Microsoft® Exchange sooner with Dell solutions

Rich features, greater demand on IT infrastructure

In most organizations, email is the lifeblood that allows day-to-day business to take place. Increasingly, changes in the way email is used within organizations are having a profound impact on corporate infrastructures.

Today, users send and receive more email and thus need larger email boxes. This is placing new demands on the network that carries the messages and on storage systems, as the Exchange database grows to accommodate these messages and associated files.

Another factor impacting infrastructure is the need for 24/7 access to email. Fueled by the explosive use of mobile phones, tablets and smartphones, employees want and expect access to their email at all times. This places new demands on server availability, requiring more robust solutions that reduce planned downtime and eliminate unexpected outages.

Compounding matters, most organizations have not upgraded their Exchange environment in years and will need to consider an upgrade soon. Standard support from Microsoft for Exchange 2003 ended long ago, and Exchange 2010 supports virtualization and consolidation, the cornerstone to many organizations' cost saving efforts.

Exchange Server 2010 offers:

- Reduced deployment cost by addressing common infrastructure requirements such as backup, email archiving, mobile email access and voice mail with no need for third-party tools
- Simplified high availability and disaster recovery
- Easier administration and decreased dependence on the help desk through self-service capabilities for end users
- Greater mobility and flexible access via an enhanced universal inbox experience
- Decreased inbox overload and increased productivity with features that allow users to easily prioritize their communications
- Transformed voice mail, where users can receive their voice mail messages in their inbox with text preview

With these changes, the implications of a move to Exchange 2010 for those currently running Exchange 2007, Exchange 2003 or earlier versions can be enormous. Elements of Exchange, particularly features related to high availability, have evolved significantly with each new version. And newer versions of Exchange allow organizations to accommodate larger individual mailbox sizes.

As a result, organizations need to evaluate their current Exchange infrastructure and deploy systems that will accommodate today's requirements while providing the base to support future upgrades.

Building the optimal environment for Exchange Server 2010

To run Exchange Server, companies need high-performance servers, scalable storage solutions with suitable I/O and networking elements that deliver the needed performance to ensure business operations centered on email run without interruption.

The infrastructure used to run Exchange must offer high-availability features (HA) to ensure access to email during planned maintenance and eliminate downtime from unplanned outages. Technologies needed to meet these requirements include hot-swappable, redundant power supplies; automatic failover in the event of a server crash; RAID and other storage technologies to ensure no data is lost when a drive crashes; and management tools to keep the servers running and to optimize performance.

Furthermore, elements of the infrastructure must be selected so that built-in features and capabilities of Exchange Server are complemented, not duplicated. In particular, Exchange 2003 introduced Recovery Storage Groups and enhanced message journaling to help meet recovery and compliance needs. With Exchange 2007 came new HA features.

Exchange 2010 removed previous HA solutions in favor of Database Availability Groups (DAGs). All of these capabilities offer benefits (such as reduced storage management requirements), if the storage solution complements, rather than duplicates, these features.

Dell, which has partnered with Microsoft for more than two decades, is uniquely positioned to create systems that extract the most value for Exchange users. By working so closely with Microsoft, Dell has unique insight into Exchange. This awareness empowers Dell to tap every facet of Microsoft's platform through technologies and

services. From servers to networking, from a wide range of storage technologies to an end-to-end menu of services, Dell uses its assets to help make Exchange perform at maximum capacity.

System

To leverage the array of features and capabilities within Exchange 2010, organizations should upgrade their existing infrastructures, starting with the installation of high-performance servers that have been optimized for this powerful platform.

Specifically, Exchange delivers the most efficiencies and capabilities when it operates on high-performing CPUs that support large memory, internal storage architecture and network infrastructure. Dell has invested extensively in defining reference architectures and repeatable consulting services for Exchange, which combine to reduce the risk, cost and time to organizations' successful implementations.

The heart of Dell's Exchange offerings is its PowerEdge™ 12th generation servers, based on Intel® Xeon® processors. To meet the performance requirements in an Exchange environment, Dell servers provide new efficiencies in their RAID controllers and I/O technologies, plus new memory architectures that support high performance.

Addressing the need to manage Exchange's large databases, Dell PowerEdge servers include up to 24 hard drives for data storage, plus two more internal HDDs for operating system and management needs. For smooth integration with archival storage devices, PowerEdge servers include updated PowerEdge RAID Controller (PERC) cards, with third-generation PCI Express slots for maximum bandwidth, speed and expandability. These improved interfaces and high-capacity memory capabilities enable a smooth scale-up path for even the most demanding environments.

Storage

To complement the capabilities of the PowerEdge 12th generation servers, Dell offers storage solutions from its Compellent™, EqualLogic™ and PowerVault™ lines. This choice gives companies the flexibility to select a storage solution that delivers the desired features, technology and price points.

The Compellent line, for example, brings flexibility and multi-protocol connectivity through its NAS, Fibre Channel, Fibre Channel over Ethernet (FCoE) and iSCSI solutions. EqualLogic offers easy-to-implement, scalable, virtualized iSCSI storage. The Dell PowerVault storage products deliver entry-level storage arrays, high-availability NAS, tape, backup to disk appliances and direct-attached storage arrays.

Solution engineering

Companies that are purchasing or upgrading their infrastructure solutions need reliable, fast and secure equipment that installs quickly and scales effortlessly. Dell delivers on all of these customer-cited criteria, with custom designed and pre-configured solutions for Exchange, delivered and installed by expert service representatives.

Dell is renowned for its service and support offerings, delivering complete solutions that comprise hardware and software, pre-integrating and pre-loading them with all needed images. Dell manages installation, training and maintenance throughout the deployment. With a single point of contact for the entire Exchange solution, companies enjoy smooth deployments that are not hampered by finger-pointing and integration conflicts.

From gap analysis and needs assessments through design consultation, configuration, rollout, training and maintenance, Dell's experts are with your company every step of the way.

As part of its deep, ongoing relationship with Microsoft, Dell has a dedicated team of engineers that specialize in Exchange. These engineers provide customers with sizing guidance, offering tested and validated configurations, best practices guides, white papers and an advisor tool. Their priority: to equip organizations with the best-suited Exchange solution to match their needs.

To simplify matters for many organizations, Dell solution engineers have developed three models for deploying Exchange that correspond to some fairly common scenarios. These models include:

- The simple, distributed model: This model offers a simple architecture with direct-attached storage optimized for Exchange with high-availability options that are very cost effective.
- The agile, consolidated model: This model maximizes compute resources, makes use of consolidated storage and supports virtualization of Exchange. It features flexible options for deploying Exchange resources and centralized administration and is optimized for the data center.
- The small/branch office model: This model offers cost-effective high availability by using internal server storage. It is recommended for organizations with fewer than 500 mailboxes.

Combining the cost benefits of low energy consumption, virtualization, centralized management and ongoing consultative relationships, Dell delivers a compelling return on data center hardware and software investments.

Dell can assess your current infrastructure and deliver a plan to simplify your migration and reduce operating cost. As part of that plan, Dell can identify opportunities to virtualize an Exchange environment or move email and calendaring to the cloud.

Dell can prioritize needs and map them to a set of recommendations on email security, business continuity, retention and compliance, and unified communications. And as changes are implemented, Dell can educate and provide support to internal teams to maintain smooth, stable operations.

If preferred, Dell can even host an organization's email services using hassle- and risk-free software-as-a-service (SaaS) solutions. Dell's comprehensive suite of cloud-delivered solutions, Dell Email Management Services (EMS), is designed to help organizations solve virtually all email challenges—from preventing downtime to fighting spam and viruses. Even better, EMS requires no infrastructure to purchase or maintain.
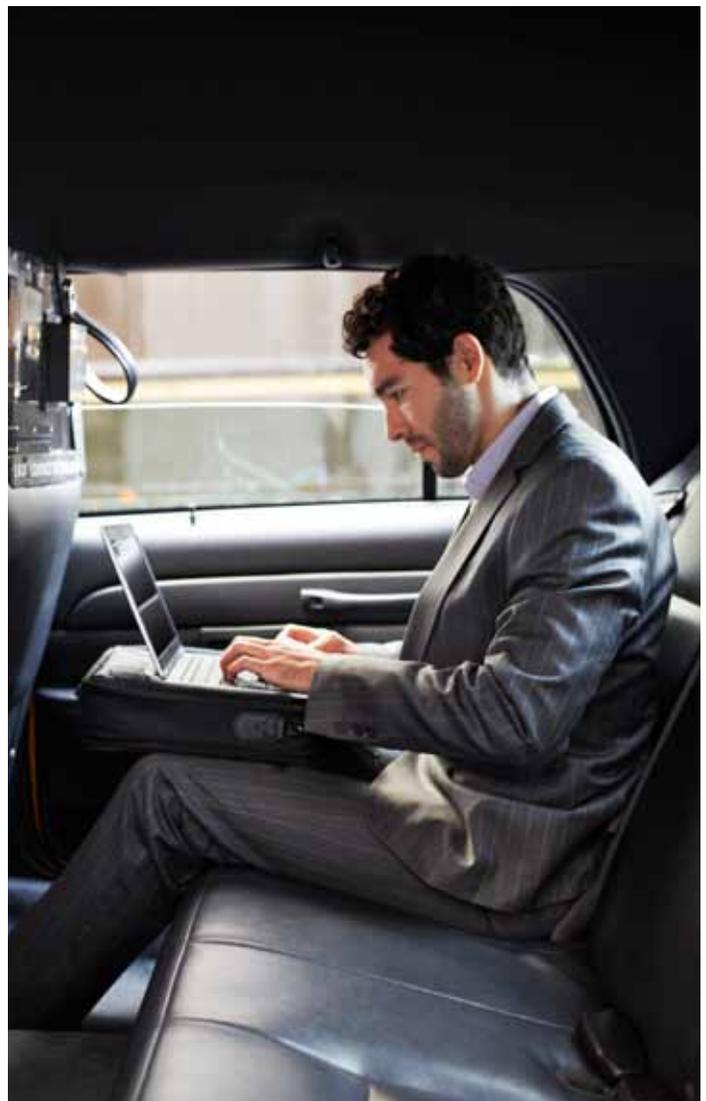
Services

To support Dell and Exchange deployments, Dell Services operates a flexible Global Delivery Model, which enables optimized skill and resource distribution, blended between locations in-country and off-shore, and specifically tailored to organizations' individual needs.

This highly trained group of professionals provides advice and support services to ensure Exchange success for maximum collaboration and ROI.

In addition, Dell's direct-supply model meets organizations' product-supply needs efficiently, sending high-performing servers, pre-installed with Exchange, to company sites. Dell supplies the entire solution, including networking, storage and PCs, so organizations can get their new Exchange 2010 solutions up and running quickly.

Dell has the servers and infrastructure hardware, the software platforms and the expert service that today's companies need to reap the real benefits of Exchange 2010.

To learn more, please contact your sales representative today or visit Dell.com/Exchange