

FIVE ESSENTIAL CONSIDERATIONS FOR EXCHANGE 2007® IMPLEMENTATIONS

WHITE PAPER

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As the latest release of the most commonly used corporate email platform, Exchange 2007 represents the future of email. By the end of 2008, 50% of organizations that use Exchange are expected to move to Exchange 2007¹.

For most organizations, taking full advantage of Exchange 2007's new features will require a substantial investment. Unlike previous upgrades, Exchange 2007 requires the replacement of existing servers with new 64-bit hardware and software. In addition, new options for high availability and new server roles will require many organizations to re-architect their entire Exchange environment and this can be expensive to implement.

While Exchange 2007 provides a solid foundation for corporate email, it has minimal support for many of the security, high availability, archiving, and compliance features that many organizations now require. As a result, administrators should leverage the Exchange 2007 upgrade to re-architect their broader messaging environment to incorporate solutions that address these important issues.

There are five essential considerations administrators should address while planning for any Exchange 2007 migration:

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1 Determine If Exchange 2007 Needs Additional Functionality To Meet Your Needs

Though Microsoft Exchange Server 2007 has added many features including managed folder options and new high availability (HA) technology, many customers may have messaging and archiving needs that are not fully met with standard features.

For example, Exchange Server 2007 either lacks or has limited capabilities for the following:

- The ability to set, secure, or easily manage granular message retention and deletion rules. Exchange Server 2007 requires that customers purchase Managed Custom Folders at double the price of standard Client Access Licenses and this option still only provides the ability to set rules based on message type or user list.
- The ability to place legal holds on selected mailboxes to prevent the destruction of messages.
- Storage Management capabilities to reduce data store sizes or improve backup, recovery, and maintenance window times.
- The ability to execute finely tuned searches for messages, and/or attachments across multiple mailboxes.
- End user search and recovery of deleted or lost messages and attachments.
- Continuity services that protect against site outages, infrastructure problems, and resulting data loss; Active Directory® problems, and configuration errors.
- Email recovery services that protect against message loss in the event of database corruption.
- Wireless device continuity services that protect against BlackBerry® downtime during Exchange, Active Directory, and infrastructure outages.

Many organizations—such as U.S. companies regulated under Sarbanes-Oxley or with active litigation subject to the Federal Rules of Civil Procedure—consider these archive, compliance, and disaster recovery capabilities to be essential email requirements. As a result, many companies will deploy Exchange 2007 with a complementary email archive, storage management, and continuity service.

Tip Formally review your organizational requirements against built-in Exchange 2007 features.

¹Osterman Research, 2007, "Enterprising Messaging Server Trends, 2007-2010."

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2 Determine If Exchange 2007 Meets Your High-availability Needs

The tolerance for lost email during system outages continues to diminish. Osterman Research reports that over a third of large organizations surveyed would find the loss of more than five minutes of email a year unacceptable². While your organization may not have availability needs this demanding, there are solutions that can inexpensively provide this level of protection.

Exchange 2007 provides four models for high availability:

- **LCR (Local Continuous Replication)** – Replication of local email storage, but not the server, to protect against a drive failure.
- **SCC (Single Copy Cluster)** – Enables a cluster with shared storage.
- **CCR (Cluster Continuous Replication)** – Replication of email to a clustered server (typically in the same data center) to reduce outages from local infrastructure failures.
- **SCR (Standby Continuous Replication)** – Allows email data to be replicated to one or more remote servers that are not clustered to reduce outages from local infrastructure failures.

Organizations that want to help ensure email outages never last more than 24 hours will likely consider deploying Exchange 2007 with CCR or SCR across multiple sites. While protecting against many common outage types, expenses for these architectures can add up rapidly for larger organizations with multiple sites.

Unfortunately, the three Exchange 2007 high availability (HA) deployments that protect against mailbox server outages require expensive enterprise Exchange server licenses along with redundant hardware and storage. Despite the high level of investment, none of these HA options fully protect against Active Directory outages, Exchange configuration errors, corrupt logs and other problems that affect the global messaging environment.

For these reasons, some organizations will bypass the native Exchange 2007 clustering options for an Exchange 2007-ready email continuity service. Continuity services like Dell Email Management Services can provide comprehensive protection against outages by seamlessly switching users to a back-up email service in minutes. These services can be added at a fraction of the fully burdened cost of CCR or SCR. Why settle for the less than total HA email protection offered by SCR and CCR when a hosted continuity, archiving, security, storage management and e-discovery service provides comprehensive coverage, more value, and reduced maintenance and oversight – all at a lower cost than the fully burdened cost of a native Exchange 2007 replication architecture.



Make sure that your Exchange 2007 architecture provides adequate protection against outages and data loss to meet your needs. Avoid settling for less than full email protection and closely examine the total cost of ownership of your high availability architecture.

²Osterman Research, 2007, Survey commissioned by MessageOne.

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3 The Best Exchange 2007 Architecture Is The Simplest One That Meets Your Needs

Simplicity begets reliability. Many email system architects have learned that as increasingly sophisticated systems are incorporated to improve email reliability, the complexity of configuring and maintaining these systems has resulted in errors that cause the very system outages they were added to prevent.

Now, many organizations are considering migration to a simplified Exchange 2007 architecture with direct attached storage, local replication and simple disk or tape short-term backup. By complementing the archive with managed services for continuity, recovery, security, and archiving, organizations can improve reliability, help eliminate the risk of data loss, and improve security and compliance while reducing costs and complexity. This can achieve the ease of management, efficient and easily searched data store and comprehensive protection of a managed service, with the economies afforded by the built-in functionality of Exchange 2007 to optimize TCO.

Tip Strive to minimize complexity in your Exchange 2007 design to lower costs and increase reliability.

4 Multiple Data Copies Can Cause Compliance Problems And Increase Costs

Data stores continue to get much larger. Many companies are compounding this trend by storing as many as five copies of data in disparate systems; copies for tape back-up, copies as replicates for recovery/availability, and copies for e-discovery and archiving. Exchange 2007 addresses this growth by increasing the number of servers that can be reliably included in the email system, however, much more can be done.

Attachments make up the bulk of most data stores and an archiving system with storage management features to stub off attachments and keep only a single copy can reduce data stores by as much as 80%. This concept of a single storage instance can be extended to the architecture as a whole with integrated messaging services that store only a single document copy for use by archiving, storage management, recovery, and continuity systems. The single storage instance concept saves much more than just storage costs. Multiple copies make compliance with retention and deletion policies difficult to manage, can make e-discovery for litigation expensive and unreliable, and add complexity to the daily maintenance routine.

Tip Help save money and reduce complexity by making sure that your Exchange 2007 system architecture minimizes the number of stored copies of email and attachments.

5 Formally Review The Tradeoffs Between In-house And Managed Service Solutions

When it comes to important capabilities like disaster recovery, spam and virus filtering, and compliance-focused archiving,

managed services provide unique benefits to companies of all sizes. For email continuity and disaster recovery, it makes sense to utilize off-site solutions that have no dependency on your organizations internal infrastructure. For security, it makes sense to eliminate spam and viruses at the perimeter before they utilize your organizations bandwidth and server capacity. For archiving, it is often important to have a 3rd-party custodian who can certify the integrity of the message archive in the event of a lawsuit or compliance investigation.

Today, many organizations have adopted email management services for security, continuity, and archiving to close the gaps in their messaging environment. With the adoption of Exchange 2007, many organizations are looking more closely at these services to improve reliability, add missing features, and lower total cost of ownership.

Tip Carefully consider your company's messaging needs against the service delivery method. Take advantage of both the in-house and managed service benefits.

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Dell Email Management Services (EMS™) completes Exchange 2007

For CIOs and email administrators, email continues to be a no-win proposition fraught with risk. Exchange 2007 will help reduce these risks but will fall short for many organizations desiring to:

- Easily implement message retention policies.
- Quickly and easily find required messages for legal, HR, or compliance purposes.
- Prevent email & BlackBerry* from ever going down.
- Effectively eliminate email data loss windows between nightly backups.
- Control the growing size of email data stores.
- Block new types of spam and viruses.

While piecemeal solutions exist to solve many of these problems individually, the result may be complicated, expensive, and difficult to manage and maintain. Dell Email Management Services (EMS) addresses all of these concerns in a single, simple service. Dell EMS completes Exchange 2007 to help eliminate email downtime and data loss in the primary environment while delivering the many benefits of email archiving. Adding Dell EMS to Exchange 2007 results in:

- Efficient retention policy management.
- Comprehensive protection for users from email downtime.
- Instant E-discovery for email and attachments.
- Significantly reduced storage costs yet increased user mailbox sizes.
- Protection during the Exchange 2007 migration.
- A cost-efficient architecture to achieve most companies messaging needs.

As a managed service that fully integrates with Active Directory® and Microsoft Outlook®, Dell EMS combined with Exchange 2007 helps enable a new email architecture that can be deployed in a day, can reduce downtime, reduces the risk of data loss, and shrink maintenance, backup, and recovery times. To this add world-class spam and virus protection, easy-to-use, finely-tuned,

e-Discovery features, true granular retention policy management – all at lower costs than implementing just the native HA (CCR or SCR) of Exchange 2007. It is easy to see why Dell EMS has been the choice of hundreds of companies.

For most organizations, Dell EMS completes Exchange 2007. Dell is available to help make your messaging goals a reality.

CONTACT DELL TODAY

For additional information including pricing and a free demo, please visit www.dell.com/modularservices

* BlackBerry Wireless Continuity is dependent on the availability of the customer's BES server.

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