

Microsoft's Exchange 2007 Could Set the Future for E-Mail

26 September 2006

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Source: Research

Note Number: G00143200

The release of Exchange 2007, Microsoft's new e-mail system, will have broad implications for the overall e-mail market and may offer Microsoft the potential to usher in a new era of converged communication technologies.

Overview

Microsoft Exchange has about half of the market for corporate e-mail seats, with share expected to grow steadily through the end of the decade. For that reason alone, a new version of Exchange has the potential to set the direction for the e-mail market. While, as expected, this new release (due 1Q07 and called Exchange 2007) improves management, bumps scalability and adds security elements, the real news is that Microsoft is changing the core notion of what services an e-mail system provides.

Key Findings

- **Unified communications.** With the inclusion of voice mail and fax capabilities, as well as integration with the voice components of Office Communications Server (OCS), Exchange 2007 moves from e-mail-only services to support for a broad spectrum of communication technologies.
- **Expansion of access mechanisms.** Exchange 2007's Direct Push mobile e-mail services, improved browser access, and voice interfaces to e-mail and calendar services will broadly expand the availability of rich e-mail services.
- **Message control.** Driven by an increase in regulations, and concerns over e-mail abuse and more aggressive record management programs, Exchange 2007 will add facilities for greater control of e-mail by allowing all messages (outbound or inbound) to be interrogated prior to delivery.
- **Hosted messaging services.** Some license options for Exchange 2007 include use of Microsoft-hosted, Internet-based spam and virus filtering services. Other Microsoft e-mail hosting services such as continuity, archiving and encryption are also available.

Predictions

- Volume adoption of Exchange 2007 will begin in earnest in 2008, with the installed base reaching 40% in 2010 (0.7 probability).

Recommendations

- Via Exchange and Hotmail/MSN, Microsoft has more influence on the e-mail market and, consequently, the unified communications market, than any other vendor. Organizations must coordinate relevant Exchange plans with overall investments in collaboration and communication technologies, including voice.
 - Organizations should also coordinate communication investments — such as e-mail and voice — with overall infrastructure plans, including databases, directories, portals, management services and development methodologies.
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The corporate e-mail market has been relatively stable for the past few years, characterized by steady expansion of Exchange at the expense of Novell and IBM Lotus Domino. We expect this trend to continue. One possible destabilizing dynamic is the ascent of an emerging crop of vendors — such as Scalix, PostPath, Mirapoint and Zimbra — selling browser-based Ajax clients running against Linux backends, which offer lower ownership costs and optimized browser-based clients and, in some cases, open-source options. But we do not believe these vendors will compete head-to-head against Microsoft for its core constituency of knowledge workers; they are more likely to be installed for workers that have less-sophisticated messaging needs or are from developing nations. Another possible threat to the established order is the movement of public portal sites (such as Google) into commercial mail services (see below).

While we believe these factors will have some impact on overall e-mail market dynamics, any substantial change to the current status quo will not be encountered until the end of the decade.

Despite the market momentum of Exchange, no organization should make such a strategic upgrade without considering whether Microsoft is the right long-term supplier of the enterprise e-mail system. For the most part, Exchange is appropriate given aggressive investments in other Microsoft products such as Active Directory, Office, SQL Server, Windows and Operations Manager. These, when combined, result in higher levels of functionality and infrastructure reuse. Two examples demonstrate where Exchange might not be the best fit.

- Companies making significant investments in IBM infrastructure, such as WebSphere (application and/or portal server), DB2, Tivoli (directory and management) and Java development may find that that Domino is a better long-term fit. Likewise, Domino shops with strong investments in a .NET infrastructure may be better off aligning with Exchange.
- Organizations that do not have the need for rich e-mail and calendar functionality can save more than half the total expenditure of a typical Exchange system (\$10 per user per month vs. \$5 per user per month on a three-year total cost of ownership [TCO] model) by running a commercial, standards-based e-mail package, which can often use Outlook as a client via IMAP or a MAPI plug-in.

However, organizations must couple decisions about e-mail with long-term collaboration and communication plans; incorporating, for example, instant messaging, Web conferencing, teamware and voice over IP (VoIP) services into a unified strategy. In addition, any consideration to migrate from one vendor to another should factor in migration costs, which we estimate to be around \$200 per person; with half that sum coming from capital investments (for example, new servers, licenses, third-party tools and migration utilities) and the other half coming from personnel costs, such as planning, deployment and migration activities.

1.0 Impact on the Third-Party Community [\[return to Table of Contents\]](#)

One factor driving the evolution of Exchange is the need for revenue growth. Exchange is a \$1 billion plus business, and its growth target is generally 15% to 18% annually. We believe the e-mail market as a whole is growing at 10% a year, and conversions from GroupWise and Domino, while happening at a steady pace, take time. Therefore, the Exchange team has to look for other opportunities to increase revenue, and has been eyeing with envy the vast third-party community that has grown up around e-mail.

Areas of incursion into the third-party market via Exchange 2007 are:

- On-premises and hosted virus and spam blocking services, which challenge those from on-premises vendors such as Trend Micro, Symantec, IronPort Systems, Secure Computing, and hosted vendors like Postini and MessageLabs.
- Archiving and compliance capabilities, which challenge offerings from vendors such as Computer Associates, Symantec and EMC.

- Voice-mail services challenging services from vendors such as Avaya, Siemens, Nortel Networks and Cisco Systems.
- Disaster recovery software, which challenges products from vendors such as Double-Take Software and CA.
- Wireless mobile e-mail services — originally introduced in Exchange 2003 SP2, but improved in 2007 — are a direct challenge to the offerings of the RIM/BlackBerry franchise, and other services such as those from Good Technology and Nokia-Intellisync.

It will be several years before Exchange 2007 has a large impact on the third-party community, because companies will be slow to ditch incumbent vendors, and may hesitate to rely on Microsoft for security and hygiene services. In addition, some of the disciplines Microsoft is targeting — such as compliance and unified messaging — are just at the beginning of their growth curves. Volume adoption will begin in earnest in 2008, with the installed base reaching 40% in 2010 (0.7 probability). A breakdown, by version, of the current installed base (which comprises approximately 150 million commercial users) is estimated to be: version 5.5 — 20%, version 2000 — 40% and version 2003 — 40% (see Table 1).

Nonetheless, by the end of the decade, we expect Microsoft's expansion in the e-mail market to have made a significant impact on the third-party community. Opportunities will still abound for value-added services, but many independent software vendors will have to rethink their core value proposition.

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Table 1. Exchange Life Cycle						
Version	Release Date	SP1	SP2	SP3	Support End	Extended Support End
5.5	November 1997	July 1998	December 1998	September 1999	December 2003	January 2006
2000	October 2000	July 2001	December 2001	August 2002	January 2006	January 2011
2003	October 2003	May 2004	October 2005	x	September 2008	October 2013
2007	January 2007 (est.)	September 2007 (est.)	December 2008 (est.)	x	January 2012 (est.)	January 2017 (est.)

Source: Gartner (September 2006)

2.0 Packaging and Pricing [\[return to Table of Contents\]](#)

Some new Exchange 2007 features will be included in the standard client access license (CAL), but, for the first time, Microsoft is bifurcating its CAL structure into two tiers: the standard CAL fee, which is unchanged from Exchange 2003 and an enterprise CAL, which adds voice mail, fax-receiving, text-to-speech and speech-to-text interfaces; advanced compliance capabilities; and hosted virus and spam filtering services. Microsoft will continue to sell standard and

enterprise editions of the Exchange server. Microsoft has not released pricing for the enterprise CAL, but we expect it to be double the cost of a standard CAL license. The installed base of Exchange 2007 licenses will comprise 75% standard and 25% enterprise editions by YE09.

Assuming that an organization uses all services in the enterprise CAL and decommissions existing suppliers, preliminary calculations determine that TCO savings may result. Factors worth considering in any financial calculations are:

1. Will the Microsoft services be the equivalent of existing third-party services?
2. What are the fully loaded costs of decommissioning existing software?
3. What are the planning and deployment costs associated with rolling out the new Microsoft services? The Microsoft voice-mail features, for example, are likely to require consulting/implementation services.

3.0 Architecture and Platforms [\[return to Table of Contents\]](#)

Exchange 2007 will run only on 64-bit platforms. The growing performance demands of e-mail systems — specifically, the need for more storage at lower cost, additional Exchange services (such as mobile and voice support) and server consolidation — makes the shift to 64-bit platforms inevitable. This shift will extend Exchange's scalability by allowing the server to leverage much larger physical memory, thereby improving performance and reliability. The change will not have any real impact on Microsoft's client-side products or its other related servers, which will continue to be based on the traditional 32-bit Windows platform.

The change will make a typical migration to the Exchange version slower and more complex. Enterprises will need to validate their readiness to deploy and support Windows Server 2003 x64 within their production environments. This will require an understanding of the subtle differences between the operating systems, as well as validation of hardware support (for example, driver updates) and third-party management and support tools. Many enterprises have begun to experiment with Windows Server 2003 x64 for certain focused services (notably SQL Server and Terminal Services), but few have certified it for broad deployment internally. The Microsoft announcement will raise the priority of this validation work.

We expect most organizations to deploy mixed Exchange 2000/2003 and Exchange 2007 topologies at first, to avoid wholesale server replacements — for example, upgrading performance-intensive mailbox and front-end servers to Exchange 2007, but leaving public-folder, relay and bridgehead servers on older versions. Microsoft is likely to offer a list of supported mixed-mode topologies to ensure the integrity of e-mail infrastructure.

We believe the performance improvements made possible by this change justify any migration problems it will introduce. Exchange bottlenecks typically revolve around disk I/O performance, and Microsoft says test results show disk I/O improvements of up to 70% due to larger cache sizes. But the change will be less popular with small and midsize businesses, which have fewer demands for additional performance and are typically wary of server upgrades.

4.0 E-Mail Hygiene Hosting Services [\[return to Table of Contents\]](#)

In 2005, Microsoft acquired FrontBridge Technologies, a leading e-mail hygiene hosting company that provides spam and virus filtering. For the Exchange business unit, this acquisition represented an opportunity to generate new revenue streams. It also enables the Exchange team to move into new hygiene areas, such as disaster recovery (via FrontBridge's mail-spooling and mailbox-mirroring technology) and regulatory compliance and archiving (from FrontBridge's SEC 17a-3 and 17a-4 compliance service, which it acquired from MessageRite). By offering hosted services as part of the enterprise CAL, Microsoft will expand the visibility and overall market share for hosted e-mail services.

5.0 Exchange and Unified Communications [\[return to Table of Contents\]](#)

In 2006, Microsoft merged its real-time communications team — responsible for instant messaging, VoIP and Web conferencing — with the Exchange unit, effectively setting the stage for moving into converged communications. From an Exchange perspective, the big converged communications push is with voice-mail and voice-interface services. While the ability to have voice messages and faxes routed into e-mail has been available for years from traditional PBX suppliers such as Avaya, Nortel and Siemens, market penetration has stubbornly remained well below 10%.

Microsoft's current approach is to leave the PBX in place, install a third-party VoIP gateway between the PBX and e-mail system (it can also work natively with an IP-PBX). Voice messages are then attached in a .wma file and routed to a user's in-box. Users click on the message and have it played on the PC or they can route it directly to an alternative device such as a cell phone. Once implemented, this feature has proven to be exceedingly popular with users, who rarely have to interact directly with the legacy voice-mail system again. We believe integrating voice mail with e-mail creates business efficiencies via common access and command services, and that it will become a cornerstone of the unified communication and collaboration movement.

Exchange 2007 also enables users to interact with e-mail and calendar services over the phone. For example, users can dial into the Exchange server and request that their messages or calendar appointments be read to them via a text-to-speech conversion unit. They can also issue commands; for instance, a command to inform meeting participants that the leader will be late, kicks off a series of e-mail notifications to attendees.

While this feature clearly has appeal, we believe uptake will be slow due to a lack of perceived need and a moderate learning curve for most users. Initially, it is likely to be exploited only by tech-savvy and gadget-happy "road warriors." Also, given past history, this interaction mechanism may be one of the least mature Exchange 2007 components.

While development plans for Live Communications Server 2007 and Exchange 2007 were too far advanced for the merger of the two business units to have much impact, some Exchange voice services integration with Office Communication Server (OCS) (the new name for Live Communication Server) is possible. Abilities/features include:

- Having OCS route inbound calls to an OCS-controlled endpoint (for example, Office Communicator).

- Enabling Exchange to answer calls for OCS users who are not available or do not answer.
- Allowing Office Communicator users to access Exchange 2007 voice messages.
- Creating set-up and administration efficiencies for the LCS/Exchange 2007 deployments.

It will take several years for Microsoft's voice services to be broadly deployed, but, ultimately, we believe Exchange/Outlook will replace incumbent voice-mail suppliers in at least 25% of the Exchanges shops, with over 5,000 users. Initial penetration will come from smaller, undeveloped accounts. Most organizations, however, will only shift to Microsoft voice-mail services when replacing aging systems, as opposed to swapping out working systems.

6.0 Other Significant Exchange 2007 Features and Changes [\[return to Table of Contents\]](#)

Push e-mail. Microsoft added push e-mail services for mobile devices in Exchange 2003 SP2, but Exchange 2007 includes other features such as device- and server-based search, improved meeting request handling, support for HTML messages, message flagging and self-service remote device wipe (see "Microsoft Direct Push for Wireless E-Mail: A Work in Progress").

Exchange push e-mail services are a good option for large deployments across an organization, but — for the class of users with high expectations of usability, reliability and security — traditional services, such as those from RIM and Good Technology, are a better fit for now. By building mobile mail services into Exchange, Microsoft will broadly expand the percentage of employees using the service and will, ultimately, challenge the established mobile mail suppliers.

Outlook Web access (OWA). Following the trend of the past few years, Exchange 2007 Web access increases in similarity to Outlook. OWA 2007 also honors URLs to Windows SharePoint Service (WSS) resources, resolving the problem of broken links to sites when included in a message read by OWA. Improved OWA services will accelerate the growing trend whereby organizations are augmenting (but not replacing) traditional Outlook access with browser access.

System management. Exchange Management Console (formerly Systems Manager), which runs on the Microsoft Management Console, has been rebuilt to improve management efficiencies (for example, three navigation levels instead of eight). The interface moves from two panes to four panes, creating broader information views. Exchange 2007 also has a new command-line scripting shell, built on Windows PowerShell, which will allow custom management tasks to be automated. Microsoft says that PowerShell (formerly code-named Monad), will become the model for command-line experience for all Microsoft server products. Exchange 2007 also adds more granular administration privileges (for example, server set-up only, mailbox maintenance only or message flow only) for greater security and control. The result of these features should be an easing of the management burden and reduced risk of employee-induced system errors.

Recoverability/reliability. Exchange 2007 simplifies cluster set-up and adds support for shared-nothing clusters via a log shipping facility (previously available in SQL Server), which will enable geo-clustering; off-site disaster recovery services; and online, continuous backup. These services will lead to more organizations building comprehensive redundancy into e-mail systems, resulting in higher levels of system uptime.

Programmability. Exchange has always had a confusing set of overlapping, callable APIs. With Exchange 2007, Microsoft will retire several less-used and less-useful APIs, and announce the phase-out of others in the next release of Exchange (called Exchange 14). The preferred mechanism for calling Exchange services will be a new set of Exchange Web service APIs, which will bring Exchange in line with industry programming trends, and increase the use of Exchange application services.

Security. Exchange 2007 adds opportunistic and automatic support for Transport Layer Security (TLS) — server-to-server encryption standard — whereby the Exchange gateway server will make TLS connections with receiving message transfer agents where possible. Exchange servers will also now automatically have Secure Sockets Layer (SSL) certificates and the intranet message path across all Exchange servers will be encrypted, thereby meeting enterprise demands for additional e-mail security. TLS services alone, however, are unlikely to meet specific encryption requirements mandated by regulations such as the U.S. Health Insurance Portability and Accountability Act (HIPAA) and the Gramm-Leach-Bliley (GLB) Act.

Message control. With Exchange 2007, Microsoft introduces a new server role called the Hub Transport server (actually a rebranding and expansion of the current Bridgehead server role), which allows messages — sent and received — to be reviewed for content and other custom characteristics (for example, destination, size and number of recipients) prior to delivery. Messages that trigger the filter can then be manipulated according to scripted business rules (Microsoft calls them transport rules) such as block, bounce, copy, append, send to archive or quarantine. This service will help meet increasing demands for greater message control and provide a rich opportunity for value-added services from third parties.

Outlook 2007. Concomitant with the release of Exchange 2007 will be a new version of Outlook, which, while less innovative than the new Exchange version, has some interesting new elements. Interface changes mostly relate to the "compose" and "reply" functions, and a "to do" pane integrates with tasks and calendar items. Outlook 2007 also adds bidirectional synchronization with WSS for lists, tasks, calendar appointments, contacts and documents, as well as the ability to archive data to WSS. Calendaring is improved with schedule overlays, team calendars, subscription to Internet calendars and snapshot e-mailing of calendars.

Finally, the new client includes expanded search services, an RSS reader, auto discovery of server functions, and a computational proof algorithm (called Outlook E-Mail Postmark) to help determine when a message needs to be sent to the junk folder. Unlike Outlook 2003, which, with its cached mode feature, became a mandatory upgrade for most organizations, we do not expect to see Exchange-driven migrations to Outlook 2007. Instead, we expect most organizations to revert to past behavior, which is opportunistic upgrading of Outlook (for example, in tandem with Office or hardware upgrades).

7.0 Shortcomings of Exchange 2007 [\[return to Table of Contents\]](#)

While an ambitious release, Exchange 2007 does not address all the shortcomings of the product.

- Microsoft does not yet offer an official low-end, low-priced version of Exchange, which would allow it to compete with low-cost standards-based products and emerging Web client/Linux back-end systems. This would allow Microsoft to broaden e-mail penetration to what we call boundary workers — those users, such as shop-floor workers and store-floor retail employees, which have less sophisticated e-mail requirements.
- Microsoft does not have an active-active failover configuration for Exchange servers, and its current active-passive configurations are complex to deploy and operate.
- OWA 2007 still does not allow access to Exchange public folders.
- With the Exchange/OCS push toward unified communications, we believe Microsoft needs to invest more in common management, reporting, hygiene and content control across multiple communication modalities. Currently, these are separate functions.

8.0 Upgrade Strategies [\[return to Table of Contents\]](#)

Assuming the decision is made to continue with Exchange, organizations must start planning migration strategies starting in 2007. For any new Exchange release, we typically recommend waiting for the first service pack — which we expect in 3Q07 — to be delivered before deploying it broadly. Organizations that want to aggressively move to Exchange 2007 should use the first part of 2007 to plan deployments. We expect, however, that most migrations will be tied to the currently deployed version of Exchange. Our recommendations for the past three versions of Exchange are:

Exchange 5.5. We believe the risk of using an unsupported product for e-mail outweighs any possible advantages. The only question for Exchange 5.5 "shops" is whether to move immediately to Exchange 2003 or wait for Exchange 2007. Companies that have the available resources to upgrade to Exchange 2003 immediately should do so. Otherwise, enterprises still on 5.5 but unable to migrate in the short term should plan on migration to Exchange 2007 in 2007.

Exchange 2000. Support for Exchange 2000 ended in 2006, with extended support ending in 2011. While there is less urgency to move than with Exchange 5.5, we believe Exchange 2000 shops should plan to migrate to Exchange 2007 in 2H07 or 2008 to rationalize topologies, employ new e-mail access mechanisms and create management efficiencies.

Exchange 2003. Exchange 2003 organizations have more breathing room. Those that migrated to 2003 in the past 12 months should get another two years out of their investments, unless there are compelling features in Exchange 2007 that would justify an early migration. Those enterprises which migrated before 2005 should look to migrate in the 2008 to 2009 time frame, depending on their ability to exploit new features in Exchange 2007.

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Organizations contemplating Exchange 2007 must address the following issues during the planning process.

Personnel. Given the new server roles and feature sets, such as message control, voice mail and voice interaction, with Exchange 2007, deeper integration with WSS and OCS, and embedded

mobile services, companies should examine current messaging competencies and add needed skill sets.

Training. Outlook 2007 user training is optional, but administrator training on Exchange 2007 is mandatory given the introduction of new server roles, the new system manager interface and the PowerShell scripting language.

Message control and compliance. Enterprises must determine the need for internal message controls/compliance, via the Hub Transport server, and initiate a program to determine business rule procedures (author, routing and reviewers) and storage procedures, if needed.

Hygiene. Companies must determine how much, if any, hosted or on-premises hygiene services to use in the new release. While the hosted hygiene services can immediately replace existing spam and virus message filtering vendors, the maturity and effectiveness of the new on-premises hygiene services is unknown and it is likely that most organizations will not replace on-premises hygiene vendors with Exchange 2007.

Architecture. Organizations must re-examine topologies for further centralization, as well as for the new server roles. Exchange 2007 will have five official server roles (client edge, gateway, unified messaging, hub transport and mailbox) and one unofficial role (administration console). Integration with WSS, PBXs and OCS, as well as disaster recovery options will also require the attention of architects.

Programmability. Organizations must examine all application dependencies on the e-mail system to ensure that they don't break with Exchange 2007, given the retirement of various APIs and the phasing out of others. New programming should exploit the Exchange 2007 Web services APIs where possible.

Licensing. Enterprises must determine if they want to continue with the standard CAL model or upgrade to the enterprise access license. Some companies should consider segmenting users based on standard or enterprise license programs.

Clients. We believe most users will upgrade to Outlook 2007 independent of the Exchange 2007 upgrade, and there are no significant dependencies between the two applications that would merit tandem upgrades. But many voice-mail features in Exchange 2007 require the use of Outlook 2007.

Voice mail. We expect, and recommend, that most organizations will wait until existing voice-mail systems are ripe for upgrading before seriously contemplating a swap-out to Exchange services, which, of course, have yet to be proven in the market.

Public folders. In light of the ascent of WSS and the expected shutdown of public folder services in Exchange 14, organizations should begin preparing for a migration/shut down of public folder infrastructures.

64-bit servers. Organizations should expedite certification of Windows Server 2003 x64, certify all third-party Exchange applications and drivers, and ensure that Microsoft has tested and approved any mixed 32-bit/64-bit topologies.

Storage allocations. The 64-bit server platform will enable organizations to deploy lower-cost storage options, thereby tempting organizations to raise existing per-user storage allocations. But relevant constituencies — legal, records managers and compliance officers, for example — must be consulted prior to any change to user storage allocations.

10.0 Short-, Medium- and Long-Term Impact of Exchange 2007 [\[return to Table of Contents\]](#)

Short term (through YE08). We do not expect migrations of any volume to commence until 2008, with most of them occurring between 2008 and 2010. Planning activities, however, will occur throughout 2007. Most of the architectural work during 2007 and 2008 will focus on greater centralization of servers, largely driven by lower bandwidth costs, higher bandwidth capacity, increased server availability and Outlook running in cached mode — which improves remote use by moving operations into the background — as well as preparing for 64-bit server platforms. Many companies, particularly those with servers over two years old, will need to perform a wholesale swap-out of Exchange servers. In effect, this time period will treat Exchange as mostly a standard version upgrade, with little use of the new hygiene, voice mail and archive services. But we do expect increased uptake of the push mobile e-mail services. Broader deployment of OWA is also anticipated. Both activities will require greater attention to, and investment in, Exchange front-end servers.

Medium term (though YE10). Between 2008 and 2010, we expect greater uptake of the advanced features of Exchange 2003, including moderate use of voice mail, speech interface, hygiene services, as well as message control (filtering and compliance). The use of these services will have an impact on the third-party community. Third parties that compete directly with these Microsoft services will find competitive conditions difficult and will be forced to add new services or add value on top of the Microsoft platform. We believe the inclusion of these elements in Exchange 2007 will broadly increase overall adoption of these services, thereby enriching the functionality of e-mail and providing greater organizational control — although they will increase the complexity.

Long term (through YE12). Between 2010 and 2012, most Exchange shops will have routinely deployed mobile and voice-mail services, with a significant minority employing message-control capabilities. This time frame will be characterized by increased investment in converged communications, where users employ a continuum of collaboration and communication services, such as instant messaging, Web conferencing and VoIP; all anchored by WSS as a persistent repository. Presence services will provide a launch pad and aggregation point for converged communications.

11.0 Exchange 14 [\[return to Table of Contents\]](#)

Of course, while Microsoft moves through the Exchange 2007 life cycle, it will be pressing ahead with the next major release of Exchange, which will be timed to coincide with the release of the next version of Office. We expect this Exchange release to focus on compatibility with OCS, providing, for example, common administration, management, hygiene, security and compliance services across e-mail, instant messaging, Web conferencing and VoIP. We also anticipate heavier investments in speech server technology, resulting in richer speech-to-text and text-to-speech capabilities. Contrary to industry expectations, we do not expect Microsoft to replace the current Exchange store (called Jet) in the next release with SQL Server, nor do we expect it to drop support for public folders, although it will emphasize WSS as its persistent collaboration repository and may offer tools for public folder to WSS migrations. But we do expect Microsoft to eventually replace the Jet database with SQL Server, probably in Exchange 15.

12.0 Other Microsoft E-Mail Activities [\[return to Table of Contents\]](#)

The Exchange franchise, of course, is only part of Microsoft's e-mail portfolio. Its public, consumer-oriented Hotmail service has one of the largest subscriber bases with 230 million active users, which, when combined with Exchange, makes Microsoft the most influential e-mail vendor in the world. Organizations must pay attention to its consumer e-mail activities, given the longer term push that Microsoft and, most recently, Google will make toward providing e-mail as a software-as-a-service (SaaS) model.

Microsoft has been building an alternative mail infrastructure to Hotmail (which runs partially on Unix servers) called Windows Live Mail (code-named Kahuna). This will offer a rich Ajax client — drag and drop, right-clicking, multiselect and rich text editing — and a Windows-based back end. As Windows Live Mail scales up, it will replace the Hotmail.edu offering (see below), and, we believe, all consumer Hotmail accounts by 2010. Microsoft, which currently supplies e-mail services to carriers Bell Canada and Qwest, will aggressively market Kahuna e-mail services to other carriers, application service providers and Internet service providers.

Microsoft is also offering a no-fee, hosted e-mail service to any legitimate university constituency, including students, alumni, faculty, staff, applicants and parents. Each user gets a Hotmail account with 250MB of storage (expandable to 2GB in the Windows Live version). The university keeps its own domain name (or names) by pointing the Mail Exchange records of its Domain Name System to Hotmail/Windows Live mail.

We expect Microsoft and other public portals to expand no-fee e-mail services to new constituencies, such as local, state and federal government; nonprofit organizations; and K-12 schools (a term for primary and secondary schools in the U.S. and Canada). We also expect it to expand the range of offerings to include instant messaging; Internet telephony; Web conferencing; video/audio conferencing; community services; and office personal productivity services, such as word processing.

Microsoft faces a thorny issue: Google and Yahoo have a massive Internet presence and, to keep its own Internet presence viable, Microsoft has to offer rich Web-based functionality to

commercial organizations, forcing it to elevate the capabilities of Live — thereby ultimately blurring the line between Live and traditional Office.

Therefore, given the vast ambitions of MSN (in the guise of Live) to expand e-mail services to multiple constituencies, we conclude that the biggest competitive threat to Exchange e-mail franchises is MSN itself.

*This research is part of a set of related research pieces. See *The 2007 Microsoft Office System: Improvements and Complexities* for an overview.*

Acronym Key and Glossary Terms

IMAP	Internet Messaging Access Protocol
MAPI	Mail Application Programming Interface
RSS	Really Simple Syndication
SEC	Securities and Exchange Commission

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