E-Mail Concerns in 2007
Content & Collaboration Strategies, Web & Collaboration Strategies
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During the next four years, e-mail will unquestionably become more deeply entrenched, more valuable, and therefore more critical to the well being of most organizations. In 2007, e-mail priorities will have changed dramatically from existing concerns, with the focus moving to stability, hygiene, and centralization.

The nature of e-mail has changed dramatically during the past 15 years. The first e-mail wave was host-based with infrequent text-only messages accessed via a command line interface. This primitive (albeit stable) system gave way to a LAN-based, shared-file e-mail infrastructure offering attachments and a graphical user interface, which received high marks for usability and low marks for stability. It was not until the current client/server architecture that e-mail became both stable and usable, which ultimately led to massive use of e-mail in every business endeavor. A recent META Group survey indicated that most users view e-mail as more important than the phone for carrying out daily enterprise activities. In recent research, we reviewed the implications of that study and listed the top 10 current e-mail concerns (see Delta 2129). We believe e-mail is about to undergo another fundamental change. However, this time the change will not be architectural in nature. Instead, e-mail will move from being a convenient adjunct to the phone to being center stage as a critical backbone platform for enterprise communication infrastructure. During the next four years, e-mail will increasingly be treated as a mission-critical business communication system, with emphasis on uptime, tuning, hygiene, and security. Therefore, e-mail will move into the realm of standard data center operations — with all the duties that implies — including change control, disaster recovery, intrusion detection, etc. For organizations, this means a completely reordered set of e-mail priorities—with many new topics compared with current concerns (see Figure 1).

We believe the top 10 e-mail concerns during 2007 (in order) will be:

- **Stability:** Although e-mail uptime during business hours for most organizations currently approaches 99.8%, we believe any unplanned downtime will be increasingly unacceptable. Organizations will upgrade infrastructures to add failover services that will bring system reliability to 100% during business hours, and off-hour uptime will approach 99.999% (with allowances for short windows of scheduled maintenance). Most organizations will move to 4- to 8-way cluster servers, which will be made more feasible by the drive toward e-mail centralization (see below). Redundancy will be added to mail relays and hygiene servers via server failover and hosted spooling services. Uptime expectations will be negotiated via service-level agreements. Tuning and throughput will emerge as critical e-mail disciplines, as companies optimize bandwidth and hardware capacity.

- **Security/hygiene:** Our report on 2003 e-mail concerns indicated spam, viruses, and security were separate top 10 issues. Just as viruses were brought under control, we believe the spam problem will not go away, but will be controlled via a variety of filtering techniques. We believe these issues will be batched together by 2006, and single vendor consoles will handle denial-of-service attacks (e.g., mail bombs, buffer overloads), mail loops, virus/spam protection, harvest-attack abatement, and content blocking. Organizations will have dedicated personnel (as opposed to part time) for mail hygiene services, which will run on all three e-mail tiers (client, server, and gateway). We expect use of hosted hygiene services to grow through 2006 (use by fewer than 1% of the Global 2000 will increase to 15%).

- **Centralization:** We believe numerous factors will drive a major effort on the part of large organizations to centralize e-mail servers (e.g., dropping bandwidth prices, embedded message compression

**META Trend:** As ad hoc electronic communication grows in importance (e.g., e-mail, instant messaging, Web conferencing), organizations will be challenged to create a hygienic and low-cost infrastructure, with special attention through 2005 focused on spam blocking, policy enforcement (e.g., archiving, regulatory compliance), and relevancy (e.g., knowledge management). Through 2007, rising electronic communication volumes will frustrate users coping with information overload. IT groups, struggling to manage resource consumption, will accelerate server consolidation and use of centralized topologies to reduce e-mail and instant messaging costs and risk.
tools, server clusters, more compelling economics, better HTTP support, data center consolidation). The centralization movement, coupled with an emphasis on stability and hygiene, will lead organizations to apply data center operational disciplines to e-mail (e.g., disaster recovery, failover, change control, and exception reporting) that have been largely absent from e-mail operations.

- **Encrypted e-mail:** This perennial problem of users sending unencrypted sensitive data over the Internet will continue to badger large organizations. By 2007, we expect a combination of faithful interpretation of S/MIME, simplified public/private key distribution and management and rigid policy enforcement will largely resolve the issue. However, imperfect implementations will make secure e-mail support a time-consuming and labor-intensive activity with gradual resolution during the next several years.

- **Policy enforcement:** Users are being bombarded with e-mail policies covering a broad range of issues such as use of custom signatures, disclaimers, content guidelines, attachment size limits, use of distribution lists, adherence to government regulations, storage limits, and e-mail etiquette. Enforcement is currently spotty and often involves numerous tools and vendors. We believe organizations will increasingly use a combination of client-, server-, and gateway-based policy enforcement tools, with enforcement occurring in real time, directly after users send messages. With this system, policies are enforced immediately, and proper policy adherence is inculcated due to direct feedback to the sender. We believe regulatory compliance and storage issues will be largely resolved by 2007, with a variety of add-on tools and user education.

- **Mailbox overload:** The end-user mailbox overload issue will be alleviated somewhat by filters and tools, which will help prioritize and categorize incoming e-mail. The issue will also be aggravated by rising e-mail volumes and the blending of instant and voice messages with e-mail, causing user frustration with message volume. Ultimately, we expect the emergence of a universal message queue, which will enable users to filter and view messages in a variety of ways.

- **Mobility:** During 2007, demands for ubiquitous e-mail access will be constant. IT groups will be challenged to provide e-mail services to a growing crop of diverse mobile devices, including pagers, cell phones, and PDAs. Browser access to mail services will be only a partial answer given the need for offline use and browser limitations on small form factors. We expect major e-mail vendors to bundle multi-purpose mobility services into core e-mail packages, as well as increase ties to portal and content management systems that will help facilitate these requirements.

- **Upgrades:** Through 2007, most IT groups will face significant decisions about their primary e-mail vendors. We expect Microsoft to deliver an Exchange version based on SQL Server, representing a major change from the current Web Store database. We believe this new version will introduce incompatibilities with existing applications and require new management skill sets. We also expect Exchange public folders to be abandoned at this time in favor of Windows SharePoint Services. Domino shops will be forced to make decisions about moving to the IBM Workplace Messaging platform (based on DB2 and WebSphere) given the limited life span we anticipate for Domino. Domino shops will also have the option of swapping out the core .NSF database with DB2. This area of configuration maintenance will continue to be one of the biggest hidden costs of e-mail management.

- **Rightsizing:** Our 2003 report highlighted e-mail economics as a top 10 issue. We believe organizations will have a good grasp of e-mail economics by 2006, and will actively drive down costs via centralization and standardization. By 2007, we expect organizations to focus on rightsizing e-mail by mixing rich e-mail services for knowledge workers with commodity mail services (e.g., POP, IMAP, HTTP) for boundary workers (e.g., factory floor and store employees) to improve corporate communications and reduce existing information distribution costs. By blending rich and commodity mail services, organizations can save licensing fees and improve server scalability.

- **Knowledge management:** Given that large volumes of e-mail will be archived to meet regulations by 2007, we expect a concomitant investment in tools that help users extract knowledge from a large mail corpus. These knowledge management services for e-mail will help users identify in-house expertise, discover existing relevant research, and formulate process best practices. However, organizations will struggle with implementation issues, privacy concerns, and retention guidelines.

**Bottom Line**

The changing nature of e-mail and the growing reliance of organizations on the messaging infrastructure will dramatically alter IT group priorities for managing infrastructure. Organizations must adopt data center disciplines to increase reliability to a 99.999% uptime level.

*Business Impact: The business criticality of e-mail will force organizations to upgrade e-mail infrastructure to enable delivery of higher levels of uptime as well as enhanced hygiene and security services.*
Figure 1 — Top E-Mail Concerns: 2003 and 2007

<table>
<thead>
<tr>
<th>2003</th>
<th>2007</th>
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<tbody>
<tr>
<td>1. Spam</td>
<td>1. Stability</td>
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<tr>
<td>2. Storage</td>
<td>2. Security/hygiene</td>
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<tr>
<td>3. Regulatory requirements</td>
<td>3. Centralization</td>
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<tr>
<td>4. Economics</td>
<td>4. Encrypted e-mail</td>
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<tr>
<td>5. Mailbox overload</td>
<td>5. Policy enforcement</td>
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<td>7. Viruses</td>
<td>7. Mobility</td>
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<tr>
<td>8. Mobility</td>
<td>8. Upgrades</td>
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<tr>
<td>10. Stability</td>
<td>10. Knowledge management</td>
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Source: META Group