

## Major Hidden Costs When Running Exchange Server

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When an organization evaluates a new enterprise messaging and collaboration system, total lifecycle cost is an important input to the decision. Customers considering Microsoft Exchange Server may overlook two major costs that are usually hidden during the cost evaluation process.

### Virus Attacks

Most virus attacks depend on Outlook, the required client software for Exchange Server. Just about every virus, Internet worm, and other malicious attack by email that we've seen in the past year relies on a widely installed base of Outlook or Outlook Express clients to multiply. Even for companies with decent virus control systems, infections still occur. The additional costs are in administration time to clean-up infected PCs, slower mail delivery due to bandwidth bottlenecks, and lost productivity of workers due to the inability to get things done while their PC and email network are out-of-action.

This is an Exchange issue because Outlook and Exchange are inextricably linked: in order to get the benefits of Exchange, an organization MUST use Outlook. There is no other option for PC users. Non-Exchange shops may choose to run Outlook against a different email server, but this is optional.

Microsoft says that they have resolved all future virus-spreading issues with the release of Outlook 2002 (and have retrospectively patched Outlook 97, 98 and 2000), and that organizations upgrading to Outlook 2002 will face no future issues with virus attacks. While we would like this to be true, we have serious doubts. Regardless, organizations should implement a multi-level approach to virus prevention, including scanning at Exchange Server and the network perimeter.

### Technical Changes

Microsoft introduces technical changes to Exchange and related systems every 2-3 years which incur major costs for customers to implement. Eg:

- *Exchange 5.0 to 5.5.* Revised the data store format to allow organizations to store more than 16GB in a single data store. The transition was painful because it took a long time to convert large data stores, the new data store was subject to data corruption during conversion, and existing anti-virus software caused problems and delays.

- *Exchange 5.5 to 2000.* Requires the upgrade from Windows NT 4.0 to Windows 2000 Server for Exchange 2000 Servers, and the use of Active Directory (although this can be limited to just the Exchange 2000 servers). Introduces the Web Storage System (WSS), a revision to the Exchange data store with a range of new capabilities. Developers are encouraged to build collaborative applications based on the Web Storage System, a change from 5.5. Due to the extensive architectural changes required with Active Directory, it is difficult for organizations to migrate to Exchange 2000 without starting over; this is because, firstly, Exchange 5.5 organizations do not map well into Active Directory, and secondly, the tools provided for in-place migrations are weak.
- *Exchange 2000 to Exchange 2003.* The WSS, introduced with Exchange 2000, was going to be replaced with Microsoft's vision of a unified data store (which we understood to be the next version of SQL Server), but Microsoft has decided to delay this until a future version -- we're pegging a 2005-2006 release. New features will be added to the current WSS--eg, improved client-server replication--and Microsoft is hoping to have a zero-impact migration exercise for administrators upgrading from Exchange 2000 due to the migration occurring in the background after the server is upgraded. Customers upgrading from 5.5 will face similar issues as today. It is too early to say whether this will work as hoped. Finally, it is unclear whether instant messaging remains in Exchange (due to Microsoft's inclusion of SIP in the forthcoming Windows.NET Server); if not, organizations will have to re-consider their Microsoft IM infrastructure and deploy an alternative server solution.
- *Exchange.Future (2005-2006?) with Unified Data Store.* Microsoft is working on a future version of Exchange Server that will be based on Microsoft's vision for unified data storage. We think this will mean a major migration exercise for administrators, and developers building collaborative applications against the WSS will have to re-develop their applications. Due to the scarcity of details available for Exchange.Future, the extent of these migration challenges can not be ascertained at this time.
- The forms application development environment for Exchange has changed multiple times, incurring incremental costs to upgrade old applications and new training dollars to re-train developers.

Such changes add major additional costs for technical support staff in the form of retraining, and the engagement of external consultants to help effect the technical changes. In combination, they can add \$5-\$20 per user per month to any Exchange cost model.

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