

The Total Cost of Ownership For Mail Server Security

An Osterman Research Report

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Why You Should Read This Report

Today, anywhere from 87% to 95% of all email is spam and approximately one out of every 160 emails contains a virus. That means that an organization with an average email volume of 100,000 messages per day, can expect to receive up to 95,000 spam messages and 625 virus-laden messages every day. As a result, robust anti-spam, antivirus and other malware defenses are absolutely critical to the health of any organization's email infrastructure. These defenses must be continually updated, they must be easy to use and – given that they are a necessary component of any organization's defense system – they should cost as little as possible to deploy and manage.

This report discusses a research program comparing four leading mail server security solutions designed for Microsoft Exchange environments. The four solutions – from Trend Micro, Symantec, Microsoft and McAfee – were cited as among the most commonly considered solutions in a separate research project undertaken by Osterman Research earlier in 2007.

In this study, Osterman Research conducted independent surveys of enterprise-level IT administrators from the U.S. and Europe. Some were surveyed by telephone and others via the Web to assess the time and other investments they have made into the testing, licensing, deployment and ongoing management of their mail server security solutions. Based on these inputs, a cost model was developed to analyze the total cost of ownership for the four solutions. The data generated from the research, as well as the conclusions of the cost model, are presented in this document.

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Survey respondents were chosen randomly and no culling or selection of respondents was conducted to give one vendor an edge over another.

It is important to note that while there are significant differences in the cost of ownership among the various offerings discussed in this report, these are all top-tier offerings from well-respected vendors.

Total Cost of Ownership

Osterman Research developed a cost model to analyze the total cost of ownership for the four mail server security solutions that were the subject of this research. This cost model factored in the quantitative data gathered during this research, used secondary research to determine publicly available pricing for each solution, and used the following assumptions:

- Annual, fully burdened salary (including vacation, benefits, etc.) for IT administrators charged with managing each solution: \$80,000
- Annual salary growth: 5%

COST OF OWNERSHIP CALCULATIONS

- Total cost of ownership varies widely, and can almost double, depending on the solution, ranging from \$141,237 (Trend Micro) to \$271,513 (Microsoft) for the average 2,500-user organization, as shown in the following tables.
- The largest determinant of TCO is administrative effort (generally 65% to 70% of TCO), particularly the ongoing, day-to-day administration of the solution.

Total Cost of Ownership Over a Three-Year Period
(Median IT person-hours plus public pricing)

	Trend Micro	Symantec	Microsoft	McAfee
TOTAL DEPLOYMENT, MANAGEMENT & UPGRADE EFFORT (3 Years)	\$92,157	\$167,908	\$190,513	\$117,698
Initial Deployment (1)	\$4,077	\$11,231	\$6,885	\$4,250
Product Upgrade (1)	\$2,841	\$3,053	\$6,351	\$2,989
Annual Ongoing Administration (3 Years)	\$75,660	\$145,015	\$173,388	\$104,033
Annual Problem Resolution (3 Years)	\$9,579	\$8,609	\$3,880	\$6,426
TOTAL SOFTWARE COST (3 Years)	\$49,080	\$69,200	\$81,000	\$84,825
Initial Purchase Cost (2,500 users)	\$30,675	\$43,250	\$27,000	\$40,725
Annual Software Renewal Cost	\$18,405	\$25,950	\$54,000	\$44,100
TOTAL COST OF OWNERSHIP	\$141,237	\$237,108	\$271,513	\$202,523

Total Cost of Ownership per User

Cost	Trend Micro	Symantec	Microsoft	McAfee
Total three-year cost per user	\$56.49	\$94.84	\$108.61	\$81.01
Average annual cost per user	\$18.83	\$31.61	\$36.20	\$27.00
Average monthly cost per user	\$1.57	\$2.63	\$3.02	\$2.25

- Organizations should carefully evaluate all of the costs of ownership for any messaging security solution, taking care not to underestimate any of these costs. This is particularly true for the costs of administrative labor, since these are a significant percentage of TCO, but are often less visible.
- It is important to note that a variety of factors can influence the total cost of ownership for a particular solution, much of which focuses on the local labor rate. For example, the average salary for an IT administrator is 20% higher in New York than in Dallas. This alone has the most significant impact on the total cost of ownership for any mail server security offering.
- Our findings indicate that Trend Micro offers a clear cost advantage based on the data generated from this research.

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TIME SPENT DEPLOYING, MANAGING AND UPGRADING SYSTEMS OVER A THREE-YEAR PERIOD

- There was great variability across vendors in time spent on mail server security management, as shown in the following table. Total effort over a three-year period ranges from 2,282 hours to 4,715 hours to manage a large-scale deployment of a mail server security solution.
- Trend customers reported the least amount of time spent for all aspects of management, with the McAfee solution requiring 28% more time and Symantec and Microsoft requiring significantly more – roughly twice as much effort.

IT Person-Hours Required Over a Three-Year Period
(Median IT person-hours)

	Trend Micro	Symantec	Microsoft	McAfee
TOTAL DEPLOYMENT, MANAGEMENT & UPGRADE EFFORT (3 Years)	2,282	4,165	4,715	2,914
Initial Deployment (1)	106.0	292.0	179.0	110.5
Product Upgrade (1)	67.0	72.0	150.0	70.5
Annual Ongoing Administration (3 Years)	1,872.0	3,588.0	4,290.0	2,574.0
Annual Problem Resolution (3Years)	237.0	213.0	96.0	159.0

- Variability in the amount of administration time required by mail server security solutions is predominantly determined by the amount of time that organizations spend on routine weekly administration. While organizations are naturally hesitant to change security solutions, in many cases an extra one-time effort to install a new solution (even more so when an upgrade of the current solution is planned) can result in a dramatic reduction in overall administrative effort.

ONGOING MANAGEMENT IS THE MOST CRITICAL CONSIDERATION

- Trend Micro customers reported the lowest amount of time spent in this area, with the next lowest vendor, McAfee, requiring 38% more time.
- Symantec and Microsoft customers reported significantly more time required for ongoing management, roughly twice as much or more on a regular basis.

IT Person-Hours Required for Ongoing Management
(Median IT person-hours per week and year)

	Trend Micro	Symantec	Microsoft	McAfee
TOTAL ONGOING MANAGEMENT (per week)	12.0	23.0	27.5	16.5
General System Monitoring	5.0	8.0	7.5	5.0
Creation of Reports	2.5	5.0	9.0	4.5
Quarantine Management	2.5	5.0	5.0	4.5
Group or configuration changes	2.0	5.0	6.0	2.5
TOTAL ONGOING MANAGEMENT (per year)	624	1,196	1,430	858

- A key differentiator between security solutions is the amount of time that IT must invest in ongoing activities like system monitoring, report creation, quarantine management and group or configuration changes. Organizations should take a close look at the time spent on recurring administration to understand the full cost of mail server security.

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- Interestingly, despite the variability of management required, more than one-half of respondents for each vendor reported being satisfied or very satisfied with the level of ongoing administration.

ONE-TIME DEPLOYMENT EFFORT ALSO VARIES GREATLY

- Although three of the four vendors ranked lowest in terms of effort in at least one of the deployment activities, Trend Micro and McAfee were consistently among the lowest or near lowest in every deployment activity, as shown in the following table.

IT Person-Hours Required for Initial Deployment Activities

(Median IT person-hours per year)

Activity	Trend Micro	Symantec	Microsoft	McAfee
Initial installation	37.0	200.0	70.0	48.0
Upgrades	29.0	25.0	81.0	34.0
Setting up groups of users	10.0	16.0	18.5	10.0
Enabling basic policies	10.0	10.0	18.5	11.0
Propagating policies to server groups	10.0	10.0	16.5	5.5
Deploying to clusters	8.0	11.0	15.5	10.0
Pilot testing	31.0	45.0	40.0	26.0
TOTAL – INITIAL	106.0	292.0	179.0	110.5
TOTAL – UPGRADE	67.0	72.0	150.0	70.5

- In terms of deployment effort for both new installation and upgrade, Trend Micro respondents reported the lowest effort: 106 and 67 person-hours, respectively.
- Our research found that a new Symantec installation takes almost three times as long as a new Trend Micro or McAfee installation. Our research also found that a Microsoft upgrade takes more than twice as long as that of any other vendor, and is even longer than a new installation of Trend Micro or McAfee.
- It is important to note that initial deployment and upgrades can vary widely based on a number of factors, including the number of physical locations served by an

organization, the familiarity of the IT staff with a particular vendor’s offering and other factors.

- While there is significant variability in new installation and upgrade effort, these are fixed, rather than frequently recurring, activities and costs. Enterprises generally do not switch products except over long periods of time, requiring new installation no more than every three to five years. Further, upgrades generally occur once every two to three years.
- Interestingly, 60%-70% of respondents indicated that they were either satisfied or very satisfied with the time reported for product installation (including product configuration) except for Symantec customers, less than half (46%) of whom were satisfied or very satisfied.
- The data in the table above demonstrates that Trend Micro offers customers an advantage compared to other solutions discussed in this analysis, both in terms of the amount of time required for the initial deployment, as well in the amount of time required for an upgrade.

PERIODIC PROBLEM REMEDIATION INVESTMENTS VARY WIDELY

- Our research found that Microsoft offers a clear advantage in terms of the amount of IT staff time reported for problem remediation, requiring less than half of the amount of time required each year for Trend Micro and Symantec, and substantially less when compared to McAfee.

IT Person-Hours Required for Problem Remediation
(Median IT person-hours per year)

Activity	Trend Micro	Symantec	Microsoft	McAfee
Other Administration	79.0	71.0	32.0	53.0

- It is important to note, however, that the IT time investments shown in the table above represent only a small proportion of the annual time investments that IT makes each year, representing tens of hours rather than the hundreds or thousands spent on ongoing administration. Similarly, it is a fraction of the time spent deploying, managing and upgrading systems over the course of a three-year period.
- Although Trend Micro customers reported the most time spent on these issues they also most frequently felt that these ‘irregular’ issues were “not disruptive at all” compared to the other solutions analyzed.

Conclusions

Based on these findings, Osterman Research has developed the following conclusions and analysis about the data and products discussed in this report:

- Messaging security is among the most critical infrastructure elements and is an absolute necessity for organizations of all sizes. As such, it is important to deploy a solution that provides the best combination of threat remediation, throughput and overall cost. The data presented in this report should be carefully considered by decision makers as they consider their near-term and long-term plans for new mail server protection.
- This research effort made no attempt to determine the performance of each offering, such as its spam capture rate, false positive ratio or virus capture efficiency, and we offer no conclusions about the efficacy of each offering in this regard.
- Based on our survey data, available software prices and TCO model, it is clear that the total cost of ownership varies significantly among the four top solutions. Trend Micro had the lowest TCO among all vendors, with Microsoft costing almost twice as much and Symantec costing roughly 70% more.
- The key differentiator between the costs of the various solutions is clearly the ongoing maintenance investment required for each. Trend Micro customers reported the lowest amount of time spent on ongoing management, with Symantec and Microsoft customers reporting twice as much time or more. Even if a larger sample would have resulted in a different set of findings, the scale of the difference we found leads us to believe that the survey findings provide an accurate assessment of the relative differences in IT investments required for the maintenance of each solution.
- The prices we used for initial purchase and annual renewal varied widely and account for some of the difference in cost between the products. For example, Microsoft had the lowest acquisition cost in Year One given that it is priced per user per month, but the highest renewal cost given that costs are identical in all three years under this pricing model.
- Even if software acquisition and renewal costs were identical across the four solutions, Trend Micro still represented the lowest cost offering given its lower requirement for IT management time for activities like monitoring, quarantine management and the like.

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Background and Methodology

Trend Micro commissioned Osterman Research to conduct blind surveys of enterprises that have deployed one or more of the following solutions:

- Trend Micro ScanMail for Microsoft Exchange 7.0 or later
- Symantec Mail Security for Exchange 5.0 or later
- Microsoft/Sybari Antigen for Exchange 8.0 or later
- McAfee GroupShield for Exchange 5.0 or later

In order to qualify for inclusion in this research program, respondent organizations had to have:

- The system deployed for at least six months
- At least 500 employees
- Microsoft clusters in place
- Deployed both anti-spam and anti-virus protection

Further, the organizations surveyed could not be a reseller of security solutions.

The median number of employees in the organizations surveyed was 2,500.

A combination of telephone and Web-based surveys were conducted with members from the extensive Osterman Research survey panel database. These individuals, from organizations in the U.S. and Europe, were selected randomly and were surveyed during the period September 26 through November 13, 2007. In addition, secondary information was used for pricing data.

A total of 101 surveys were completed, distributed as follows:

- Trend Micro ScanMail – 31 surveys
- Symantec Mail Security – 31 surveys
- Microsoft/Sybari Antigen – 16 surveys
- McAfee GroupShield – 23 surveys

Cost elements quantified through the survey included:

- Product installation
- Product configuration
- Pilot testing
- Product upgrade
- Routine operational administration
- Other administration

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