

Assessing the Total Cost of Ownership for Veritas Enterprise Vault

An Osterman Research White Paper

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EXECUTIVE SUMMARY

Decision makers that are evaluating cloud-based archiving and storage solutions typically engage in comparative cost analyses against traditional, on-premises systems as a part of their due diligence efforts. However, constructing a comparative analysis can be difficult because software, hardware, storage and infrastructure costs of on-premises systems can be distributed across multiple IT cost centers; and because many of these costs are embedded into the licensing costs for cloud solutions.

This research paper examines the comparative cost of on-premises versus cloud storage and archiving solutions. It presents the results of an Osterman Research survey on the actual costs associated with maintaining a leading on-premises archiving solution – Veritas Enterprise Vault – from organizations that are currently utilizing that solution. The results of this survey have been incorporated into a cost model to analyze the fully-loaded costs of maintaining and operating an Enterprise Vault environment versus the comparable investment in a cloud-based archiving solution. .

KEY TAKEAWAYS

- **Storage requirements are the most significant variable impacting overall total costs of ownership**
Our research found that the median amount of storage for email in Enterprise Vault is 35 gigabytes per user, and that a median of 50 terabytes of storage are maintained in the Enterprise Vault environment across all respondents. For organizations above 10,000 seats, these figures are significantly higher: a median of 45 gigabytes of storage per user for email and a median total of 230 terabytes.
- **Most organizations replicate their Enterprise Vault environment**
Fifty-nine percent of organizations maintain a fully replicated Enterprise Vault environment, and replication accounts for a major cost component within Enterprise Vault environments. For example, 54 percent of the organizations surveyed indicated that the cost of replication is equal to or exceeds the cost of the primary EV environment.
- **Maintaining Enterprise Vault is expensive**
The mean cost for managing storage in Enterprise Vault as reported by survey respondents is \$8,950 per terabyte. Using the median of 50 terabytes of storage for the organizations we surveyed, this works out to a total annual cost of just over \$447,000. The cost model we developed as part of this effort calculated the total annual cost of maintaining Enterprise Vault for a 5,000-user environment is \$451,000, which is very comparable to the costs in our cost model. For firms with 10,000 seats or more, these costs are significantly higher, at \$15,291 per terabyte.
- **The TCO for Enterprise Vault is higher than for many alternatives**
The cost model we developed for this effort determined that just the maintenance cost for Enterprise Vault – not considering the initial acquisition costs for the servers, storage or software or their replacement – is \$8.46 per user per month for email-only archiving and \$10.52 per user per month for archiving other content types in addition to email. However, when factoring in the cost of replacing the physical infrastructure at the end of four years, the cost of Enterprise Vault increases to \$18.19 and \$22.51 per user per month, respectively.
- **Cloud-based alternatives can significantly less expensive than Enterprise Vault**
While Enterprise Vault is a mature offering that can adequately meet many organizational requirements for archiving electronic content, cloud-based

alternatives can provide a significantly lower cost of ownership, offering savings of 40 percent or more relative to on-premises Enterprise Vault.

ABOUT THIS WHITE PAPER

This research paper was commissioned by Actiance; information about the company is provided at the end of this paper.

THE COSTS OF ENTERPRISE VAULT

METHODOLOGY AND DEVELOPMENT OF THE COST MODEL

Osterman Research analyzed the cost of managing Enterprise Vault using two different approaches:

- We developed a cost model for Enterprise Vault using a “bill of materials” approach, essentially building out a typical Enterprise Vault environment for a mid-sized enterprise.
- We then conducted a survey among organizations that have deployed Enterprise Vault to corroborate the calculations developed within the cost model. Data from the model was used to fine-tune the assumptions used in the initial cost model.

HIGH-LEVEL RESULTS FROM THE SURVEY

- A total of 73 surveys were conducted with members of the Osterman Research survey panel.
- To qualify for inclusion in the survey, respondent organizations had to have an on-premises deployment of Enterprise Vault.
- The organizations surveyed had a mean of 14,244 employees (median of 3,500) and 13,017 email users (median of 3,350). The largest organization surveyed had 180,000 employees and 128,000 email users.
- Thirty-eight percent of the organizations surveyed are using Enterprise Vault 11.x and an equal proportion are using 12.x, with 13 percent on v10.x. The remaining organizations are using earlier versions.
- The most commonly used storage vendors are EMC and HP, but a wide variety of other vendors are also used. However, for organizations with 10,000 or more seats of Enterprise, 60 percent are using EMC, HP or IBM as their storage vendors.
- A median of 50 terabytes of storage is devoted to the typical Enterprise Vault environment.

ASSUMPTIONS USED IN THE MODEL

Osterman Research used the following assumptions in developing the costs for an Enterprise Vault environment:

- 5,000 users supported.
- Five gigabytes of email archival storage per user (lower than what was discovered in the survey, but we thought it prudent to be conservative).
- System lifetime of four years.
- Deployment of a fully replicated environment. Our research found that 59 percent of the organizations surveyed had deployed a fully replicated environment for Enterprise Vault.

- Dell PowerEdge R930 rack-mounted servers in use throughout (128Gb RAM, 1.2Tb SAS hard drive), which includes ProSupport Plus (four-year mission-critical on-site service).
- Centera email storage (EMC 4.4TB8N MRDWIN LGT3YRMNT), including mission-critical support for four years.
- Number of servers deployed, including for replicated environment:
 - Servers running Enterprise Vault: 8
 - Servers running Compliance Accelerator/Discovery Accelerator: 2
 - Servers running SQL Server: 4
 - Servers running Backup Exec: 4
 - Servers running Active Directory: 4
- Prices used are publicly available on various vendors' and distributors' web sites:
 - Dell PowerEdge R930 servers: \$13,799.01
 - Centera (EMC 4.4TB8N MRDWIN LGT3YRMNT): \$120,341.00
 - Microsoft® SQL Server™2014 Standard: \$3,423.24
 - Windows Server® 2016 Datacenter OEI - 16 Core License: \$4,720.99
 - VERITAS Enterprise Vault Compliance Accelerator: \$16.43
 - VERITAS Enterprise Vault Discovery Accelerator: \$11.44
 - VERITAS Backup Exec Capacity Edition: \$649.92
 - VERITAS Enterprise Vault E-Discovery Compliance Edition: \$30.05
 - VERITAS Enterprise Vault File Management: \$62,500.00
 - VMware vSphere Standard: \$1,847.72
- Power consumption was assumed to be 750 watt-hours for servers, 500 watt-hours for Centera storage systems.

LABOR REQUIRED TO MANAGE ENTERPRISE VAULT

By design, the cost model developed for this white paper did not take into account the labor required to manage an Enterprise Vault environment, since we wanted to consider only the costs of physical infrastructure and related cost elements. However, among organizations with 10,000 or more seats, a median of 5,000 users can be supported per IT staff member. If we assume that the fully burdened, annual cost of an IT staff member is \$80,000, the result is an annual labor cost per Enterprise Vault user of \$16, or a monthly per user cost of \$1.33.

THE COST OF MAINTAINING AN ENTERPRISE VAULT ENVIRONMENT

In the initial analysis, we compared only the cost of maintaining an Enterprise Vault environment based on the assumptions discussed above. As shown in Figure 1, the monthly, per-user cost simply to maintain the environment for email-only archiving is nearly \$8.50. It is important to note that this analysis does not take into consideration the initial investment in the servers, software, storage and other elements required to build out the Enterprise Vault infrastructure, and so these rather substantial costs are not factored into the calculations shown in Figure 1.

When we factor in the costs of archiving all communication channels, not just email, the monthly, per-user cost for managing Enterprise Vault jumps to \$10.52, as shown in Figure 2.

Figure 1
Costs of Managing Enterprise Vault for 5,000 Users, Email Only,
No Replacement

COST ELEMENT	ANNUAL, SINGLE CHANNEL	ANNUAL, PER USER	MONTHLY, PER USER
Hardware/compute maintenance	\$24,562	\$4.91	\$0.41
Storage maintenance	\$382,699	\$76.54	\$6.38
Software maintenance	\$76,567	\$15.31	\$1.28
Overhead	\$23,760	\$4.75	\$0.40
TOTAL	\$507,587	\$101.52	\$8.46

Source: Osterman Research, Inc.

Figure 2
Costs of Managing Enterprise Vault for 5,000 Users, All Channels,
No Replacement

COST ELEMENT	ANNUAL, ALL CHANNELS	ANNUAL, PER USER	MONTHLY, PER USER
Hardware/compute maintenance	\$24,562	\$4.91	\$0.41
Storage maintenance	\$490,467	\$98.09	\$8.17
Software maintenance	\$92,192	\$18.44	\$1.54
Overhead	\$23,760	\$4.75	\$0.40
TOTAL	\$630,980	\$126.20	\$10.52

Source: Osterman Research, Inc.

REPLACING AN ENTERPRISE VAULT ENVIRONMENT

As noted in the assumptions, we have assumed a four-year lifetime for the Enterprise Vault environment. If we assume that a complete hardware and software refresh will occur at the end of four years and factor these replacement costs into our analysis, we find that the monthly, per-user cost for Enterprise Vault jumps to \$17.76 for email-only archiving, and \$21.70 for archiving all channels, as shown in Figures 3 and 4, respectively.

Figure 3
Costs of Managing Enterprise Vault for 5,000 Users, Email Only,
With Replacement

COST ELEMENT	ANNUAL, SINGLE CHANNEL	ANNUAL, PER USER	MONTHLY, PER USER
Hardware/compute + hardware/compute maintenance	\$100,456	\$20.09	\$1.67
Storage + storage maintenance	\$810,046	\$162.01	\$13.50
Software + software maintenance	\$157,040	\$31.41	\$2.62
Overhead	\$23,760	\$4.75	\$0.40
TOTAL	\$1,091,301	\$218.26	\$18.19

Source: Osterman Research, Inc.

Figure 4
Costs of Managing Enterprise Vault for 5,000 Users, All Channels, With Replacement

COST ELEMENT	ANNUAL, ALL CHANNELS	ANNUAL, PER USER	MONTHLY, PER USER
Hardware/compute + hardware/compute maintenance	\$100,456	\$20.09	\$1.67
Storage + storage maintenance	\$1,038,155	\$207.63	\$17.30
Software + software maintenance	\$188,290	\$37.66	\$3.14
Overhead	\$23,760	\$4.75	\$0.40
TOTAL	\$1,350,660	\$270.13	\$22.51

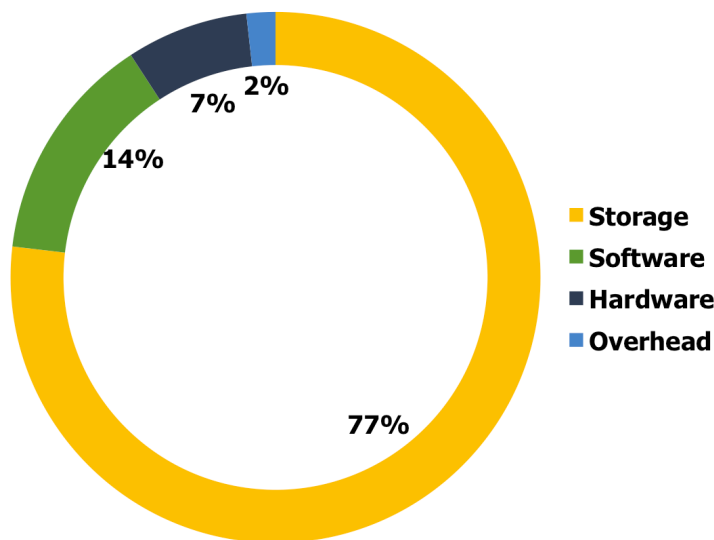
Source: Osterman Research, Inc.

In reality, adding in the cost of replacement is the more reasonable analysis to consider in evaluating the costs of Enterprise Vault or any other archiving system. While considering only maintenance costs is one measure of the cost of ownership, a more accurate and long-term evaluation needs to consider the replacement cost, as well. This is particularly true when evaluating an on-premises solution like Enterprise Vault with cloud-based alternatives, since the cloud provider will be making regular updates to its infrastructure – such as new servers, additional storage, software updates and the like – and these costs are included in the price that cloud providers charge to their customers.

DISTRIBUTION OF COSTS

As shown in Figure 5, the largest cost element for Enterprise Vault, when considering the replacement of the system at the end of four years, is storage. Software is the next largest component at 17 percent of the cost of ownership, followed by hardware and overhead.

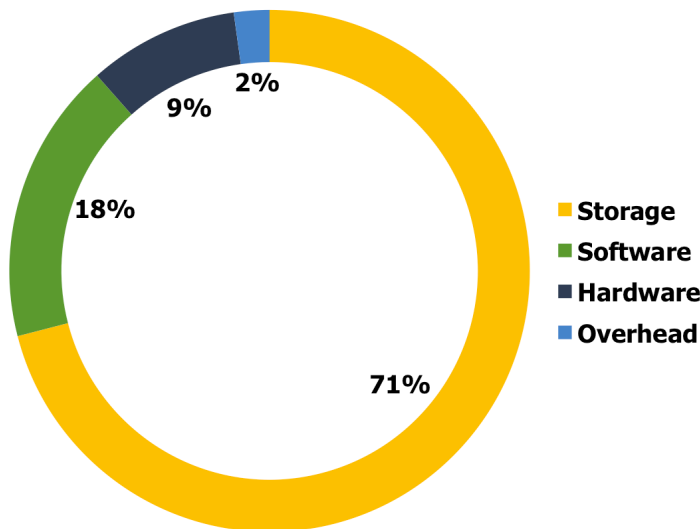
Figure 5
Distribution of Costs for Enterprise Vault
 Maintenance Cost plus Replacement



Source: Osterman Research, Inc.

However, to test our analysis of the distribution of costs, as well as the sensitivity of total costs to just the storage component, we halved the cost of the storage infrastructure in the cost model to account for organizations that might opt for less robust, mission-critical storage. What we found is that the monthly, per user cost for Enterprise Vault (when considering replacement after four years) was \$14.01. Moreover, even with storage system costs halved, storage still accounted for the majority of the cost of ownership, as shown in Figure 6.

Figure 6
Distribution of Costs for Enterprise Vault with Less Expensive Storage
Maintenance Cost plus Replacement



Source: Osterman Research, Inc.

CONCLUSIONS

The analysis presented in this paper leads us to several key conclusions:

- Firms comparing the total costs of maintaining an on-premises versus cloud archiving and storage system should examine all of the cost variables – software, hardware, storage, replication, infrastructure, labor, etc.
- For all firms, regardless of the number of users supported, storage is the largest cost variable to consider.
- When ignoring initial acquisition and refresh costs, the total cost of ownership for Enterprise Vault is quite competitive, particularly with cloud solutions. However, for most organizations, a three- to four-year replacement/upgrade investment should be considered for all cost components – when adding in the cost of acquisition and/or refresh after several years, on-premises Enterprise Vault is typically more expensive than cloud-based archiving solutions.
- In constructing a complete cost analysis, firms should not only examine hard cost variables, but should also consider personnel/staffing expense, as well as the productivity impact and efficiency impact on activities such as eDiscovery and regulatory compliance.

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@smarshinc

+1 866 762 7741

+1 503 946 5980

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