

# **The TCO of Enterprise Email**

**An Osterman Research White Paper**

*Published June 2012*

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**VMware Zimbra®**



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## EXECUTIVE SUMMARY

Email is pervasive in virtually all organizations: the average user sends or receives 145 emails on a typical workday, spends 165 minutes each workday doing something in their email client, and uses email more than all other modes of communication combined<sup>i</sup>. Moreover, despite the conventional wisdom that email is becoming less important and will lose out to newer forms of communication like text messaging or social media, email is actually becoming more important: 42% of email users report that they are using email more than they were 12 months ago compared to only 10% who report lower usage over the same period<sup>ii</sup>.

The result is that email has become more or less like a utility akin to electricity: it is critically important to get work done, it must operate with very high levels of reliability, and it should be as inexpensive as possible.

### KEY TAKEAWAYS

The goal of this white paper is to present an Osterman Research analysis of the Total Cost of Ownership (TCO) for several leading email systems that are delivered via on-premise infrastructure and/or using a cloud-based model. Our analysis revealed that:

- On-premise VMware Zimbra is less expensive than other leading on-premise email solutions in organizations ranging from 500 to 20,000 users.
- While the per user price for all of the email systems and services we examined drops as user counts increase, Zimbra's price per user drops more rapidly than other on-premise solutions.
- Google Apps is less expensive than on-premise Zimbra at lower user counts, but at roughly 3,000 users on-premise Zimbra becomes the least expensive system to operate. Our analysis found that Google Apps is slightly less expensive than hosted Zimbra across the entire user range.

### ABOUT THIS WHITE PAPER

This white paper offers an unbiased analysis of the TCO for leading email systems. It also provides a brief overview of VMware Zimbra, the sponsor of this white paper, and the company's relevant solutions.

## THE TCO STUDY

### METHODOLOGY

The purpose of this study was to understand the TCO of four on-premise email systems (IBM Lotus Notes Domino, Microsoft Exchange, Novell GroupWise and VMware Zimbra) and three cloud-based email offerings (Google Apps, Microsoft Office 365 and hosted Zimbra).

Our methodology for developing the TCO model used in this white paper consisted of developing two sets of data:

- Osterman Research conducted surveys in mid-March 2012 with 132 individuals on its survey panel who are familiar with the IT staffing levels involved in managing their corporate email systems. A wide range of organization sizes were surveyed – the mean number of email users at these organizations was 7,998.
- The second effort consisted of gathering secondary data, including publicly available prices for server hardware, server licenses, client access licenses (CALs), client software, security appliances, hosting fees, support charges, etc.; along with assumptions about IT labor rates, IT time investments for hosted solutions, and anticipated growth in labor rates over the next three years.

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Using the primary research data, we established an equation (a “best fit” trend line based on the data) to determine the amount of IT labor required to manage each system at various user counts: 500, 1,000, 5,000, 10,000 and 20,000 users.

The primary and secondary data were then used to develop a cost model that calculated for each user count:

- The number of servers required for each on-premise system
- The IT staff requirements in terms of full-time equivalent (FTE) staff required
- The annual hosting fees (where applicable)

It is important to note that individual organizations may experience higher or lower TCO than calculated by our model. However, for the typical organization using the data and assumptions we developed (e.g., IT labor rates or server costs), we believe the cost model accurately reflects the actual TCO that organizations will experience in their own environments.

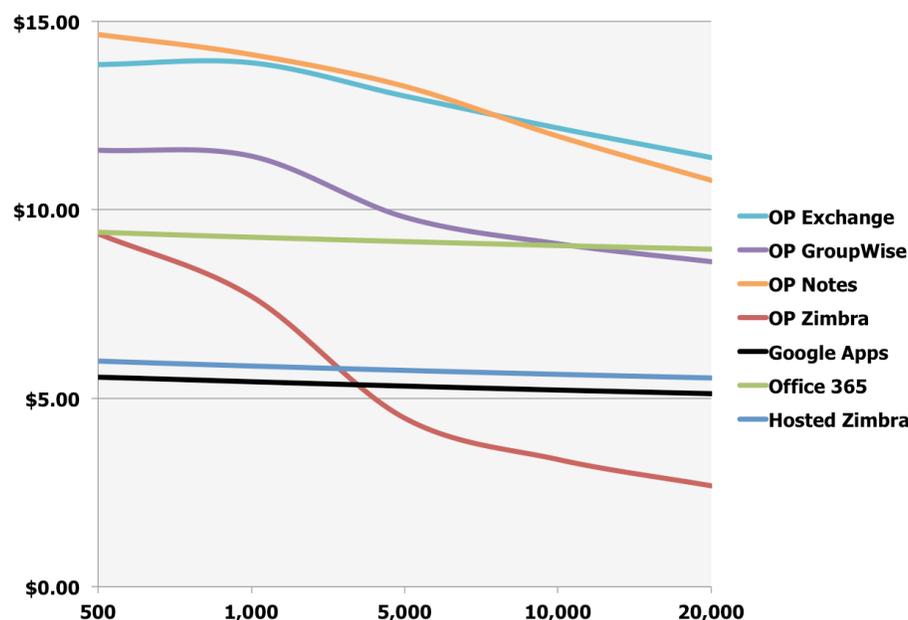
### THE TCO OF LEADING EMAIL SYSTEMS

Not surprisingly, our research found that the TCO of both on-premise email systems and cloud-based offerings is dependent to varying degrees on user volumes. For example, we found that:

- The TCO of some solutions is quite sensitive to user volumes (i.e., increasing user volumes will have a significant impact on overall TCO per user), while other solutions are less volume sensitive.
- Cloud-based solutions tend to have the least variability in TCO across user volumes because in-house labor represents such a small component of their overall TCO.
- Some cloud-based solutions tend to have lower TCO than on-premise solutions at user volumes up to roughly 3,000 users, while on-premise Zimbra has the lowest TCO at volumes exceeding this number of users.

The TCO for the solutions we analyzed are shown in the following figure and table.

Monthly, Per User TCO For Various Email Solutions



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## Monthly, Per User TCO For Various Email Solutions

System	500 Users	1,000 Users	5,000 Users	10,000 Users	20,000 Users
On-Premise Exchange	\$13.85	\$13.90	\$13.02	\$12.17	\$11.39
On-Premise GroupWise	\$11.58	\$11.43	\$9.81	\$9.10	\$8.62
On-Premise Notes	\$14.66	\$14.12	\$13.28	\$11.95	\$10.78
On-Premise Zimbra	\$9.38	\$7.71	\$4.47	\$3.38	\$2.68
Google Apps	\$5.57	\$5.44	\$5.32	\$5.22	\$5.12
Office 365	\$9.40	\$9.27	\$9.16	\$9.05	\$8.96
Hosted Zimbra	\$5.98	\$5.86	\$5.74	\$5.64	\$5.54

### KEY ISSUES TO CONSIDER

There are a number of issues to consider when evaluating the TCO of any email solution. For example, some components that comprise TCO can have minor impacts on overall costs, while some will have significant impacts:

- **Server hardware and software**

Server hardware and software tend to have a relatively minor impact on the overall TCO for email systems that are managed on-premise. The server hardware that we assumed in this analysis was a Dell PowerEdge R610 with 12Gb of RAM and 6-core processor priced at \$5,347<sup>iii</sup>. If we tripled the price of this server with all other costs held the same, the impact on overall TCO would be relatively minor, particularly at higher user counts. For example, the cost per user per month for on-premise Microsoft Exchange would increase from \$13.85 to \$14.45 for 500 users (an increase of 4.3%), and from \$11.39 to \$11.59 for 20,000 users (an increase of 1.8%).

Similarly, if the price of Exchange Server 2010 Standard and Enterprise editions were to increase by 500% (an admittedly unrealistic prospect), the cost per user per month for on-premise Microsoft Exchange would increase from \$13.85 to \$14.01 for 500 users (an increase of 1.1%), and from \$11.39 to \$11.70 for 20,000 users (an increase of 2.7%).

- **Labor requirements**

Unlike the cost of server hardware and software, the amount of IT labor required to manage an on-premise solution can have a significant impact on the overall TCO of an email system. For example, if on-premise Exchange required 25% more IT staff to manage, the monthly cost of Exchange for 500 users would increase from \$13.85 to \$14.99 (an increase of 8.2%), and for 20,000 users the monthly cost would increase from \$11.39 to \$11.99 (an increase of 5.3%).

Clearly, minor changes in the amount of IT labor required to manage an email system can have much more impact than major changes in the cost of server hardware or software.

- **Labor rates in various geographies**

Our analysis assumed a fully burdened annual labor rate of \$80,000 per year for an email administrator, a relatively conservative assumption for many labor markets. However, if we were to use a fully burdened salary of \$110,000 – a more reasonable figure for a region like the San Francisco Bay Area or Manhattan in which employees are paid much more than the national average, the impact on TCO would have been substantial. For example, again using Exchange as our example, the cost per user month for on-premise Microsoft Exchange would increase from \$13.85 to \$15.56 for 500 users (an increase of 12.3%), and from \$11.39 to \$12.29 for 20,000 users (an increase of 8.0%).

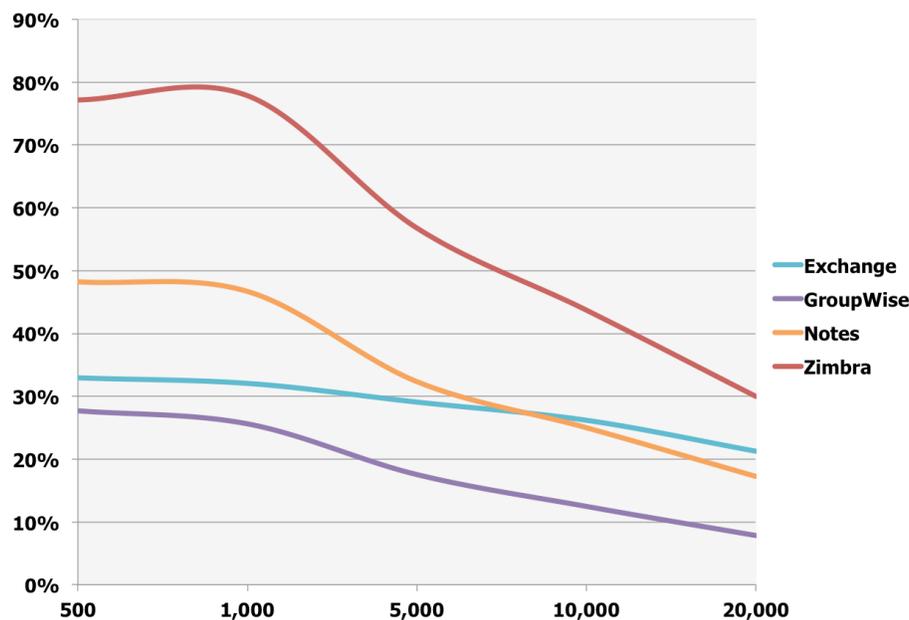
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## FOCUS ON LABOR, NOT INFRASTRUCTURE

What this tells us is that the server-related elements on which an on-premise email system is built have a relatively minor impact on overall TCO. Consequently, significant expenditures for robust and reliable hardware, clustering, disaster recovery and business continuity systems and the like will have little impact on the total, multi-year TCO of email. If an organization opts to extend the life of its infrastructure to four or five years between major upgrades, then the impact of server hardware and server software will be even less.

However, the time investments required to manage an on-premise email system, as well as labor rates, will have a much more important impact on the overall TCO, although this depends to a large extent on the system under examination. For example, VMware Zimbra is heavily influenced by IT labor investments and rates, as shown in the following figure, because the server hardware and other software is relatively inexpensive, while other systems (e.g., Exchange and Notes/Domino), require more expensive software licenses, and so their costs are more influenced by software licensing costs.

Percentage of Labor in Overall TCO for Various On-Premise Systems



Another important issue for decision makers to keep in mind is that for systems whose TCO is more influenced by labor costs, the location of a data center to support on-premise email systems is a key consideration. For example, organizations that want to build a private cloud using these systems can achieve better TCO by placing these data centers in regions with lower labor rates.

## BEST PRACTICES WHEN CONSIDERING THE TCO OF EMAIL

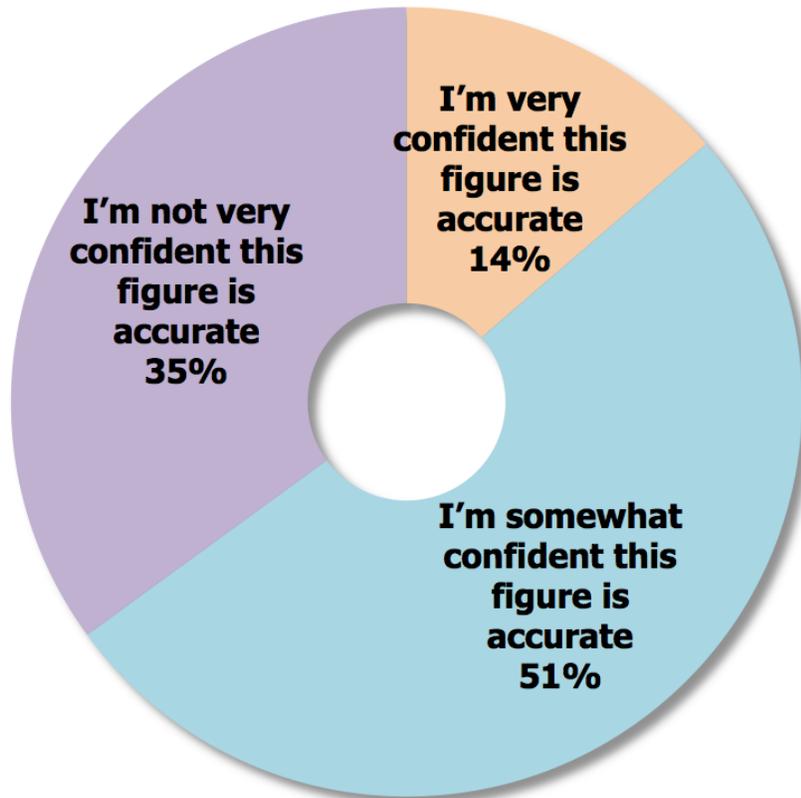
### UNDERSTAND THE ACTUAL TCO OF EMAIL

When considering the deployment of a new email system in an effort to reduce TCO, it is essential that decision makers fully understand the TCO of both their current system and the new system(s) they are considering. However, Osterman Research has found that messaging-focused decision makers and influencers often are not

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confident that they can accurately estimate the TCO of their current messaging system, as shown in the following figure.

#### Confidence in Estimates of Messaging Costs



What this reveals is that many decision makers are “flying blind” when it comes to making decisions about new messaging platforms in the context of TCO: they often cannot reliably estimate the cost of their current system, and so cannot accurately estimate how a new system will impact TCO. One of the key areas in which decision makers and influencers are not as well versed as perhaps they should be is overall contribution of IT labor to TCO, largely because without a chargeback mechanism in place many decision makers simply do not have the tools available to determine the TCO of their current email system(s).

#### EVALUATE YOUR OPTIONS

Another important consideration is for decision makers to carefully evaluate their deployment options for new messaging platforms. While on-premise solutions are the norm in most organizations, and the cloud is receiving substantial amounts of attention as the direction for new capabilities, Osterman Research recommends that organizations use either or both as necessary. For example, a 750-seat organization is large enough to hire its own IT staff and can support an on-premise email system, or it can be well served by a cloud-based email solution from a leading vendor. A 25-seat organization, on the other hand, may be better served using a cloud-based solution because of its lack of dedicated IT staff.

A very large organization, on the other hand, with a large headquarters operation and many field offices with only a handful of employees in each one could deploy a hybrid email system in which on-premise infrastructure is used for the headquarters and a cloud-based solution is used for the remote offices. Another good alternative is to

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maintain servers in-house, but deploy desktop clients only for some users and Web clients for field offices and all other users. This approach – assuming that the Web client provides a snapshot of the cloud for offline use and does not require an always-on connection – can drive costs down because the system is maintained only at the server, and it can provide a robust user experience.

The advantage of the hybrid approach – whether using a combination of on-premise and hosted services, or a combination of traditional and Web clients – is that on-premise IT staff are not needed in locations that cannot afford them, nor is an office manager required to be the de facto “IT person”.

With regard to the choice of on-premise, cloud-based or hybrid email solutions, there is no “right” answer. The issue must be determined based on TCO issues, as well as how and which mail-enabled applications are used in an organization, the geographic distribution of employees, corporate initiatives for migrating to the cloud and other factors.

### CONSIDER LONG-TERM REQUIREMENTS

Although TCO is a key consideration in selecting an email system, there are a number of important factors that impact TCO less directly that should also be involved in the decision-making process as organizations evaluate their options:

- **How will email be used in three to five years?**

Some believe that email is on its way out and that it will be replaced by social media tools, text messaging and other messaging capabilities as newer workers enter the workforce. Osterman Research strongly believes that is not the case. Instead, email – which is used 165 minutes per day by the typical workplace user – will evolve into more of a portal for email and other types of communication. For example, some email clients today allow social media and instant messaging to be used directly from within the email client itself. Email systems that permit this integration can lower TCO because they reduce the “friction” that can result when users must continually switch between interfaces to view their various modes of communication.

Osterman Research believes that email will become something of a clearinghouse for various types of content. During the next few years, email will be managed via a combination of corporate policies and client-side rules that will determine how communications are managed, and that will decide the best mode to employ on a real time basis. For example, an email to someone should be received on whatever device and in whatever mode a recipient desires based on his or her presence status, time of day or other information.

- **How will email need to integrate with other capabilities?**

Another important consideration, somewhat related to the point above, is that email will need to integrate with other capabilities like CRM, text messaging and various corporate applications. The choice of an email system will need to consider how well that system can integrate with third-party capabilities to provide additional capabilities. Systems that integrate easily with other capabilities will keep TCO low – systems that do not will result in higher TCO.

- **What will the corporate computing environment look like long term?**

Another important consideration is the long-term view of what the corporate computing environment will be. Will it be based primarily in the cloud with only the highest value services managed on-premises? Will it continue to be managed primarily using in-house systems because IT has a bent toward keeping things behind the corporate firewall? Will basic capabilities be managed in-house and more sophisticated services provided by cloud providers because of a lack of in-house expertise? Will the infrastructure remain on-premises but be managed by third parties remotely?

These are all questions that, in addition to direct TCO, will have an important

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bearing on which email system an organization should choose. For example, an inexpensive, on-premise email system might be migrated easily to a cloud model, or it could create disruption and require something akin to a “rip-and-replace” of the existing infrastructure. If the former, it will maintain the low TCO for which the system was adopted in the first place; if the latter, it could end up being more expensive than systems that today have a higher TCO.

In short, the key questions need to be these: a) What is the TCO of an email system today – the short term view of TCO; and b) how adaptable is an email system to the future IT landscape – the long term view of TCO?

## CONCLUSION – WHY CONSIDER ZIMBRA?

Decision makers seeking an email system that offers low TCO should seriously consider VMware Zimbra for several reasons:

- As discussed in this white paper, Zimbra offers a lower TCO than market leader Microsoft Exchange and other on-premise systems across all of the user ranges analyzed – for mid-sized organizations through large enterprises. This will result in significant savings for any size of organization – for example, an organization of 500 users will save nearly \$27,000 annually by using on-premise Zimbra compared to on-premise Exchange, while an organization of 20,000 users will save nearly \$2.1 million annually.
- Zimbra offers an identical user experience when used via a browser interface or when using the free thick client available for Windows, OS X or Linux. This can lead to further reductions in TCO, since no training is required for users switching from one interface to the other, friction is not introduced for users switching back-and-forth between Web and thick clients on a regular basis, and any desktop operating system can be supported.
- Zimbra is available both as an on-premise system, as well as a hosted solution by a number of independent providers worldwide. This permits an organization to deploy Zimbra on-premise and later migrate to the cloud with relative ease, or vice versa. Moreover, it permits relatively seamless deployment of a hybrid system in which some users are served by on-premise infrastructure and others are served by cloud providers.
- Zimbra, founded in 2003, has a long track record of innovation and offers easy integration with third party applications. This enables TCO to remain low because new capabilities can easily be integrated into the Zimbra user experience, whether used with the thick client or via the Web.

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## ABOUT OSTERMAN RESEARCH, INC.

Osterman Research provides timely and accurate international market research, cost data, cost models, benchmarking information, white papers, Webinars and other services to technology-based companies. We do this by continually gathering information from IT decision-makers and end-users of information technology. We analyze and report this information to help companies develop and improve the products and services they offer to these markets or to internal customers.

Osterman Research has developed numerous cost models that compare and contrast the cost of various messaging solutions, including hosted/managed versus on-premise solutions.

Among the things that make Osterman Research unique is our market research panel: a large and growing group of IT professionals and end-users around the world with whom we conduct our research surveys. This allows us to conduct surveys quickly and accurately with very high response rates. We are continually developing our panel of IT professionals and end-users into one of the leading sources of information for companies that offer products and services in the IT space.

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<sup>i</sup> Unpublished Osterman Research survey results, September 2011

<sup>ii</sup> Ibid

<sup>iii</sup> Server was configured and priced using the calculator available at [www.dell.com](http://www.dell.com).