

# **Why the Cloud is Not Killing Off the On-Premises Email Market**

**An Osterman Research White Paper**

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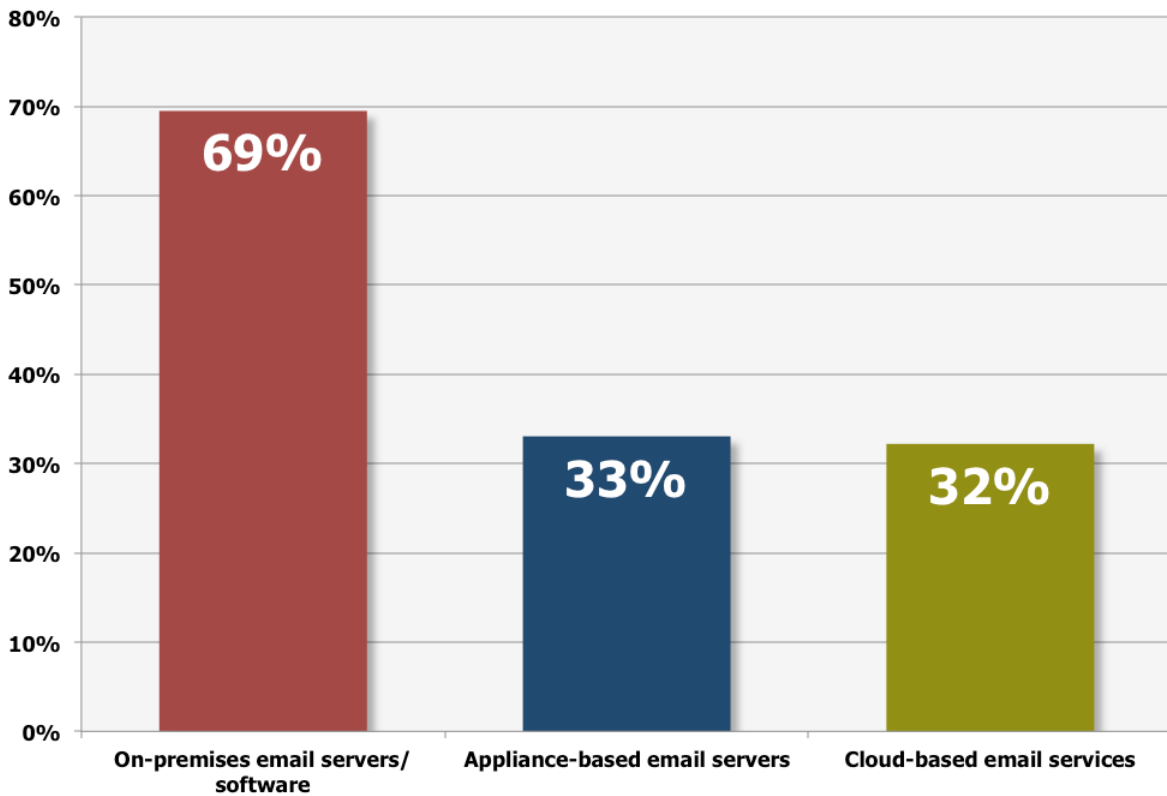
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## Executive Summary

Email is the communication lifeblood for most organizations and is considered a mission-critical system in almost all organizations that employ email. Numerous Osterman Research surveys show that the majority of decision makers prefer to maintain the responsibility for email inside the organization – as shown in the figure below – due in large part to the control, security and cost benefits of an on-premises model.

### Delivery Models Preferred for Deploying a New Email System From Scratch

(% Responding Would Likely or Definitely Use This Model)



### WHITHER THE CLOUD?

Does this preference for on-premises email infrastructure somehow indicate that the cloud will become less important over time? Absolutely not. Osterman Research surveys, as well as those from many other research firms, indicate that the cloud is a very popular deployment model for email capabilities and that its capabilities are becoming more important and more widely accepted over time. The cloud offers a number of important benefits, not least of which are its low and predictable cost of ownership, the ability to let specialist providers manage key email and related functions, and the freeing up of IT staff for other initiatives. Our research shows that cloud-based email is becoming more popular over time with significant growth in the number of corporate users served by this delivery model.

What this does mean, however, is that ultimately the choice about how to manage email will not come down to a decision about on-premises *or* cloud, but rather *which* services will remain on-premises and which will be managed in the cloud. Over the next several years, email management will evolve toward a hybrid model for virtually all but the smallest organizations.

### ABOUT THIS WHITE PAPER

This white paper, sponsored by Sendmail, is a follow-on to a Webinar that was delivered in late February 2011. It offers the Osterman Research view of why the on-premises model continues to be a viable one for email service delivery, why it is preferred and necessary in some situations, and why email services will migrate toward a hybrid model of on-premises and cloud-based services over time. This white paper also includes information about Sendmail.

## The Cloud is a Robust Service Delivery Model

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### BENEFITS OF CLOUD-BASED EMAIL

The concept of the cloud is a simple one: a service provider processes, manages or stores customer data in a remote data center either as a substitute for, or as a supplement to, customers' on-premises infrastructure. The cloud is a concept that has been in use for many years, but has only recently has gained significant traction in the messaging space for a variety of services, including complete backend email services (e.g., hosted Exchange, LotusLive or Google Apps), virus- and spam-filtering services, archiving services, encryption services, and a variety of other remotely managed capabilities.

The cloud is currently popular for services ranging from email to CRM to storage to archiving. The interest and enthusiasm in the cloud is not without merit because of the many benefits that the cloud delivery model can provide:

- Low and predictable cost of ownership
- The shift from a capital expenditure (CAPEX) to an operating expenditure (OPEX) model
- Ease of managing IT services
- Freeing up IT staff to spend time on more strategic tasks and less time on routine maintenance of email servers and other parts of the infrastructure
- The ability to add new services quickly and easily

***Ultimately, the choice about how to manage email will not come down to a decision about on-premises or cloud, but rather which services will remain on-premises and which will be managed in the cloud.***

### A GROWING NUMBER OF ORGANIZATIONS ARE MOVING TO THE CLOUD...

Based on Osterman Research surveys of mid-sized and large organizations, the penetration of cloud-based messaging services of various types will increase significantly during the 2010-2013 forecast period. For example, Osterman Research anticipates that North American corporate email users served by a cloud-based messaging system will increase from 7% of users in 2010 to 21% by 2013. Similarly, 34% of users used a thin client (e.g., a Web browser) to access

email in 2010 – Osterman Research forecasts this figure will increase to 44% by 2012, indicating further reliance on cloud-based delivery of email services.

While the cloud has traditionally been considered a viable option only for small organizations that lack dedicated IT staff to manage on-premises infrastructure, that is no longer the case. Many enterprises have opted to deploy cloud-based email for some or all of their users, such as:

- Intercontinental Hotels has migrated all of the users in their chain of 4,500 hotels worldwide to Google Gmail.
- GlaxoSmithKline has migrated 110,000 users to Microsoft’s Business Productivity Online Suite (BPOS).
- The State of California will migrate nearly 200,000 state employees to Microsoft’s cloud-based messaging services.
- More than one-half of the 30,000 employees of the City of Los Angeles have been migrated to Google Apps. This followed the 2009 deployment of Google Apps to 30,000 of Valeo Group’s employees.
- Panasonic began migrating 100,000 employees to IBM LotusLive in early 2010 and plans to migrate a total of 380,000 employees to the platform over time.

In short, the cloud delivery model is as viable for large enterprises as it is for smaller companies.

### **....BUT THE MARKET WILL REMAIN LARGELY ON-PREMISES**

Despite the interest in and growth of the cloud, the vast majority of corporate email users will be served by on-premises solutions for many years to come. By no means is that an indication that the cloud-based model for delivering email and related services is not a viable one. Instead, it reflects the fact that there are a variety of important benefits of the on-premises delivery model for these services. For example, while Osterman Research forecasts strong growth of the cloud for delivering email, roughly four out of five corporate email users will continue to be served by on-premises systems.

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## **What are the Benefits of the On-Premises Model?**

There are a number of benefits that the on-premises model for email delivery can provide. These include:

- **A greater number of solution providers offers more flexibility**  
As the traditional model for deploying email, there is a wide variety of on-premises email solutions available on the market from a large number of vendors. While many of these

vendors also offer cloud-based solutions, the majority of these vendors' email-related revenue comes from on-premises solutions.

- **A variety of delivery models**  
On-premises solutions offer a wide variety of delivery models, including on-premises physical servers, on-premises virtualized servers, purpose-built appliances and virtualized appliances.
- **Large number of operating systems and virtualization environments supported**  
On-premises solutions are also available for virtually every operating system, including Windows, Linux, Mac, etc., as well as for VMware, Microsoft Hyper-V and Citrix XenServer.
- **Potentially low cost of ownership**  
While the cloud boasts a low cost of ownership, many on-premises solutions can also offer low cost of ownership. Osterman Research cost modeling has demonstrated, for example, that some (although definitely not all) on-premises email systems offer about the same cost of ownership as many cloud-based email solutions, particularly if an on-premises solution includes features that might represent an extra cost from a cloud provider.

As an example of an on-premises system with a low acquisition cost is Alt-N Technologies' MDAemon Messaging Server, which has a three-year licensing and support cost of \$0.93 per seat for 50 users, or \$0.13 per seat for 1,000 users. A separate analysis undertaken by Osterman Research found that the three-year cost of MDAemon – including labor, server hardware, support costs, etc. – is \$13.64 per seat per month, a figure that is on par with the cost of many cloud-based solutions. While a chief benefit of the cloud is the ability for SMBs to have a reliable email capability with the minimal IT resources that they normally have available to them, the right on-premise email system – one that requires minimal maintenance – can offer fundamentally the same advantage.

- **Use of a multi-vendor architecture**  
On-premises solutions also offer the ability to use a multi-vendor architecture that may reduce the risk of external attack and that can reduce the risk of data breaches.
- **Re-use of existing servers and other infrastructure components**  
Another benefit of an on-premises delivery model, particularly for organizations that are migrating or upgrading from one email system to another, is the ability to re-use existing servers and storage hardware. Hardware re-use can provide a significant cost reduction, particularly for smaller organizations that are spreading the cost of server hardware over a relatively small number of users.
- **Avoiding potential problems associated with multi-tenant environments**  
Although there are a number of robust multi-tenant, cloud-based systems in use today, there are potential disadvantages of a multi-tenant architecture, including one tenant periodically consuming the majority of system resources, greater sensitivity to scalability issues, and potential security issues. The inherent single-tenancy of on-premises solutions largely avoids these issues.

- **Ability to run key processes in-house**

Finally, there are some capabilities that are best served by on-premises solutions, including very high volume, time-sensitive email broadcasts; some types of customer-service communications; and some billing applications, among others.

## Some Applications Must Stay On-Premises

Another important benefit of on-premises email solutions is that they permit complete control over the custody of data. A company using a cloud provider may not be able to exercise this level of control over how and where their data is managed, resulting in potential legal and/or regulatory problems. This is a critical consideration in a variety of situations – for example:

- Personal data held by European companies, such as personnel records or customer financial information, cannot be transferred out of the European Economic Area (EEA) – the 27 countries that belong to the European Union – without violating the EU Data Protection Directive (95/46/EC). The only US companies permitted to transfer such data outside of the EEA are those that have self-certified under the Safe Harbor framework, a rigorous set of requirements designed to protect the integrity of sensitive data about residents of the EEA. If a non-certified company in the EEA uses a cloud-based provider that hosts data outside of the EEA, that company could be in violation of the EU Data Protection Directive if it cannot control the location of its data storage.
- Singapore’s banking laws require additional due diligence when using an outsourced provider of any kind outside of the country. For example, regulations issued by the Monetary Authority of Singapore (MAS) require that “banks are to take appropriate due diligence measures, including the assessment of the track record, reputation, financial soundness of the service provider and its ability to safeguard the confidentiality of information entrusted to it”. Further, MAS requires that “all outsourcing arrangements are to be appropriately documented by means of a written outsourcing agreement.”
- Swiss laws prevent banks in the country from sharing data outside of the country, making use of cloud providers problematic unless they can be assured that the content they store in the cloud never leaves Switzerland.
- There are some very high volume email-generating applications that are often better managed using on-premises infrastructure, particularly when communications are highly time sensitive or when confidential information is being sent. For example, some brokerage houses send out very large volumes of email early each trading day to customers and prospects – an inability to send high volumes of email during a tight time window means that fewer customers are informed of opportunities which, in turn, leads to fewer investments by these customers.

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There is a saying in many financial services organizations “the first one to the inbox wins!” Organizations that must send large volumes of sensitive or confidential information, such as healthcare invoices or benefits statements, may find it more advantageous to maintain these high-volume email-sending capabilities in-house.

- Many organizations also find that some of their email-enabled applications simply cannot migrate well to the cloud because it would be too costly to rewrite them for cloud-based delivery. These may be legacy applications that would have to be completely re-written if they were transferred to the cloud, or applications that are important to a particular function, but not to the enterprise as a whole.

## The Cloud and On-Premises are Not Mutually Exclusive

It is also important to note that the cloud and on-premise systems are not mutually exclusive delivery models – many organizations are using both models in combination, realizing the advantages of both. For example:

- An organization might choose to use an on-premises email system for their corporate headquarters to serve several thousand users with a team of dedicated IT staff members. For field offices, where there might be only 10 or 20 employees at each location, the cost of employing IT staff might be prohibitive and a cloud-based email solution might be more appropriate.
- An organization might opt for a cloud-based solution for its employees that use email, but maintain dedicated, on-premises systems for very high-volume and time-sensitive email broadcasts for its customers, as noted above.
- On-premises systems could be used for the primary email system, but a cloud-based email continuity/disaster recovery system could be used to maintain availability during outages of the primary system.
- The primary email functionality could be maintained using on-premises infrastructure, but all ancillary capabilities for anti-spam, anti-virus, anti-malware and email archiving could be maintained in the cloud.

***The key for any organization is to support cloud-based solutions with on-premises infrastructure, such as critical email-enabled applications or those that must remain in-house for compliance reasons.***

### REAL-WORLD EXAMPLES OF HYBRID DEPLOYMENTS

There are a number of example of companies that are using such a hybrid approach:

- GlaxoSmithKline has migrated its users to Microsoft’s cloud-based BPOS and ForeFront offerings, while still maintaining an email backbone for some of its email functionality.
- One of the largest biotech companies is using Google Gmail and Google Postini Services for email and email security, respectively, but also using Sendmail for its email backbone.

## **DEPLOY HYBRID SOLUTIONS WHERE IT MAKES SENSE TO DO SO**

The key for any organization is to migrate to the cloud where it makes sense to do so – such as for security or archiving applications – and to support cloud-based solutions with on-premises infrastructure, such as critical email-enabled applications or those that must remain in-house for compliance reasons. Deciding on the balance between on-premises solutions and cloud-based alternatives will hinge on the three goals of a) mitigating risk, b) driving down the cost of email and c) maintaining 24x7 reliability.

## **Sponsor of this White Paper**

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