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# Tier Your Workforce To Save Money With Cloud-Based Corporate Email

by Ted Schadler

for Information & Knowledge Management Professionals



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## Tier Your Workforce To Save Money With Cloud-Based Corporate Email

Occasional Users Can Run Email In The Cloud For As Little As \$2.43 Per Month

This is the fifth document in the “Email In The Cloud” series.

**by Ted Schadler**

with Matthew Brown, Christopher Voce, and Sara Burnes

### EXECUTIVE SUMMARY

Information and knowledge management (I&KM) pros are used to giving all employees the same software tools. While this has the benefit of simplicity, it often means buying licenses for software that is seldom or never used. With cloud-based email, firms now have a way to tune their email costs to the actual needs of their workforce. The easiest way to get started is to host some mailboxes on-premises and others in the cloud. While firms with fewer than 15,000 employees can almost always save money by moving all mailboxes to the cloud, every firm can save money by moving their occasional users — workers that can get away with a Web-based email client — to a cloud-based email provider. How much money? For these occasional users, as much as \$63 per user per year.

### TABLE OF CONTENTS

- 2 **Companies Are Getting Smart About Email Costs**
- 2 **Tier Your Workforce To Determine Email Needs**
- 3 **On-Premises Email Costs More Than You Think**
- 5 **Cloud-Based Email Is Cheaper For Occasional Users**
- 8 **The Market For Cloud-Based Email Is Rapidly Maturing**
- 9 **The First Steps To Tiering Your Workforce**

#### RECOMMENDATIONS

- 9 **Tackle Other Big Buckets Of Cost: Mobility, Migration, And Archiving**
- 10 **Supplemental Material**

### NOTES & RESOURCES

As background for this report, Forrester has spoken with more 100 user companies and five vendors, including Cisco Systems, Google, IBM Lotus, Microsoft, and Oracle.

#### Related Research Documents

[“Use Deduplication To Store More With Less”](#)

July 10, 2009

[“Case Study: Learning From GlaxoSmithKline’s Cloud-Based Email Decision Process”](#)

June 16, 2009

[“Inquiry Spotlight: Corporate Email, Q1 2009”](#)

January 30, 2009

[“Should Your Email Live In The Cloud? A Comparative Cost Analysis”](#)

January 5, 2009

[“Should Your Email Live In The Cloud? An Infrastructure And Operations Analysis”](#)

January 5, 2009

## COMPANIES ARE GETTING SMART ABOUT EMAIL COSTS

Forrester has had more than 100 conversations with enterprise and government clients in the past six months to talk about how to save money on email.<sup>1</sup> The questions have ranged from “Should I consolidate on Lotus Notes 8.5 or Microsoft Exchange 2007?” to “Can I switch to Google Apps and cloud-based email?” to “Should I do message filtering and archiving in the cloud?” But one question comes up most frequently: “How can I cut costs out of my corporate email?”

There are many ways to cut email costs. For example, you can upgrade to a newer version of Microsoft Exchange, Lotus Notes, Novell GroupWise, or Oracle Beehive and save money on servers, storage, and administrative costs. You can move email filtering to a cloud provider like Google Postini, Microsoft, or Symantec MessageLabs and save money on servers, staffing, bandwidth, and software. You can consolidate your email systems, thus reducing administration and support costs.<sup>2</sup> You can deduplicate your attachments and save money on storage.<sup>3</sup> And some organizations can also move mailboxes for some or all of the workforce to a cloud-based email service like Google Apps Premier Edition, hosted Exchange, Microsoft Exchange Online, or hosted Oracle Beehive.

In this report, which is an extension of Forrester’s previous work on the cost and practicality of running email on-premises versus in the cloud, we dissect the costs of on-premises email for different tiers of workers and compare the costs of on-premises versus cloud-based email for occasional users.<sup>4</sup>

## TIER YOUR WORKFORCE TO DETERMINE EMAIL NEEDS

Most firms have a diverse workforce, where the need for email varies tremendously. Email requirements often vary by mailbox size, mobile device support, volume of email, archiving requirements, and the need (or not) for an installed email client.

We have created a typical scenario for a 100,000-person organization with three categories of email users, none of which require archiving (see Figure 1):<sup>5</sup>

- **Mobile executives need big mailboxes and mobile messaging.** Mobile executives — employees who spend most of their time away from their desks — typically need extra messaging services, particularly BlackBerry devices or other smartphones. This group is also the most likely to keep big attachments lying around in their inboxes, so plan on 2 gigabyte mailboxes. We model this group as 10% of employees.
- **Information workers need a dedicated email client, but smaller mailboxes.** Many employees with PCs spend an hour or more in their email client every day, so they expect a Notes or Outlook email and calendaring client. This group might be trained to keep their inboxes purged of large attachments, so a 1 gigabyte mailbox could suffice. In our model, this is the majority of the workforce with 70% of employees.

- **Occasional users don't need big mailboxes or dedicated email clients.** The members of this third group, which includes people who don't sit in front of a PC all day or who work part time or as contractors or partners, are often given features they don't need — or they're left without a business email address at all. Support them with a Web mail client and small mailbox.<sup>6</sup> We model this group as 20% of employees, though it could be much larger if you give business partners a mailbox.

**Figure 1** Tier Your Workforce Based On Its Email Needs

	Mobile executives	Information workers	Occasional users
Number of workers	10,000	70,000	20,000
Percentage of workforce	10%	70%	20%
Size of mailbox	2 gigabytes	1 gigabyte	250 megabytes
Need email client?	Yes	Yes	No
Archive?	No	No	No
Mobile device?	Yes, BlackBerry	No	No

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Source: Forrester Research, Inc.

### ON-PREMISES EMAIL COSTS MORE THAN YOU THINK

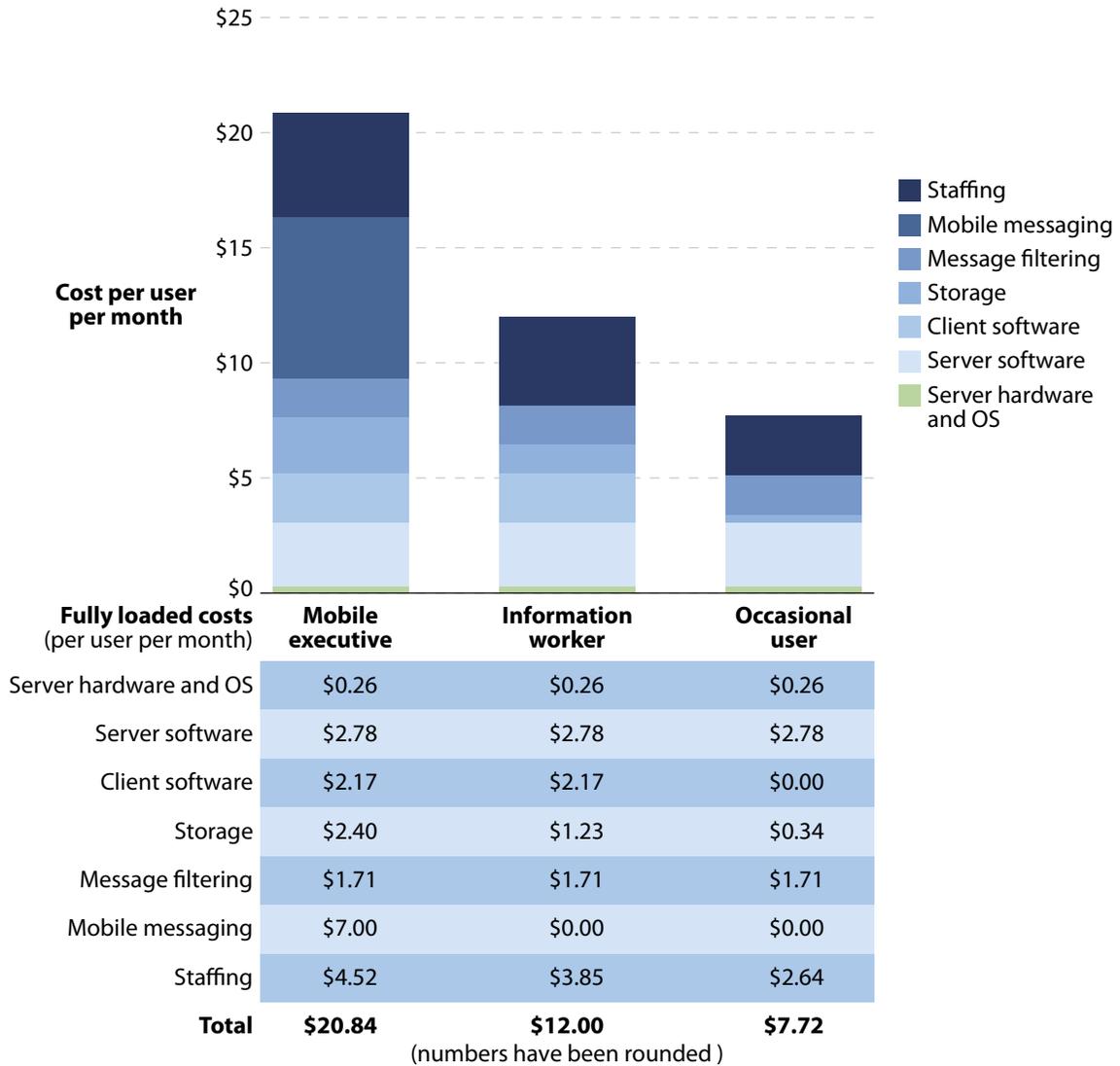
When we did our original research on the cost of email, we found that most IT shops don't have a ledger of email costs and often didn't know what they were spending to provide mailboxes to employees.<sup>7</sup> We built a comprehensive cost model to calculate the fully loaded costs of providing email on-premises that includes servers, storage, software, message filtering, staffing, financing, and mobile messaging where appropriate. This calculation assumes that the firm is running a consolidated email system with the latest software. While smaller firms will typically see a higher cost per mailbox because of higher license fees and somewhat lower staffing efficiency, for a very large company with 100,000 mailboxes (see Figure 2):

- **Mobile executive mailboxes cost \$20.84 per user per month.** This power user carries the additional costs of larger mailboxes and especially mobile messaging support. The cost of mobile messaging varies based on the level of administrative and security control required. We have modeled a high-end offering with BlackBerry Enterprise Server support. Archiving would add an additional \$4.50 to this monthly cost.
- **Information worker mailboxes cost \$12.00 per user per month.** This group has a larger mailbox and an installed email client, which in addition to significant license, storage, and staffing costs, makes the cost of serving each member of this large group almost \$150 per year. Archiving would add an additional \$54 to this annual cost.

- **Occasional user mailboxes cost \$7.72 per user per month.** For even a bare-bones mailbox hosted on premises with no email client software, the costs can add up rapidly. Staffing and server software are the biggest cost buckets for this group. Archiving would add an additional \$4.50 to this monthly cost.

**Figure 2** The Fully Loaded Costs Of On-Premises Email For Each Tier

 The spreadsheet detailing this model is available online.



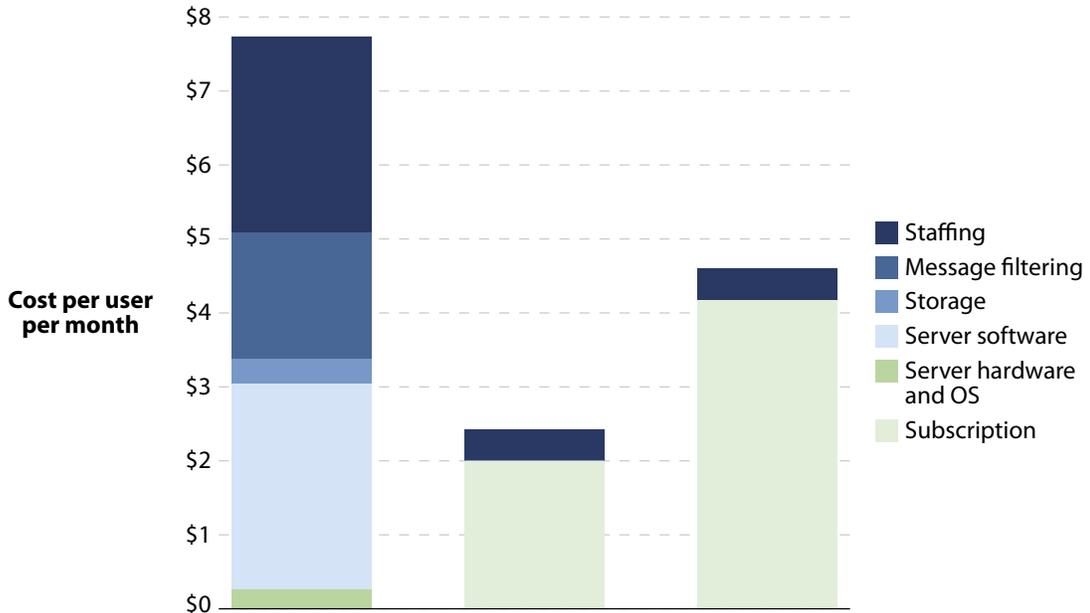
## CLOUD-BASED EMAIL IS CHEAPER FOR OCCASIONAL USERS

The easiest way for a company of this size to save money on its corporate email is to run a hybrid email system to host mailboxes for mobile executives and information workers on premises while moving mailboxes for occasional users to a cloud-based email provider. To demonstrate the savings of cloud-based email, we compare the costs of running mailboxes on premises and in the cloud for occasional users (see Figure 3). If a company with 100,000 mail users were to move only its 20,000 occasional users to a cloud-hosted, Web-based email solution, it would save (see Figure 4):

- **\$750,000 annually with Google Apps Premier Edition.** Google's \$50 per-user per-year price for its full-featured and rapidly expanding collaboration and productivity offering gives firms an easy way to save money by moving all users, including occasional users, to the cloud. Google's offering includes 25 gigabytes of storage; message filtering; Web-based email, contacts, calendar, and directory (and an Outlook connector); mobile email support, instant messaging; word processing, spreadsheet, and presentation tools; team sites, and streaming video.<sup>8</sup> Note that Google Apps is much more than email — it can accommodate the productivity, collaboration, and messaging needs of many firms for the same \$50 subscription. Firms including Fairchild Semiconductor, Genentech, and French auto parts maker Valeo are using Google Apps for all workers, including mobile executives and information workers.
- **\$1.3 million annually with Microsoft Exchange Online Deskless Worker license.** You can provision occasional users with a Microsoft Exchange Online Deskless Worker license that includes a 500 megabyte mailbox, message filtering, and lightweight Web-based email, contacts, calendar, directory, and document viewer for \$2 per user per month.<sup>9</sup> This basic offering gives firms the opportunity to provision users who don't need a productivity suite and may only have access to a kiosk for email. And because it's the same software both on premises and in the cloud, firms can maintain a single administration console for all workers. Firms as large as GlaxoSmithKline are using this Exchange Online option.<sup>10</sup>

**Figure 3** Comparing The Costs For Occasional Users On Premises And In The Cloud

The spreadsheet detailing this model is available online.



Occasional users	On-premises	Microsoft Exchange Online*	Google Apps Premier Edition†
Subscription	\$0.00	\$2.00	\$4.17
Server hardware and OS	\$0.26	\$0.00	\$0.00
Server software	\$2.78	\$0.00	\$0.00
Client software	\$0.00	\$0.00	\$0.00
Storage	\$0.34	\$0.00	\$0.00
Message filtering	\$1.71	\$0.00	\$0.00
Staffing	\$2.64	\$0.43	\$0.43
<b>Total</b>	<b>\$7.72</b>	<b>\$2.43</b>	<b>\$4.60</b>

(numbers have been rounded)

\*Microsoft's offering includes a 500 megabyte mailbox, message filtering, and lightweight Web-based email, contacts, calendar, directory, and document viewer.

†Google's offering includes 25 gigabytes of storage; message filtering; Web-based email, contacts, calendar, and directory (and an Outlook connector); mobile email support, instant messaging; word processing, spreadsheet, and presentation tools; team sites, and streaming video.

**Figure 4** Cloud-Based Email Can Save A Large Firm Millions Of Dollars

 The spreadsheet detailing this model is available online.

Occasional users	On-premises	Microsoft Exchange Online*	Google Apps Premier Edition†
Number of occasional users	20,000	20,000	20,000
Hardware cost	\$2.78	\$0.00	\$0.00
Software cost	\$0.60	\$0.00	\$0.00
Antispam, antivirus cost	\$1.71	\$0.00	\$0.00
Staffing cost	\$2.64	\$0.43	\$0.43
Subscription cost	\$0.00	\$2.00	\$4.17
<b>Total monthly cost</b>	<b>\$7.72</b>	<b>\$2.43</b>	<b>\$4.60</b>
Annual cost savings/person		\$63.47	\$37.47
Total annual cost savings		\$1,269,000	\$749,000

(numbers have been rounded)

\*Microsoft's offering includes a 500 megabyte mailbox, message filtering, and lightweight Web-based email, contacts, calendar, directory, and document viewer.

†Google's offering includes 25 gigabytes of storage; message filtering; Web-based email, contacts, calendar, and directory (and an Outlook connector); mobile email support, instant messaging; word processing, spreadsheet, and presentation tools; team sites, and streaming video.

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Source: Forrester Research, Inc.

### Cloud-Based Email Is Not Just For Occasional Users

We have focused here on occasional users, where the subscription fee for Web-based email is much lower than for email with an installed email client. However, our cost analysis has shown that cloud-based email is not just for occasional users.

- **For small and medium-sized firms, cloud-based email is cheaper for all workers.** For any company with fewer than 15,000 mailboxes, our cost calculator shows that it is typically cheaper to run email in the cloud for all tiers of the workforce. One 3,000-person pharmaceutical company, for example, estimates a three-year cost savings of more than \$500,000 by hosting all mailboxes and archiving at LiveOffice.com.
- **Consider cloud-based email for new groups, regions, and subsidiaries.** Because it is possible to split your email domain among on-premises and cloud-based mailboxes and administer each domain with a single administration tool, you can parse your workforce in other ways and move some workers to the cloud. Any self-contained group could be moved to the cloud. Microsoft, in particular, has focused on a single administration practice for both on-premises and cloud-based email as part of its “software + services” strategy.

## THE MARKET FOR CLOUD-BASED EMAIL IS RAPIDLY MATURING

The market for cloud email providers is growing quickly as more small and medium-sized businesses outsource their entire email systems. In addition to the traditional email hosters like USA.NET, LiveOffice.com, and AT&T Application Hosting Services, Google, Microsoft, and Oracle offer business-class cloud-based email.

One mark of an accelerating market is the arrival of new suppliers. In addition to Google, Microsoft, and Oracle, IBM Lotus and Cisco are, or soon will be, offering cloud-based email. IBM has launched LotusLive.com to compete for cloud-based collaboration services, including email, and Cisco has purchased an email provider to fold into its WebEx Connect cloud-based collaboration suite.

Oracle's Beehive carries a list price of \$10 per user per month for the hosted service for all user tiers. Forrester expects that IBM will also have compelling offerings for cloud-based email, including a cheaper solution for occasional email users. Neither IBM nor Cisco has yet announced pricing for its services for occasional users. However, the prices should be comparable with what Microsoft and Google are charging.

### Don't Forget The Challenges Of Hybrid Email Deployments

Many user and administrator features are consistent across a hybrid deployment, but with some mailboxes on premises and others in the cloud (particularly for the Microsoft environment today and especially with the release of Microsoft Exchange 2010), some are not. Information and knowledge management professionals and other IT pros should be aware of some potential barriers:

- **More complexity in managing compliance and legal hold issues.** If you have to put a legal hold on a project team, and some of those workers run email in the cloud, then you have to separately manage that investigation for the on-premises and cloud-hosted databases.
- **Challenges in seeing "free/busy" status on calendars in the other domain.** The current environment for Microsoft Exchange makes it hard for on-premises users to see the meeting availability of cloud-based users (though cloud-based users can see each others' availability). Microsoft will fix this in Exchange 2010. Key takeaway: Hybrid deployments work best when the groups are largely independent.
- **Administrative challenges from running separate email providers for on-premises and cloud.** Splitting your domain across providers as well as deployment option introduces even more complexity. The challenges are similar to running multiple email systems: duplicate administration, additional staff, and potential for more mistakes.

## FIRST STEPS TO TIERING YOUR WORKFORCE

Forrester has begun surveying information workers to help firms benchmark their own employees' technology adoption and satisfaction. This work has led us to make three suggestions on how best to tier your workforce:

- **Pull together key stakeholders in a workforce assessment and establish common goals.** IT is in a unique position to analyze the workforce because it is responsible for the supplying and managing most of the technology that each employee needs. But other groups — HR, legal, corporate communications, business leaders — have a stake in any workforce analysis. Be sure to convene a council and establish common goals.
- **Use market research techniques to analyze and understand workforce needs.** The availability of online survey techniques greatly lowers the cost of asking workers what they need. But the project can go off the rails unless you tap into the lessons that market researchers have learned: good question design, statistically valid samples, and meaningful segmentations. Your marketing organization is a likely source of expertise and relevant experience.
- **Make provisioning changes in concert with major upgrades or transitions.** In the words of one IT pro: “You can't take stuff away from people.” In other words, you can't downgrade the email experience of a worker just to save some money on email licenses. Before considering moving occasional users to a Web-based email solution, analyze the impact and provide an easy upgrade path for those who decide that they really need an offline or full-featured email experience.

## RECOMMENDATIONS

### TACKLE OTHER BIG BUCKETS OF COST: MOBILITY, MIGRATION, AND ARCHIVING

The fully loaded costs of email include much more than just the cost of provisioning a mailbox. To optimize your email costs, you must also focus on the costs of:

- **Mobility: Match device management costs to the need.** Mobile device management is one of the biggest hidden costs of email. With 45% of enterprises and 60% of SMBs supporting personal smartphones at work, you must be prepared to fund the cost of mobile device management. RIM's BlackBerry Enterprise Server is a best-in-class solution with more than 450 policies supported, but it also carries a hefty license cost. Microsoft Exchange's ActiveSync offers good-enough management for many firms in unregulated industries at no additional cost on-premises and minimal cost in the cloud. Be sure to determine your need and fund the device management accordingly.
- **Migration: Automate, offload, and “big bang” the move.** Use a tool to move mailboxes, calendars, contacts, and tasks. Microsoft and Google have built migration toolkits to move these things to the cloud, and third parties like Quest Software offer migration and co-

existence tools. Ask workers to save their mail history to files to shrink the mailboxes. Bobcat manufacturer Doosan did a “big bang” migration and moved 15,000 workers to Microsoft Exchange Online over a weekend; Google integrator Appirio takes the same approach. These are all established techniques to save money.

- **Archiving: Negotiate for the long term.** Archiving mailboxes is a reality for many in today’s highly-regulated industries — and disaster recovery is a responsibility for everybody else. When considering an archiving solution, do the 10-year math: How much will archiving cost you over 10 years? An analysis like this will drive you to consider deduplicating your attachments to save on storage, establishing one-year renewable contracts to reprice as costs come down, tiering your workers to avoid archiving unnecessarily, and shortening your email retention times to lower the archiving burden.

## SUPPLEMENTAL MATERIAL

### Online Resource

The underlying spreadsheet detailing the costs for on-premises and cloud-based email in Figure 2 is available online.

## ENDNOTES

- <sup>1</sup> For a more detailed look at the questions IT professionals are asking about email, see the January 30, 2009, “[Inquiry Spotlight: Corporate Email, Q1 2009](#)” report.
- <sup>2</sup> Consolidation is top of mind for many IT managers, and a portly email infrastructure is a ripe target to put on a diet. Business factors such as mergers and acquisitions and technical factors such as scalability limitations have driven up the cost of running Exchange. There’s naturally some trepidation when targeting such a business-critical service for consolidation, but the benefits can be significant. In addition to saving money, a leaner Exchange infrastructure can ease the deployment of technologies that can increase productivity and flexibility like unified communications. Exchange Server 2007 brings enhancements that will aid in consolidation efforts, but firms can also consider server virtualization and other options to create a more streamlined email system. With careful and thorough planning, IT managers can reduce the risk of Exchange consolidation while successfully paring down the costs sunk into their email system. See the April 28, 2008, “[Trimming The Fat From Exchange](#)” report.
- <sup>3</sup> While some email systems already keep only a single copy of an attachment for emails sent to multiple people, if those people forward the attachment, then the attachment is replicated and stored multiple times. For a deep treatment on deduplication, see the July 10, 2009, “[Use Deduplication To Store More With Less](#)” report.
- <sup>4</sup> We evaluate the challenges of moving your email services to a cloud-based provider and give specific recommendations for what part of your email system to move off-premise: smaller firms or divisions, some email support services, and occasional users. See the January 5, 2009, “[Should Your Email Live In The Cloud? An Infrastructure And Operations Analysis](#)” report.

- <sup>5</sup> Archiving adds significant cost to every mailbox, as much as \$9 per mailbox per month. However, message archiving is a rapidly evolving market, and information and knowledge management professionals should do a careful assessment of their archiving needs and consider alternative suppliers. The current low-cost provider is Google, which charges \$2.50 for unlimited storage for 10 years.
- <sup>6</sup> Seventy percent of online consumers already use Web-based email at home. Source: Forrester's North American Technographics® Benchmark Survey, 2008.
- <sup>7</sup> In this report, we built a comprehensive model to calculate the cost of running email in-house. See the January 5, 2009, "Should Your Email Live In The Cloud? A Comparative Cost Analysis" report.
- <sup>8</sup> For more information on Google Apps Premier Edition, look here: <http://www.google.com/apps/intl/en/business/index.html>
- <sup>9</sup> For a complete list of features in the Microsoft "deskless worker" subscription, look for references to "Outlook Web Access Light," in Table 2, for example. <http://technet.microsoft.com/en-us/library/aa997437.aspx>. Microsoft also offers basic SharePoint features for an additional \$1 per user per month as part of its broader Business Productivity Online Suite.
- <sup>10</sup> GlaxoSmithKline is moving approximately 90,000 email users to Microsoft's Exchange Online, a cloud-delivered service. To make the decision, GlaxoSmithKline (GSK) went through a rigorous internal discovery process to calculate costs, find dependencies, and analyze its workforce. The result is that GSK is able to optimize its messaging and collaboration platform to meet the full range of its end users' requirements — while saving on its ongoing costs. To make your own cloud-based opportunity, learn from GSK's experience and: 1) analyze your workforce needs; 2) tier your workforce to optimize costs; and 3) calculate your own fully loaded costs. See the June 16, 2009, "Case Study: Learning From GlaxoSmithKline's Cloud-Based Email Decision Process" report.

# FORRESTER<sup>®</sup>

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## Headquarters

Forrester Research, Inc.  
400 Technology Square  
Cambridge, MA 02139 USA  
Tel: +1 617.613.6000  
Fax: +1 617.613.5000  
Email: [forrester@forrester.com](mailto:forrester@forrester.com)  
Nasdaq symbol: FORR  
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