

# Why Your Organization Should Consider Hosted Applications

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**An Osterman Research White Paper**

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## Why You Should Read This White Paper

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Email has become the most important communication mechanism in the workplace today and has become the de facto transport mechanism for documents of all types, including critical business records like proposals and contracts. Because email has become so critical, and because its availability and portability is of growing importance to users in businesses of all sizes and in all industries, many decision makers are considering the use of specialist hosting providers to provide email services. A key driver for organizations to consider hosted email is that so many organizations have successfully used other hosted applications, such as accounting, email security, customer relationship management and payroll.

Hosting email with a specialist provider can offer a number of benefits, including lower and more predictable costs, improved system availability and better management of scarce IT resources, among other benefits. Osterman Research studies have demonstrated that a growing proportion of business and IT decision makers are considering and adopting hosted applications, including those in enterprises.

### EMAIL IS JUST THE BEGINNING

However, email represents only the beginning of the hosted paradigm. Many organizations, once convinced of the benefits of hosted email, will often migrate to other hosted services, including unified messaging, collaboration, archiving, encryption and productivity applications.

Email is the most critical avenue of communication for most users and organizations, and many decision makers may opt to keep these capabilities in-house. However, collaboration tools – including word processing, spreadsheets, wikis, blogs, shared information repositories, video creation tools for training or other purposes, etc. – can provide enormous value for individuals, groups and organizations. And, they can be easily deployed using a hosted paradigm at virtually no risk. Using hosted applications for applications other than email provides an avenue for organizations to try out Software-as-a-Service, or SaaS, without making the larger commitment to outsource messaging.

Deploying cloud-based collaboration capabilities for some or all of their users gives companies a way to start experimenting with hosted applications to see if they can help meet needs.

The benefits of hosting more applications in the cloud continue to be driven by cost and availability considerations. However, hosted applications beyond email – such as WYSIWYG (what you see is what you get) wikis, video-sharing, word processing and spreadsheet capabilities – can provide additional benefits, as well, such as faster decision-making, improved productivity, much better version control and easier access to documents.

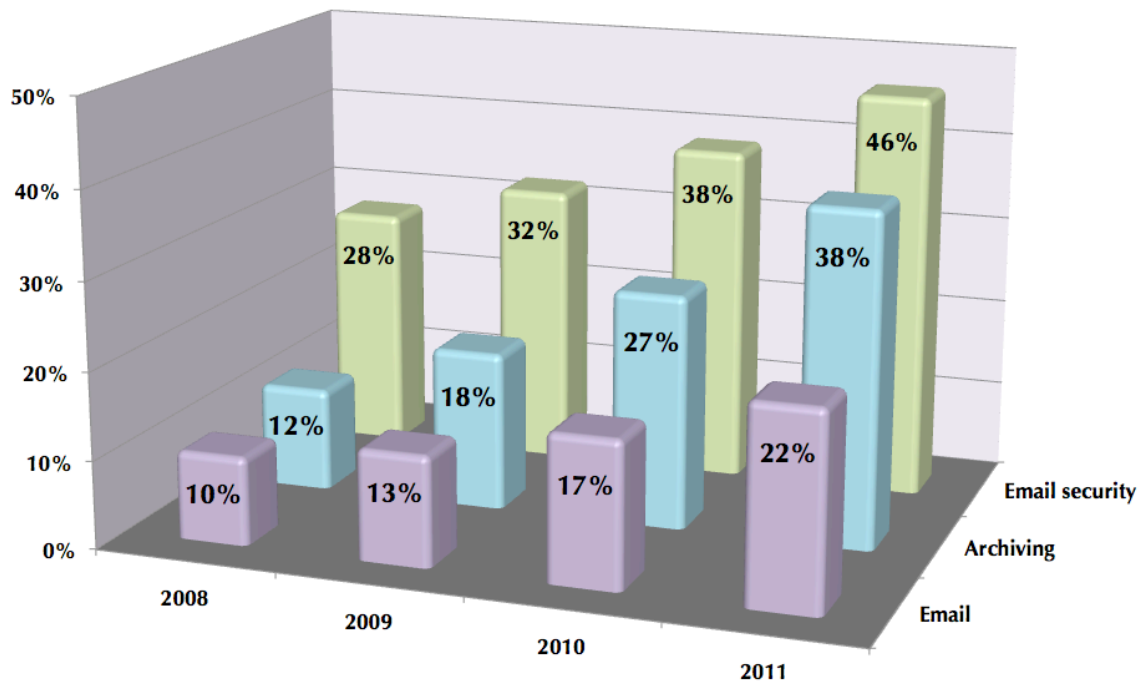
This white paper is written to serve as a guide to decision makers as they evaluate the potential for use of hosted services including email, calendaring, real-time communications, collaboration tools and desktop applications. It was sponsored by Google and includes information on Google's variety of hosted offerings.

## The Growing Popularity of the Online Paradigm

### HOSTED SERVICES ARE BECOMING MORE POPULAR

The market for email-related applications in the work place is currently dominated by on-premise deployments of servers and software and, to a growing extent, self-contained appliance-based systems. However, numerous Osterman Research surveys have found that the hosted paradigm for the management of email and other applications is becoming increasingly popular. For example, Osterman Research projects that the total proportion of hosted email seats in North America will increase from 10% of all seats among mid-sized and large organizations in 2008 to 22% by 2011. Email security and archiving will also experience significant growth, as shown in the following figure.

**North American Forecast of Outsourced Messaging  
Seats in Mid-Sized and Large Organizations, 2008-2011**  
*(% of Corporate Email Users Served)*



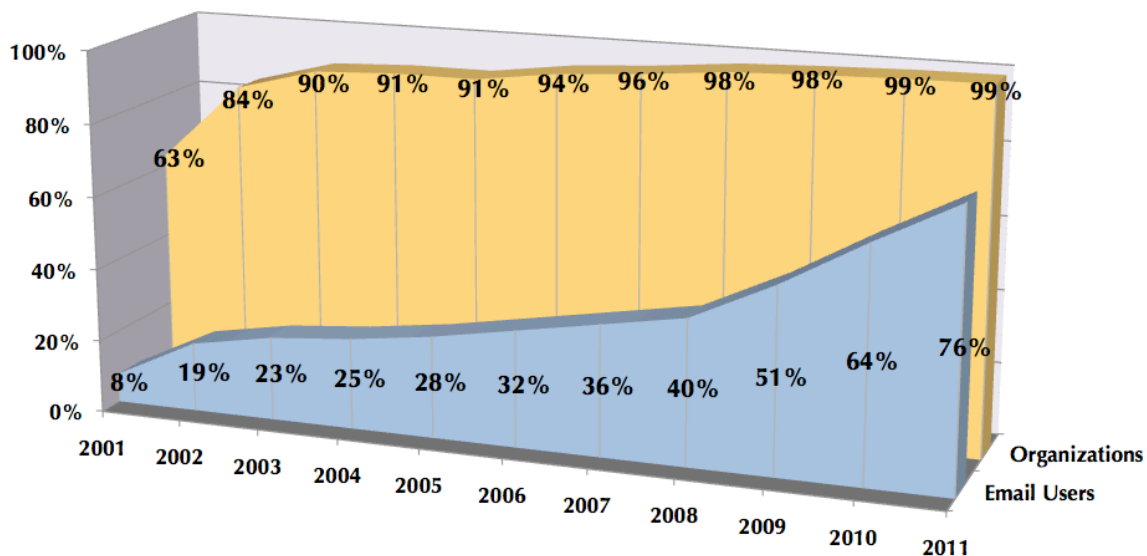
The IT market is increasingly receptive to service providers delivering enterprise instant messaging services. In a survey conducted by Osterman Research during 2008, organizations were asked about the types of delivery models they will use during 2009 for

instant messaging and real time communications: hosting by a third-party provider showed the greatest increase, growing from 11% to 16% of all organizations.

## WILL EMAIL OR INSTANT MESSAGING DOMINATE?

Over the next five years and beyond, Osterman Research expects to see continued integration of real-time communications as part of unified communications suites, owing in large part to the already heavy penetration of instant messaging functionality in most organizations, as shown in the following figure. While the data presented in the figure below may seem counterintuitive, our research shows that instant messaging (primarily consumer clients) is already present in almost all organizations (whether officially supported or not), while the user base of real-time communications within those organizations continues to grow.

**North American Instant Messaging Penetration  
2001-2011**



The result will be that email will continue to be a primary part of the functionality of these solutions, but so will real time communications. We believe that the continued adoption of unified communications will, in essence, make moot the distinction between email and instant messaging. The result will be fundamentally no change in the communications tools that most organizations will choose to deploy. Hosted unified messaging contributes to that increase in adoption because companies can provide both tools by going to a single provider versus having to maintain both email and instant messaging servers and applications in-house.

## HOSTED EMAIL WILL BE USED BY LARGER ORGANIZATIONS

An Osterman Research survey published in late 2007 found that among small SMBs (up to 20 email users), 43% use a hosted or managed service provider for email services, while 34% use a consumer-oriented email service, such as Hotmail or Yahoo!

Traditionally, small and mid-sized businesses (SMBs) were the primary market for hosted email and related services. Reasons for this include:

- SMBs typically do not have dedicated IT staff members that can manage increasingly complex email systems.
- Email is becoming more critical to the way businesses operate and, hence, email availability is becoming more critical.
- Smaller organizations typically experience much higher costs per seat for email and related systems because they can spread the costs of on-premise infrastructure over only a small number of users.

The result is that the hosted email paradigm is very attractive for smaller organizations and many vendors have sprung up to serve that market. However, for larger enterprises, whose needs are more robust and sophisticated, leading providers of hosted mail have deployed carrier-grade infrastructure to maximize uptime, ensure performance and support mobility.

As a result, larger organizations are testing the waters of hosted offerings because:

- They need to support remote users, particularly international offices, and doing so in-house is becoming increasingly expensive.
- They are increasingly balancing the costs and benefits that hosted offerings can provide.
- They desire to focus IT resources on initiatives that provide more differentiation and competitive advantage than managing email and other capabilities in-house can provide.
- They desire to unite their communications and collaboration functionality across platforms, since hosted applications are platform-independent.
- Hosted solutions can scale rapidly as the result of mergers, acquisitions, etc.
- Their need to serve currently underserved populations, such as those in a warehouse, behind a retail counter or on a factory floor.
- Their desire not to miss out on the next wave of innovation.

## **HOSTED APPLICATIONS WILL EXTEND FAR BEYOND EMAIL**

While email is the most widely used hosted communication application today, there are a growing number of other hosted applications that are finding increasing use, including:

- Real-time communications, including instant messaging, chat and presence-enabled applications
- Calendaring and scheduling

- Wikis and blogging tools
- Application development tools
- Video for training, information-sharing and other applications

While much attention has been on the migration of email to a hosted model, enterprises may actually realize the most significant gains from the migration to hosted collaboration tools. With a hosted model, enterprises can now provide a wider array of productivity tools to a larger segment of their employee population. In doing so, organizations can foster greater teamwork, enabling employees to more easily share their best practices, which will promote employee participation in problem solving and extend the boundaries of the team to include customers, partners and suppliers. Further, hosted collaboration tools can serve as a platform for other applications as internal teams, as well as external partners, become increasingly interconnected.

Individuals increasingly have a need to collaborate with others within and outside of their organization for a variety of reasons, and to share information in various media. Tools like wikis and Web-based collaboration tools allow individuals and groups to collaborate more seamlessly and to accomplish work more efficiently and quickly. For example, instead of sending an email to someone requesting the latest version of a document and then waiting for that document to be sent, a collaboration tool with a central repository of the latest versions of all documents can dramatically speed decision-making by making all relevant information available to all users immediately. Further, by using online applications instead of local storage applications on individual users' desktops or mobile devices, everyone that needs access to a particular document can be assured that they are working on the most recent version of a document, and that users are not editing different versions of it. Other examples include using wikis to manage a customer deployment with calendars, blogs, project management docs and training videos embedded or having all sales regions update a single spreadsheet in real-time during an executive business review.

Additionally, the openness of hosted applications allows for easier integration with other hosted applications and customization of a company's own applications. For example, "mash-ups" can offer more useful ways to represent data, such as mapping tools to show the locations of homes or retail locations. More sophisticated mash-ups might include using data visualization tools to show motion over time, such as those produced by Gapminder (<http://www.gapminder.org>). These are just a couple of examples of a growing trend that Osterman Research will continue to track.

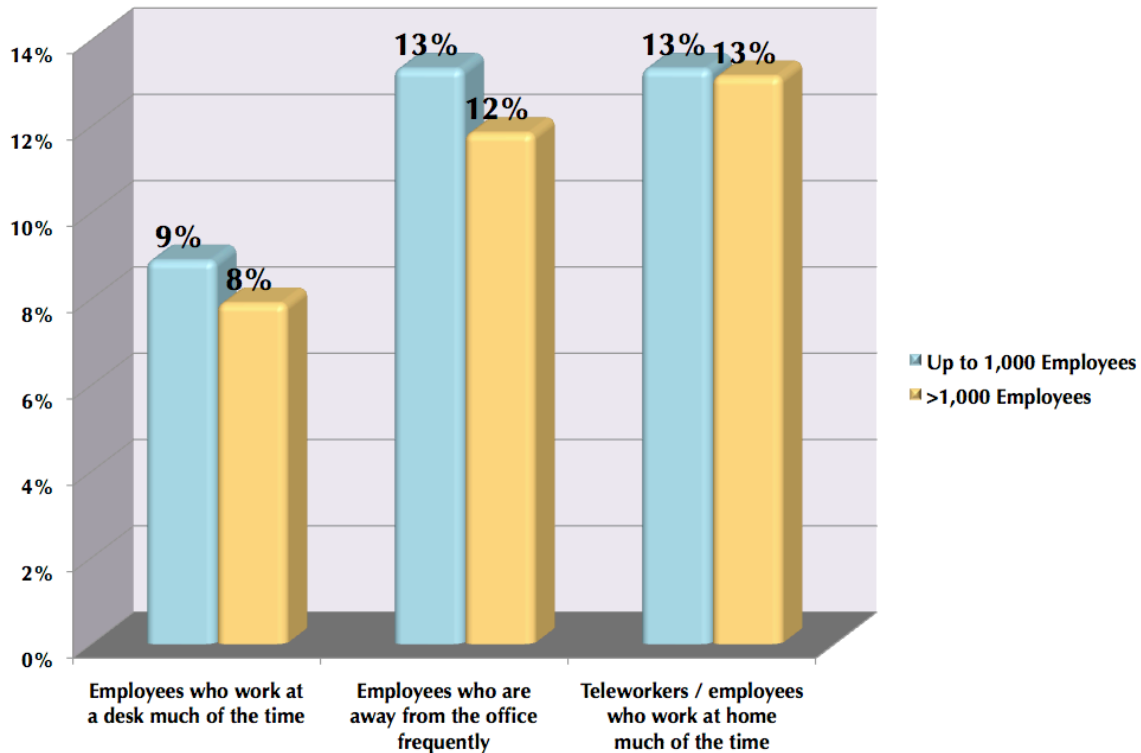
## **THE MARKET FOR GOOGLE APPS**

Osterman Research conducted an internally funded, independent survey asking specifically about the potential use of Google Apps for both SMBs and enterprise users. Specifically, we asked "Assuming that your organization was going to deploy another productivity suite IN THE NEXT THREE TO SIX MONTHS, how likely would you be to deploy Google Apps for the following groups on a scale of 1 to 5, where 1 is "no way" and 5 is "we would definitely deploy Google Apps for them"?"

The results of this research showed that 9% of SMBs would probably or definitely deploy Google Apps for employees who work at a desk much of the time. However, for employees who are away from the office frequently, as well as teleworkers and employees who work at home much of the time, 13% of SMBs said they would probably or definitely deploy Google Apps.

Interestingly, however, there is significant support for Google Apps among enterprises, as well, indicating that hosted applications are not simply for SMBs. For example, 8% of enterprises told us they would probably or definitely deploy Google Apps for deskbound workers, but 12% would do so for employees who are away from the office frequently. For teleworkers and employees who work at home much of the time, 13% of enterprises would deploy Google Apps, as shown in the following figure.

**Percentage of Employees Who Would Likely or Definitely Be Equipped with Google Apps by Organization Size**



Clearly, email is just the tip of the hosted “iceberg” – the application that many organizations will adopt as their first hosted application, but the one that will open the door to a variety of other rich communication and development environments.

## What are the Benefits of Hosted Email, Etc?

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There are a number of important and substantive benefits that organizations can realize from the use of hosted email, collaboration and related applications, including:

- **Minimal up-front expenditures**

One of the most important benefits of hosted email and other hosted solutions is that they offer much lower initial costs than on-premise systems – most hosted solutions require little or no up-front investment. This is a key consideration for many organizations, particularly smaller ones that often do not have sufficient funds available for investing in the hardware, software and other elements necessary to deploy a complete, on-premise infrastructure.

- **Lower, more predictable costs**

Osterman Research cost models developed over the past several years clearly demonstrate that the cost of hosted email systems are typically lower than for on-premise systems up to around 1,000 to 1,500 seats. For example, Osterman Research has developed

a cost model that shows that the total three-year cost of deploying Microsoft Exchange for 100 users (using list prices for all infrastructure elements) is roughly \$48 per seat per month, although the cost drops significantly and rapidly for larger deployments. However, there are a number of scenarios in which much larger enterprises can still experience lower costs from hosting, as well.

Another important benefit of hosted applications is that they can provide access to a common set of applications and tools across all platforms.

- **Lower IT administration costs**

Osterman Research has found that IT labor represents two-thirds of the total cost of ownership for an on-premise email system – labor focused on managing servers, patch management, dealing with user issues, and the like. The use of a hosted system requires almost no IT labor to manage. Typically, only an hour or two per week of a single IT staff person's time is required to manage the relationship with a hosted provider.

- **Reduced impact on in-house storage and bandwidth**

One of the chief benefits of the use of a hosted email or email security service is that processing of email is performed “in the cloud” before it reaches the customer's network. For example, given that 75% or more of all email is spam, a hosted service can eliminate that vast majority of unwanted content before it ever reaches the network and consumes storage and bandwidth. The result is that storage and bandwidth upgrades can be postponed or eliminated altogether, resulting in substantial savings over time.

- **Universal access to applications**

Another important benefit of hosted applications is that they can provide access to a common set of applications and tools across all platforms: desktop computers, laptop computers, mobile devices and home computers. This benefit of hosted applications is of growing importance given that workforces are becoming more mobile. For example, an Osterman Research survey conducted earlier in 2008 found that 74% of users check their work-related email from home on weekdays.
- **Improved collaboration capabilities**

Improved collaboration tools fosters improved productivity because it permits faster decision-making, increased transparency and a universal platform that can be provided to remote workers wherever they are, allowing organizations to hire anyone, anywhere without the need for IT to support them.
- **Easy expansion of productivity capabilities**

However, collaborative applications include a variety of non-traditional capabilities, as well, such as video creation. Video can be useful for training in-house staff or clients, for senior managers to convey matters of corporate policy, to make presentations, and so forth. The popularity of video-sharing sites like YouTube attests to the value of video in conveying visual information.
- **Easy and rapid scalability**

The value of using a hosted offering is that storage requirements are offloaded. To illustrate with a single application, video, if video becomes popular in an organization very quickly, storage systems can be overwhelmed. Using an in-the-cloud video creation and storage solution can make costs and storage requirements much more predictable.

## Key Questions to Ask

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There are a number of important questions that organizations should ask as they a) consider using a hosted model for email, applications and other capabilities; and b) as they consider individual providers of hosted services. We have also provided some of the key answers you should receive in response to your questions.

- **What are your total costs of managing on-premise capabilities?**

Osterman Research has found over years of research that many IT decision makers cannot accurately estimate the total cost of providing messaging services in their organizations. For example, in a study conducted by Osterman Research in 2008, we found that only 9% of IT decision makers could accurately estimate the cost of providing messaging. Further, many decision makers underestimate the cost of providing these services.

However, it is imperative that decision makers understand the cost of providing messaging and collaboration services so that they can adequately compare the cost of internally managed services versus hosted services. Osterman Research has found that

the cost of providing services internally often exceeds the cost of hosted services, particularly for smaller organizations, when all of the costs of internally managed systems are considered.

- **What are the opportunity costs?**

Another issue to take into account when evaluating hosted versus internally managed services is the opportunity cost of not using the former. For example, if IT staff members will be devoted to managing the internal messaging or application infrastructure, this is IT staff time that cannot be devoted to other initiatives that might provide more value to the organization. IT staff time might be better spent rolling out a new customer relationship management system or developing a chat capability to enhance customer support – activities that will provide more value to the organization and perhaps more competitive advantage than basic management of messaging or applications.

- **What benefits could end users and organizations realize from hosted applications?**

Most computer users take work home with them on USB sticks, mobile devices, CD-ROMs, etc. which can lead to the introduction of viruses and other forms of malware given that many users' home systems do not have adequate virus protection. Version control for documents on which multiple users are working becomes a significant issue when transporting documents this way. A recent Osterman Research survey found that three out of four email users check their work-related email from home on weekdays, creating additional avenues for malware infiltration.

However, using a hosted set of communication and application tools can significantly reduce the opportunity for malware infiltration, since all documents, emails, etc. are checked by the hosted service as they transit through the system. Further, version control is made much simpler, since all users have immediate access to the latest

versions of documents. This creates significant benefits for users and organizations alike, and mitigates the risk of malware-related issues.

Organizations should consider using a single source for all of their capabilities for a variety of reasons.

- **How secure is your current on-premise infrastructure?**

One of the concerns often heard from those opposed to the use of hosted services is that of the security of their data when housed in a third party's data center. Many believe that data stored behind the corporate firewall is inherently more secure than data in hands of a third party. While this may be true for some hosted providers, it simply is not true for large, well-established hosted providers. Most of these providers offer a very robust security infrastructure, including video surveillance cameras; multiple, secure access doors to servers and other data repositories; intrusion alarms and the like. In short, most hosted providers' security infrastructure is significantly more robust than most of their customers could afford to implement and manage.

- **How much downtime does your current infrastructure experience?**

There have been numerous press reports about outages at several major hosted providers. However, it is important to evaluate these outages in the context of a prospective customer's own outages and in light of the extraordinarily high uptime that most hosted providers offer. Also, most hosted providers offer guaranteed Service Level Agreements (SLAs) that will offer compensation in the event of an outage.
- **How good are the vendors you're considering?**

There are a number of questions to ask of vendors to whom you might entrust your application infrastructure and data, including:

  - Are they financially viable?
  - What is their reputation, particularly with regard to data security, privacy and compliance?
  - What is their product and upgrade roadmap?
  - Are their offerings sufficiently extensible to meet your needs?
  - What is the company's commitment to uptime?
  - What is the quality of their customer service?
  - Can a single vendor meet all of your application needs today and in the future?
- **Where would hosting not make sense?**

Hosting email, collaboration tools and other capabilities does not make sense for every organization. For example, if an organization's IT department is not focused on initiatives beyond basic email, it might make sense to use the existing IT staff to manage only on-premise capabilities. If an organization's corporate culture is such that external service providers are not a good fit, hosting might not make sense here either. Also, for very large organizations with all users in a single location, and for which basic email is the primary tool for communication and information transfer, it might be more cost effective to keep management of IT capabilities in-house.

## About Google's Offerings

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Google Apps is a set of hosted applications that provide a wide range of services, including complete email and real-time communications services, shared calendaring, collaboration and security capabilities. The elements of the Google Apps suite include:

- **Messaging**

Gmail (mail), Google Calendar (personal, public and shared calendars) and Google Talk (instant messaging)
- **Collaboration**

Google Docs (word processing, spreadsheets and presentation development), Google Video (video creation and sharing), Google Sites (file and information-sharing tools)
- **Security and Compliance**

Email security, archiving, encryption and Web security

Companies can configure and deploy Google Docs, Google Sites and Google Video in less than an hour because Google hosts all of the applications. There's no hardware or software to buy, install or maintain. Google offers a number of APIs to provide single sign-on capabilities, provisioning and activity reporting. Further, the Google Apps Engine allows customers to write their own applications and host them on the Google application and storage infrastructure.

Google's security capabilities, powered by Postini, offer robust protection against spam and malware, allow individual or all corporate mailboxes to be archived for compliance, encrypt email messages to protect confidential data, and offer protection against Web-borne threats and unauthorized Web surfing.

At Google, our mission is to organize the world's information and make it universally accessible and useful. We do this in business, education and government, for people and for teams, with workgroups of all sizes and everywhere in the world.

Accessing, working with and understanding information has never been more critical to business than it is today. As people continue to move and work around the world, on the web and in the cloud, Google helps them harness the power of information through universal search, web-based messaging and collaboration, security and archiving solutions and mapping tools. Learn more at <http://google.com/enterprise>.

## Summary

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Hosted communication tools and other applications can provide enormous benefits to organizations of all sizes. They can reduce the cost of providing these services, increase their availability, improve version control, mitigate the risk of malware infiltration, and free up IT staff to work on initiatives that provide significant value to the organization.

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