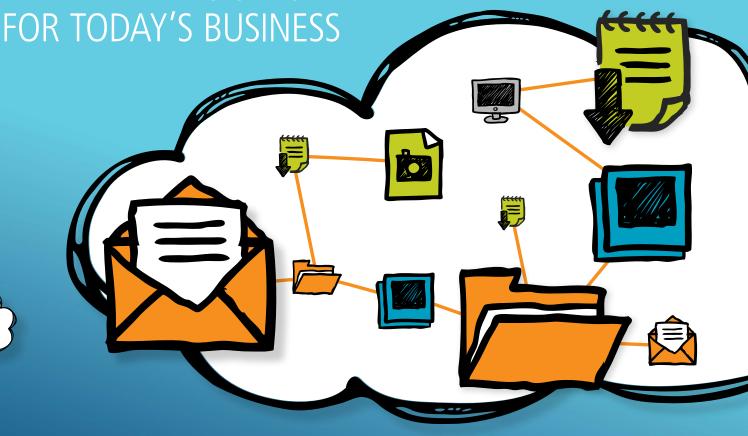


WHITEPAPER

COMMUNICATIONS IN THE CLOUD:







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COMMUNICATIONS IN THE CLOUD: WHY IT MAKES SENSE FOR TODAY'S BUSINESS

Unified communications delivered in the cloud can help businesses of all sizes address many collaboration and communications challenges. The variety of cloud models available lets organizations choose an approach that is most in line with their business needs and can increase business agility, while reducing infrastructure and maintenance costs.

Each day, more companies and government agencies are moving applications or IT infrastructure components to the cloud. And, as organizations realize the benefits of these services, the trend toward cloud services isn't likely to slow down any time soon.

In 2012, **Gartner Inc.** predicted that the public cloud services market would grow by 20 percent that year to \$109 billion worldwide. On-demand business process software offerings represent the largest segment of the market, accounting for about 77 percent of the total, Gartner says. The public cloud services market totaled \$91.4 billion in 2011, and was forecast to increase to \$206.6 billion by 2016, according to the firm.

Cloud models — including public, private and hybrid options — are proving to be an ideal delivery model for communications. Several key factors, related to people, technology and finance, are driving the move to cloud-based communications.

KEY FACTORS DRIVING COMMUNICATIONS TO THE CLOUD

People drivers. One key factor is the increasing use of mobile devices such as tablets and smartphones in the workplace — particularly among younger workers who expect to be able to perform many tasks from nearly any location.

The cloud supports mobility by improving access to data and applications from many locations. This cloud benefit helps companies provide mobile workers and geographically distributed staff with access to the same services they would have in the main office. As a result, salespeople, engineers, public service personnel and others who frequently work outside the office can perform tasks and access data as if they were working at headquarters.

In organizations large and small, people work in teams and rely on others to be productive. Cloud communications drives more effective and immediate

collaboration among teams, leading to faster decisions, better productivity and better customer service.

The need for flexible work conditions is another reason why communications in the cloud is gaining ground. The cloud's ability to provide anytime, anywhere access supports employees who work from home, or from virtually any location for that matter, occasionally or full time.

Regardless of where they work, employees are more productive when they can communicate by whichever methods they prefer (voice, instant messaging or email) — and many want to use devices they choose for themselves. In fact, this flexibility (or lack thereof) is becoming a factor in companies' ability to attract and retain staff.

The agility of cloud communications also helps organizations quickly embrace and integrate new people into their workforce. There is no time lag waiting for a workstation to be installed; it's just a matter of adding new users to services they can access on their devices.



Technology drivers. First, organizations are facing the continually rising costs of operating corporate networks and IT infrastructures and ensuring availability. Using cloud services hosted by a service provider allows companies to eliminate at least some of their costly internal infrastructure, including servers and storage systems. Cloud services also reduce the technological burden related to ongoing systems and networking support and maintenance.

In addition, cloud-based communications reduces the risk of obsolescence. Technology changes quickly, and by procuring it as a service an organization can more easily evolve and add on new services without being restrained by legacy capital equipment. The increasing rate of technology evolution requires that organizations be more agile in their technology deployment to avoid being left behind.

In terms of ensuring availability, the cloud provides a way for companies to continue providing services in the event of a business interruption such as a natural disaster. As Superstorm Sandy showed in the fall of 2012, a major weather event can have a huge impact on ongoing operations, particularly when it hits a densely populated region such as the northeastern United States. Cloud service providers have geographically redundant data centers and a level of resiliency that is more extensive than typical businesses could build themselves.

Another driver for communications in the cloud is the growing importance of mobile technology as a business asset. More companies are coming to rely on mobile applications to support day-to-day business functions. New smartphones and tablet devices are frequently introduced into the market with new features that can help users be more productive in the field.

Enterprise app stores enable users to download business applications to increase their efficiency and deliver better services to customers. For example, technical installation staff can gain real-time access to databases when they are in the field, so they can update whatever they are working on with a customer or provide on-demand quotes. Companies can send them

information about their next service call while they are in the field, and track their whereabouts and productivity.

With the cloud, companies can take greater advantage of these mobile technology assets by making it easier for users to get what they need, regardless of where they are working — all made possible by ubiquitous Internet access.

Business and financial drivers. Organizations are also facing business and financial issues that are encouraging them to move communications to the cloud. Many businesses are dealing with flat or shrinking economies; as a result, they're keeping tight reins on technology spending.

A global survey of 2,053 CIOs (representing more than \$230 billion in IT budgets and covering 36 industries in 41 countries) conducted by Gartner in the fourth quarter of 2012 showed that CIOs in general expect their 2013 IT budgets to be essentially flat for the fifth straight year.

CIO IT budgets have been flat to negative ever since the dotcom bust of 2002, Gartner stated, and, for 2013, IT budgets are projected to be slightly down, with a weighted global average decline of 0.5 percent.

As a result of these economic pressures, organizations are increasingly focused on return on investment and total cost of ownership for IT deployments. As IT faces pressure to do more with less and to show payback on every major technology initiative, the efficiencies made possible by cloud-based services allow enterprises to more cost-effectively deliver infrastructure and applications to users. Cloud models basically extend organizations' IT resources and skills, providing economies of scale by sharing resources and speeding to time value.

The cloud also enables companies to move to an operating expenses model rather than a capital expenses one, helping CIOs to better deal with the economic pressures.

To remain competitive, companies need to run the most efficient, flexible infrastructures possible. Cloud services support business agility by allowing



organizations to quickly scale operations up or down as needed.

In addition, businesses need to be able to reach across their supply chains, extending teams horizontally and vertically across the chain. With a cloud-based communications solution, it doesn't matter what type of existing communications infrastructure a supply chain partner uses.

Finally, in challenging economic times, CIOs may become more risk averse to avoid spending

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on the wrong technology. The result is that they do nothing, and their organization falls behind its competitors. It's therefore critical that they keep the organization moving forward by investing in a communications solution that can be deployed in any of the models along the cloud scale, offering maximum agility to change as the organization evolves.

CLOUD COMPUTING BENEFITS

As people, technology and financial decisions are driving a move to cloud computing, the anticipated benefits are many.

- Reduced IT infrastructure and maintenance costs, made possible by cloud approaches that include multitenancy — in which a single software instance serves multiple client organizations — and multi-instance in which every customer gets its own software instance; both approaches allow resources and costs to be shared across a large pool of customers.
- Greater business agility enabled by the increased scalability of IT infrastructure and the ability to provision technology resources on demand, as needed
- The ability to provide workers with access to systems and applications regardless of their location or type of device they are using
- Improved disaster recovery and business continuity, through the use of multiple, redundant sites offered by cloud services providers

CLOUD MODELS

The cloud is not a one-size-fits-all proposition. Companies can choose from several types of services, including public, private and hybrid clouds.

Public clouds. Public cloud services are based on a standard model in which the service providers offer their customers access to technology resources such as servers and applications. These services are typically provided on a pay-per-usage model or monthly subscription basis.

Organizations find public clouds appealing for various reasons. One is that the services are easy to start up and use. Another is the relatively low set-up costs — hardware and other costs are covered by the service provider, not by the customer.

Also, public clouds can generate additional cost savings and efficiency improvements because organizations pay for only the resources they use. Public cloud services also scale easily, so companies can expand or reduce capacity as their needs change.

Within the public cloud category there are several types of services, including:

- Software as a service (SaaS) or "on-demand" software, in which software and data are hosted in the cloud and are accessed by users via the Internet
- Infrastructure as a service (laaS), in which service providers offer access to resources such as virtualized servers in the cloud
- Platform as a service (PaaS), in which service providers offer a computing platform that typically includes an operating system, programming language, database and Web server

COMMUNICATIONS IN THE CLOUD



Private clouds. For organizations that are looking to reap many of the benefits of cloud computing but don't want to use public cloud services, private clouds are another option. Private clouds are operated for a single organization, and involve the use of a proprietary network or data center that uses cloud computing technologies such as server virtualization.

In many cases, private clouds are managed by the organization that is using the service; however, in some cases, they're managed by a third-party service provider. These services can be hosted internally or externally.

Private clouds are designed to offer some of the same benefits and capabilities as public cloud offerings as well as other advantages, such as greater control over applications and data. Because of this, private clouds can help organizations meet the security and compliance requirements for certain industries. They also tend to be less "one-size-fits-all" in nature, allowing companies to build more customized solutions. For example, they can support integrations into proprietary back-end systems, or special business process flows. While public clouds are suitable for applications that are more like utilities, private clouds suit applications that are differentiated within the business.

Hybrid clouds. Another variant is the hybrid cloud, which involves both private cloud and public cloud services. Hybrid clouds can be delivered by service providers that offer a private cloud and

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that partner with a public cloud provider. They can also be offered by public cloud providers that work directly with an organization that manages its own private cloud.

A hybrid cloud environment lets companies deliver some resources in-house while others are provided externally. For example, a company might use a private cloud for unified communications (UC) and a public cloud offering for disaster recovery and business continuity.

By allowing organizations to leverage the cost efficiencies of public clouds and still keep some applications in a private cloud, hybrid models provide flexibility. A hybrid cloud architecture requires that a company have both on-premises resources and off-site, server-based cloud infrastructure.

THE BUSINESS CASE FOR CLOUD-BASED COMMUNICATIONS

One of the key factors for business success today is the flow of knowledge among employees, customers and business partners. Enterprises must be able to quickly transfer information, whether by voice, email, instant messaging, over the Web or through some other electronic medium.

Cloud-based models offer a compelling delivery mechanism for communications. IT decision makers should explore how their organizations can leverage communications in the cloud to help improve the business overall, while analyzing the return on investment possible with cloud-based communications solutions.

Solutions such as MiCloud from Mitel can help IT make the case for communications in the cloud. MiCloud provides the flexibility to deliver UC collaboration tools and technologies through a mix of deployment models. As a result, organizations can evolve their cloud-communications approach over time, changing their cloud approach as needs and goals change.

By demonstrating how cloud-based communications can potentially reduce infrastructure and maintenance costs while increasing business agility, CIOs can win over senior business executives to the idea of the cloud as a delivery model for communications.



To find out how Mitel MiCloud UC Solutions can improve your business contact:



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ABOUT MITEL

Mitel® (Nasdaq:MITL) (TSX:MNW) is a global provider of unified communications and collaboration (UCC) software, solutions and services that enable organizations to conduct business anywhere, over any medium with the device of their choice. Through a single cloud-ready software stream, Mitel's Freedom architecture provides customers in more than 100 countries the flexibility and simplicity needed to support today's dynamic work environment.

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