



Moving from Disaster Recovery to
Disaster Avoidance with Cloud-based
Unified Communications

F R O S T  S U L L I V A N

A Frost & Sullivan Executive Brief

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INTRODUCTION

The word “disaster” conjures an overwhelming sense of dread in anyone who hears it, as it could literally represent the worst day for a person or an organization. When one thinks of disasters, natural disasters such as hurricanes, earthquakes, floods and snowstorms, or man-made ones such as terrorist or cyber attacks usually come to mind. However, it is just as likely that a localized event can disrupt a business. A disaster does not necessarily have to make the national news to have a negative impact on an organization. A downed power line, extended loss of network services, or municipal issues such as road and sewer construction can all result in network or systems downtime.

Regardless of the scale, the fallout from a disaster-related outage, including missed shipments, lost sales, and dissatisfied customers, can be more detrimental to the business than the disaster event itself. In this regard, both major events and minor disasters take on an extra significance for information technology (IT) professionals. Not only does the IT department need to be concerned about its own well-being, but it also needs to be prepared to respond to the resulting network and communications outage that may ensue. Developing contingency plans for worst-case scenarios might seem like a pointless exercise or may even be a little unsettling, but the fact of the matter is that disasters of all scales happen. Organizations need to proactively develop plans to thwart or at least mitigate the impact of disasters on their business operations.

Among an organization’s most essential applications are its enterprise communications platforms. Ensuring that employees, customers, suppliers and partners are able to communicate when things go wrong should be a top IT priority. Fortunately, modern Internet Protocol (IP)-based communications technologies are redefining the resiliency and flexibility of these mission-critical solutions. In particular, cloud IP communications solutions offer significant benefits in terms of business continuity and disaster recovery. This article discusses how cloud IP telephony and unified communications (UC) services enable organizations to evolve from reactive disaster recovery solutions to preventive disaster avoidance strategies. It highlights the measures businesses can take to limit disruption of their mission-critical communications functionality.

WHY CUSTOMERS ARE CHOOSING CLOUD-BASED UC SERVICES

Cloud-based or hosted private branch exchange (PBX) and UC services, also referred to by many providers as Unified Communications as a Service (UCaaS), have gained prominence in the business communications market as alternatives to on-premises telephony systems and UC solutions. Aging on-premises equipment, the high upfront costs of replacement, unpredictable maintenance expenses, and ongoing complexity of deploying, maintaining and managing an expanding set of advanced communications and collaboration tools are compelling many company decision-makers to seek options beyond traditional on-premises implementations.

Cloud UC solutions are the way forward for many organizations across all industries because they offer a broad spectrum of tightly integrated applications (telephony, chat/presence, video and audio conferencing, messaging, contact center, mobility, fax and more) without the upfront capital expenditures (CapEx) or ongoing maintenance costs. Rather, cloud-based services allow organizations to enjoy a predictable, monthly per-user charge, while also minimizing much of the IT staff workload associated with on-premises solution support.

ADVANTAGES OF CLOUD-BASED UC SERVICES FOR DISASTER RECOVERY

With traditional on-premises PBX or UC platforms, ensuring a level of disaster recovery and business continuity is an exercise in risk and cost analysis. When physically located at the customer site, these platforms are likely to be directly impacted by a disaster event. In many cases, at-risk organizations that require a high level of uptime or very narrow recovery windows for their enterprise communications resort to deploying duplicate hardware platforms in geographically disparate locations. Similarly, legacy analog or digital trunks create another disaster recovery challenge by requiring a physical demarcation point at the customer site. Again, to create a rapid failover capability during a disaster event, a parallel system that includes duplicate, largely redundant hardware and trunks needs to be deployed, housed and maintained at an alternate location. Physical redundancy at a platform or trunking level invariably means additional costs. Large enterprises may have multiple locations that could support all of this backup hardware; however, single-site, smaller organizations that require a very high level of availability may need to seek a dedicated disaster recovery services provider with hot site or colocation capabilities to house redundant platforms and trunks. Many organizations simply cannot justify the expense of these disaster recovery options, and must make compromises that put their communications at risk.

Cloud-based telephony and UC solutions, on the other hand, are fundamentally architected to provide high levels of availability and reliability. These services are, by design, intended to be accessed remotely, be it across a customer's wide area or multi-protocol label switching (MPLS) network or over the public Internet. This distinction enables an inherent failover capability for users by providing multiple connection options, should the organization's primary links fail. Failover capabilities extend from the cloud platform all the way down to the individual endpoints. Many businesses choose to install low-cost broadband access alongside their primary MPLS or wide-area network (WAN) links for failover capabilities, leveraging the flexibility to connect to cloud UC services. Even endpoints, both hardware devices and software clients, can factor into the failover equation. Depending on the architecture used by the provider, endpoints can simply "phone home" to receive their configuration information, rather than maintaining a full device configuration and profile on the device itself. This level of device management enables truly dynamic endpoints that can adapt to and route around trouble in the midst of a disaster event or outage. Ultimately, well-architected cloud PBX or UCaaS offerings can provide a high level of protection during a disaster event, as well as significantly reduce or almost eliminate the time it takes to recover after a disaster.

Cloud solutions are also particularly powerful options for businesses that lack the IT resources and rapid-response teams to handle a disaster event of any size. Cloud service providers recruit and retain dedicated experts to manage day-to-day operations and support customers subscribing to their services. With their experience, expertise, around-the-clock monitoring and an arsenal of tools, a cloud provider's staff offers significant advantages compared to an organization's internal IT staff, to ensure uptime and to mitigate potential disruptions in the event of disaster events.

The changing dynamics of workplaces, including increasingly distributed sites and work groups, as well as a growing number of remote and mobile staff, require solutions that mitigate disruptions. Since many cloud-based telephony and UC solutions are accessible from either the carrier's network or the public Internet, remote—branch-office and home-based—users may not notice a service disruption, even while a disaster event is occurring at their headquarters. By their very nature cloud telephony and UC solutions are highly resilient to localized or regional disaster events. Likewise, affected users can quickly turn to soft clients on

their computers or mobile devices, or reroute incoming calls via a Web portal. While this level of functionality does exist with on-premises UC solutions, it requires a significant investment in equipment and redundant services to match the agility of cloud-based telephony and UC solutions.

RELIABILITY IS KEY TO DISASTER AVOIDANCE WITH CLOUD UC

As we have seen, the reliability of a cloud-based UC solution is the single biggest factor in transitioning from a reactionary disaster recovery program to a strategy of disaster avoidance, by moving communications capabilities to the cloud. By leveraging dedicated professional staff, a geo-redundant architecture, and failover capabilities that are simply cost-prohibitive to replicate with on-premises UC solutions, service providers are in a position to offer a highly reliable and resilient communications platform that customers can depend on. It should come as no surprise that when customers are evaluating cloud providers, reliability is an important criterion. The results of a 2014 Frost & Sullivan survey of IT decision-makers clearly indicate that once an organization chooses to deploy cloud-based UC services, the criteria for selecting a provider are very different from those when selecting an on-premises platform vendor. Security and reliability rank at the top of the selection criteria, exceeding even price in terms of importance. (See Exhibit 1.)

Exhibit 1: Criteria When Selecting a Cloud Provider

Criteria When Selecting a Cloud Provider—Percent of Important/Very Important, NA, 2014



Base: Filtered respondents (n=474).

Q15. Please rate the importance that each of the following has on your decision to select a cloud computing provider.
- Top two box scores

Source: Frost & Sullivan

While feeling secure with a cloud service is certainly an important consideration for decision-makers, the reliability of a cloud-based PBX and UC solution is of near-equal importance, not only for day-to-day operations, but also in terms of disaster recovery or avoidance. Prospective customers need to trust that

their cloud-based communications services provider can always deliver, including in the midst of a disaster event, and quickly bring services back to a normal state with minimal or no disruption. However, not all cloud solutions are architected to deliver the same degree of service reliability. Some providers host their entire server infrastructure in the same geographic area, thus increasing the vulnerability of their cloud solutions to local disasters. Also, many cloud solutions rely on capabilities deployed locally on customer infrastructure or endpoints, which again exposes the customer to local adverse events. In order to ensure that their cloud communications investments are truly disaster-ready, customers must require that providers back up their availability claims. Customers need validation that their provider is prepared to effectively handle disasters, and guarantee high service availability, including architectural details and historical performance data.

CONCLUSION

The benefits of a cloud-based unified communications solution extend beyond moving from a capital expenditure-based finance model to an operational expense-based one. Enterprise communications can be the lifeblood of an organization; losing it can have dire consequences. Moving these mission-critical services into the cloud can not only keep the lines of communication open, but also facilitate recovery efforts.

Traditional telephony and unified communications solutions, because of the physical nature of these on-premises platforms, demanded a largely reactive disaster recovery response. Modern, cloud-based services empower customers to transition into a disaster avoidance mindset and strategy. Below are some recommendations to consider when making the transition to a disaster avoidance strategy. (See Exhibit 2.)

Exhibit 2: Recommendations for Developing a Disaster Avoidance Strategy

- Organizations should consider cloud unified communications solutions to minimize the single source of failure of traditional voice systems.
- Businesses should consider cloud unified communications solutions when disaster recovery objectives exceed the ability of IT staff to achieve them.
- Businesses should proactively investigate the disaster recovery capabilities of service providers as part of the evaluation process.

Source: Frost & Sullivan

Silicon Valley

331 E. Evelyn Ave., Suite 100
Mountain View, CA 94041
Tel 650.475.4500
Fax 650.475.1570

San Antonio

7550 West Interstate 10, Suite 400
San Antonio, Texas 78229-5616
Tel 210.348.1000
Fax 210.348.1003

London

4, Grosvenor Gardens,
London SW1W 0DH, UK
Tel 44(0)20 7730 3438
Fax 44(0)20 7730 3343

877.GoFrost • myfrost@frost.com
<http://www.frost.com>

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For information regarding permission, write:

Frost & Sullivan
331 E. Evelyn Ave. Suite 100
Mountain View, CA 94041

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