

The Evolving Cloud Communications Fabric



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Introduction

As the lines between telephony and Unified Communications (UC) are blurring, integrated communications tools such as voice, messaging, presence, and collaboration are becoming essential components of day-to-day workflows. The U.S. market for UC is expected to reach \$65 billion by 2018¹, but this first phase of UC adoption is only the beginning. By 2018, according to Transparency Market Research, this first level of unifying communications is just a first step. Today's rapid UC adoption is being driven by the need to communicate and collaborate with team members via integrated voice, video, email, instant messaging, web conferencing, and presence on any device. According to the research, small to medium businesses lead the market in cloud UC deployments. These businesses are in fields such as healthcare, education, enterprises, and local government organizations².

UC adoption by organizations is just the beginning, and business applications are starting to leverage UC services to provide innovative functions. This will result in even greater efficiency and more seamless collaboration between departments within companies.

Cloud-based communications services, with their directories of customers, partners, and employees, need to reach into corporate applications to enable sophisticated communication methods from within these workflows. Cloud-based UC platforms are now adding capabilities for deeper integration with business applications such as CRM, contact center applications, supply chain apps, and even accounting and business analytics systems. Since these applications are at the heart of daily work activity, they quite naturally become the hub of communications between team members and departments, suppliers and buyers, and most importantly, companies and their customers. These communications-enabled applications serve as the Cloud Communications Fabric—the inevitable next wave of technology capable of streamlining business operations, simplifying the sharing of information, and improving workflow for companies and their customers.

“...The U.S. sector is expected to nearly triple from \$23 billion in 2011 **to \$62 billion by 2018.**

The UC market will experience a CAGR of almost 16 percent during this period...”

– *Transparency Market Research*

¹ [Transparency Market Research](#)

² [Ovum Research](#)

Opportunity for Specialization and Differentiation

Enterprise business applications have historically been built and deployed in silos. They have been designed to support the workflows of accountants, sales people, supply chain managers, and customer service reps, but they were ill-equipped to communication across departmental boundaries and individualized applications. These apps often don't share information efficiently—or at all.

Imagine how an integrated Cloud Communications Fabric can break down those silos, enabling teams to share contact information, notes, insights, and other data. Imagine workers able to call, chat, or videoconference from within the business applications they use every day. They could click to call from within a CRM, or chat with customers or other team members from within the call center app. This Cloud Communications Fabric would allow employees to bring in co-workers or specialists as needed through these unified communications functions without leaving the primary business application. Increased integration and cross-application sharing of communications function delivers cost savings, improves efficiency, and streamlines workflow for happier employees, partners, and customers.

Forward-thinking Unified Communications as a Service (UCaaS) providers are building these integration links within their UC systems and extending UC functionality to reach into siloed enterprise applications. While still new, this trend is rapidly gaining momentum. Enterprises (and the telecom agents, system integrators, and engineers who serve them) are assessing their current applications and UCaaS service to find new integration opportunities. With the vast majority of enterprises still relying on traditional PBX systems, service providers and analysts predict a massive shift to cloud-based communications as these systems become more and more obsolete. As enterprises upgrade to new, sophisticated UCaaS services, integration with enterprise applications will become a primary focus.

“Cloud -based UC adoption grew by 27% worldwide to 37.5M seats in 2015.

Despite this growth,
**150 million
 premise-
 based PBX
 are still in
 existence,**

making this huge market relatively untapped.”

– *Infonetics Research*

So, how should enterprises and service providers work together to weave the Cloud Communications Fabric? Experts at NetFortris and thought leaders across the company's ecosystem have assembled some key considerations:

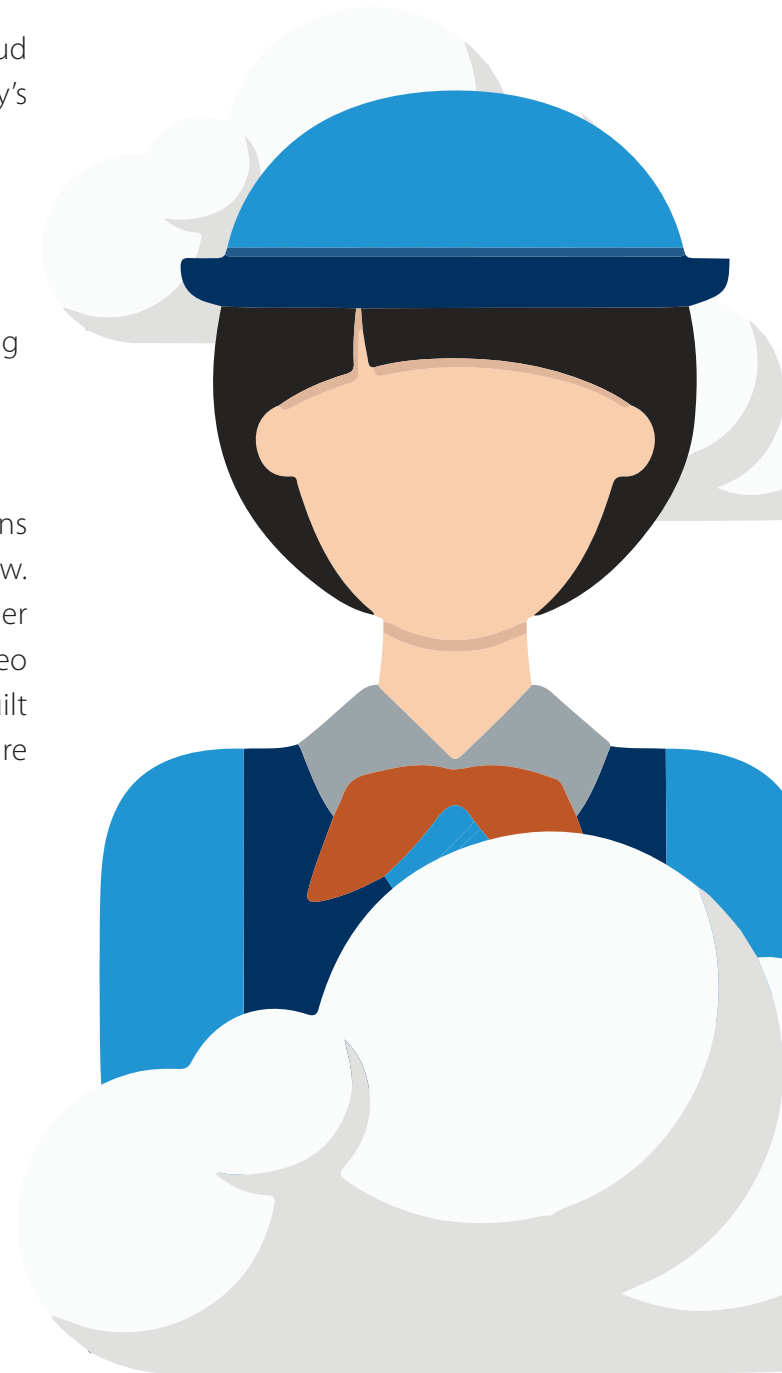
1. Enterprises must assess integration needs and opportunities as they build their UCaaS strategy.

All Cloud Communications Fabric projects should begin with a thorough examination of existing PBX/VoIP, Unified Communications, network, and security solutions to evaluate their usefulness within enterprise applications.

Workgroups within an enterprise, many of whom are already using large enterprise applications every day, must understand how integrated UC functionality can add value to their workflow. These needs will help define the appropriate function and level of integration. As customer service reps, supply chain managers, sales people, and their partners integrate chat, talk, video conferencing, and document sharing in enterprise applications, new functions can be built in to meet changing needs. The most successful Cloud Communications Fabric projects are evolutionary—not revolutionary.

2. Hire a cloud communications field guide (someone who has done it before).

In the past, addressing cloud communication integration projects was a daunting task that enterprises had to shoulder alone. This is no longer the case. Today there are many qualified systems integrators and partners who have Cloud Communications Fabric experience—and who can bring perspective from past projects. Enterprises have the opportunity to rely on telecommunications and unified communications specialists who are comfortable defining technology needs and sourcing specialized providers and technologies to deliver integrated communications and enterprise applications.



Qualifications to ask about include:

- Experience with both enterprise applications such as CRM, ERP, Supply Chain, Accounting systems, as well as unified communications and telecomm solutions.
- The ability to tap resources from a variety of competitive vendors in each area including network connectivity, cloud communications and UC, and security.
- The ability and desire to truly partner with the business to define the right solutions for their specific needs.
- The ability to price and define ROI for complex integration projects.

3. Look to the Cloud.

Most enterprise applications are now hosted in the Cloud, and communications infrastructure is moving there at an increased pace. More integration and collaboration agreements can be facilitated with greater ease and effectiveness in this environment.

For instance, CRM systems work with Salesforce to enable a business's phone system to automatically record call details and include them in a specific customer's record.

- Studies show that 79% of businesses identify voice integration with business applications as a critical need and that most businesses intend to use email, collaboration, and CRM as a service (SaaS) by 2017³.
- According to Infonetics, by 2016, more than 50% of businesses will have some part of their UC applications in the Cloud (both public and private), making this migration both a present and future reality.
- This same study showed that 86% of businesses said that flexibility was the key driver influencing their shift to the Cloud, and this shift was only incentivized more by the integration of business applications. Many businesses utilize cloud UC service from one provider and business application services from another.

³ [Infonetics Research](#)



The powerful combination of these technologies into a Cloud Fabric enables companies with limited IT staff and a highly distributed workforce to capture key benefits. These companies gain fast implementation, simplification of management and usability for employees, flexible support and empowerment for mobile workers, and overall increased productivity.

To capture these synergistic benefits most fully, businesses must select the appropriate partner, evaluating potential providers based on security, quality, service and support, and pricing. They should seek a true partner who delivers a reliable product and proactive support team with account management. With the integration of business applications on the rise, they should also look at the provider's current level of available integration and evaluate their own ability to undertake anything that is not "plug and play" ready.

4. Explore ways to extend existing enterprise apps to find intersection points with UCaaS.

In addition to the earlier examples of CRM and call center applications, other mature applications such as personal productivity suites, or even HR and recruiting applications are being linked together to create integrated and effective business processes. As communications functionality is built into the application itself, workflows can remain streamlined, and workers can uncover new communications flows without re-learning key applications

Possible integration for richer customer experiences and greater customer satisfaction can take multiple forms:

- CRM systems integrated with UC for easy click-to-call from within a CRM where an integrated system will automatically record contacts and interactions via voice, video, chat, or desktop sharing.
- Customer Service or Contact Center applications integrated with UC for click-to-call, multi-party conferencing, call recording, desktop sharing, or video conferencing.

“...83% of telecommunications decision makers feel the UC has provided faster problem resolution, and 82% feel that it improves relationships with partners and suppliers.”

– Forrester Research

- Dispersed teams using central directories of employees, partners, suppliers, and customers to connect over a project via desktop collaboration with integrated chat, email, desktop sharing, video conferencing, and information from an ERP system or CRM application.
- HR executives and recruiters can integrate with contact databases and resume storehouses to track applicant activity, hiring, experience, and skills. Communication with applicants and hiring managers can happen through universal clients with access to email, voice, teleconferencing, and chat.
- In the financial sector, customer service representatives can deal with sensitive customer information such as credit cards or banking information without compromise. Call recording and analytics can be used to confirm trades or track activity as customer service reps interact with customers.
- The overall goal with all of these solutions is to gain, serve, and retain customers. UC has been in existence for over a decade and has provided positive results. According to Forrester research, 83% of telecommunications decision makers feel the UC has provided faster problem resolution, and 82% feel that it improves relationships with partners and suppliers⁴.

Despite this recognized value, application development and delivery professionals see a puzzling dilemma of slow adoption and utilization. Research shows that even though there are understood advantages, 38% of employees are unaware of helpful features, and 28% are not even a part of the system. Building communications within existing application workflows may increase this adoption level.



⁴ [Forrester Research](#)

5. Measure success from a team perspective, through the eyes of the ultimate customer.

Unified Communications is an important step, but it is not the only necessary step for modern businesses. Greater integration of business applications produces a stronger substrate to facilitate greater customer experiences and satisfaction. Integrated Unified Communications functionality is an opportunity to drive more efficient workflows between team members and deeper customer insight through seamless interactions across the entire customer experience ecosystem. Most importantly, it creates greater efficiency and allows time for the pursuit of more strategic initiatives.

Today's workers constantly move between content, messages, business applications, and real-time communications. Navigating this complexity is challenging enough, and effective collaboration makes the task even more difficult. Established vendors are working with innovative start-ups to integrate these tools into an effective, cloud-based solution. With leading providers like Cisco introducing cloud-based social networking solutions to integrate UC and content, it's obvious that the market is on the brink of evolution.

Collaboration creates value inside an organization, between business partners, and with customers. Businesses can utilize these tools to forecast needs and map a future state of the customer experience. They can also look at customer service issues and feedback to determine future initiatives.

Enterprises that create seamless flows of information between workgroups and customers—regardless of core applications—are able to gain a better understanding of customer priorities. These organizations are more likely to correctly prioritize projects based on a solid understanding of customer impact. Only 25% of professionals report having the people and resources to accurately rank and prioritize projects. With urgency often trumping importance, these businesses end up pursuing projects that fail to positively impact their bottom line.



Evolving Needs, Evolving Technology

All of these changes and anticipated developments can happen only if technology is similarly responsive and evolutionary. With these new capabilities, new concerns and vulnerabilities arise that require specific attention.

Cloud communications as a hub: Cloud communications will become the centralized hub of the communications fabric, carrying essential information in real time from applications as well as voice, video, and data traffic. It must be composed of fast, secure, and reliable networks that have built-in resiliency and redundancy.

UC Systems with new reach: Unified communications systems must exceed today's functionality of click-to-call voice and video, multi-party video conferencing and screen share, IM, presence, and directory integration. These functions must exist in an elevated way that integrates emerging business applications such as CRM, ERP, Customer Service, Supply Chain, and more. By enhancing daily business functions, they can provide exceptional value through increased efficiency and productivity.

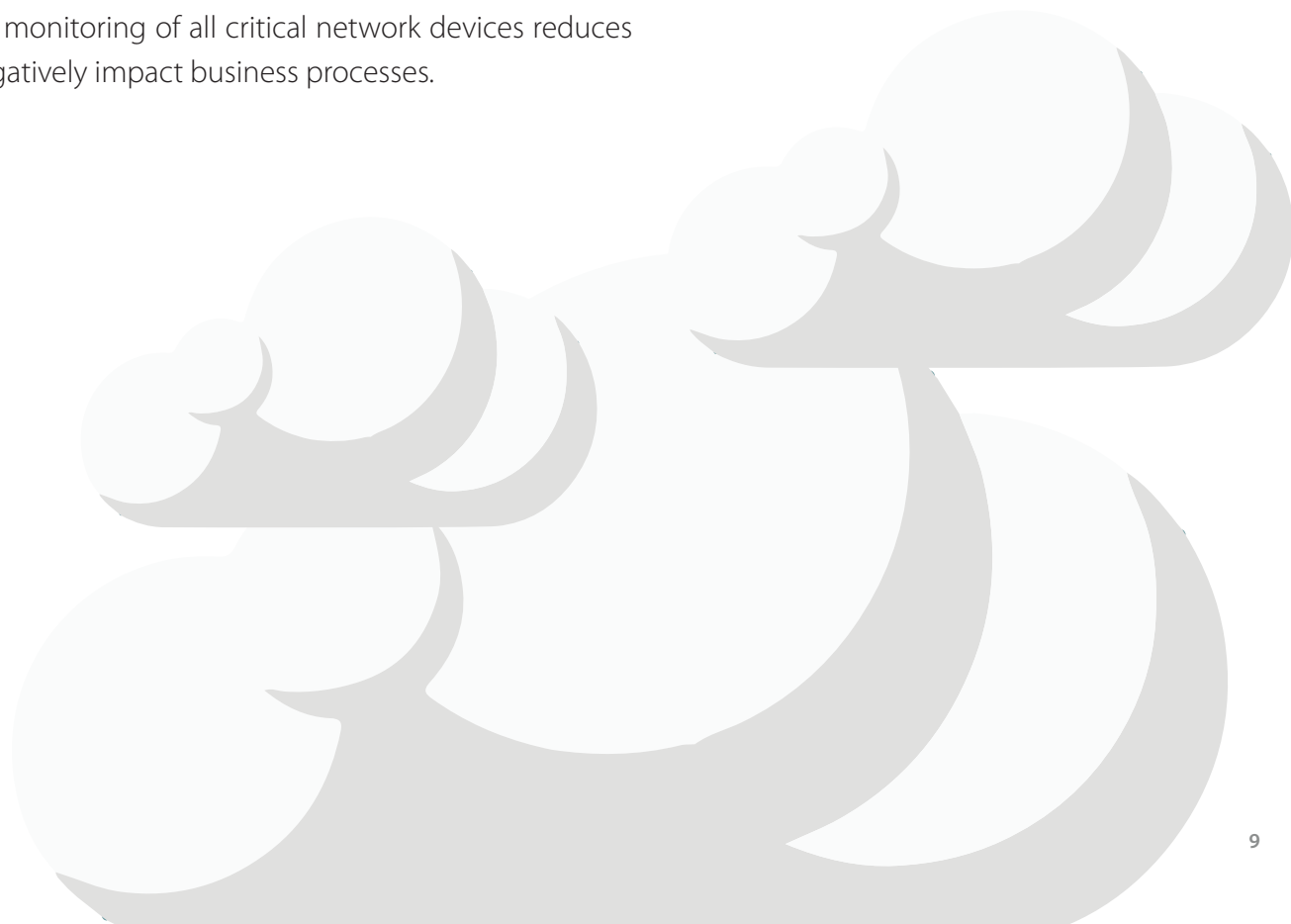
Security as a primary business concern. Enterprises must combat increasingly sophisticated threats to protect valuable customer information and network vulnerabilities. Advancing security tools and network protocols are the best defense against call fraud, eavesdropping, phreaking, malware and viruses, denial of service attacks, and call hijacking. Partnering with the right cloud services provider is the best defense against these malicious attacks. An effective partner will have the evolving tools to combat the evolving threats that modern businesses face.



Network reliability and performance are integral needs. Maintaining a competitive edge hinges on preserving efficiency and providing consistent services to clients. Secure MPLS capabilities through a service provider guarantee quality of service (QoS) for the connection and transfer of data between multiple enterprise locations.

By using a private network instead of the public Internet, unwanted threats are eliminated, and voice, video, and data packets can be prioritized for improved network efficiency. Information and communications are also protected against unexpected network disruptions by automatic bi-directional failover to backup connections.

Businesses are looking for increased manageability with new systems and analytics capabilities. New monitoring solutions deliver comprehensive tools designed to help protect the evolving infrastructure of modern businesses. Proactive monitoring of all critical network devices reduces unnecessary and costly downtime that can negatively impact business processes.



Key Concepts to Take Away

Integrated cloud communications fabrics will combine established UC tools and business applications to give businesses new capabilities:

- Unify multiple messaging sources and navigate increased volume to maintain productivity. New tools can prioritize emails by analyzing interaction patterns and social relationships, incorporate multiple messaging sources and content within the context of a team and topics, and sift content for relevancy to the user.
- Provide a seamless transition between messaging and real-time communications, utilizing voice and video with single-click escalation as well as the facilitation of continuous chat among teams and linking to relevant content.
- Embed UC into business applications to create more productive experiences. UC vendors provide this with software development kits and APIs, and applications vendors can develop embedded applications for increased capabilities.



In the future, these communications fabrics will deliver new value across the enterprise:

Increased business agility: Changes can be easily accommodated without sacrificing established processes or disrupting customer service. Enterprises can nimbly respond to the evolving needs of customers with open communications and easy dissemination of information to identify and implement changes.

Employee empowerment to respond to customer issues: Simplified data access ensures that the initial customer contact can respond to the issues independently and effectively. The customer will no longer need to be shuffled around the organization until they reach the right person with the right information.

Identify and eliminate customer roadblocks: These tools help predict the impact that upcoming changes will have on the customer experience. Equipped with this foresight, businesses can anticipate potential problems and proactively engineer solutions.

Drive employee engagement and satisfaction: With easy access to business data and collaboration tools, employees are better able to meet the needs of customers and drive the company's success as a whole. This catalyzes cyclical benefits that elevate the entire business ecosystem.

More Reading and Resources

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Diane, Myers, September 2015
3. Ovum Research, Unified Communications 2015 Trends to Watch
Bryan Riggs, December 2014
4. Markets and Markets, Mobile Unified Communications and Collaboration Market Analysis
Staff, 2014
5. NetFortris Cloud Communications Solutions
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Founded in 1994, NetFortris is headquartered in San Francisco and has over 20 years of success in the secure cloud communications industry. We provide highly customized voice and data services via our national MPLS network. Our network is a secure, reliable foundation for converged voice and data.

Over the past decade, the Multi Protocol Label Switching (MPLS) technology that enables voice and data to be transported together on wide area networks (WANs) has matured greatly. It now provides a platform for almost unimaginable communications and cloud-computing possibilities. This is especially important because of the increasing network traffic trends that affect organizations—large and small, public and private sectors—across the globe.

NetFortris offers quality communication services that solve the byproduct service management problems of video and other bandwidth-intensive, jitter-sensitive, and latency-sensitive applications.

Visit www.netfortris.com for more information about our UC products.

