



Unified Communications as a Service (UCaaS)

FlexTEL

RE-THINK: what's possible

A FlexTEL White Paper
April 2012

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Introduction

If your organization is replacing an aging communications system or purchasing a new one, you are not alone. Businesses are expected to spend over \$22.5 billion dollars on enterprise communications in 2012, and this number is predicted to rise to nearly \$30 billion by 2014. Increasingly, companies are choosing Voice over Internet Protocol (VoIP) systems that provide everything current PBX or key systems do – reliable dial tone, good sound quality, dependability, and ease of use – while delivering increased productivity and efficiency.

But VoIP communications systems are complex and require significant capital to build and maintain. As VoIP platforms continue to evolve, many early “do-it-yourself” VoIP implementers have had to update their infrastructure in a short amount of time. While frequent upgrades and replacements may be acceptable for low- cost items like laptops or cell phones, this is not practical for capital- intensive technology such as VoIP infrastructure. This is leading an increasing number of organizations to completely outsource their communications services to TSPs (Technology Service Providers).

The outsourced solutions that TSPs offer range from basic, shrink- wrapped VoIP products to fully hosted Unified Communications as a Service or UCaaS solutions. With UCaaS, organizations avoid up-front capital expenses and update costs by leasing the communications services and equipment. UCaaS goes beyond basic VoIP by including Unified Communications (UC) functionality such as Outlook integration, collaboration, instant messaging (IM), fixed-to-mobile convergence (FMC), video conferencing, soft phones and real-time presence.

UCaaS will be discussed in more detail within the subsequent sections of this whitepaper. The benefits of UCaaS will be detailed and compared to a more traditional do-it-yourself VoIP approach, so that you can make an informed decision as to the best approach to take for your business.

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Unified Communication Trends

In the last decade, VoIP has become a viable alternative to traditional Time Division Multiplexing (TDM) phone service. VoIP technology converts voice signals to digital packets so it can be transmitted over the public Internet or a private IP network.

VoIP is becoming increasingly popular because it offers benefits that TDM phone service cannot deliver, such as increased productivity and efficiencies through integration with business applications. It also increases flexibility. By year-end 2015, experts predict that 60% of organizations will offer employees at least four overlapping options for voice/telephony services. Businesses seeking to transition to VoIP or new businesses that want to start with the latest technology have a few options:

- > **“Do-It-Yourself.”** Purchase your own IP PBX equipment, and commit the resources (capital and human) to build, operate, and maintain the equipment and network. This approach is capital-intensive as you buy everything and absorb all the risk. With a Do-It-Yourself approach, you have all the complexities of installing and managing a new PBX, managing Quality of Service and installing, integrating and managing video streaming, collaboration and unified messaging applications and services. By doing it yourself, you’ll have multiple suppliers to manage and integrate. And unless you invest significant dollars with redundant networks and systems, business continuity will be limited as the “Do-It- Yourself” approach is a premises based (on-prem) system.
- > **Hosted IP PBX.** With a hosted IP PBX approach, you can choose a premises-based or non-premises-based approach, but either way, you’ll outsource the day-to-day management responsibilities of the IP PBX. Regardless, the management of your data and voice network will be handled by you and your staff and it will fall to you to procure, manage and integrate numerous separate services for a full Unified Communications implementation. The hosted IP PBX approach is generally expensive and typically not available to enterprises with less than 1000 employees.

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- > **Hosted VoIP.** Hosted VoIP services remove the equipment from the business site and like IP PBX, the day-to-day management responsibilities are handled by the vendor. Where hosted VoIP generally falls short is in the features. Generic hosted VoIP applications usually require expensive add-ons to achieve a complete Unified Communications solution. Unified messaging, chat, presence, video and other advanced applications are typically not included in a basic hosted VoIP service.
- > **Unified Communications as a Service or UCaaS.** Similar in concept to Software as a Service or SaaS, UCaaS represents the virtualization of the PBX. The newest and most innovative of the hosted applications, UCaaS includes a full complement of Unified Communications functionality. In the UCaaS model, the PBX is located in the IP “cloud” instead of residing at the user premises. Like other hosted models, users outsource the day-to-day management responsibilities and pay for usage, not ownership.

The Challenges of Building a VoIP Solution

The obstacles to building a VoIP system are steep. VoIP is more complex than the traditional TDM PBX systems; requiring a significant capital investment (up-front) and higher ongoing costs for maintenance, operations, and upgrades. Also, building a VoIP network is a time-consuming process that requires a complex and specialized skill set and demands a large investment in employee headcount. If the enterprise intends to include Unified Communications, the complexity and the associated costs only increase.

In addition to significant capital expenditures and personnel investments, the “build-it-yourself” VoIP model requires the enterprise to manage multiple vendor suppliers. Ongoing maintenance becomes costly over time as technology components offer a short shelf-life, becoming obsolete in as few as three years, requiring the enterprise to reinvest to stay current or be saddled with an obsolete system. These issues are too great an obstacle for most small- to mid-sized businesses, driving many to seek an alternative solution, such as UCaaS.

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Unified Communications as a Service (UCaaS)

Unified Communications as a Service (UCaaS) goes beyond traditional VoIP offerings by delivering a fully hosted VoIP and Unified Communications solution. As a managed solution, UCaaS requires little oversight from you and your team so you can reallocate IT budget and personnel resources to where they'll create the most business growth and value. With a UCaaS solution, you can leverage enterprise-class communication services without the complexity, time and cost required to build a premises-based solution.

UCaaS uses a utility-based pricing model that provides you with a comprehensive, flexible and simple-to-understand VoIP service. The bundled service typically includes integrated access (voice and data), a handset, local and long-distance voice services, voicemail, VoIP technology infrastructure and advanced PBX functionality including diverse connectivity for full resiliency and disaster recovery.

In the UCaaS model, you contract with a single service provider for all of your communication needs. Bundled services usually include voice and data access, long-distance and local voice services, telephone handsets, voicemail, software, and advanced Unified Communications functionality such as video calling, Web collaboration, chat, fixed-to-mobile convergence, real-time presence and unified messaging. The service provider offers this functionality from one or more remote, secure and fully redundant operations/data centres.

Advantages of UCaaS

(1) Total Hosted and Managed Solution

Unlike services that you obtain from IT providers, UCaaS delivers a complete VoIP and Unified Communications solution that is entirely managed by a single service provider. The UCaaS service provider integrates core telephony/telecom features with advanced UC functionality and is responsible for the complex integration and service set delivered to your users. From the phone on each employee's desk and the PC soft client to the VoIP private backbone and all points in between, every component in the UCaaS solution is managed 24/7 by the service provider.

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In a UCaaS implementation, the expense of managing a carrier-grade data center is equally shared across the service provider's customer base, making it more economical for your business to implement UCaaS than to build your own VoIP network. As a result, you can reassign valuable IT personnel and capital resources to where they will create the most business growth.

In addition, a managed solution allows more collaborative functionality - not just communications - allowing companies to achieve new levels of connectedness.

(2) Fully Integrated Enterprise-Class Unified Communications

With UCaaS, a single service provider is responsible for all of the complexities associated with managing the Unified Communications service. The service provider delivers voice and data access and manages your LAN and WAN, security, routers, email, voicemail, and data storage.

By managing the LAN/WAN, the service provider guarantees consistent Quality of Service (QoS) from the desktop across the VoIP backbone and back.

With UCaaS, the feature set is fluid, and may include Outlook integration, soft phones, real-time presence, chat, multimedia conferencing, video calling, unified messaging and mobility. Development and introduction of new features and applications are faster, easier and more economical because the service provider is doing the work for multiple end users across a scalable platform.

(3) No Upfront Capital Expenses

When you outsource your communications to a UCaaS service provider, the provider delivers everything that you need for a Unified Communications solution: the network, switches, routers, IP phones, soft clients and the inherent UCaaS functionality. You pay a monthly fee for what you are currently using. There's no purchase of equipment and no capital outlay. Ongoing maintenance and upgrade costs are also bundled into the offering.

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With UCaaS, you're not tied to the same phone for five or more years. With continued innovation, desktop phones are projected to disappear from our workspace, to be replaced by soft phones, tablets and other personal devices (BYOD) - and you will be prepared to take advantage of the same.

(4) Flexible Capacity and Feature Set

When you outsource your communications services to a UCaaS provider that offers a scalable communications platform, you pay for the features that you need, when you need them. Your service provider is able to spread the cost of feature development and delivery across a broad customer base, making feature functionality more economical for you to implement. Economies of scale also mean that the service provider is not tied to a single vendor investment and can leverage best-of-breed providers more economically than an independent enterprise.

(5) No Risk of Obsolescence

While technology innovation brings many positives to the table, rapid technology advances bring about product obsolescence in a short amount of time. Average life cycles of older PBXs and key systems range from seven to twelve years. With the advent of the PC, cell phone, video and many other new technologies, technology products typically face much shorter life cycles, with some as short as a couple of years. The UCaaS service provider absorbs this burden for the user by continuously upgrading the equipment in the UCaaS platform, offering the latest in Unified Communications functionality to their customers.

(6) No Facility or Energy Costs to House Equipment

Your UCaaS service provider hosts the Unified Communications equipment, eliminating the need for you to provide space and facilities for an on-site data centre. There's no switch room expense, no special heating or air conditioning requirement and no extra expense for the constant power consumption that such a facility would demand. With UCaaS, you often receive the benefit of multiple carrier-grade data centres with full geographic redundancy – and it's included in your per user fee model.

(7) Guaranteed Business Continuity

If you experience a communications outage, how long could your company survive? If it's a simple problem, like a power outage, your business might not feel a pinch. But what if something more catastrophic occurs at your physical location, such as severe weather or fire? How long could your business survive? For most businesses, the answer is "not long!"

Most companies do not plan for voice continuity. Unlike data continuity, eliminating single points of failure for a voice network is usually cost-prohibitive because of the large scale and management complexity of the project. With a UCaaS solution, multiple levels of redundancy are built into the system with no single point of failure. A UCaaS service provider delivers services that would be difficult, cost prohibitive or impossible for a single organization to obtain: redundant telecommunications equipment, network and circuit diversity, and backup power systems.

A UCaaS solution expands upon typical hosted VoIP, at a fraction of the cost of a specialized disaster recovery plan, with:

- LAN/WAN management
- Fully redundant 24/7 national VoIP network
- High-touch customer service
- True carrier diversity
- Connectivity diversity
- A robust business continuity architecture

Among other things, a UCaaS solution includes:

- Network redundancy: All switching and network elements are built in fully redundant pairs and all servers dually connect to this redundant core ensuring 100% survivability in the event of the failure of a network element.

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- POP diversity: The entire redundant service is replicated across two geographically diverse locations guarding against the loss of a POP.
- PSTN diversity: Either POP can serve calls to any customer DID ensuring 100% feature capability in the event of the loss of a POP. Additionally, PSTN connections at each POP use diverse OC3 and OC12 SONET rings and quad redundant SS7 links.
- Location Agnostic DID's: Calls to any customer DID can be delivered to any, some or all customer locations drastically simplifying DR without manual intervention.
- Circuit diversity: A minimum of two diverse connections into the customer's environment to protect against loss of carrier connectivity. Each connection is engineered to support 100% of the traffic, and traffic dynamically routes around a circuit failure.
- CPE redundancy: Diverse carrier connections are terminated on separate and diverse CPE devices to eliminate single points of failure.
- WAN failover that specifically addresses the needs of each of your office locations.

Redundant switching and network elements are located throughout the hosted platform, and all VoIP transport components are located in geographically diverse data centres for high availability and survivability.

At the user level, calls can be routed to cell or home phones. Inherent collaboration and mobility features ensure business continuity for each employee. Callers dial your office number and get you on the line – no matter where you are. Communications can also continue using only a laptop and the UCaaS soft client.

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About FlexTEL

FlexTEL is a worldwide leader in providing integrated managed voice and data services and hosted Unified Communications to business customers & carriers. It has deployed one of the most, full-featured, VoIP networks, and is trusted by telecommunications carriers, ASPs, ISPs, and businesses alike to transport valued voice communications each year. FlexTEL's Network Operations Centre, operating 24x7, provides the reliability, security, and quality of service necessary for the world's most discriminating customers.

FlexTEL offers SIP Trunking, SIP origination and termination services, and award-winning hosted Unified Communication solutions, including broadband and virtual PBX provisioning. Beginning in 2005, FlexTEL revolutionized the communications industry with its hosted Unified Communications solution, offering productivity-enhancing technology such as integrated audio and web conferencing, multimedia collaboration tools, presence, chat, Microsoft Outlook integration, full redundancy, carrier diversity, disaster recovery, and provisioning.

Since its founding, FlexTEL and its parent, FlexITy Solutions, have received numerous awards and accolades for excellence and innovation for their UC platform.

FlexITy is a privately-held company, headquartered in Richmond Hill, Ontario. To learn more, visit us at www.goFlexTEL.com and www.FlexITy.ca.



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