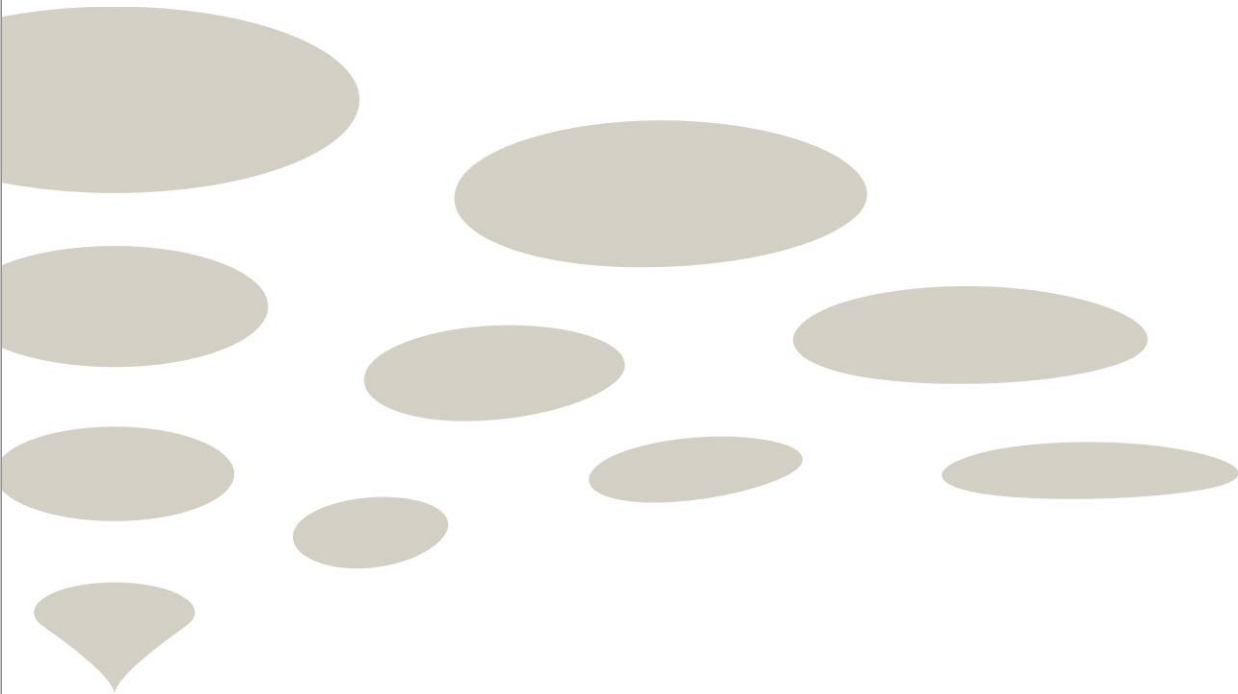


Communications as a Service

A Cypress Communications Whitepaper

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Introduction

Whether replacing an aging communications system or purchasing a new one, businesses need and want a communications system that at least does everything their current PBX or key system does—reliable dial tone, good sound quality, dependability, ease of use—and also delivers the productivity and efficiency benefits of Voice over Internet Protocol (VoIP).

But the complexity and costs required to build and maintain a VoIP communications system, not to mention the dedicated staff hours and the amount of time required to implement, are 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 hosted VoIP products to full Communications as a Service or CaaS solutions. CaaS, touted by some industry analyst to be the most innovative of the hosted VoIP solutions, extends hosted VoIP by including Unified Communications functionality such as Outlook integration, collaboration, instant messaging (IM), video conferencing, soft phones and real-time presence.

With CaaS, users lease the communications services and equipment and avoid paying up-front capital expense. As VoIP platforms continue to develop and evolve, many early “do-it-yourself” implementers of VoIP technology have had to update parts of their infrastructure in a short amount of time. While frequent upgrades and replacements may be acceptable for lower-cost items, like laptops or cell phones, this approach is not practical for capital-intensive technology such as VoIP infrastructure. This makes many enterprises cautious about making large VoIP capital investments. However, businesses can shift the technology risk to the TSP by leasing the services and equipment. The business can still enjoy the productivity and efficiency benefits of Unified Communications while accepting none of the risk. The TSP assumes all of the technology risk, but mitigates it by spreading the risk across its customer base.

Communications as a Service or CaaS will be discussed in more detail within the subsequent sections of this whitepaper. The benefits and drawbacks of CaaS will be detailed and compared to a more traditional do-it-yourself VoIP approach so the reader is educated on both approaches and can make an informed decision as to the approach to take for their business.

VoIP 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 private IP network lines.

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. 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 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 servers. 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 system.
- Hosted IP PBX. With a hosted IP PBX approach, you can choose a premises-based or non-premises-based approach to the IP PBX, but either way, you’ll outsource the day-to-day management responsibilities of the IP PBX. However, the management of your data and voice network is still 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.
- 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.
- Communications as a Service or CaaS. Similar in concept to Software as a Service or SaaS, CaaS represents the virtualization of the PBX. The newest and most innovative of the hosted applications, CaaS includes a full compliment of Unified Communications functionality. In the CaaS 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; it requires a very significant capital investment up-front and high ongoing costs for maintenance, operations, and upgrades. The building of a VoIP network also requires a complex and specialized skill set and demands a large investment in employee headcount. Not to mention the time-consuming process of building such a specialized VoIP system. And if the enterprise intends to include Unified Communications, the complexity and the associated costs only increase.

In addition to significant capital expenditures and people investments, the “build-it-yourself” VoIP model requires the enterprise to manage multiple vendor suppliers. Ongoing maintenance will become costly over time as technology components face a short shelf life, becoming obsolete in as few as three years, forcing the enterprise to reinvest to stay current or

else be stuck 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 CaaS.

Communications as a Service or CaaS

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

CaaS is designed to include a utility-based pricing model that provides users 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.

In the CaaS model, you contract with a single vendor for all of your entire 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, real-time presence and unified messaging. The vendor offers this functionality from one or more remote, secure and fully redundant data centers.

Advantages of CaaS

Total Hosted and Managed Solution

Unlike services that you obtain from specialist providers, CaaS delivers a complete VoIP and Unified Communications solution that is entirely managed by a single vendor. Integration of core PBX features with advanced UC functionality is managed by one vendor who is responsible for the complex integration and service set delivered to your users. The Service Provider is not tied to a single vendor investment and can leverage best-of-breed providers like Cisco, Microsoft and Nortel much more economically than a single enterprise.

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 CaaS solution is managed 24/7 by the vendor. In a CaaS implementation, the expense of managing a carrier-grade data center is equally shared across the vendor's customer base, making it more economical for your business to implement CaaS than to build your own VoIP network. Plus, by using a hosted approach, you can reassign valuable IT personnel and capital resources to where they will create the most business growth.

Fully Integrated Enterprise-Class Unified Communications

With CaaS, a single service provider is responsible for all of the complexities of managing the Unified Communications service. The vendor provides voice and data access and manages your LAN and WAN, security, routers, email, voicemail, and data storage. By managing the LAN/WAN, the vendor can guarantee consistent Quality of Service (QoS) from the desktop across the VoIP backbone and back again. Advanced Unified Communications features such as Outlook integration, soft phones, real-time presence, chat, multimedia conferencing, video calling, unified messaging and mobility are also part of a standard CaaS deployment. And with CaaS, the feature set can continue to evolve. 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.

No Upfront Capital Expenses

When you outsource your communications to a CaaS vendor, the vendor provides everything that you need for an Unified Communications solution: the network, switches, routers, IP phones, soft clients and the inherent CaaS functionality. You pay a monthly fee for only what you use now. There's no purchase of equipment and no capital outlay. Ongoing maintenance and upgrade costs are also bundled into the offering.

With CaaS, you're not tied to the same phone for five or more years. This is good because desktop phones are projected to disappear from our workspace, to be replaced by soft phones and PCs. Some industry analysts predict that by the year 2010, we'll primarily use our PCs and telecommunications software to conduct all of our business calls.

Flexible Capacity and Feature Set

When you outsource your communications services to a CaaS 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 like Cisco, Microsoft and Nortel much more economically than an independent enterprise.

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 could range anywhere from seven, eight or even 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 CaaS vendor absorbs this burden for the user by continuously upgrading the equipment in the CaaS solution and offering the latest in VoIP and Unified Communications functionality to their customers.

No Facilities and Energy Costs for Equipment

Your CaaS provider hosts the VoIP and Unified Communications equipment, eliminating the need for you to provide space and facilities for an on-site data center. There's no switch room rent to pay, no special heating or air conditioning requirement and no extra expense for the constant power consumption that such a facility would demand. With CaaS, you typically receive the benefit of multiple carrier-grade data centers with full geographic redundancy—and it's all included in your monthly lease payment.

Guaranteed Business Continuity

If you experienced a communications outage, how long could your company survive? If it's a simple problem, like a power outage or temporary evacuation caused by a burst water main, your business might not feel a pinch. But what if something more catastrophic occurs at your physical location, such as a hurricane or fire? How long could your business survive? For most businesses, the answer is "not long."

Most companies don't even contemplate 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 CaaS solution, multiple levels of redundancy are built into the system with no single point of failure. A CaaS vendor can provide services that would be difficult or impossible for a single organization to obtain: redundant telecommunications equipment, network and circuit diversity, and backup power systems. A CaaS solution expands upon typical hosted VoIP with LAN/WAN management, a 24/7 fully redundant national VoIP network, high-touch customer service and robust business continuity architectures – all at a fraction of the cost of a specialized disaster recovery plan.

A CaaS solution includes network, POP and circuit diversity, CPE redundancy and WAN failover that specifically address the needs of each of your office locations. Redundant switching and network elements are located throughout its hosted platform, and all VoIP transport components are located in geographically diverse data centers 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 CaaS soft client.

About the author, Frank Grillo

As a visionary communications executive, Frank M. Grillo is Executive Vice President of Marketing for Cypress Communications. Frank is known for his ability to produce extraordinary results that make a real contribution to the bottom line of an organization. Previously, Frank worked as Senior Vice President - Business Services for Z-Tel and as Senior Vice President of Global Business Markets for MCI WorldCom, where he managed over 1,000 marketing professionals and was responsible for global business marketing strategy, including product management, pricing, marketing communications, advertising, sales training, sales support, sales engineering and online and alternate channel distribution. From 1995 to 2000 he was Vice-President of Marketing for LDDS.

About Cypress Communications

Boasting a 20-year legacy and more than 6,500 customers coast-to-coast, Cypress provides Communications as a Service (CaaS) to small- and mid-sized enterprises. CaaS goes beyond traditional hosted VoIP offerings by delivering a fully managed unified communications solution. Comprehensive and flexible, the CaaS solution from Cypress includes integrated voice and data access, desktop phones, soft phones, local and long-distance voice services, voicemail, advanced collaboration tools and remote office functionality. From their computers, users can take advantage of productivity-enhancing applications such as real-time presence, desktop video, unified messaging, chat, file sharing, and Outlook integration. As a Deloitte Fast 50 and Fast 500 award recipient, Cypress Communications is also recognized as one of the fastest growing telecommunication companies in North America. Cypress is headquartered in Atlanta. The company's Web address is www.cypresscom.net.