



Top 5 Reasons to Virtualize Your Phone System

Virtualization allows one powerful server to run multiple operating systems and applications simultaneously

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A Sangoma Whitepaper

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Common Challenges that Lead to a Virtualized Environment

Small and midsized businesses (SMB) have common challenges that have sparked a trend of virtualizing their IT infrastructure. These challenges typically include small budgets, limited in-house IT resources and expertise, and an overall lack of time. On top of those challenges, there is also the increased need for more sophisticated technologies such as SQL servers, file servers, domain controllers, and Exchange email servers. Companies are realizing the overall cost savings and simplicity delivered when these types of systems are consolidated through virtualization. The option to virtualize your business communications alongside other business-critical technologies results in additional benefits to most organizations. This guide provides an overall look at virtualization and discusses the top five most important reasons to include your phone system in a virtualized environment.



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What is Virtualization?

Virtualization has fundamentally changed the way IT departments deploy systems. In the past, IT departments would deploy an individual hardware server for each application. Virtualization allows companies to now deploy one powerful server with virtualization software that allows that server to run multiple operating systems and applications simultaneously. Virtualization software organizes and controls the different applications (often called *instances*) and allows administrators to determine the amount of resources allocated to each instance. Common applications that are virtualized are file servers, SQL databases, Microsoft Exchange servers and SAP or CRMs.

Once reserved for large enterprise, the simplicity of virtualization technology and its compelling cost savings have made deployment a top choice for companies of *all* sizes.

The benefits of virtualization for IT are significant and include deployment flexibility, redundancy, simplicity, and cost savings. Once reserved for enterprise organizations, the simplicity of the technology and the compelling cost savings has made the virtualized deployment method a top choice for companies of all sizes. A 2015 study conducted by *Techaisle* found that over 54% of SMBs use virtualization to manage their IT infrastructure.

Virtualized Phone Systems

Phone systems have evolved from complex, hardware-focused legacy infrastructures to today's simplified software-based solutions, which makes

them the perfect candidate for virtualization. Voice services are also delivered through shared data connections, eliminating the need for dedicated, physical voice connectivity through analog, PRI, or T1. Virtualization technology has steadily improved both in features and reliability, allowing it to meet the requirements of a mission-critical application, such as voice, to companies of all sizes.

Now that it's clear that phone systems are a fit for a virtualized environment, it's important to understand why a company should want to virtualize a phone system. To help SMB decision makers better understand the advantages of a virtualized business communications system, here are five key benefits to consider:



Improved Uptime and Disaster Recovery

For most companies, a phone system is considered part of mission-critical operations and any downtime of communications translates into lost revenue and (at the very least) unhappy customers.

An Emerson Network Power study found that unplanned datacenter downtime can now cost up to \$7,900 per minute, which is a 41% increase from \$5,600 per minute in 2010. Traditionally, creating a highly redundant environment for a phone system was very complex and extremely costly. Companies with low-tolerance for downtime were forced to spend a significant amount of money on multiple servers (and additional licenses) that were very difficult to manage and oftentimes didn't meet the uptime requirements.



Virtualization platforms like VMware®/Hyper-V® provide live migration, high-availability, and storage migration so that two physical servers act as one, keeping applications running in the event of a hardware failure.

One of the primary reasons companies virtualize a phone systems is to increase uptime and improve their disaster recovery options. Virtualization platforms like VMware® provide features including live migration, high-availability, and storage migration, all of which keep applications running in the event of a hardware failure. These features create an environment where two physical servers act as one, allowing communications applications to migrate between servers automatically and seamlessly. These native features to a virtualization platform help companies meet their uptime goals, and do so without the complexity and cost of multiple vendor-specific servers. Management Insight Technologies studied the impact of virtualization on downtime and found a 36% decrease for companies who virtualize their infrastructure.

Another advantage that virtualization delivers is the ability to create a private infrastructure to assist in disaster recovery. With a private cloud infrastructure, redundant virtual servers can be placed in an off-site data center, allowing systems to be accessed in the event of a weather-related outage, power outage, or any other unforeseen event that occurs at the main office. Private cloud lets IT manage those off-site servers in the same way it manages in-house servers, and systems can be migrated on an off-site as necessary.



Scalability

Most phone systems are designed using vendor-specific hardware with separate voice software loaded on to it.



A virtualized phone system is scalable, placing the control of resources in the hands of the user —not the vendor.

The required hardware is tested to deliver a certain performance level based on the number of users or simultaneous calls. If a company grows to the point at which the hardware component is no longer sufficient, the company's only choice may be to buy a new piece of hardware to support its growth. If the company has outgrown that vendor's most powerful hardware, they have to look to another vendor and may face a forklift upgrade of their communications. If the company scales back its growth, or shrinks its number of users and is under-utilizing the phone system's capacity, then resources are wasted [SB3].

A virtualized phone system solves the scalability issue by placing the control of resources in the hands of the user and away from the vendor. Users determine which system resources (CPU, RAM, storage) to allocate to the phone system, and they have the ability to adjust these on the fly in

order to accommodate business growth or retraction. While most vendors provide guidelines to help companies determine which resources are needed to achieve certain performance levels, the actual resources allocated are left up to the user organization. Now companies can feel more comfortable knowing they will not quickly outgrow their phone system and that they are not handcuffed by vendor hardware restrictions.



Cost Savings

Financially, virtualization has a significant advantage over traditional deployment methods, making it a more attractive option for your phone system.

Many phone systems today require several pieces of underutilized hardware to support different voice applications. It's not uncommon to have separate voicemail, mobility, collaboration, and call control servers to deliver voice, even for smaller companies. These servers are underutilized in that they are likely using only a small fraction of their resources to deliver that application, yet companies pay a premium for them. Virtualization consolidates those devices into a single server that companies are already using for other key business applications.



Power Savings and Going Green

For an IT staff, managing power, cooling, and capacity of their datacenter is vital to the success of their infrastructure.

Companies that use separate servers for each application spend significantly more than companies deploying a virtualized environment. "The increased utilization (of virtualization) can significantly reduce the power, cooling, network infrastructure, storage infrastructure and real estate requirements — resulting in significant decreases in energy consumption (50 to 70%) and the carbon footprint of enterprise data centers," adds Rahul Singh, principal at Pace Harmon, a third-party outsourcing advisory and technology consulting firm. Since it is often the case that phone systems have multiple servers, even though underutilized, they are still drawing full power at all times. The ability to consolidate these servers will go a long way to helping companies "go green" and reduce their carbon footprint.



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Vince Preece
*Value Added Reseller of
Technology Products*



Simplicity and Flexibility for IT

IT teams find it frustrating to deploy and maintain separate hardware for every business application.

Systems that are virtualized can be deployed quicker and are easier to maintain, freeing up IT resources and reducing technology management headaches. A VMware study found that virtualized companies gain over 67% in productivity and spend 26% less time troubleshooting issues. Vince Preece is a Value Added Reseller of technology products and a Sangoma Select Partner, and adds, “Virtualization is a great solution because it allows the IT department to include the phone system in resource planning, DR planning, and business continuity strategy. Decoupling the hardware from the software allows organizations much more flexibility in what they do with their PBX.”

Phone systems often take this IT frustration to the extreme with vendors that require separate servers for individual voice applications. Virtualized phone systems consolidate applications into a single server, and virtualization platforms provide tools and features that give IT the flexibility they need to successfully manage their communications network.

Conclusion

Phone systems are not only capable of being deployed in a virtual environment, but there are a number of significant advantages of either virtualizing your existing system or replacing it with a system that can be virtualized. Gartner [SB8] reports that companies can see a cost savings of more than 50% compared to individual server environments, and through consolidation of hardware, power savings, and drastic reduction in downtime, justifying a move to a phone system with virtualization options becomes quite easy.

For more information on the cost saving and flexibility benefits of a virtualized phone system, go to:

www.sangoma.com/business-phone-systems/virtualization/

References:

Quote on power savings

<http://www.tmcnet.com/voip/0310/virtualization-sees-green-but-more-energy-savings-could-be-realized.htm>

Gartner Report on Virtualization

www.gartner.com/doc/2516815/virtualization-key-initiative-overview



Switchvox is the award-winning business phone system specifically developed for small- and mid-sized businesses, available on-site, virtualized,

or in the cloud. Switchvox makes it easy to integrate all of your office communications and immediately start saving time and money.

Recognized as the “Best Value in UC for SMBs,” Switchvox offers a single powerful set of UC features at a price your business can afford.

All-inclusive pricing means there are no costly add-ons or unexpected expenses for business-critical features—including mobility! You get **all the features of Switchvox with one low price!**

Sangoma's Switchvox UC will help you easily transition from a basic phone system to a feature-rich Unified Communications solution.

Switchvox for VMware® /Hyper-V®

Driven by VMware/Hyper-V's disaster recovery capabilities and scalability, Switchvox support for VMware/Hyper-V eliminates the need for a dedicated PBX appliance and provides small and medium-size businesses with a phone system that meets the needs of an enterprise at a fraction of the cost of traditional voice deployments.

Scalability

Virtualizing Switchvox releases companies from stringent hardware requirements and specifications. VMware/Hyper-V provides the flexibility to adjust system resources on the fly, delivering a phone system that grows with the success of your business, and with the performance you demand from your communications.

Disaster Recovery

Downtime is expensive, and virtualization is the key to ensuring that downtime is minimized. Utilizing VMware/Hyper-V's disaster recovery tools, High Availability is possible with Switchvox, allowing your company to stay connected to customers at all times.

Save Money

Switchvox support for VMware/Hyper-V lets you take advantage of your existing virtual environment, eliminating the need for costly, dedicated voice appliances. Having fewer appliances also significantly reduces maintenance and power costs.

Get started at:

www.sangoma.com/business-phone-systems/virtualization/

About Sangoma Technologies Corporation

Sangoma Technologies is a trusted leader in delivering value-based Communications as a Service (CaaS) solutions for businesses of all sizes, service providers and OEMs. Sangoma's offerings include Unified Communication (UCaaS) and Call Center as a Service (CCaaS) business phone systems, both on-premise and cloud, Communications Platform as a Service (CPaaS), SIP trunking services (TaaS), and telephony hardware which can also be deployed as a service. Sangoma's products and services are used in leading PBX, IVR, contact center, carrier networks, and data communication applications worldwide. Sangoma is the primary developer and sponsor of the Asterisk project, the world's most widely used open source communications software, and the FreePBX project, the world's most widely used open source PBX software. Businesses can achieve enhanced levels of collaboration, productivity, and ROI with Sangoma.

For more information on Switchvox: www.sangoma.com/switchvox



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