

VoIP Phone Systems

Hosted or Premise-Based, Voice over IP Offers Big Advantages

Internet technology is affecting virtually every aspect of how businesses operate today. Perhaps none is impacted more than telecom. New Voice over IP (VoIP) capabilities are enabling companies to communicate more effectively, economically and reliably. They are also providing the opportunity for unprecedented business flexibility and mobility. Both premise-based VoIP and hosted systems are dramatically improving how small and medium-size businesses serve their customers, enable their employees and achieve greater levels of success.

Premise-based Voice over IP phone systems can provide large businesses with real cost savings and other potential benefits of situating the equipment within their facilities. Hosted (cloud-based) VOIP can offer other businesses a variety of advantages, from scalability, reliability and minimal capital investment to functionality, productivity and a lower total cost of ownership. Hosted VOIP also removes the tethers to telephone closets, moves the management of the phone system to a cloud-based provider and opens up a wide array of productivity enhancing capabilities.

In today's hyper-competitive environment, the benefits of VoIP through premise-based and hosted

systems are opportunities businesses should explore.

What is VoIP?

First it is important to understand that there is VoIP service and there are VoIP phone systems. Voice over IP service, Voice over Internet Protocol and VoIP all refer to phone service delivered over the Internet or a private IP network. Voice and multimedia session can be transmitted by digitization of the analog voice signal, encoding, creating data packets and transmission as Internet Protocol (IP) packets over a packet-switched network. The bandwidth efficiency and low costs that can be achieved with VoIP technology are an attractive incentive for many businesses to migrate from traditional TDM to VoIP telephone service. Today, the majority of new phone lines being installed are VoIP.

A Voice over IP phone system is the equipment and software a business uses. It can include enabled phones and devices in virtually any facility or location if properly configured. VoIP phone system equipment can be premise-based or reside in the cloud, at hosted data center. In both cases, the actual desktop phones are, of course, located in the premise. A VoIP phone system can also connect to either VoIP service or traditional TDM service from a carrier with the proper equipment.



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VoIP Service and Phone System Advantages

VoIP solutions open up a broad range of capabilities and advantages to businesses that can be grouped into these categories:

- **Cost-effectiveness** – This is one of the primary reasons businesses chose VoIP service. Transmitting calls over the Internet and private IP networks can significantly reduce costs because telephone company charges can be reduced. In the vast majority of cases, VoIP provides a lower total cost of ownership.
- **Scalability** – VoIP phone systems make it easy, fast and cost-effective to add, remove, change and move phone lines utilizing customized Web-based portals, accessible by anyone with the proper security credentials, anywhere there is a network connection. There is far less need for the telephone company or vendor to come to the facility to make changes, which saves time, cost and administrative complexity. Technical expertise and industry knowledge are necessary to address the many factors that must be considered when provisioning the optimal solution. If such resources are not available in house, it is wise to get assistance from a professional.
- **Number Portability** – VoIP service can enable a business to utilize [SIP Trunking](#) to enable powerful telephone number portability. In many situations, this can eliminate carrier restrictions that prevent porting of numbers to

other exchanges and rate centers. This offers extensive flexibility in routing calls to virtually any phone in any location without long distance or forwarding charges. There are some limitations that are important to know, but the benefits are great.

- **Mobility** – A VoIP phone system makes it possible to have different phones or devices in almost any location appear to have the same number, from a local facility, headquarters or other recognizable place. An employee who is on the road or in a virtual office can make and receive calls on a designated number anywhere that has a network connection. It offers “find me, follow me” single number reach for mobility, efficiency and economy.
- **Productivity** – Utilizing Internet-based or private IP network-based service can significantly enhance business productivity. Employees are able to work anywhere with full access to telephone functionality. Time is saved by immediate and directly receiving calls; accessibility to the right person and resources is increased by easily changing where a number rings; communication is improved with customers, coworkers and others; issues can be immediately addressed without messages and call backs; and VoIP can create the appearance that all calls are with the corporate headquarters. VoIP makes it possible and practical to create a virtual company.



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- **Quality** – with the right network capabilities, VoIP service enables companies to achieve high-quality, HD voice communications. To achieve Quality of Service (QoS), however, a dedicated network connection is required. It is important to work with telecom professionals to ensure that the right capabilities are in place.
- **Functionality** – VoIP service and phone systems can offer a wide range of features that cost-effectively improve flexibility, productivity, customer service and other benefits.
 - Seamless number forwarding.
 - Find Me, Follow Me – also known as single-number reach, this is the ability to receive calls at any number of designated phones, whether ringing all at once or in sequence.
 - Multiple, situational protocols, such as various greeting and routing, which can be preprogrammed and remotely selected by users as needed.
 - Voicemail forwarding to email accounts that can be retrieved anywhere.
 - Mobile phone calls can display a caller ID from the main office.
 - The ability to move IP phones anywhere within a facility and still have the same extension number without any rewiring or reprogramming.
 - Extension dialing (3 or 4-number dialing) to any location with Internet connection, such as remote offices, hotels, residences, etc.
 - Video integration.

What is a Premise-Based VoIP System?

With a premise-based VoIP phone system, the equipment resides in the business's facility. It connects to the local area network (LAN) and calls are routed to IP phones through the LAN. The equipment and software are owned or leased by the company and are managed internally or through a contracted service. Incoming and outgoing calls go through a service provider over traditional telephone lines or over the company's Internet connection or private IP network. A premise-based VoIP system is installed by company IT staff or by an outside service provider.

Premise-Based VoIP Advantages

While every situation varies, premise-based VOIP can provide real advantages for some businesses, depending on its needs and preferences:

- While the immediate capital expenditure is much more than with hosted VOIP systems, the company owns the system and does not have to make ongoing payments.
- All of the equipment remains under the physical control of the business.
- Some argue that security is greater than hosted services because all messages and data are onsite, though a trusted cloud-based service can offer extensive security assurances.
- For large companies with extensive in-house IT capabilities or a trusted, responsive vendor/partner, premise-based VoIP can be less costly and provide more control.



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What is a Hosted VoIP System?

Hosted VoIP, also referred to as hosted PBX or virtual PBX, runs on equipment that resides in a remote data center and is owned and maintained by a service provider. The business accesses it through broadband Internet or private IP network connections. A hosted VoIP phone system is a subscription-based service that is typically billed on a per-seat basis. IP phones are included in the fee. A summary of hosted VoIP systems follows:

- All hardware and software is in the cloud – except phones.
- Service is hosted by a professional service provider.
- It offers special capabilities and features.
- Security, maintenance and management are part of the cloud-based system.
- It is billed on a per-seat subscription basis.

Hosted VoIP Advantages

As Internet and private IP network capabilities have become more robust and cost-effective, businesses have increasingly recognized the many benefits of cloud-based services, like hosted VoIP.

- No capital expense.
- Lower total cost of ownership for small and medium-size businesses.
- Pay for only what you use.
- Cloud-based reliability – no on-premise equipment failure.

- Automatic, seamless service rerouting during power outages, line breaks, etc.
- Minimum IT support is required.
- No equipment or specialized software to house, maintain, update and troubleshoot.
- No licensing fees or service contracts for premise-based systems.
- Extremely low downtime for productivity and business continuity.
- Upgrade of equipment without capital expenditures.

Call Center Support

Both premise-based and hosted VoIP phone systems can support call centers, utilizing VoIP to efficiently and economically accommodate a wide variety of needs like call queuing, call recording and more.

For inbound call centers, a hosted VoIP phone system provides excellent advantages:

- No equipment investment for the call center.
- Pay only for the lines used and calls made, rather than paying for lines that may be idle a significant amount of the time. This can be especially important for small call centers, which can share resources in the cloud.
- Excellent trunking benefits.
- Cost saving by eliminating software licensing, maintenance, upgrades and more.



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It is important to note that call center capabilities are not included in the per-seat fees charged for hosted VoIP phone systems unless they have been specified. This can be done for selected phones in a business to provide and pay for the capabilities for only those who need it. This will significantly increase the cost per seat. For outbound call centers, premise-based VoIP is usually best. It accommodates auto dialers and other special capabilities.

Is a Hosted VoIP System Right for Everyone?

While every situation is different, hosted VoIP phone systems generally offer compelling advantages for small to medium-size businesses, as outlined above. Large companies with highly capable IT departments and trusted, responsive partners may realize cost savings from a premise-based VoIP system, as well as maintaining hands-on control and security of the system. The most important thing is to do a clear, informed analysis up front to assess current need and capabilities and design the best, customized solution. An outside telecom and IT professional can be invaluable in the process.

LAN Assessment

Before proceeding with the provision and implementation of any VoIP phone system, it is

important to perform a thorough assessment of the company's local area network (LAN) to ensure that it can effectively support the new VoIP

requirements. Among the considerations are:

- Does the LAN switch have power over Ethernet (POE) capabilities, or will the new VoIP phone require an external power source?
- Is the existing cabling adequate?
- Is existing network speed sufficient for the new phone system?
- Are there fully enabled network connections everywhere that phones will be located?
- And other issues that can impact the system.

Summary

Businesses that have not yet migrated to VoIP telephone systems are very likely missing out on significant benefits, from cost savings and staff productivity to extensive new capabilities, flexibility and dependability. Exploring the differences and advantages of premise-based and hosted VoIP will reveal which system is best for individual business's needs and preferences. Regardless of the choice, going VoIP is a good move into the future of communications.

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