Empowering Church Communications with VoIP Technology.

VOIP - Voice over Internet Protocol

VoIP technology allows the user to make voice calls over broadband internet rather than through a traditional analog connection.

VoIP phone systems can be a software application or app and not require desk phone hardware, although you can use a VoIP-enabled desk phone.

VoIP Benefits

Scalability

VoIP is favorably scalable, allowing companies to add or remove lines as required. VoIP allows businesses to easily add or remove lines through an online portal. This scalability is particularly useful if you experience growth or seasonal fluctuations in call volume.

Flexibility

VoIP allows employees to make and receive calls from anywhere with an internet connection, which is particularly useful when out of the office or for remote workers. You do not need to be in the office to make or receive calls.

Mobility

Service mobility is made possible because VoIP services are cloud-based, i.e. provided over the internet rather than through physical phone lines. You can think of your smartphone as an extension of your VoIP phone solution.

Advanced Features

VoIP provides a range of advanced features that are not available with traditional phone systems. For example, voicemail-to-email transcription, call routing, call forwarding, and conference calling are all standard features with most providers. These attributes can improve productivity, reduce missed calls, and enhance collaboration.

Reduced Calling Expenses

VoIP calls are cheaper than traditional circuit-switched or public-switched telephone networks. This is due to the reduction of data carriage costs, making VoIP affordable. Local and long distance charges should completely go away.

Lower Costs

Traditional phone systems require hardware upgrades, which can be time-consuming and expensive. Copper-based phone lines are often billed individually and are costly compared to VoIP lines.

What you need to know

Internet Connectivity

Your VoIP phone will run off your internet connection. Your VoIP experience is generally only as good as your internet connection. If you are having internet problems you can expect VoIP problems.

QOS – Quality of Service

QOS is a method to prioritize network traffic going through a router to provide acceptable service to most users. VoIP is susceptible to network congestion, resulting in echoes, lag, and dropped calls. High latency and jitter can cause glaring problems.

Jitter

Jitter is when there is a time delay in sending data packets over your network connection. This is often caused by network congestion. The longer data packets take to arrive, the more jitter can negatively impact the video and audio quality.

Internet Bandwidth

Speed alone does not guarantee optimal results for VoIP calls. The minimum internet connection speed required for VoIP is between 90 kbps to 156 kbps. Slow upload speeds are a real issue. Recommend minimum 10 mbps upload speed.

Download / Upload speeds

Your Internet is marketed by download speeds; your genuine concern with VoIP is upload speed. Fast download does not guarantee fast upload.
Examples: 12/2, 20/5, 35/12, 150/40, 375/45,500/45, 750/750, 1000/1000.

Latency

Latency refers to a delay as audio data moves from one system to another. During a phone call, latency may cause the person on the other end to hear what you say just a few milliseconds later. It may also cause "glitches" in audio data. This may cause someone's voice to sound muddled or two people's voices to overlap.

VoIP

Pros

- Cost-effective: VoIP often costs less than traditional phone services, especially for long-distance and international calls, as it uses the internet for communication.

- Flexibility and scalability: VoIP allows for easy scalability, making it suitable for businesses of all sizes. You can easily add or remove lines as needed.

- Advanced features: VoIP offers a range of advanced features, such as call forwarding, voicemail-to-email transcription, and virtual receptionists, enhancing communication efficiency.

- Mobility: VoIP enables users to make and receive calls from anywhere with an internet connection, making it ideal for remote work and business travel.

- Integration: VoIP systems can integrate with other business applications, such as CRM software, to streamline workflows and improve productivity.

Cons

- Reliability: VoIP quality can be affected by internet connectivity issues, leading to dropped calls or poor call quality, especially during high-traffic periods.

- Emergency calls: Unlike traditional phone services, VoIP may not always provide accurate location information to emergency services when a call is made, which can be a safety concern.

- Dependency on internet: VoIP relies on a stable internet connection, so if your internet goes down, you may lose the ability to make calls.

- Security concerns: VoIP calls are vulnerable to hacking, eavesdropping, and other security threats, so businesses need to implement robust security measures to protect their communications.

- Compatibility: Some older devices and systems may not be compatible with VoIP, requiring additional investments in equipment or software upgrades.

VoIP Information and Resources

The sites below give good information on your network performance. High Download and Upload speeds are desired. Low Latency and Jitter speeds are better. Any packet loss or errors will need to be addressed before considering migrating to a VoIP system.

- Internet Speed test - https://www.speedtest.net

- Jitter Test - https://www.fusionconnect.com/speed-test-plus

- Latency Test - https://speed.cloudflare.com

- More info - https://www.voip-info.org

- More info - https://www.fcc.gov/general/voice-over-internet-protocol-voip

Just remember, not all VoIP providers are equal, and low-cost carriers can be problematic and slow to get problems resolved. It's better to stick with the major players and get the quality and support you expect. Network quality is important, and the last thing you want to do is get a VoIP system installed and then find out your network cannot support the call quality.

VoIP Providers - These are just a few examples, and there are many other VoIP providers available, each with its own set of features and pricing plans. It's essential to research and compare providers to find the one that best meets your specific needs.

- ✓ **8x8**: offers cloud-based VoIP solutions for businesses, including phone systems, contact center solutions, and video conferencing. They focus on providing reliable and scalable services.

- ✓ RingCentral: RingCentral offers a comprehensive VoIP solution for businesses, including phone systems, video conferencing, and team messaging. They offer flexible plans suitable for small businesses to large enterprises.

- ✓ Zoom Phone: Zoom Phone is part of the Zoom suite of video conferencing and collaboration tools. It offers VoIP services with features like call recording, voicemail transcription, and integrations with other Zoom products.

Non-profit options are sometimes available.

THANK YOU!

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