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S&G Communications

SIP Trunking for Schools

If your School District has or is considering an IP phone system, you should be using SIP

What is SIP?

SIP (Session Initiated Protocol) is a method by which IP phone systems can operate using a shared, integrated WAN connection instead of a traditional dedicted phone line. It is the latest communications standard for voice phone calls in particular, as well as for other multi-media communications like video.

SIP is based on the well-known and established HTTP protocol we are all familiar with when accessing the internet. Most of today's VoIP phone systems use SIP as their internal protocol, allowing for tighter integration of your network phone service and IP phone system.

As a point of reference, the most common prior standard was PRI (Primary Rate Interface) that was part of the ISDN suite introduced in the early '90s. Almost all the carriers now use SIP, in fact if you have a PRI to your phone system today, there's a good chance it is SIP to the router, then converted to PRI just to connect to your phone system. Like VoIP, if you don't have SIP in your district today, you probably will soon.

Integrates with your WAN and Internet Service

Low bandwidth consumption - if the typical school district is implementing a 100 Meg, 500 Meg or 1 Gig fiber WAN, a typical phone call uses only 100K, so 10 concurrent phone calls is only 1 Meg of the total 100, 500 or 1,000 Meg service.

Low cost - each concurrentcall path can be as low as $8.00 per month with unlimited calling, so capacity for 10 concurrent calls is only $80, 20 concurrent calls only $160. Voice is no longer E-rate eligible, but SIP can help reduce your phone bill.

Advanced Features

Bursting - Many SIP providers now offer call bursting with SIP trunking. Call bursting is a viable solution for time-of-day, day-of-week, monthly and seasonal peak usage where you can receive up to 50% more phone calls. So if your service plan is 10 concurrent calls, you can actually receive 15 calls, for example during peak periods when parents are calling in absentees. If your service plan is for 20 concurrent calls, you can actually receive 30.

Pooling - The total number of calls paths can be aggregated across the district. So, if there are 3 schools and a district headquarters, each with a service plan for 10 concurrent calls, those call paths can be shared so there can actually be 40 concurrent call paths to access from any one school.

Benefits of SIP Trunking

- Low bandwidth consumption

- Utilizes the district WAN and eliminates a separate voice connection like a PRI

- Low cost - $8.00 per month per call path with unlimited calling

- Makes adding lines or modifying service fast and simple

- Pooling increases reliability and flexibility

SD-WAN, network-based firewall, VoIP and SIP trunking represent the state of the art in school district networking. More on putting this all together in future newsletters.

NexGen has Engineers to Help You

NexGen's engineers can help you with all of your technology upgrades, provide you with multiple quotes, and furnish all the information you need for your E-Rate documentation.

NexGen is a telecom and network engineering firm specializing in advanced IP voice and data, cloud services, network analysis, network optimization, wireless, and structured cabling. We create customer solutions by designing, installing, and maintaining their systems. For more information, contact Jack Bush at 847-459-1220 or jbush@sandgcom.com.

NEXGEN IS AN E-RATE APPROVED VENDOR

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About NexGen / S&G Communications

Our engineers provide design and implementation of IP phone systems and network services from all the leading carriers. We also offer WiFi services, cloud services, network analysis and network optimization services.

Our technicians install voice and data cabling, fiber optic cabling, racks, cabinets, under-floor tray systems, wireless access point installation, and more.

Our installers are certified, union technicians. By using quality products and certified technicians, we can provide you with an infrastructure capable of supporting all applications designed for today's standards.

Training and Service - As a provider of premier IP phone systems, we offer free on-site training and

a suite of post-implementation services to help you successfully maintain your system.