

Are BSDs giving you the jitters?

In spite of the growth of today's electronic forms of communication, your business probably still greatly relies on its telecom system for communications with customers, partners and vendors. Talking with someone one-on-one is still the best way to build successful business and customer relationships.

The last things you want to happen during those important conversations are voice delays or dropped calls. Using VoIP technology, running on a WAN/LAN system, could cause those problems if your bandwidth is being sucked up by other devices or activities in your network.

What's sucking up your network bandwidth?

Bandwidth-Sucking Devices, or BSDs, can wreak havoc with your VoIP phone system and have a direct effect on the quality of service (QOS) in your WAN/LAN environment.

Every device using your Ethernet or Wi-Fi network uses bandwidth. This can include network peripherals, smartphones, modems, iPods and iPads, laptops, PC cards, employees surfing the net, faxing and more. When users are viewing video, playing music, backing up to outside back-up services, or other bandwidth-sucking activities, your VoIP system could be affected and so could the quality of your phone calls.

Result of too much demand

Here are the typical experiences during periods of high bandwidth demand:

Packet Loss

Packet loss is the result when one or more packets of data travelling across a computer network fail to reach their destination. It's a common occurrence with VoIP systems and can result in delays in voice transmission.

High Latency

Latency represents how much time it takes data packets to reach their destination. The more traffic on the network, the greater the potential delay. Latency is the problem if audio is distorted, voice is delayed (as in one person talking before another has finished speaking), or the line goes dead for a few moments then activates again.

Jitter

Jitter is the variation in the time between packets arriving and is caused by network congestion, timing drift, or route changes. Jitter results in poor call quality.



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Managing Bandwidth

Your VoIP telecom system requires a stable ISP connection plus enough bandwidth to manage your voice connections and all the other demands on your network. There are several steps involved in managing your bandwidth to ensure high-quality, uninterrupted telephone calls.

1. Monitor usage to understand demand: You can install software designed to monitor bandwidth in your WAN/LAN so you can see first-hand which devices or activities may interfere with quality VoIP calls. There are many software solutions available to handle this task and some are free.
2. Prioritize bandwidth-demanding activities: Your network can be adjusted to favor some bandwidth-using activities over others. To ensure high-quality telephone communications, you can set up your network to favor that activity.
3. Optimize the performance of your WAN: There are many processes for making your wide area network more productive and efficient. IT consultants and professionals can assist you with this process.
4. Educate employees on bandwidth usage and limitations: It's not uncommon for employees to take advantage of the higher speeds available at work over what they might have at home. They may use your business connection to download music, videos or conduct other bandwidth-sucking activities. Educating them on the negative impact this activity makes on the overall business, and setting policies of what can and cannot be done on the network, can help control this problem.

Make monitoring an ongoing activity

Determining bandwidth usage is not a one-time activity. As your business grows, devices are added, usage changes, and bandwidth demands change. It should be part of your company's regular IT activities to continue to monitor how bandwidth in your business is being used. This is the best way to ensure long-term, high-quality telephone and network performance.



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