

When VoIP QoS Matters, These Approaches Can Save the Day



By **EVAN WADE** - Contributor

For many companies, a broadband connection is enough to achieve quality of service (QoS) from their Voice over Internet Protocol (VoIP) solutions. Some organizations, on the other hand, may need to do a little more legwork to get the best possible VoIP QoS. For companies highly dependent on cloud communications platforms, any concerns related to VoIP uptime or call quality are priorities. Fortunately, there are a few ways to address these concerns. Here's a look at the ways organizations everywhere are nipping potential QoS issues in the bud:



When a business needs VoIP QoS, there are three options that can deliver.

The VoIP QoS Incumbent: MPLS

If your organization places high value on VoIP reliability and quality — and it should — you probably know a little bit about multiprotocol label switching (MPLS) already, assuming you don't already employ the technology. The protocol represents a sturdier alternative to business broadband products. MPLS also tends to give organizations far greater control over traffic and better recourse in the rare event things go awry.

Further, MPLS is a beast when it comes to managing data packets. By continually labeling packets as they hop through the network, the technology offers notable strengths over standard internet connectivity: Data arrives faster, network congestion becomes less of an

issue, and companies have more control over prioritizing data, so critical calls and video chats come in loud and clear, no matter what.

Then there are the uptime advantages. Though a business's specific network infrastructure will necessarily dictate just how disaster-resistant a wide area network (WAN) is, MPLS is built for redundancy, helping ensure a single-line outage doesn't bring operations to their knees. This also helps on the congestion front, since the traffic engineering options that come with MPLS products are smart enough to send packets down the best possible pipes at all times.

These advantages have made MPLS a default option for many VoIP-reliant companies. Real-time two-way communication data such as voice has precise sequencing needs. This data can suffer when the network pushes it through with no regard for importance. The voice data on a congested network may be brought in out of sequence, or have to "wait" while other data that came before it funnels through. With MPLS, throw in the protections against downtime and you have a technology built to improve voice data performance. If you can justify the cost, MPLS might be what you need to keep your VoIP and network QoS up to snuff at all times.

The Up-and-Comer: SD-WAN for UCaaS

This isn't to say that MPLS is without disadvantages, though. It's more complex and expensive to deploy than business broadband products, making the price tag a consideration for companies that need great QoS for VoIP solutions and little else. To this end, there's definitely a company or two out there begrudgingly signing checks for an MPLS connection, wishing there was a less expensive way to wrangle top-notch voice and video network QoS.

For these companies and others, software-defined WAN for unified communications-as-a-service (SD-WAN for UCaaS) — a technology branched from widely used, highly popular SD-WAN solutions — represents a quality alternative.

To be clear, "less expensive" does not mean "second choice." Instead, SD-WAN for UCaaS is a specific tool for a specific concern. It gives VoIP calls the priority they need by constantly monitoring a company's network for an optimal path. It can work this magic over a number of connections, meaning even total outage of one network option won't disrupt calling.

Though people often pitch the two technologies as competing products, MPLS and SD-WAN for UCaaS are a great combination for companies with an intense need for VoIP QoS.

All these advantages are especially useful in today's cloud-obsessed business environment, where organizations far and wide are moving critical processes such as communications to the cloud — and dealing with a greater-than-usual amount of network congestion because of it. Using SD-WAN for UCaaS, companies can prioritize voice data on an otherwise best-effort connection, giving every process a fair share of the pipe: Your VoIP calls use less bandwidth, so the rest of the cloud data coming in and out of the network has more room to operate.

Taking matters a step further, optimized bandwidth often means significant financial savings. An organization could use the technology to move its multiple locations from an MPLS circuit to concurrent broadband connections, for example, a change that could save hundreds of dollars per month per connection. Meanwhile, rural companies on metered connections could use the technology to save big on overall bandwidth usage or deploy it to make VoIP a financially and technologically viable solution where it wasn't before.

The Hybrid Approach

These aren't the only two ways businesses can up their networked call quality, however. Though the two technologies are often pitched as competing products, MPLS and SD-WAN for UCaaS are a great combination for companies with an intense need for QoS.

This news goes hand in hand with the larger practice of hybrid networking, an increasingly popular approach in the enterprise world. For example, an organization utilizing some combination of MPLS and broadband connections at its various locations could use SD-WAN for UCaaS to guarantee elevated call quality at every address, regardless of its network connectivity options. A company could also use SD-WAN to drop to a lower Mbps package on an MPLS connection, freeing cloud-dependent companies to bring the private WAN to more locations without overspending every month.

Beyond that, the hybrid approach is arguably the best possible way to ensure VoIP QoS doesn't suffer. While the setup does come with more cost and complexity, that makes it the best possible outcome for the right kind of company: one that places tremendous value on the quality and availability of its VoIP calls.

When it comes to ensuring QoS of your VoIP solutions, you have options. Think about what your business is going to need to thrive today and tomorrow when you're making your pick.

Visit [Vonage Business](#) to learn more about MPLS and SD-WAN technologies, as well as hybrid solutions.