Total Caller Experience®
What's the Weak Link in Your Call Process?

Managing call reliability and quality in a VoIP network is a challenge. When someone in your organization picks up a phone or someone attempts to call your organization, there are multiple factors that must be considered and addressed to assure the call completes and the quality is good. Let's characterize the obstacles in four buckets: transport, call setup, conversation and termination.

Transport

It all starts with is there a channel available for the call. Calibrating network capacity with demand is an on-going challenge. Whether you are managing a TDM network, preparing for or in process of a transition to SIP, or managing a SIP or hybrid network, you need the right metrics and methodology to optimize your network. For a SIP network, you first determine how many simultaneous calls you need in your network, be it for a single site or across many sites. This knowledge is critical in purchasing the right quantity of Concurrent Call Paths (CCPs) from your SIP provider. It is also important to configure Call Admission Control (CAC) limits correctly. Once you have optimized your transport capacities upfront, don't forget that networks are very dynamic and you need to keep those monitoring tools going after cutover!

Call Setup

OK, so now that we have a channel, what could possibility go wrong? Well, there is no guarantee that the call will actually connect correctly. And, there are lots of reasons for that. The Q.850 Cause Codes provide insight into why calls fail. Here are a few examples:

- Code 1: Unassigned Number
- Code 3: No Route to Destination
- Code 21: Call Rejected
- Code 27: Destination Out of Order
- Code 127: Interworking Unspecified

Yes, there are literally dozens of reasons calls fail. You need to assure you have insight into how many calls in your enterprise are not connecting and why. Do you know how many calls failed to set up on your network today?

Conversation

As you celebrate that calls are now completing, the next challenge is the quality of the call. Are you monitoring call quality with metrics like MOS, R-Factor, latency, packet loss or jitter? You should be able to choose the visibility you want – by IP address, extension, SIP gateway, PSTN gateway or site. Typically, monitoring takes on two flavors:

- Proactive – Most importantly to be able to quickly identify devices in your network that are experiencing quality issues so you can diagnose the source of the problem and correct it.
- Validation – If someone is complaining of poor quality, you need to be able to confirm the problem. Is Johnny really experiencing consistently poor-quality calls or did he just have a single bad call and is calling you to whine about it?

Call Termination

Sadly, not all calls that setup and have high audio quality are destined for a successful call either. As the CEO of Impact likes to state, "In a TDM world, there are only two reasons a call disconnects…you hung up or I hung up. But, with VoIP, just like call setup issues, there are lots of reasons that calls unexpectedly abnormally terminate." If there is an equipment failure or dropped call during transfer, do you see that? Do you have the tools to see calls that abruptly terminated?

To learn more about Total Caller Experience and putting today's voice network management to work for you, contact us today.

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