TeleDynamic COMMUNICATIONS

TELEPHONE WIDEBAND AUDIO STANDARD

The existing public switched telephone network (PSTN) can only reproduce speech from a very limited bandwidth of 300 hz to 3.4 khz, a narrowband legacy of Alexander Graham Bell. Wideband is the name of the new VOIP standard for telephone calls wherein the bandwidth is expanded to a range of 50 hz to 8Khz which approaches the limits of human hearing. Imagine a phone call with the dynamic range and quality approaching that of a stereo headset!

The practical result of today's PSTN limitation is that we often have a hard time understanding the consonant portion of words in a phone conversation. We hear the vowels that are part of the lower frequencies and we guess at the rest of the word. Our brain is forced to use context to decipher the rest of the word. Sometimes we guess right and sometimes we get confused.

A common proof point can be found when someone says their name on the phone. Obviously, there is no context when someone says their name so we are most apt to guess wrong. Don may sound like Tom. Try this yourself and see how often people mistake one word for another when both have the same basic sound but not the same consonants. This problem is exacerbated when a caller is not speaking their native language.

So who cares if you guess wrong and Tom and Don get confused? Well the answer is you, if you pay people to get work done over the phone. Wideband adds back the missing frequencies of speech and can dramatically improve the intelligibility of conversations. Anyone that has ever experienced a conference call that sounds like one rambling mumble can appreciate that this was not productive use of time. Better conversations equal greater productivity.

Wideband is also fundamentally better technology. Bottom line is that all IP phones will support wideband one day soon and many support it today. Many vendors have discussed future support and component suppliers are modifying products to support it so it is just a matter of time before wideband is a standard requirement. In summary, the IP PBX buyer should insist on wideband capabilities – anything less would be a mistake.

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