

## HD Voice – definitely high...!!!

HD (high-definition) voice, also known as wideband voice/audio, is relishing a lot of attention these days. It refers to the next-generation of voice quality for telephony audio resulting in high definition voice quality compared to standard digital telephony "toll quality." It is a significant step in the evolution of audio clarity and quality for telephony systems, one which can lead to greater customer satisfaction.

HD Voice uses wideband codecs (such as G.722 and G.722.2) audio connections to more accurately reproduce the human voice with a wider range of frequency coverage. The result is significantly more natural sounding speech and a wider range of sounds promoting audio clarity and clear conversation.

This audio technology, which lets IP phones send a far broader range of sounds over VoIP connections than traditional phones can over PSTN (Public Switched Telephone Network) circuits, vastly increases the clarity of voice calls that can benefit businesses and individuals in tangible ways.

HD Voice delivers higher quality voice transmissions by extending the frequency of range of traditional or narrowband voice calls (300 Hz to 3400 Hz) out to wideband audio ranges (50 Hz to 7000 Hz).



The improved quality also encourages longer call durations, and especially delivers a richer presence for conference calls and improves comprehension with people of different accents. In terms of automation, HD Voice provides a more accurate environment for voice recognition and speech detection.

This creates a better overall experience for users because on the phone it:

- ✓ Makes it easier to recognize voices
- ✓ Makes it easier to distinguish the sounds of fricatives, such as s, z, and f
- ✓ Fades or cuts out background noise
- ✓ Provides more natural sounding speech

In comparison between HD Voice and traditional telephony audio, many people can distinctly hear a difference and the general sentiment is that HD Voice provides more of a feeling of "being in the same room" with the person on the other end of the phone line. HD voice makes long calls, especially conference calls with multiple speakers with different accents, less tiring and thus more productive.

To support HD Voice, headset/handset equipment must support the relevant codec and have enhanced acoustics in the form of microphone and speaker capabilities. IP-PBXs, SIP phones, and mobile devices are increasingly supporting HD Voice as a standard. Manufacturers are incorporating HD Voice into their SIP Phones, and mobile device manufacturers, are incorporating wideband audio into their mobile phones.

According to a new report by GSA (Global Mobile Suppliers Association), there are 27 mobile phones and 15 mobile networks that support HD voice globally. Among the 15 networks, very few have deployed a network in India that supports HD Voice. Nokia N8, C6, C7 and E7 handsets have HD Voice activated by default. Nokia C3 and X3 have recently been shipping with HD Voice, as have Sony Ericsson Xperia Arc, Xperia Neo and Xperia Pro. All upcoming Sony Ericsson Android phones are expected to have HD Voice activated by default. However, more is expected to come with a new 3G network being laid out in the country.

In the end, anything that can benefit from high-quality voice will use high-quality voice, creating an HD voice world in which a wide range of services and applications can offer a vastly improved user experience. Quality counts: this is why HD voice will ensure communication services continue to provide value to both operators and users.

Source: <http://www.dialogic.com/en/Solutions/Mobile-VAS/HD-Voice.aspx>  
<http://www.voip-news.com/feature/benefit-hd-voice-060209/>  
<http://www.telecomlead.com/inner-page-details.php?id=4203>