

Why opt for High Definition over Standard Definition Video Conferencing?

Standard definition videoconferencing systems – which have been ubiquitous for the past 0-5 years – have provided organisations with the ability to experience a face-to-face meeting over distance. For most users the quality of the communication has been reasonable, but the depth, value and productivity of a face-to-face meeting were never achieved as it would be in person. In many cases poor video quality, such as fuzzy resolution, pixilated images and slow motion handling did not make the use of conferencing technology seamless or desirable. Consequently, users that opted to not use video at all or, worse, persevered in frustration.

Standard and more traditional [videoconferencing](#) provides a resolution called FCIF (Full SIF) at 352 pixels x 288 lines. In order to use compression to send video data, this was the maximum resolution the systems could provide on a standard display. The problem, however, is that it looked like VCR quality video and more often than not, worse, and it was not delivering on the promise of experiencing a meeting as if people were in the same room.

High definition video communications is a completely different experience. Based on evolving next generation technology, high definition redefines our expectations for videoconferencing. Imagine that you have virtually 10 times the quality of VCR resolution and that you can truly see every detail of an image with absolute clarity - and that people movements were easy to pick up and eye contact was easy to read, whether you are half-way around the world or just across the campus.

High definition video communications means that you can see many people rather than just one or two in full 16 x 9 format (wide screen) on a high definition screen. You can see on the remote side if a participant's eyes are open or if they're nervously tapping their pens; you can clearly make out what is written on a white board or contained in presentation materials; in essence, you can truly experience the critical non-verbal cues that usually occur and contribute to a face to face meeting, which is why High Definition videoconferencing is worthwhile and productive.

The reason is that you will see the person (or people) and the wider environment in 280 pixels x 720 lines – nearly 10X the resolution of traditional video conferencing. Another good comparison is a digital camera. Would you want a 1.0 megapixel camera when you can buy a 4.0 megapixel camera at the same price? With traditional videoconferencing the resolution is 10,376 pixels, whereas with high definition you get 92,600 pixels!

High definition video communications makes people appear true-to-life and in proportion. People can be viewed as if they are at the end of the same table and that you are simply looking through a window. The concept is termed visual acuity, meaning the viewing distance of a traditional videoconferencing system required you to sit 20-30 feet away from the display before your eyes could no longer see the loss in resolution and poor image quality. With high definition, you can sit within 10 feet and your eyes will not detect any loss in resolution. Therefore, people are in the proportionate size and you can see them clearly. The result has a significant impact on the dynamics, continuity, flow and overall feel of a video collaboration - as participants are more naturally engaged in two-way dialogue.

High definition video allows you to properly use a full high definition display. The difference here is in the aspect ratio. A standard definition television has a 4 x 3 aspect ratio and a high definition display has a 16 x 9 aspect ratio. For a traditional, standard definition [video conferencing](#) system to use an HD display, it will either not use the entire screen by displaying only in 4 x 3 and will have two horizontal black bars either side of the image, or the image will be stretched across the full screen and

look very unnatural. With true high definition, you will have up to 40% more viewing area and will make best use of the full native 16 x 9 display.

High definition video conferencing is currently being used for applications in medicine, education and many manufacturing scenarios that demand absolute clarity in resolution. The good news is that now every business and organisation can benefit from the advances in this technology and take video productivity to a completely new level by adopting next generation high definition video conferencing.

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