

Advantage TANDBERG: H.264 *Dramatic Leaps in Video*

Organizations looking for dramatic leaps in communications efficiency and effectiveness can immediately take advantage of one of the most exciting developments in the history of collaboration technologies: the H.264 video compression standard. If they carefully select the right video communications systems, users will experience twice the video quality with no increased network costs and a reduced Total Cost of Ownership.

H.264's impressive performance improvements enable businesses and government organizations to cost effectively adopt video on a broader and deeper basis throughout their enterprises - as long as their systems support H.264 on all video endpoints. This expanded usage will enable them to multiply the benefits that video collaboration has already proven to deliver.

The International Telecommunications Union (ITU) approved the H.264 video compression standard in July 2003. ITU is an international organization within the United Nations System that, among other things, works with private and public sectors to develop standards that benefit telecommunications users worldwide. TANDBERG played a critical role on the H.264 development team and is currently the only provider of video communications systems that support the new standard across its entire produce line. Other major contributors on the development team included Microsoft, Nokia and Real Networks.

It's the highly efficient encoding and decoding of H.264 that enables organizations to communicate over both ISDN and IP networks with twice the video quality and clarity as compared to older standards - without any increase in network costs. For example, extremely sharp video that once required 768Kbps of bandwidth can now be achieved at only 384Kbps bandwidth. The new resolution-independent standard also enables better results from video capture and display devices, improving applications such as remote viewing of documents and manufacturing samples.

H.264 Delivers More Value to Video Users

As H.264 significantly increases enterprise-wide usage of compatible video communications systems - it will also increase the scope, scale, and frequency of the business advantages those systems provide. This broader adoption of video is already making organizations more competitive with substantial improvements to:

- **Productivity:** Through increased usage of video in both day-to-day and mission-critical operations, organizations are conducting significantly fewer in-person meetings. People are getting more done faster at all levels of operation.
- **Communications Effectiveness:** Video has proven to be a more effective communications tool than audio or the Web in most applications. When people have more meaningful and useful exchanges and collaborations - with other divisions and locations, with customers, with the supply chain -- the organization becomes more competitive and successful.
- **Elimination of Hard Costs:** Broader adoption of video is enabling H.264 organizations to remove hard costs from business processes across the enterprise. Fewer travel expenses. Reduced network costs. An improved bottom line.

H.264 Helps Protect and Leverage Current Infrastructure

H.264 provides a far more efficient mechanism for compressing and decompressing motion video. Because this mechanism, or algorithm, requires significantly less bandwidth to transmit a motion image than previous standards, IT departments can better manage infrastructure costs.

In addition, organizations using plug-and-play video communications systems can connect them to existing infrastructure components without excessive integration or additional purchases. As a result, they can integrate video deeper into the enterprise without sacrificing or adding to current infrastructure investments. As H.264 expands video usage, this adds up to significant savings. (Beware that not all video communications systems are plug-and-play.)

Finally, H.264-capable systems are backwards-compatible, so they support H.263 and H.261 endpoints. The advent of new, more powerful multi-point units (MCUs or bridges) and gateways will allow H.261, H.263, and H.264 endpoints to comfortably co-exist in the same conference. In addition, new software will enable most modern MCUs to support the H.264 algorithm. In short, because H.264 is an approved, thoroughly documented standard developed by industry leaders, the market expects a high degree of interoperability.

Harnessing the Exponential Benefits of H.264

The market's enthusiasm and excitement about H.264 is quickly spreading. Iain E.G. Richardson, highly respected video author, notes this quick adoption in his new book, "H.264 and MPEG-4 Video Compression: Video Coding for Next Generation Multimedia." He states, "The new H.264 'Advanced Video Coding' standard promises impressive compression performance and is gaining support from developers and manufacturers."

However, in preparing to take advantage of the rewards H.264 has to offer, organizations should be aware that some video communications systems on the market are not capable of supporting this new standard - or may provide only limited support. They simply can't offer the higher processing power that H.264 requires.

Whether acquiring new video communications systems for the first time or upgrading their existing installed base, organizations moving forward with video should clearly only invest in H.264-compatible systems. They should seek a written guarantee from their supplier that explicitly states and defines those systems' H.264 capabilities.

TANDBERG is currently the only provider of video communications systems that fully supports H.264. We're proud to be an industry leader in the deployment of this major advancement in video communications systems.

To learn more about TANDBERG products and services, please visit www.tandberg.net or contact our global headquarters.

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