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Video Collaboration Trends in the Public Sector

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Improvements in the videoconferencing and telepresence market over the past several years have been remarkable. Enhancements involving cameras, codecs, video clouds, and real-time communications browsers are providing high-definition (HD), high-quality video experiences; video interoperability; user interface and deployment options; and simplified management, recording, streaming, and archiving. These enhancements are prompting positive market responses to the benefits of video technology for a range of organizations, especially in the public sector. Video use has moved beyond typical conference room meetings to include important use cases in government, healthcare, education, and other segments. In IDC's 2012 U.S. WAN Manager Survey, the top 5 drivers for videoconferencing use in the public sector were as follows:

- *Reduce travel expenses (56%)*
- *Increase productivity (41%)*
- *Improve employee collaboration (41%)*
- *Improve business processes (27.6%)*
- *Cost savings, exclusive of travel cost reduction (25.4%)*

The following questions were posed by Cisco to Rich Costello, senior analyst for IDC's Enterprise Communications Infrastructure service, on behalf of Cisco's customers.

Q. What are some of the key trends in video collaboration in the public sector?

A. The U.S. public sector is under siege from federal spending cuts caused by sequestration. Prompted by this fiscal reality, the public sector has been forced to investigate innovative ways to cost effectively collaborate. IDC has identified four key trends helping to boost the popularity of video collaboration. Interest in cloud-based video service offerings continues to grow. Video as a service (VaaS) or infrastructure as a service (IaaS) enables video to be deployed as a hosted or cloud resource while removing common barriers to adoption such as high up-front capital costs as well as complexity, bandwidth, management, and scalability challenges. This enables organizations to deploy video with limited IT resources, providing workers with access to video collaboration sessions, regardless of location, for a monthly fee per desktop user or endpoint. Video cloud offerings can significantly change the economics of videoconferencing for the public sector.

Driven primarily by the BYOD trend, video/data collaboration is being extended to office, remote, and mobile workers in a more inclusive collaboration strategy. Leveraging BYOD, agencies and organizations can more affordably extend video collaboration sessions to all pertinent workers, no matter where they are located, via a mobile client software application. In the past, these workers often have been excluded from important work sessions due to lack of access to a video room. The net effect is that these mobile devices are driving more collaboration and bringing public sector organizations closer together.

Q. What are some innovative uses of video collaboration in government?

- A. Government agencies are integrating video with workflow processes and social collaboration applications to transform how they conduct business. This increasingly entails embedding unified communications and video links into critical documents and work processes to help determine the availability of resources. The idea is to automate these processes and gain on-demand access to expertise and information.

Increased collaboration between the public sector and the private sector regarding ecosystem services (e.g., shared services and self-service) is another emerging use case helping to transform government. Today, improved video collaboration sessions are regarded as critical to each sector fully understanding the other's organizational challenges, strengths, and best practices in important discussions on the hot-button issue of privatization of services. The U.S. military is increasingly using video technology in innovative ways, including coordinating troop movements with overseas commanders, conducting training for U.S. military sites around the world, and connecting deployed soldiers with family members to boost morale.

Another innovative use case is meeting ecofriendly agency initiatives. Whether on-premise solutions or cloud-based offerings, today's video solutions are becoming less hardware dependent and more software centric. They operate on more efficient servers, appliances, and infrastructure with smaller footprints that run cleaner, consume less power, and are therefore more socially responsible. Another popular application is the use of mobile video by emergency responders for initial disaster area assessments. In these cases, first responders in emergency situations are using mobile video technology to rapidly assess the extent of a crisis and help authorities determine immediate first steps. For the judicial system, we are seeing a more connected experience where video is being used in depositions, witness testimony, prisoner arraignments, and court proceedings to expedite the judicial process and make resources available to constituents.

Q. What are some innovative uses of video collaboration in K–12 education?

- A. IDC sees the K–12 education sector as an increasingly strong advocate for video collaboration. Innovative new uses include using laptops, tablets, and smartboards to enhance collaboration in the classroom; interacting with external teachers for enhanced learning sessions; teachers utilizing video collaboration to aid lesson plan development; and schools engaging in cross-nation and cross-cultural exchanges. Intuitive touchscreen technology, found on devices such as tablets and smartboards, has been credited with helping students become more engaged in their lessons. In addition to offering mobile video support, these devices are also capable of integrating with social tools and applications. Many students feel this significantly enhances the educational experience.

To help move the learning experience beyond the local classroom, many schools are using video collaboration to support interactions with external teachers and subject matter experts for enhanced learning. Schools are realizing that a video link can easily facilitate access to remote teachers who otherwise would not have the opportunity to teach local students.

Likewise, video collaboration is being used for cross-cultural teaching experiences. IDC recently interviewed an IT administrator from an elementary school who described how the deployment of a new unified communications and collaboration (UC&C) solution led to the use of video technology to help teachers in lesson plan development. The teachers previously tended to work on lesson plans independently, taking several days or more to complete them. The use of video collaboration among small workgroups of teachers expedited lesson plan development from days to hours.

Q. What are some of the important considerations for deploying this technology for public sector applications?

- A. Organizations are seriously considering cloud-based options for eliminating large, up-front capital expenses in favor of low, monthly subscription fees per user or room. Monthly fees can typically range from \$20 to \$50 per user and about \$100 or higher per room. Organizations considering a cloud deployment should determine whether a multitenant cloud offering meets their agency's security and compliance requirements versus a private cloud offering. In addition, bandwidth still presents a challenge to adoption for many organizations. However, vendors have been paying a lot of attention to bandwidth optimization, addressing both high bandwidth pricing in some areas and network monitoring. The growing number of desktop and mobile video users presents increasing scalability challenges for customers whose networks may already be stressed supporting any number of room-based systems. In addition to throwing more bandwidth at the problem and better managing capacity, organizations also consider assessing solutions based on newer video compression technology such as H.264 Advanced Video Coding (AVC) and H.264 Scalable Video Coding (SVC).

While most major vendors have demonstrated standards-based interoperability for some time, interoperability between all forms of conferencing systems (Web conferencing, audioconferencing, etc.) will greatly impact the way customers evaluate ROI. Multiple levels of interoperability need to be addressed, and all will impact video adoption for the better. These levels include system type to system type (e.g., Web based to room), legacy to next generation, vendor to vendor, network to network, business to business, and business to consumer.

Q. What attributes should public sector entities look for in a video collaboration supplier?

- A. Despite efforts to simplify installation and management, implementing a video collaboration solution requires expertise that may be absent from some public sector organizations. If necessary, UC/video vendors should offer professional services based on the know-how necessary to implement the video solution, perform integration services, and drive usage rates. Once a solution is implemented, organizations that lack the internal skills and resources to manage and support ongoing applications should consider managed services. As an alternative to deploying video infrastructure on-premise, video IaaS offerings can provide a viable option for organizations that can't technologically or economically support a video environment internally.

Among the attributes that IDC recommends public sector agencies look for in video collaboration suppliers is a complete, end-to-end portfolio of offerings and services including endpoints, infrastructure, cloud, software applications, and managed/hosted and support services. Another important attribute is video interoperability support for standards-based vendor endpoints and mobile devices, also including support for real-time browser-based communications. Finally, public sector agencies should look for proven skills and expertise to integrate UC/video technology with end-user applications, organizational work processes, and social business applications.

ABOUT THIS ANALYST

Rich Costello is a senior research analyst within IDC's Enterprise Communications Infrastructure service and is a leading member of the Unified Communications (UC) research team. Mr. Costello develops IDC's viewpoints on the evolution of VoIP networking infrastructure and next-generation voice and video technologies and advises enterprise clients on the impact of IP telephony, unified messaging, collaboration, telepresence, and other conferencing solutions on their networks, end users, and service and support personnel.

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