

# VIDEO MOVES INTO I.T.'s SWEET SPOT

MOVING ONTO SHARED I.T. INFRASTRUCTURE, AS WELL AS MOBILE DEVICES, VIDEO TECHNOLOGY IS FINDING ITS WAY INTO A WIDE RANGE OF ORGANIZATIONS AND APPLICATIONS.

**P**ERCEPTION: video conferencing requires dedicated tech infrastructure, unique IT expertise and a major upfront investment to launch.

**REALITY:** Video now operates over cloud and virtualized infrastructure, requires little to no IT expertise to get started and the cost to launch a video initiative is moving down rapidly.

Where's the disconnect between these two distinct views?

It starts with long-held perceptions among those who recall the early days of video conferencing, when video signals traveled over networks called ISDN, which were an early form of integrated voice-data networks. More recently, skeptics may think about the most high-end video installations, featuring rooms dedicated to video, with telepresence and other features that connote high complexity – and cost.

Such telepresence capabilities are widely available today, but they are at the highest end of the functionality spectrum, which extends all the way down to video apps operating on mobile devices, including smartphones.

Video conferencing is on the fast track to ubiquity, and the ability to run video over shared infrastructure is a major contributor to that trend, as is the availability of video on the most personal devices. Reality is clearly trumping perception.



As the shift from isolated to widely accessible technology continues, one critical driver doesn't change: The technology is taking off because it supports core organization objectives. "It's being driven by the demand for higher rates of productivity, cutting costs and driving revenue," says industry consultant JD Vaughn. "We're all looking at ways of doing more with less."

## Cloud Cover for Video

One fast-developing trend is the move to host video apps in the cloud, consistent with IT's overall strategy to leverage cloud

computing. Cloud infrastructure reduces hosting costs in terms of hardware and management. And IT shops can turn cloud resources on and off flexibly, as needed.

The cloud is a simple, cost-effective way to video-enable small or remote offices so they can tie into organizational video apps.

Cisco sees entities deploying video infrastructure to the cloud, including some already using video that are looking to tie in remote offices or home office workers in a more cost-effective way than doing a major IT buildout, says Randy Harrell, vice president, product management at Cisco.

"An organization may find it needs to 'light' the home office worker for now, and decide it needs a cloud service, where IT might not be as capable of supporting that," he explains. "We're seeing clear trends this way. There are a lot of discussions and planning on how to use the cloud for this."

Another new application leverages the cloud to tie together disparate video infrastructure, eliminate platform incompatibilities and maximize the technology's reach.

Polycom is offering its RealPresence CloudAXIS Suite as a platform to tie together users on diverse video technologies into a network of participants that can communicate through Polycom infrastructure.

The suite lets Polycom users connect – from a browser – with those using Skype, Facebook, Google Talk and other video apps. "It gives the capability to deploy infrastructure that gives multipoint conferencing and security and authorizes users to come inside the firewall," says Jim Kruger, senior vice president, product and solutions marketing at Polycom. "It's corporate grade, but it extends corporate video collaboration out to the consumer as well."

Making video accessible via the cloud is incumbent on video tech providers, says Vaughn, given their goal to make the technology as broadly deployed as possible. "Tech providers will develop or acquire technology to operate in the cloud," he says. "They know they have to facilitate connectivity."

### **Virtually There with Video**

Virtualization is one of the most widely embraced technologies of the current decade. It allows one physical system to run multiple "virtual" systems, so apps don't need dedicated hardware, just a virtual chunk of the total processing power. It's a big advance in centralizing management and control while simplifying IT operations.

In video terms, suppliers have enabled their video technology to operate

on virtualized servers, rather than dedicated hardware, bringing them much further into line with overall IT practice for hosting apps. That helps IT organizations address concerns about security, compliance (think Health Insurance Portability and Accountability Act or HIPAA in the healthcare industry, as one example) and other factors, because they can exert the same tight controls over video as they apply to their other apps, says Simon Dudley, video evangelist for LifeSize Communications.

"We have a HIPAA-compliant video tech infrastructure that's highly secure, allows organizations to scale, so they can put on virtualized servers and they're more comfortable," he says. In a virtualized scenario, key video services such as streaming and address books live in a virtual server.

The virtual infrastructure also means security patches, disaster recovery and other common functions are all applied to video apps at the same time, in the same process, as they are for other IT infrastructure.

Whether it's virtual or cloud-based infrastructure, being able to host video on the same hardware and infrastructure as other apps means video no longer requires unique IT capabilities to support.

"Traditionally it's been about big, heavy, expensive, strange-to-manage video infrastructure," Dudley says. "Now it's turned into a hypervisor or virtual machine app environment so that your IT department doesn't need to build expertise in video."

### **Bring Your Own – Video?**

Also accelerating the drive toward video that's more widely deployed is the bring-your-own-device trend. BYOD is the practice of accessing corporate data from personally owned devices, which most often refers to tablets and smartphones.

BYOD now intersects with video as suppliers of video equipment make iPad/iPhone and Android apps available to download. Those apps let users of mobile devices connect into

## **VIDEO CONFERENCING COMPONENTS**

**A typical organization video conferencing solution includes the following components:**

- **SOFTWARE** – This component is needed for authenticating users, managing the video images and displaying other visual content (such as a shared PC screen).
- **CAMERAS** – These devices can vary significantly in terms of resolution, supported unified communication (UC) protocols and capabilities such as pan, tilt and zoom.
- **MICROPHONES** – These devices can vary in terms of pickup range, sound quality and supported voice over IP (VoIP) codecs.
- **DISPLAY SCREENS** – These components can vary in terms of size, image resolution and the ability to show split screens.
- **ADDITIONAL A/V EQUIPMENT** – Other technologies, such as projectors and DVD players, can be used to enhance conferences with additional visual content.
- **POWER PROTECTION** – Often overlooked, organizations will want to safeguard valuable video conferencing equipment from brownouts, spikes and surges.

corporate video sessions with full functionality on their mobile devices.

Suppliers say the tablet is currently the most widely deployed method of tapping into video sessions. "It's a perfect app platform for video; with its processing, camera capabilities and larger screen, you're able to do video collaboration, see people and share content," Polycom's Kruger says.

## THE GREAT DIVIDE: Global Survey on Adoption of Video Collaboration Tools

Seeing is believing: Users rank qualitative and quantitative benefits higher than non-users, such as:

### Saving money

85% vs

61%

### Improving work-life balance

70% vs

37%

### Increasing competitive advantage

73% vs

42%

### Bringing people closer together

71% vs

40%

Frequent video conferencing and telepresence users report saving at least two hours weekly, with one third reporting at least one day saved per week.

Source: Cisco Systems, 2011

Experts consistently describe a continuum of video quality ranging from extremely high-quality, immersive experiences, all the way down to the personal mobile device with a downloadable app that allows just about anyone to participate in a video connection, from anywhere, anytime.

As for facilitating video execution, "The IT manager would manage that just as he or she would manage a conference room or a desktop," explains Polycom's Kruger. "You'd be authenticated to come in through the firewall and you can take advantage of management capabilities and have easy dialing plans into your corporate network to participate in conferences with people using video on desktop or conference rooms."

### The App Equation

IT pros who were around when video conferencing first came into vogue –

about two decades ago – will recall that it was most frequently justified as a way to reduce costs by preventing travel to internal meetings. In fact, that rationale is still frequently cited.

Today, however, experts note that video is being used by all types of organizations for a wide variety of purposes throughout industry, education, government and healthcare.

A consumer packaged goods company, for example, uses Cisco technology to conduct video conferences with supply chain partners two to three times per week, Harrell says. "Their killer app was communications for ad campaign cycles that drive revenue," he says. "It does eliminate travel, but it's more about time to market, and they are getting material time decreases in that cycle."

Harrell notes that Cisco frequently conducts video conferences with customers to share its product

roadmap, and also uses the technology extensively for internal communications. Still, he says, "Two or three years ago, we thought every organization would want to talk to their top 10 customers, but the big app has really been in the supply chain."

Video is also boosting retail and banking operations. Here it works by avoiding the need for a subject matter expert in every location.

For instance, a home improvement center may have kitchen design experts in central locations, who can help customers develop designs and communicate via video. Banks can have employees with unique expertise – small business loans, for example – in a central location, and look to make that expertise available throughout their networks.

In both of these examples, the revenue opportunity that such transactions represent makes a clear case for an investment in high quality video to facilitate customer buying, says Cisco's Harrell.

In education, video conferencing is being used to connect with experts. It's also being used to facilitate visual field trips, student collaboration, accessing previously unavailable courses and teaching the teachers.

Federal, state and local government agencies use video conferencing and telepresence solutions for a wide variety of applications. These include department collaboration, video arraignment and distance training.

In addition, healthcare is incorporating the technology to facilitate telehealth initiatives including patient monitoring, video chat and continuing medical education seminars. ■

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