



Computer Software/Hardware

▶ Adobe Systems Leverages the Power of Polycom

▶ Daily Use

Keep a global company, with nearly 4000 employees dispersed around the world, connected

▶ Solution

Polycom's unified collaborative communication solutions, including the VSX™ family of group video conferencing systems; Visual Concert™ data collaboration solution; Vortex® installed voice products; MGC™-100 multipoint control unit; WebCommander™ management solution; Polycom PathNavigator™ advanced gatekeeper; Global Management System™ software; Polycom Advanced Maintenance

▶ Results

A comprehensive, worldwide video and voice network that provides Adobe with greater productivity and cost and travel savings by connecting employees in 45 locations for more than 200,000 hours of video conferencing every month

With annual revenues exceeding \$1.6 billion, Adobe Systems is one of the world's largest software companies. And the mission that has helped make Adobe so successful – helping people communicate better – starts internally. But, in a company with nearly 4000 employees located around the world, facilitating seamless communication can be a challenge. That's why Adobe deployed Polycom's complete end-to-end solutions for integrated voice, video and data communications.

"As a global company, one of Adobe's highest priorities is keeping our staff around the world connected," says Bill Weatherwax, director of global operations for Adobe. "With more than 2000 video meetings held each month, and usage of the systems increasing steadily every quarter, it's evident that video conferencing is an integral communications tool at Adobe."

An Early Collaboration Solution

Adobe deployed its first video conferencing systems in 1996, but the roll out was limited in scope due to the, at that time, steep cost of a video call, poor reliability and picture quality, and user interfaces that made setting up even a single call difficult and time consuming.

"The convergence of two factors in 2000 allowed us to expand our video network and begin leveraging it as a worldwide tool for increasing productivity – our switch from an ISDN to an IP network and the entrance of Polycom into the video conferencing market," explains Weatherwax.

Moving to an IP network dramatically reduced the cost of video calls for Adobe, and Polycom's systems were the first on the market to offer drastically lower prices for easy-to-use, business quality video.

What started as a limited deployment has grown into a comprehensive worldwide video and voice network with more than 200 endpoints serving almost 4000 employees in 45 locations.

An Integrated Conferencing Environment

As evidence of how important conferencing has become to Adobe, the company's IT personnel have researched and designed integrated conferencing suites that seamlessly combine voice, video and data collaboration. Called Conferencing Presentation Rooms (CPRs), these integrated rooms provide the optimum conferencing environment worldwide.

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Bill Weatherwax, Director of Global Operations, Adobe Systems

“We needed assurance that the equipment in our conference rooms would work flawlessly every time and felt that having a fully integrated communication solution was the key to ensuring that reliability,” says Adobe’s vice president of Information Services, Gerrard Rutter. “So we set out looking for a vendor who could supply a complete solution and that’s exactly what we found in Polycom’s unified collaborative communication solutions.”

“With our Conferencing Presentation Rooms, we have complete control of the audio conferencing environment from the Polycom audio sources that cancel out echo to optimal lighting and acoustical conditions,” adds Weatherwax.

Adobe’s CPRs take into consideration every detail including specially designed lighting, tables and ceiling microphones. All of the equipment is controlled through a touch panel and the rooms feature dual monitors to allow for the simultaneous display of meeting participants and content when used with Polycom’s Visual Concert. Sound quality is a top priority for Adobe which is why it integrates the audio conferencing for the entire room through Polycom’s Vortex installed voice products, enabling the best possible voice quality, and outfits its rooms with custom paneling to enhance acoustics.

The CPRs come in three configurations, small, medium and large, and all CPRs are equipped with Polycom’s rack-mounted VSX 8000 video codec and the company’s Visual Concert data collaboration solution. In the medium room configuration, a Vortex EF2280 is used for mixing multiple microphones and controlling acoustic echo and background noise. The large suite utilizes two Vortex EF2280s, a Vortex EF2201 for phone calls, and a Crestron control panel.

The CPR concept was first implemented in newly built facilities at the company’s San Jose, Calif. headquarters. Now rooms around the world are being retrofitted and every new room is being configured as a CPR.

Boosting Productivity, Saving Money

Video is used extensively throughout the company for countless applications, providing Adobe with improved productivity, and cost and travel savings.

Video conferencing is used frequently by the company’s development groups and for department meetings among employees in multiple locations.

Adobe also leverages its expansive video deployment for large scale gatherings like its employee meetings, which connect up to 18 sites over video. Held quarterly, these forums include live interaction and a Q&A with executive team members. Adobe uses video as well for a weekly technical forum and was able to offer its annual technology summit, which happened to coincide with the beginning of the war in Iraq, over video for employees who weren’t comfortable traveling to company headquarters to attend.

“The benefits of interactive video conferencing are understood throughout the company and the usage numbers speak for themselves,” says Rutter, referring to the more than 200,000 hours of video conferencing Adobe logs each month. “With each new office, it’s not even a question whether video will be installed, it’s standard practice.”

Smart Video Solutions

“Integration is key to our video deployment, as evidenced in our Conferencing Presentation Rooms model, and Polycom’s VSX platform has enabled us to achieve both the functionality and the look and feel we require,” says Joe Monteon, Adobe’s Conferencing Services technical lead.

“The VSX 8000 is a truly integrated system, it can be hidden in a cabinet and can be seamlessly controlled through the Crestron interface. The built-in bridging capability and the inputs that allow us to easily connect peripherals like a sound processor and the Visual Concert make it the perfect solution for our conferencing environment.”

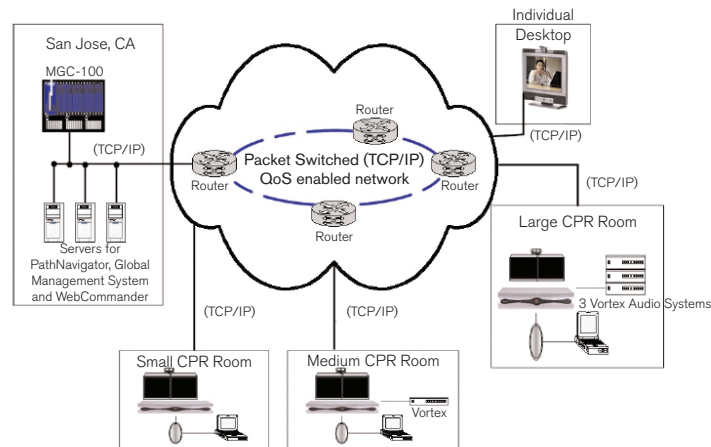
In addition to the 150 Polycom video conferencing systems Adobe has deployed around the world, the company relies on Polycom’s Visual Concert FX for the large percentage of video meetings that include data collaboration. Users have found that not only is it exceptionally easy to use because it’s integrated into the VSX platform, but also that it provides quality far superior to a scan converter for sharing documents.

Desktop video conferencing has also changed the way many Adobe employees work. The company has started deploying Polycom’s VSX 3000 personal video conferencing systems as a cost effective way of reducing travel for telecommuters and supervisors who manage employees at different locations. The VSX 3000 was ideal for Adobe’s desktop video conferencing needs because it delivers H.264 video compression for better video over lower bandwidth, bringing high-performance group

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Adobe Worldwide Deployment



The IT Perspective

Adobe Systems' video deployment includes 200 endpoints serving almost 4000 employees in 45 locations and runs over a converged IP network that includes Quality of Service guarantees. The minimum connection for any given office is T1 and all of Adobe's group video calls run at a minimum of 384 kbps.

The Adobe conferencing environment is centered around Conferencing Presentation Rooms (CPRs)—integrated rooms that come in three configurations, small, medium and large and include Polycom's rack-mounted VSX 8000 video codec and the company's Visual Concert for data collaboration. In the medium rooms, a Polycom Vortex EF2280 installed voice product is used

for mixing multiple microphones and controlling acoustic echo and background noise. The large suite utilizes two Vortex EF2280s, a Vortex EF2201 for phone calls, and a Crestron control panel.

All of the equipment in a CPR is controlled through a touch panel and the rooms feature dual monitors to allow for the simultaneous display of meeting participants and content.

A Polycom MGC-100 multipoint control unit (MCU) housed at the company's San Jose headquarters enables calls involving up to 48 different sites and is managed through Polycom WebCommander, an intuitive Web-based interface for scheduling, monitoring and managing conferences.

The Polycom PathNavigator advanced gatekeeper is used to manage Adobe's entire H.323 video communication network, allowing for easy mapping of the logical video network, bandwidth control and simplified dialing. Adobe also uses Polycom's Global Management System network management software.

Polycom Advanced Maintenance helps Adobe monitor and control its video network down to the smallest details and provides Monthly Statistical Reports for performance metrics tailored specifically for the company.

For its desktop conferencing needs, Adobe has deployed Polycom's VSX 3000.

system quality and functionality to the desktop. It also includes a 17-inch LCD display that can double as a PC monitor.

Hearing is Believing

Intelligible, clear audio is key to an effective video conference. That's why Adobe's IT staff integrated all of the audio sources in its rooms through Polycom's Vortex Installed Voice products, knowing that only the best in sound quality would do in its CPRs.

"The Vortex products are the brain of the audio system, they are what pull the integrated rooms together and make them work," says Monteon.

Polycom's Vortex products mix multiple microphones and other audio and distribute the audio sources to codecs, VCRs, loudspeakers and other equipment. Advanced echo and noise cancellation technologies, along with equalization controls, provide the cleanest possible sound in each room. The Vortex products' intelligent Automatic Gain Control (AGC) ensures consistent voice levels from all microphones so that both loud and soft talkers can be heard equally well in a conference.

Optimizing Network Infrastructure

Adobe IT personnel realized that a network of this scope requires a reliable, intelligent conferencing infrastructure that

can support any application from potentially any connection at any speed. Additionally, calls had to be easy to manage and update from the administrator's point of view.

Adobe uses the Polycom MGC-100 multipoint control unit (MCU) for all of its calls involving multiple sites. The MCU, located at the San Jose headquarters, is managed through Polycom WebCommander, an intuitive Web-based interface for scheduling, monitoring and managing conferences, and gives Adobe the ability to connect up to 48 sites simultaneously.

"With almost a quarter of Adobe's calls being multipoint, the MGC multipoint control unit gets quite a work out," says Monteon. "We've held calls with as many as 25 locations and the lecture mode of the MGC is leveraged often along with the ability to change views on the fly."

Adobe's video deployment runs over a converged IP network that includes Quality of Service guarantees. The company increased its bandwidth in 2001, making the minimum connection for any given office T1, with many even larger than that. All of Adobe's group video calls run at a minimum of 384 kbps with the exception of desktop video calls from remote users which are restricted to lower speeds. The ability of the Polycom MGC to ensure that all end users, regardless

of speed, could connect at the best possible quality without having to downgrade to the lowest common connection was vital to Adobe.

Clearly, maintaining such a large network required the ability to manage all of the company's video sites around the world from a central location. For this job, Adobe chose Polycom PathNavigator, Polycom's Global Management System and WebCommander.

The Polycom PathNavigator advanced gatekeeper is used to manage Adobe's entire H.323 video communication network, allowing the company to easily map the logical video network and control bandwidth between every site so that video traffic doesn't prevent data traffic on the same

Adobe Systems Leverages the Power of Polycom Adobe Systems Leverages the Power of Polycom network. PathNavigator also enables calls between locations to be dialed with simple extensions, just like the telephone system.

Adobe manages its entire video deployment globally through Polycom's Global Management System network management software.

"With Global Management System, we're able to manage all of our video sites around the world from our San Jose headquarters, this includes updating software on every endpoint. We also rely heavily on the fully automated address book feature of Global Management System and use it globally to keep the video systems up-to-date with the latest dialing information. This greatly lowers overall administrative costs and improves user satisfaction," says Monteon.

The Best in Support

Due to the growing complexity of the Adobe environment, the IT staff needed support assistance to ensure it was leveraging to the fullest the cost savings and return on investment that a large-scale video network provides. The company called on Polycom Advanced Maintenance, a comprehensive service and management solution that provides customized, global support for planning, implementing, and managing an enterprise-level collaboration environment. Through planning, proper implementation and integration of additional equipment, and management tools for monitoring and tracking, Advanced Maintenance allows Adobe to anticipate trouble spots before

they occur and impact user availability of the video deployment on a worldwide basis.

"Companies the size of Adobe, with large video deployments really need an end-to-end solution for supporting their communications infrastructure and with its Advanced Maintenance program, Polycom offered that comprehensive solution," says Weatherwax. "We're dealing with business critical communications, and that requires the ultimate in reliability and 24 by 7 support."

Adobe's Advanced Maintenance program began with a full evaluation and optimization of the company's collaborative environment and now includes global maintenance, and best-in-class support through an assigned Advanced Maintenance Manager as the focal point for all service needs.

Advanced Maintenance helps Adobe best monitor and control its video network down to the smallest details like ordering, tracking, documentation, serial numbers and rapid replacement for systems and parts that need to be switched out. And it offers Monthly Statistical Reports for performance metrics tailored specifically for the company to shed light on call success rates, volume and room utilization, providing insight into high usage systems for capacity planning purposes, and tracking of multipoint versus point-to-point calls.

"Advanced Maintenance from Polycom has greatly simplified our quarterly reporting, providing a concise and accurate snapshot of the conferencing data for the time period," adds Monteon. "And the ongoing support we receive has been invaluable. We conduct quarterly reviews to look at the overall communications infrastructure and evaluate changes on a continual basis."

The Future of 'Helping People Communicate Better'

"Conferencing usage has grown year over year at Adobe, it's now an ingrained part of the way the company works," summarizes Rutter. And given that fact, he sees the company leveraging future advances in voice and video technology to best serve Adobe's mission of helping people communicate better.

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