Video conferencing solutions: The difference is in the details

Video conferencing can be a major technology investment, so it is important to consider user needs and expectations to ensure that business goals will be met. Learn how to assess internal and external business use cases to help in selecting a video conferencing system that meets your technical and business requirements.

BY JOHN BARTLETT AND REBECCA WETZEL

IT DECISIONS

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Video conferencing:
MEETING YOUR USER NEEDS

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UNLESS YOU HAVE a clear understanding of your video conferencing system requirements, you risk acquiring system components that a vendor wants to sell you, rather getting than the right solution for your business needs. To avoid this problem, you should interview your current and prospective video conferencing system users to establish a clear set of requirements for the system and understand how it will be used. Carefully synthesizing essential system requirements from the complete spectrum of these "use cases" will enable you to settle on the requirements that match the needs of your business.

Here's how you should look at it: Your IT organization is delivering video conferencing services to users who are, in essence, your "customers." You're delivering the service of enabling video conferencing. So, think like a service delivery manager—figure out what your customers need and then come up with the best technical solution to provide that service. By interviewing your video conferencing service customers to understand their use cases, you are essentially doing market research to ensure you're delivering what your customers want and will use.

THE BENEFITS OF VIDEO CONFERENCING USE CASES

Use cases are a great way to figure out what you need. They can tell you if your users hold small meetings or large meetings, if teams need to use

video conferencing as part of frequent group collaboration, if internal users need to conference with external third parties or if senior managers

plan to hold "ego casts" (e.g., a CEO wishes to be video conferenced to employees assembled in meeting rooms and/or at their desktops, home

QUESTIONS TO ASK PROSPECTIVE VENDORS

IN ADDITION TO identifying your company's business and technical needs for video conferencing, it's important to get the most information possible from the vendors and providers you consider. Use the following questions as a guide:

▷ **How well does the technology optimize my top business-critical applications?**

▷ **What type of video conferencing solutions do you offer? Telepresence, room-based, hybrid and/or service-based?**

▷ **Does your video conferencing solution integrate with other vendors? Which ones and how?**

▷ **Does your solution deliver video to the desktop and/or a mobile device?**

▷ **How does your solution differ from other video conferencing vendors? What advantages do you offer?**

▷ **How easy is it to deploy your video conferencing solution?**

▷ **How many users can be on one video call at once?**

▷ **Can you provide an example of a customer who has seen positive ROI from deploying your video conferencing solution?**

▷ **How does your video conferencing solution address security and compliance?**

▷ **Does your video conferencing solution offer additional collaboration solutions like file sharing and whiteboarding?**

▷ **What are the bandwidth requirements for your video conferencing solution?**

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offices or mobile location).

These uses will dictate your solution. For example, large group collaboration may require a mix of room-based and desktop systems that will need to interoperate. If one of your senior managers needs to routinely address the whole organization, the solution may call for a combination of video conference rooms, desktop systems and/or perhaps a streaming solution. In the case of one-to-many broadcasts or streaming, you will probably want a solution that does not consume huge amounts of bandwidth—and you may need to store video-conferenced presentations so people in other time zones can view them at their convenience.

If you are using video conferencing exclusively inside your organization, you have a managed environment in which you can determine what the equipment and software will be and ensure interoperability. You can also set up the network to deliver consistently high-quality video (e.g., using QoS). For internal scenarios, you can ensure compatibility with room-based or telepresence suites, and you can implement advanced features.

For external video conferencing scenarios, your solution needs to either be compatible with what the external party has, or you need to implement a solution that allows users to download a client (e.g., Skype) that is compatible with off-the-shelf webcams, PCs and mobile

devices. Some organizations may already have video conferencing equipment—while others may have nothing more than a webcam.

Training is a common use for video conferencing, and it can take many forms. Some training is conducted in lecture mode with the trainer standing before a co-located cadre of learners, video-conferenced with groups of students in remotely located rooms. In this case, cameras may be needed in all the rooms so the instructor can see and respond to participants, no matter where they are. This may add so much complexity that a production manager is required.

Other types of training may require the trainer and trainees to share desktops so the trainer can virtually look over the shoulder of those learning. This scenario will require good PC-to-PC connectivity with the actual video of the instructor playing only a minor role.

VIDEO CONFERENCING USE CASE SAMPLES

Executive meetings: High-level executive meetings today are supported in key conference rooms and dedicated board rooms fitted with dedicated room-based video conferencing equipment and customized interface panels to control AV and conferencing equipment. These meetings

PROVIDERS AT A GLANCE

THE FOLLOWING IS a list of video conferencing solution providers.
Click on the vendor name for more information.

- Aastra
- AT&T
- Avaya
- Avistar
- BCS Global
- BrightCom
- BT Conferencing
- Cable&Wireless
- Cisco
- Compunetix
- Dell
- Dialcom
- Digital Video Enterprises (DVE)
- Emblaze-VCON
- Global Crossing
- Glowpoint
- HP
- Huawei
- IBM
- Intercall
- IOCOM
- Kedacom
- LifeSize, a division of Logitech
- Magor

- Megameeting
- Microsoft
- Mirial
- Mitel
- Nefsis
- NTT
- Orange Business Services
- Polycom
- Radvision
- Qwest
- Skype
- SmoothStone
- Sony
- Sprint
- Tata Communications
- Telanetix
- Telepresence Tech
- Teliris
- Verizon Business
- Vidyo
- Visual Nexus
- VTEL
- WebEx

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require concierge-level service, provided either in-house or through a trusted partner. To provide the best user experience for executive meetings, these rooms need to have wideband stereo sound and the highest resolution available. The rooms may include multiple cameras, with one camera used to view a whiteboard. PC input to share data during the meeting is required, both from the conference room table and the operator's booth. Meetings in these facilities need to be scheduled in advance to ensure that equipment is operating correctly, assign support personnel to set up and manage the calls, and ensure room availability.

Lecture-mode training: In this use case, training is used to teach employees how to use equipment, understand the latest operational procedures and/or promote and improve productivity or safety. The training occurs within the enterprise, in special-purpose rooms that have video conferencing technology to support remote learners. Remote learners may participate in similarly designed venues, in a standard video conferencing room, or via a desktop computer with video conferencing support. All these modes of operation need to provide the remote learners with audio and video that allows them to actively participate in the learning process.

Small group collaboration: Based on their skills and experience, personnel within the company are assigned to task teams that are independent of their geographic location. These teams need to meet frequently to solve problems, review data or build a product or service. Meetings may be short or long, and need to be both scheduled and ad hoc. Video conferencing can help build team rapport quickly and improve team productivity.

Large group collaboration: Directors wish to have regular staff meetings, training meetings or product update meetings with their entire group. The group is split across two to four geographic regions, and it is time consuming and expensive for team members to travel to a single location. Audio calls are not very effective because of the size of the group and the lack of feedback from remote locations to the manager. Video conferencing can be helpful to connect many large conference rooms and a few desktops with sufficient clarity to provide "face time" and enable whole group participation.

Campus recruiting: HR wishes to interview students recruited at an online job fair. Job fair software provides an immediate chat interface and data sharing (e.g., sharing a resume), but does not allow video conferencing communications. HR would like to be able to set up video

conferencing calls with students on their laptop computers and connect them to potential hiring managers within the organization, without incurring the cost or delay of travel. This conferencing crosses the enterprise firewall and must easily operate on any student laptop. Integration with familiar consumer products like Skype is required.

AGGREGATING USE CASES INTO VIDEO REQUIREMENTS

Once these use cases have been formulated, the next step is to determine the common components and build a set of requirements around them. These requirements may include the following:

- Support of PC-based video conferencing
- Support of mobile device-based video conferencing.
- Integration of PC-based video conferencing with room-based video conferencing.
- Integration of PC-based video conferencing with telepresence.
- Support for data sharing from PCs in any video conferencing environment.
- Support for Internet connectivity.
- Gateways to other video conferencing systems including consumer products.
- Integration with a unified communications (UC) platform.

Review these requirements to ensure that the important components of the use cases can be addressed by your chosen technical solutions. Once you complete this list for your use cases you'll have the right set of technical requirements to open discussions with video conferencing vendors. Don't be afraid to also share your use cases freely with your vendors, because they may suggest innovative solutions you hadn't anticipated. ∎

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