White Paper Series: Harnessing Business Video for Business Transformation
1st in the 4-Part Series

Business Video: First Uncover Its Value and Assess Network Readiness

What You Will Learn

IT departments increase their value to the organization when they can proactively recommend solutions to achieve business objectives instead of reacting to requests from their users. Business video, including telepresence, videoconferencing, digital signage, and IP video surveillance, represents such an opportunity.

This white paper, the first in a four-part series, is intended for IT personnel just starting to consider business video as well as those that have already invested and want to increase uptake or increase the return on investment. The first section explains how IT organizations can be a catalyst for business process transformation by developing a business case. The second section explains how to assess network readiness to deliver an excellent user experience.

Why Great Technology Is Not Enough

Business video is fundamentally transforming the way organizations communicate, collaborate, educate, and protect people and assets. The value that an organization experiences from business video depends at least as much on assessment and preparation as it does on technology.

Why? Business video can be likened to personal computing. In the early days of personal computing, the epiphany came from realizing that the value was not in the hardware, but rather in applications, such as spreadsheets. Similarly, to unlock the full value of business video solutions, organizations need a clear understanding of how and when to use the solutions to solve business challenges.

An example comes from Cisco's own experience with digital signage. When Cisco first began deploying digital signage, the company lacked a content strategy and formal standards for content, displays, and support. As a result, content became stale or out of date. In some locations, screens were blank for part of the day. Workgroups created their own content, which did not always adhere to company brand requirements for look and feel.

The company quickly realized that treating each network-connected sign as a separate silo was inefficient. The IT department, Workplace Resources, and Corporate Communications collaborated to develop global polices and processes to produce and display content suited for high-definition displays.

Today, the Cisco® Now program has become a signature part of the company's corporate communications strategy. Different organizations use the program to get their messages to global employees, complementing the Cisco intranet by providing relevant news that is accessible at a glance. The assessment process revealed that the missing link was a content strategy.

Discovering the Business Need

Organizations are transforming their business processes with initiatives for collaboration and "borderless networks" that extend beyond company walls. IT departments can play a valuable role in business process transformation by conducting a discovery process to map these organizational priorities to business video tools.

The discovery process is useful whether you are introducing business video for the first time or are looking to enhance or extend an existing solution. For example, a company that already uses IP video surveillance for physical

security might be able to capitalize on the investment to detect visitors in unsupervised lobbies and greet them using telepresence screens, providing a better visitor experience. An organization that already uses video and web collaboration for executive meetings can also use it to train field personnel, shortening training cycles while also reducing travel costs. Colleges and universities that use telepresence to host guest lecturers can use the displays outside of class time as part of the campuswide digital signage program.

The general steps in the discovery process are as follows.

Step 1: Decide Whether the IT Department Is Prepared to Conduct the Assessment

Conducting the discovery process requires two types of expertise: detailed understanding of organizational priorities and challenges, and familiarity with the wide spectrum of business video use cases.

Some IT departments have the resources and skills to conduct the assessment internally. Others have the resources but need training. In this case, a partner can either provide training or work alongside the IT department during the process to provide knowledge transfer. Still other IT departments prefer to engage a partner for discovery and all other services related to business video, freeing up personnel for other initiatives.

Step 2: Interview Business Leaders

Either the IT department or a partner identifies executives in departments that might benefit from business video. These departments might include sales, customer service, employee training, marketing, corporate communications, facilities, security operations, distributed finance organizations, and management teams.

During the interview, the IT organization or a partner can ask questions to identify ways to use business video to address business priorities. Examples include:

- **Enable collaboration to accelerate decision making and time to market:** The Procter & Gamble Company (P&G), with approximately 135,000 employees working in about 80 countries, envisioned becoming the world's most collaborative company. To realize the vision, P&G built 75 global Video Collaboration Studios based on Cisco TelePresence technology, using them to collaborate internally and with partners to develop and deliver better products faster. P&G estimates that it receives $4 in benefits from every $1 invested in Video Collaboration Studios.
- **Enhance the customer experience:** Downstream Casino Resort, located in Oklahoma, opened in July 2008. To create a world-class casino environment that would attract guests, Downstream's planners wanted a modern, attention-getting way to promote the casino's entertainment, amenities, and events. They created the "wow" factor by implementing network-connected digital signs throughout the property, which display short videos that include photographs, graphics, and text. Downstream has created a unique guest experience, and clusters of guests can be seen watching the digital signs throughout the day as they plan their activities.
- **Reduce costs and gain business efficiencies:** The U.S. Air Force Base in Idaho adopted digital signs and desktop video to reduce the high costs of cable for offices and common areas. Eliminating the need for 100 cable drops is saving US$48,000 annually. Eliminating the need to lay coaxial cable to new buildings saves more. Training costs are lower because personnel can watch videos on the digital signs, their own desktops, or any other desktop with a secure connection. Business video also increases productivity. For example, the base commander now delivers twice-yearly updates to all 5000 base personnel at once instead of in shifts, because the video from the live address is streamed through a desktop video portal. And trainers can centrally manage all training videos and more easily track who has watched which video.
- **Facilitate learning:** As of November 2009, more than 35 higher education institutions had purchased Cisco TelePresence technology to support distance learning and collaborative research. Professors can address students across multiple campuses virtually as though they were sitting in the same room, record lectures for future viewing, collaborate with other experts on academic research, and bring classrooms together around the world to engage in an interactive, face-to-face learning environment.

Table 1 lists a sampling of other innovative ways that organizations are using business video to meet high-priority business challenges.

Table 1. Sample Questions to Ask During the Business Video Discovery Process

Challenge	Question for Business Decision Makers	Sample Business Video Solutions
Increasing access to talent	Is recruiting talented employees a corporate priority?	Interview more first- and second-round candidates using telepresence or videoconferencing. One benefit is lower travel costs. Another is the opportunity to meet face to face with more qualified candidates, potentially discovering traits not immediately evident from a resume or phone interview.
Enhancing corporate communications	Could we be more effective and efficient in educating employees, communicating company priorities and programs, and providing access to internal subject matter experts?	Record a telepresence meeting and make it available for playback on PC, smartphone, or any other device with video capability. Create a corporate social video system. Edit and publish internally developed video clips on internal social video portal, at far less cost than using a recording studio. Record board meetings or board members addressing press and analysts. Publish executive video blogs for viewing by employees, customers, press, or analysts. Implement a digital signage strategy to provide relevant global, regional, and local news and information in a brief and visually stimulating format.
Accelerating integration of acquired companies	Do delays in integrating employees from acquired companies postpone benefits of the acquisition?	Conduct more frequent meetings than otherwise possible (with telepresence and videoconferencing) to positively engage new employees, connect subject matter experts, and achieve a successful integration.
Providing strategy on demand	When organizational direction changes, what are the impediments to change management? How can managers and executives provide feedback? How can we accelerate the pace of strategic planning dialogues?	Establish a secure social video site where executives can create and publish video messages from their desktops. Make it easy for team members to leave comments about the message as a whole or to attach their comments to specific portions of the video where subsequent viewers can see and comment on them.

After completing the discovery process, rank the relevance of each capability to the organization to help establish priorities.

Step 3: Identify Capability Gaps to Deliver an Excellent Business Video Experience

It is a myth that videoconferencing does not require any changes to IP networks. Some vendors assert that IT departments can simply adjust the bit rate until video streams arrive smoothly. But the result is often grainy picture quality that is distracting, detracts from the in-person experience, and ultimately leads to low adoption.

Therefore, after identifying the ways employees will use business video, conduct a readiness assessment. The goal is to identify the gaps between the current network architecture and a medianet, which is an intelligent network optimized to deliver an excellent business video experience. Equally important, the assessment helps to ensure that other critical applications, such as ERP or ecommerce websites, are not adversely affected by business video and continue to perform optimally.

A medianet readiness assessment can be likened to a structural analysis of an existing house that you would perform before adding additional rooms or a second story. It is more cost-effective to identify needed improvements early than to go back later, once services have already been introduced. What is more, employees will adopt business video much more enthusiastically if the experience is excellent from the outset. If, in contrast, the first experiences are poor, the organization will have to overcome employee resistance when the experience is later improved.

The assessment is valuable no matter what types of business video you plan to adopt. It is also useful for organizations that are currently using business video but are unsatisfied with the experience quality.

Some IT organizations have the resources to conduct the medianet readiness assessment internally. Many others will want to engage an experienced partner. The remainder of this section summarizes the factors considered in a thorough medianet readiness assessment.

Quality of Service: Give Priority to Video and Voice Traffic

Quality of service (QoS) is a technology that gives priority to specified types of traffic, such as video or voice. Without correctly configured QoS, when the network is busy, video might freeze, start and stop, or break up. For videoconferencing, poor video quality is distracting, impeding collaboration and discouraging adoption. For IP video surveillance, dropped packets at just the wrong time can prevent positive identification. For digital signage, unpredictable video quality can create a poor impression on customers.

It is important to realize that QoS is far more noticeable for business video than it is for data applications. If a packet does not arrive for a web-based application, for example, the application can simply resend, and most users will not notice the slight delay in redrawing a web page. In contrast, business video applications do not resend if a packet is dropped. Even a very small percentage of dropped packets is very noticeable because the application might be sending thousands of packets.

The priority given to business video traffic should not detract from the performance of business-critical data applications, such as real-time business intelligence or self-service applications. The medianet readiness assessment considers these applications, as well.

Multicast: Manage Bandwidth Demand

Depending on the type of business video you use, the network might need multicast capabilities or content caching. Multicast is typically used for live broadcasts to digital signage and IPTV. The medianet readiness assessment determines if multicast is necessary and the technology requirements.

Security: Block Snooping

Part of the media readiness assessment is confirming that the medianet is designed to prevent eavesdropping, recording, and hacking. In IP video surveillance deployments, it is important to prevent outsiders from seeing what you see, giving them an advantage. The assessment should address networks and endpoints from all equipment vendors, not just the vendor performing the assessment.

Bandwidth: Create a Shared Pool for All Applications

A partner can determine whether and where more bandwidth is necessary. As an alternative to bandwidth, some organizations might consider Call Admission Control, a technology that considers real-time jitter and packet loss before allowing a new videoconference or telepresence session to begin. A partner can discuss the advantages and disadvantages in your environment.

Most IP video surveillance networks today are layered on top of the core network. The drawback of this approach is that unused bandwidth on the layered-on network is not available for other applications. During the network assessment, a partner can identify the additional technology needed to create a single, shared pool of bandwidth for all applications. You might discover new sources of bandwidth to use for strategic IT projects that have been postponed for lack of bandwidth.

Conclusion

A successful business video initiative requires more than technology. IT departments can play a highly visible and strategic role by discovering compelling business cases and identifying the technology needed to deliver the desired experience. IT departments that do not have the resources to provide these services internally, or whose skilled resources are already engaged on other strategic projects, can get help from a partner, such as Cisco Services. Whether you provide assessment and preparation services internally or with a partner's help, these services are essential for fully realizing the transformative potential of business video for communication, collaboration, education, and physical safety and security.

For More Information

To find out more about business video services from Cisco Services, visit www.cisco.com/go/services/businessvideo.

To read the other white papers in the "Harnessing Business Video for Business Transformation" series, visit www.cisco.com/go/services/businessvideo/whitepapers.

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