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

Business Video: Optimize to Preserve and Increase Business Value

What You Will Learn

Just as a person who achieves a fitness goal will backslide without ongoing attention to diet and exercise, the business video experience degrades without ongoing tuning of technology and processes. This white paper, the last in a four-part series on business video lifecycle phases, discusses the capabilities you need to:

- Preserve the original user experience as the network environment changes over time
- Increase the business value of the original investment by adding new capabilities
- Optimize efficiency for your IT and video teams and employees who use business video for their jobs

Preserving the User Experience

The primary goal of the optimize lifecycle phase is making sure that the business video investment continues to return the expected business value. To protect the investment, the IT team needs to make sure that executives and other users remain as pleased with the business video solution several months or years after the deployment as they were at the beginning.

Why might the experience degrade without optimization activities? Experienced services partners refer to “network entropy,” or the natural tendency toward disorder without ongoing monitoring and tuning. Some of the factors that can degrade business video performance include:

- Addition or removal of network devices
- Addition of video endpoints
- Network refreshes
- Company mergers and acquisitions
- New usage patterns, such as more intercontinental telepresence sessions across a saturated WAN link
- New capabilities, such as multipoint calling or streaming video to mobile devices
- Dial plan changes
- Integration of video into other enterprise applications for collaboration with partners, suppliers, or customers

Paradoxically, one of the main reasons for a degraded user experience is high adoption—the result of an initially excellent user experience. The danger is that even a short interval with a poor user experience can decrease adoption, reducing the business value of the IT business video project. That is, an executive who has an unsatisfactory videoconferencing experience with an important customer is more likely to drive to the customer’s office the next time. Therefore, it is crucial to not wait until performance begins to wane before tuning the network and the solution.

> "If you're successful with business video, usage grows exponentially, not linearly, with the addition of endpoints."
> **—Roy Skillicorn, Senior Director, Cisco Services**

Making sure of a consistently high-quality business video experience requires ongoing monitoring and tuning of the underlying network as well as the business video solutions delivered over the network (Table 1). Your organization or your services partner needs the experience to know how frequently to perform each of the tuning activities and what types of compromises make good business sense. For example, if budgets were unlimited, the simplest way to preserve the business video experience as demand increased would be to keep adding bandwidth, analogous to adding new lanes on a highway. However, a more cost-effective approach might be to introduce network admission control, analogous to a metering light on a highway.

Business Video as "Mine Canary"

Because video is highly sensitive to jitter, delay, and packet loss, it is often the first indicator of network problems. If real-time streaming or interactive video is performing as expected, so will your data applications. Therefore, business video optimization services pay dividends by helping to protect the performance of all applications that operate on your network.

Table 1. Business Video Optimization and Network Optimization Activities Are Complementary

Network Optimization Services Examples	Business Video Optimization Services Examples
Periodic network stability audits	Periodic telepresence systems stability audits
Software strategies	Telepresence software strategies
Change management support	Introducing or optimizing video library management
Security incident management	Telepresence change management support
Operating system upgrades	Telepresence system upgrades
Minimizing inconsistencies in switch operating system, dial plan, quality of service (QoS) parameters, and so on	Auditing dial plan, QoS parameters
Support during network changes, including a backout plan	Support during Telepresence system changes, including a backout plan

> "The ideal network would never go down or have issues, and support all applications. But the reality is there's a cost-benefit tradeoff."
> **—Karl Zettl, Product Manager, Network Optimization Service, Cisco Services**

Adding Business Value

The optimize lifecycle phase also involves looking for ways to increase the business value of the original investment by adding new capabilities for communication, collaboration, education, and physical safety and security. This activity triggers a new business video lifecycle, beginning with the preparation and planning phases (Figure 1).

Figure 1. The Optimize Lifecycle Phase Yields New Ideas Requiring Preparation and Planning

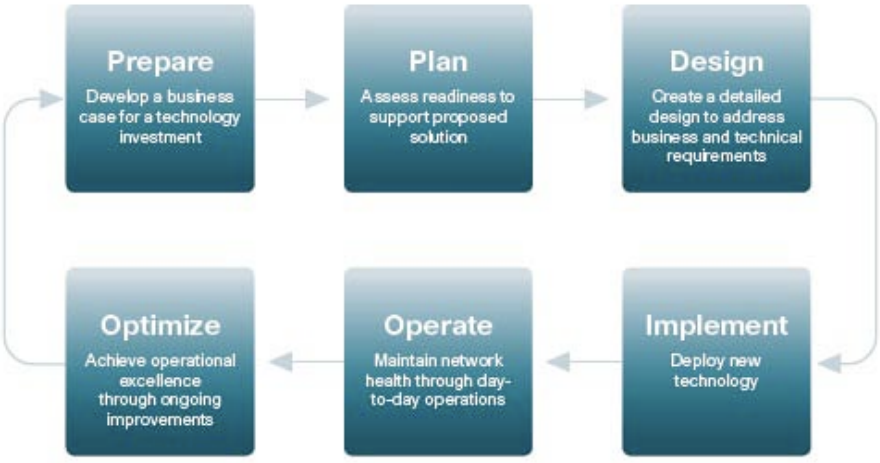

Table 2 lists a few examples of ways organizations might increase ROI from their business video investment after the initial deployment. Organizations that do not have the resources to deliver the needed optimization services or prefer to devote internal resources to more strategic projects can engage an experienced services partner.

Table 2. Adding Value to the Business Video Deployment Requires Technology and Business Expertise

New Capability	Optimization Services Needed
Recording telepresence sessions	• Determine needed network and storage capacity • Develop processes and guidelines to avoid unnecessary recording • Storage and archival requirements and planning
Video analytics	• Determine technology requirements • Develop a business case Example: A shopping mall owner that implemented video surveillance for physical security increased ROI by adding video analytics for consumer behavior analysis. Now the mall's retail tenants can pay a fee to receive valuable business intelligence such as which window displays capture customer attention for the longest time. Cisco® Services assisted with technology requirements and a business plan.
High-definition video	• Conduct capacity planning • Develop a business case Example: An enterprise with an ongoing theft problem initially implemented standard-definition (SD) video surveillance cameras, with a few high-definition (HD) cameras for a wider field of view. The customer realized that using digital zoom and HD cameras would enable better tracking of suspects. Cisco Services helped develop the business case, based on reducing the number of guards on rotation.

Organizational Optimization

The optimal way to manage the business video solution might change as usage patterns evolve. During the optimize phase, your team or your services partner can look for ways to optimize operational efficiency. For example, in addition to a video production team, you might want to form a video management team to focus on managing video storage, managing the video library, and tagging the video so that people can search for relevant frames by keyword. Some organizations conclude they might increase efficiency by consolidating previously separate telepresence and Cisco WebEx® teams, while others keep separate teams but appoint liaisons. An experienced services partner can advise on the relative advantages of different organizational strategies.

During this phase you also need experienced resources to resolve organizational tensions caused when job descriptions change because of business video. For instance, security officers might need a period of adjustment or coaching when they begin performing virtual guard tours with video surveillance instead of physical tours. Similarly, the IT and security departments might need guidance as IT becomes more involved with physical security.

ROI from Using Partner Optimization Services

In a study commissioned by Cisco, Forrester Research analyzed five companies in a variety of industries in the United States, Canada, and Europe. The average payback period for engaging a partner to provide network optimization services was less than six months, with an ROI of 121 percent.[1] The study identified the following economic benefits of using partner-delivered optimization services:

- Resource cost avoidance for optimization. The composite company based on the five companies in the study, which had US$1 billion in sales and 2500 employees, avoided hiring approximately 30 percent more network engineers. For an organization that allocates 30 staff to network operations, this is equivalent of nine full-time employees. Assuming US$100,000 in fully burdened salary, the company saved $900,000 in resource cost avoidance.
- Resource cost avoidance for troubleshooting.
- Productivity savings from decreased downtime. The composite company saved eight hours in downtime annually. If employees use 60 percent of the regained time for productive work, and average fully loaded compensation is $50,000, productivity gains are $288,461 annually. As an example, a retailer that engaged Cisco Services was able to cost justify the business video optimization investment by increasing the success rate for videoconferencing by just 1 percent.
- Improved scalability.
- Faster introduction of new business video solutions that meet business goals.
- Decreased security risk that could cause network interruption.

Capabilities Needed for Optimization Lifecycle Phase

Unless you plan to keep your network and business video offerings static, optimization is an ongoing process. With today's complex networks and multivendor business video solutions, the benefits of a single optimization project will probably wane after a relatively short time. Therefore, it is important to decide whether your internal resources have the skills, tools, operational processes, and time to undertake the optimization activities shown in Table 1. If not, you might be better off engaging an experienced services partner. To determine which option is best for you, ask:

- Do your internal IT resources have the needed skills? Whoever takes charge of optimization lifecycle services needs expertise in network optimization as well as business video-specific issues. Operating systems and business video technology change constantly. Keep in mind that it is risky to learn by trial and error because business video is a highly visible application used by company executives.
- Do you have the needed management tools and operational processes? Network management tools and processes often require updates since new technology also introduces new fault management and configuration management issues. Network management and tools represent a very large portion of IT budgets, so many organizations can come close to cost-justifying a partner-delivered optimization service by eliminating the costs keeping network management software current. In addition, relieving internal IT staff of repetitive or time-consuming operational tasks frees up time for staff to work on strategic projects.
- Are your resources knowledgeable about new business video use cases in your industry? For instance, financial institutions might want a video contact center to offer an "expert on demand" for mortgages, small business loans, and so on. Similarly, retailers might want to provide a kiosk that shoppers can use to interact

[1] Forrester Research, "Total Economic Impact™ of Cisco Network Optimization Service," 2009.

with centralized product experts. An experienced services partner can advise on details such as the number of agents needed in the video contact center.

- Do you have the appropriate tools? Cisco Services, for example, uses a collection device to capture configuration information from all network devices and automatically compare them against best practices learned from thousands of global deployments. A few of the numerous deviations from best practices that Cisco Services sees and mitigates include:
  - Improper Open Shortest Path First (OSPF) protocol configuration, affecting business continuance
  - The presence of unidirectional fiber links that create traffic spirals that block video
  - Nonfunctioning redundant supervisor engine in switches, which can cause a network outage interrupting a critical business video function
- Do your resources have experience with service delivery methodology?
- Do your resources have the time? Optimization needs to be ongoing and proactive.

Conclusion

The first phases of the business video lifecycle last months, while the optimize phase lasts for the lifetime of the project, often five years or more. Not only does the optimize phase protect the original investment, it can continually increase the value by identifying operational efficiencies and new capabilities for communication, collaboration, education, and physical safety and security.

Optimization is a resource-intensive job, requiring in-depth knowledge of the underlying network and the business video applications and endpoints, specialized tools, and familiarity with emerging use cases in different industries. Many organizations experience a very rapid return on investment from engaging a partner to deliver business video optimization services. The ROI comes from increased uptime, higher adoption rates, and time savings for the IT team, all of which help your organization accomplish the original objectives of the business video deployment.

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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