

Business Video: The Trends and Technology Helping to Drive Business Transformation

Video is a powerful tool. It can bridge distances and cultures; persuade and inform; monitor and protect.

According to the Cisco Visual Index study, video will account for nearly 90 percent of all consumer Internet traffic by 2013, and 60 percent of all online video will be consumer video, up from 32 percent in 2009.

All forms of communications, collaboration, and entertainment are becoming digitized, and connected. New, rich media applications, such as video collaboration, IPTV, music and video streaming, are flourishing. So too is a new generation of devices which, for the first time, can play a role in integrated video applications: from multi-function mobile phones to access control points; card readers to Radio-frequency identification (RFID) tags. A multitude of video formats; devices and information sources are being integrated into innovative applications that are changing the way people interact.

Both consumers and businesses are driving this evolution. Video is becoming a key requirement for effective collaboration as increasing globalization drives a desire for more personal contact across geographic and cultural boundaries. Video users now demand the ability to view any content, on any device, anywhere.

Today, businesses are using video to transform key business processes to create competitive advantage, lower costs, and to reduce environmental impact, particularly by avoiding the need for travel.

The Forces Driving Business Video

Driving this trend is a potent cocktail of business need and human psychology which includes:

- **A Global Workforce and Need for Real-Time Collaboration.** A new wave of productivity tools are emerging to help create collaborative teams that span corporate and national boundaries, and geographies.
- **Reducing Energy Usage.** Until recently the focus of most CIOs was how to improve the productivity of people on the move. Today, there is as much focus on harnessing IT to actually avoid travel to reduce both cost and carbon emissions.
- **New Opportunities for IP Convergence.** Increasingly, companies are leveraging investments in their corporate IP network by converging video applications, such as high-definition video collaboration, video surveillance systems, and video advertising signage onto a single IP network.
- **Media Explosion.** In recent years the barriers to media production, distribution, and viewing, have been dramatically lowered. The plummeting cost of video cameras and a new generation of high-quality, low-cost devices, such as the Flip Video™ camcorder, have turned users into would-be movie producers.
- **Social Networking.** The social networking phenomenon can no longer be seen as relevant only to the YouTube generation. The same types of communication and information sharing are just as effective in business as they are in a social setting. For example, employees are increasingly filming short videos to share best practices with colleagues, and to brief peers about projects and initiatives.

- **Multimedia Integration with Communications Applications.** The explosion of media, and the new uses to which it is being put, is driving the desire to integrate audio and video into many forms of communication. The audio conference will coexist with the video conference. Collaboration tools designed to link together distributed employees will increasingly integrate desktop video to bring teams closer together.
- **Demands for Universal Media Access.** Just like voice and data, as multimedia applications become increasingly utilized and integrated, users will demand to be able to access these applications wherever they are, and on any device. Participation in video conferencing, viewing the latest executive communications, and collaborating with co-workers, are applications that will need to be accessible to employees, regardless of their work location.
- **Each Organization is Unique.** The exact mix, and nature of the drivers for adopting video, will vary from organization to organization, and by business function. Marketing, for example, is particularly challenged by globalization, and fast-changing consumer tastes; while the CIO's focus may be on cost rationalization, IT's alignment with the business, or green IT.

Business Video: An Irresistible Trend

In the past, while stand-alone video-based solutions promised to reduce complexity, they often came at the cost of restricted functionality, and little to no integration with other applications. The net result was frequently an absence of an adequate return on investment (ROI).

Today, the picture has changed. Video should not be seen as a collection of discrete applications. Its real power is leveraged by taking a holistic approach, one where Business Video is integrated across the fabric of the organization and, increasingly, even its value chain.

Most organizations will start to deploy Business Video in order to meet a specific and well-understood need. Such initiatives have the benefit of not only being supported by a sound business case, they also serve as a low risk entry to video, and the means to develop a better understanding of its benefits as user acceptance grows.

Video applications, including TelePresence, Digital Media Systems (DMS), Physical Security, Unified Communications, and WebEx, are shifting the dynamics of traditional business operations. Distance is no longer a barrier; real-time communication is truly instantaneous, and network-integrated security is a reality.

The second phase of Business Video sees the power and value of these systems boosted through integration and added intelligence. Systems such as DMS can be leveraged to deliver a wide range of applications, to add to the value already delivered by those video investments. Users themselves will unlock even greater value as they start to experiment, to collaborate even more effectively as they realize that they are "better together".

Integrating systems can create innovative new solutions to old problems.

By integrating "front office" Business Video assets and "back office" systems over the network, it is possible to add real intelligence to systems. For example, the type of content, shown on digital signs as part of a queue management system, might vary with queue length. People moving in a fast queue may only have time to see a short advertisement; those in a longer queue have time for more informative content. RFID-enabled loyalty or other cards could be used to differentiate content and service to individuals, drawing on the analytics and data held in back-office systems.

"Expert on Demand" integrates Cisco Unified Communications, Cisco Unified Contact Center, and Cisco TelePresence to transform existing service business models by delivering a tailored "on-demand" customer experience. At the touch of a button, a service specialist or product expert is ready to provide "in-person" service¹. From here it is a small step to a video contact center, enabling a company to transform the levels of customer experience it delivers.

¹. Allowing customers to access expert advisers over an ultra-high-definition video link could improve cash flow by more than US\$100 million across a typical 1,000-branch retail banking network. (Source: A leading British bank.)

Cisco is already working with its partners to integrate applications to create new ways of doing things. For example, video surveillance video flows can be inserted directly into displays commonly used as digital signage. This could enable a display in a public window to show what is happening outside the branch, thereby reducing both the threat to the organization, as well as increasing the protection of its assets. Displays could even present video flows from IP surveillance cameras and be used to show instructions that direct people to safety. The same system could also help the Police to see what is happening inside the building, thereby helping them to make better decisions, faster

The Networking Challenge of Business Video

The growing use of video on networks requires a more intelligent approach. Networks will need to scale and deliver an optimized quality of experience: but this objective introduces additional complexity.

Networks that were designed for an era of best-effort (data and voice) delivery, low-bandwidth, and high latency, will not work for video. Delivering new video experiences will place additional demands on IP networks in terms of performance, adaptability, and manageability.

Each different type of media application: video conferencing, High Definition content distribution, surveillance and so on, needs to be identified and classified within the existing communication infrastructure to ensure the quality of experience. Even with classification mechanisms in place, the infrastructure itself must be able to act, by prioritizing and routing in the most efficient and optimal method. Quality of Service (QoS), classification based routing, and traffic prioritization, are all infrastructure features that need to be considered when designing a media enabled communication network.

These different factors can only be successfully anticipated, and managed, through a cohesive strategy to deliver integrated media solutions, where media intelligence has been embedded in the network infrastructure, distribution mechanisms, applications, endpoints, and overall solution fabric.

Medianet: the foundation for integrated Business Video

To enable this step change, companies need to recognize the role of the network as an integral foundation able to support these new, robust solutions, and applications.

For most organizations the foundation of this revolution is a media aware network optimized for video, a medianet. A medianet will lower the cost of infrastructure, and make integration, expansion, operations, support, and the introduction of new services (including voice and data) easier.

A medianet is a media intelligent infrastructure capable of handling all communications and services; cross platform, and in a distributed model. It creates a supremely flexible environment that enables the introduction of new applications without having to replace or purchase completely new or separate base infrastructures. Importantly, it provides specific capabilities to address the unique challenges of video and rich media in six key areas: quality of experience, content virtualization, mobility, session control, security, and management.

A medianet's ability to integrate multiple IP video applications together on the same network platform is, therefore, key to unlocking the potential of Business Video to enable business transformation.

Next steps

Cisco is committed to the development of standards-based Business Video enabled over a medianet. It has the people, professional advisory services and products, and partners, required to help ensure that its customers are best able to take full advantage of this coming communications revolution, as cost-effectively, and with as a low risk, as possible.

For More Information

To find out more about how Cisco can help you benefit from Business Video go to:

www.cisco.com/go/businessvideo

This document is a summary of a white paper that explores Business Video in greater depth and how Cisco can help companies and organizations better harness its power. The full white paper can also be found at www.cisco.com/go/businessvideo

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