

Video Communications Management Software:

Critical Success Factors for Technology Decision Makers

As next-generation video and audio communications technologies come to market, organizations have the potential to dramatically enhance their productivity, profitability and innovative capacity. However, the financial impact of these distributed collaboration and communication media will be influenced heavily by the ability to effectively manage them and provide a positive, reliable user experience.

Today, video communications managers face the challenge of managing a growing video communications network that outpaces the growth in supporting staff. Users are demanding a new level of reliability and performance and the ability to easily schedule and access systems. Additionally, business managers require on-demand reporting to manage service level agreements, cost of ownership and return on investment. On top of all of this, administrators must ensure a secure network and management to meet organizational security policies.

“All of this represents an opportunity to re-evaluate video communications management and leverage the wide adoption of internet protocol (IP). True productivity benefits will materialize when administrators can smartly manage all assets, devices and resources with the right management application. This represents a powerful breakthrough for technology decision-makers to assess and consider.

The Importance of Management for Video Communications Devices and Networks

The next generation of management-control systems needs to be both easy to use and sophisticated enough to manage the growing demands of rich collaborative solutions on complex global networks. This allows organizations to reduce the total cost of ownership (TCO) associated with video and audio conferencing infrastructure by reducing the tactical work of audio-visual (AV) engineers (known to hover outside of video conference rooms in case of a crash). Moreover, tools that manage lots of repetitive tasks enable technical personnel to focus on higher-order tasks, enhancing their own productivity and performance. Today, many are consumed by the “brute-force” make-work associated with ensuring communications technology performs adequately.

Additionally, as video communications become part of the mainstream IT organization, the ability to meet service-level agreements and report on performance, availability and usage is essential to sustain growth and justify investments.

Less appreciated is the lost productivity associated with video conferencing technology that is underutilized because it is not trusted by users. Organizations that effectively and proactively manage video communications assets will realize the full value of these investments and experience the highest return.

Critical Success Factors When Assessing Video Communications Management Software

Several key criteria for assessing video communications management software are explored in this white paper. While the standard criteria discussed here certainly relate to the quality and performance of management solutions from a technical standpoint, they also are linked to the productivity of such solutions as a means of smartly and cost-effectively capitalizing on communication assets, devices and resources.

Among the criteria explored here are: *open, extensible platforms; security; multi-vendor compatibility; and management capabilities including scheduling, reporting and software and template upgrades.*

OPEN, EXTENSIBLE MANAGEMENT PLATFORMS. Organizations today need to invest in platforms that provide comprehensive management for more of their IP-based video and audio communications devices and infrastructure. Leveraging standards-based, open, scalable architecture provides the ability to manage all key components that make up an effective video and audio conferencing network.

An open, extensible platform with APIs to interface to a variety of key applications and converging technology will provide the most value and investment protection.

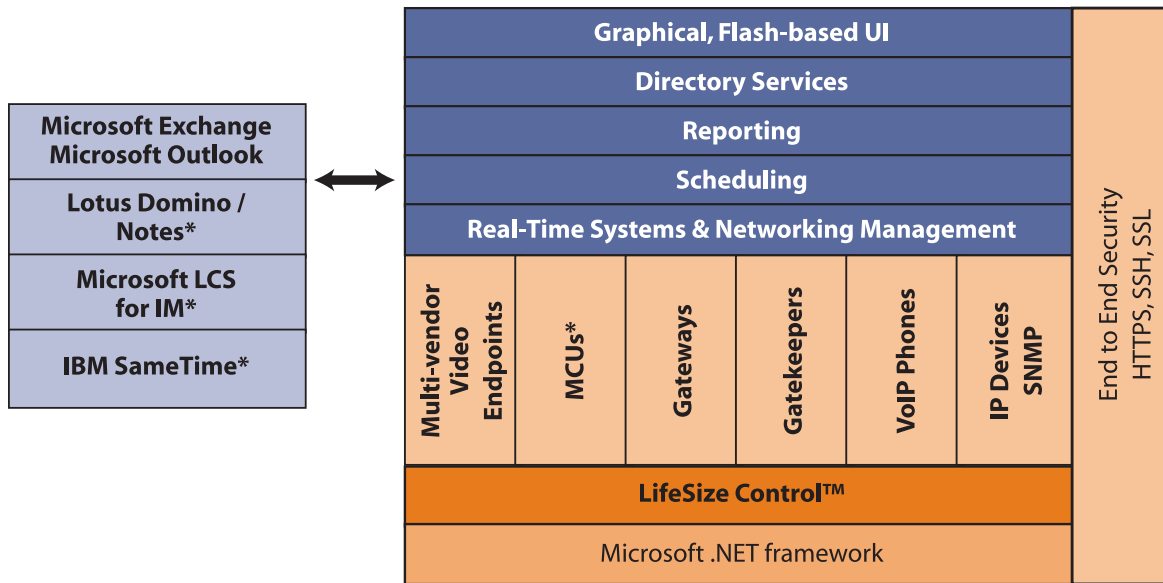
Some of today's management systems are a combination of separate applications that operate on different servers and are built on proprietary platforms. This approach can lead to inefficient administration and potentially weakens the overall systems security.

By contrast, LifeSize Control™, a video communications management application, is built on the open, Microsoft.NET™ framework. LifeSize integrates with Microsoft's Active Directory and standard database platforms. If one uses an open standard that has been ratified, then no vendor can monopolize the standard (with a proprietary approach) and arbitrarily lock the client in. If standards are in place, then they should be used. This is an essential criterion.

As LifeSize Control evolves, the framework is extensible to manage more than video communications endpoints to include networking devices (such as LifeSize Networker™ gateway for IP to ISDN connectivity), LifeSize Phone™ (VoIP super wide-band phones) and other infrastructure devices.

Additionally, integration to applications such as instant messaging and email platforms provides the best approach to providing users with their own ability to schedule and access video communications through their regularly used applications.

Figure 1: LifeSize Control Software Stack



*Available in future version

SECURITY. When building infrastructure to support a modern video network it is important to consider security at the very outset. The design of the network has to take into account many factors, these may include legal, compliance and regulatory issues as well as corporate security policies. The network administrator has to be satisfied that any device or software running on the network is secure and will not cause the network’s overall security model to be compromised. While they don’t tend to be publicized, there have been several cases where companies have been rendered vulnerable using conventional management technology and practices. Additionally, network administrators need reporting and auditing functions to quickly trace improper usage or rogue network devices that have been installed on the network.

LifeSize provides a centrally managed system, relying on proven methods to securely manage network devices. LifeSize Control provides end-to-end encryption using secure protocols such as HTTPS, SNMPv3, SFTP and SSH, from the management console right down to the individual managed device. Additionally, LifeSize Control provides role-based access for administrators, engineers and operators with the appropriate level of control to provide complete management and scheduling. Access control is tightly integrated with Microsoft Active Directory to ensure access controls are maintained in a single place, and in accordance with accepted account management practices.

MULTI-VENDOR COMPATIBILITY. Companies need to be able to leverage their existing investments in video and audio conferencing. They cannot simply “rip and replace” their existing systems as new

generations of technology emerge. In addition, organizations will experience the need to manage devices from different vendors. Therefore, multi-vendor interoperability is an essential criterion when investing in a management system. Administrators need to manage and gather statistics from multiple vendor systems. Some systems on the market today, however, tend to force users into an “all or nothing” decision. They can only manage that particular vendor’s video conferencing products. Still others claim multi-vendor support but provide limited features in this regard. LifeSize developed a management system that leverages SNMPv3 to access standard system data and to provide multi-vendor management support for all features. With this level of interoperability, network administrators are able to discover and fully manage systems from the same application.

MANAGEMENT CAPABILITIES. Based on the experience of video network managers, a host of management capabilities are necessary in a central management application. Among the key capabilities that must be considered are:

Real-Time Management and Workflow. In order to provide high reliability and meet service level agreements, administrators will need a system that provides real-time alarms and the ability to filter and set up workflow for immediate action to resolve conferencing issues. Due to the nature of today’s environment, administrators need not be locked down to a desktop to manage a video communications network. Integration to cell phones, PDAs and other forms of notification to resolve and close issues is important for management.

Scheduling. Central to the success of video and audio conferencing is the ability to effectively schedule resources and events. There are a few different aspects of scheduling to be considered: administrator and bureau scheduling; user scheduling using standard applications; and directory management.

- **Administrator scheduling.** Many organizations provide scheduling services to their users for point to point and multipoint conferencing. An administrator needs a web-based, easy to use, yet powerful scheduling platform. Intelligence built in to automatically establish calls based upon available resources has the advantage of reducing tactical work. Additionally, roles-based access to the system is important for non-administrators to be able to access scheduling capabilities.
- **User scheduling via Microsoft Outlook or other applications.** Users today already have established scheduling and calendar applications that they rely on not only for their own scheduling but also for meetings and resource management. The ability to fully integrate to scheduling applications for user scheduling of video communications resources is a key criterion to make video part of the daily activities of an organization’s professionals.

Directory management. Today's organization uses directories for more than video communications and keeping a directory up-to-date provides not only easier usage but also security management (in the case of an employee leaving a company). The ability to support a standards-based, H.350 directory is important for a video management system. Additionally, E.164 and LDAP directory integration are required for organizations or federations of users that want a directory for easy access to video communications information.

Automatic Call Establishment™. Scheduling video conferencing calls currently requires information from the user or the administrator that at this point should be intelligently detected. Instead of requiring knowledge of the highest bandwidth available, network access method (IP, ISDN, etc) and multipoint ports available, LifeSize Control uses a sophisticated algorithm process to automatically and intelligently establish the best possible call between sites. If one site should experience a problem and drop out of the call, the ACE technology will automatically reroute the best possible option and re-engage the participant into the call without intervention. This is a powerful capability to reduce complexity and the need for forward call planning.

Managerial Reporting. To date, administrators have relied on log files and call detail records to provide management reporting. Many times this has been an issue in terms of providing relevant, useful reporting that does not take hours to organize every month. LifeSize Communications recognizes how important reporting is to technology and business managers that intend to maximize the payoff on their conferencing investments. Indeed, LifeSize Control provides a powerful reporting engine. Instead of building reports based on extensive log files, the LifeSize system provides pre-packaged and relevant management reports. Graphically compelling summary reports and drill-down reports enable users to report on usage, inventory, diagnostic, performance and audit reporting on call detail records (CDR). At the touch of a button, they can be exported to formats such as PDF™, HTML, CSV™ and Excel™ for wider access.

Software Upgrades and Template Management. In order to manage a growing video and audio communications network, it is important to take advantage of software upgrades and advances in the technology. For IT organizations, the ability to carefully manage this process and continue availability for users is paramount. Additionally, IT managers often develop configuration templates for systems that work effectively for their networks and users. LifeSize Control provides the ability to set up groups of systems for software upgrades distributions from a central point. As a unique capability, the IT administrator or video manager can set up beta, lab and production groups in order to test new upgrades and templates in a non-production environment when appropriate. The result is a well operated and managed network of devices and investment protection.

The Next Era of Video Communications Management Software

The true promise of pervasive video communications depends on the ability to deliver reliable, secure, easy to use communications. As we see it, video communications must be as dependable as today's phones. Administrators should be able to meet their service-level agreements with 99.95% uptime and users should trust their ability to use the technology with ease.

For IT administrators and video network managers, the challenge is to have the most powerful, extensible, secure tools to do the job.

Management software is a key part of the entire video communications solution to help expand intra- and inter-organization collaboration with colleagues, partners, customers and other stakeholders. By bringing automation, simplicity and security to this difficult management challenge, next generation management solutions promise to enable technology managers to effectively control, provision, schedule and report on their video communications systems and other rich media collaboration technology to drive a host of important benefits to the organization.