



Simplicity in the New World of Video Conferencing

Three Key Considerations for Pervasive Video Deployment

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Introduction

Video conferencing (VC) has come a long way since its inception more than 25 years ago.

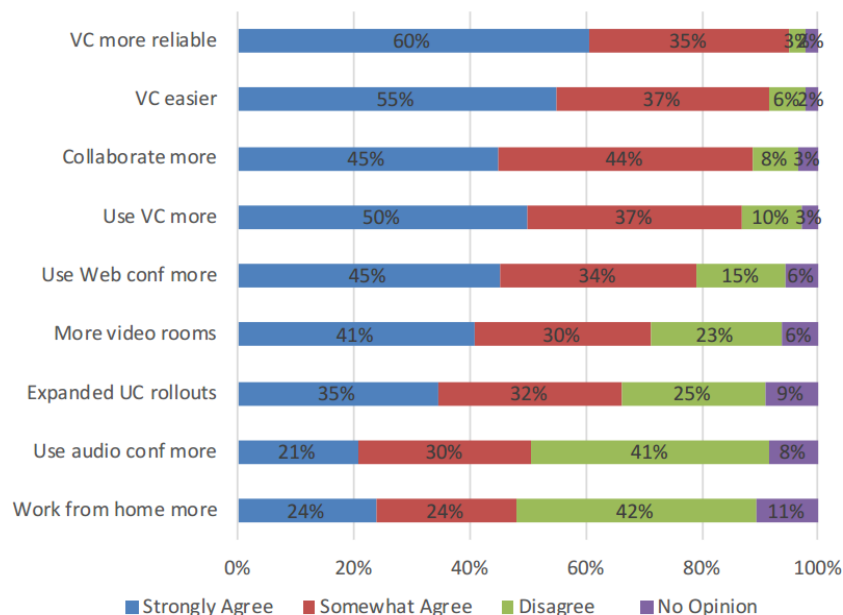
In the past, a typical video conferencing deployment included a handful of group video systems and perhaps a video bridge. And because there weren't enough video conferencing rooms to go around, video was largely an executive-only tool used for high profile, critical, and structured meetings.

In those days, video conferencing operated as a technology silo – completely isolated from other related communication systems (e.g. telephony, messaging, groupware, and unified communications) within the organization. And this separation between key systems impacted reliability, manageability, cost-effectiveness, and the overall user experience, which in turn suppressed adoption and usage.

But that was then, and this is now. Thanks to a steady stream of technological enhancements, usability improvements, and ongoing reductions in total cost of ownership, video conferencing deployments and usage have grown tremendously.

In August 2015, Wainhouse Research (WR) surveyed end-users of video conferencing (VC) and asked for their opinions about a range of video conferencing and collaboration-related statements. Roughly 170 users responded as follows (see the chart below for more details):

- 97% agreed that they use VC more than 2 years ago
- 95% agreed that VC is more reliable than 2 years ago
- 92% agreed that VC is easier to use than 2 years ago
- 71% agreed that they have more video rooms in their company than 2 years ago



The net is that video conferencing has finally taken its rightful place as a core business tool. Companies around the world are depending on video enabled meetings to empower their people, serve clients better, and compete on a global basis.

But today's users expect – and frankly need – a full collaboration experience including voice, video, and content. And they need access to collaboration in the places that THEY work – in the office, at the desk, and on the road. To support these users, organizations need solutions that are cost-effective, distributed to ensure a strong experience around the world, redundant to maximize reliability, and highly scalable. And all of this must be accomplished in a manner that is easy to purchase, deploy, use, and manage. For this reason, companies need to re-think the way they enable video conferencing for their organization.

Note, however, that the true benefits of video conferencing are realized when video conferencing takes its rightful place as part of the company's overall collaboration ecosystem. This unified collaboration environment can then help a company transform its culture, its work processes and methodologies, the way it finds and supports its customers, its ability to innovate, and more.

To reach this level of return, organizations must make video conferencing pervasive, providing access to video throughout the company, and not just in a handful of meeting rooms or on some users' desks or mobile devices.

Metcalf's law states that the benefit of a network grows exponentially as the size of the network grows. The same holds true for a video conferencing and collaboration deployment. WR has helped many organizations expand their deployment, and more importantly the ways in which their teams use video conferencing. And we've watched these video-savvy organizations enjoy a wide range of benefits including ongoing cost reductions, increased agility, productivity gains, the ability to attract – and retain – talent, and more. The key to enjoying these benefits, however, is to ingrain video within your corporate culture, and make video available everywhere. Only then, once you make video accessible and pervasive, will your organization see the next level of benefit.

This study, sponsored by [Cisco](#), provides information, insight, and recommendations to help organizations make smart decisions throughout the entire video conferencing lifecycle, from the first purchase to the day to day operations.

Focus on Purchasing

Purchasing is an integral part of the video conferencing lifecycle, and as with all technology purchases, success involves more than just negotiating the best price. It means ensuring that the products and services purchased effectively address the needs of the organization – both today and tomorrow.

Unified Approach

Today's users want and need an integrated collaboration experience, which means that video conferencing must be viewed as a part of the overall communication ecosystem and not as an island. While this unified approach may seem obvious and logical, there are many reasons why an organization might be tempted to keep video separate, including political challenges (who owns and manages the video service), timelines (it's faster to buy / deploy an individual system than an integrated ecosystem), financial reasons (which budget pays for which technologies), lack of knowledge or limited scope (often the video folks have not been exposed to the benefits of integration with other communication systems), and an overall fear of change.

These items can drive organizations to make some non-advantageous decisions. For example, WR was recently asked to help an Asian investment bank improve its collaboration. But because the project lead's full time role was managing video infrastructure, the project was scoped as a video bridge upgrade project. With our help, this project was re-scoped to consider the overall requirements of the user community – and not just the need to buy a new MCU. In the end, this customer was able to create an integrated, unified communication environment, and both collaboration usage and the benefits enjoyed have grown significantly as a result.

In another case, WR was asked to help a large U.S. manufacturer improve the usability and reliability of its conferencing environment. However, to meet deadlines defined a year earlier, the client declared that integration between collaboration systems was not to be considered. In this case, the client could not be dissuaded from his myopic view – and his end-users paid the price when they were presented with multiple collaboration tools from different vendors that couldn't be used together.

The net is that video conferencing cannot exist in isolation, even if taking a broader view of the overall requirements involves more people, more research and a bit more time.

Purchase a Long Term Solution – Not Technology Components

Video conferencing should not be purchased as a technology. Instead, companies should purchase VC as an end-to-end solution that addresses the needs of the user community. So instead of buying a video bridge, a company should buy a platform that enables its users to conduct audio, video, and data-sharing sessions.

As a part of the purchasing process, companies should consider both today's needs and the path to tomorrow. For this reason, organizations should seek solutions that allow them to start small and grow incrementally over time and without the need for a forklift upgrade. The ability to right-size the environment is key to maximizing the return on investment and avoiding future surprises.

The Importance of Licensing

Another often overlooked area of strategic procurement is licensing. This has become even more important as communication systems have started to migrate away from dedicated hardware solutions over to software-based solutions leveraging standard IT / datacenter technology. Key areas of interest in terms of licensing include:

- Cost – the licensing model should be cost-effective, allowing an organization to buy licenses in small bundles at first and scale up as usage and adoption grow. For example, it should be possible to buy licenses for a few users at a time or a few concurrent sessions at a time vs. having to buy packs of 100 or 250 users. The model should also allow the company to easily and quickly collaboration-enable its entire workforce.
- Simplicity – the licensing model should make it easy to empower users and connect cost to value. For example, one should not have to purchase five different licenses to support a single user or function. Ideally, for simplicity, those same licenses should span multiple systems (e.g. video, telephony, etc.)

- Flexibility – the licensing model should be flexible enough to address specific requirements. For example, for some companies concurrent user licenses make more sense than named user licenses. For others, floating licenses for infrastructure are advantageous. And companies should avoid licensing models (e.g. port-based models) that do not allow them to actually use all of the available hardware, computer power, or features that they have purchased.

Key Takeaways:

- 1) VC should be treated as a part of the overall communication ecosystem.
- 2) VC should be purchased as an end-to-end solution, NOT as a pile of hardware and software.
- 3) Organizations should pay careful attention to licensing cost, simplicity, and flexibility.

Focus on Deployment & Management

An important part of a successful pervasive video conferencing deployment, and the realization of the key benefits described above, is leveraging solutions that focus on ease of deployment and management.

Ease of Installation

When choosing a collaboration platform, organizations should seek solutions that are easy to install and deploy. Key questions include:

- Time – How long will it take to install and configure the centralized infrastructure? Were the systems designed to expedite the initial installation? How long will it take to install each endpoint and client and activate / train users? If a user orders a system today ... how long until they start reaping the benefits?
- Expertise – What level of knowledge and experience is required? For example, will senior engineers be needed to deploy each video endpoint? Can general IT resources handle the job? Does the system “behave” like a standard IT solution or like a video conferencing system?
- Cost – The combination of time and resources required determines the deployment cost.

WR has installed numerous communication platforms within our test environment. We have noted that some solutions are fast and easy to install, requiring only basic IT knowledge. Other solutions require several days to install, configure, and deploy. These complex systems often require the use of trained experts – even for seemingly basic tasks.

Deployment Flexibility

In addition to seeking IT-friendly solutions, customers should look for video conferencing solutions that offer flexible deployment options. For example, the solution should allow customers to choose between an on-premises installation, a cloud / hosted model, or a hybrid on-premises / cloud approach. This allows companies to leverage cloud solutions when and where it makes sense to reduce cost or change the commercial model, simplify management, reduce IT burden, etc., while maintaining a consistent user experience.

Furthermore, these solutions should support centralized and distributed architectures to allow organizations to leverage their global footprint to their advantage. In addition, software solutions should work on both dedicated and virtualized servers.

And all of this flexibility should be available to customers without having to sacrifice key features, incur significant additional cost, or deal with significant additional complexity.

Note that for some companies, deployment flexibility may seem unimportant ... today. But requirements and priorities tend to shift over time, so choosing a flexible solution today could mean the difference between a minor update and an entire system overhaul in the near future.

Support for Scale

While yesterday's video conferencing (and collaboration) deployments included perhaps dozens of systems, today's solutions frequently include hundreds or thousands of systems and users. Customers should seek solutions that empower scale from day one. For example ...

- How quickly can user accounts be created on the system?
- How much time is required to provide each user with a virtual meeting room (VMR)?

Instead of requiring system admins to manually configure the environment, scale-friendly solutions automate these types of functions by integrating with other systems (e.g. Active Directory or LDAP).

Designed for Success

In order to support a collaboration environment including hundreds and thousands of users around the world, a proactive, centralized, and intelligent approach is required. Customers should seek solutions that offer proactive support capabilities including:

- Centralized Monitoring and Management – the ability to proactively monitor and centrally manage the global VC environment is a key part of maximizing reliability and performance.
- End-to-End View – in a fully integrated environment, admins should have access to a single portal providing an end-to-end view of the entire environment and not just a single sub-system or part of the service (e.g. video conferencing). This enables an organization to ensure the quality of service (QoS) and quality of experience (QoE) for its users.
- Reporting and Analytics – to quote Sir Francis Bacon, “Knowledge is power.” The collaboration system should help customers manage the environment by providing easy access to usage data and analytics. Without detailed system information, managers cannot make responsible decisions to maximize the benefits enjoyed by the organization.
- Integrated capacity management – the use of collaboration is growing at a fast pace around the world. In the past, system deployments and expansions took weeks or months to complete, so organizations had to over-deploy to prepare for future growth. Today, however, well architected solutions include capacity management within the system to notify admins when upgrades are required, and simplify the entire expansion process – including system licensing.

Key Takeaways:

- 1) Seek VC solutions that are easy to install and support a range of deployment models – without adding significant cost or complexity.
- 2) Seek VC solutions that ease the burden of deploying and managing a large scale environment.
- 3) Seek VC solutions that include monitoring and management, strong reporting and analytics, and the ability to deal with changing capacity needs.

Focus on the User Experience

The key to creating a pervasive video conferencing environment is providing a strong user experience. Note, however, that in the video conferencing world, a strong user experience requires more than just high quality video. Important items that impact the user experience include:

- **Accessibility** – the first part of the user experience involves the ability to access the collaboration solution easily and ...
 - o From any network (including company network, public Internet, mobile network, etc.)
 - o From any device (group video system, desktop PC, laptop, tablet, smartphone, etc.)
 - o From any location (office, home, on the road, airport, etc.)
- **Interoperability** – the solution should offer strong interop to ensure that users can connect and enjoy a strong experience from different kinds of systems and software solutions.
- **Quality of Experience** – it goes without saying that the solution should provide high quality video, natural feeling and easily intelligible audio, and high resolution content.
- **Consistency** – the solution should provide a consistent user experience (e.g. look and feel of the client, workflow for joining a session, controls available during a meeting, etc.), regardless of the type of meeting, number of participants or their location, devices in use, network connections, etc. In WR's experience, consistency is often undervalued in favor of technical items. But consistency is a critical part of ease of use and participant comfort, which impacts the overall effectiveness of the session.
- **Simplicity** – the best solutions provide a strong user experience without complicating the experience for the participants – both those within the company and those outside the firm. Simplicity starts right up front with the session coordination / scheduling, continues through the call-join workflow, and should also apply to the actual conferencing session. The environment should also offer simplicity for administrators in various areas including technology management, licensing, reporting, and more.

Organizations should seek solutions that focus on the user experience instead of the technology details. Such solutions typically offer:

- A single communication experience including presence, instant messaging, audio conferencing, content sharing, and video conferencing, within a single user interface.

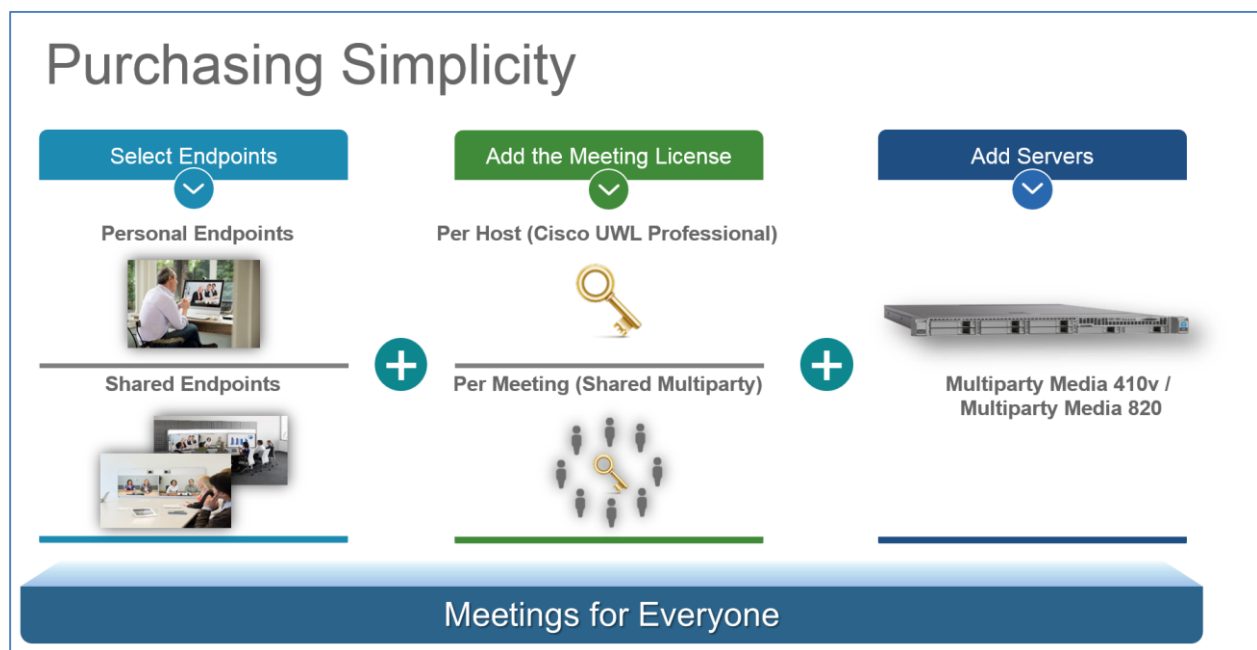
- A streamlined and consistent workflow that empowers (instead of inhibiting) users.
- An experienced optimized for the device in use. For example, the layout should be different for mobile users than for desktop PC or group video users.
- The ability for users to customize their conferencing experience to match their preference. For example, some solutions allow users to customize the welcome screen within their virtual meeting room. Others allows users to define their default on-screen layout or enable / disable certain features during their meetings.

Solution Spotlight

The sponsor of this study, [Cisco](#), has invested considerable time and effort in simplifying the overall video conferencing experience – from procurement, to management, to the user experience...

Cisco's approach stems from the belief that users should enjoy a unified meeting experience, powered by a unified architecture, and enabled via a unified licensing program. And that experience spans beyond video conferencing to include presence, instant messaging, audio conferencing, web conferencing, and more. For example, Cisco's CMR offering allows standards-based video systems to connect directly to WebEx sessions for a fully integrated experience including mobile users, desktop users, and group video systems.

Recognizing that simplicity starts with ease of purchase, Cisco has simplified its collaboration licensing program. Instead of needing licenses for each technology or feature, Cisco offers end-to-end collaboration licenses on a per-host or per-meeting basis (see screenshot below).



For example, a single "Cisco UWL Pro" license provides a named user with the ability to host multipoint meetings including voice, content, and video and invite any number of guests (invited guests do not need a license), until all available conferencing platform capacity is used. In addition, this same single license ...

- Allows users to host both scheduled and impromptu / ad-hoc meetings using their personal meeting room
- Allows users to participate from their desk, from a meeting room, or using their mobile device
- Allows users to connect to Microsoft Lync / Skype for Business users
- Allows users to personalize their conferencing experience

All of the above features and functions are powered by the same platform, and users enjoy a consistent workflow regardless of their location, device in use, or type of meeting. And these same features are available with a shared meeting license as well.

The Cisco ecosystem was architected to be location-agnostic, device-agnostic, and network agnostic, and with the flexibility to be deployed in the datacenter, or in a dedicated hardware environment. And the platform automatically optimizes the experience to accommodate the user's chosen device. At the same time, Cisco has harnessed these capabilities within recent innovation in their new lower cost room and desktop endpoint portfolio. This means that users collaborating from their desk will have the same business-quality experience as those participating from the meeting room. And those working remotely from their home or office will feel "connected" by the collaboration platform and not isolated.

And finally, the Cisco platform has been architected to support both small and large scale deployments.

Conclusion

Like all other technology systems, an organization's video conferencing environment can easily become complex and disjointed. However, organizations can minimize or even avoid the complexity by taking an end-user oriented, system-wide approach to video conferencing. Specifically, organizations should view video conferencing as a part of the overall communications ecosystem and NOT as a technology island.

WR believes that organizations looking to deploy a video conferencing platform, and also those considering an expansion or upgrade of their existing environment, should consider the following areas:

- Ease of purchasing
- Ease of deployment
- Ease of management
- Quality and consistency of the User Experience

But most of all, organizations should seek solutions that provide their users with a unified collaboration experience supporting audio conferencing, content sharing, and video conferencing. To maximize ease of use, the overall experience and workflow should be consistent around the world, for users in meeting rooms and those working from their desks or on their mobile devices.

And finally, organizations should take the time to research the back-end management capabilities of the collaboration platform. Well architected solutions provide a unified management interface, along with centralized licensing capabilities, to minimize the burden on the support staff.

The key takeaway is that simplicity in the video conferencing world is more than just technology simplicity ... it requires simplicity throughout the entire solution lifecycle.

About the Authors



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About Wainhouse Research



Wainhouse Research, www.wainhouse.com, is an independent analyst firm that focuses on critical issues in the Unified Communications and Collaboration (UC&C). The company conducts multi-client and custom research studies, consults with end users on key implementation issues, publishes white papers and market statistics, and delivers public and private seminars as well as speaker presentations at industry group meetings.

About Cisco

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