

# Bringing Unified Communications to Life with Seamless Video Interoperability

**A Revealing Look at why Integrating Video  
with Unified Communications is a Winning  
Long-Term Strategy**

E. Brent Kelly  
Sr. Analyst & Partner



**April 2010**

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## Executive Summary

Video in the enterprise is growing by leaps and bounds. We estimate that over 50,000 additional video endpoints are added within enterprises every quarter. These endpoints run the gamete from high end telepresence suites to high definition group conferencing units to video kiosks. And, this does not count the desktop and mobile video that is also beginning to emerge on laptops, smartphones and consumer devices used by business professionals.

So how do organizations deal with this massive influx of new video capabilities? In spite of the fact that most enterprises still deploy video as a standalone capability, recent market research indicates that enterprises are increasingly recognizing the need to integrate video in with the rest of the enterprise communications fabric; that is, to create an integrated, unified communications infrastructure that includes all of the communications capabilities people need while providing them in an easy to use and consistent way. To obtain the greatest benefit from these individual components, enterprises are moving toward unified communications environments in which phones can call video units, IM sessions can escalate to web collaboration and audio/video sessions, and in which users can seamlessly and effortlessly utilize any communications mechanism available to them.

There are four key advantages companies can leverage when video call control is tightly integrated in a unified and consistent way with the enterprise's unified communications environment. The better unified communications architectures allow for future video and telephony devices to seamlessly join in while continuing support for investments in legacy systems. Integrating control of the video endpoints into the domain of the enterprise unified communications call control server removes the silos between enterprise telephone systems and enterprise video systems while providing a consistent calling and user experience.

One powerful architecture for integrating video with the rest of the unified communications infrastructure is Avaya Aura, Aura allows full integration of legacy H.323 and H.320 video units with newer SIP-based group, telepresence, and even desktop video solutions, all through a common and consistent calling model. Using such a solution makes management of the entire unified communications solution more consistent and less onerous for the IT staff. Avaya's video network operations centers can assist enterprises with their video strategy and deployment needs by providing strategic guidance about best practices for integrating video with the enterprise communications infrastructure. They can also provide solution management and monitoring after an integrated video solution has been deployed.

In this white paper we discuss the video solutions available today and provide a snapshot of the current video market. We discuss how video can be integrated with the unified communications environment, why this is a good idea, and the benefits that organizations will get by creating a unified communications strategy that includes video. We provide the ROI and customer evidence to illustrate that video-enabled unified communications is useful to real businesses. We close with compelling use case examples in which video is integrated with telephony as part of an overall collaboration and UC framework.

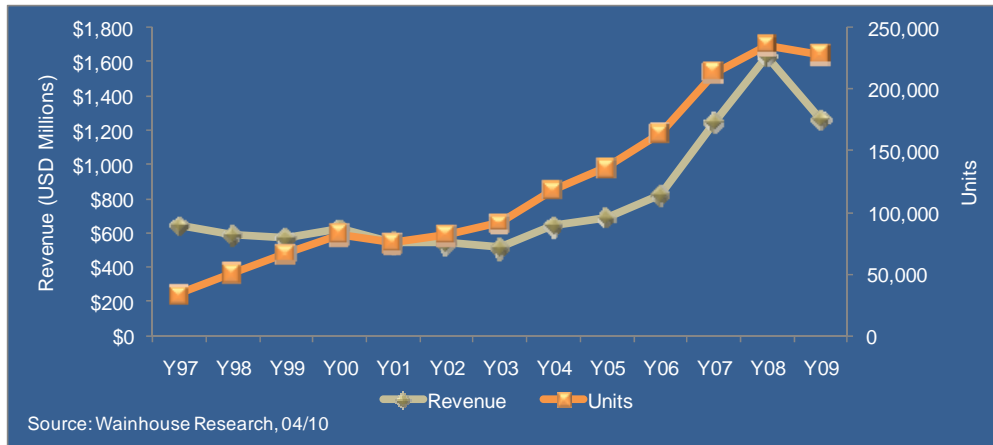
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# Enterprise Video: the New Normal for Business Communications

Enterprise video is on the march! The growth of deployed business video units has been phenomenal over the last five years, increasing at a compound annual growth rate of 14%. Every quarter, nearly 50,000 additional video units are deployed!

**Figure 1. Group videoconferencing is growing dramatically on a global basis.**



This market growth has been robust, fueled not only by unit demand, but also by customers' interest in high definition systems and in telepresence suites.

Telepresence has come from almost zero annual revenue five years ago to a point where it now represents 18% of the total market on a revenue basis (but less than 1% on a unit basis). Video market growth has continued during both economic upswings and downswings because video delivers cost savings tools that also boost worker efficiency.

Visual communications proves its value day in and day out in many enterprises, helping to build trust and understanding between colleagues as well as with suppliers, partners, and customers. A video call enables personal engagement, improving understanding and providing non-verbal feedback at the same time. Many enterprise managers are investigating how video can be extended beyond the meeting room and across the enterprise to include individual contributors as well as those who may be mobile. The key lies in developing a well-conceived communications strategy that removes video silos by unifying video with the other ad hoc, multimodal communications mechanisms such as instant messaging and presence, web collaboration, multiparty audio conferencing, and shared workspaces.

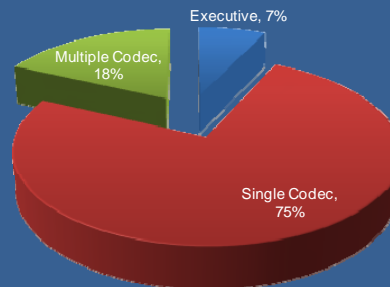
Savvy enterprise managers understand that the highest return on any communications technology investment will be achieved only when that technology is embedded into the enterprise workflow, embraced by the users, and supported by the IT infrastructure. As yesterday's economic uncertainties become today's opportunities, enterprises are finding that business cases can be built for integrated voice, video, and data solutions based on benefits in three areas:

1. Cost improvements based on travel reduction;
2. Business transformation based on faster decision making, improved communications with customers and supply chain partners, and shortened time-to-market for product developments; and
3. Responsible energy usage resulting from electronic communications' replacing local and/or long distance travel.

As video communications become the new normal, customers are seeking reliable 24x7x365 solutions that will seamlessly integrate desktop video delivered as part of a unified communications environment with group and telepresence video systems found in the conference rooms. Joining disparate video devices must be as easy as clicking a mouse or pressing a single phone button. This kind of seamless interoperability requires systems that adhere to industry standards as well as technology partners with full breadth and depth of technical knowledge so that a unified communications deployment provides a consistent user experience across disparate devices with uniform management and operations methods.

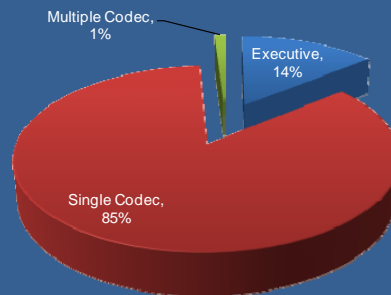
**Figure 2. Recent quarterly statistics for enterprise videoconferencing system revenues globally.**

**Enterprise Video System Revenues Q4 2009**



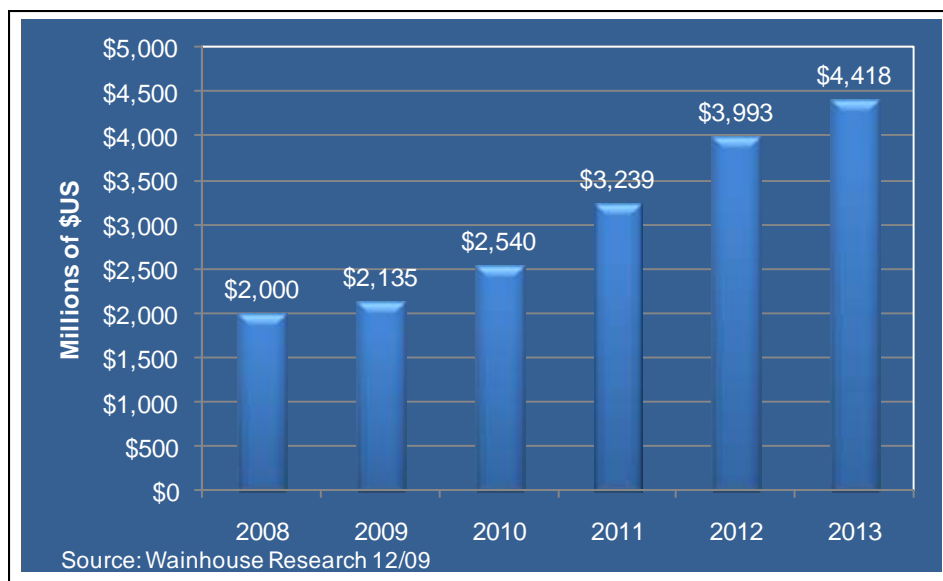
Source: Wainhouse Research - 05/10

**Enterprise Video Units Sold Q4 2009**



Source: Wainhouse Research - 05/10

**Figure 3. Forecast enterprise video revenue growth 2010 - 2013.**



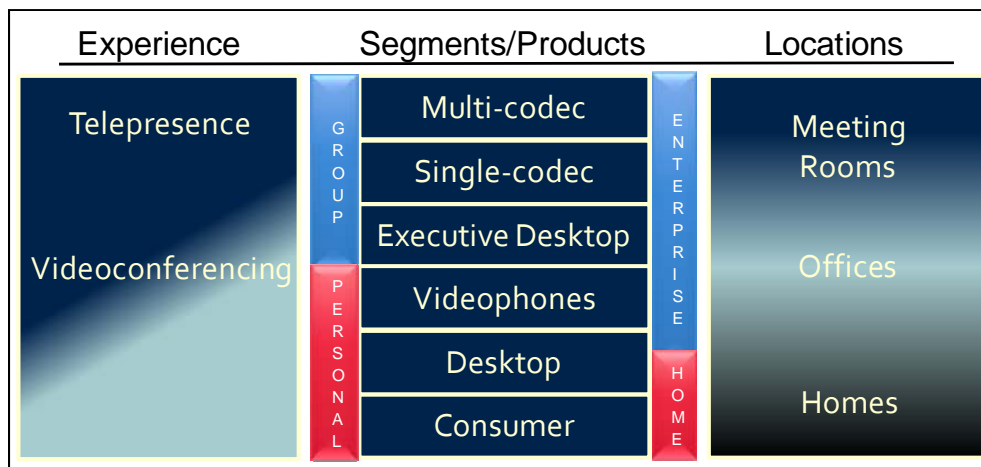
## The World Wide Web of Enterprise Video

Enterprise video solutions today come in a wide range of styles and shapes, offering customers a broad set of price-performance-feature options. At the high end of today's

videoconferencing continuum are “immersive solutions”, otherwise known as a telepresence system. A telepresence video experience delivers high quality audio along with life-size video images displayed in the proper position which creates the illusion that meeting participants are in the same room. They also allow integrate with group and desktop video solutions, as needed.

**Figure 4. The videoconferencing continuum of products and experience levels.**

Most telepresence systems employ multiple cameras, codecs<sup>1</sup>, and large high resolution displays in order to maintain the proper visual imagery and immersive effect.



Between one and two megabits of bandwidth per camera is frequently required to achieve this high degree of immersion.

Telepresence systems generally spare no expense when it comes to electronics or room preparation and are intended to provide a virtual meeting experience that simulates the in-person meeting as closely as possible. Some systems require, or it is strongly recommend, that

<sup>1</sup> Codec is a term often used to describe the video hardware or software that is used to compress and decompress the audio and video streams in a videoconferencing system.

calls be supported by a managed services provider to assure that all calls proceed on time and without connection issues. Others systems sport a slimmed down user interface that is tightly integrated with a PBX so that video calling becomes as simple as pressing a button on a telephone, a task far less daunting to the non-technical enterprise user or senior executive.

**Figure 5. An immersive telepresence video solution with group system integration (right screen).**



Telepresence systems and room design concepts have proven how good the conferencing experience can be when proper attention is paid to lighting and sound details. The success of the telepresence segment supports the argument that the user experience matters.

One notch below telepresence sits the mainstream of the videoconferencing market – systems designed for conference room use. Over the past four years, this market segment has been transitioning to high definition video, larger screen formats, and rich, wideband audio, thereby providing users with a much richer meeting environment. Most conference room systems today run over highly reliable, low cost broadband IP networks, enabling higher performance videoconferencing.

For personal videoconferencing applications, many enterprises have deployed “executive systems,” which are all-in-one desktop solutions that combine the performance of dedicated videoconferencing hardware with packaging designed for individual use rather than for the conference room. Other personal solutions are based on using a video phone or a PC platform for videoconferencing. A webcam with the appropriate software can easily convert a PC into a visual communications platform that can go anywhere and use any wired or wireless network. Advances in PC hardware and video software now enable HD to the desktop while also providing solutions for the mobile worker.

**Figure 6. A high definition executive video system (left) and a video kiosk (right).**



New form factors are also appearing in videoconferencing. A form that is emerging in banks and mobile carrier service organizations provides a high definition kiosk-type video device that allows clients to interface with a customer service representative over video. In this type of solution, expertise can be leveraged by allowing highly trained employees to serve customers in many locations, not just the office where they are physically located.

There has also been significant

discussion of videoconferencing on the mobile world; thus far, however, mobile video is limited to geographical areas where 4G cellular networks exist, and even there, it is restricted in scope. That may change when the iPad and similar devices soon to enter the market are equipped with good video cameras embedded in both sides<sup>2</sup> of the device's bezel.

While there are many disparate types of video devices, each with a primary use, organizations need video from all of these devices, regardless of the differences in device type, resolution, and display size, to integrate and interoperate with each other and with other communications capabilities found elsewhere within the enterprise. To even hope for such interoperability and true unified communications, it is imperative to consider video solutions that adhere to industry standards. By selecting standards-compliant products, executives and managers can be confident that their systems will be able to interoperate.

## **Working Smarter Not Harder**

It's sad but true: most companies do not get near the leverage from their investment in video technology that they could and should get. As a case in point, we recently surveyed<sup>3</sup>, 40 videoconferencing managers asking them if they had any plans to unify their group video solutions with the enterprise PBX for call control. Surprisingly, not one had any immediate plans to integrate video with the rest of the enterprise communications infrastructure. In a more encompassing unified communications survey of 100 end user companies, mostly from large enterprises, respondents were asked how important it is on a scale of 1 to 10 to integrate video

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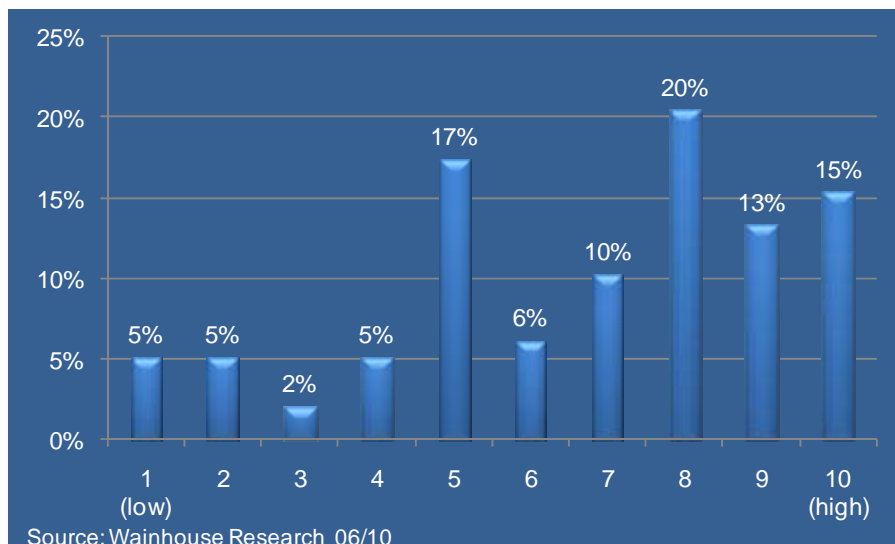
<sup>2</sup> A video camera is needed on both sides of a smart phone or iPad-like device. With the back camera people can take photos and with the front camera pointing at themselves, they can participate in videoconferences.

<sup>3</sup> The event was a Wainhouse Research Point 9 event co-located with the Wainhouse Research Summit, held in Boston, MA in July 2009.



with the rest of the unified communications solution (10 being highly important and 1 being of low importance).

**Figure 7. End user data signifying the importance of integrating video with enterprise call control on a scale of 1 – 10 with 10 being highly important and 1 being of low importance. (N=99)**



These results are very distributed more heavily to the right, signifying end users believe video integration with enterprise call is important; however, the clear implication is that in most enterprises siloed strategies prevail for voice and video, and by extension for instant messaging and presence, conferencing,

and unified messaging. As a result, the way people use these communications and collaboration capabilities is disjoint, uncoordinated, and inherently inefficient.

We believe there is a better way.

### ***Unified Communications Focuses on the User Experience***

While the term “unified communications” may connote different things to different people, a few underlying characteristics emerge in UC solution:

1. Presence is fundamental, and
2. Capabilities are joined by some type of an intuitive unified interface.

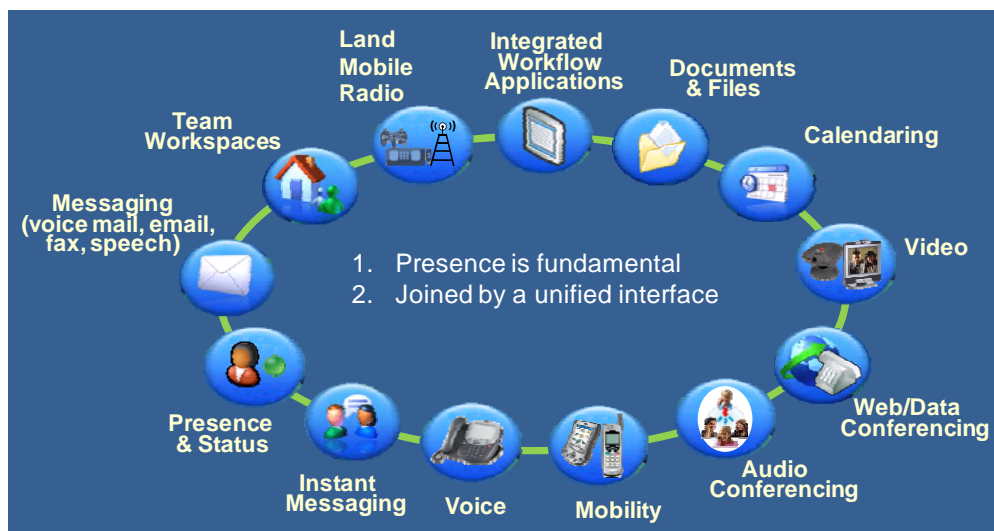
With these two fundamental characteristics, the actual features and functions that comprise a unified communications solution can be deployed gradually in an evolutionary fashion, or added all at once, in a “big bang” deployment . In either case, as functionality is added, it immediately becomes unified with other capabilities in the solution, eliminating communications silos.

Prior to these unified communications solutions, the end user experience was disjointed and awkward. People were required to decide in advance which communications modality they wished to use (voice, email, IM, web, video) and to manually set up communications channels independently and separately for each. Typically, those channels could not be changed or augmented while the meeting was in progress.

Contrast that solution to a unified communications paradigm in which users may choose to start with any communications modality they wish, and then add any and all other modalities as

needed, seamlessly. These kinds of unified communications capabilities can be integrated into nearly any business process or situation where human interaction or intervention is required.

**Figure 8. In a unified communications environment, silos disappear as capabilities are joined together through a common, presence-enabled interface.**



A well-designed and implemented unified communications system significantly reduces multiple communications mechanisms in favor of more rapid, ad hoc, one-on-one and group meetings facilitated by

presence, IM, voice, video, and web conferencing capabilities. These systems integrate real-time media with collaborative services and any devices a person chooses to use within the context of a workflow application.

### ***Unified Communications Compliments Virtualization and Centralization***

Unified communications complements the trend toward centralized telephony call control and virtualization seen elsewhere in the market. Many enterprises are seeing significant efficiency improvement and real cost savings as communications silos are removed through PBX consolidation coupled with integrated communications and collaboration capabilities when possible. Integrating an organization's video capabilities with other communications infrastructure is a natural evolution toward more effective use of the company's communications resources as well as more efficient operation of the overall communications system. Integrating video with the unified communications infrastructure provides at least four tangible benefits:

1. Management overhead is reduced because there is only a single system to run and maintain versus multiple siloed systems. In a converged world where telephones, video units, and collaborative solutions are

Four key advantages companies realize when integrating video with the rest of the UC infrastructure:

1. Reduced management overhead.
2. Consistent user experience and interface when using phones or video.
3. Video inherits the quality of service capabilities call control manager offers.
4. It is easier to embed UC capabilities including IM/presence, voice, audio and video conferencing into line of business applications.

tightly integrated, this strategy is relatively easily deployed.

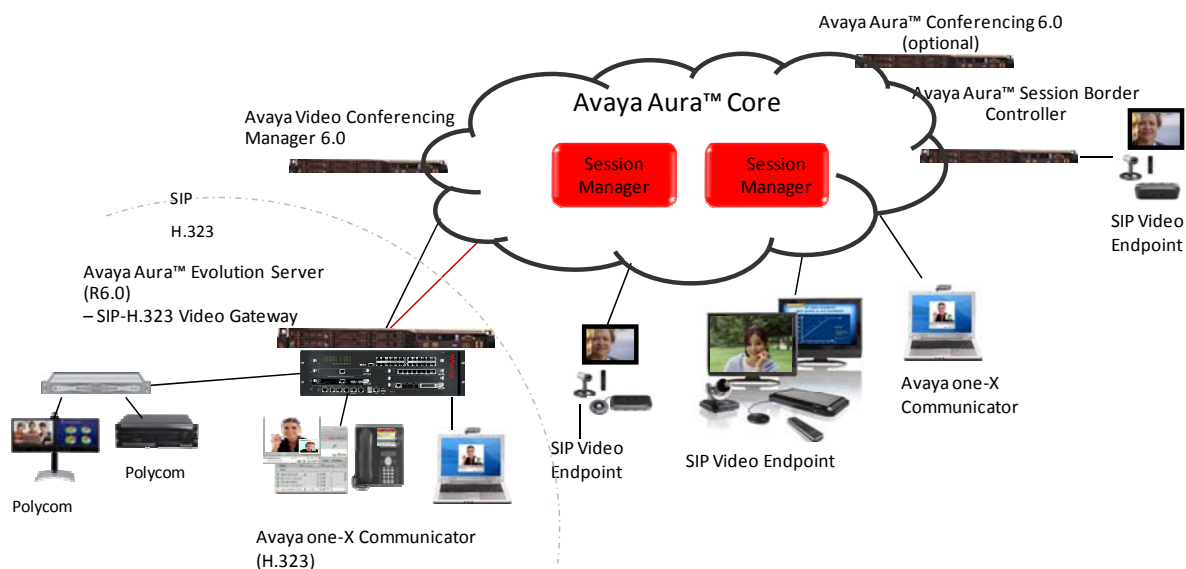
2. People operate telephones and video units in the same manner. Dialing is identical regardless of where the video unit or phone is located - at the desktop, while mobile, or in the conference/telepresence room - they all work the same way. While it is true that the dialing interface may be different between a 4x3 touch pad on a telephone versus a group video unit handheld remote, the simple fact remains that to dial, a person simply presses the proper digits on either interface and the call is correctly placed and automatically routed by the common call routing server.
3. When video is integrated into the enterprise call control mechanism, video endpoints automatically inherit the PBX's quality of service management capabilities, such as bandwidth management and call admission control. Audio calls can be instantly enhanced to include video in those times when a face-to-face discussion is warranted, and video can be throttled back if there is sudden bandwidth deterioration. Furthermore, video endpoints can also be included in a consistent dialing plan and directory versus creating a separate directory and dialing mechanism just for the video units.
4. Enterprises that tightly integrate video with the call control mechanism have the ability to blend multiple communications modes into their business applications. Using Web 2.0 programming capabilities, developers can imbed communications capabilities including IM/presence, voice, audio and video conferencing into the line of business application without the need to know the underlying details of how the communications infrastructure works.

## **Architecting a Unified Communications Solution**

As enterprises plan for unified communications and a migration away from siloed voice, video, and collaboration capabilities, it is important to consider both future directions as well as past purchases. The future for unified communications architectures is clearly a centralized, and possibly virtualized, SIP-based communications infrastructure. All of the major vendors and service providers are moving to this architecture. However, organizations already have hundreds or thousands of phones and video units that are still fully functional yet not fully depreciated. A compelling solution needs to be architected so that it can take an enterprise into the future while allowing it to use both emerging and legacy voice and video devices.

One such solution is Avaya Aura™, a SIP-based call control and routing engine designed to provide session control for all communications interactions including legacy H.323 phones and video devices. Aura has been architected to reside in the enterprise cloud, delivering a centralized and unified mechanism for voice, video, collaboration, IM, and presence-based communications.

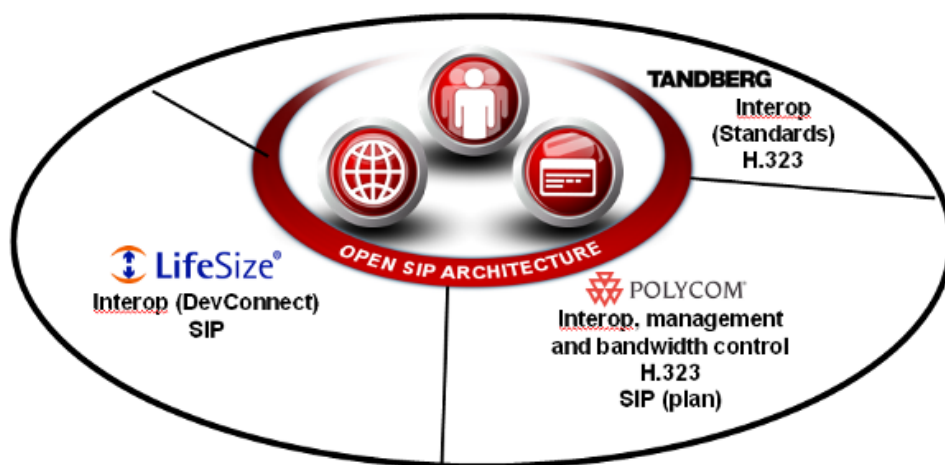
**Figure 9. The Avaya Aura™ communications architecture.**



All endpoints, whether they are audio telephones, dedicated executive video displays, group video systems, or immersive telepresence solutions register with Avaya Aura. This solution supports SIP natively and legacy H.323 devices join through the SIP-H.323 video gateway. Connectivity to H.320 systems can be accomplished using a third-party gateway or multipoint video bridge.

**Figure 10. Avaya’s open standards, SIP-based architecture allows its video endpoints to interoperate with Polycom, TANDBERG, LifeSize, and other standards-based video solutions.**

With Aura, participants using a variety of different endpoint types can dial into any video meeting. Desktop video seamlessly integrates with and can connect to standard definition, high definition, or telepresence video



systems. Each video endpoint or Meet Me conference is given an enterprise telephone extension, and people connect systems together simply by dialing the telephone number associated with the unit they wish to call or the conference they wish to join.

Should enterprises wish to embed unified communications capabilities into their line of business applications, the Avaya Agile Communications Environment (ACE) provides a Web 2.0 programming interface that enables them to do so. With ACE, programmers use high-level XML programming constructs without the need to understand the details of how Aura's sophisticated real-time communications capabilities work; programs make the communications function calls and Aura takes care of managing the communications sessions.

### **Avaya's Video Services Wrapper and VNOC Services**

Unified communications, in general, and video in particular is challenging for many organizations to deploy, monitor, and maintain. Therefore, in addition to offering a complete line of Avaya-branded video endpoints, Avaya also provides a full services wrap to help enterprise's more fully utilize and manage video-enabled unified communications solutions.

**Table 1. Services available through Avaya's video network operations centers.**

<b>Video Consultancy Services</b>	<b>Video Conferencing Services</b>	<b>Unified Communications Services</b>	<b>Global Support</b>
Network audits	Pre-configured and tested endpoints	Screen/Document Sharing	7x24x365 Operation
Solution Design	Proactive Monitoring	Meeting Recording	4 Video Network Operations Centers
Program Management	Universal Bridging	Outlook Integration for Meeting Scheduling	Multi-lingual support
	Session Security		Support for voice, data, and video
	Concierge, Reservation, and Help Desk		

Avaya's video services wrap focuses on the end user experience, ensuring that all aspects of the solution are always on, connected, and ready when meetings are set to start. These services ensure that both ad-hoc meetings and scheduled meetings work on time, every time.

One of the challenges many organizations face is integrating video from different device types together in the same meeting. Avaya's video network operations center (VNOC) has the capability to integrate video from 21 different video devices and device types in the same meeting. For example, at least half of the owners of telepresence units need to include, at one time or another, an individual contributor who is working on a PC. For some telepresence solutions, this is very challenging. Avaya's VNOC does this every day and makes it simple to include not just PC video solutions, but emerging smartphone video solutions, into telepresence and group meetings.

Avaya's VNOC is different from other managed video services; in many managed services, only the high end telepresence or expensive group deployments have concierge and white glove services; with Avaya's VNOC, help desk, concierge and white glove service is available to

everyone. This assures that people who have the need for video and video services but limited access to telepresence suites get the same level of service those with telepresence suites get. Broad, equal opportunity video services are key for successful group and desktop deployments, whether provided internally by the enterprise, or through video service provider like that offered by Avaya's Video Network Operating Center.

Avaya has four VNOCs located in Ottawa, Canada; Maidenhead, UK; Raleigh, North Carolina, USA; and Beijing, China. These VNOC services are so reliable that Polycom uses Avaya's video services to run its own video demonstration centers worldwide. Avaya sells its VNOC services both direct and through partners. Polycom resells Avaya's VNOC service through its own channel.

## What do Customers Say?

Avaya has helped customers deploy over 25,000 video endpoints, and a number of these have implemented Avaya's video telephony solution, finding real benefits like those mentioned above.

**Figure 11. A patient and medical staff member using Avaya's video telephony solution.**



### **Multinational Insurance Company**

For example, a large Asian insurance company relies heavily on video, both group and personnel, to do its business. This multinational company has a culture of interpersonal interaction between its managers and its employees. Due to the frequent travel some managers are required to do, planning, decision making, and company execution has been delayed because managers have been unable to meet face-to-face with their teams. This company installed Avaya's video telephony solution which lets managers, securely, over a VPN connection, meet in person with their teams and see their faces and their body language. Managers use the Avaya one-X Communicator on a laptop while the team may be in one or

more conference rooms or connected by their own one-X Communicator. Managers simply dial a phone number associated with the conference room, and the video connection is immediately made. For this particular company, video telephony has made it easy for managers to stay in contact with their teams using the personal intimacy video offers.

### **Harborview Medical Center**

Harborview Medical Center in Seattle, Washington uses Avaya's Communication Manager and Polycom® executive video units in examination rooms to provide interpreters for non-English-speaking patients. Harborview is the only public hospital in Seattle, serving a large number of patients for which English is not the primary language. These patients require interpretation for accurate diagnosis and treatment.

Harborview initially maintained a staff of interpreters who physically accompanied patients needing translation to the examination room. These interpreters could serve a maximum of eight patients a day when doing so in person. Video Interpretation has allowed Harborview Medical Center the ability to interpret for more patients per day as well as increasing their efficiency

To improve efficiency, the hospital tried placing interpreters in a telephone call center. Doctors needing an interpreter would call the call center and request a translator for a particular language. Harborview discovered that having interpreters available over the telephone did not work well because the interpreter could not see the patient's facial expressions or where the patient indicated the ailments were. The patient would say, "I hurt here.", and the interpreter could not see where the patient was pointing.

**Figure 12. Doctors select the language and place the HD video call using the Polycom handheld remote. The call goes to the Avaya Expert Agent Contact Center where the next available interpreter with that language skill responds.**



Harborview solved this dilemma by placing high definition video units on portable carts which allowed interpreters enter the exam room over video. When a doctor needs an interpreter, the video unit is wheeled in, and the doctor is able to select a language from an on

screen menu and place a video call to the video call center. The doctor and patient can see the interpreter, giving both confidence and a personal relationship with the interpreter, and the interpreter can see where the doctor is examining or wishes to examine and relate what both doctor and patient are saying to each other. This solution is tied into Avaya's Communication Manager and the Avaya Contact Center solution. Harborview reports that video interpreters can

handle three times as many patients in a single day as they could when they accompanied the patient in person.

### **Mobile Operator**

Another company, a US mobile operator, has also deployed Avaya's video telephony solution. However, in this instance, the company has installed video kiosks in its mobile phone stores that reach back into a video contact center. To keep the video kiosks inexpensive, the company is using either Avaya's one-X Communicator or IP Softphone as the video endpoint in the kiosk. When a customer comes into the store, he or she can be immediately connected to a specialist for a particular type of phone or a specialist that can help them solve a particular type of problem or answer questions. The back end of this solution interfaces to Avaya's Communication Manager and Contact Center software. Customers can see the agent, but more importantly, the agent has a video repository containing useful video clips that can be sent back to the customer which will directly guide the customer, showing them by video how to resolve a particular issue with their phone or service. This solution is in approximately 150 stores in the U.S, and it is being rolled out to more every month.

### **3G Video Call Center**

Our final example is an extension of the video call center for use by callers located in areas where 3G cellular networks exist that can support live two-way video. Avaya has extended its contact center self-service solutions to support live one-way video from an Interactive Voice and Video Response system to the caller to support self-service applications.

**Figure 13. Video streamed back to the 3G mobile phone may be menu item selections, pictures, live streams, or any other video content the call center agent chooses.**



It has also extended its contact center agent solutions to support a two-way live video conversation between a mobile caller and a contact center agent. This solution is currently being used in some trial deployments in Europe and the Asia Pacific regions. Video to the mobile handset has relevance in customer service applications, maintenance, and any other activity in which a mobile handset user will benefit from the ability to view an interactive menu, a live agent, or application and recorded content shared by an agent.

## **Conclusions**

As organizations roll out more and more video, whether on the desktop, in group videoconferencing rooms, in telepresence suites, over video kiosks, or through video-enabled smartphones and handheld devices, video is becoming pervasive in the enterprise. Companies need a consistent user experience across devices as well as a means for tying together all of these devices and capabilities within the fabric of the enterprise's unified communications deployment. Video brings a



dynamic and life to a unified communications deployment unmatched by any of the other UC capabilities in the solution.

Enterprises will be well served by considering how they will organize, manage, and integrate video within the rest of the organization. A consistent mechanism for call control which includes both voice and video seems intuitive, yet it remains elusive for many companies.

Avaya Aura is a single session management and call control platform designed to unify voice, video, and conferencing mechanisms within the enterprise while providing a consistent user experience and coherent management controls across devices and capabilities. Aura can interface with the new line of Avaya video endpoints as well as standards-based video solutions from other vendors, delivering the consistency in user experience and management capabilities organizations seek. Avaya's offering also includes managed video services through the company's four geographically dispersed video network operations centers.

Enterprises should consider how they will unify their voice and video systems to make them easy to use, easy to manage, and easy to integrate with the rest of the capabilities available in a unified communications solution. A consistent user experience is important, standards-based interoperability is critical, and simple integration with line of business and workflow applications make for a winning strategy in any organizations unified communications strategy.

## About the Author

**E. Brent Kelly** is a Senior Analyst and Partner at Wainhouse Research specializing in unified communications applications and enabling infrastructure. Brent has authored numerous reports and articles on unified communications including mobile unified communications solutions, detailed reviews of Microsoft's UC strategy as embodied by Office Communications Server, IBM Lotus Sametime and IBM Lotus' UC<sup>2</sup> Strategy, and Telephony-Based Unified Communications, which is a thorough description of PBX vendor unified communications offerings. He has also written reports about migrating to IP communications, video network service providers, and the collaborative reseller channel. Dr. Kelly has authored articles for Business Communications Review Magazine, NoJitter.com, and he has taught workshops in North and South America, Europe, and Australia as well as at major industry events such as VoiceCon. With over 21 years experience in developing and marketing highly technical products, Brent has served as an executive in a manufacturing firm where he developed and implemented a manufacturing, marketing, and channel strategy that helped land national accounts at major retailers. Previously, he was part of the team that built the devices Intel used to test their Pentium microprocessors. He has also led teams developing real-time data acquisition and control systems, and adaptive intelligent design systems for Schlumberger. Brent has worked for several other multinational companies including Conoco and Monsanto. Dr. Kelly has a Ph.D. in engineering from Texas A&M and a B.S. in engineering from Brigham Young University. He can be reached at [bkelly@wainhouse.com](mailto:bkelly@wainhouse.com).

### ***About Wainhouse Research***

Wainhouse Research, [www.wainhouse.com](http://www.wainhouse.com), is an independent market research firm that focuses on critical issues in the Unified Communications and rich media conferencing fields. 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. Wainhouse Research publishes a variety of reports that cover the all aspects of rich media conferencing, and the free newsletter, *The Wainhouse Research Bulletin*.

### ***About Avaya***

Avaya is a global leader in enterprise communications systems. The company provides unified communications, contact centers, and related services directly and through its channel partners to leading businesses and organizations around the world. Enterprises of all sizes depend on Avaya for state-of-the-art communications that improve efficiency, collaboration, customer service and competitiveness. For more information please visit [www.avaya.com](http://www.avaya.com).