The Business Case for Pervasive Video Conferencing

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December 2012

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Dimension Data
Introduction

Organizations around the world depend on video conferencing to help them conduct business in a cost-effective, efficient, and productive way. Traditionally, video conferencing was used to reduce cost by reducing business travel. Over time, savvy companies recognized that the use of video can not only decrease expenses, but also allow them to operate more effectively.

The proliferation of the Internet, the “bring your own device” (BYOD) craze, and the globalization of business have changed the way people live, work, and communicate. Today, success is not about having more offices or more people. It is about making the right people available at the right time and in the right way.

This study highlights how organizations can take video conferencing to the next level by making it “pervasive.” To make video pervasive, organizations must make video accessible and convenient to partners, peers, and clients around the world, and use video within their everyday workflow. Only then can organizations reap the true benefits of video conferencing.

Video Conferencing - Old School

Despite 25 years of technology enhancements and user experience improvements, many enterprise users still remember video conferencing the way it used to be – unreliable, inconvenient, and expensive. Due to the high cost and complexity, video conferencing was an executive-only perk in many organizations. Even today, some enterprise managers avoid video conferencing because of failed meetings over 10 years ago!

Old school video conferencing focused on …

- Group video systems installed in dedicated video meeting rooms
- Dedicated videoconferencing equipment using custom-built hardware
- Using dedicated ISDN circuits (and in some cases overlay IP networks) to host the video calls
- Conducting formal “scheduled” video meetings
- Communicating with mostly internal folks (vs. partners, clients, prospects, etc.)

Historically, the business case for video conferencing focused on the ability to replace some business travel with video meetings; a business practice that generated easy to calculate travel savings and allowed CFOs to calculate the ROI of investments in video conferencing. Fortunately, today’s video conferencing is NOT your grandfather’s videoconferencing.
Video Conferencing - Today

During the last 20 years, the workplace has changed significantly. Years ago, people tended to work with other folks in the same physical office. As issues arose, the team would meet in the conference room or at the water cooler for a discussion. Today’s work environment, however, is comprised of partners, peers, and clients around the world. As a result, the water-cooler meetings of yesterday have become the virtual meetings of today, and global communications and collaboration have become key elements of corporate success.

In order to address the changing business requirements, video conferencing has also evolved. For example, the majority of video calls today use IP instead of ISDN, and almost all group video conferencing systems sold today support HD video resolution.

Today, companies around the world use video conferencing to make business more efficient and productive. Two examples of how video conferencing is being used today are described below.

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Meetings</td>
<td>Many companies conduct their recurring team meetings over the phone (audio conferencing) and include some form of content sharing. In video-enabled companies, some of these meetings are conducted using video conferencing, which allows team members to meet “face to face” without the need for travel. By adding visual cues to the session, the participants are able to communicate more easily, bond more quickly, and conduct their business more effectively.</td>
</tr>
<tr>
<td>Client Meetings</td>
<td>Instead of flying to see a client in-person four times a year, a sales representative might visit a client in-person twice a year and virtually using video conferencing twice a year. This saves travel expenses and keeps the sales person in the office calling on customers and generating business.</td>
</tr>
</tbody>
</table>
The above are great examples of how organizations can realize benefits from the use of video conferencing. However, these organizations are missing the real opportunity associated with visual collaboration – the ability to change how they do business. For example, in the client meeting example above, video conferencing was used to decrease cost and save time. A better use of video conferencing would have been to meet with the client more often in order to strengthen the client relationship.

The reality, however, is that the majority of businesses today are using video conferencing to generate cost savings, to improve workforce productivity, to provide employees with an appropriate work/life balance, and for a wide array of additional benefits such as enhanced safety and a reduction in their company’s CO2 footprint. They are not, however, using video to transform their organization.

It is also interesting that despite industry hype about mobility and B2B videoconferencing, the results of a December 2011 Wainhouse Research survey of ~ 300 video conferencing end-users (see charts below) shows that the majority of enterprise video conference calls today are somewhat traditional in nature and …

- Include only internal locations (~35% of video meetings today include at least one external site)
- Do NOT include mobile video conferencing users (~16% of enterprises have deployed mobile VC)

The takeaway here is that despite some highly publicized exceptions, the vast majority of enterprise video conferencing today involves group video conferencing systems installed in dedicated meeting rooms, conducting scheduled meetings with internal staff, in order to avoid business travel or add additional impact to phone conferences.

Still, video conferencing provides an exceptional package of documentable benefits. The way videoconferencing is used, however, is currently more evolutionary than revolutionary, and more supportive than transformative.
Video Conferencing - Tomorrow

For obvious reasons, some sects of the industry are talking about tomorrow’s video conferencing as if it was in use by the masses today. Press releases and case studies cite examples of how companies have “transformed their business by deploying 10 immersive telepresence systems,” or “changed their business by visiting clients monthly instead of quarterly thanks to video conferencing.” The reality, however, is that these are rare examples of companies using today’s video conferencing in exceptional, but not transformative ways.

Tomorrow’s video conferencing user experience would best be described as “pervasive”. The term pervasive video describes an environment in which video is available to basically everyone – regardless of their physical location, the device they are using, and their network connection. A growing number of vendors, including Avaya, Cisco, Microsoft, Polycom, and others, offer solutions that make video available to users at their desks, on their PCs and notebooks, and on their on their mobile devices.

The chart below from Wainhouse Research’s 2012 survey of 249 video / UC channel partners highlights the strong interest in deploying and using visual collaboration across the enterprise today. As shown, 89% of enterprises are interested in integrating video conferencing with their telephony environment, 97% of enterprises are interested in integrating video conferencing with their UC platforms, and 98% of enterprises are interested in deploying mobile video conferencing to their user base.

Customer Interest in Various Solutions - Next 2 years

Figure 4: Results of Wainhouse Research Channel Partner Survey (Q3 2012)
Once video is available “to the masses” including staff, clients, partners, peers, and even consumers, video conferencing can be used for empowerment and transformation instead of travel avoidance and productivity boosts. It will enable organizations to do new things that would be physically impossible or prohibitively expensive without the use of video conferencing. These are just some of the benefits of making video pervasive within an organization.

The Business Case for Pervasive Video

Pervasive video removes the element of location from any business situation by allowing the involved parties (staff, clients, partners, peers, consumers, etc.) to be virtually present on a moment’s notice. For organizations that embrace pervasive video, success no longer depends on where their resources are located. Success now depends on bringing the resources to bear to make a difference for the customer and provide a competitive edge for your organization. Common use cases / benefits include:

<table>
<thead>
<tr>
<th>Application</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-branch/in-store remote advisors</td>
<td>Adding video terminals to specific departments in hardware stores to provide access to a pool of shared remote experts with relevant experience.</td>
</tr>
<tr>
<td>Adding resources to meetings in client offices</td>
<td>Hosting a video meeting using a salesperson’s tablet and including a team of remotely located project managers and developers in the discussion.</td>
</tr>
<tr>
<td>Expanding the point of sale footprint</td>
<td>Adding video capabilities to an ATM machine in a Wal-Mart to answer customer questions and offer additional related services.</td>
</tr>
<tr>
<td>Enhancing the contact center experience</td>
<td>Equippping operators with personal video to enable face-to-face discussions with customers in order to resolve situations more quickly and improve customer retention.</td>
</tr>
<tr>
<td>Empowering remote workers</td>
<td>Providing teleworkers with high quality video to provide the benefits enjoyed by in-person workers without the real-estate footprint cost.</td>
</tr>
<tr>
<td>Creating the “no-office” company</td>
<td>Using video to make working from home the norm for all employees while managing people and processes as if they were in the same office.</td>
</tr>
<tr>
<td>Super-charging distance education programs</td>
<td>Using video to provide a face-to-face experience between students and instructors in various locations, adding variety and new additional dimensions to the educational process.</td>
</tr>
<tr>
<td>Creating the “no-building” school</td>
<td>Similar to the no-office company, this application uses video to create a school with no physical footprint, thus reducing overhead cost and allowing a greater portion of tuition to go toward student education.</td>
</tr>
<tr>
<td>Expediting the hiring process</td>
<td>Using video to expand the pool of candidates, include additional internal staff (no matter where they are located) in the interview process, recording interviews for playback by other stakeholders, and expediting the overall hiring process.</td>
</tr>
<tr>
<td>Leveraging distributed staff management</td>
<td>Enabling managers to interact with their staff as if they were in the same facility, conducting ad-hoc face to face meetings to discuss even less than urgent issues. The result is tighter management, improved efficiency, and increased HR retention.</td>
</tr>
</tbody>
</table>

Figure 5: Examples of Use Cases / Benefits of Pervasive Video
Depending on the situation, the benefits of each of the above can be exceptional – both financially and otherwise – as described in the real-world case study below which focuses on the use of pervasive video to improve employee retention.

**Case Study – Pervasive Video for HR Retention**

This case study highlights a real-world HR retention scenario from a WR consulting client with ~ 2,500 employees distributed across a number of locations in North America. The table below shows the workforce distribution and base salary data for this organization.

<table>
<thead>
<tr>
<th>Type of Worker</th>
<th>% of Workforce</th>
<th>Base Salary</th>
<th>Total Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average front-line worker</td>
<td>90%</td>
<td>US $60k</td>
<td>US $75k</td>
</tr>
<tr>
<td>Average manager</td>
<td>7%</td>
<td>US $82k</td>
<td>US $102.5k</td>
</tr>
<tr>
<td>Average senior manager</td>
<td>2.5%</td>
<td>US $120k</td>
<td>US $150k</td>
</tr>
<tr>
<td>Owner / partner / MD</td>
<td>0.5%</td>
<td>US $160k</td>
<td>US $200k</td>
</tr>
</tbody>
</table>

*Figure 6: Sample Enterprise - Workforce Information*

The company’s average turnover is ~ 15% per year, and the company estimates the cost per turnover event to be approximately 70% of the base salary for that position as described in the table below.

<table>
<thead>
<tr>
<th>Employee Turnover Cost Element</th>
<th>Cost (as a % of Base Salary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Termination-Related Costs</td>
<td></td>
</tr>
<tr>
<td>Severance</td>
<td>0%</td>
</tr>
<tr>
<td>Unemployment benefits / expenses</td>
<td>10%</td>
</tr>
<tr>
<td>Replacement-Related Costs</td>
<td></td>
</tr>
<tr>
<td>Recruitment cost</td>
<td>25%</td>
</tr>
<tr>
<td>Training cost</td>
<td>10%</td>
</tr>
<tr>
<td>Learning curve cost (for lost productivity)</td>
<td>25%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>70% (assuming no severance is paid)</td>
</tr>
</tbody>
</table>

*Figure 7: Sample Enterprise - Employee Turnover Cost Calculation*

Based on this detail, the company’s annual turnover cost is US $15.3M. Pervasive video can be used for frequent face-to-face meetings between managers and employees, improving manager/employee relations, and giving the employee the sense of community that resources tend to lose when they work remotely (e.g. on the road, from home) or meet with people on the phone instead of in person. This increased sense of “connectedness” gives the worker the feeling that they belong, resulting in increased employee satisfaction and reduced turnover. If the use of pervasive video decreases turnover by only 10% (from 15% to 13.5% per year), the company would save more than US $1.5M per year in turnover related costs!
These calculations do not reflect the other “soft” benefits associated with decreased turnover including:

- time saved by hiring managers and the HR department
- decreased legal exposure related to employee terminations
- ability to retain relationships with fellow employees and customers
- less disruption in the workplace

In addition, better-managed employees are likely to be more productive and provide greater value to the firm. And this is just one of the use cases for pervasive video.

It is also worth noting that once the video environment is up and running, it can be used for other high-value applications such as HR recruiting and sales training.

### The Requirements for Pervasive Video

Changing video conferencing from simply “available”, which is the enterprise norm today, to truly pervasive entails more than just enabling users to place video calls from their PCs. It is about bringing video to the users, and bringing the users to video. The requirements for pervasive video vary by company but typically include:

**Making video available everywhere** - in order to be pervasive, video conferencing must be available to users wherever they are, on whichever device they are using, and on whatever network they are connected to at that time. Note – to make this happen, users must have ample bandwidth, video-capable devices, and in some cases additional accessories (e.g. headsets, webcams).

**Making video an easy choice for users** – to be pervasive, video must be available to users on the devices THEY use every day. Device selection is increasingly based on personal choice (BYOD or “bring your own device”) vs. an IT mandate, and pervasive video must be available across both consumer-purchased and enterprise-provided devices. In some cases, a user’s location may determine how the meeting is conducted. For example, when a user is in the office, he may choose to go to a video meeting room or use his desktop. When working from home, he may use his personal computer or even video-enabled television. While on the road, he may use his laptop, tablet, or smartphone, or perhaps a public computer in a hotel business center or client’s office. Alternatively, the type of meeting may determine the location and technology used. For a quick touch-base meeting, a user might opt to use his mobile device. For process-related discussions, the user might prefer a PC-based session. And for longer, high profile, critical sessions, a dedicated group video room or immersive suite might be appropriate.

**Making video inclusive vs. exclusive** – traditionally, due to network and security concerns, the vast majority of video calls have been between internal locations and staff. As a result, one of the greatest benefits of visual collaboration – the ability to meet with clients and partners face to face – has remained largely unrealized. Pervasive video is accessible to both internals and externals, and the same tools used to communicate with peers can be used to communicate with those outside the firewall. A successful B2B (business to business) or B2C (business to customer or consumer) video program requires that video be accessible, convenient, easy to use, and free for customers and partners.
Making video a part of the workflow – making video pervasive is not just about making video available from various devices. Video must be easily accessible from key business applications. Tight integration with key business applications creates the strongest potential for business transformation, making video a natural part of the workflow within an organization. For example, while reading a word document or spreadsheet, users should be able to easily contact the authors of those documents without the need to launch additional applications, change devices, or manually look up contact details. Enabling video communications via “click to communicate” from within a user’s workflow makes video not only the most effective, but also the fastest and easiest way for the user to communicate.

Making people “video-available” – in the past, video was only available in dedicated conference rooms in key enterprise locations. In recent years, video-savvy organizations have deployed personal video to specific portions of their user base. In order to empower an organization and enable a new way of doing business, video must be available to and used by everyone. This is a perfect example of Metcalf’s law, which states that the value of a telecommunications network is directly proportional to the number of connected users. Until enterprise users know that they can reach anyone by using video, video will not become the user’s de facto communication method. The democratization of video is an absolute requirement before video can become pervasive within an organization.

Preparing for the Future of Video Conferencing

Enterprises should understand that pervasive video will not happen in a vacuum. It is the result of a well-planned, organization-wide process of technology, cultural, and workflow updates designed to change how business is conducted today. Organizations looking to prepare for and benefit from pervasive video should focus on the following:

- **Know the end-user** – pervasive video is as much about culture and user preference as it is about technology. A solid understanding of the user’s communication habits, frequently used business tools, and preferred devices is key to deploying a pervasive video experience.

- **Know your business use cases** – pervasive video is flexible enough to empower a wide range of valuable applications. This flexibility can also generate confusion. Organizations should consider the best ways to leverage pervasive video and focus on those specific applications.

- **Focus on the user experience** – the only way to make video pervasive is to provide a user experience strong enough to empower new applications. Support staff should pay careful attention to the quality of the user experience for users around the world.

- **Don’t forget the network** – pervasive video requires a consistent and reliable user experience, which depends on a well performing network.

- **Plan for scale** – in order to be pervasive, video must be available throughout the organization and beyond. If users cannot reach those they seek over video, they will seek other means.

- **Embrace the BYOD movement** – the days of IT controlling the supported devices in the enterprise are long gone. Today, users expect (and in many cases need) access to corporate resources using their preferred consumer devices and applications. This is clearly a challenge, but from the perspective of pervasive video, this is an opportunity.
• **Make video commonplace** – once pervasive video has been deployed, internal champions should be identified who will not only embrace video, but whose very use of video will motivate others to do the same.

• **Accept and embrace the “new norm” for technology planning** – in the past, organizations would define and strictly adhere to 5-year technology roadmaps and associated budget cycles. The cadence at which applications are released today, however, does not support this rigid planning method. Instead, organizations should budget as follows:
  
  o **Architecture** – organizations should plan for up-front and ongoing investments in communication architectures including network hardware, network services, and call control and signaling platforms.
  
  o **Applications** – as new applications arrive, organizations should assess their value proposition in real time and deploy approved capabilities as quickly as possible.

Pervasive video will empower devices, applications, and workflows that have yet to be invented. Forward thinking enterprises should plan for these eventualities and act accordingly.

**Vendor Highlight – Dimension Data**

The progression from old-school video conferencing to today’s video conferencing and into tomorrow brings with it a range of challenges and specific requirements – on a global scale. As the largest systems integrator (SI) of UC solutions in the world today, Dimension Data (the sponsor of this study) is exceptionally well suited to support the collaboration requirements of enterprises around the world.
Dimension Data has the scale (more than 14,000 employees), expertise (more than 600 technical certifications), and global footprint (presence in more than 114 countries) to support the visual communications needs of even the largest enterprises.

Unlike many solution providers that treat video conferencing as an isolated technology to be sold and supported as necessary, Dimension Data views video conferencing as one of the key elements within a greater UC strategy and supports customers through the entire technology life cycle as shown below. This is especially important as organizations prepare their environments for pervasive video.

The chart below highlights some of the key elements within Dimension Data’s offering. As shown, the available services include consultancy, strategic planning, solution deployment, and a range of managed services covering not only visual communications, but also UC.

In Q4 2010, Dimension Data acquired mvision, a UK integrator, network, and managed video service provider. Since that time, Dimension Data has integrated the mvision technology and methodology into its overall service fabric. As a result, the company is able to provide video managed services on a global basis, across numerous networks, in single and multi-vendor environments, for users in conference rooms, on PCs, and on mobile devices.

**Conclusion**

In its early years, video conferencing was too expensive to buy and too complex to manage for the typical organization. Over time, thanks to technology advancements and cost reductions, video conferencing has earned its rightful place in thousands of enterprises around the world.
Throughout the 1990s and even into the early 2000s, the business case for video conferencing focused on saving time and money by reducing business travel. As globalization began to take root, savvy organizations recognized that video conferencing could provide additional productivity and competitive benefits. However, during this time the vast majority of companies used video conferencing as a means of doing the same things they had been doing for many years, but in a better, more efficient way.

Recently, and thanks in part to the emergence of low cost, high performance visual collaboration solutions for PC and mobile users, organizations have begun to view video conferencing as a means to change the way they do business. By making video pervasive within their companies, these organizations expect to enjoy material benefits including the ability to offer additional products and services, increased revenue opportunities, and improved client retention.

In order to make video pervasive, organizations must focus their efforts on making video cost-effective, easy to use, and reliable. In addition, video must be accessible to internal and external users (clients, partners, etc.) around the world on a wide range of devices. Only then can video become a part of an organization’s workflow and serve as a catalyst for change and transformation. Given the complexity associated with visual collaboration, making video pervasive is no easy task.

The sponsor of this study, Dimension Data, has the experience and global footprint to help organizations maximize the benefits they realize from visual communications.

Organizations seeking to make video pervasive should recognize that the planning, deployment, and management of enterprise communications is a journey, and not a sprint, and should seek the support of qualified partners like Dimension Data.
About Wainhouse Research

Wainhouse Research, www.wainhouse.com, is an independent market research firm that focuses on critical issues in the Unified Communications and rich media conferencing fields, including applications like distance education and e-Learning. 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 all aspects of rich media conferencing, and the free newsletter, The Wainhouse Research Bulletin.

About the Author

Ira M. Weinstein is a Senior Analyst and Partner at Wainhouse Research and a 20-year veteran of the conferencing, collaboration, and audio-visual industries. His prior experience includes senior positions with conferencing and AV vendors, distributors, and resellers. In addition, Ira ran the global conferencing department for a Fortune 50 investment bank. As the lead analyst of WR’s visual collaboration team, Ira’s focus includes video conferencing endpoints (mobile, desktop, group, and telepresence / immersive) and infrastructure, streaming / webcasting, and the visual communication elements within unified communications. Ira has published hundreds of articles, documents, and reports on AV and collaboration, is a frequent speaker at industry events, and regularly consults with end-users, vendors, service providers, and investment firms seeking to understand the collaboration space. Ira has been an industry analyst and consultant since 2001 and can be reached at iweinstein@wainhouse.com.

About Dimension Data

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Dimension Data is a US$5.8 billion IT solutions and services provider with a presence in more than 114 countries. Today, we help 79% of the Fortune 100 and 60% of Fortune 500 companies harness the power of technology to deliver competitive advantage. Dimension Data uses its technology expertise, global service delivery capability and entrepreneurial spirit to accelerate the business ambitions of its clients. It is also a recognized industry leader with 88 vendor and industry awards in 2011. Dimension Data is a wholly-owned subsidiary of the NTT Group. www.dimensiondata.com