What Every Business / Line Manager Needs to Know About Desktop Videoconferencing

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Table of Contents

Introduction

After years of being relegated to high priced, custom appointed meeting rooms, videoconferencing is finally moving into the mainstream. Key drivers for this growth include dramatic improvements in video quality, manageability, scalability, and affordability.

Desktop videoconferencing, in particular, has enjoyed strong unit sales growth in recent years. The reasons for this increased demand and deployment scale vary widely and include:

- Cost Effectiveness - desktop video solutions often cost only a few hundred dollars or less per user

- Strong Reach - anyone with a PC and an Internet connection can use desktop video

- Immediacy – desktop video solutions support ad-hoc, impromptu communications

- Convenience – unlike group video systems which require the users to go to the meeting space, desktop video brings the meeting to the user

Thanks to advances in both PC hardware and IP networks, desktop videoconferencing solutions have become increasingly powerful over time. Today's leading solutions support a wide range of power features including high quality video, wide-band audio, data sharing, session recording, centralized management and scalability, and integration with other enterprise systems.

Business / line managers looking to enhance the productivity, efficiency, and profitability of their organizations should view desktop videoconferencing as a compelling alternative to traditional audio calls and expensive business travel.

Desktop video has become a powerful and reliable business tool used every day by countless information workers, and has earned its rightful place as a key part of an enterprise communications strategy.

The Business / Line Manager Perspective

The real value of desktop videoconferencing lies not in the technology, but in the improved communications, clarity, and personal productivity that personal conferencing delivers for today's information workers.

Business / line managers seeking to understand the benefits of using videoconferencing should view desktop videoconferencing in the following ways:

1) as an alternative to traditional audio calls
2) as an alternative to business travel / face to face meetings

Videoconferencing as an Alternative to Audio Calls

Thanks to its accessibility, cost-effectiveness, and reliability, the telephone has earned its rightful place as the business communications workhorse for generations of workers. Savvy business professionals recognize that there are situations in which the "connectedness" and intimacy provided by an audio call are simply not sufficient. When a higher impact communication session is required, desktop videoconferencing is a compelling alternative.

Benefits associated with using desktop videoconferencing as an alternative to a traditional telephone call include:

1) More Effective Communications

Psychologists have known for decades that human beings are wired first for sight, and then for sound (and our other senses). Non-verbal communications, in the form of a person's body language (facial expressions, posture, gestures, etc.), represent an integral part of the total communications experience. Research suggests that up to 55% percent of the total information transferred during a conversation comes from non-verbal communications and cues.[1] In short, if you're not communicating visually, it's likely that key parts of your message are not getting through.

In addition, many business meetings are not effective because of a lack of focus and attentiveness of the meeting participants. Surveys indicate that the vast majority of executives either multi-task or lose focus in some way during audio sessions. The face-to-face component of desktop videoconferencing forces meeting participants to remain actively involved in the

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[1] Albert Mehrabian and Morton Wiener; Journal of Personality and Social Psychology, 1967.

communication session. Hard core multi-taskers may not appreciate this inability to "hide," but the fact is that it improves the effectiveness and productivity of meetings.

Furthermore, according to surveys from the University of Wisconsin, the Wharton School of business, and Harvard and Columbia,[2] participants in face-to-face sessions enjoy the following benefits over those attending via audio-only:

- Up to a 200% increase in the amount of information learned
- Up to a 40% increase in the speed of information absorption
- Up to a 38% increase in the amount of information retained

2) Expedited Trust Building

It comes as no surprise that people feel more comfortable and at-ease with people they know, trust, and have met in person. Unfortunately, today's distributed work environment and current focus on travel reduction and cost control has made it very difficult for people to meet in person. Desktop videoconferencing provides the opportunity to have an in-person meeting with your contacts from the convenience of your workspace.

3) Enhanced Persuasiveness

According to University of Minnesota and 3M studies, presenters in a face-to-face venue enjoy significantly enhanced powers of persuasion compared to remote presenters. In other words, sales calls and customer discussion conducted using desktop videoconferencing are likely to be more effective and successful than those conducted over the phone.

The key is that videoconferencing allows information workers to add the visual element to everyday communications and turn a phone discussion into a face-to-face meeting without the need for business travel. Desktop videoconferencing makes these benefits accessible to almost anyone.

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[2] Source: Creative Training Techniques Handbook, Robert W. Pike, 2003

Videoconferencing as an Alternative / Supplement to Travel

As an alternative or supplement to business travel / face-to-face meetings, desktop videoconferencing delivers a number of measureable benefits including:

1) Time Savings

When asked about the time lost as a result of business travel, people naturally focus on the amount of time they are actually "in transit." For example, ask a road warrior how long it takes to get from Atlanta to Los Angeles and the likely answer will be ~ 5 hours. However, the actual time in the air represents only a small portion of the actual time involved in business travel.

To illustrate this point, consider the example of a Manhattan-based sales person needing to visit an important potential client in Dallas, Texas. Such a business trip is likely to involve the following steps and time investment:

Location	Item	Estimated Time Required
New York	Plan trip / purchase tickets	0.5 hours
New York	Pack bag	0.5 hours
New York	Drive to the airport	1 hour
New York	Check in / go through security	1 hour
New York	Wait in terminal for departure	1 hour
In Transit	Fly from New York to Dallas	4 hours
Dallas	Drive from the airport to hotel	1 hour
Dallas	Drive from hotel to client's office	0.5 hours
Dallas	Meet with client	2 hours
Dallas	Drive from client's office to airport	1 hour
Dallas	Check in / go through security	1 hour
Dallas	Wait in terminal for departure	1 hour
In Transit	Fly from Dallas to New York	4 hours
New York	Drive from airport to home	1 hour
New York	Unpack bag	0.5 hours
TOTAL TIME		**20 hours**

In short, the sales person making this trip is likely to invest ~ 20 hours of his time just to visit his client for 2 hours. In addition, this calculation assumes that the travel goes as planned (without traffic delays driving to/from the airport, delays getting through security, flight delays, delays getting to the rental car / local transportation, etc.).

The above calculation does not consider that the sales person had to leave home (or the office) the night before in order to make this meeting. As a result, the actual time out of the office and away from home was much more than 20 hours. Finally, it is worth nothing that the time investment required for international trips tends to be even higher.

The time-efficient alternative would be to conduct this meeting via videoconference. Even better, this meeting could be conducted using desktop videoconferencing so that the attendees could participate without having to reserve and travel to a shared meeting room.

This shift from an onsite visit to a desktop video call could decrease the time required for this meeting by up to 90% (a two hour meeting would require only 2 hours). Imagine the revenue opportunity associated with an additional 18 hours of sales person effort!

2) Cost Savings
According to a recent American Express survey, the cost for a typical domestic business trip (including hotel, air, etc.) in North America is expected to increase by 1.2% to approximately $1,080. The cost for international business trips is expected to rise by 2.4% to $2,818.[3] These are hard savings that organizations can realize by converting some of their travel meetings into videoconferences.

Savvy readers will recognize that these hard cost savings represent only a portion of the cost savings resulting from travel avoidance. The other significant savings is the value of the employee time saved. As described in the previous section, an employee who converts a domestic business travel meeting into a video session is likely to save 18 hours. At an employee cost of $50 / hour (assumes an annual salary of $80,000, a 25% additional expense for benefits, and a total of 250 work days of 8 hours each per year), an 18 hour time savings represents a soft savings of $900 per meeting. In today's challenging economic climate, savings such as these cannot be ignored. More importantly, these funds can now be allocated toward revenue generating opportunities (sales, marketing, product development, etc.).

3) Improved Access to Clients and Colleagues
Few would argue that increased "face time" with partners, peers, and clients would result in better performance, productivity, and profitability. The ability to meet with these contacts anytime and without needing to make prior arrangements would yield even greater benefits.

Unfortunately, business travel is hardly ever ad-hoc. Even last minute travel tends to be prohibitively expensive. As a result, even if one decides that an onsite visit is a high priority, it is likely to be several days before a person can be "in front" of a client or partner.

Videoconferencing, on the other hand, allows people to gain immediate, ad-hoc, and fully interactive access to their contacts, regardless of their geographical location. This is especially

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[3] http://www.purchasing.com/article/357130-Business_travel_costs_set_to_rise_in_2010.php

true for desktop videoconferencing which is always available (compared to room-based videoconferencing which typically requires one to find and reserve a shared, video-enabled meeting room). Savvy managers will mix in-person meetings with high-impact, cost-effective video sessions in order to stay in touch without breaking the bank.

4) Improved Work / Life Balance
A recent Microsoft survey found that 72% of business travelers categorized business travel as even more stressful than a visit to the dentist.[4] Similarly, research findings presentations at the 2000 International Symposium on Stress revealed the following:

- three-quarters of business travelers report suffering more health problems when they travel
- many travelers report that travel impacts their sleep, their well-being, and their general performance both before and after their journey
- almost 100% of spouses / significant others report that business travel has a negative impact on their family life

By allowing employees to limit business travel, videoconferencing improves the work / life balance of key employees resulting in improved morale, increased employee retention, and better productivity. Desktop videoconferencing, in particular, enables employees to conduct high-impact communications sessions from home. Considering the need to communicate with others in different time zones, this equates to more time at home with family.

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[4] http://www.busmanagement.com/article/The-Greatest-Financial-Mistake-Wasted-Time/

Real World Results

The use of videoconferencing, and specifically desktop videoconferencing, generates real world results in a number of areas for both small and large businesses.

Recruiting

Desktop videoconferencing can energize an organization's recruiting process. First, it allows busy, traveling managers to effectively participate in the recruiting process from the convenience of their office (or even while traveling or working from home). This avoids delays, helps alleviate time zone issues, and expedites the overall interview and hiring process. Furthermore, it allows organizations to conduct high impact, face-to-face initial interviews with job applicants quickly and easily, and specifically without having to pay to fly the person to a corporate office. This yields a number of key benefits including time savings, cost savings, and the ability to screen more applicants more quickly.

Unlike many videoconferencing benefits (e.g. improved teaming) which are difficult to quantify, the ROI of using videoconferencing within the HR realm can be measured and tracked. The increased accessibility of desktop videoconferencing makes this even more compelling. In short, desktop videoconferencing helps organizations find and place the right people more quickly.

Training

Training is a key part of any successful organization. Whether training employees on HR compliance, partners on how to maintain a new product, or customers on the proper use of your offerings, the importance of ongoing, high-quality, high-impact training cannot be overstated.

Desktop videoconferencing energizes an organization's training efforts by expanding the reach of each and every session. Instead of forcing scarce training resources to travel (time consuming, stressful, expensive), DVC allows trainers to spend their time teaching and developing new materials instead of sitting on a plane. In addition, desktop video enables organizations to host short, ad-hoc, and face-to-face training sessions; an application that would not be possible with business travel.

Sales and Marketing

The ability to conduct high impact virtual meetings has made videoconferencing an oft-used tool for sales and marketing initiatives. Typical applications include product launches, sales meetings, press events, road shows, and more. Key benefits include the ability to reach a large audience quickly and in an effective manner, decreased sales / marketing expenses, and decreased time to market.

Desktop videoconferencing brings these sales and marketing benefits to an even greater global audience. For example, consider a company looking to introduce a new product line. Using desktop video, the company can reach both in-house and field personnel with the same message, at the same time, and in the same high-impact way. As a result, the corporate marketing and sales messages arrive quickly and accurately. In addition, the visual element helps ensure that remote attendees pay attention to the presentation and absorb the material. Making sure the people that help spread the world know the right things to say and do is a sure-fire money maker for any organization.

Another benefit of the virtual sales and marketing approach is that sales and marketing executives can host multiple, face-to-face presentations on the same day. For example, the first session of the day could target the sales staff in Europe, and the next session could be directed toward the marketing staff in New York.

Competitive Edge
Videoconferencing, and specifically desktop videoconferencing, will help your organization maintain its competitive edge in a number of key areas including:

Faster decision making – the ability to conduct effective, face-to-face meetings with globally dispersed resources will help expedite the decision making process. Instead of waiting to get onto people's calendars, meetings can happen while the topics are still fresh.

Cost savings – videoconferencing, and especially desktop video, enables a variety of cost saving opportunities including decreased travel spending, decreased need for shared meeting room space, and more. These funds can be used to help your organization compete.

Staff leveraging – desktop video allows organizations to effectively leverage multi-location work teams. Instead of losing time trying to find qualified resources in a particular area, the focus can be on finding the right people – no matter where they are. A stronger, better equipped work force will certainly improve your company's ability to compete.

Increased productivity – in addition to helping foster better, more effective meetings, the use of desktop video allows people to stay within their work space and comfort zone. This results in happier, more productive workers, and greater overall throughput.

Additional benefits associated with the use of videoconferencing include:

- the ability to enhance your company's image by demonstrating to your employees and clients that your company is focused on efficiency and cost-effectiveness
- the ability to decrease your company's carbon footprint / demonstrate your company's focus on protecting the environment
- the ability to present a "large company" persona to your customers via the use of virtual teams and globally dispersed resources

Solution Spotlight – Avistar

This section provides information about the Avistar C3 Desktop Videoconferencing Solution available from Avistar, the sponsor of this white paper. The Avistar C3 platform is comprised of the following components:

Avistar C3 Desktop – a SIP-based desktop videoconferencing solution that includes centralized user and system management, data conferencing, 1-click video calling, integrated network / bandwidth management capabilities, and click-to-call with IBM Sametime and Microsoft Office Smart Tags. The Avistar C3 Desktop solution includes the Avistar C3 Desktop Software (installed on user's PCs / notebooks) and the Avistar C3 Server Software (to be installed on a client-provided standard Windows server).

Avistar C3 Conference – a software-based video bridge / MCU designed to operate with the Avistar C3 Desktop solution. Key features include support for up to 12 simultaneous video calls per server (each with up to 4 sites), interoperability with H.323 videoconferencing systems, integrated bandwidth management, and web-based monitoring and management.

Avistar C3 Tunnel Server – a software-based firewall traversal solution that supports a wide variety of standards including STUN, TURN, ICE, and HTTPS tunneling. Additional features include support for both H.323 and SIP environments and up to 20 traversal calls per server (at speeds up to 1 Mbps per call).

Avistar C3 Command – a dynamic bandwidth management solution that provides three key features: i) control over the amount of bandwidth used for audio and video calls on a per-user basis, ii) control over the amount of bandwidth used by UC solutions, and iii) protection of bandwidth allocated to UC to ensure an appropriate user quality of experience (QoE).

Avistar C3 Connect – a software-based SIP to H.323 gateway that allows Avistar users to communicate with H.323 video systems and MCUs. Avistar C3 Connect supports up to 100 concurrent video calls, translates address books between SIP and H.323 environments, and supports H.239 and SIP dual video.

Avistar C3 Media Engine – a software applet designed to be embedded within other applications that video- and audio-enables any software application. Key features include support for up HD720p video, integrated NAT / firewall traversal capabilities, and full AES encryption.

Avistar C3 Unified Microsoft OCS Edition – a software plug-in that integrates Avistar's conferencing capabilities with the Microsoft OCS platform.

Avistar C3 Integrator Citrix Edition – an add-on to the Unified Microsoft OCS Edition that enables the Avistar platform to operate in a Citrix ICA protocol and thin client environment.

In addition, Avistar offers an IBM Lotus Sametime module that adds dynamic bandwidth management capabilities, including bandwidth limiting / call admission control, to IBM Lotus Sametime environments.

Note that WR did not perform any system testing as a part of this project. However, WR has participated in a number of Avistar-hosted video sessions over the years and has first-hand knowledge of the solutions key benefits including:

- Strong ease of use / a simple user experience
- Interoperability with SIP and H.323 video systems
- An all-software architecture that allows users to host the application on their preferred hardware platform
- A modular architecture that allows users to deploy only the pieces of the solution they require while enabling Avistar to license pieces of its offering to strategic partners.
- Field proven reliability and consistent performance (Avistar desktop video solutions are in use within many of the world's largest investment banks)

Summary / Conclusion

Business / line managers can enjoy a wide array of soft and hard benefits via the use of desktop videoconferencing solutions. Once considered a tool for techies only, today's desktop video systems provide a compelling combination of cost-effectiveness, ease of use, and reliable performance.

In addition, the inclusion of NAT / firewall traversal capabilities within the offerings make it possible for remote resources (e.g. road warriors, telecommuters) and external contacts (e.g. partners, clients) to leverage the same visual collaboration tools. Leading-edge solutions, such as the Avistar C3 offered from Avistar (the sponsor of this white paper), even integrate with and leverage existing enterprise directory and groupware systems.

The key takeaway of this document is that the current generation of desktop video solutions are not only deployable … they are a field-proven way of enhancing communications, maximizing efficiency, and gaining a competitive edge.

About Wainhouse Research

Wainhouse Research (www.wainhouse.com) is an independent market research firm that focuses on critical issues in rich media communications and conferencing. 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. WR hosts the PLATINUM (www.wrplatinum.com) content website and publishes numerous market studies as well as a free newsletter, The Wainhouse Research Bulletin.

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About Avistar

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Avistar is recognized as a pre-eminent leader and innovator in solving the significant challenges of scale, quality and performance required to deliver desktop visual communications and collaboration solutions that are a measurable asset in organizational performance. Avistar provides the technology and solutions that supply the missing critical element in unified visual communications. Avistar brings people in organizations face-to-face through enhanced communications, for true collaboration anytime, anyplace. Avistar C3 solutions draw on over a decade of market experience to deliver a single-click desktop or room-based videoconferencing and collaboration experience, that moves business communications into a new era. For additional information about Avistar and Avistar C3 solutions, visit www.avistar.com.