Mobile Video Collaboration: The New Business Reality

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Introduction

A new business reality is emerging across all segments of the business spectrum, and it is creating opportunity and challenges that must be considered and planned for today. The new reality is the product of the convergence of mobility, video, and collaboration, driven by three megatrends:

- The consumerization of IT driven by the use of consumer-oriented devices and applications crossing over into the SMB and enterprise markets
- The increased adoption and usage of videoconferencing across the consumer, SMB, and enterprise markets
- Technology advances in the underlying foundation of mobile video driven by rapidly growing network broadband capacity and compounded by the growth of video-capable mobile devices such as smartphones and tablets

This Executive Brief discusses these trends, presents IDC’s analysis of their impact on the business market, and advises action on the path forward.

The Move to Mobility

Over the past decade, the way people communicate has undergone a profound transformation. Communication has rapidly moved from one place connecting to another place to people connecting to other people, wherever they may be. Voice was the first medium impacted by this transformation, with mobile voice displacing fixed voice as the preferred means of making a simple phone call. IDC projects that 33.3% of U.S. households will give up their landline to rely on wireless-only service in 2012. This trend of person-to-person communication quickly moved to data communications in the form of texting, instant messaging, and email communication, laying the foundation for the rapid evolution of fixed to mobile data communications we see today.

Mobility has reshaped voice telecommunications and is poised to have the same impact on video communications. The powerful combination of mobility and real-time video communications is further enhanced by the bring-your-own-device (BYOD) trend in mobility. BYOD is enabling devices and applications designed for consumer usage to impact the way employees of small, medium-sized, and large enterprises access and utilize advanced communication applications, essentially extending the most widely used consumer devices and applications into the enterprise.
This phenomenon is distinct and quite different from the typical enterprise use case for videoconferencing and telepresence, where executives responsible for higher productivity through better communications design incentives, provide training, and furnish the technology.

In the BYOD scenario, employees want to increase their own productivity; they need no incentive and, in fact, must overcome organizational barriers. Furthermore, they require no training because they have learned how to use these applications at home, and they furnish their own technology in the form of cherished smartphones or tablets. This trend of consumerization brings to bear a number of new concerns about liability, privacy, and security. As a result, enterprise IT stakeholders are rapidly building a strategy for BYOD through the implementation of mobile management and security.

**Face-to-Face Communication**

Similar to the rapid movement toward person-to-person communication rather than place-to-place communication, a shift from voice communication to visual communication is occurring as well. The increasing usage of various forms of videoconferencing in the consumer, SMB, and enterprise markets is quickly establishing itself all over the globe. For example, IDC forecasts that approximately 30% of the U.S. population will engage in videoconferencing in 2012, growing to over 45% by 2015.

While the revolution in person-to-person communications and real-time video communications plays out in the consumer market, businesses of all sizes are increasingly using videoconferencing to improve team collaboration, cut costs on travel, improve customer service, increase the productivity and frequency of meetings, and enable employees to work more effectively when at home or outside the office. According to a recent IDC enterprise survey, 40.5% of respondents currently use some form of videoconferencing and 70% of respondents either currently use videoconferencing or plan to use videoconferencing in the next year.

The connection between the enterprise and the consumer is likely to grow as more U.S. workers choose to work from home or on the road. According to a September 2011 IDC online survey of 1,000 consumers, over 20% of those who are employed work from home at least one day a week; 13% work from home every day or nearly every day. Furthermore, IDC data shows that 35.7% of consumers who own a tablet also use it for work purposes. It is clear that these trends, combined with the movement toward face-to-face video-enabled communication in the business and consumer markets, will drive demand for enterprise to remote worker visual communication.

**Laying the Foundation for Video**

Because of the fundamental differences in bandwidth capacity between fixed and mobile networks, the most challenging applications to make the transition from place to person have been video-based real-time entertainment — essentially studio- and user-generated video content. However, this is rapidly changing due to two main trends:

- **Endpoints:** The growth of tablet and smartphone penetration
- **Connectivity:** The buildout of 3G and 4G mobile networks and the growing access to WiFi connected to fixed broadband networks in the home, the workplace, and public areas

The anticipated proliferation of video-capable remote and mobile endpoints is supported by the rapid adoption of smartphone and tablet use all over the world. For example, IDC is forecasting that worldwide shipments of media tablets will reach almost 140 million and that smartphones will make up 45% of global mobile phone penetration by 2015.

As both fixed and mobile networks are upgraded and engineered to deliver streaming and downloaded video, this capacity can be used for other bandwidth-intensive and latency-sensitive applications, with a primary beneficiary being real-time communications services.
This connectivity will evolve from best effort broadband — whether fixed or mobile — delivered over a connection with no QoS or intelligent management to a managed video service that provides support and expertise that make it possible to enhance the video experience on any platform, from any device. As network capacity and availability combine with end-user adoption of devices capable of delivering video-centric applications, the fundamentals are in place for widespread adoption and usage of real-time video communication over all connected devices. The question for enterprise, midmarket, and even small business stakeholders is, How will these consumer trends impact their business?

**Worlds Collide: Mobility, Video, and Technology**

As we analyze the trends of ubiquitous broadband connectivity, the explosion of video-capable devices, consumer adoption of video communications, and increasing usage of advanced communication and collaboration tools across the entire business spectrum, a clear path to mobile video collaboration emerges. The trends creating this path are firmly established and growing quickly (see Table 1).

<table>
<thead>
<tr>
<th>Trend</th>
<th>Status</th>
<th>Trajectory</th>
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<tbody>
<tr>
<td>Ubiquitous connectivity</td>
<td>Medium stage</td>
<td>Increasing</td>
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<tr>
<td>Mobile video–capable devices</td>
<td>Early stage</td>
<td>Rapidly increasing</td>
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<tr>
<td>Real-time communication usage consumer</td>
<td>Medium stage</td>
<td>Rapidly increasing</td>
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<tr>
<td>Real-time communication usage business</td>
<td>Early stage</td>
<td>Increasing</td>
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*Source: IDC, 2012*

Given the clear direction and the relative maturity of these trends, it is necessary to examine the issues businesses have to consider when deploying video collaboration in the remote and mobile workplace. The following are key considerations to widespread adoption of mobile video collaboration:

- **Interoperability.** Creating a secure, seamless handoff to multiple networks and enabling integration with solutions in the areas of instant messaging/presence, telephony, Web conferencing, mobile, and social media is key to tying remote video collaboration into the enterprise. Among the most important considerations is the ability to launch video collaboration sessions easily and intuitively from within familiar interfaces and normal workflows, enabling seamless dial plan integration to connect endpoints and devices from different vendors and consolidating multiple dial-in codes into one.

- **Scalability.** The growing number of desktop and mobile video users will present increasing scalability challenges for enterprise networks. The requirement for easy setup and management is critical in order to manage and secure a fast-growing volume of endpoints. Statistically, when more users are registered with the server, more calls are placed. If the number of calls per second exceeds the maximum supported by the server’s architecture, the server slows down and starts rejecting or dropping calls.
Security. When organizations are considering a BYOD corporate policy, security is usually the first consideration for IT managers. Usage of embedded media encryption available for videoconferencing, such as H.235 security using 128-bit AES encryption, is among the technological advances that will provide a secure environment for the support of remote video collaboration tools.

Ease of use. An easy-to-use video collaboration environment is perhaps the most important feature and affects the user and IT manager in different ways. The user wants ease of use, but simplicity on the surface depends on a number of hidden capabilities at work in the background, including effective firewall traversal, a centralized directory, straightforward authentication, and seamless encryption. The IT manager needs to control access and security and ensure enterprise-class management and redundancy.

Getting to Work

In addition to deploying unified communications (UC) technology for enhancing interactions between and among workers for productivity purposes, organizations are now leveraging the technology to enhance key business processes. For example, they are using video not just for face-to-face internal meetings but also for conducting diagnostic procedures in healthcare, distance learning in education, online access to experts in banking and finance, video kiosks in retail operations, and business-to-business commerce among customers, clients, and partners.

The healthcare industry has been featured as a natural fit for all levels of visual collaboration. The concept of physicians or other healthcare professionals working in urban settings miles away from remote clinics and being available for face-to-face checkups, information gathering, and potentially remote diagnostics has been broadly discussed. Beyond direct physician-to-patient interaction, many collaborative activities become possible, such as sharing and discussing x-rays or other visually oriented lab results in order to determine appropriate treatment. Finally, advancing the potential for physicians to share information and collaborate across the globe can bring the latest medical breakthroughs to regions and countries that have less access to the newest advances.

While healthcare is held up as an ideal use of visual collaboration, we may ultimately see the most widespread use in commercial activities such as manufacturing and sales enablement. For manufacturing, the greatest gains can be seen in the ability to recognize, pinpoint, and quickly resolve issues that are impairing effective operations. Being able to see a problem, rather than hearing about it or reading a description, makes it a lot easier to fix. When an expert can't be onsite, visual mobile collaboration is the next best thing. Visual collaboration also keeps communication flowing between employees and management as well as suppliers, vendors, and customers.

While mobile visual collaboration in healthcare and manufacturing adheres to specific use cases, sales enablement applies to most business goals. The value of increased productivity and giving a sales force a competitive edge should not be underestimated. Internal communication is one of the most important enablers of sales to inform, educate, and motivate. Global sales teams can get together and visually share information, while sales training can be performed on a timely basis at less expense to the employer. Visually connecting the account rep to the client helps close deals faster or deliver live demos of new products and services. Finally, the ability to "bring along the whole team" by pulling relevant experts from product development, engineering, or management into a sales meeting creates a powerful opportunity.

Essential Guidance: Recognize, Plan, Adopt

When potential users evaluate the benefits of mobile visual communications, the key question is, "Will it make me and my team more productive?" In IDC surveys of thousands of SMB owners and enterprise IT decision makers, "increased productivity" is continually listed among the highest
benefits of video collaboration. Increased productivity means video gives the sales team, product team, research team, or engineering team an edge.

Now the question becomes, "If I don't develop this capability, will my competition?" It's one thing to implement new technology to gain an advantage, but another to have to close a competitive gap. The analysis of the megatrends in this Executive Brief makes the argument that the key drivers for mobile visual communications are already in place. Given the consumerization trend of BYOD, the applications will grow organically. The impact may be similar to other technology trends and practices, such as the use of social media for business applications — that is, you may resist for a while, but if you adopt late, have you given your competition an unnecessary edge?

If organizations recognize and accept the benefits of adoption, another question concerns enablement. This requires the support and buy-in of the IT department, driven by the CIO or CTO. BYOD is a difficult issue for most IT departments, which have deep concerns around security and scalability. Any solution considered will need to address these issues up front.

IDC encourages potential enterprise users to evaluate the usage of videoconferencing, unified communications, and collaboration tools in their workplace today. Are they creating a more productive work environment? Then, organizations should evaluate the benefits of more frequent and higher-quality communications with a distributed or mobile workforce. Can an argument be made based on existing Web conferencing or audioconferencing technology?

Finally, organizations need to keep an eye on their competitors. Are the competition's salespeople armed with tablets? Are they using advanced collaboration tools outside the office? If they are, there's a good chance that they will make the logical move to mobile visual collaboration.