Recent developments in collaborative communications, telepresence, mobility and the cloud

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The last few years have seen dramatic changes in the worlds of visual communications, collaboration, unified communications and the related technologies. Here at the IMCCA we have been privileged to represent the industry at most of the major conferences and expositions and watch these changes from the equivalent of a front-row seat. Here are the most important recent developments in the space as we see them.

Telepresence is dead, long live telepresence

A few years ago the industry was buzzing with the new concept of telepresence. In the December 2007 issue of this publication[1] we provided a thorough background and analysis of this concept.

Firstly, we defined it:

> Telepresence represents the use of a number of technologies, aesthetics and acoustics that together allow a person or people in one location to meet and collaborate with a person or people in another location (or locations) where the experience simulates all people being in the same location. Implied in this experience is the understanding that the technologies, aesthetics and acoustics involved in the simulation are, or should be, practically invisible to the users.

Then we began to separate the myth from the reality. We pointed out that the elements that make-up a reliable telepresence experience could easily be applied to traditional video conferencing solutions at a fraction of the cost. We questioned the universal applicability of telepresence to meet all user needs, and finally identified that there is really a second definition of telepresence, related more to product marketing than any technology.

"When you are interested in a greater utilization of video to help transform your organization, don't start with the technology ... but instead start with the people"

The last four years has proven all of that to be true. Wainhouse Research recently published an analysis that corroborates our opinion. Firstly, they pointed out how the trends for purchasing multiple codec systems (telepresence as per our original definition) have been choppy, with no steady market growth visible. In fact, in the fourth quarter of 2011 sales of these systems were down considerably by their analysis.

Secondly, they pointed out how in surveys of end users, the number of firms that report they have no plans to even evaluate multiple codec systems has remained relatively steady in the last few years – at a whopping 50% of the respondents.

Wainhouse interprets this as "market saturation." To put this in context, these results are happening at the same time that single codec video systems and other modes of visual collaborations have exhibited steady growth.

The reality is that telepresence is now considered to be a marketing term representing everything that video conferencing was – but better. Most manufacturers now refer to all their video solutions as one form or another of "telepresence," giving even less meaning to the term. This is a good thing, as visual collaboration needs to be more than merely high-end-rooms connecting to other high-end-rooms – it needs to be any device to any device in order to be a true success. Cisco's 2010 purchase of Tandberg was a definitive milestone in the admission of this fact.

This aligns with the industry best practices that we have recommended all along. When you are interested in a greater utilization of video to help transform your organization, don't start with the technology (telepresence or anything else) but instead start with the people – define the users and use

cases, identify areas where improved communications will help your specific firm – then identify appropriate systems to meet those specific needs. Immersive telepresence is great tool… just like a hammer is a great tool - but only if you're working with nails. Just like the hammer, immersive telepresence only works well as part of a larger tool-set.

Our prediction for the next few years is that video will take three forms in the enterprise – Immersive, Meeting and Personal. Immersive – meaning what our original definition of telepresence covered; Meeting – meaning when video is used to bring a remote participant into a room where people are meeting (think the video equivalent of the tabletop speakerphone); and Personal – meaning everything from the high-end desktop appliance for high-reliability, high-quality performance, to PC based video for pervasive team collaboration.

Tablets, smartphones and other BYOD options

The explosion of "mobility" options for visual collaboration is a direct result of another trend, the "consumerization of the enterprise." In the past, the technology market driving buying power came from big businesses. They were the ones most responsible for investments like computers. This has now completely shifted to the general consumer, who has a flat panel TV in his house and expects one at his office. My first employer provided blackberry was great at email, but terrible at everything else. Now my personal smartphone can handle company email, personal email, video, presentations and can also entertain and provide personal utilities. Why would I agree to carry anything less?

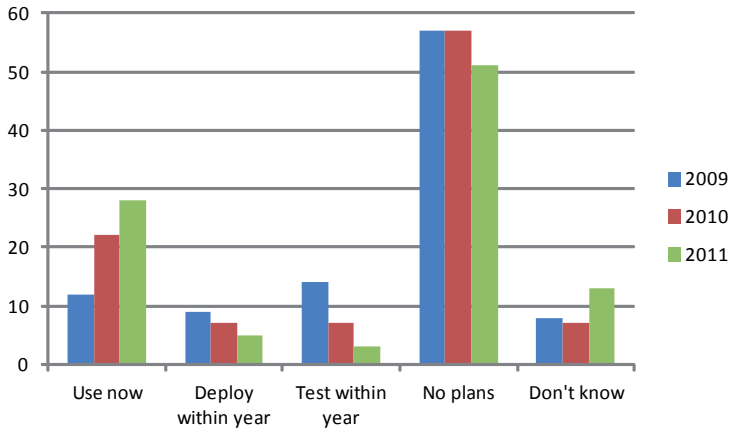
It is that expectation of the consumer getting whatever content he or she wants wherever he or she is on whichever device they happen to have which is the force behind the drive toward mobility.

Enterprises that once insisted on controlling every aspect of the devices that connect to their networks are slowly succumbing to the pressure and letting people connect from whatever device they own. Secure strategies around BYOD (bring your own device) enabled networks are being developed and implemented. As many more of the "personal" video collaboration situations we mentioned will not take place on traditional PCs, but rather on some of these mobile devices, the concept of connectivity anywhere becomes more important.

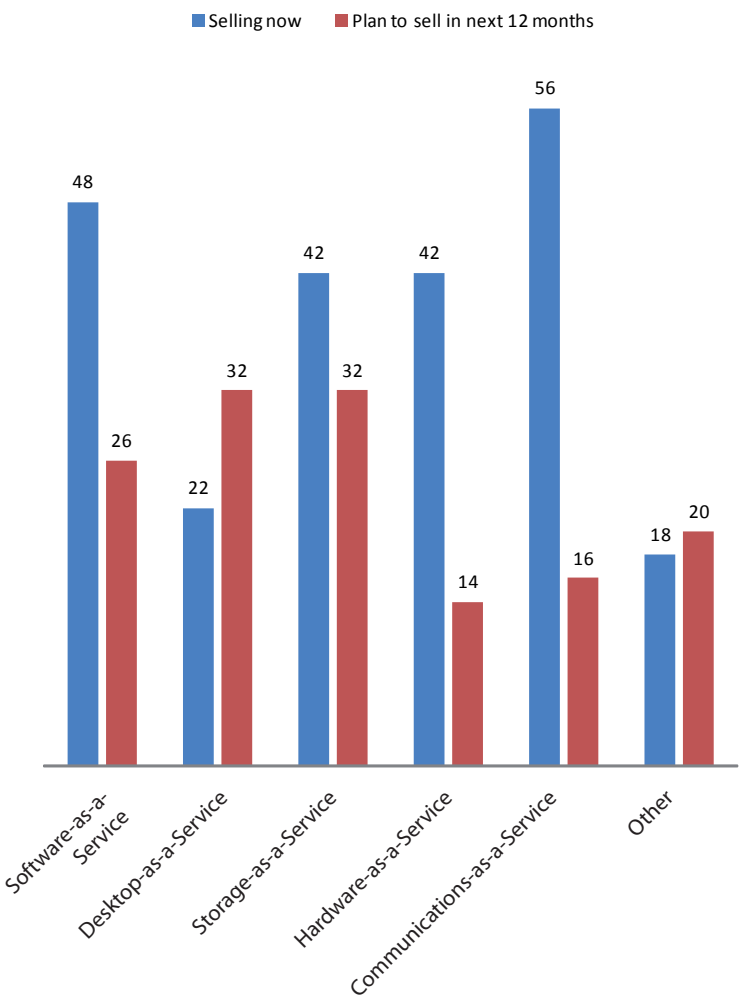
The target state is a world where one can move seamlessly between the office WAN, public WiFi hot-spots and direct mobile carrier connections while maintaining a connection with full capabilities. Or in a more concrete sense, start a video call at home, continue it as an audio call on your drive in, have it switch to the less expensive wireless network route while you're in the coffee shop buying your morning coffee, then to a video call again on the display on your desk when you get to your office – all without hanging-up and redialing. We're not fully there yet, but each segment of this seamless path has been demonstrated.

This explosion in the demand for rich media connectivity wherever one happens to be will continue to put market

Plans for telepresence 2009-2011



Cloud services partners are selling now, and plan to sell



Source: Channel Partners Cloud Computing Survey, December 2011

pressure on the global wireless carriers to find ways to increase available bandwidth. One method we'll see more of – the femtocell - allows a user to place a mobile service repeater in their own home or office and leverage their existing network connectivity (usually broadband from the home) to carry the mobile call.

This relieves the pressure on existing 3G and 4G networks in areas experiencing heavy saturation. It has not been a widely adopted model in the United States, as the wireless carriers charge individuals for having them. (It would make more sense for the carriers to offer a discount if a user is willing to use their already paid-for bandwidth to relieve a carrier's wireless network congestion.)

With only a limited wireless spectrum available, demand for rich media and smart devices going through the roof, progress toward deployment of 4G/LTE services slow, and broadcast and consumer electronics industries locked in battle over the best use of the public airways, don't expect the bottlenecks in major population centres to be addressed very quickly.

It's a cloudy future

As organizations look to reduce cost and increase business agility, the concept of 'cloud computing' offers an interesting service delivery option to achieve those goals. It is very interesting to take a step back and look at "cloud" as it relates to communications services from a historical perspective. All business telephone and computer systems used to be in the cloud, but instead of virtualization-ready data centres the cloud meant telephone company PBXs and mainframe computers. The age of minicomputers and PCs and premises based telephone systems for the most part ended these centralized services. Well, they're back – and collaborative communications is the hottest of them all. A recent *Channel Partners Magazine* survey showed that 56% of their respondent service firms said that communications as a service was currently in their portfolio – greater than any other service offered.

Video service provider Blue Jeans Network's cl videoconferencing is supported.

Communications as a service can take many forms, including hosting, endpoint registration, bridging, managed services, scheduling services, concierge services and packaged suites of every combination. Mixed-in with those are traditional deployments that are just creatively financed, where end-users don't even buy their endpoints, but instead pay a single, monthly invoice for the use of all their hardware and software – relieving the end users of any responsibility for the ecosystem that is technically still on their premises.

More innovative for communications offerings in the cloud are the growing number of firms that see video as a software business, not a hardware business. Many of them leverage the cameras and sound equipment built into today's PCs and smart devices, creating a portal for hosting meetings and collaborating with peers.

While these firms' video service offerings are less able to control the environment of users (such as ensuring good pictures, good audio, proper lighting, etc.) many have innovative products that begin to facilitate the concept of "any to any" video meetings. For years, industry professionals have wished that videoconferencing could be as easy as a telephone call, where the voice exchanges never cared what type of equipment was being used to make the call. Video conferencing as a service is the closest we have come to this level of full interoperability.

Manufacturer Vidyo showing their video conferencing software on most known tablets and smartphones at the 2012 Consumer Electronics Show Showstoppers event.

oud meeting room where "any to any" brand of

creating a catalogue of those solutions.

- Look for business partners that can help you throughout the entire lifecycle of your solutions – strategic advice, design planning, provision of hardware and software, maintenance and support, etc., and all of it with a global reach. The era of the "small neighbourhood VAR" is over. (Just exactly what value was added anyway?)

Trends to watch:

- Look for hardware based MCU's to give ground to software based systems. Big chunks of iron and banks of DSPs are not the way of the future.
- Look for every hardware codec manufacturer to develop a software only strategy.
- As BYOD becomes the norm look for firms that did a great deal of their business selling personal use technology (smartphones, notebooks) to the enterprise to struggle – and look for the successful ones to start marketing directly to the consumer.
- Look for a new form of "app store" to open up – with apps customized for specific enterprises to collaborate in the cloud.

And finally, look for our review and predictions three years from now to see if we got everything right again. ■

Three years from now

Since we did such a good job predicting the future in this publication three years ago, here's the summary of our best practice recommendations and trends to watch for the next three years.

Best practices:

- Get out of the silos – telepresence and videoconferencing should be viewed as key component of your unified communications planning. It needs to be considered along with all other aspects of the integrated technologies to reach its potential effectiveness for transforming your organization.
- Lead with people, not technology – stop speaking with industry manufacturers first. All they want to do is sell you a thousand of their shiny, new devices. Speak with your users. Identify true business needs and opportunities. Then seek out solutions to actually fit those use cases (instead of trying to find use cases for the product someone already convinced you to buy.)
- Look for mobile communications to just explode – as in so enormous and prevalent it will make our descriptions above seem timid. Be prepared for revolution by following the step above - identifying what use-cases will be the ones your organization will support and

About the IMCCA

The IMCCA is a non-profit industry association resolved to strengthen and grow the overall conferencing and collaboration market by providing impartial information and education about people-to-people communication and collaboration technology and applications. Founded in 1998, the IMCCA membership is open to end users, vendors and other interested professionals who wish to share their disciplines and knowledge for the benefit of members and the interested general public.

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The IMCCA offers an open and interactive environment for these activities, including participation in trade shows and industry events and the IMCCA website. If you are interested in more information about the IMCCA please visit our website www.imcca.org or contact the Executive Director, Carol Zelkin at +1 516 818 8184 or czelkin@imcca.org

1. http://www.worldcommercereview.com/publications/article_pdf/33