

## Reducing travel with virtual meetings



- Virtual meetings reduce travel time and costs and improve the value of meetings and overall productivity.
- We already use virtual communication but new tools can make it more effective.
- There are many levels to virtual meeting technology: the right solution for you might not cost a lot of money.
- A communication strategy can make virtual meetings easier to adopt.

Business meetings are often the bane of an employees working life: they involve additional travel and cost and take time from other work activities. But meetings are also important for sharing information, deciding on new projects and activities, consulting with colleagues and associates and building the relationships that support effective work.

Virtual communication approaches can make such meetings more efficient while reducing the costs associated with business travel. There could also be many other benefits.

One provider of on-line meeting services recently commissioned a survey of its clients (Citrix Online). The survey found that only 36% of meetings were still conducted in person: audio, video or web conferencing were used for all the other meetings. The survey also found:

- The savings in travel time and costs were important for about three quarters of these organisations.
- Virtual meeting technology was also used to increase flexibility (71%), make meetings happen (71%), make meetings more productive (59%), and enable new applications (57%).
- Higher productivity was important for individuals attending on-line meetings.

Another virtual meeting vendor (Cisco) recently organised a virtual conference for its 19,000 staff, based in 600 locations across 24 time zones. Ninety three percent of staff logged in, 13,000 took part in the events and 8000 participated in the live 'chat zone'. According to the vendor this was a much higher 'attendance' than they had at their previous major conference in Las Vegas (where many delegates just "got lost in bars"). The virtual model also delivered a 90% cost reduction, saved 334,000 hours in travel time, and achieved an 84,000 reduction in carbon emissions.



## *The development of 'virtual communication'*

The telephone network was originally designed to carry sound. Computers, however, do not use sound waves. Information is stored digitally and transmitted through networks as a series of 'binary digits' (known as bits), or electrical pulses. Every character, number or other piece of computer information is made up of combinations of these bits – known as a byte. For such information to be sent over the telephone network the binary digits used to be converted to sound waves, using a modem, and then converted back to digital information by a second modem at the receiving computer. This was a time consuming process..

To overcome the speed limitations a new set of communications standards was developed. Known as ISDN or integrated services digital network these standards enabled both data and voice to be sent over the telephone network at the same time. People using ISDN connections didn't need modems although other special equipment was required. Speeds were typically around 128kbps, more than double that of modem-based communication.

More recently a new standard for computer communication was developed, known as a digital subscriber line (DSL). This can operate hundreds or even thousands of times faster than 'dial-up' or ISDN. The most common form of DSL is ADSL or asynchronous digital subscriber line where data speed from the telephone exchange to the computer (download)

is much faster than the data speed from the computer to the exchange (upload). With ADSL technology it became possible to send much more information through the telephone network and as fibre-optic cables have started replacing slower copper cables, the speed of communication is continuing to increase rapidly.

As communication speeds increased, other technologies have also developed. A new group of standards evolved to allow many different computer networks to be connected through the telephone network and the Internet was born. Since digital information no longer had to be converted to sound waves, modems were replaced by routers which directed the digital signal through the telephone network to the appropriate computer network. It became possible to store voice and video in digital formats and transmit them as digital information using the standards developed for the Internet (Internet Protocol or IP). And the development of compression standards meant that information could be sent much faster between compliant equipment.

The result is that we can now send voice, video and data files from any computer to any other computer, anywhere in the world – providing we have access to a high enough communication speed (often referred to as bandwidth) and appropriate equipment at each end. Virtual communication has become effective and efficient.

## *Virtual communication tools*

There are many alternatives to meeting face to face – and we already use many of them.

The telephone and fax machine transmit voice and simple data over the telephone network meaning that we can speak with people and share other information without being face-to-face. Email has made written communication faster and easier and can also be used to send computer files over the network. We can now use speaker phones so that groups of people in different locations can talk together (audio-conferencing). And some organisations make extensive use of instant messaging (IM) applications to share quick comments among team members. Such tools make it possible to stay in touch and communicate but, because they do not enable users to see each other or directly share computer information, they are not a complete replacement for face-to-face meetings.

There are now a number of new tools that can enable users to see each other (video conferencing) and directly share computer information (often known as web conferencing, desktop sharing or file sharing). These tools typically require a computer equipped with a microphone and speakers (or a headset) and a camera, connected to a high speed service such as ISDN or DSL. They are able to meet many communication needs and, even on a small scale, are fundamentally changing the way individuals interact.

### *One-to-one*

At the lower end of the market there is a range of tools that can connect two computers over the Internet. Such tools provide quick and easy video conferencing for team members who need to stay in touch while travelling or teleworking. Many of these tools are free (for a basic service). One example is Skype but there are many others. Some of these tools offer the ability to share files on screen (desk-sharing) and collaboratively work on documents.

This set of tools typically requires a connection speed of around 300kbps and, although they might not be suitable for office staff in a larger organisation with corporate data security policies and firewalls, they are quick and easy to use.

### *Conferencing services*

A number of suppliers have developed tools to support virtual communication using the Internet. Although these services can be used for one-to-one meetings the meeting space is on the Internet meaning that many more people can attend the meeting. Vendors of such

services provide a virtual meeting space on the Internet and attendees connect to the meeting from their computer by connecting to a web site (the meeting space) and providing a password. These tools can be used by anyone with an Internet connection, even if they are in a large organisation. They can also be used by attendees who do not have access to a computer: some suppliers provide telephone dial-in services. Although some vendors only support audio conferencing and desk-sharing most also provide full video conferencing.

The number of attendees per meeting is theoretically unlimited making one-to-many presentations practical. They can also support many-to-many meetings and discussions but work best for meetings of up to 15 people. Costs for these services start at around \$50 per month and a connection speed of at least 500kbps is advisable. If attendees are located in more than two locations and will all be sharing video, higher connection speeds could be necessary.

## *Conferencing equipment*

Investing in dedicated conferencing equipment is the third level of virtual communication. Organisations taking this option install their own conferencing tools (to replace the on-line service mentioned above). Although these tools can be used for one-to-one communication, by replacing the user's desktop computer and providing separate desktop equipment for each user, this can be expensive to deploy across an organisation. (Conferencing equipment typically uses compression standards which mean a standard PC will need additional software in order to connect to the suite.) Most organisations taking these options install them in meeting rooms and auditoriums. Specific hardware is required and robust high speed Internet connections are essential. The connection could be either ISDN or IP. Installing your own equipment is a great solution for organisations that prefer to own and maintain their own equipment and who do not normally need to connect with people who are working away from the organisation's offices .

## *Telepresence*

The top end of the virtual communication market is generally referred to as 'telepresence' which takes full audio and video conferencing to a pseudo-realistic level. Enhanced data compression, cameras and microphones that can follow participants, very large screens and sophisticated suite design can mean that telepresence is almost the same as face-to-face meetings. Such options can be expensive and require higher bandwidth.

## *Unified Communications*

As organisations start to think about increasing their use of virtual meeting technology, they are likely to come across the phrase Unified Communications. This is where video, voice and data communication are integrated within an organisation's information technology infrastructure.

Although integrating the many options within a single framework can have advantages, unified communications can also require technical expertise to install and maintain.

## *Serviced suites*

Organisations that have only limited need for advanced audio and video conferencing could use bureau services. A number of vendors in Perth provide fully equipped meeting facilities, for an hourly rental. The services available vary with some vendors providing IP connections with others using only ISDN connections. Most suites use compression technology meaning remote PCs will need special software. Some vendors will also have access to conferencing service software, either on-line or in-house.

## *Mix and match*

All of these tools can maximise the value of essential meetings while minimising the travel involved. The range of options provided are not exclusive: organisations can use all of the services available or only some, depending on their needs. For example, instant messaging and one-to-one video conferencing could be used by individual members of a team (for almost no cost), an on-line conferencing service could be used if more people in more locations need to be involved (for a monthly subscription), and conferencing suites could be used for team meetings involving staff in two or more buildings. These suites could be rented (for \$300+ per hour) or purchased and installed in the organisation's offices (\$10,000+). And once the organisation decides that higher quality audio and video is necessary, consideration can be given to the telepresence options.

Organisations do not need to make a large investment to start using virtual communication tools. They can start with a free basic service and add capabilities as the savings in time and money justify the investment.

## *Choosing the right approach*

**Finding the right solution to an organisation's virtual meeting requirements can be straightforward. In many organisations, however, a number of questions will need to be considered.**

### *Existing travel budget?*

The financial cost of business meetings is one of the first things to consider before investing in virtual meeting technology. This can justify further investigation of the available options and help establish a budget for any major equipment purchases.

### *How many people or sites?*

Some conferencing solutions can handle many possible sites and many individual participants simultaneously. Some are best in a one-to-one setting or for one-to-many e.g. presentations and 'webinars' (on-line seminars). Others work best for meetings that do not involve participants located away from company offices. Before investing in expensive solutions it is important to know which family of tools will be most relevant to your organisation.

### *File or desktop sharing?*

Both audio and video conferencing can save meeting travel and costs but many business meetings involve discussion and editing of specific documents. These documents will need to be visible to all attendees and this will require file sharing technology, in addition to the conferencing tool. Other meetings might involve presentations. Desktop sharing can support this, with the presentation being delivered from the presenter's computer directly to all participants. Many conferencing solutions can support such capabilities but it is important to confirm this before installing dedicated equipment.

### *Internal or external?*

Many business meetings require only employees to be present while others require the presence of clients, partners or suppliers. If people from outside the organisation are to be involved it will be necessary to ensure that the chosen solution is affordable and secure (so that your organisation's network is not put at risk) and that it presents your organisation in the right light.

### *Managed or in-house solution?*

Many organisations are comfortable outsourcing aspects of their operations. Others require complete control of every aspect of its working environment. For the latter, the only likely option will be to consider purchasing suitable equipment and setting up a dedicated meeting room or communication suite. However, if an outsourced solution is acceptable the range of choices could be much greater.

### *How much bandwidth?*

While many conferencing solutions work very well over standard broadband connections (with speeds of around 300kbps) others will require much higher bandwidth. This could be an issue for employees who do not have access to fast connections. If an organisation is to make use of virtual meeting technology it is important that the chosen solution is accessible to everyone.

### *Do you need quick, easy access?*

If you install a sophisticated conferencing solution that requires IT staff to operate it, it might be more difficult to use for many of the meetings in an organisation. Some solutions might also need to be booked in advance – which will limit their usefulness for informal discussions and quick 'catch ups'. However, such complex solutions might still be the best solution for some organisations.

## *Communication strategies*

Organisations communicate in many different ways. When you know how the organisation already communicates you can assess where and how the various virtual meeting tools will be most effective. This can involve asking questions about why a particular meeting is important and what the meeting is supposed to achieve: it is too easy to just 'call a meeting' without thinking about whether it is appropriate or necessary.

You might have to spend some time identifying which form of communication is appropriate for the various work objectives that make up the organisation's core functions. Could company announcements be circulated

by email and through the company's Intranet instead of needing a company-wide meeting? Email, text messaging and quick telephone conversations are already used for much ongoing contact. Could an instant messaging service or appropriate social media supplement such informal interaction? Could the variety of video and web conferencing tools replace the more formal face-to-face, customer, team or project meetings?

Some organisations have gone so far as to develop a formal 'communication strategy' based on the answers to these questions.

## *Best practice virtual meetings*

Some organisations might need to change the way they operate for virtual meetings to work but in most settings only minor adjustments will be necessary. The following suggestions could help:

- Schedule meetings – so attendees can organise adequate connections and equipment, consider the agenda and prepare their comments in advance.
- Archive minutes – so all attendees can access them easily.
- Ensure adequate training – so that staff are familiar with all the communication tools to be used.
- Focus on interactivity – ensure that all attendees are greeted and involved in discussions.
- Build relationships – allow small talk to develop so that attendees get to know each other. Supplement the virtual meetings with other forms of social interaction.
- Streamline communication – focus on what needs to be decided but be prepared to listen.
- Test the technology – ensure that the chosen systems work and that there is a 'Plan B'.
- Level the playing field – in a virtual meeting all attendees must be treated the same. Focus on the remote participants, not those who are present.

## Starting points

Some organisations might need to change the way they operate for virtual meetings to work but in most settings only minor adjustments will be necessary. The following suggestions could help:

- Are all meetings regular and scheduled, with agendas and minutes?
- How many business meetings are used to pass on information to employees and how many require collaborative decision making?
- How much does travel and accommodation cost your organisation?
- Are you able to measure the time spent travelling to and from meetings?
- Do remote employees, clients and prospects have conferencing equipment or appropriate software?
- Does your organisation have a communication strategy and is this communicated to all employees?
- What virtual meeting tools are already available in your organisation? Are employees trained and encouraged to use these?
- **Check for on-line training options:** Web based training is now widely used in many organisations so employees can gain the skills they need without spending a lot of time away from their desks.
- **Provide equipment:** All employees should have a headset and web cam connected to their computers so that they can easily participate in on-line meetings and training.
- **Experiment:** Use the free trials offered by many vendors to help find the solution that works best for you.
- **Audit present practice:** Find out how many meetings take place, what the results are, what participants think about these meetings, and how they could be improved.
- **Provide incentives:** Organise an on-line product presentation for clients and offer products at a reduced price. Provide additional bonuses for sales made without a face-to-face meeting.
- **Make it normal:** Establish a regular but informal on-line meeting. This should be open to all to meet, chat and familiarise themselves with the selected technologies.

## Interesting links

<http://www.networkworld.com/research/2001/1029feat2.html> -- An article presenting the "ABCs of video conferencing".

[http://www.musion.co.uk/Cisco\\_TelePresence.html](http://www.musion.co.uk/Cisco_TelePresence.html) -- A demonstration of life-size holographic meetings. Could this be the future of virtual meetings?

*This resource is based on a guide to virtual meetings prepared for the TravelSmart Workplace program in Perth, WA and is provided with their permission.*