

REMOTE WORK TOOLS FOR COMMUNICATING INFORMATION  
AT VIRTUAL MEETINGS AND IN DISTANCE LEARNING,  
PLUS A TECHNOLOGY DICTIONARY

# ASSESSING OPTIONS FOR MEETING DELIVERY

Despite our best efforts at optimizing our time when traveling by taking advantage of the many mobile technologies, we still can experience a loss of productivity. Our ability to remotely conduct business continues to evolve, thanks to technology enhancements and growing user confidence.



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Remote work tools for communicating information and for distance learning can save time and money, while providing gains in efficiency.

#### VIRTUAL MEETING ALTERNATIVES

**H**igh-speed Internet access with enhanced broadband, faster processors, and a greater market demand for virtual meeting options have accelerated the development and use of virtual meeting applications. While these meeting options have been available for several years to tech-savvy users, the tragic events of Sept. 11 brought these options to the forefront.

As a result, meeting professionals can choose from several applications that continue to improve in sound and video transmission quality. Switching and bridging technologies have also greatly aided in providing virtual meeting solutions by integrating both low bandwidth and broadband. These breakthroughs widen the availability of these solutions to a greater worldwide user base.

Planners need to answer a few questions, though, in order to select the appropriate technology to deploy:

**Q:** Do you only need to push a message to a group of individuals and not require interaction?

This could be a company-wide announcement from the chairman or a keynote address. In such cases, a Webcasting option with one-way communications might be appropriate.

**Q:** Do you need to provide two-way communications for smaller groups of dispersed attendees? In other words, will attendees need to have discussions throughout the meeting on material being presented there?

The material may be a slide presentation, a document to be edited during the meeting, a video presentation, or an application to be shared among the group. In this case, Web conferencing may be the appropriate

technology to deploy. This technology provides for two-way communications, usually with the audio portion communicated through a conferencing phone bridge, while online materials and functionality to manage the materials are delivered through a secured Web site.

With this type of online meeting, participants and session leaders will use special software sent to them prior to the meeting time.

**Q:** Do you require streaming video or high-end multimedia to be broadcast to a large group of individuals who are located at select sites throughout the world?

Interactive Webcasting may be the most appropriate option. This type of session often requires professional guidance and staging help from a production company.

All virtual conferencing separates into one of three delivery modes:

**1** At the highest end is transmission through a satellite from one location to another — often called point-to-point — or to numerous downstream sites, referred to as point-to-multipoint transmissions. In the latter case, conferencing bridges allow all subscribed sites to connect at one time.

**2** Videoconferencing centers, located throughout the world, can be rented and used to broadcast to a geographically dispersed audience usually located at a sister facility or at predetermined sites with compatible hardware and connectivity.

**3** By going directly through a desktop PC, a user in this scenario will connect to a predetermined Web site or virtual meeting room from which the session will be hosted.

In this case, audio is best achieved through a conference call bridge. The flexibility of these desktop systems does vary widely. Some require a high degree of testing and minimum of 56K connection speed. Robust systems allow for multiple leaders to share in presentation responsibilities, and may

feature chat rooms, white boarding, multimedia presentation, Web surfing, and application sharing and collaboration.

Readily available group collaboration software, such as Microsoft's Net-Meeting, provides many of the same features as higher-end applications. However, these are run without a third-party service provider. Participants, then, have to be adept at the technology being used.

With this type of connectivity, a group of computers can be temporarily networked using the PCs' unique IP addresses. Once the computers are connected, properly authorized participants can share and exchange files, programs, and documents.

Appropriate bandwidth, hardware availability, and internal PC settings, plus a degree of testing, are required for these applications. However, the primary criterion for a successful session is pre-arrangement with those to be included on the call, so that appropriate settings on each PC can be made in advance. Once call groups are established and settings defined, future calls become very easy to conduct.

This type of application is best suited to proposal reviews and edits, small taskforce meetings where documents need to be reviewed, and general system maintenance. The price range for this class of product varies from no cost to a few hundred dollars.

**Third-party service providers.** These take the technical aspects of making a connection out of the equation by providing easy-to-install client software, along with technical support. Their services offer robust feature sets with options for conducting presentations, editing joint documents online, and viewing multimedia files and Web sites.

Additional features often found in this class of product include chatting, file transfers, and white boarding. And advanced applications can provide for remote control of connected PCs

and pass control among call participants. Such services make this type of application ideal for both group collaboration, as well as distance learning.

## Uses of Collaborative Desktop Technologies

- ✓ External project management
- ✓ Shared documents
- ✓ Virtual file access
- ✓ Desktop videoconferencing
- ✓ Discussion boards and chats
- ✓ Polling and surveys

### GUIDELINES FOR ANY VIRTUAL MEETING

>> **Upfront planning.** Understand the information you need to communicate and what media will be used to present the information.

>> **One-way session.** Do you need one-way communication with intensive video and no interaction, or perhaps delayed interaction through a call-in line for taking questions from remote participants?

This Webcast presentation can be live or taped. Taping the session allows time for editing and the inclusion of value-added material. It then can be broadcast via the Internet, satellite, or a CD. Remember, broadcast quality sound and lighting are highly recommended, as are speaker rehearsal and coaching. Consider hiring a production manager whenever mission critical communications are required.

>> **Two-way session.** Do you need a high degree of interaction among a smaller team?

Examples of this type of group collaboration utility include Microsoft's NetMeeting or Symantec's PCAnywhere. These two applications require technical know-how, since third-party services are not used. Don't forget that many people now deploy firewalls; if connectivity is a problem, firewall settings may need to be changed.

These approaches also require advance knowledge of who will be

authorized to participate, and each PC will need to load the software and appropriate settings prior to the call.

>> **Third-party services.** Offering technical services for participants and leaders, moderating services, and scheduling services, third parties provide great control and quality assurance. All participants will be required to pre-load either a client application or a leader application. This is made available by the service provider and can be downloaded and set up in little time.

Even though you use a third party, encourage all participants to test their connectivity. Service providers will offer useful utilities to validate that both hardware and connectivity are appropriate. All links and phone numbers should also be pre-tested by your staff or the service provider.

The best features of service providers are online technical assistance if a participant is dropped and the ability to have multiple leaders. The latter is very useful: Should one designated leader have a temporary computer problem, the lead can be silently passed to a secondary leader and the presentation can continue. The best part is that no one in the audience even needs to know. Of course, leadership control and presentation coordination need to be reviewed and rehearsed in advance among the leaders for the best experience.

>> **Two-way, with high-end media.** Do you require two-way communications along with higher-end media?

Such an interactive Webcast event requires serious advance production and coordination. Will you do point-to-point or point-to-multipoint? Will you broadcast to service centers where an audience can gather, or to other corporate locations? Will you broadcast via satellite or push through the Internet? These sessions call for broadcast-quality lighting, sound, and production.

>> **Plan how the overall event will be promoted and packaged.**

### DISTANCE LEARNING

All of the technologies discussed earlier in this chapter could be deployed when providing a distance learning program. The art of providing a valuable distance learning experience additionally requires careful coordination, skilled presenters, and an understanding of how people best learn.

Learning-centered education is an important component of effective distance learning, and calls for an integrated approach to delivering material to the student. Effective programs address the needs of the students in terms of schedules, opportunities for interaction, how the learning will be assessed, what the objectives are for the training experience, how content will be delivered, and what methods will be deployed.

The additional component for a learning-centered approach is in how a student will be supported. With online solutions, support can be achieved in chat rooms, e-bulletin boards, e-mail, and scheduled online conference sessions.

## Elements of Learning-Centered Education

- ✓ Needs of attendee/flexible learning
- ✓ Objectives and content
- ✓ Learning methods
- ✓ Learning assessment
- ✓ Support (chat, help desks, etc.).

## Practical Uses Of These Technologies

- >> **Audio Conferencing**  
= Committee meeting
- >> **Streaming Audio**  
= Message from the president
- >> **Web Meetings**  
= Site selection or contract review
- >> **Streaming Video**  
= General session highlights
- >> **Collaborative Software**  
= Distance learning

If you choose to offer a distance learning option, you may want to consider providing a self-assessment to prospective registrants. Online learning is not for everyone and should be just one mode of delivery offered. (See box below for how one learning institute approaches this evaluation.)

Distance learning is only for a select type of individual, and for it to

## Would You Pass The Test?

The three questions below come from a complete test available at the Extended Learning Institute (<http://eli.nv.cc.va.us/eliforme.htm>).

The purpose of the online quiz is to provide prospective online students with a self-assessment as to whether or not online distance learning is a good match for their learning needs. The brief quiz will provide a score that rates your personal aptitude for online learning. Let's remember every adult learns differently.

### 1. MY NEED TO TAKE THIS COURSE NOW IS:

- High** — I need it immediately for degree, job, or other important reason.
- Moderate** — I could take it on campus later, or substitute another course.
- Low** — It's a personal interest that could be postponed.

### 2. FEELING THAT I AM PART OF A CLASS IS:

- Not particularly necessary to me.**
- Somewhat important to me.**
- Very important to me.**

### 3. I WOULD CLASSIFY MYSELF AS SOMEONE WHO:

- Often gets things done ahead of time.**
- Needs reminding to get things done on time.**
- Puts things off to the last minute.**

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be successful, the learner's needs have to be considered.

### DISTANCE LEARNING GUIDELINES

>> **Presenter training.** Find qualified presenters, provide training, or have the service provider do so. Remember, you know your audience the best, so if the service provider orients the presenters, make certain you provide audience demographics. Service providers, however, generally offer orientation in using their service, not in distance learning techniques.

>> **Session length** of 15-20 minutes is recommended, and keep sessions to the point. Most sessions should require homework or self-study that can be reported back to the group during the next session.

>> **Test connectivity.** Test, test, and test! Don't assume that links and phone numbers are correct — check them. All service providers arrange for pre-testing. Don't forget about firewalls, as well as internal network settings. FTP sites, if required, may not be readily accessible without the IT department's advance approval.

>> **Start small.** Provide a few options and fine-tune them before rolling out a comprehensive online program.

>> **Use a session moderator and appropriate support line** to help guide and service the session.

**Here are features you should design into an e-learning experience:**

- Content that is thorough and easily followed.
- Interactivity ... hands-on.
- Pleasing, yet simple graphics accenting content.
- Self-paced questions to reinforce learning.
- Remedial feedback to catch items not yet mastered.
- Ability to provide online grading if passing the course is mandatory.
- Automatic bookmarking, so users can pick up where they left off.
- As needed, CME, CEU, or other credit tracking. ■

# Building Your Technology Vocabulary

If you are confronted with technology terms that need defining, consider book-marking this site: [www.webope-dia.com](http://www.webope-dia.com). In the meantime, here are meanings for often-used words and phrases, many specific to virtual and distance learning.

**ANALOG** — A signal that is received in the same form in which it is transmitted, while the amplitude and frequency may vary.

**AMERICAN STANDARD CODE FOR INFORMATION INTERCHANGE (ASCII)** — The standard 8-bit code used in data communications, from which files may be interchanged from one software program to another and from PC to Mac formats.

**ASYNCHRONOUS** — Communication in which interaction between parties does not take place simultaneously.

**BANDWIDTH** — Information-carrying capacity of a communication channel.

**BROADBAND** — Telecommunications that provide multiple channels of data over a single communication medium.

**BROWSER** — Software that allows you to find and see information on the Internet. Commonly used browsers are Microsoft Internet Explorer and Netscape Navigator.

**COMPUTER-ASSISTED INSTRUCTION (CAI)** — A teaching process in which students gain mastery over a specific set of skills by executing training programs on a computer. CAI is very effective for computer applications training. Also called CBT.

**COMPUTER-BASED TRAINING (CBT)** — See computer-assisted instruction (CAI).

**CONTINUING EDUCATION** — Education that is usually not for credit, but which can be delivered on campus or at a distance.

**CORRESPONDENCE** — Print-based coursework that is completed by learners at home at their own convenience, but usually within a set timeframe. All assignments — reading, class notes, written

assignments, research, and some examinations — are completed independently. Students correspond with a school through the mail.

**CYBERSPACE** — The place where humans interact over computer networks.

**DIGITAL** — An electrical signal that varies in discrete steps in voltage, frequency, amplitude, locations, etc. Digital signals can be transmitted faster and more accurately than analog signals.

**DISTANCE EDUCATION** — The concept of a student and instructor, separated by time and distance, using technology to complete instruction. See distance learning.

**DISTANCE LEARNING** — The desired outcome of distance education. See distance education.

**DISTRIBUTED LEARNING** — Education delivered through distributed resources — content, instructor, student, and technology — in different, non-centralized locations, allowing instruction and learning to occur independent of time and place. It can be used in combination with traditional classroom-based courses and traditional distance learning courses, or to create wholly virtual classrooms.

**DOWNLOAD** — Using a network to transfer files from one computer to another.

**E-LEARNING** — Anytime, anywhere electronic or computer-supported learning. Also called Web-based training.

**ELECTRONIC MAIL (E-MAIL)** — The transmission of messages from one computer user to another.

**FILE TRANSFER PROTOCOL (FTP)** — The format standard that allows users to move files between a distant computer and a local computer using a network such as the Internet.

**FREQUENTLY ASKED QUESTIONS (FAQS)** — A collection of basic information on any given subject.

**FULLY INTERACTIVE VIDEO (TWO-WAY INTERACTIVE VIDEO)** — Two sites interact with audio and video as if they were co-located.

**HIGH-DEFINITION TV (HDTV)** — A television that delivers resolution far exceeding the current NTSC standard, resulting in a

brighter and clearer picture. It requires bandwidth five times the capacity of a conventional TV signal.

**HOST** — A network computer that receives data from other computers.

**HYPERLINK** — Images or text within Web documents that move a user to a different location or present a different page once selected.

**HYPERTEXT** — Text that is coded so that users may select and click on elements within a document to connect to further information.

**HYPERTEXT MARKUP LANGUAGE (HTML)** — The language in which Web documents are written. Browsing software interprets the elements of the language, or tags, for display on the Web.

**HYPERTEXT TRANSFER PROTOCOL (HTTP)** — The format standard used to define how documents are formatted and transmitted on the Web, and what action servers and browsers should take in response to various commands.

**INSTRUCTIONAL DESIGN** — The systematic process of translating general principles of learning and instruction into plans for instructional materials and learning.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN)** — A telecommunications standard allowing communication channels to simultaneously carry voice, video, and data.

**INTERACTIVE VIDEO** — Participants (students and instructors) at different origination and receiving sites are able to see and hear each other, thus creating an interactive learning environment at a distance.

**INTERNET** — A global information network connecting millions of computers. Also called the Net.

**LEARNER-CENTERED EDUCATION** — An educational philosophy in which the needs of the individual are primary; therefore, the teaching and learning process provides flexible sequences of study, negotiated objectives and content, negotiated learning methods, negotiated methods of assessment, and a choice of support mechanisms.

**LIFELONG LEARNING** — A philosophical concept in which learning is viewed as a long-term, “cradle to grave” process, begin-

ning at birth and lasting throughout life.

**LISTSERV** — An automatic mailing list server application developed by Eric Thomas for BITNET in 1986. When e-mail is addressed to a listserv mailing list, it is automatically broadcast to everyone on the list.

**LOCAL AREA NETWORK (LAN)** — A network of computers connected within an office either in a wired or wireless environment. When connected, computers can share files and programs and other devices connected to the network.

**MODEM** — Equipment or device that converts digital signals to analog for transmission along analog lines (telephone lines), allowing computers to interact with each other.

**MULTIMEDIA** — Any document that uses multiple forms of communication, such as text, audio, and/or video.

**NET** — A shortened term for the Internet.

**ONLINE** — A computer is considered online when its IP address can be seen by the Internet and by others on a network.

**OPEN LEARNING** — An educational philosophy that emphasizes providing learners with choices about media, place of study, pace of study, support mechanisms, and entry and exit points.

**PORTABLE DOCUMENT FORMAT (PDF)** — A file format developed for the Adobe Acrobat Reader that captures formatting information from a variety of desktop publishing applications and preserves the intended format for display on a recipient's monitor or printer.

**PLATFORM** — The underlying hardware or software of a computer system. Platform-independent and cross-platform applications run on various computer systems.

**PLUG-IN** — Downloadable software that adds enhanced capabilities to a browser, enabling the user to view, hear, or interact with non-standard display formats.

**PROTOCOL** — An agreed-upon set of standards, rules, or formats for exchanging data that assures uniformity between computers and applications.

**REAL-TIME** — Communication in which interaction between parties takes place simultaneously and “live.”

Also referred to as synchronous.

**SATELLITE TV** — Video and audio signals are relayed via a communication device that orbits around the earth.

**SEARCH ENGINE** — Web-based software tools that search for and return documents on the Web based upon specified keywords.

**SERVER** — A computer that is established as the common link on a network to all other computers on that network. The server acts as a gateway for file access and sharing.

**STREAMING** — A continuous sequence of video images and/or audio that is sent in compressed form over the Internet and displayed by the viewer as it arrives. A special program called a player uncompresses, or expands, the data for display and/or reception through a browser.

**SYNCHRONOUS** — Communication in which interaction between parties takes place simultaneously. Also called real-time.

**TELECONFERENCING** — Two-way electronic communication between two or more groups in separate locations via audio, video, and/or computer systems.

**TELECOURSE** — Fully accredited, video-based courses delivered via television. Telecourses are complete and integrated instructional systems that generally include the television programs, a textbook, study guide, faculty manual, and other instructional materials.

**TELEWEBCOURSE** — Fully accredited, video-based courses that include an integrated, interactive Internet component.

**THREADED DISCUSSION** — Asynchronous, online conversations consisting of a series, or threads, of linked messages.

**UNIFORM RESOURCE LOCATOR (URL)** — The address of a document or site on the Web.

**UPLINK** — The communication link from the transmitting earth station to the satellite.

**VIDEO ON DEMAND** — The delivery of digital movies via cable, telephone, or wireless, where the user has the ability to start and stop the movie at any time.

**WEB-BASED TRAINING (WBT)** — Anytime, anywhere electronic or computer-supported instruction. Also called e-Learning.

**WEBCASTING** — Uses push technologies to simultaneously broadcast live video and/or audio via the Internet to multiple computers. The quality of Webcast reception can vary greatly and is highly

dependent on bandwidth, hardware quality, etc.

**WORLD WIDE WEB** — A global, networked system that serves data images, documents, and multimedia on the Internet. ■

## SAN DIEGO TECH >>>

### The Best Solutions

What are the goals, action plans, and budgets of the meeting? What technology capabilities at the convention center or hotel will have direct impact on the meeting? And what technology decisions will be fiscally prudent?

Technology poses perhaps the most complex and vexing of challenges in meeting planning decision-making. Here's where San Diego's expertise is brought to bear.

"It's our position to bring the best solutions to the association meeting planner," explained Joseph Psuik, convention center director, San Diego Convention Center Corporation. "We deliver solutions, backed by the technology products in-house, and service — how we deliver those solutions. That's what we do every day."

This same thinking is evident at San Diego's hotel facilities. For the Sheraton San Diego Hotel & Marina, meeting-related groups represent about 70 percent of its business. "Planners are making decisions on how easy it is to do business with hotels and get what they need efficiently and cost-effectively. At the same time, their needs are more sophisticated and their timeframes shorter," said Joseph Terzi, Starwood's regional vice president, operations, Southern California.

To make attendees more productive while at the meeting, the Sheraton San Diego Hotel & Marina provides high-speed Internet access in all guest and meeting rooms, and wireless Internet accessibility so attendees can navigate throughout the hotel. "We have a 100-booth show right now at the property that connects to T-1 high-speed access, all

done on site without having to bring another provider in," Terzi added.

The technology demands on hotels are so clear to see when a meeting breaks. "We double and triple our outgoing communications capability for people who get on their PCs to network from their rooms," explained Rob Cameron, director of sales and marketing, Manchester Grand Hyatt San Diego.

At the San Diego Marriott Hotel & Marina, direct Ethernet lines and dial-up in every guest room, as well as connectivity in every meeting room, enable planners and attendees to access anything they need. "When you get down to a meeting's communication needs, fiber-optics and T-1 lines are a huge requirement," said Harold Queisser, market director association sales.

For the San Diego Convention Center and its hotel colleagues, the answer is to always plan far ahead of the curve, especially with bookings as far ahead as 2024. The convention facility, for example, has been built so that it can easily plug the latest electronics into its backbone and introduce next-generation technology. But the bottom line has to be a price point that's both reasonable and competitive for the meeting planner.

"A good level of collaboration has to happen as early as possible: two, three, four years out," Psuik said. "Technology isn't cheap, and planners know there has to be a return on their investment. We can set a chair for a buck, but we can't give you an Ethernet connection for that same buck. However, we can expand the value of what you're spending by putting together a better technology package for you."

# SELECTING TRAVEL AND EVENT TECHNOLOGY

Organizations of every size and scope are reporting substantial savings and increased efficiency from the implementation of online technologies for travel and event booking.

Event planners at Nortel Networks, for example, have saved the company more than \$1 million in just the first year it centralized and Web-enabled processes that were formerly manual and fragmented.

Application Service Providers (ASPs) are providing innovative solutions that are secure, reliable, and user-friendly. These solutions also provide regular enhancements and new features.

Online booking for meetings and business travel is truly becoming an acknowledged “best practice.”

What follows is a brief checklist of questions to ask as you determine which technologies offer the right fit for your organization.

>> **Is the product an enterprise-wide, fully scalable solution?** In other words, can it handle all aspects of your business travel or event booking needs? Can it grow with you so you can avoid the need to purchase additional products? How many users can access the tool simultaneously?

>> **What is the vendor's background?** The travel and meeting industries still rely heavily on personal referrals and the “trust factor.” Who are the people behind the technology? Do they know and understand the intricacies of our business? Does the vendor have a strong customer base that will speak about their experiences with the product?

>> **How is security assured?** Be certain your vendor has made the necessary investment in infrastructure and has a proven plan for disaster recovery, data

security, and backup. Vendors with “big name” customers often must go through an extensive security audit process prior to selection. Furthermore, does the system allow you to report on the location of your travelers and communicate with them in the event of an emergency or crisis?

>> **Does the application have branding and marketing capabilities?** Can your organization's branding be extended throughout the meeting process? If you need to drive attendance to your events, can e-marketing tools be utilized from within the system? You may also want to use these tools to

>> **How are upgrades handled?** One great ASP advantage is that you should always have the latest application version and the most recent innovations. Ask: Will there be additional charges for new versions? If the new functionality requires additional training, what are the costs?

>> **Does the vendor provide enough training and support to ensure you can maximize the full value of the tool?** Most people use Microsoft Word or Excel, but get by with a small percentage of its full functionality. You'll want to make sure you thoroughly understand the application's capabilities to deliver maxi-

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**Reporting flexibility is a must, and the most useful systems will enable you to sort and report on any criteria collected in the booking process.**

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increase the percentage of online bookings on your air travel engine.

>> **Does the system truly integrate and communicate with real-time air travel options?** What carriers are covered? How does the system integrate with your internal travel policy or conference travel program?

>> **Can you access data in real time in the way you and other internal departments need it?** Reporting flexibility is a must, and the most useful systems will enable you to sort and report on any criteria collected in the booking process. You can also “store” data to reuse for marketing promotions and historical reference, which could be beneficial for future negotiations. In addition, determine if reporting rights can be granted by users.

mum value to your organization. You'll also want to make sure a high-quality customer service plan supports the application.

>> **Is the pricing realistic?** Is this a good investment for your organization at this time? In many cases, it is simply a matter of determining the savings you'll realize from the increased efficiency and improved service your organization will be able to provide. You may need to ask: Can we afford *not* to invest in this technology, while staying competitive ourselves? What other internal departments could benefit by using the technology? ■

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**EDITOR'S NOTE:** Peggy Lee, chairman and founder of b-there.com, assisted in compiling this list of questions and areas to consider.