Choosing a Microsoft Web Conferencing Solution

Introduction

As the global supply chain for labor, goods, and services has been flattened and accelerated, it has become more complex. Indeed, the need to communicate and collaborate between individuals and groups of individuals has grown exponentially as suppliers, manufacturing, R&D, engineering, production, operations, sales, marketing, finance, and retail have all become globally dispersed. Companies of all types and sizes are acknowledging the competitive need to streamline the flow of knowledge and expertise within the enterprise, regardless of where in the world that knowledge and expertise need be applied. The big economic wins in this decade and the next will likely go to those companies, and their key partners, who are able to flatten and accelerate their *knowledge chains*.

Conferencing and collaboration are keystones to accelerating business processes. Recent data from Wainhouse Research indicate that the top three reasons why web conferencing is used include reducing travel costs, expanding geographic reach by involving people that would not otherwise attend a meeting, and increasing productivity.

Figure 1. Reasons why enterprises use Web conferencing[1].
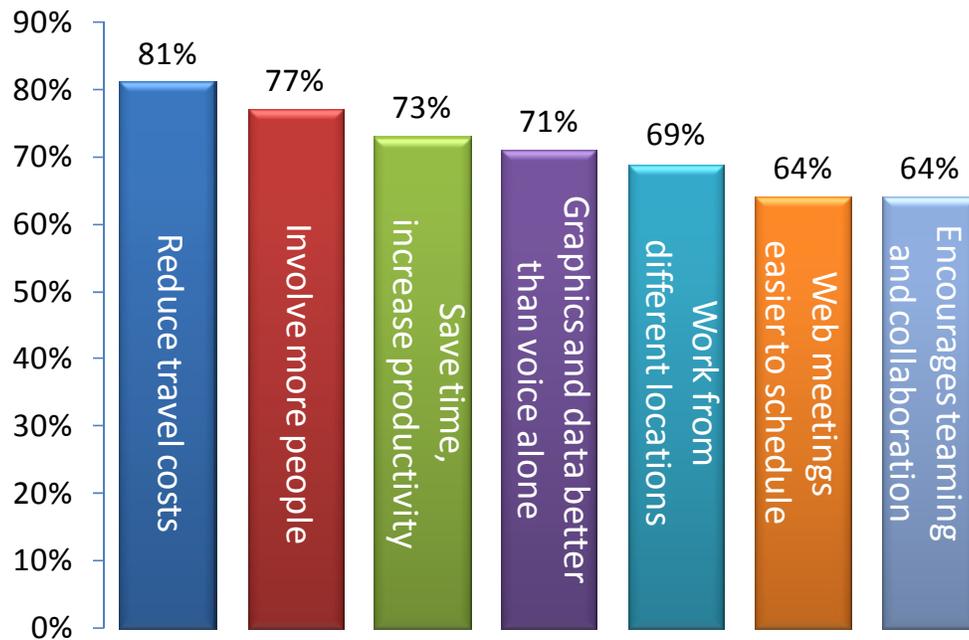
Source: Wainhouse Research, 06/08

Companies use Web conferencing to significantly increase personal productivity and organizational efficiency. Personal productivity gains are achieved when distributed team members are able to meet and collaborate using voice, video, and data, all in real-time. A key element of this collaboration is "see what I see", which is the ability for all participants to see presentations, drawings, or documents, and not just to see them, but to be able to change them, mark them up, and provide instantaneous feedback. Web collaboration helps teams to align their work products and their work flow so that all employees can contribute at maximum levels.

In addition to personal and team collaboration, many organizations also use web conferencing as a mechanism for delivering important messages internally and externally. Web conferencing is regularly

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[1] "WebMetrics, First Half Survey", Wainhouse Research, July, 2008. See http://www.wainhouse.com/webmetrics/.

used to broadcast information on policies, procedures, results, products, and offerings to employees and to customers or suppliers. Web seminars have proven to be a powerful tool to virtualize the sales process. Many small to medium businesses use web conferencing to expand and capture revenue in geographies without the need to first invest in a physical presence.

Clearly there are differences between Web conferencing solutions used for internal team meetings and those solutions used for event broadcasting to hundreds and sometimes thousands of participants. Large events typically require higher capacity solutions as well as real-time monitoring services to assure that the broadcast proceeds as planned. They also need pre- and post-production capabilities, including on-line registration, attendance tracking, archival, and on-demand retrieval, to provide organizations with tools they need to maximize event effectiveness.

This whitepaper introduces two Microsoft® Web conferencing solutions upon which enterprises can rely to meet their conferencing and collaboration needs:

- **Microsoft® Office Live Meeting** – a hosted service for Web conferencing and broadcast events

- **Microsoft Office Communications Server 2007 R2** – a presence-enabled on-premise server solution that includes Web conferencing functionality along with other communication and collaboration capabilities.

Access to Microsoft's Web conferencing capabilities, either from the hosted service or from the premise-based solution is enabled by the Live Meeting Console, which is the primary web conferencing interface users interact with.

The whitepaper details the capabilities of these solutions and discusses how organizations can accelerate their own business processes and improve their effectiveness by selecting and using either or both of these Microsoft conferencing and collaboration solutions.

Web Conferencing Solutions from Microsoft

Microsoft has developed two Web conferencing solutions. While these solutions have much in common from a user experience point of view, they cater to different needs. The distinguishing differences are the services and capabilities wrapped around them and how they are delivered.

Microsoft Office Live Meeting

Microsoft Office Live Meeting is a full-featured hosted Web conferencing service. Users access the solution via a web browser over an Internet connection or via the rich client: Live Meeting console. A simple browser plug-in is usually installed, although not required, to provide a better participant experience. For a browser based experience, Java is required.

Microsoft Office Live Meeting delivers all of the capabilities one would expect in a modern Web conferencing platform including the ability display presentations, documents, browsers, and any application. Live Meeting also offers whiteboarding, and it gives participants the ability to mark up and annotate any presentation.

Using Microsoft's IP audio capabilities, Live Meeting participants can join a Web conference using their computer microphone and speakers, and they will enjoy excellent audio quality, even over an Internet connection. Users may also join using a regular telephone.

One of the unique features Live Meeting offers is the ability for users to deploy a Roundtable conference room audio and video speaker device. Roundtable captures a 360 degree image of everyone in a room, and transmits it to participants at other locations. Using Roundtable, meeting participants can see the body language of everyone in the meeting, making meetings much more effective, particularly for meetings involving non-native language speakers and those in multicultural environments. Roundtable also supports wideband audio, providing participants with a richer, more enjoyable audio experience while meeting.

The Live Meeting hosted service is offered with its standard services wrapper, or organizations can opt for Live Meeting Professional, which adds services to support broadcast events. Live Meeting Professional services include event registration, an events landing page, pre-event reminder email messages, testing and grading capabilities, post-event email messages, event recording, and operator assistance capability.

Microsoft Roundtable

**Figure 2. The Live Meeting Console showing Roundtable video input.**

Microsoft Office Communications Server R2

Microsoft Office Communications Server 2007 R2 (OCS 2007 R2) is a presence-enabled unified communications solution that includes rich presence, instant messaging, enterprise telephony, standard and high definition video, point-to-point and multipoint audio/video conferencing, and data collaboration.

OCS 2007 R2 supports a rich presence model that indicates an individual's presence status on a buddy list via the Office Communicator client running on the desktop or through integration with Microsoft Office applications including Exchange/Outlook, SharePoint, and standard desktop applications such as Word and Excel. By knowing the presence status of one or more individuals, conferences can be set up instantly with available colleagues that include high quality voice and video as well Web conferencing.

OCS 2007 R2 has two ways capabilities for Web conferencing: instant desktop sharing in Office Communicator and Live Meeting. Desktop sharing allows a person to launch an instant collaboration session in which participants are invited to a meeting through an instant message or a URL. By accepting the meeting invitation, participants immediately view the presenter's screen. A button also appears on the desktop sharing screen which when clicked upon by participants, will cause OCS 2007 R2 to automatically dial out to them and bring them into an audio conference. Desktop sharing is designed for "see what I see and see it quickly" capability; however, it does not have the full rich meeting capabilities of Live Meeting.

Figure 3. Desktop sharing from within Microsoft Office Communications Server R2.
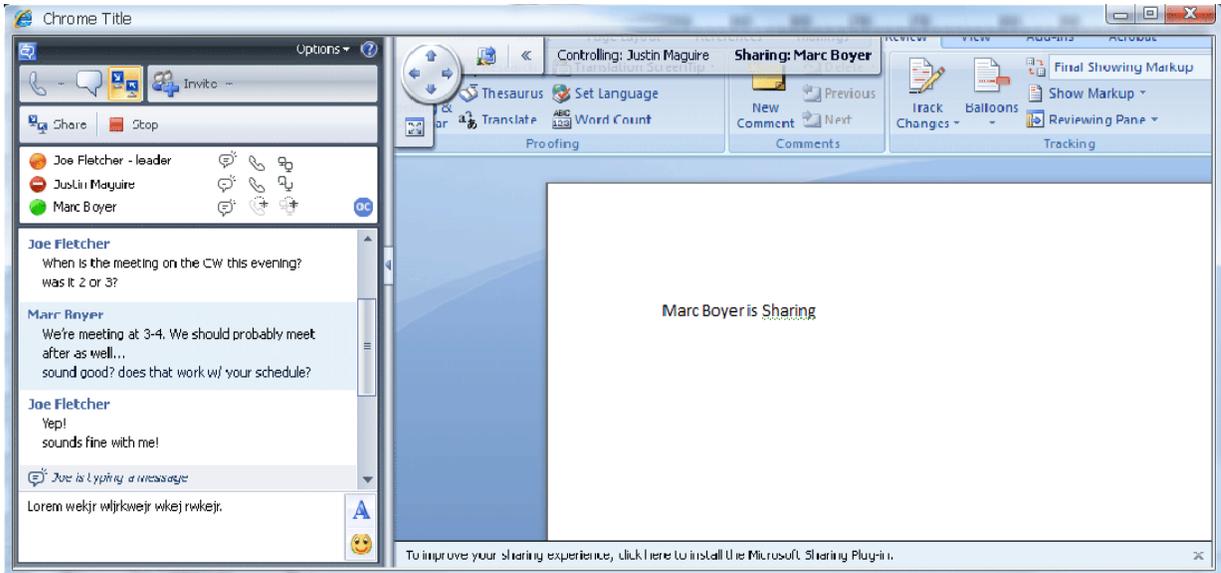
To access the full collaborative Web conferencing features available in Live Meeting, participants can use the Live Meeting console in conjunction with Office Communications Server 2007 R2. Live Meeting is delivered with OCS 2007 R2, and it can be installed on a separate server as an OCS 2007 R2 server role. It has all of the features of the Standard edition of hosted Live Meeting, but it is not delivered with the services wrapper a hosted solution provider would offer.

The premise-based version of Live Meeting also provides integration with Outlook meeting scheduling so that if users wish to schedule a Web conference, they do from the familiar Outlook scheduling mechanism. When it is time for the meeting, users are sent either an email or an instant message reminding them of the meeting along with a link to join it instantly.

Why a Microsoft Conferencing Solution Makes Sense

Enterprises use Web conferencing to improve efficiency and productivity. Deploying a Microsoft conferencing solution is compelling for a number of reasons including:

- **Microsoft interfaces are already familiar**. A majority of business users depend on Microsoft Office productivity tools like Word, Excel, and PowerPoint. These interfaces are already familiar to users worldwide. Deploying Live Meeting or OCS 2007 R2 for conferencing builds on the investment already made in Microsoft desktop solutions by giving users a consistent and familiar look and feel across the productivity tools and the conferencing tools. There is typically no need for extensive training because people can use the collaborative capabilities of both conferencing solutions almost immediately. OCS 2007 R2 and Live Meeting reduce the friction users encounter when using other solutions.

- **Tight integration with existing tools**. Live Meeting, whether from the hosted service or with OCS 2007 R2, comes with a toolbar that allows users to schedule and launch Web conferences from within the familiar Outlook scheduling interface. Users schedule and use Live Meeting capabilities from within their normal workflow applications such as Outlook and their browser. There is no need to launch another application or learn some another way to schedule and start meetings.

- **Tight integration with existing infrastructure**. Live Meeting and OCS 2007 R2 integrate tightly with Active Directory, making it simple to have single sign on and remote user authentication. No additional authentication directories are required, making it easier to administer. Furthermore, the Live Meeting browser plug-in can be downloaded by administrators using the standard desktop software upgrade tools they are currently using.

- **Capability for any need**. Microsoft offers both a hosted solution and a premise-based solution, giving businesses the choice to use one or the other, or both. Many businesses have security needs to that require them to have an on-premise conferencing solution; however, when doing external outreach events, these organizations can use the same tool with the same capabilities, in a hosted version, which have all of the necessary event services wrapped around it.

- **Microsoft's offering has world-class functionality**. There are few solutions on the market with as many collaborative capabilities as one finds in Microsoft Live Meeting. When coupled with the rich communications and collaboration environment offered by OCS 2007 R2, there are no competitive offerings that come close to the ease of use, tight integration with existing infrastructure, and rich feature set Microsoft's conferencing solutions offer.

Which Deployment Model: Hosted or Premise-Based

One may ask which deployment model, hosted or premise-based, is better for a particular organization. Clearly, it depends on the policies of the organization and the needs of the user. Here are a few general principles that will help guide administrators in a deployment option.

When the On-Premise Solution Makes Sense

An on-premise communications and conferencing solution using OCS 2007 R2 will be more appealing to organizations that seek a secure solution in which all data can remain behind their firewall - which may be a regulatory requirement in certain industries or geographies. A premise-based solution also offers complete control over policy specifics, enabling features, and when to roll out upgrades. Such a solution provides better opportunities for customization and integration with existing infrastructure and previously deployed line of business applications.

An on-premise solution is also highly desirable for companies wishing to take advantage of a presence-based unified communications solution which also offers enterprise-class voice and video capabilities in addition to the conferencing functionality. OCS 2007 R2 is Microsoft's unified communication offering, and it comes with Web conferencing via Live Meeting console as well as Office Communicator Desktop Sharing for instant conferencing. OCS 2007 R2 also provides on-premise audio and video conferencing using the OCS 2007 R2 servers, and it supports OCS 2007 R2 specific endpoints and phones as well as PSTN dial-in/dial-out capability.

An on-premise solution is not a good solution for large external events and events where numerous third parties need to participate in Web conferences. Clearly an on-premise solution will require more management by an organization's IT department than will a hosted solution.

When a Hosted Solution is an Advantage

Using Live Meeting as a hosted Web conferencing solution is a tremendous advantage for organizations that have few or no IT resources. It is also compelling for large companies that do not wish to invest scarce IT resources managing a premise-based conferencing solution. A hosted solution is extremely easy to set up and maintain.

Hosted Live Meeting is a pay-as-you-go solution, so it requires no capital expenditure, an important consideration in uncertain economic times.

Using a hosted conferencing service is an excellent solution for organizations seeking to do large events and external events. Numerous event services are available, making large events easy to plan, execute, and evaluate the results. These services include providing event registration, an events landing page, pre-event reminder email messages, testing and grading capabilities, post-event email messages, event recording, and operator assistance capability.

A hosted solution is used by both large and small companies when there are numerous third parties that need to participate in web conferences. Examples would be sales persons who need to interface one-on-one with different individuals regularly and/or with a number of small external teams on a regular basis.

Sometimes Hybrid Web Conferencing Solutions are Used

A number of organizations find that they wish to have the control and security of an on-premise solution for their day-to-day Web conferencing, but they also have the need to hold events and/or interface with individuals outside the company. In these situations, a hybrid model can be deployed in which the hosted solution is used when large events are staged or when dealing with external customers and suppliers. However, for internal use, OCS 2007 R2 is used as an integrated communications and conferencing solution that provides the best unified communications has to offer with the robust Web conferencing capabilities of premise-based Live Meeting.

The Live Meeting Outlook plug-in recognizes when users have access to both premise-based and hosted Web conferencing, and it provides a drop-down box which allows users to specify whether a meeting they are scheduling will use the hosted service version or the on-premise version of Live Meeting.

Differences in Web Conferencing Solution Costs

Which solution is more cost effective will typically depend on the nature of the organization. If the organization anticipates that it will scale up the use of Web conferencing over time, then a hosted service solution can provide lower initial costs by avoiding the hardware and maintenance costs the server solution incurs. However, in the longer term, costs will likely be lower with a premise-based solution due to lower ongoing service / licensing costs. This is particularly true when an organization leverages all of the communications and collaboration capabilities in OCS 2007 R2 and uses Web conferencing extensively.

Premise-Based Solutions

A premise-based solution and a hosted service Web conferencing solution will incur different costs. For a premise-based OCS 2007 R2 solution, a company will have the following costs:

- **Hardware server costs**. Clearly deploying the OCS 2007 R2 hardware servers requires an initial outlay capital outlay. These costs are highest when the Web conferencing server is initially deployed, but hardware upgrades may result in additional costs later.

- **Software licensing costs**. These costs are incurred when OCS 2007 R2 is initially deployed. There is also an annual maintenance cost.

- **Deployment**, **maintenance**, **and support costs**. These costs are typically high initially, reflecting the time and money associated with OCS 2007 R2 solution design, initial deployment and initial support costs. There is clearly some on-going maintenance required, but after the initial deployment, this should be minimal.

- **External network capacity.** If OCS 2007 R2 is going to be used by a large number of participants that are external to the facility where the server is located, then bandwidth from the server facility to the Internet may be a cost consideration.

Hosted Solutions

The cost to initially deploy a hosted service solution is typically several orders of magnitude lower than the premise-based solution. The primary costs for a hosted service are
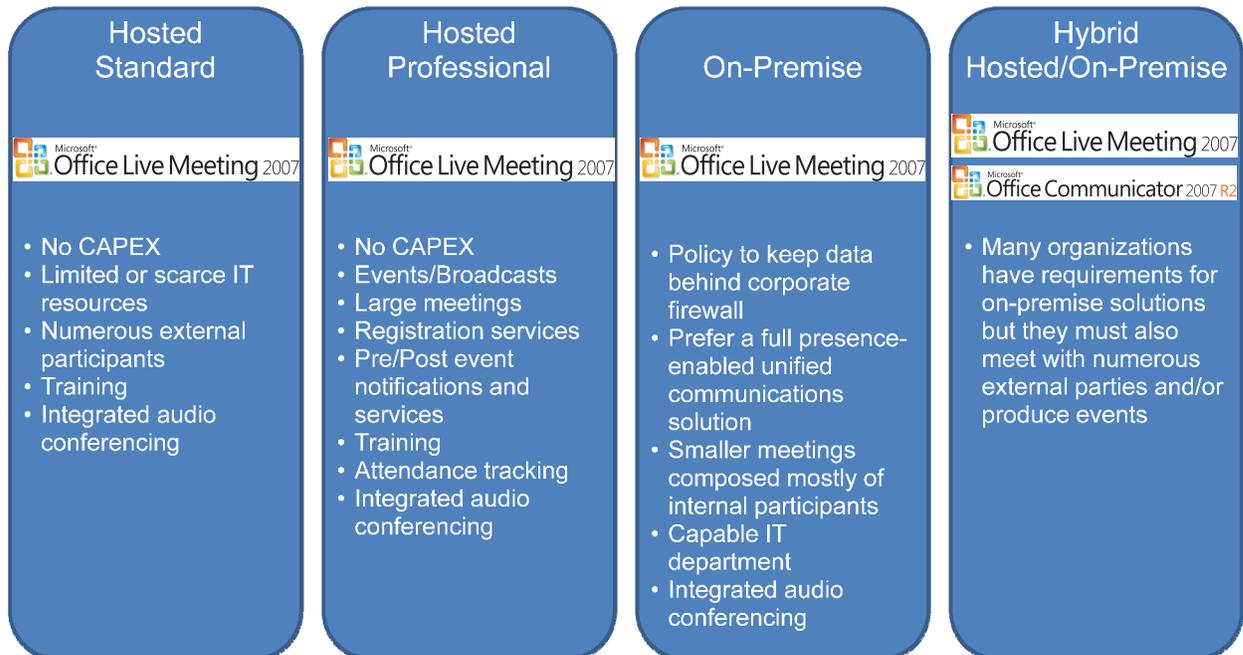
- The ongoing service / licensing cost.

- Possibly some broadband networking costs.

Over time, however, these costs can be higher in a hosted service solution than in an on-premise solution, reflecting the fact that the service is managed by an external vendor.

Selecting a Deployment Option

Based on an organization's policies, IT resources, capital budget, and meeting sizes, the following table provides recommendations for an optimal Web conferencing choice.

Figure 4. Hosted or on-premise Web conferencing deployment guidelines.

Hosted Standard	Hosted Professional	On-Premise	Hybrid Hosted/On-Premise
Microsoft® Office Live Meeting 2007	Microsoft® Office Live Meeting 2007	Microsoft® Office Live Meeting 2007	Microsoft® Office Live Meeting 2007 / Microsoft® Office Communicator 2007 R2
• No CAPEX • Limited or scarce IT resources • Numerous external participants • Training • Integrated audio conferencing	• No CAPEX • Events/Broadcasts • Large meetings • Registration services • Pre/Post event notifications and services • Training • Attendance tracking • Integrated audio conferencing	• Policy to keep data behind corporate firewall • Prefer a full presence-enabled unified communications solution • Smaller meetings composed mostly of internal participants • Capable IT department • Integrated audio conferencing	• Many organizations have requirements for on-premise solutions but they must also meet with numerous external parties and/or produce events

Example Web conferencing deployment scenarios

The following scenarios illustrate different situations in which Office Live Meeting, Office Communications Server 2007 Release 2, or a combination of the two is most appropriate:

Scenario A: Medium sized company with competing IT priorities

Wingtip Toys is a toy manufacturer with 1,400 employees, with administrative headquarters located in Issaquah, WA and a toy manufacturing facility located in Qingdao, China. Company executives and a small sales force travel extensively throughout the United States for meetings with toy retailers, and they frequently visit the factory in Qingdao.

In recent years, Wingtip Toys has faced financial pressures that are forcing it to reduce its operating costs in the short term. The CEO of Wingtip Toys is looking to substantially reduce travel in the coming year, without impacting the company's ability to do business.

Wingtip Toys has a lean IT budget and workforce, which is focused on maintaining existing services (hosted e-mail, supply chain management, and accounting), and on developing an effective CRM solution. In addition, IT Management has been asked to explore Web conferencing as a solution to reduce their travel costs in line with their new operating plan. There are no additional people or budget resources available within the IT department to implement Web conferencing.

The following meetings have been identified as prime candidates for Web conferencing:

- Meetings between sales executives and retailers;

- Internal meetings with senior executives, some of whom may be traveling;

- Meetings between the factory manager in Qingdao and the management board in Issaquah.

The IT Manager of Wingtip Toys must choose between a hosted service solution and a premise-based solution for Web conferencing. To do so, the IT Manager prioritizes the requirements.

Priorities for Wingtip Toys include keeping costs as low as possible in the short term and deploying a Web conferencing solution requiring minimal IT resources. The IT Manager therefore decides to deploy Office Live Meeting as a hosted Web Conferencing solution. Roundtable audio/video units are installed in conference rooms in both Qingdao and Issaquah while sales and managers are given small cameras suitable for a laptop computer. Face-to-face Web conferencing meetings using voice and video over IP save on travel costs and international conference calls while maintaining the visual cues so important in multicultural organizations.

Scenario B: Large Financial Services Company with Information Security Requirements

Woodgrove Bank is a global investment banking firm, specializing in mergers and acquisitions, divestitures, and corporate finance for private middle-market businesses. Woodgrove Bank primarily serves companies with annual revenues of US$1 million to $250 million, and helps business owners in a broad range of industries evaluate, improve, grow, and sell their companies.

Due to the sensitive nature of its business, any data Woodgrove Bank uses must comply with the bank's security policies and with broader industry requirements. In order to comply with these policies and security audit requirements, data must not traverse the firewall.

The IT organization of the bank maintains competencies for deploying, managing, and maintaining servers. IT resources are fully funded and staffed for this work. Furthermore, Woodgrove Bank is interested in deploying a premise-based unified communications solution for presence and instant messaging that integrates with its existing telephony system and which provides conferencing capabilities.

Woodgrove Bank conducts a variety of online meetings such as:

- Client meetings

- Internal management training

- Compliance affairs updates

- Virtual team meetings for special projects

The CIO of Woodgrove Bank must make a decision between a hosted conferencing service solution and a server-based solution for its Web conferencing needs. Given the requirement the bank has for keeping data behind the corporate firewall and its unified communications initiatives, Office Communications Server 2007 R2 is the preferred conferencing solution. This choice helps the bank protect its data, comply with data security rules, provide a presence-enabled communications solution, and delivers conferencing and collaboration capabilities for the organization. Because Live Meeting is delivered as a server role within OCS 2007 R2, Woodgrove Bank essentially gets Web conferencing at no additional cost with unified communications deployment, and it comes with no additional management or infrastructure required.

Scenario C: Large Technology Enterprise with Diverse Requirements

A. Datum Corporation is a multinational technology company with a wide portfolio of technology products, including consumer electronics, consumer and business software, and computer peripherals.

The company has numerous product development, marketing, and sales teams with individuals distributed in many countries. These teams meet internally regularly, but they also meet with many people outside the company. A. Datum also puts on web seminars and events regularly to promote its brands and products.

The company is evaluating solutions to reduce travel costs while at the same time increasing individual and corporate efficiency. A. Datum Corporation has the core competencies required to deploy, manage, and maintain Web conferencing and collaboration servers.

The following meetings have been identified as useful candidates for Web conferencing:

- Secure internal-only meetings for senior executives;

- Virtual team meetings with employees throughout the world;

- Virtual team meetings including partners, vendors, and customers;

- Customer presentations with up to 200 participants;

- Shareholder meetings with more than 1,000 participants;

- Product training for partners.

The CIO of A. Datum Corporation must choose between a hosted service solution and a premise-based solution for Web conferencing. To do so, the CIO prioritizes the many different meeting requirements of the company. For example, the majority of A. Datum's meetings are internal only; however, the company also needs must engage many external people and produce marketing, sales, and channel partner events. It also plans to use functionality such as presence awareness and instant messaging in Office Communications Server 2007 Release 2. These considerations makes A. Datum well suited for the Web conferencing capabilities of Office Communications Server 2007 Release 2.

However, there are conferencing situations where hosted Live Meeting would provide more appropriate functionality, such as for the large shareholder meetings and advanced training sessions with partners. With this diverse scenario, the CIO decides to deploy a hybrid solution using both Office Communications Server 2007 Release 2 and Office Live Meeting. The single Web-conferencing client supported by both Web conferencing technologies provides the easiest solution.

Conclusion

In today's economy where companies need to communicate in real time with globally distributed teams and a multinational customer base, Web conferencing has become a mainstream tool for communication and collaboration. Microsoft is helping businesses meet these requirements with two Enterprise-class solutions: Microsoft Office Live Meeting service and the presence-enabled Web conferencing capabilities available in Microsoft Office Communications Server 2007 Release 2.

While Microsoft designed and built both Office Communications Server 2007 and Office Live Meeting service using a common conferencing technology platform to ensure a consistent and familiar user experience, there are important differences between the two Web conferencing products to consider when selecting the optimal solution for your business requirements.

When selecting between Live Meeting or Office Communications Server Release 2 – one a hosted service and the other premise-based product – there are several factors to consider including the capability and availability of IT resources, whether large, complex events are required, the availability of capital budget, the need to include external participants, enterprise security and control concerns, and the organization's plans for unified communications. We have provided Web conferencing solution guidance which takes into account these factors and which makes recommendations for the optimal solution in order to meet specific business requirements.

Appendix

The following table shows the Web conferencing and unified communications features available in Live Meeting Standard, Live Meeting Professional, and Office Communications Server 2007 R 2.

Web Conferencing Solution Feature Comparison

Feature	Live Meeting Standard	Live Meeting Professional	Office Communications Server 2007 R2
Connected Organizations			
Host collaborative meetings quickly and cost-effectively			
Streamlined user experience	X	X	X
Support for Web client	X	X	X[2]
Single meeting client for on-premise and hosted conferencing	X	X	X
Interactive whiteboard and annotation tools	X	X	X
Shared notes pane	X	X	X
Instant Desktop Sharing			X
Train distributed employees and partners and conduct events that scale to support large audiences			
Conferencing add-in for Microsoft Office Outlook	X	X	X
Event and class registration		X	
Public events page		X	
Advanced testing and grading		X	
High fidelity recordings	X	X	X
Shared recordings		X	
Personal recordings	X	X	X
Microsoft event services	X	X	
Meeting reports	X	X	
Meeting content storage and management tools	X	X	X
Easy Assist remote assistance capability		X	

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[2] In OCS 2007 R2, this is for Desktop Sharing only. However, a premise-based Live Meeting event can still available via Communicator Web Access.

Feature	Live Meeting Standard	Live Meeting Professional	Office Communications Server
Engaged Attendees			
Keep attendees engaged with an integrated rich media and conferencing experience			
Rich media presentations	X	X	X
Native live Webcam video	X	X	X
Integrated media experience	X	X	X
Integrated PowerPoint® viewer	X	X	X
Drag and drop upload to view a wide range of document file types	X	X	X
Interactive meetings with two-way multi-party video and audio experience			
Presence indicators			X
Instant Messaging			X
Click-to-Dial			X
Click-to-Conference			X
Panoramic video by Microsoft Office RoundTable™	X	X	X
Integrated PSTN and multipoint VoIP audio	X	X	X
Audio conference call controls	X	X	X
Speaker indicator	X	X	X
Handout distribution	X	X	X
Virtual Breakout Rooms		X	
Enterprise-Class Reliability			
Web conferencing delivery and support			
Telephone and e-mail support for internal and external meeting attendees	X	X	
Automatic client installation and upgrade	X	X	X
Intranet portal to simplify rollout	X	X	X

Web conferencing service and security			
99.99% historical availability	X	X	X
Certified data centers	X	X	
Microsoft Forefront$^{™}$ Virus Scanning	X	X	X