Four Virtual Meeting Room Deployment Strategies for Technology Companies: Which Strategy Is Best for You?

Firms can use the guidance offered in this paper to better understand four available VMR options: private-on-premises, as-a-service cloud, hosted private cloud and hybrids.

Virtual meeting rooms (VMRs) are essential communications tools for today's businesses. Companies are adopting VMRs because the services can directly transform internal and external communications to increase business efficiencies, improve productivity, and speed the pace of innovation.

A virtual meeting room is a personalized collaboration room that participants can use in self-service fashion to work together online. A VMR is often referred to as a "conference room without walls" because it extends collaboration beyond the physical and scheduling restrictions of traditional systems to enable participation by end users anytime, anywhere, no matter how they connect to the service.

VMR services benefit companies because the tools are so user-friendly that it's easy for participants to sign into meeting rooms to talk and collaborate. Companies also like VMRs because the services are easier to support and scale compared to traditional room systems. With VMRs, companies can conveniently increase the number of connections to virtual conferences, making video usage more pervasive in their organizations. VMRs also give organizations a choice of deployment models, enabling firms to adopt solutions that best meet their needs. Four deployment options are available: private-on-premises, as-a-service cloud, hosted private cloud, and hybrid models.

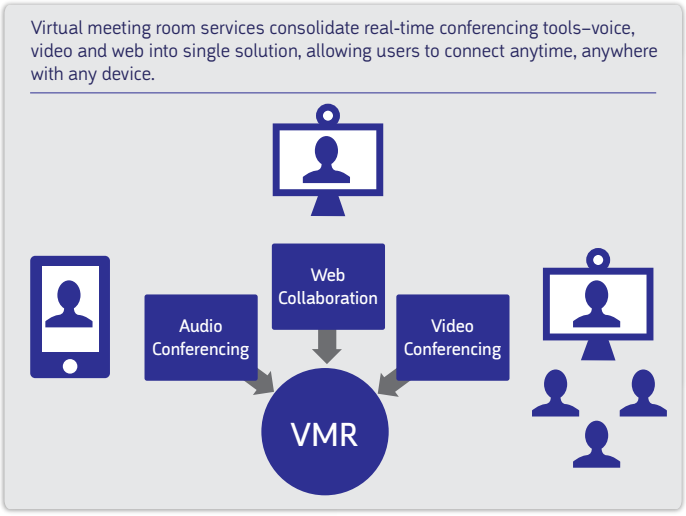
While companies may be attracted to the benefits VMRs offer, many don't have the in-house expertise to identify the deployment strategies that best serve their communications needs or architectural requirements. The purpose of this paper is to help decision makers better understand their VMR deployment options. This paper explains why VMRs are important for business communications; characterizes the four deployment options; illustrates the types of companies that are good candidates for each approach; and summarizes the key factors companies should consider to identify the most appropriate choice.

Key Trends Driving VMR Adoption in the Technology Sector

Technology firms have many compelling motivations for adopting VMRs. While many companies are enjoying business growth, executives are still concerned about the economy and guarding their spending. They're trying to increase efficiencies while focusing on strategic and operational improvements that will improve profitability.

VMRs are a strategic solution for these firms. VMRs reduce travel costs by supporting the meeting and collaboration needs of teleworkers, mobile workers and geographically dispersed teams. The technologies also make it easier for businesses to support bring-your-own-device (BYOD) policies that permit employees to use their own devices in the workplace.

Firms also recognize that they need to collaborate better to excel in their specific markets. In a survey of



companies in the technology, media and telecom sector, PwC found that the top 20 percent of the most innovative companies "use collaboration in unique ways to gain a competitive edge." The top-performing companies also use collaboration more frequently to partner with internal and external groups. Because VMRs enable professionals to meet and collaborate dynamically—joining meetings in ad-hoc fashion without scheduling hassles and while using the tools they prefer—the technologies can play a key role in helping organizations pursue these performance-driven collaboration strategies.

Following are some of the key benefits VMRs provide that are helping drive these adoption trends. The benefits include ease of use, interoperability, content sharing, and enterprise-grade security.

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Ease of Use

A VMR service is user friendly. It can be launched on an ad-hoc basis, without reservations, because it is always on and always available. It is also intuitive: Users can initiate and participate in a session any time, from anywhere, and from any client, as easily as if they are placing a phone call.

VMRs also make business-to-business communications easy because the technology can overcome barriers—such as different firewall traversal methods, incompatible dialing plans or other protocols—that previously impeded the use of traditional video conferencing.

Interoperability

VMRs foster interoperability among disparate systems because the services can be accessed from a full range of clients, including a dedicated hardware endpoint, software endpoint, any web browser, mobile device or telephony device. The support for multiple client types and connectivity options means that employees can freely choose which client or network they want to use when launching or attending a meeting. This encourages spontaneous access, remote participation, and attendance by end users who are external to the company.

With access to VMRs, employees are no longer tied to their desks or office locations to collaborate or complete their work. This flexibility is especially important to younger generations, now entering the workforce, who are looking for fast-paced business processes and the conveniences that VMRs provide.

Solutions that provide this level of interoperability also help companies future-proof their video conferencing investments. With VMRs, companies can adopt the services they need today while knowing that the service can be adapted and scaled in the future as their business requirements change or evolve.

How AVI-SPL's Unify ME™ Provides Interoperable VMR Services

AVI-SPL's Unify ME™ provides an as-a-service VMR solution that supports standards-based software clients to bring together conversations and collaborations from disparate systems, services, devices, and locations into a single session.

Unify Me™ is interoperable with the following client connectivity options:

- H.323 and SIP protocols
- Applications such as Microsoft Lync and Skype
- WebRTC for browser-based audio and video conferencing
- Audio calls

Content Sharing

To maximize collaboration opportunities, VMRs enable multiple participants in a session to concurrently collaborate on their documents. Whether the users are sharing presentations, spreadsheets or simply brainstorming, everyone sees the same information at the same time. Depending on the solution deployed, content sharing is possible for services that use H.239 content sharing on H.323 devices; BFCP for content sharing on SIP-based devices; RDP for use with Microsoft Lync; and WebRTC for dual-stream content. Solutions can also enable users to share data wirelessly from conference room video end points, Microsoft Lync, mobile and desktop screens and leading web browsers, including Firefox, Google Chrome, Internet Explorer, Opera, and Safari.

Enterprise-Grade Security

VMRs are private and secure. Typical services offer host and guest PIN protection and guest waiting rooms. Screen displays can list all meeting participants and give the host ability to control who can and cannot join the meeting. Solutions offer AES 128-bit encryption needed for enterprise video services. Services can also be designed to meet the highest security standards for the U.S. government, including JITC and FIPS140-2. Companies that do business with government agencies will need this capability.

Four Deployment Strategies

Companies of all types can consider adopting any of the four deployment strategies offered for VMRs, but each company will want to adopt the option that best suits its own particular use case and business strategy. Organizations will also want capability to tailor their service to best meet their needs. This section summarizes the four options and characterizes the types of companies that are typical users for each approach. The options include private-on-premises, as-a-service cloud, hosted private cloud, and hybrid models.

Strategy #1: Private on Premises

A typical customer for a private-on-premises deployment is a company that has traditional video conferencing technology in place but wants to augment the installed system with a VMR solution to give end users ad-hoc video conferencing and collaboration capabilities from any mobile device or desktop computer. The company wants to use its internal resources or support from a managed services firm to install the solution on premises, integrate it with existing infrastructure and configure VMR resources for each end user. The organization also needs to make sure that the solution meets security standards required for its business communications.

A private-on-premises deployment is the most common and most traditional deployment approach for this use case. The customer purchases the server and associated hardware, installs it in its own data center, and then operates and manages the hardware, storage, network, and other components.

Specific benefits are afforded to companies that opt for private-on-premises deployments. In particular, because the infrastructure is installed on the customer's property and uses the customer's network, the customer has complete and direct control of all VMR resources and access to those resources. Companies that are particularly concerned about communications security and service quality often prefer the private-on-premises approach because these attributes are integrated into the customer's architecture.

Four VMR Deployment Strategies

	Private-on-Premises	As-A-Service Cloud	Hosted Private Cloud	Hybrid Model
Features and Benefits	• Private deployment in customer's own data center • Customer owns and is responsible for the hardware, storage, etc. • Customizable solution • Customer has direct control and access to all resources • Customer can control security and service quality	• Turnkey service • Vendor can deploy, own, host, and manage the solution • Easily scalable • Reduces upfront costs and risks • Pay-as-you-go service	• Similar to as-a-service cloud, but customer owns the infrastructure • Vendor stores and manages infrastructure in its own data center • Private, single-tenant environment • Customizable solution • Flexible to adapt to other deployment models	• Integrates private-on-premises approach with as-a-service cloud or hosted private cloud • Protects existing investments while adding new capabilities • Can allow "bursting" of cloud resources
Key Considerations	• Customer must have on-premises data center • Customer is responsible for management, maintenance and support • Can require substantial capital investment	• Multi-tenant environment • Fewer customization options compared to private-on-premises and hosted private cloud	• Customer must invest in infrastructure	• Can require capital investment, depending on the new technologies deployed

The customer has the ability to control security, network operating and performance conditions and reduce its reliance on external networks and the public Internet, which can introduce security vulnerabilities and variations in service quality.

A private-on-premises solution is not for every organization. A company using this approach must manage the data center resources. It must assume responsibility for management, maintenance, and support of the network and have the internal human resources to handle this work or bring in a partner to provide managed services. This approach might also require substantial capital investment if the company needs to purchase hardware components. If the company already has the needed infrastructure, it can simply purchase licenses for its VMR users, as an operating expense, for use on the existing equipment.

Strategy #2: As-A-Service Cloud

The as-a-service cloud option is good for any company that wants to streamline its video conferencing and collaboration operations by adopting an outsourced enterprise-grade VMR solution. In this use case, the company wants an external partner that can help support or assume various day-to-day efforts needed to employ a collaboration solution, including solution development, deployment of all hardware and software

components, and operations and maintenance of the infrastructure and services. The partner can also provide support to ensure that employees and B2B users are gaining full access to and value from the service.

A company can have various motivations for this choice. For example, the company could be an organization that does not have a data center; does not have the internal staff or technical resources to support an on-premises installation; does not want to incur the capital expenses to purchase the hardware, storage, or network technologies that an on-premises solution would require; or does not want to invest in any of the components needed to build a service. Alternatively, the company could be an organization that already has data center resources but simply wants to augment its own service with an as-a-service solution.

An as-a-service deployment model gives businesses turnkey VMR service because the solution runs on cloud infrastructure that is owned, hosted, and supported by the service provider. The customer shares the cloud-based video conferencing and collaboration environment with other companies in what is called a "multi-tenant" environment. The company purchases only the capacity it needs from this shared environment, but it has the capability to scale and expand services as needed.

Motivations for Adopting VMRs

- Improve internal and external collaboration
- Spur pervasive use of collaboration tools across an organization
- Choice of four deployment options

Companies that adopt as-a-service VMR solutions want the benefit of the many conveniences this approach provides. Because the solution is outsourced to the as-a-service provider, the service provider manages the solution while delivering enterprise-grade VMR security and service quality. And because the service is easily scalable, the business can adjust capacity and expand service availability to meet strategic growth objectives or occasional needs for additional demand. The company is able to avoid the up-front costs and financial risks associated with infrastructure investments because the as-a-service option is purchased on a pay-as-you-go consumption model and traditionally paid out of operating expenses.

Strategy #3: Hosted Private Cloud

A typical customer for a hosted private cloud deployment is a company that has many small offices and/or remote workers. The company wants the advantages and convenience of a cloud-based VMR environment but it wants dedicated resources for its users. The company does not want to take on the day-to-day responsibility of operating a private-on-premise solution at multiple locations and, because of security concerns, it does not want to use the multi-tenant environment required with the as-a-service cloud model. The company is happy to procure the equipment for its own, exclusive use, but it needs a partner to host a cloud service that meets its very specific deployment and service quality requirements.

A hosted private cloud delivers all of the same capabilities that an as-a-service cloud solution delivers, but in this case the service runs on hardware that is purchased and owned by the customer or leased to the company by the service provider. The customer has exclusive use of the infrastructure in what is called a "single-tenant" environment and therefore does not have to share its cloud resources with any other company. The company enjoys many benefits by using dedicated resources. For example, the vendor will customize the solution to meet the organization's specific service quality and security needs and it will also provision the service to meet the company's specific network operating and performance requirements. The vendor also manages the hardware and stores the equipment in the vendor's own data

center. Because the vendor assumes these responsibilities on the company's behalf, the business does not incur the responsibilities associated with installing, managing, or maintaining an exclusive system.

With a hosted private cloud deployment, a company can invest in infrastructure or use dedicated infrastructure, provided by its vendor partner, according to an operating expenditure model. The hosted private cloud model gives businesses the flexibility to adapt their deployments if their needs change over time. A company that has a migration strategy in mind will want to work with a vendor who can think ahead and plan the deployment to consider this strategy.

At-a-Glance: Typical VMR Capabilities

- Conference room without walls
- Consolidates all standards-based real-time voice, video and web conferencing tools into a single solution
- Available to users anytime, anywhere via any network or client type
- No reservation needed
- Intuitive to use
- Accessible from any dedicated hardware endpoint, software end-point, web browser, mobile device or telephony device
- Content sharing is consistent for all users regardless of device
- Enterprise-grade security and quality
- Does not require (but can support) traditional room systems

Strategy #4: Hybrid Model

There are two typical use cases for hybrid deployments:

In one use case, a customer already has an on-premise video conferencing system but needs to add capacity to provide video services to more employees and business partners. The business wants to keep the hardware it has already invested in but it may not have space in its data center for additional equipment or it may not want to expend capital resources for more hardware. The organization decides to add VMR capacity via as-a-service cloud technology and integrate the two services. The approach enables the company to scale its system without abandoning its original investment.

In the other use case, a company has a cloud-based VMR service in operation already but it wants the benefits of both cloud and private-on-premise technologies. It wants to keep its cloud-based service because it is efficient and convenient for meetings with external participants. However, it wants to add a private-on-premise system for internal meetings. A private-on-premise system will enable the company to save bandwidth costs while offering overflow capacity whenever needed. For companies that must meet strict security requirements, the approach can employ a "firewall traversal" technology that keeps private multimedia traffic behind the company's firewall. According to this model, the company hosts external connections in a service provider's data center while keeping internal connections within the organization.

A hybrid VMR solution integrates VMR services from multiple deployment types. It enables a company to base its architecture on one model and augment it with another model as business demands dictate. Typically, a private-on-premises solution works in combination with one of the cloud solutions (either an as-a-service cloud or a hosted private cloud system). The hybrid solution integrates each of the customer's desired deployment methodologies and enables the integrated systems to function as one unified service.

Companies that adopt hybrid strategies are seeking to gain specific benefits—such as investment protection, service flexibilities, and the ability to tailor the solution to best meet their needs—without compromising their businesses' security policies. Individual end users receive a seamless experience with no indication that there is more than one system.

Hybrid systems from some providers also allow “bursting” or “cascading” of cloud resources. This is a feature that allows a company to aggregate capacity from geographically dispersed servers to support high-volume calls. With bursting, a call can take place on multiple servers at the same time so the customer is not limited to the resources it has locally. The feature is useful for companies that must buy multiple servers and want to reduce the capacity of each server to save costs. The feature also enables an organization to use cloud services to augment an on-premises system to address occasional or sudden spikes in demand. Bursting technologies do require careful integration of the feature with an existing system, however. Companies will want to partner with a provider that understands both systems and can integrate them properly.

Conclusion

Firms that want to adopt VMR services to improve communications can use the guidance offered in this paper to better understand four VMR approaches available in the market: private-on-premises, as-a-service cloud, hosted private cloud, and the hybrid model. The typical use cases offered in the paper, combined with the summaries of each option’s features, benefits, and deployment requirements, should help any company characterize its own use cases and narrow down its VMR architectural options so it can enjoy broad-reaching collaboration capabilities that address its fast-changing business needs.

AVI-SPL recommends that companies use the guidance provided in this paper as the basis for working with a systems integrator or consultant to pinpoint a specific solution for deployment. Seek out a VMR provider that is technology agnostic and works as a consulting partner to craft and configure the optimal deployment model. Providers that bring these capabilities to the project will have the comprehensive insights, knowledge and experience needed to find the VMR solution that best meets the organization’s specific needs.

Polycom RealPresence VMR

As a part of AVI-SPL’s suite of VMR solutions, PresenceVMR delivers Polycom-quality video capabilities on a subscription basis without having to physically acquire and deploy infrastructure. Powered by Polycom’s RealPresence platform, AVI-SPL’s PresenceVMR cloud offering complements and extends Polycom’s on-premise, hosted, and managed video collaboration options, giving organizations the flexibility and scalability they need to tailor a solution to their unique business needs.

The UX – Simple, Elegant, and Robust

- Personalized Video ID Address
- Company Directory Service
- Microsoft Outlook Plug-in
- Self-Guided Tour
- WebRTC
- BYOD
- Dial in number for 40 Countries
- Third-party audio conferencing integration

About AVI-SPL

To learn more about VMR solutions from AVI-SPL, visit www.avispl.com.

AVI-SPL is the world's leading AV systems and video collaboration partner. AVI-SPL designs, builds, integrates and supports the systems and environments that enable communication and collaboration. With highly trained and certified system engineers throughout 34 offices across North America and an international network of solution providers in 30 countries, we've built the infrastructure and partnerships to help any business realize and meet its communication goals. We have extensive experience providing VMR solutions for technology companies and welcome the opportunity to help your firm evaluate VMR options and select the specific deployment strategy and solution that best meets your needs.

About Polycom

Polycom helps organizations unleash the power of human collaboration. More than 415,000 companies and institutions worldwide defy distance with secure video, voice and content solutions from Polycom to increase productivity, speed time to market, provide better customer service, expand education and save lives. Polycom and its global partner ecosystem provide flexible collaboration solutions for any environment that deliver the best user experience, the broadest multi-vendor interoperability and unmatched investment protection. Visit www.polycom.com

1 "Leading TMT Innovators Cite Collaboration as Competitive Edge, says PWC Report," in Top-Consultant, Jan. 27, 2014. http://www.consultantnews.com/article_display.aspx?p=adp&id=10994. See also the PwC report, "Learning From Innovation Leaders: Winning Practices of the most Successful Technology, Media and Telecom Innovators," January 2014. http://www.pwc.com/gx/en/innovationsurvey/assets/learning-from-innovation-leaders.pdf