# GLOWPOINT - WHITE PAPER

## THE ROLE OF MANAGED SERVICES FOR TELEPRESENCE

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## THE ROLE OF MANAGED SERVICES FOR TELEPRESENCE

Over the last 12 months, there has been a dramatic increase in the attention that video has received in regards to inter and intra office communications. On a global scale, the introduction of telepresence is making a resounding impact and causing enterprises to change the way they communicate by incorporating video as an essential ingredient in their communications mix. And to that end, the role of the Managed Service provider in the video and telepresence space has become increasingly relevant. In many cases, it's the Managed Service that can play the key difference in the success or failure of telepresence in the organization.

### Understanding Telepresence

Before one can fully appreciate the role that a service provider plays as it relates to Telepresence, it's important to understand what telepresence actually represents. Telepresence is a term coined to describe a video communication solution, where the audio, visual and physical elements of a meeting room environment are designed in a way to create an immersive experience. In addition to identical or nearly identical furniture, monitors, cameras, speakers and video devices which are installed at offices in different locations, telepresence equipped locations use an IP network for connectivity. When a video meeting is initiated, the people on either side see and hear each other in a high quality, life size image which yields the appearance that they are actually sitting in the same room. Because of this arrangement of cameras, monitors and speakers, the technology becomes part of the room and the meeting participants become immersed in the experience, focusing on the agenda of the meeting, rather than on the technology that is driving it.

### Is this just video conferencing under another name?

Yes and No - Telepresence is in fact a form of video conferencing. Beyond overall adoption challenges, video conferencing has been faced with other perceived barriers including: quality of the network, non-standard room environments, and lack of widely accessible expertise / support.

Network - When initially introduced video conferencing was invariably compared to the television and telephone - both of which took many years to be perfected but have now become synonymous with reliability and quality. In a similar fashion, traditional video conferencing has been slow to evolve into a fully reliable communications method due to the limited quality and capacity of network types (such as ISDN), ease of use issues and lack of reliability. Additionally, there was limited focus and expertise focused on addressing these issues that caused an inconsistent and poor experience to the users of the technologies.

Room Environments – Traditional video conferencing equipment was often purchased and placed in conference rooms with little or no regard to the quality of lighting, the audio or the placement of the camera for optimal coverage of meeting participants. With video systems in vulnerable positions and capable of being moved out of position, there was a high potential for a poor overall experience. In fact, users often complained they could not see or hear people at other sites with the cause being more related to poor lighting, acoustics, and room layout rather than the equipment or the network.

Support / Expertise - Traditional video conferencing also suffered from a lack of overall support and "ownership", having rarely received the appropriate level of attention that other "mission critical" applications were given. The result was a perceived difficulty in using video and even worse, many employees not even being made aware that video conferencing was a communication tool available to them.

Beginning in late 2000, the transition to IP and the creation of a new breed of service provider dedicated to supporting video communications yielded significant strides in improving the overall reliability, ease of use and performance. With these improvements, video conferencing adoption began to occur in many organizations. At the same time, with greater importance being placed on "green" methods and cost reduction efforts, video was on the verge of becoming a "mission critical" application.

## A new era of Video Conferencing emerges: Telepresence

Originally marketed by a company called Telesuites, telepresence has in fact been available for a number of years. Telesuites gained early traction by building and managing "telepresence-type" rooms for several organizations around the world. That said, the term telepresence did not become prevalent until some big technology companies, including HP and Cisco recognized the potential and began marketing the concept globally. There was a common objective: join the emerging video communications market, but distance the "new generation" technologies from the negative connotations associated with the term video conferencing.

With its launch of Telepresence in 2006, Cisco and their CEO, John Chambers have become the driving force for global awareness of Telepresence and have yielded the video market world-wide attention and increased adoption. Since that time, all the leading Video Conferencing industry manufacturers have added to the accelerated adoption and awareness by launching Telepresence solutions of their own.

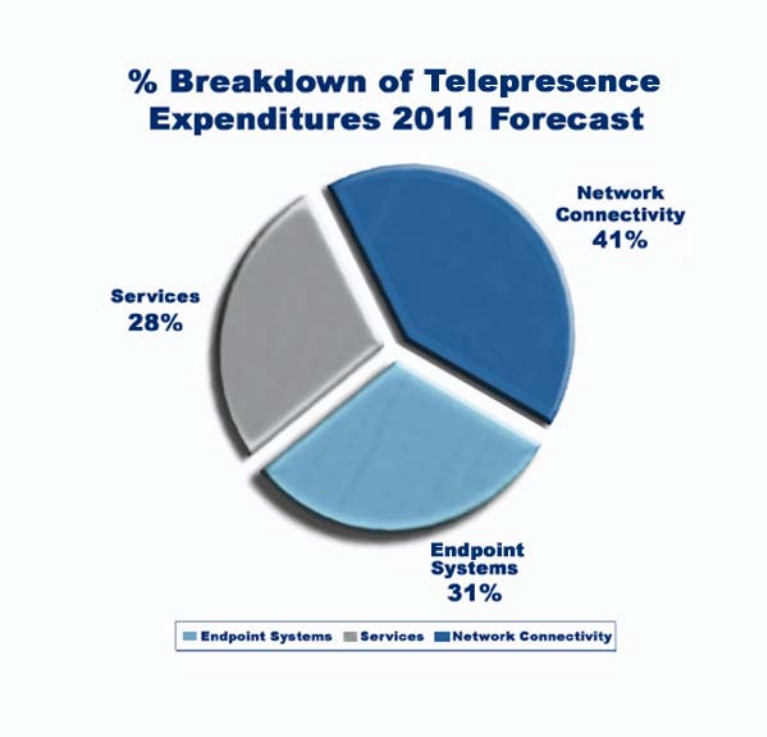
And telepresence is coming full-circle. Although Telepresence is regarded as a room, immersive experience and, in its original form, includes a complete "room" configuration, several manufacturers are moving toward single screen stand alone models that resemble traditional video conferencing systems.

These developments have driven a new expectation level that represents a significant change from the traditional video conferencing era such that high quality "Telepresence" immersive experiences have become the benchmark for quality and performance of video in the business community.

## Markets projections driven by the Telepresence era

There are many conditions driving an increased demand for high quality video communications. Global Warming, rising fuel prices, an economic downturn and terrorism have all combined to create a "perfect storm" of demand for Telepresence. The different approaches by new and traditional providers to capitalize on this emerging market have added to the awareness and attention.

According to the IDC and Cisco, The worldwide revenue opportunity for telepresence is projected to be $5 billion (U.S.) by 2011, with the largest portion of the revenue ($3.8 billion) driven by network and managed service revenues. Of the $3.8 billion, $1.5 billion will be attributed to managed services and $2.3 billion for network connectivity.[1]




Telepresence is increasingly being sought as a collaboration tool between business partners and customers. Although the price tag of installing a telepresence room (ranging from $150k to as high as $400k) may seem to indicate that it is only designed for C level executives, in reality telepresence technology is designed to help any organization reduce costs and improve communications. In addition to playing an important role in addressing the issue of global warming and carbon footprint reduction, telepresence can help organizations save money on travel and can help to increase productivity.

A recent study by TRI[2], which included discussions with organizations who are using telepresence, identified the following business objectives behind telepresence:

- Greater operational efficiency,
- Optimization of global resources & competencies,
- Mitigate risk & promote secure business interactions,
- Raise quality of life, and
- Promote a homogenous, robust culture.

[1] Cisco company literature, 2007
[2] Telemanagement Resources International Inc. private research study 2007.

**Respondents to the study had the following to say about telepresence:**

"Telepresence provides significant communications benefits. It is a far more efficient approach to working."

"Telepresence provides a meeting across the seas as easy to set up as walking down the corridor to gather up colleagues."

"Telepresence is not just about saving money on international travel, it is about getting smarter at communication, strategy, and collaboration."

Clearly, telepresence has the ability to impact the bottom line of any organization in a positive way with both quantitative benefits and qualitative value. But how does it compare to video conferencing?

**Telepresence offers great quality, yields a fantastic experience, and users love it… so where's the "But"?**

As with any new generation of technology there are few key barriers to consider:

1) Interoperability - many companies already have made a significant investment in "traditional" video conferencing equipment and need to leverage both the traditional and the Telepresence solutions.
2) Bandwidth - the great video quality and reliability comes at a high cost in terms of network bandwidth. Each room's set up uses 3 or more video codec's that require an average of 15MB of network bandwidth.
3) Investment - while the rooms are specially designed and integrated, they represent a considerable amount of equipment that must all function properly in order for the experience to be high quality and reliable.
4) Resources - the ability to establish multi-point (several rooms in one session) Telepresence calls requires additional investment and appropriately trained resources.

So when everything is operating and functioning properly, Telepresence offers a superior experience to the users. However, support of Telepresence rooms can be a daunting task and most organizations lack the expertise and available resources to dedicate to this effort. As a result, a new type of video managed services has emerged which is routinely offered along with Telepresence rooms called "VNOC" services.

VNOC stands for "Video or Virtual" Network Operations Center and is generally comprised of a suite of services tailored specifically for the unique requirements of Telepresence rooms.

VNOC services are a critical component of the telepresence experience because:

- The complete telepresence experience must consistently satisfy end users under the most demanding conditions.
- The adoption rate and overall productivity of a telepresence investment is directly related to user experience on a day-to-day basis.
- The benefits of a telepresence solution can only be fully realized by leveraging the expertise of a Telepresence VNOC Service Provider.
- The right service and support can make the link between telepresence and video conferencing appear seamless.
- Business to Business and the advent of public room rental using Telepresence technology is available without added investment or effort.

According to Frost & Sullivan, telepresence revenues are expected to increase by nearly 850% within the next five years. This means that telepresence and video conferencing will no longer be optional communication methods, as they will be essential for organizations to be competitive and demonstrate improved productivity, efficiency, and to have the ability to communicate with other organization's video platforms on public or private networks.

In order for Telepresence to avoid the challenges and pitfalls of the past and achieve wide adoption, it will require that:

- Video technology from different manufacturers will need to successfully communicate with one another and interoperability must be achieved.
- The complexity of room scheduling and call launching calls must be overcome.
- The technology must be as reliable and consistent as using the telephone.
- Analysis and information about room usage and productivity must be readily available.
- The technology must be "always on" with help and support available as it is with typical help desk availability.
- Seamless communication with private or public environments must be achieved.

## The FOUR FACTORS to Properly Evaluate VNOC Service Providers

There is more to a successful telepresence experience than just installing the room and equipment. Utilizing a VNOC Service Provider should not be considered optional or a luxury. Even if you do have the internal resources available, you should be sure that you have access to a team of specialists dedicated to keeping up with equipment and software changes and they should be trained and certified on all the various "standards-based" platforms for interoperability issues. Even more basic than that, is making sure you have a plan to address some of the simple, most common questions that always arise:

- How do you schedule a meeting? What if there are more than two sites involved in the call?
- How do you launch a call?
- Whom do you contact if there are problems?
- How are users trained?
- Do you have the infrastructure to maintain connectivity to the outside world?

When it comes time to make a decision on a provider, properly evaluating their capabilities is essential. The FOUR FACTORS to consider are as follows:

### *FACTOR 1 – EXPERIENCE & INFRASTRUCTURE*

Ensure that your provider has specific experience in Telepresence and traditional video conferencing, as well as networking, scheduling, multi-point bridging. Your provider must also have a proper infrastructure to enable your environment to private and public environments in a secure fashion.

### *FACTOR 2 - FLEXIBILITY*

Choose a VNOC partner who is not tied to any one particular manufacturer or Telepresence solution as your needs may change and different systems may be chosen for the differing conditional and environmental needs of your locations. It's critical that you retain flexibility so your company doesn't get locked into one technology.

*FACTOR 3 - ROBUST AND REDUNDANT SUPPORT RESOURCES*
Many organizations focus on the equipment and room aspects of telepresence, but the importance of maintaining a consistent experience worldwide should not be secondary. Your service provider should offer comprehensive support for telepresence facilities through concierge services, remote management, and connectivity on a global basis.

*FACTOR 4 - INTEROPERABILITY CAPABILITIES*
Pay careful consideration to the provider's ability to offer interoperability compatibility between and SD, HD or telepresence environments and provide both telepresence VNOC services, exchange services, public room access and network services:

## What You Should Expect From Your VNOC Service Provider

*Proactive Monitoring* - 24/365 proactive monitoring of the conferencing equipment and connections should be included to ensure that all equipment is functional and operable on a minute-by-minute basis. A combination of advanced infrastructure technology and experienced personnel should be deployed at all times with escalation and notification procedures in place.

*Scheduling and Management* - a dedicated toll-free number, a concierge service, and web portal scheduling tools for the user communities should be included. Automation and advanced tools such as integrated outlook and lotus notes capabilities with its confirmation notifications provided to requesters and participants of meetings.

*Call Launching and Monitoring* - can be handled by an engineer, who manages the successful launch of the call and connection of all sites in the telepresence meeting, including point-to-point and multi-point calls. The VNOC should be able to digitally monitor connectivity levels during sessions and should always be available to ensure a high-quality experience, every time.

*Help Desk Support* - users should have a single point of technical support for telepresence solutions to ensure a high-quality, uninterrupted experience for every call. Your provider should be able to interface and coordinate with hardware vendors, network providers, and integrators to repair or replace any component parts, network degradation, or resolve room integration issues.

*Performance Reporting* - provides key metrics on a monthly basis to identify areas of success, as well as areas in need of improvement. The reporting should include the telepresence room, the network, and supporting service levels. Your reporting should be detailed, such that it includes network and room service levels and availability, number of conferences held, total hours of usage, mean time to respond and repair any technical issues, along with a root-cause analysis and corrective action plan, where applicable.

*Training* - required for ensuring the successful use and adoption of telepresence systems. It is not only important for users to feel comfortable using the technology, but to also understand the value the technology brings to day-to-day business activities. Using telepresence systems helps improve communications, enhance productivity, and have access to subject matter experts when and where they are needed.

*Interoperability Testing and Support* - to ensure telepresence systems can connect with other video conferencing rooms and businesses outside of your private network. Make sure the VNOC service provider is experienced in evaluating and testing video communication equipment for reliability and interoperability across manufacturers and access to exchange services for communication with private and public environments in a secure fashion.

**Sample Capabilities Matrix:**

| VNOC Services | Required | Optional |
|---|---|---|
| Exchange Services | | ✓ |
| Customer Service | ✓ | |
| Scheduling | ✓ | |
| Meeting Management | ✓ | |
| Technical Facilitation | ✓ | |
| Remote Management / QoS | ✓ | |
| Hosting | | ✓ |
| Network Connectivity | | ✓ |

## A Final Thought

The future for telepresence appears robust. Environmental and economic issues necessitate finding more effective ways to communicate, be more productive and creative, and telepresence is rapidly becoming a "mission critical" application in the communication mix.

While providing a superior experience, today's Telepresence technologies are complex and demanding on your network and human resources. Advancements in technology may very well reduce the complexity over time, but the technology should always be secondary to the reason for using it. It is important to address entire picture – the technology, the service and the support – to ensure success with video programs.

As with any communications tool, Telepresence is best supported when an experienced service provider hides the complexity and simply makes it work, allowing the users to leverage the experience as part of their everyday life.

We are embarking on a visual society that is endless. Whether it means communicating with business executives on the other side of the world on important tasks, providing complex guidance to surgeons in an operating room in a different state or country, or extending your most talented and specialized resources across borders to interact with your most valuable clients, the new era of video communications is here and is no longer just a "nice to have".

The final and most critical decision is to choose the right overall solution for your needs by partnering with the right service to ensure it works anywhere, anytime, for any application.

## About Glowpoint

Glowpoint is a premiere, IP-based managed video communications services provider. Glowpoint is innovating video communications with services supporting traditional video conferencing, Telepresence VNOC, Broadcast Content Acquisition & Delivery, and Call Center Applications. Glowpoint's services are delivered over a robust infrastructure and video-centric network that reaches around the world and serves clients ranging from Fortune 100 enterprises and leading broadcast networks to SMB markets.

The company currently supports over 40,000 video calls and thousands of multiple participant bridge sessions per month. Glowpoint's traditional and Telepresence video and network infrastructure and architecture along with patented / patent pending applications allow its customers to see and talk to virtually anyone, anywhere around the world – regardless of network, technology or device. The Glowpoint Managed Services, Unlimited Video Calling Plans and flexible multi-point solutions are driving new and unique uses for video communications – some of these include virtual hallways, business to business video collaboration, video enabled call centers, and live broadcast quality interviews with major cable and network television partners to becoming the central communication device for companies with remote offices and employees.

*Visit our website for additional information:* www.glowpoint.com