WAINHOUSE
Research

The Democratization of Meeting Room Collaboration

Making conferencing and collaboration available throughout the enterprise

Ira M. Weinstein

August 2013

Sponsored by:

telylabs
Picture This.

The Group Collaboration Conundrum

Enterprises worldwide depend on a range of virtual conferencing and collaboration tools including audio conferencing, web conferencing / content sharing, and the highest impact form of collaboration, video conferencing. The strategic use of conferencing and collaboration, and especially video conferencing, yields numerous benefits including improved teaming and bonding with partners and peers, enhanced client retention, faster decision making, and more.

Like many other business tools, the magnitude of conferencing- and collaboration-related benefits realized by an organization depends on its volume of usage. Simply stated – organizations benefit when more people collaborate more often.

Based on the above, it seems reasonable that organizations would make collaboration, and especially face-to-face visual collaboration, available throughout their enterprise – and especially in their meeting rooms. This would mean supporting video conferencing in the executive boardroom, the small meeting space around the corner, and every conference room in between.

So why hasn't room-based collaboration, and specifically group video conferencing, made its way into the typical meeting room in the enterprise? The answer is four-fold:

1) High cost – while conference room speakerphones are available starting at US $1k or less, room video conferencing systems tend to cost $5k or more depending on features, functionality, and additional infrastructure (often needed to enable key features).

2) Compromised user experience – the user experience provided by a collaboration system typically depends on price; in the video conferencing world, low-cost systems tend to provide a compromised experience in terms of video quality, audio quality, interoperability, and/or feature-set.

3) Poor usability – while anyone who can use a telephone can use a room speakerphone, group video conferencing systems tend to be far more complex, often requiring special training or expertise to operate.

4) Limited reach – although group video systems could call other internal group video systems, most enterprises had issues calling non-group systems (e.g. desktop systems) or connecting with external systems including clients and partners.

So the high performance options were too expensive, the low cost options failed to meet user expectations, and users were limited in who they could call. For these reasons, most enterprises concluded that the benefits were not strong enough to justify a widespread deployment of video systems in all of their meeting rooms. As a result, video was installed in a relatively small number of rooms, and in many cases was made available to only a limited number of users (e.g. senior executives).

As shown in the diagram below, while enterprises had viable video conferencing options for their most important meeting rooms and for their users on PCs and mobile devices, they are challenged to find cost-effective, high performance, easy to use solutions suitable for deployment in the rest of their meeting rooms.
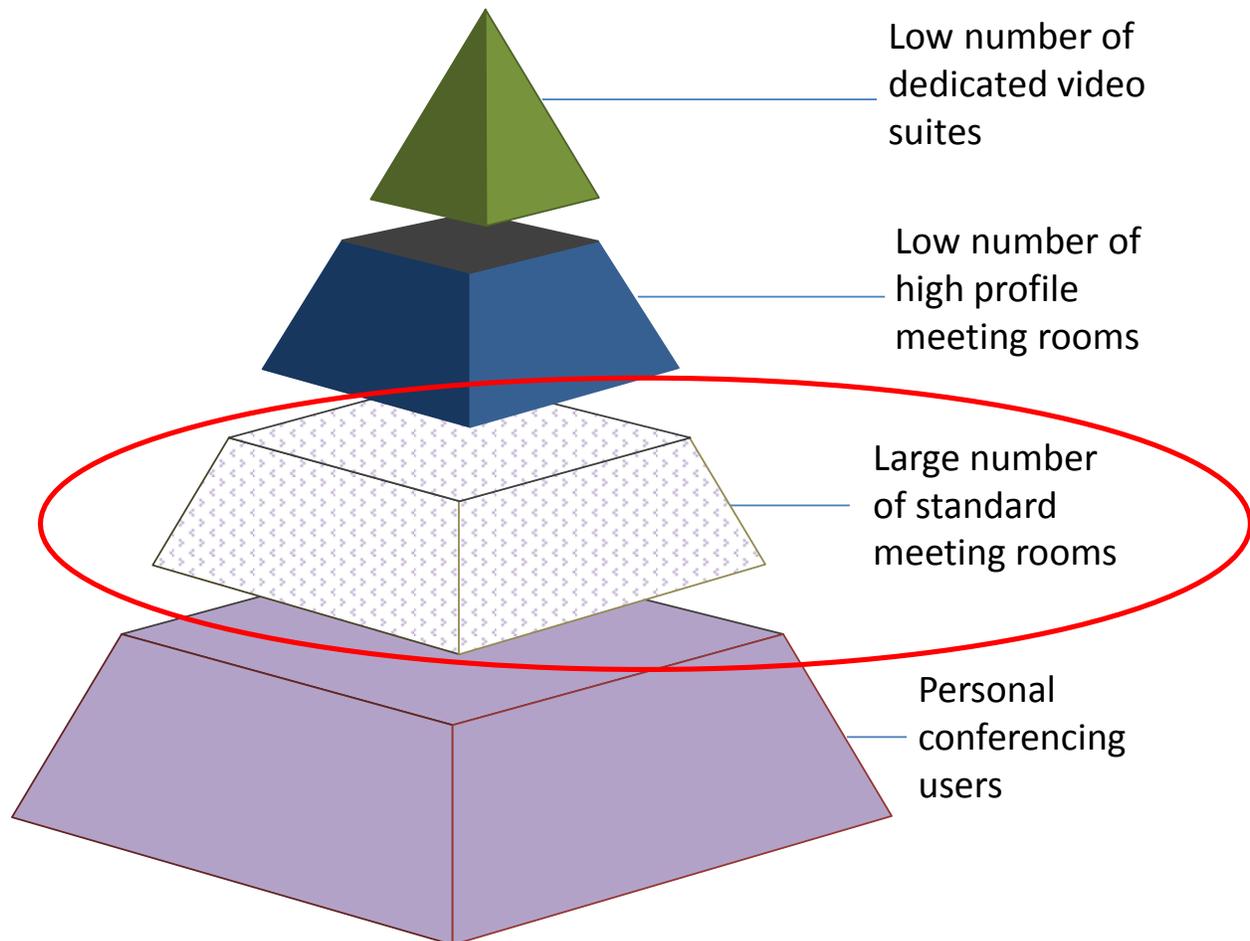

Low number of dedicated video suites

Low number of high profile meeting rooms

Large number of standard meeting rooms

Personal conferencing users

Figure 1: Video Conferencing Deployment Pyramid

The takeaway of this section is that for a variety of reasons …

- Room-based video collaboration (and other forms of collaboration that room-based video systems provide) has been held hostage within a limited number of high profile meeting rooms.

- The enterprise has been unable to realize the additional benefits of extending collaboration to every meeting room.

A New Category of Room-Based Collaboration Solutions

Advances in silicon, camera technology, compression techniques, and cloud technology have given birth to a new crop of room-based collaboration solutions. These recent entrants offer many of the features of the market-leading solutions at a <u>fraction of the cost</u>! What makes this possible? It's a matter of strategic compromise.

Strategic Compromise

The table below highlights the design tenet differences between traditional (high cost) video conferencing systems and the new class of "value-focused" solutions.

Area	Traditional "High Cost" Video Systems	"Value-Focused" Video Systems
Feature-Set	As robust as possible	Key features that address core user requirements
User Experience	As strong as possible	Better than acceptable user experience
Low Cost	Low priority – costs range from US $5k to $20k or more	High priority – cost typically below US $1k.

Figure 2: Differences in Design Priorities

As shown in the table above, the market-leading video conferencing solutions were designed to meet, and whenever possible exceed, the expectations of the most demanding enterprise users in terms of feature-set and user experience. The unfortunate result of this set of design tenets is high cost, which tends to limit deployment sizes and availability of video to the "typical" enterprise employee.

The value-focused systems, however, are designed to provide the necessary features, capabilities, and user experience to get the job done. These solutions typically do not offer the high cost "luxury" features such as industry-leading video resolution, full motion dual stream video, optical and motorized pan/tilt/zoom cameras, support for multiple microphones, integrated audio mixers, or multiple video / audio outputs. What they do offer is a solid collaboration experience, including in some cases interoperability with standards-based systems, at an easy-to-afford price. The cost-effectiveness of the value-focused systems makes them ideal for wide-scale deployment, which makes video conferencing available to a larger portion of the organization.
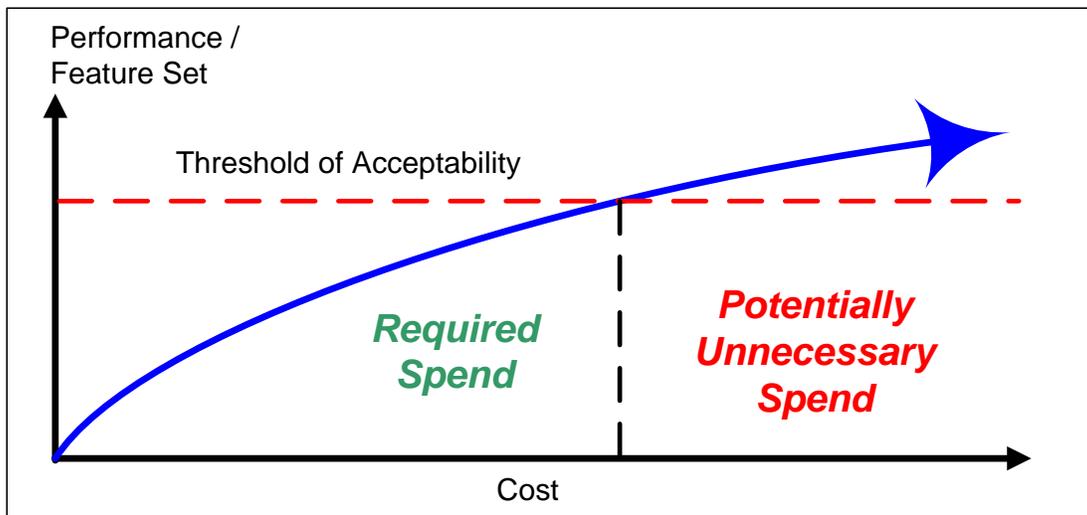
Figure 3: Threshold of Acceptability (Understanding Need vs. Want)

The chart above highlights a concept WR refers to as the "threshold of acceptability." The concept is that everything below the threshold line is a need, while everything above is a want. The value-focused solutions are designed to reach, but not necessarily surpass the threshold of acceptability (unless improvements do not materially impact cost).

When seeking a collaboration experience, organizations should invest the funds necessary to reach the threshold. Spending more than that amount is often unnecessary – even if it does deliver enhanced performance or additional features. Note that in many cases, the law of diminishing returns will apply.

> *The "value-focused" video conferencing solutions were designed to support the day-to-day needs of the organization – not just high profile users or meeting rooms.*

IMPORTANT - Note that WR is not implying that these "luxury" features are not valuable. This is a matter of what users want vs. what users need. For example, it doesn't make sense to own a Lamborghini if all you need is a car to drive around town. In the collaboration world, there are some situations and locations (e.g. high profile client calls, meetings in the executive board room) in which high cost features like optical pan/tilt/zoom and full motion (30 fps) content may be required. In the majority of video calling situations, however, many of these capabilities fall into the "nice to have" category.
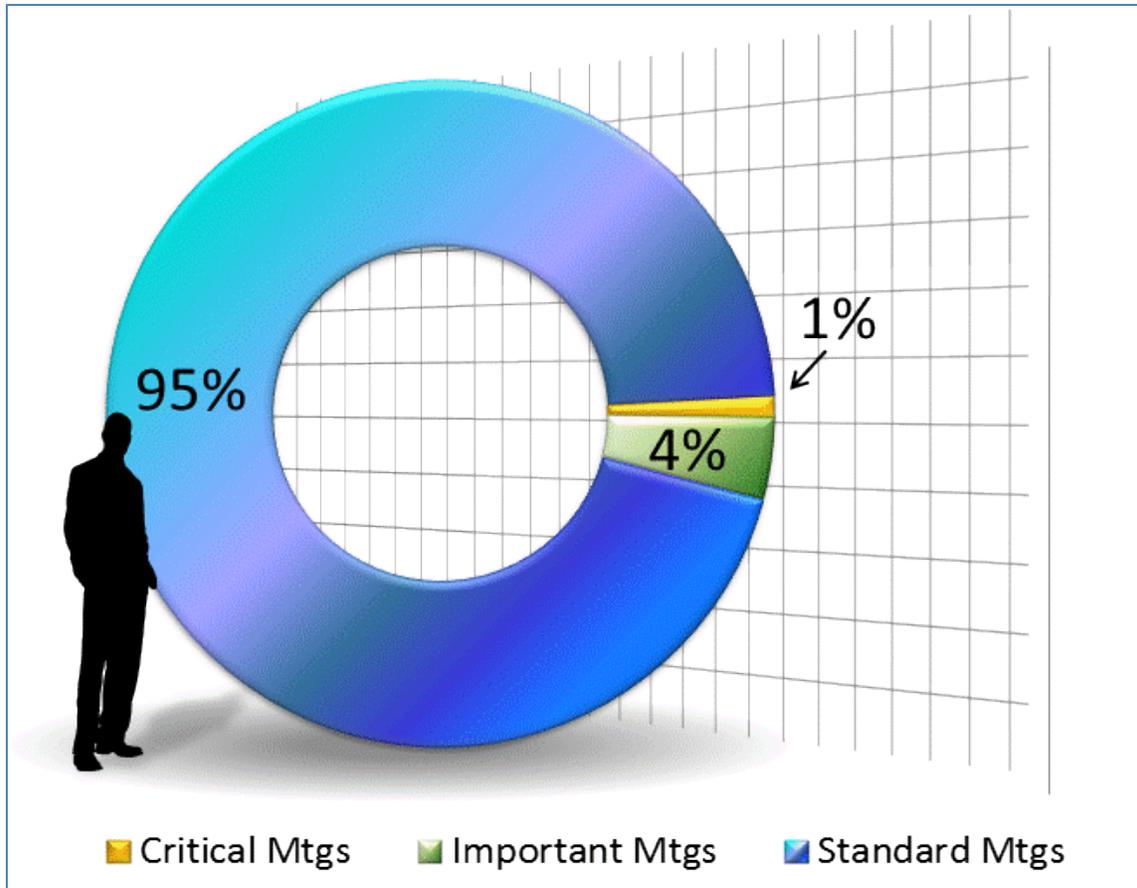
Figure 4: Breakdown of Meetings for a Typical Enterprise

As shown in the chart above ...

- A tiny portion (1% in the example above) of a typical organization's video meetings are "critical" meetings (best served by immersive "telepresence" suites).

- A very small portion (4%) of the meetings are "important" meetings (best served by standard group video systems).

- The vast majority (95%) of the meetings are "standard" (day-to-day) meetings hosted by employees at various levels that could easily be served by value-based solutions.

Recommended Room System Deployment

WR believes that the room collaboration deployment for the typical enterprise would include a combination of various types of video conferencing systems as listed below.

Type	Purpose	Deployment Size
Multi-codec (immersive) telepresence suites *	Provide best possible experience for highest profile meetings and executives	Very low (a handful of systems in each key enterprise location) Small deployment: 2 Large deployment: 20
Standard (traditional) group video systems *	Support internal meetings requiring exceptional user experience and wide range of features	Low to medium (well suited for important conference rooms) Small deployment: 2 Large deployment: 300
"Value" group video systems *	Support day-to-day collaboration sessions throughout the organization	High (well suited for 'the rest' of the meeting rooms and some offices in the enterprise, as well as home offices and client locations) Deployments up to thousands.

* Ideally all systems would support standards (e.g. SIP) to avoid the creation of communication silos.

Figure 5: Recommended Room System Deployment

The ideal mix of systems will vary by organization size and type.

- A SOHO (small office / home office) is not likely to need multi-codec or even standard group systems, and instead might opt for 1 or 2 "value" systems.

- An SMB might deploy 1 or 2 standard group systems and a half dozen value systems.

- A large enterprise might deploy 6 – 12 multi-codec systems, 50+ standard group systems, and 300+ value systems.

The ultimate goal is to provide the appropriate collaboration solutions (in terms of cost, feature / functionality, and interoperability with other deployed systems) to the right people in the right locations. Making collaboration available in this manner will increase usage and maximize benefits without breaking the bank.

Solution Spotlight – Tely Labs

The sponsor of this study, Tely Labs, offers a meeting room solution that, based on WR's recent hands-on testing, successfully addresses the key collaboration requirements of a wide range of small, medium, and large enterprises.

Figure 6: The telyHD Pro Appliance

The platform for the Tely Labs experience is the telyHD Pro appliance; a standards-based video conferencing endpoint that supports room-based video conferencing, audio conferencing, and content sharing. Key features include:

- **Low cost** – Starting at an MSRP of US $649, the telyHD Pro is cost-effective enough for deployment in a range of meeting rooms, client facilities, and home offices. Advanced features (e.g. multipoint calling, data collaboration, etc.) are available via a cloud service (from Tely Labs or one of its partners such as the Blue Jeans Network) or by connecting to the customer's SIP infrastructure.

- **Dedicated collaboration appliance** – avoids complexity and maximizes reliability.

- **Wired and wireless (Wi-Fi) network support** – provides connection flexibility, allowing the device to be used in various locations and situations.

- **Strong interoperability** – the telyHD Pro supports connections with standards-based (SIP) systems and infrastructure, Skype users, and a variety of 3rd party cloud providers including the Blue Jeans Network (supported via a direct integration within the Tely Labs UI).

- **High definition (720p) video resolution** – HD quality offers a very strong user experience.

- **Digital pan / tilt / zoom** – allows users to adjust the on-screen image to optimize experience.

- **Flexible audio options** – the telyHD Pro includes four (4) internal, noise-canceling microphones. For larger rooms, Tely Labs offers an optional wired audio pod (speaker / microphone).

- **Integrated content sharing** – supports the sharing of PC content with remote parties.[1]

- **Local content display** – enables users to display PC content locally.

---

[1] The telyHD Pro allows users to share content over the IP network (wired or wirelessly) and without the need for VGA cables or complex configuration.

- **Flexible multipoint calling options** – telyHD Pro users can host or participate in multipoint calls in a variety of ways including:

   - using the Tely Labs telyCloud service (for calls including only telyHD Pro systems)

   - using standards-based video bridges or media servers already in use by the enterprise

   - using any 3rd party calling service that supports standards-based multipoint video calling

- **Energy efficiency –** the systems use only ~ 5 watts of power, making them environmentally friendly and inexpensive to operate compared to traditional solutions.

Additional capabilities include integrated NAT / firewall traversal (to enable collaboration from private networks), voice mail / video mail, acoustic echo cancellation, packet loss concealment, call hold, layout control, an integrated web browser, integration of Android based applications, and custom integration with bridging provider Blue Jeans Network.

The telyHD Pro was designed to be installed and operated by the users themselves – without IT support. The inclusion of video conferencing, audio conferencing, local content display, and remote content sharing within the package makes it an all-in-one collaboration solution that is cost-effective enough for wide-scale deployment.

Figure 7: The telyCloud Video Calling Experience

The real game-changer of the telyHD Pro is that it provides business-ready, room-based video / audio / data collaboration starting at a list price below US $650. At this price point, business of all sizes can either embrace room-based video conferencing for the first time or expand their collaboration ecosystem beyond their high profile meeting rooms and into other locations including:

   - Small meeting rooms
   - Small offices and home offices
   - Office lobbies
   - Client locations
   - A wide range of other enterprise / vertical specific locations and situations

WR has recently tested this solution and verified that despite its low price, the telyHD Pro and the telyCloud service live up to the promise of providing cost-effective, room-based collaboration.

Conclusion

Savvy organizations recognize the importance of enabling their workers to collaborate. By making collaboration available to more people in more locations, and by using collaboration in more ways, organizations can enjoy benefits including increased productivity, enhanced customer service and customer retention, increased revenue and decreased costs, and stronger employee satisfaction. This allows organizations to enjoy the benefits of a video-enabled culture.

Businesses today have access to a range of personal collaboration solutions (products and service) for use on user's PCs, tablets, and smart phones. In addition, many organizations have already purchased a number of room-based collaboration systems. Unfortunately, the high cost and complexity of these room-based systems has served to limit the deployment sizes and accessibility of these tools. As a result, video conferencing has been available in a limited number of rooms and to a limited portion of enterprise employees.

In the last few years, a new category of room-based collaboration systems has entered the marketplace. Unlike traditional solutions which focused on providing an optimal experience for high profile situations regardless of price, this new category of solutions focuses on providing the most important features at an affordable price well suited for mass deployment. These solutions fill a gap between expensive, dedicated, high performance group video conferencing systems and low cost, lower performance solutions.

Offerings like the telyHD Pro solution highlighted within this study provide room-based video / audio / data collaboration at price points that bring real-time, rich media collaboration within the reach of almost any meeting space within virtually any company.

About Wainhouse Research

Wainhouse Research, www.wainhouse.com, is an independent market research firm that focuses on critical issues in the Unified Communications and rich media conferencing fields, including applications like distance education and e-Learning. The company conducts multi-client and custom research studies, consults with end users on key implementation issues, publishes white papers and market statistics, and delivers public and private seminars as well as speaker presentations at industry group meetings. Wainhouse Research publishes a variety of reports that cover all aspects of rich media conferencing, and the free newsletter, *The Wainhouse Research Bulletin*.

About the Author

Ira M. Weinstein is a Senior Analyst and Partner at Wainhouse Research and a 20-year veteran of the conferencing, collaboration, and audio-visual industries. His prior experience includes senior positions with conferencing and AV vendors, distributors, and resellers. In addition, Ira ran the global conferencing department for a Fortune 50 investment bank. As the lead analyst of WR's visual collaboration team, Ira's focus includes video conferencing endpoints (mobile, desktop, group, and telepresence / immersive) and infrastructure, streaming / webcasting, and the visual communication elements within unified communications. Ira has published hundreds of articles, documents, and reports on AV and collaboration, is a frequent speaker at industry events, and regularly consults with end-users, vendors, service providers, and investment firms seeking to understand the collaboration space. Ira has been an industry analyst and consultant since 2001 and can be reached at iweinstein@wainhouse.com.

About Tely Labs

(copy provided by Tely Labs)

Founded in 2010, Tely Labs is a pioneer in simple, secure and affordable video communication and collaboration systems that fundamentally change the way people communicate. Tely Labs is dedicated to bringing video conferencing to every meeting room, remote office and healthcare facility – simply, securely and affordably. For more information on Tely Labs, visit www.tely.com.