The Evolution of the Conference Room and the Technology Behind it

How a Shift in Demand Will Impact Technology, Support, and Users

Bill Haskins
Andy Nilssen
Andrew Davis

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Contents

Figures

Executive Summary

Many IT teams are confronted with the task of taking a holistic approach to communications, creating roadmaps that integrate and unify multiple communication solutions across their user's changing needs and preferred devices. Understanding how to optimize the use of smartphones, tablets, and desktops across the various locations users collaborate from – "the road", home offices, enterprise workspaces, and conference rooms is a challenge in-and-of itself. This challenge is compounded as the supporting communications technology and solutions are shifting rapidly.

A number of key trends are poised to impact conference room collaboration. These trends range from changes in technology, new user preferences and communication habits, and shifts in organizational strategies:

- **The mobile workforce**: Workers are increasingly mobile and have adopted the tools they need to be productive working from home, while the road, or from wherever they may be. Their mobile devices have become increasingly powerful and are able to handle advanced communications workloads. The effectiveness of these tools, combined with their social acceptance, makes it no longer necessary to have everyone physically meet in the same room in order to conduct a successful meeting.
- **Communication preferences**: The introduction of cloud-based personal communication services such as Skype, Lync, and Jabber are changing how workers prefer to communicate. For example, instant messaging (IM) is increasingly popular for short, ad hoc messages, and the use of personal and group video conferencing solutions is increasing rapidly. This is catalyzing a shift in work processes from structured, scheduled meetings to on-demand, just-in-time exchanges.
- **The shift to software**: Communication solutions are shifting from hardware to software-based architectures, allowing for a wider distribution of download-and-install audio, video, and data sharing communication clients – which in turn enables mobile workers and distributed teams.
- **Real-estate initiatives**: Enterprises continue to evaluate their real-estate strategy in an effort to contain costs and maximize efficiency. These initiatives are coupled with trends towards telecommuting, open seating environments, hot-desking, and other strategies to reduce an organization's real estate footprint.

Are these changes impacting the conference room? Are ad-hoc communications and distributed teams changing the demand for collaboration within the conference room? Are conference room sizes, as a result, shrinking? Or are conference rooms immune to these observations? To find out, WR conducted a survey targeted directly at individuals closest to their organization's conference room strategy.

Methodology

Wainhouse Research fielded a formal on-line survey to quantify what is changing in regards to today's enterprise conference room, and what can be expected to change in the future. The survey targeted mid-to-large enterprise IT Decision Makers and end-users with direct knowledge of their organization's conference room technology and strategy. The results reflect the feedback from approximately 150 mid-to-large enterprises.
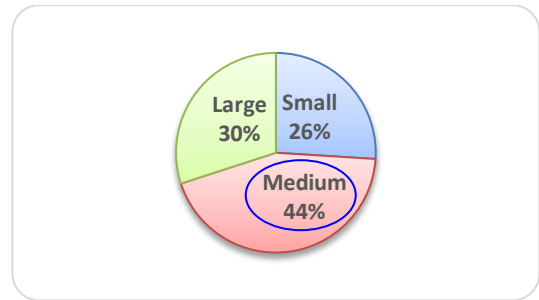
In addition, this paper includes observations based on qualitative data gathered by Wainhouse Research – data gathered during enterprise consultation, interactions and briefings with communications service providers and vendors, and additional survey data.

This paper is meant to serve as a guide post to the IT decision maker by providing a state-of-the-art update on today's conference room usage trends using survey data to identify the major shifts in user demands, and providing related best-practices in an effort to help IT teams to adapt their conference room strategy to meet these needs.

Key Finding #1 – The Shrinking Conference Room

The following categories define small, medium, and large conference rooms for the purpose of this survey:

- Small conference rooms: for up to 4 participants (includes offices used for this purpose)
- Medium conference rooms: for up to 10 participants
- Large conference rooms: for more than 10 participants

Today's conference rooms are weighted towards medium sized conference rooms (44%), with small (26%) and large (30%) sized rooms distributed somewhat evenly.

Estimate the % of your conference rooms that fall into these categories

Figure 1 – Conference Room Sizes

It is anticipated that the number of small and medium conference rooms will increase at a much faster pace (48%, 41%) than large rooms (27%). In fact, over the past 24 months, survey respondents reported that their large rooms had decreased most notably (12%) when compared to medium (3%) and small (1%) rooms.
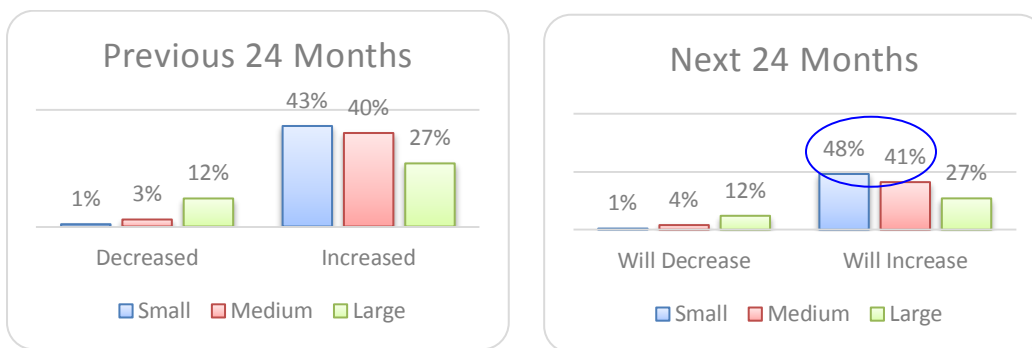
Has the conference rooms in each category changed over the past 24 months?
Expect it to change over the next 24 months?
Figure 2 – Room Size Trends Over Time

Key Finding #2 – Meeting Rooms, More Unified and Essential

With the ever-increasing mobile workforce and the shift towards software-based communications, IT teams are actively deploying solutions that integrate between conference rooms, desktops, and mobile devices – taking a more holistic approach when deploying collaboration technology.

As conference rooms continue to shrink, technology decisions are increasingly tied to a unified communications plan or strategy. Over 2/3's (68%) of survey respondents confirmed that their conference room strategy is aligned with a broader UC strategy.

Although personal collaboration solutions are gaining favor with end users, 60% of conference attendees continue to join audio, video, and/or web conferences from a conference room rather than their workplace desk, home office, or mobile device.

These trends pose a clear challenge to today's IT decision maker as they keep up with a proliferation of personal devices and software-based solutions while delivering a consistent, integrated, and unified collaboration experience within their enterprise conference rooms.

Align Conf. Rooms w/UC Strategy

Don't know / NA, 19%
No, 14%
Yes, 68%
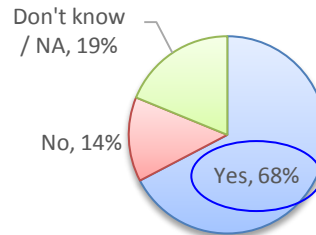
Is your plan for future conference room technologies tied to a Unified Communications plan or strategy?

Figure 3 – Conference Room / UC Strategy

Conference Attendee Locations

☐ Conference Room
☐ Enterprise Desk
☐ Home Office
☐ Mobile Device

6%
11%
23%
60%
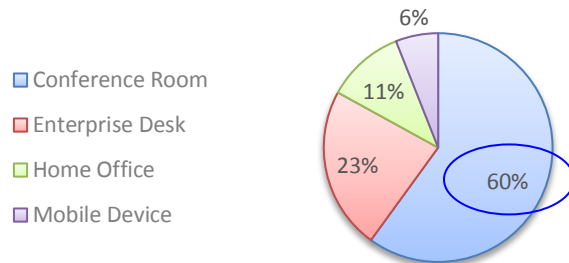
What percent of your participants join a conference (audio, video and/or web) from the following locations?

Figure 4 – Locations attendees join a conference from

Current Deployments

	Small	Medium	Large
LCD or Projector	52%	83%	87%
Video System	39%	55%	67%
Dedicated PC	19%	29%	34%
WebCam	7%	8%	10%

□ Small ■ Medium □ Large

Deployments 12-24 Months

	Small	Medium	Large
LCD or Projector	33%	41%	33%
Video System	41%	52%	47%
Dedicated PC	22%	13%	7%
WebCam	19%	15%	16%

□ Small ■ Medium □ Large
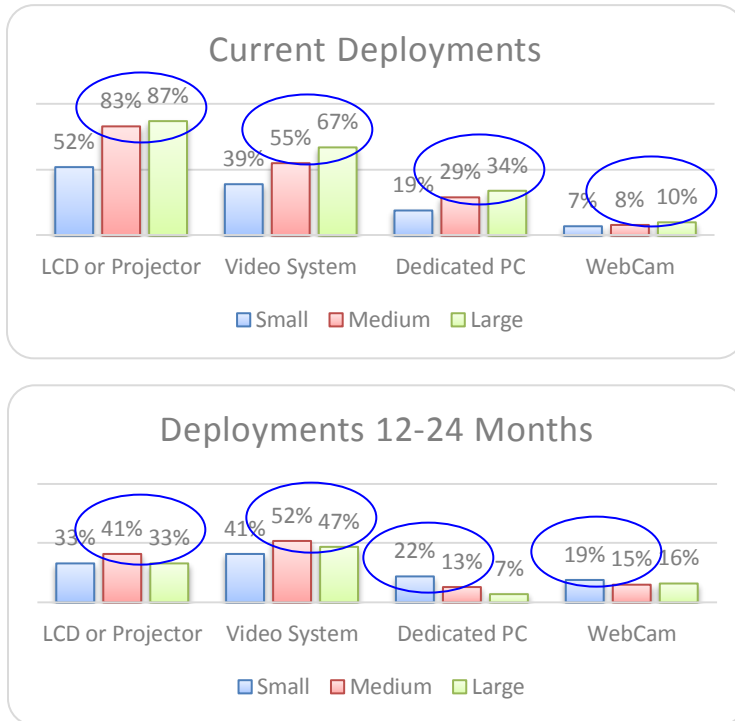
How many of your conference rooms are permanently equipped with the following meeting / collaboration technologies? Expect it to change over the next 24 months?

Figure 5 – Conference Room Technology Deployments

Key Finding #3 – New Technology to Equip Small to Mid-Size Rooms

The current technology deployments listed in Figure 5 show, on average, that IT teams are more likely to deploy collaboration solutions into medium and large sized rooms. The story is expected to change over the next 24 months however. Moving forward, respondents report they expect to slow the rate of technology deployments in large conference rooms. In fact, while displays and dedicated video units are expected to continue to proliferate the most in mid-sized rooms, the mix in small conference rooms will shift to dedicated PCs and webcams.
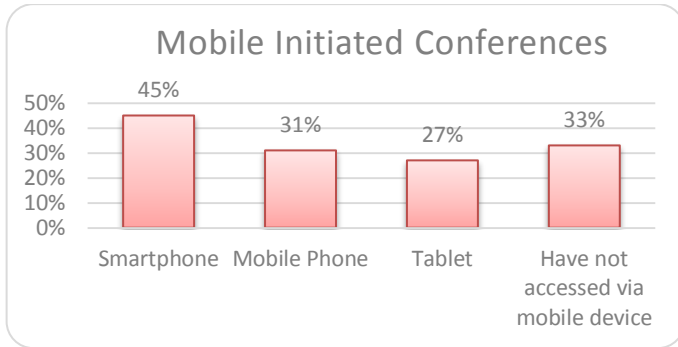
Key Finding #4 – "Personal" Collaboration in the Conference Room

As shown previously, dedicated PCs and webcams are growing in popularity and will be increasingly deployed in smaller conference rooms. Note, with a large number of displays currently deployed across all room types (Figure 5), interestingly, respondents separately report that dedicated PCs are often disconnected from the in-room display by users preferring to use their own laptop. As shown in Figure 6, a clear majority of respondents (93%) report that personal laptops are primarily used in conference rooms to share data (i.e. desktop or presentation sharing). Over 2/3's (68%) of respondents connect a laptop to a room display to participate in a web conference (68%). A little less than 1/3 (30%) connect and use a laptop to participate in a video conference.

Laptop Use in Conf. Rooms

Sharing Data	93%
Joining Web Conferences	68%
Joining Video Conferences	30%
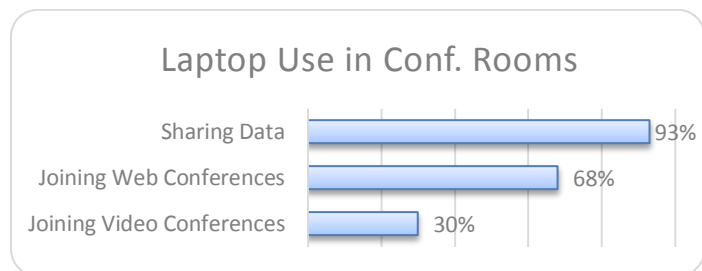
When laptops are brought into the conference room and connected to an in-room display, what are they used for?

Figure 6 – Laptop Usage in Conference Room

Mobile Initiated Conferences

As a conference host / leader, have you initiated an audio or web conference from a mobile device?

**Figure 7 – Mobile Initiated Audio/Web Conferences**

The popularity of personal collaboration solutions within the conference room is driven, in large part, by the widespread use of use of mobile devices. As shown in Figure 7, only one-third of survey respondents (33%) have never initiated an audio or web conference from a mobile device. The remaining two-thirds of respondents report to have initiated a conference using a smartphone (45%), mobile phone (31%) and / or a tablet (27%). The increase in use of smart phones and, more specifically, tablets is creating a user base that is familiar and comfortable engaging in collaboration from a personal computing environment.

Key Finding #5 – Challenges Are Evolving

Of course, conference room collaboration is not without its challenges. While traditional challenges such as costs and support complexities persist, new challenges are emerging as IT teams are charged with deploying new technologies and integrated solutions:

-   **Mobile challenges:** As teams deploy solutions on desktops and mobile devices (smart phones and tablets), the primary barriers are *not* cost related. Rather, network bandwidth concerns (52%), ability to support (40%), and quality of service concerns (audio / video quality, etc - 39%) are most prominent.

Barriers to Technology Deployment
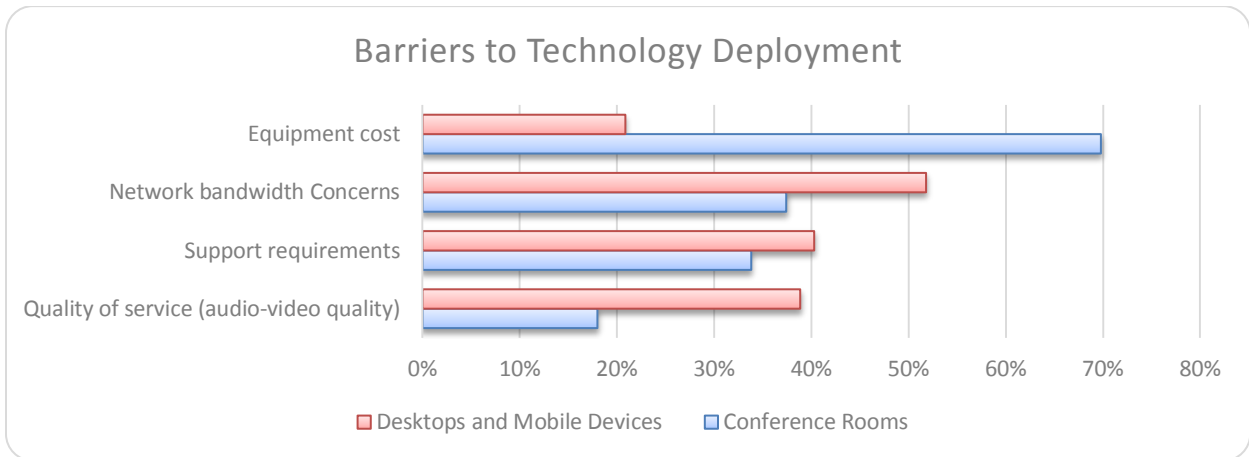
What are the top barriers preventing you from deploying more audio, video, & web conferencing in your conference rooms and on your desktops and mobile devices moving forward?

Figure 8 – Barriers to Conference Room Technology Deployment

More importantly, while laptops are rising in popularity to facilitate conference room collaboration, we are noticing they are still somewhat error prone and we are seeing a new set of challenges that IT decision makers will face unique to their users:

- **Authentication:** While dedicated PCs may provide a familiar user interface and set of collaboration tools, many users separately report issues signing in to use the PC as a primary challenge
- **Configuration:**

  - *Audio Quality:* When using the laptop for video conferences, audio issues are still common as about 2/3's of users report difficulty hearing participants, echo, etc. (63% of those that use laptops for VC).
  - *Connect to a Projector:* A little over half (54%) of end-users often have issues connecting laptops to the display, i.e. trouble selecting the right display or matching screen resolution.
  - *Video issues*, i.e. selecting the right camera, are also common (41% of those that use laptops for VC), as are general connectivity challenges (39%).

  Note: Not all desktop communication tools handle change well. For example, changing configuration from a docked desktop environment into a conference room setting may require the user to select the right microphone and camera – many users likely find this process challenging. WR notes that conferencing application providers are working to make device selection easier.

- **Familiarity:** End-user knowledge is separately reported a lack of understanding of how to use conference room equipment as a roadblock to conducting meetings.

In addition to these findings, survey respondents volunteered that there are still traditional challenges blocking successful conference room collaboration:

- **User Habit:** Although video is rising in popularity, some users continue to default to audio conferencing even though video is available – likely due to habit or comfort with the audio conferencing solution and process.
- **Disparate Technologies:** Respondents note the availability of multiple video technologies including desktop UC, dedicated VC units, Telepresence solutions and the additional need to interface video solutions with audio conference bridges, all of which leads to a manual / difficult / complex process in order to communicate across these platforms.

WR Recommendations - Maintaining a Consistent User Experience

As the conference room continues to evolve, IT teams are faced with making decisions regarding the potential deployment of new, integrated, and cost effective communications technologies while maintaining a positive user experience. WR recommends IT teams establish a roadmap that drives towards a consistent collaboration experience across mobile devices, personal workspaces, and conference rooms. As users leverage their familiarity with a consistent tool set, they become experts, allowing them to focus on the collaboration event itself rather than the use of specific point solutions. As collaboration effectiveness increases, the need for support will commensurately decrease. While this

strategy supports a lower cost conference room technology mix, i.e. displays and dedicated webcams, IT resources must now shift to support a new, multi-device environment.

As shown by the survey data, many IT teams are taking this approach as over 2/3's of respondents indicate that their UC roadmap will influence their conference room plans. While no two roadmaps are ever the same, the following best practices can help UC-influenced enterprises work towards a consistent and integrated experience across their communication environments:

1) Define your user's requirements: Many IT teams try to carry legacy requirements forward as they deploy new technologies. However, as end user's communication preferences change, so do their requirements. Be aware that ease of use, accessibility, and availability may have become more important to users than supporting legacy equipment –

User Requirements	Enterprise Requirements and Limitations
Integration and Interoperability	Conference Room Equipment / HW

Optimal User Experience

Figure 9 – Optimizing the End User Experience

which in turn allows for a more cost effective and broadly deployed solution moving forward.

2) Define your enterprise requirements: It is critical to anticipate the organization's needs over the same timeframe. Available capital, real-estate strategies, and M&A plans are good examples of organizational directives that may run counter to your user's preferences. WR experience shows that many IT teams are not as connected to organizational strategies as they should be.

3) Define conference room integration requirements: There are a number of components to an integrated collaboration environment that an enterprise should plan for:

- **Identity:** Most enterprises manage user identities from a central directory. However, not everyone follows the same approach for their conference rooms. As a result, rooms and users are often separate islands, requiring independent scheduling and authentication processes – steps that add complexity and confusion.
- **Scheduling Workflow:** A standard scheduling process is perhaps the most important component in a unified experience. Users should schedule people, rooms, and conferencing resources within the same workflow thus eliminating complexity and improving adoption.
- **Conference Control:** The process and toolset used to start, join, and host a conference should be universal regardless of the people, rooms, devices, and infrastructure involved.
- **Network Capability:** Adding real-time communications across personal devices and workspaces often requires additional network investment. This must include sufficient bandwidth and secure access for collaborators joining from outside the corporate firewall, as well as those joining from various campuses and remote enterprise locations.

- **Device Interoperability:** As conference rooms become increasingly device agnostic, audio-only integration across devices is not going to cut it. Data sharing and video between all target devices is critical.

4) Deploy equipment across all room types: As shown by the survey data, organizations tend to budget to equip larger conference rooms and ignore smaller rooms. This is a mistake as a small room without any equipment leaves collaboration success vulnerable to whatever the participants happen to bring in – typically just a laptop or a mobile device. This is hardly ideal: for example, both of these devices make poor speakerphones for an audio conference (audio quality is flagged in the survey data as a concern). As the demand for smaller conference rooms increases, WR recommends investing in the equipment required to insure successful collaboration, such as a quality, small group-oriented USB webcam / speakerphone, a collaboration-enabled PC, and a reasonably-sized wall mounted monitor. This will help insure success – especially for enabling quick ad hoc conferences, which are typical for smaller rooms.

Conclusion

The forces creating this change in conference room include the emergence of an increasingly mobile workforce, the availability of effective on-line collaboration solutions (both personal and group-oriented), and the desire to achieve reduced facilities costs through consolidated real-estate strategies.

Savvy IT teams should be conscious of these forces and be pro-active in formulating a strategy for ensuring successful collaboration in conference rooms. Moving forward, it is important to include small- and medium-sized conference rooms when investing in collaboration equipment including monitors and USB speakerphones / webcams. The ideal strategy will create a flexible collaboration environment which accommodates ad-hoc meetings and delivers a consistent experience across a range of personal and group-oriented devices.

These suggestions reinforce the need for IT teams to plan for conference room solutions that will play well with their UC platform and roadmap. Providing users with a standard tool set that accommodates the majority of their collaboration needs, regardless of their device or location, will improve productivity, reduce IT support needs, and ultimately increase user adoption.

About the Authors

Bill Haskins is a Senior Analyst at Wainhouse Research with a strategic focus on unified communications products and services. Bill has over 15 years of experience supporting, delivering, and designing converged collaboration services in a global communications environment. He has authored multiple white papers and articles detailing the keys to a successful UCC implementation and delivered various UCC presentations, highlighting his experience integrating collaboration solutions into business process and enterprise applications. Bill can be reached at bhaskins@wainhouse.com.

Andy Nilssen is a Senior Analyst at Wainhouse Research where he manages the firm's coverage of audio and web conferencing solutions. Andy has been analyzing the rich media conferencing market for over a decade. He previously held management positions in marketing, product management, and market research for PictureTel, Sun Microsystems, and two start-ups. Andy has over 30 years of experience in bringing high-technology offerings to market, holds B.S.E.E. and M.B.A. degrees from the Univ. of New Hampshire, and has two ease-of-use related patents. Andy can be reached at andyn@wainhouse.com.

Andrew W. Davis, Senior Analyst & Partner at Wainhouse Research, is a researcher, analyst, and opinion leader in the field of collaboration and conferencing. Prior to co-founding Wainhouse Research, he held senior marketing positions with several large and small high-technology companies. Andrew has published hundreds of trade journal articles and opinion columns on multimedia communications, video conferencing, and corporate strategies as well as numerous market research reports. He holds B.S. and M.S. degrees in engineering from Cornell University and a M.B.A. from Harvard University. Andrew can be reached at andrewwd@wainhouse.com.

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*.