(intel®)

Look Inside.™

Videoconferencing for Small and Medium Rooms

How Intel®, Logitech®, and Bsquare Together Simplify Videoconferencing

Introduction

Until recently, the conference room was typically a meeting space with a whiteboard and maybe a speakerphone and a projector/display. Today, technology is changing the collaborative potential of group meeting spaces. Nowhere is this more evident than in small and medium conference rooms.

As with any disruptive change, however welcome, challenges abound. Amid a dazzling range of video clients (think WebEx®, Microsoft® Lync™, Skype™, Google Hangouts™, Cisco Jabber™, Vidyo®, GoToMeeting®, etc.) and BYOD hardware, IT is increasingly tasked to provide a standard, cost-effective toolset to support the collaborative and creative potential of the enterprise.

The Evolving Conference Room

For most companies, small and medium conference rooms are now the fastest growing collaboration spaces. According to Wainhouse Research[1] , the number of small and medium conference rooms will increase at a much faster pace (48%, 41%) than large rooms (27%).

Yet provisioning small and medium conference rooms with videoconferencing technology has, until recently, been very expensive. Wainhouse Research reports that organizations tend to budget to equip larger conference rooms and ignore smaller rooms: this leaves collaboration success vulnerable to whatever devices the participants happen to bring with them.

Informal solutions, such as the combination of a laptop, webcam, and speakerphone, are filling the gap in many cases but are difficult to manage and support. Such workarounds often fail to produce a professional, consistent experience and can be cumbersome as meeting participants scramble to join calls individually.

Effortless, Clear Communication

A Predictable Usage Model

In an ideal world, small and medium conference rooms would be provisioned with standardized technology that meets the following criteria:

- Enterprise quality and reliability

- Cost effective

- Compatible with a wide range of video clients

- Easy to use with little need for training/IT support

According to Wainhouse, as demand for smaller conference rooms increases, investing in small group oriented equipment ensure success for quick, ad hoc conferences which are typical of small rooms.

The core of one such solution is the combination of the Intel® NUC with vPro™ technology, a Windows® Embedded 8.1 Industry Pro Operating System, and a Logitech BCC950 Conference-Cam (perfect for small groups) or Logitech ConferenceCam CC3000e (optimized for medium groups).

The Intel® NUC is an ultra-compact PC measuring 4x4 inches. When deployed in conference rooms, the device provides a locked down Windows 8.1 PC with the flexibility to run any unified communications client with Windows application compatibility. IT can choose which UC applications it will support, and Intel® vPro™ technology enables remote management or system repairs.

The Logitech BCC950 ConferenceCam enables small groups to collaborate over video from anywhere. This means no more competing for overbooked large conference room systems or huddling around a single PC just to have a video meeting. The all-in-one design of the Logitech BCC950 Conference-Cam combines HD 1080p at 30 frames per second video with high-quality full-duplex speakerphone clarity for business-grade video conferencing.

Optimized for mid-sized conference rooms, the Logitech Conference-Cam CC3000e enables teams of 6-10 people to effortlessly experience the productivity benefits of crystal clear face-to-face communication. With the Logitech ConferenceCam CC3000e, enterprise-quality audio and 1080p HD video meets breakthrough afford-ability, turning any meeting room into a video-enabled face-to-face collaboration room.

Windows Embedded 8.1 Industry Pro was chosen as the operating system for a number of reasons. First, this version of Windows 8.1 offers a lower cost and customizable image designed specifically for the NUC and the Logitech hardware. Intel and Logitech worked with Bsquare, a Windows Embedded Distributor, to build the custom Windows image that features:

- An administrator log-in to allow for the addition of software or applications, but prevents end-users from making System changes

- A custom UI which displays only IT approved applications for conferencing needs

- The ability for VARs to offer additional customization to the design as a service to their customers

Through their System Builder Program, Bsquare works to provide a number of validated, customer-built Windows images for a variety of Intel® NUC platforms. Additional customizations to the image are possible including the addition of third party software to add additional security or remote management features.

"The video quality was superb and the audio qual-ity of the speakerphone module made the audio excellent as well. Zooming worked amazingly well. I was able to zoom in on a whiteboard 30 feet away with small text written on it and it was perfectly read-able with clear lettering and no blurring."

– TMCNet.

This combination of HW and SW is a uniquely integrated conference room-based collaboration solution offering the flexibility to switch between UC clients at will, especially since most companies use multiple collaboration clients today. With essentially no learning curve, it allows employees to use the same familiar desktop UC environment in the conference room. The solution provides a flexible technology standard which supports multiple UC clients with minimal support/management from IT.

Best of all, from the organizational perspective, knowledge workers are able to initiate videoconference-supported meetings at a moment's notice without giving a second thought to the technology that makes it possible. With a predictable usage model, people and teams are free to pursue their work with no technology-induced barriers to get in the way of productive collaboration.

Logitech BCC950 ConferenceCam

- All-in-one design combines HD video with enterprise-quality audio
- Full HD 1080p at 30 frames per second video with on-board H.264 encoding
- Built-in, full duplex speakerphone with omni-directional mic and echo/noise cancellation allows all meeting members to hear and be heard clearly up to 8 feet away from the base
- Plug & play USB with broad application compatibility-works with most UC platforms

Logitech ConferenceCam CC3000e

- All-in-one solution with enterprise-quality video camera and speakerphone
- Full 1080p HD video at 30 frames per second for high quality video conferences. Provides 90-degree field of view with mechanical pan, tilt, and zoom
- Omni-directional full duplex speakerphone with noise and acoustic echo cancellation
- Plug-and-play compatibility: USB video/audio connectivity and Bluetooth* wireless technology with NFC (Near Field Communication) pairing
- Broad application compatibility - works with most UC platforms

Intel® NUC

- 3rd generation Intel® Core™ i5 vPro™ processor packs a wealth of features in a compact design
- Intel® vPro™ technology allows your IT service to remotely manage or repair your system
- Visibly smart graphics using Intel® Core™ i5-3427U processor equipped with the integrated Intel ® HD Graphics 4000 to provide amazing performance and visually stunning graphics across a triple display configuration
- Drive intelligent computing into small spaces: only 116.6mm x 112.0mm x 39.0mm
- Two SO-DIMM slots supporting up to 16 GB of 1333/1600MHz DDR-3 memory
- Includes a VESA mounting bracket for easy placement

Custom Windows Operating System Image from BSquare

- Windows Embedded operating systems offer the familiarity of Windows Pro, compatibility with powerful line -of-business applications, and additional functionality, security and reliability.
- Resellers are able to obtain and customize Windows and the Collaboration applications for their customers. Bsquare can assist with this as it offers a number of validated, customer-built Windows Embedded images for a variety of Intel® NUC platforms
- A consistent, streamlined application platform that shortens development cycles for specific industry device scenarios
- Compelling UI, powerful app support, security and manageability of Windows 8
- Ensure consistent configuration with lockdown features

Windows Embedded 8

Conclusion

Enterprise-quality videoconferencing is no longer the exclusive domain of expensive telepresence systems in large conference rooms. This fact coincides with the irreversible rise of small and medium-sized conference rooms as noted above.

Wainhouse concludes and we concur that "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."

At an anticipated price point under $2000 (Intel® NUC[2] + Logitech ConferenceCam CC3000e) for medium room systems and substantially less for small conference rooms, the Intel/Logitech videoconference solution supports and encourages professional, affordable face-to-face collaboration as never before.

For More Information

Want to learn more about Logitech's ConferenceCam solutions? Please visit http://www.logitech.com/ConferenceCam

Have questions about the Intel® NUC? Please visit http://www.intel.com/nuc

Interested in validated Windows Embedded images for NUCs? Please visit www.bsquare.com/systembuilder or contact sales@bsquare.com
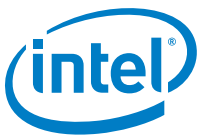
1 "The Evolution of the Conference Room and the Technology Behind it", Wainhouse Research, October 2013.
2 Intel® NUC with vPro, 4GB Ram, 80GB SSD, Windows 8.1 embedded from Bsquare, and Logitech ConferenceCam CC3000e.