Immersive telepresence room considerations to bring more people together in real-time

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Technologies have increased our ability to communicate and collaborate at any time from any location, allowing us to conquer geographic distances in real-time and save on the expenses of business travel. Video conferencing solutions give us the "face-to-face" experience that is essential to making the deal. But what if the end user wants a richer, more "in person" feel to their video conferences? Enter immersive telepresence.

Immersive telepresence is a higher level of video conferencing that utilizes several technologies to allow someone to feel as if the people they are communicating with were actually present in the conference room. Immersive telepresence converges voice, video, and data technologies in a finely tuned way that can bring people together from several points across the globe into the same "room" for a rich collaborative experience. If you've ever watched the TV show "24," you've seen Cisco's version of immersive telepresence in action during the three-screen conferencing scenes. Lining up the large screen monitors to identical conference tables creates the illusion that the participants on both sides are sitting in the room with each other.

Several room factors must be taken into consideration to reach the full sensory benefit of an immersive telepresence installation. The room must be fitted with low voltage cabling to accommodate the various microphone, speaker, camera, monitor, and data endpoints that are required for proper operation of the solution. All points must be planned by a consulting team qualified in the design of an immersive telepresence environment.

Room acoustics is a very important element in the creation of a successful immersive telepresence solution. Rooms on all ends should be measured and corrected for background noise and reverberation. The microphones used for a telepresence solution are multi-directional, and the speakers are spatially arranged to clue the viewer in on which on-screen participant to turn toward. The microphones are also full-duplex, which permits speakers to talk over each other without clipping. A room with proper acoustics and the spatial/conversational technology of an immersive telepresence sound system will generate speech sound that is practically life-like.

Lighting should be evenly dispersed and located over the conference table rather than behind participants or over monitor screens. It's important to make sure that lighting in each of the telepresence rooms is similar in order to create a truly unifying experience. For both acoustics and lighting, room size and ceiling height need to be considered.

An alternative to building out a room to fit the immersive telepresence environment is an all-inclusive solution, such as one that is offered by Polycom. Polycom's RPX HD series of immersive telepresence solutions are fully modular in design, with every environmental detail packaged into the room. An RPX room can be placed into virtually any environment - including a warehouse - and be functional with little or no changes to the building.

Telepresence technology has saved organizations billions of dollars in travel costs, and access to the solution is expanding. Telepresence can be found in the board room, the class room, and for rent by the hour in major hotels across the globe. As more well-outfitted rooms become available, this technology will bring more people together in real-time for regional and global collaboration.

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