Cisco IBSG Develops Active Collaboration Environment for Global Manufacturing Giant

Executive Summary

CUSTOMER
A global conglomerate

INDUSTRY
Manufacturing, finance, and media

CHALLENGES
- Globally dispersed development teams needed to work multiple hours at a time for several consecutive days, making conventional collaboration tools ineffective for the purpose
- Travel to such meetings was too expensive, while productivity was lagging

SOLUTION
- Active Collaboration Room, based on Cisco TelePresence™ and Cisco WebEx™ technologies, provided a new and more efficient way for workgroups to collaborate

RESULTS
- Increased productivity and quality
- Reduced development costs
- Reduced business travel
- Offshore drafting cycles reduced by 80 percent

Background

The customer is a leading global manufacturing and finance company that designs and manufactures a wide range of products, marketing them to an equally broad array of customers. The company also provides asset management services related to its products. Like other multinational conglomerates, the customer was experiencing challenges in improving process efficiency and reducing costs across a dispersed, international workforce, where product development teams are composed of individuals from many global locations, requiring new ways of collaborating.

Business Challenges

Teams working on product introductions or process improvement ("lean") initiatives need to work closely to deliver the best results—even though they may be widely dispersed across several geographies. This often requires traveling to meetings to enhance collaboration—a process that the customer found increasingly expensive and time-consuming. Typically, process improvement initiatives required nine months to complete, due to inefficient communications, difficulties in coordinating team members' schedules, and issues in reaching consensus on problem definitions and solutions.

Conference calls and web conferencing helped facilitate communications and information exchange among dispersed team members. But working on complex solutions, which requires building trust and confidence among team members who may be from multiple countries and cultures, necessitates face-to-face meetings. Because working-team collaboration sessions tended to occupy four to eight hours at a stretch over multiple days, it was difficult to maintain full engagement and collaboration using phone and web conferencing alone. Lengthy conference calls often failed to hold the attention of participants over the course of a meeting, leading to lowered productivity. Complex content development and review were difficult to accomplish with audio conferences and resulted in errors, time delays, and increased costs. Constant business travel and lengthy meetings also led to work-life balance issues among employees.

The customer asked the Cisco® Internet Business Solutions Group (IBSG) to develop an efficient, cost-effective alternative to its workgroup development process that would accommodate the customer's working

style (involving the need to see and manipulate large amounts of rich content), reduce errors and development cycles, and cut costs.

Cisco IBSG studied the customer's development process and lean process optimization initiatives, and observed that workgroup participants preferred to stand up, move around, develop ideas on a whiteboard, and share large-format information (such as process design, project schedules, software designs, and engineering models). Being constrained to a seated position—something required for conventional video conferencing—was not optimal for such activities. Viewing content is just as important as being able to see the other participants, which also made phone conferencing and most video-conferencing tools impractical.

This "working session" mode of collaboration is essential to a wide range of projects, including strategic planning, customer account planning, market development, product design reviews, business process reengineering, customer-requirement gathering, and contract development. And yet—other than in-person meetings—no solution yet existed that satisfied all the needs of a lengthy working session.

Solution

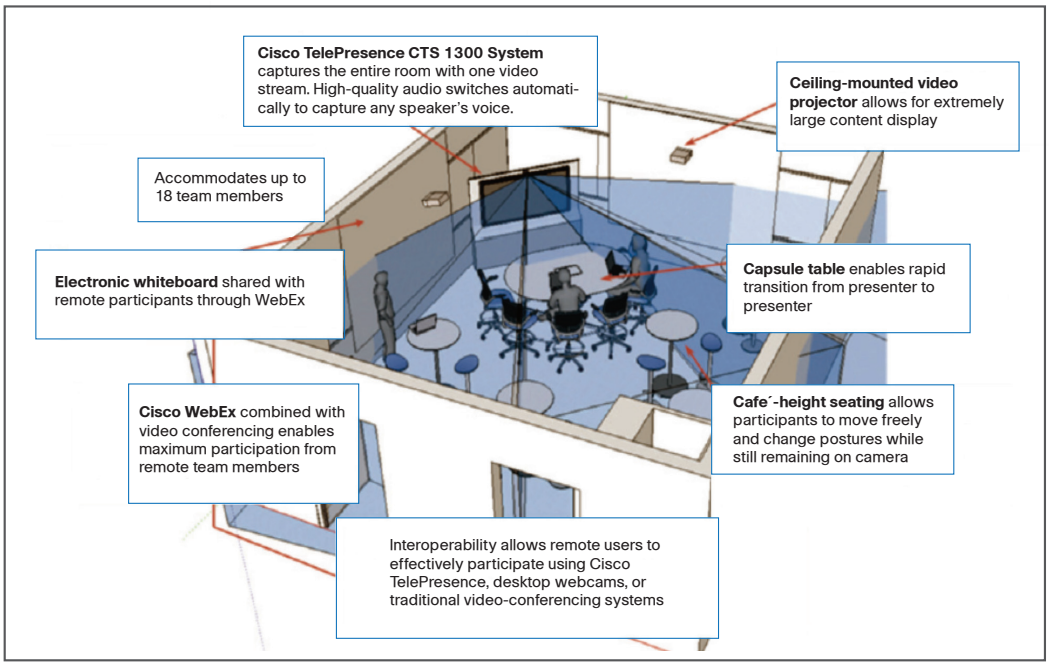
To support the workgroup collaboration meeting format, Cisco IBSG developed a new, technology-enabled solution called the Active Collaboration Room (ACR). ACR is based on Cisco TelePresence™ technology, which enables highly interactive, video-based meetings by effectively simulating the "face-to-face" experience. This technology had been used in several transformational engagements with other customers, primarily for standard business meetings. The Cisco IBSG Manufacturing Practice team settled on Cisco TelePresence as the enabling video-conferencing technology, but in a new physical format that supported the needs of a collaborative workgroup (see Figure 1).

> "I have not estimated the exact percentage of cycle reduction we anticipate [through the use of ACR], but I would make a rough estimate of 25 percent to 50 percent."
>
> —Customer Executive

The standard ACR configuration is set up in a room equipped with Cisco TelePresence, a ceiling-mounted projector, interactive whiteboard, and other collaboration tools, such as Cisco WebEx™ web-conferencing technology. The room's layout is conducive to participants' movement and interaction. Tables and chairs are at café height and the Cisco TelePresence cameras are located higher than normal to capture images throughout the room, even when participants are standing or moving around. Cisco WebEx technology permits content from PCs, the whiteboard, and projection screen to be shared among meeting participants (see Figure 2).

ACR is interoperable with other video-conferencing systems and webcams. It is scalable and modular, so it can be implemented in different-sized rooms to accommodate workgroups of various sizes. It is supported by an end-to-end network architecture that delivers a high-quality experience regardless of participants' visualization modes. Each participant joins the session at the highest

Figure 1. The ACR Environment Is Configured To Enhance Collaboration



Source: Cisco IBSG, 2010

"Our Engineering Center of Excellence is very excited about ACR. They said that to do global reviews...would kill us because of the travel bills. But doing this by ACR will have a major impact on the long-term error rate."

—Customer Executive

Figure 2. The Interactive Whiteboard, Projection Screen, and Team Members Can Be Seen by All Participants in the Meeting

Source: Cisco IBSG, 2010

resolution that his or her location is capable of offering so that the experience of all participants is not degraded to the lowest common denominator. ACR is designed to be easy to use, permitting participants to start meetings or switch content display formats with the single click of a button. Room layouts are reconfigurable to accommodate the needs of different workgroups.

Results

While the most immediate and obvious benefit of using ACR was reduction in travel costs (sufficient in itself to pay for the system), the customer has termed ACR a "game changer" that will pay for the system many times over (even with the customer's planned expansion to 200 ACRs).

"Demand for ACR [within the organization] is really accelerating. Most folks just visit the room and immediately see the potential to positively impact both quality and speed."

—Customer Executive

Figure 3. Visibility into the ACR Enables High Productivity for Remote Participants

Source: Cisco IBSG, 2010

The customer measures productivity improvements in terms of increased speed and quality. An engineering executive for the customer estimates that development cycles have been reduced by 25 to 50 percent when using ACR. Since expanding ACR from its original pilot program, the system has returned ever-decreasing costs for business travel.

Offshore drafting cycles, which at one time created a number of delays and costly errors, can be reduced by 80 percent—going from an average of seven days to one day for review and revision. Because errors are caught far earlier in the development cycle, development costs will also decrease significantly. The customer believes this savings is "very large."

Beyond the benefits of cost reduction and decreased cycle times, the customer has stated that ACR helps overcome some of the cultural and language barriers common to organizations with international workforces. The customer also believes that the ACR experience has enhanced the morale and cohesion of its

task groups. People feel comfortable in the ACR space, and are interacting in a way the company has not seen before.

Figure 4. ACR Layout Allows Sharing of Large-Format Content

Source: Cisco IBSG, 2010

Next Steps

The customer's project teams and management are enthusiastic about the ACR environment and the subsequent sharp increase in productivity. The company is now in the process of installing up to 200 ACR rooms worldwide, at a rate of 25 systems per month. These units are made available primarily to engineering and product groups, but are also being installed in customer-facing groups. Manufacturing will eventually be provided with ACR access, and other groups within the company have expressed interest in using the solution as well.

Size, room configuration, and the equipment installed in these rooms depend on the needs of the user group. For example, ACR rooms in areas of the world where the infrastructure cannot support the bandwidth required by Cisco TelePresence technology are equipped with video-conferencing tools that run well under local conditions.

Conclusion

Globally dispersed workgroups are a fact of life in today's business environment. They have the advantage of bringing together people of many different skills and backgrounds in the collaborative process, and enable companies to assemble the right people for the job in more instances. The downside is difficulty in

"For drawing reviews, we have designers in the States, and they send designs to other parts of the world such as India or Mexico for drafting. Our team estimates that it takes seven days and seven hours on average to review a drawing and get it right. They estimate that we can get this down to one day and one hour using ACR. The drawing review process alone more than pays for ACR."

—Customer Executive

communicating across time, distance, language, and cultural barriers. This often results in costly delays and errors and high travel costs.

By adapting technology to support the way that people like to work in teams on complex development processes, global companies can overcome barriers to productivity while increasing quality and decreasing costs. ACR is adaptable to all sizes of workgroups, provides an environment conducive to the collaborative process, and enables a near-in-person experience that overcomes the issues involved in remote collaboration. For the customer, it has proven to be less of a technology tool than a strategic transformation in how the organization accomplishes the day-to-day business of product and process development.

More Information

Cisco Internet Business Solutions Group (IBSG), the company's global consultancy, helps CXOs from the world's largest public and private organizations solve critical business challenges. By connecting strategy, process, and technology, Cisco IBSG industry experts enable customers to turn visionary ideas into value.

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