

## TelePresence in Manufacturing

**M**obile video collaboration including the ability to quickly locate available company experts, communicate across multiple locations/devices and pull multiple parties into a collaborative session offers new tools for sharing expertise and resolving manufacturing problems.

Cisco, partnering with Librestream, is providing a solution that integrates its unified wireless network and communications technologies with Librestream's Onsite Expert solution. This enables hardened wireless video cameras to be used for voice, video and data sharing between remote employees.

"Our core technology is what we call borderless networks including our switching, routing, wireless and security solutions," says Chet Namboodri, Director for Manufacturing Industry Solutions and Marketing for Cisco Systems. "With that as a basis, we are able to offer distributed data centers and virtualization across various areas from control design to operational excellence. Enabling engineers to collaborate includes telepresence, video and Webex capabilities that unify communications, and all of these technologies combine to provide core solutions for manufacturing."

Integrated WebEx provides immediate, secure conferencing where users can initiate conferences with one click and take advantage of audio, video and desktop sharing. TelePresence real-time conferencing can replicate the power of a face-to-face meeting, so that employees and partners may communicate with each other as naturally as though they were at the same table, from any location in the world.

The key advantage of the Manufacturing Mobile Video Collaboration (MMVC) solution is how it enables real-time mobile collaboration between local personnel and remote experts. Examples include reducing plant downtime and im-



proving worker productivity through faster response to issues on the shop floor, and accelerating time to market through effective collaboration between engineering, manufacturing and suppliers during prototype and initial production runs.

Cisco TelePresence solutions provide a consistent, high-quality image and sound with voice-activated switching at virtually zero latency, scaling from groups of one or two up to large meeting areas with 48 screens. A TelePresence Manager automates much of the collaboration process, supporting groupware scheduling with an easy-to-use "one button" interface and integrated calendars and administration.

A MultiPoint Switch can scale up to 16 units for a single call, supporting site or segment switching to maintain image size and aspect ratio for a reliable, high-quality conferencing exchange. One-touch auto-collaborate tools include a PC projector and the ability to conveniently share physical objects

with an optional high-definition document camera. For example, engineers can share CAD files or detailed, instant images of product designs for assessment and review.

“The telepresence capability facilitates solving problems in real-time and applications such as training. If you think of this technology applied to machinery development, OEM machine builders have the opportunity to extend their services over the lifecycle of the machine,” says Namboodri. “This is not just remote access to information on how the machine is being used, but also an ability to collaborate in real-time with the users of the machine.”

Librestream Onsight wireless mobile devices offer a built-in microphone, speaker and headset jack for full voice communication. Illumination, zoom and focus controls help ensure clear visuals, and a macro capability provides excellent detail for collaboration close-ups. Other cameras such as borescopes or microscopes can be connected to these mobile devices to further enhance functionality.

Using the desktop collaboration software, Onsight Expert operators can see video from the field and interact through voice and onscreen telestration. The software can remotely control all the device functions such as zoom and illumina-



tion. Users can share images or prerecorded videos, and bring in additional experts running Onsight Expert or WebEx. A secure, web-based administration system facilitates centralized updates, configuration and management of Onsight devices and Onsight Expert applications. Companies can also view session statistics to track and analyze usage details.

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