



A WHITE PAPER BY
TANDBERG
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TAKE A LOOK AT THIS...
VISUAL COMMUNICATION IN THE SERVICE
AND MAINTENANCE INDUSTRY

TANDBERG
See: performance



“The labor shortage will cost manufacturers \$50 million in the next 5 years.”

SOURCE: AC NIELSON:
COST OF THE LABOR
SHORTAGE IN
MANUFACTURING

A major shift in many manufacturers’ business strategies has included an increased focus on service and maintenance as a way to maintain and increase profits. Customer satisfaction and marketplace differentiation are ultimately determined by the quality of the product and increasingly by a customer’s experience with the delivery of service and maintenance activities.

The opportunities to grow business through an integrated service strategy are significant. Companies are beginning to understand that the service groups are a potential messaging channel and a critical ally in account development activities, both for product extensions and future product introductions. These relationships become significant corporate assets if the customer service experience is effective.

One of the challenges that service executives are facing is recruiting and retaining the talent needed to deliver a great customer service experience. Most service organizations only have a few highly skilled service engineers and technicians that are the go-to guys for difficult problems. The shortage of skilled labor often means companies are forced to employ less qualified technicians to provide service and maintenance support or deal with customer service delays. A perfect example of the skilled labor shortage facing the majority of manufacturers today is the auto industry. The Bureau of Labor Statistics estimates the auto industry will need 35,000 new technicians every year through 2010. This shortage of skilled labor restricts many corporations’ strategies and growth plans for their service and maintenance departments.



SCALING KNOWLEDGE ACROSS THE ORGANIZATION

In order to address the demand for improved service and maintenance despite facing skilled labor shortages, manufacturers have been forced to search for innovative ways to cost-effectively scale critical knowledge within their organizations and increase the level of customer intimacy during service events.

Volkswagen is one company taking advantage of technology to overcome this challenge, embedding visual communication solutions into their standard service processes. Visual communication is enabling Volkswagen to take advantage of centralized skilled experts to share knowledge and expertise with remote general service and repair technicians at local dealerships. Volkswagen of Mexico has visually connected its remote dealerships with its central training office, delivering training and service updates and eliminating the need for the dealership technicians to travel for training. Regular seminars are delivered over video to each of the dealerships, speeding training development and reducing the amount of time technicians are out of the field.

The second step in Volkswagen’s strategy is to combine visual communication with real-time data sharing to further scale remote experts for complex repairs. In the past, complex repairs required the dealership to hold onto vehicles for three to five days until a skilled technician could travel to the dealership to work on the car or for a less skilled technician to work through the troubleshooting process. Utilizing robust IP networks



“40% of the maintenance tradespeople will be retiring in the next 5 years.”

SOURCE: HUDSON INSTITUTE

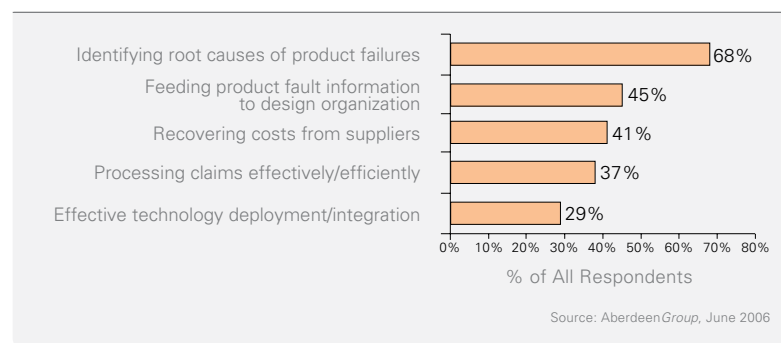
and mobile video devices, a videoconference can take place right from the dealership repair shop, with data from the dealership’s engine analyzer simultaneously transmitted in real-time to the engineering center. The remote expert can walk the local technician through the troubleshooting or repair process. This real-time access to centralized experts hundreds of miles away has enabled Volkswagen to reduce the average turnaround time on complex repairs to one day (a 350% improvement in repair time) in more than 200 dealerships. In addition, first time resolution rates improved, thereby significantly increasing customer satisfaction.

In another example, a manufacturer of medical equipment is using video to help its healthcare customers more quickly develop competency in equipment operation. The manufacturer temporarily provides a compact video unit for each installation of surgical aid equipment. Doctors and medical personnel can use the device for the first few months to speak face to face with the manufacturer’s service and training experts anytime they are having an operational issue. Using TANDBERG’s Expressway® technology for secure firewall traversal, medical staff can contact the manufacturer’s video-enabled help desk so that the experts can see exactly what is going on at the doctor’s office. This innovative process provides a new level of customer intimacy and service differentiation with minimal costs that can only be duplicated with onsite technicians at a much higher cost.

WARRANTIES: A COST OF DOING BUSINESS?

U.S. businesses will spend more than \$2 billion dollars per month on warranty claims. However, these claims can be an asset if the information is used to guide the improvement of the product and services involved. The use of visual communication can have a major impact on the top three challenges for warranty management prioritization (Figure 1). The real-time access to experts can help onsite technicians understand the situation more thoroughly and guide the troubleshooting process. Being able to understand the problem in context visually quickly generates a common understanding of the conditions involved in the failure. These troubleshooting calls can be a recorded with a TANDBERG

Figure 1: Top Warranty Management Challenges





MOBILE VIDEO COLLABORATION

Innovations such as TANDBERG's FieldView, a mobile video system, enables remote workers to communicate in real time with centralized experts. This solution supports a two-way voice call while simultaneously transmitting a hi-resolution video stream back to the central expert on a PC. The wireless FieldView solution communicates over 802.11 b/g using standard SIP protocols. The session can be recorded for future reference and an integral touch screen supports live annotation from both ends of the call on the live video stream or on freeze frame jpeg files. Innovations like these, which are enabled by the ever-increasing capabilities of the global internet (IP networks), enable new ways to deliver remote product service (RSP) with exceptional levels of customer service.

Content Server (TCS) and viewed later by R&D or quality assurance groups to help guide product improvement plans. In one situation, a design engineer — while viewing a recorded repair event — witnessed how difficult a simple repair operation was due to limited internal access to the equipment. The next product revision included a redesign to the product housing, making parts more accessible.

THE ROLE OF SUPPLIERS

Suppliers can also be included in a manufacturer's visual communication network, bringing additional expertise and core competence to joint service calls. Any defect the suppliers' parts or equipment may have can be quickly understood and documented, increasing both the speed of repair, as well as the speed in which the defect can be eliminated from future parts. These types of collaborative events can build cooperation at many levels between organizations, helping to foster teamwork and greatly reduce resolution times.

In the oil & gas exploration industry, for example, visual communication is used to integrate large global supply chains. More than 160 different companies participate in visual communication and data network maintained by a global service provider, OilCamp. This network supports operations on off-shore oil rigs by connecting them to their on-shore facilities and scores of suppliers. If a maintenance crew on a rig needs support for a critical repair or preventative maintenance task, they have immediate access to experts on shore. These experts can be engineers at an equipment supplier or a member of their own engineering staff. The on-shore experts can see exactly what is going on and immediately understand the context for the problem at hand. In another situation, geologists and other consultants can be linked in visually to help the analysis of data and samples from the drilling activities.

CONCLUSION

When an effective visual communication strategy is integrated with the work process, new levels of productivity can be achieved. The integration of visual communication into a business process increases response times despite geographic barriers. Real-time visual collaboration accelerates a seamless exchange of ideas and expertise and can lead to improved service and maintenance programs.



WORKPLACE ISSUE



REALTIME STREAMING MULTIMEDIA
VIA WIFI COLLABORATION SESSION



TECH EXPERTS
AND REMOTE
OPERATORS