



TROUBLE SHOOTING WITH NEW EYES

AUGMENTED REALITY OFFERS A NEW VISION TO DC MAINTENANCE OPERATIONS

Unplanned downtime and lost productivity can cost a DC hundreds of thousands of dollars per hour. Customer service levels can also suffer, potentially creating losses that are not as easily measured.

So when a critical piece of material handling or automation equipment goes down, every minute counts. Yet even as U.S. distribution volume continues to grow by an estimated 25 percent each year¹, the number of experienced maintenance workers in the country is shrinking. As baby boomers retire, taking much of their “tribal knowledge” with them, fewer younger workers are stepping in to replace them. Unfortunately, the result is a growing knowledge gap that many companies are scrambling to fill.

In this ever-tightening labor environment, it can take valuable time to get an experienced technician on-site when a serious maintenance issue comes up. Fortunately, new developments in smart glasses and augmented reality (AR) technology are beginning to offer an alternative solution for DCs that can't afford to wait.

SHOW ME, DON'T TELL ME

Until recently, working with a remote expert service team had frustrating limitations. Communicating by phone didn't allow off-site technicians to see the problem. And while smartphones and other hand-held devices have made video communication easier, they create safety concerns for on-site staff in a maintenance situation.

Smart glasses offer a far better solution, one that's finally coming of age with the introduction of TechSight, a leading-edge technology developed specifically for distribution centers by Honeywell Intelligrated's Lifecycle Support Services (LSS) team.

TechSight enables on-site technicians to communicate with remote experts in real time via a secure video and audio link. The system operates on the Web Real-Time Communication (WebRTC) protocol to provide a fast peer-to-peer connection. Apart from the TechSight smart glasses themselves, the only other hardware required by the system is the network connection to enable communication.

This hands-free communication system allows a remote support team to see exactly what the on-site maintenance crew is dealing with in real time. This enables problems to be diagnosed quickly and accurately by expert technicians, decreasing the mean time to repair, regardless of the on-site staff's level of skill or training. In addition to minimizing downtime by expediting issue resolution, TechSight also saves DCs the expense of field service calls and travel costs, while boosting the efficiency of in-house labor.

Built with the needs of real-world maintenance teams in mind, TechSight is designed for prolonged use in the field. The hardware is lightweight and comfortable, with hot-swappable batteries that minimize disruptions to the communication link.

MORE THAN JUST A SECOND SET OF EYES

Smart glasses can have a tremendous impact on helping maintenance teams address service issues and preserve their tribal knowledge. With expert-led training by a supervisor or seasoned technician, they can help accelerate knowledge transfer via remote video assistance and even AR-based instruction. With smart glasses, even the most inexperienced staff members can perform difficult tasks, simply by relying on live remote guidance from a more qualified service or field technician.

In addition to high-definition audio and video conferencing, one of the system's most powerful tools is telestration, which enables the remote observer to make AR overlays visible to the on-site user through the smart glasses.

The technology also features a suite of tools to help users document critical details and exchange information, including remote screenshot capturing, zooming, messaging and file sharing. Using these tools, an expert remote team can guide local technicians with annotated screenshots and other support documentation. All of these features enable TechSight to provide immediate feedback for faster downtime recovery, while building up the on-site team's hands-on knowledge and experience.

Even small reductions in downtime represent significant savings potential for companies seeking to decrease their average mean time to repair. In addition, smart glasses can help compensate for the lack of experience within their own maintenance crews and reduce the need for costly service calls.

LOOKING TO THE FUTURE

The potential value of smart glasses technology is magnified when paired with an expert service provider network like the LSS team from Honeywell Intelligrated. Such a partnership enables 24/7/365 access to equipment experts when they are needed most, while allowing whomever is wearing the smart glasses to use the technology to its fullest. More than simply permitting the remote service team to see exactly what the on-site technician is dealing with, this partnership enables them to send instructions and information that would otherwise be difficult to communicate in real time.

From a broader view, TechSight is just one component of a larger digital transformation that's enabling greater efficiency in next-generation connected DC operations.

When combined with machine-level sensors, system controllers and connected devices, today's DCs can gather performance data from key equipment and take proactive action based on real-time vital statistics and asset health. Regardless of your specific approach to maintenance, these smart glasses can help to minimize unplanned downtime and provide your DC with a significant competitive advantage. **■**



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FOOTNOTES

1. <https://retail.emarketer.com/article/global-ecommerce-topped-23-trillion-2017-emarketer-estimates/5a6f89f5ebd40008bc791221>

DC
VOLUME
GROWS 25%
ANNUALLY

Augment Your Reality



Accelerate issue resolution
with TechSight.

Don't let material handling equipment failure bring productivity to a halt. **TechSight** augmented reality glasses enable real-time video collaboration with our 24/7/365 team of support experts. Simply show us the issue at hand, and we can guide you through a fast resolution.

With HD audio and video, remote screenshot and zoom, messaging, file sharing and live telestration capabilities, **TechSight is like adding a team of engineers to your technician crew.**

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For more information, please call **1.877.315.3400** or visit www.intelligrated.com/services.