



Hands-free Remote Assistance for Automotive Repair & Maintenance

Challenge

Geographically dispersed field technicians need support from Product Quality Engineers (PQEs) on frequently changing maintenance and repair procedures.

Solution

The RealWear HMT-1, used in conjunction with LibreStream Onsite Connect remote mentor solution allows technicians to connect hands-free with PQEs, capture images and videos, playback training videos, refer to manuals, improving efficiency and accuracy.

Results

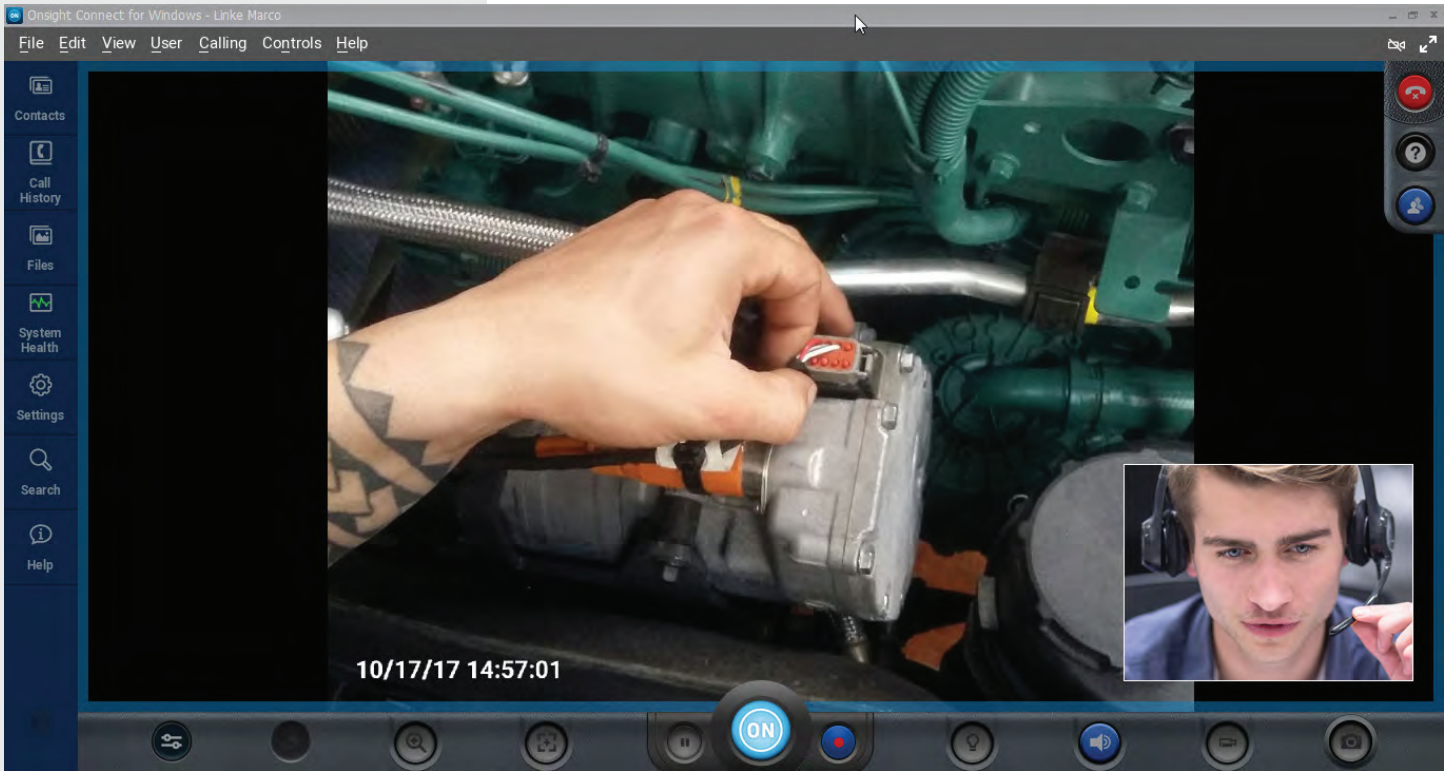
A limited number of PQE's can now support hundreds of technicians in the field.

Volvo Group Trucks Central Europe, distributes and services trucks under the two brands Volvo Trucks and Renault Trucks in Germany. The group drives progress by seeking new technologies in support of the business.

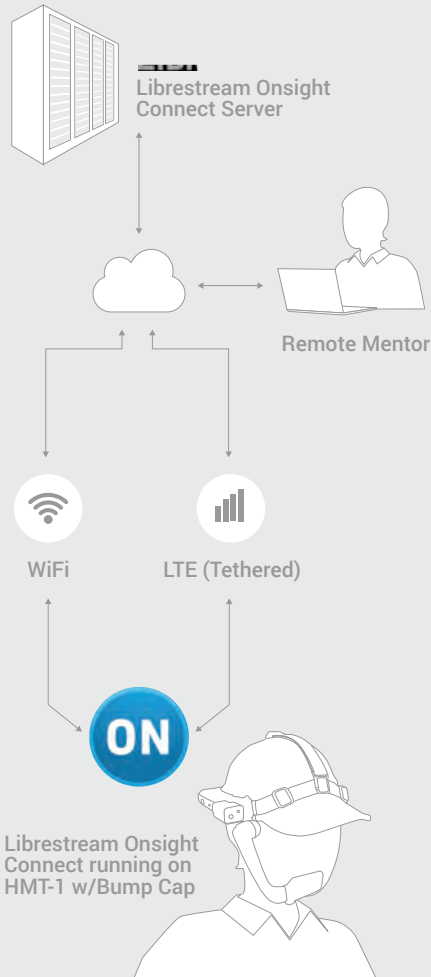
Maintenance and repair technicians at Volvo Group Trucks Central Europe frequently need to be trained on the most recent models. Experienced technicians may have undocumented repair procedures and best practices that need to be transferred to the new technicians. Any maintenance downtime of these trucks directly translates into loss of business for Volvo's customers. Volvo has a limited number of Product Quality Engineers (PQE's) spread across various geographic locations. When repairing a truck, technicians often seek remote assistance from PQE's. With a tablet or smartphone, technicians are forced to use their hands to hold the device during the remote assistance call, making it difficult to conduct repairs at the same time.

Using Librestream Onsite Connect on the HMT-1, PQEs can now assist new and existing technicians from any location. Onsite Connect adapts to low-speed Wi-Fi and limited bandwidth LTE to ensure functionality in adverse conditions by lowering the video resolution, yet still permitting high resolution still images to be captured.

Technicians can perform repair tasks hands-free while connected with the PQE or referring to manuals and drawings. Training videos can be created in real-time while performing procedures.



Solution Overview



The RealWear HMT-1 offers a hands-free tablet experience with a micro-display that fits just below the technician's eye, providing a view comparable to a 7" tablet. The HMT-1 can be used with safety glasses or corrective eyewear and easily attaches to helmets or bump caps. Onsite Connect utilizes the Wi-Fi capability of the HMT-1, either direct to the workshop Wi-Fi network or tethered to an LTE hotspot or phone. The hands-free voice recognition interface of the HMT-1 uses an advanced digital microphone array to provide exceptional noise cancellation in up to 95 dBA of noise, critical in loud workshops.

The HMT-1 is IP-66 rated for use in dusty and wet environments. Using the native document viewer, technicians can browse mechanical drawings and refer to manuals hands-free using voice commands. Video recording & playback is used to capture repair procedures for training purposes, turning a one-time repair into a long-lasting, transferable learning opportunity. The field-swappable battery lasts for over 8 hours with typical use including video streaming, meaning technicians don't have to stop what they are doing throughout the day.

“The RealWear HMT-1 with Librestream Onsite Connect has the potential to provide better assistance to our technicians and increase our productivity. This solution can help us improve our quality of service and customer satisfaction.”

Markus Weckesser, Director Service Market, Volvo Group Trucks Central Europe GmbH