

SOLUTION BRIEF

CareAR for the Oil & Gas Industry

Oil and Gas Industry Challenges

Complex equipment frequently located far from accessible technical expertise and parts defines the oil and gas industry. Risk of failures and challenges associated with following strict procedural guidelines can result in safety concerns. This can have far reaching implications along with significant cost considerations.

Rapid access to expertise challenges the energy sector when on-site technicians need assistance. Complex large-scale systems present hazardous conditions for inspection and maintenance. Outages demand even more expert attention as off-line costs can quickly soar into millions of dollars.

Technologies offering virtual enhancement could reduce the cost of maintenance and operations by 10 to 15 percent.¹

The CareAR Solution

CareAR is an augmented reality (AR) visual support platform that allows oil and gas producers to optimize their equipment repair, maintenance, and inspection experience with live visual guidance tailored for each interaction. With CareAR, on-site technicians are guided by visual prompts while receiving remote, real-time guidance from off-site experts.

It's all about content with context. CareAR empowers on-site workers with remote expertise using mobile devices and drones. When safety is paramount, workers can go hands-free with smart glasses.

With visual AR assistance and support, technicians can survey maintenance, perform inspection, repair in real time, and capture critical details on live video. They can save these images or recordings into a pre-existing workflow or the CareAR secure cloud. This gives on-site teams more clarity, greater confidence and fewer delays for an enhanced service experience.

Use Cases

Remote Assessment and Guidance

Expert guidance for in-the-moment diagnosis and direction.

Hands-Free Glasses and Drone Augmented Reality

Quickly identify complex components not easily visible or accessible and remotely verify procedures.

Remote Training

Train on-site workers or upskill staff remotely to reduce human error and increase speed to resolution.

Benefits

Rapidly Resolve

Remote expert evaluation and guidance accelerates best action.

Prevent Failure

Frequent assisted remote compliance audits and expert analysis supports proactive resolutions.

Optimize Safety

Ensure rigorous oil and gas procedures are followed and verified to prevent hazardous behaviors.

Increase Efficiency

Reduce travel and downtime costs with augmented reality remote assistance and self-solve, self-learning guidance.

How it Works

CareAR® Instruct - Boosts self-solve and self-learning for frontline employees with step-by-step augmented reality graphical guidance. Hotspot focus engages users with contextual graphical guidance overlayed on actual objects within each user's smartphone or wearable device field of view.



Detect

3D computer vision
object detection
focuses attention



Guide

Step-by-Step AR self
guidance enhances
comprehension



Verify

State Detection auto
adjusts steps based
on motion

CareAR® Assist - Engage service technicians and customers with annotated augmented reality visual instruction from "see what I see" remote experts. Diagnose, direct and resolve by making experts immediately accessible to speed issue resolution.



See

View the service
situation remotely
from any location



Solve

Visually guide and
collaborate for effective
problem resolution



Save

Capture and share
content in systems
and with teams

Technical Requirements

mobile	iOS 11 or later (includes ARKit) Android 9.0 or later (includes ARCore)
desktop	Windows and Mac
smart glasses	Android 8 or later (includes Google Glass, RealWear, Lenovo ThinkReality)
network	Automatic video adaptation dynamically adjusts for bandwidth variation

Instruct Features

■ Step-By-Step Graphical Guidance

Engaging AR graphical guidance is contextually overlayed with animated motion on target equipment within each user's device field of view.

■ Create and Capture Content

Save images and video recording from live service sessions and store in the cloud for collaboration.

■ Content Enhanced

Additional 2D, video and MagicLens visualization can supplement each hotspot to enable users to self-customize for their learning style.

Assist Features

■ Anchored Annotations

Remote experts can guide with visual graphics that remain anchored to the intended location in real-time.

■ Engagement Agility

App or browser-based augmented reality remote assistance with SMS, email or join by code invite options.

■ Multi-User Support

Simultaneous Assist session participants without a limit ability for any concurrent Assist user to stream and annotate based on a host request permission.

Start Visually Resolving Issues Remotely With Enterprise Augmented Reality

Schedule a demo at: [CareAR.com/demo](https://carear.com/demo)