

Challenge Name: Create an AR-based Remote Maintenance Assistance Solution

Service Unit: IoT

Key Challenge statement:

Augmented Reality (AR)-based Remote Maintenance assistance software enables in-field technicians with precise visual instructions to repair the device.

The solution will cover:

- ▶ Maintenance and repair of field equipment – Hands-free operation for field worker, remote assistance to field worker, access to digital manuals/data sheets/SoP, access to past maintenance data and asset performance data
- ▶ Training the workforce through simulation, videos and access to knowledge portals

Background of the challenge:

Repairing industrial devices requires skilled people. Traditionally, when a device become faulty, the request is registered with the manufacturer or service provider. The in-field person visits the site to know the root cause of the fault. Sometimes, the fault is not so critical and the in-field person repairs without any help. But in case of a critical fault, the in-field person requires help from the remote person which happens over call, video sessions etc. The remote person provides the details of the faulty part in terms of fixing manuals and instructions, data sheets etc. to fix the issue which in turn increases the repairing cost.

Scalability of the challenge

All

Which major business vertical does this challenge impact/pertain to?

Repair and Maintenance Service Industry

Potential business which could be opened if the challenge is solved:

Increase in remote fixing rate, less skilled people can do the service using this solution so reduction in the training cost. Increase in service profitability, increase in device uptime etc.

Nearest solution or player with development in this space?

N/A

Why this challenge is critical for HCL:

Due to advancement in the technologies, the repair and maintenance industry is also looking to leverage the latest technologies to cut down their cost in terms of people, process etc. We can take this solution to our customer to help them deliver improved and more advanced services.

Expected solution's guidelines

- ▶ Share the document containing the solution idea and approach for review.
- ▶ Share the high level architecture and component level architecture.
- ▶ Share the details of devices/gateway and communication protocols.
- ▶ Share the working prototype of the solution.