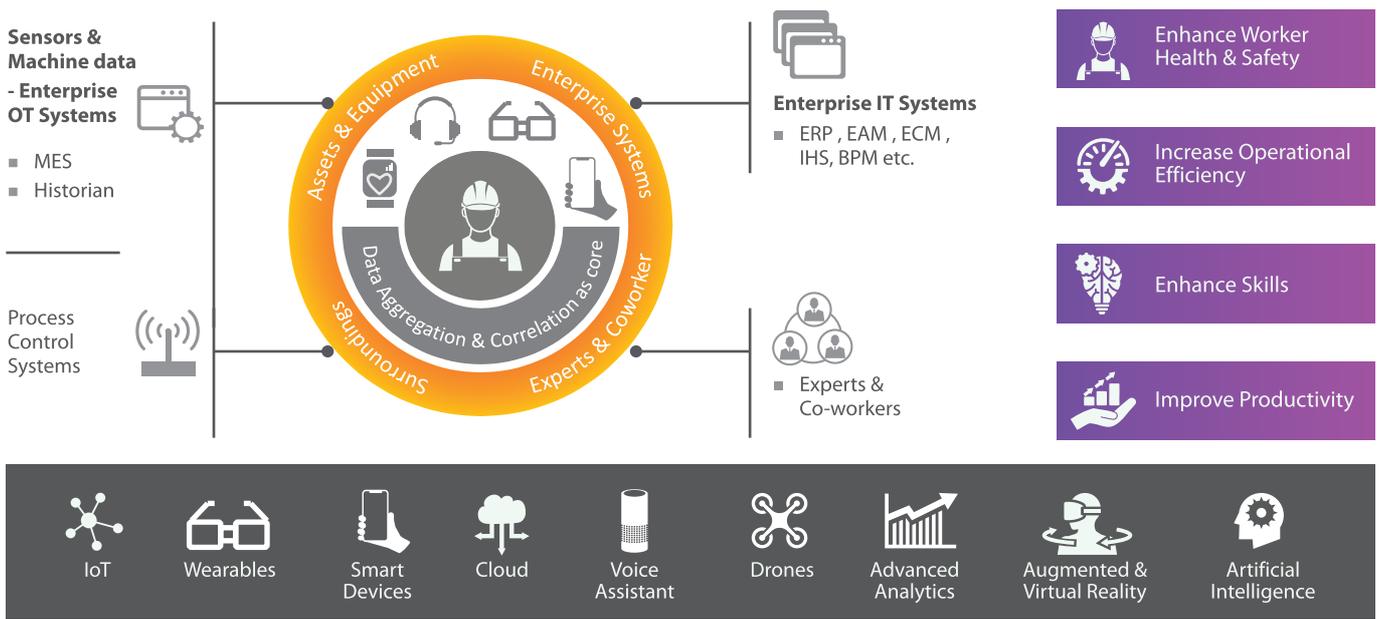


Connected Worker Solution

Energy & Resources



While the Energy and Resources (E&R) industry has embraced emerging technologies for reducing costs and driving operational efficiency, the sector’s field force still grapples with challenges of ensuring worker’s safety, eliminating accidents, reducing risk of errors, managing skill performance gap, and creating visibility in work status. There is an imminent need to bridge the gap between the enterprise physical and digital worlds in order to extend the benefits of digital transformation initiatives to the industrial and field workers. The new wave of industrial grade handheld and wearable technologies along with existing digital infrastructure offers an excellent opportunity to build field force focused solutions connecting them to enterprise IT/OT systems, remote subject matter experts, and assets or equipment they are dealing with while enabling environment and situational awareness.



Tata Consultancy Services’ (TCS’) Connected Worker solution suite is designed for workers on the field to accelerate field operations digitization, bolster workforce collaboration, offer immersive learning experiences, and enable real time information interaction. Our scalable solution focuses on E&R industry specific needs by leveraging our cross industry expertise across engineering services, IoT, digital technologies coupled with strong ecosystem of alliance and partners to deliver end-to-end connected worker solutions.

Overview

Field workers across the E&R domain are constantly exposed to life-threatening risks while on the job. Operations and maintenance teams often face a host of scenarios that can quickly escalate into dangerous situations. In response, enterprises are taking steps towards equipping the workforce with a range of wearable technologies and head-mounted devices – with the goal of enhancing situational awareness and reducing fatal accidents. Moreover, mobile and wearable technologies coupled with extended reality solutions offer last mile connectivity to the field worker in real time. VR/MR solutions are also being explored to offer immersive learning and designing experience by simulating real world scenarios in a virtual environment.

Solution

To realize next generation connected worker solutions, enterprises require a robust ecosystem. In this regard, TCS’ solution is not only aimed at digitizing current business processes but also offers a comprehensive and scalable ecosystem to deliver end to end connected worker solutions.

TCS Connected Worker solution can be leveraged to incrementally explore and scale connected worker use cases in the areas of health & safety, operational efficiency, productivity improvement, or skill enhancement.

TCS will be leveraging its expertise across Engineering Services, IoT, Digital technologies coupled with strong ecosystem of alliance and Partners to deliver end to end solution to Customer

Devices & Wearables

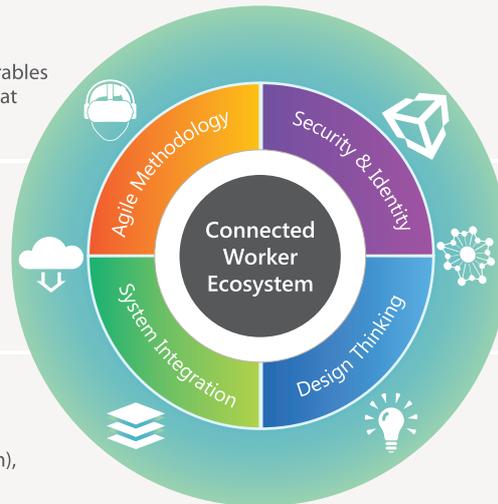
Digital transformation solution on Android/Windows/iOS , Exploration of wearables such as Hololens, Oculus, Realwear, GuardHat

Cloud & IoT

TCS Connected Universe Platform, Expertise in Public Cloud & IoT Platform such as Azure, AWS, Google etc.

Connected Worker Platforms

TCS Connected Worker Platform, Alliance with Atheer (Enterprise AR Platform), Ongoing Alliance with Mobideo



Mobility & XR

Enterprise solution using Unity, Xamarin , Vuforia, GIS etc. and other device specific SDK for Hololens, Realwear, Oculus etc.

Communication Infrastructure

Leverage existing communication infrastructure, Explore next gen protocol such as LORA, LTE, Location & Navigation services through GPS, BLE, Wi fi etc.

Insights & Analytics

Leverage Analytics to enable smart operations, actionable insights and deliver cognitive services

Benefits

TCS Connected Worker solution helps companies in Oil & Gas, OFS, Mining, and EPC sectors to reap the following benefits:



Improved Safety and Minimized Incidents: Add another layer in the safety framework by offering contextual information to field worker while remotely monitoring them and taking pre-emptive steps to avoid any safety incident.



Integrated Field Operations: Extend the connected enterprise ecosystem by building connected worker solutions enabling seamless transfer of information and data for quick, in time, and better decision making.



Improved Compliance: Maintain an audit trail of all the data collected as part of digitized field operations to ensure process compliance and support regulatory reporting.



Reduced Risk and Unlocked Productivity: Eliminate manual paper-based processes while automating the task such as maintenance and inspection to improve consistency, reduce risk of errors, and unlock productivity.



Insights Driven Operations: Leverage advance analytical models to harness the power of data collected as part of connected field force solutions churning out trends and insights to enable smart field operations.



Enhanced Workforce Experience: Deploy design thinking-driven solutions on wearable devices to simplify operations in a non-intrusive way while offering on-field guidance and real time information interaction.

The TCS Advantage

With TCS Connected Worker Solution, E&R companies will be able to leverage the following differentiators:

- **Focus:** Committed investment with a dedicated team of industry practitioners to explore field force digitization to keep close track of rapidly evolving ecosystem while defining contextual connected worker solution for Oil & Gas, OFS, Mining, and EPC industries.
- **Expertise:** Proven technology capability in areas such as Mobility, IoT, Engineering, and Cloud combined with rich industry knowledge ensures the right blend of required expertise to implement a long term connected worker program.
- **Ecosystem:** Right mix of partners in rapidly changing connected worker landscape to ensure adequate supporting ecosystem in areas such as AR/VR, Industrial wearable device, safety solutions, collaboration platforms etc.
- **Execution:** Delivery model combined with rich capability to manage multi-disciplinary teams enables us to support customer's long-term connected worker goals.

Awards & Recognition



To know more

Visit the [Energy, Resources & Utilities](#) page on [tcs.com](#)

Email: connected.worker@tcs.com

About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at [www.tcs.com](#)

[IT Services](#)
[Business Solutions](#)
[Consulting](#)

All content / information present here is the exclusive property of Tata Consultancy Services Limited (TCS). The content / information contained here is correct at the time of publishing. No material from here may be copied, modified, reproduced, republished, uploaded, transmitted, posted or distributed in any form without prior written permission from TCS. Unauthorized use of the content / information appearing here may violate copyright, trademark and other applicable laws, and could result in criminal or civil penalties.

Copyright © 2020 Tata Consultancy Services Limited