Case study

Digitizing Rig & Platform Operations for **Leading Global Telecommunications Operator of Offshore Industry**

🖥 Client

The client is world's leading high capacity communication network provider for offshore industry serving more than 350 oil & gas platforms, FPSOs (floating, production storage and offloading) and exploration rigs.

⛰ Challenges

The client was looking for a partner to help create new offerings leveraging the strong connectivity portfolio by digitizing rig and platform operations for its oil and gas vertical customers. The client was also looking for a partner with strong vertical domain understanding to accelerate the business value realization with digital interventions.
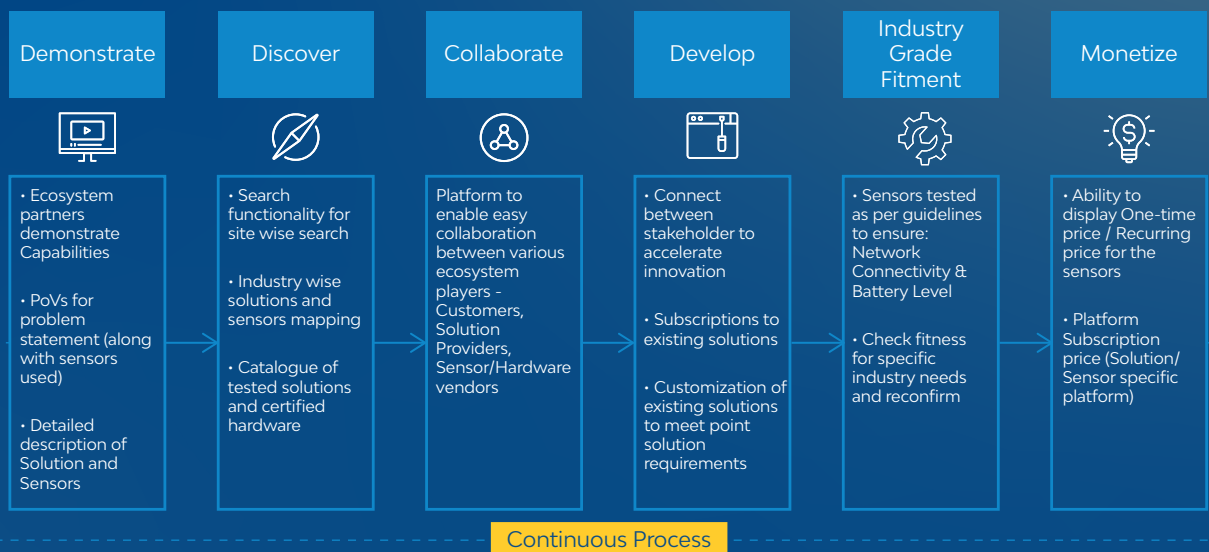
LTIMindtree partnered with the client to identify the opportunity areas, which can bring gains to the rig & platform operations and build a roadmap to deliver Industry 4.0 transformation. The prime areas of coverage for the Industry 4.0 solution blueprint were:

- Challenges with providing data connectivity for IoT-enabled devices at offshore/remote locations.

- Evaluation and selection of certified IoT sensors, gateways and devices for offshore rigs and platforms, given hazardous operating environment.

- Domain expertise for sensorization of assets and field equipment part of OT network.

- Selection of technologies that can be coupled with network to enable data transfer from remote offshore rigs and platforms.

- Improve accuracy of data collected through conventional means by automating the workflows and bring in efficiency gains.

💡 LTIMindtree Solution

- LTIMindtree leveraged its "Connected X as a Service" framework to define various sub-offering for end customer - starting with a consulting engagement to define the business use cases for bringing in operational efficiency and worker safety in the offshore Oil and Gas operations.

- Identified top use cases for digital intervention, designed Industry 4.0 deployment playbook for addressing business challenges and chalked out digital journey for the rig & platform operators.

- For identified uses cases - Sensors and Gateways were identified, evaluated, and finalized. A catalog was created mapping use cases to sensors and gateways requirement, thus enabling accelerating of implementing of Industry 4.0 solutions at Oil and Gas platforms.

- Designed impact chain for each use case to formulate cause and effect relationship from actions on operational level to impact on business levels, thus providing ROI calculations for the use case.

- Business application catalog that helped convert the CAPEX to OPEX for the Oil and Gas companies and reduce CAPEX spend.

Process for preparation of Sensor and Gateway Catalogue

Demonstrate	Discover	Collaborate	Develop	Industry Grade Fitment	Monetize
• Ecosystem partners demonstrate Capabilities • PoVs for problem statement (along with sensors used) • Detailed description of Solution and Sensors	• Search functionality for site wise search • Industry wise solutions and sensors mapping • Catalogue of tested solutions and certified hardware	Platform to enable easy collaboration between various ecosystem players - Customers, Solution Providers, Sensor/Hardware vendors	• Connect between stakeholder to accelerate innovation • Subscriptions to existing solutions • Customization of existing solutions to meet point solution requirements	• Sensors tested as per guidelines to ensure: Network Connectivity & Battery Level • Check fitness for specific industry needs and reconfirm	• Ability to display One-time price / Recurring price for the sensors • Platform Subscription price (Solution/ Sensor specific platform)

Continuous Process

⊞ **Key Benefits**

- Accelerated deployment of business solution helps advance the breakeven point for investments made.

- Partner ecosystem defined for sensors, gateways and devices that helps drastically reduce the procurement cycle.

- Industry 4.0 business use cases catalog and ROI calculator given a clear line of sight for value realization for investments made.

- Ease of device onboarding, status check and device management during a steady state operation.

- Performance indicators translated to financial KPIs for accurate ROI calculations.