

Edge Device Management (EDM) Solution for a Global Oilfield Service Provider



Problem Statement

The client is a Fortune Global 500 company providing oilfield services. To manage its assets in remote oilfields, the client has a huge installed base of edge devices. The monitoring and management of these edge devices is a challenge given the sheer volume and geographical location. The cost to provision, monitor and manage these edge devices is considerably high.

Challenges

The geographical expanse of the edge devices is posing the following challenges:

- The cost of provisioning is very high due to huge dependency on man-power
- Upgrade time and cost is very high as well
- Security is a challenge, and a constant source of concern

Our Solution

- Utthunga developed an Edge Device Management solution that meets the client's existing challenges. The solution composed of the following modules:
 - **Edge Runtime:** A module running on the client's edge devices to facilitate interaction with the existing edge core
 - **EDM Portal:** An interactive portal that allows administration of the edge devices and visualization of device status
 - **Field EDM:** A novel module that allows updating the edge devices offline
- The complete solution can be deployed on-prem as well
- Feature to onboard edge devices with TPM information
- Secure by design, implementing certificate-based authentication, TLS 1.2-based transportation and credentials-based storage
- Rugged and modular with containerized modules
- Supports Ansible automation

Benefits

- Significant cost reduction in provisioning and update management as the deployments are automated
- Data privacy concerns addressed via on-premise deployment support
- Single dashboard reflecting the health status of all the edge devices
- Comprehensive dashboard for preventive and proactive intervention
- Off-line updates with Field EDM portal to cover the air gapped systems

