



Industrial IoT Solutions



Tank Monitoring

- Fill Levels
- Leak Detection
- Valve Status
- Security



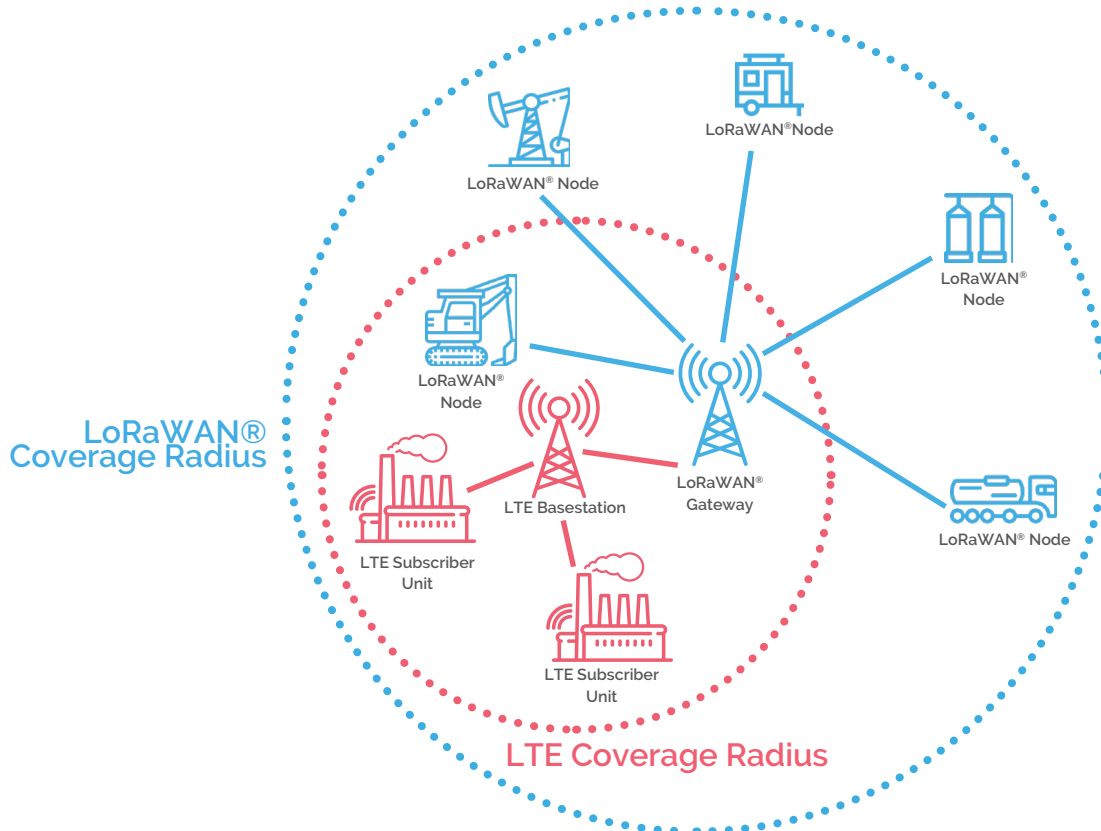
Fixed Location Asset Tracking

- Geolocation
- Movement or Event Notification
- Geofencing



Smart Indoor Environment Monitoring

- Temperature/Humidity
- Door/Window Open/Close Status
- Motion Detection
- Water Leak Detection



LTE is Designed for Networks Requiring:	LoRaWAN® is Designed for Networks Requiring:
Mission Critical Applications	Ultra Long Lifecycle Deployments
High Density Hardware Infrastructure Deployments	Extended Range Communication
Complex Network Deployments	Low Complexity Deployment
High Volume Data Processing	Low Volume Data Processing
Higher Power Requirements	Low Power (Long Life/Battery Powered Devices)
Power Infrastructure Required	Power Infrastructure Unavailable
Network Operation in Licensed Band	Network Operation in Unlicensed Band

Secure LoRaWAN® vs LTE in Ultra Low Data Rate Applications

LTE	LoRaWAN®
Higher Hardware Costs	Lower Hardware Costs
Power Infrastructure Required	Long Battery Life (3-10 Years)
Complex Installation	Quick Installation - Designed for Mass Deployment
Shorter Range	Extended Range (10's of km's)
Not Suitable for High Interference Environments	Operates Seamlessly with Existing Technologies
High Cost of Underutilized Hardware	Low Network Operation Costs
Underutilized Speed	Non-Mission Critical Deployments Reduces Speed Requirement
Underutilized Hardware	Long Range Capabilities Reduce Hardware Density Ensuring Efficient Utilization

LoRaWAN® Architecture

