



Pipe Integrity

Use Case

Situation

Safety and security required for the vast network of pipes used to transport various gases and liquids in chemical processing plants

Challenges

- **Infrastructure**
 - › Unmonitored transmission pipe due to remote locations with varied environments
 - › Ageing pipe systems lack continuous visibility of pipeline integrity such as corrosion, vibration, pressure, temperature, humidity
- **Damage Detection**
 - › Lack of security due to remote location and length of pipelines
 - › Delays in damage discovery and costly repairs
- **Safety Risk**
 - › Pipe leaks, pressure changes, weather issues
 - › Potential environmental impact

Solution - Atomiton Pipe Monitoring

- Continuously monitor pipe integrity through multi-sensor data integration (e.g. pipe sensors, inspection probes)
- Model and profile equipment such as flowmeters, valves
- Detect and alert central operations to potential issues - leaks, corrosion, freezing or other damages
- Capture and analyze operational issues through image analytics
- Change “Reduce costly damage and repair of remote assets and infrastructure” to “Reduce costly damage and repair of pipe and other assets/infrastructure in the plant”
- Predict and optimize pipe maintenance and integrity

BENEFITS



Optimize field personnel visits and schedule with real-time visibility of infrastructure integrity



Reduce safety risk and environmental impact



Reduce costly damage and repair of remote assets and infrastructure

The Atomiton Advantage

- An end-to-end solution that integrates with any sensors, devices, systems
- Real-time edge computing for continuous profiling of assets, products and activities
- Predictive analytics for dynamic optimization of loading/unloading operations