

Real-time Edge Intelligence

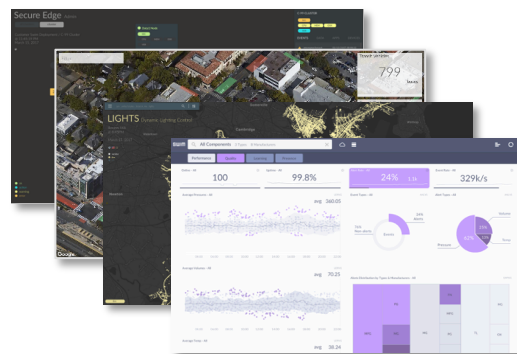
SWIM transforms fast data into big insights – entirely at the edge – using compute resources on existing edge devices. SWIM analyzes and learns from edge data on-the-fly to deliver real-time insights and predictions via APIs and GUIs.

- **Edge data fabric:** SWIM implements an autonomous, resilient, edge data fabric on devices to reduce, analyze and learn from high volumes of fast data
- **Digital twins:** SWIM automatically builds and self-trains “digital twin” models of real-world objects and systems from “gray” data
- **Machine learning:** Each digital twin analyzes real-time edge data and trains a deep-learning model that identifies patterns and predicts future behavior

Fast Data: Key Challenges

Organizations are drowning in a flood of data - from assets, suppliers, customers, and public infrastructure – all with potential to improve their business. But identifying insights from data remains a challenge:

- **Lack of skills:** Organizations lack cloud, big-data, data-science and machine learning skills
- **Cost of Operation:** Moving, storing and processing huge volumes of data is prohibitively expensive
- **Data filtering:** Data cleaning, labeling and filtering is hard (or impossible - for opaque “gray” data)
- **Latency issues:** Batch-style analysis and learning doesn’t permit a real-time response
- **High Complexity:** Data/analytics projects are complex and slow



SWIM enables the creation of dynamic, real-time user interfaces and can stream real-time insights via APIs.



SWIM adds ‘ML’ to Manufacturing

- Equipment monitoring & predictive maintenance
- Dynamic lighting control
- RFID systems and real-time asset tracking



SWIM for Service Providers

- Intelligent traffic monitoring and management
- Wi-Fi channel optimization and maintenance



SWIM Insights for Enterprises

- Oil & Gas equipment monitoring
- Autonomous vehicle analytics and control
- IT/OT applications management