

Leveraging the Industrial IoT to Increase Production Efficiency & Streamline Operations

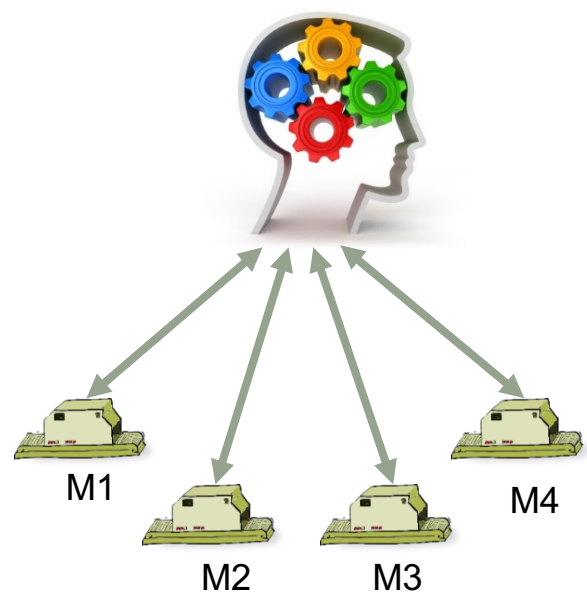
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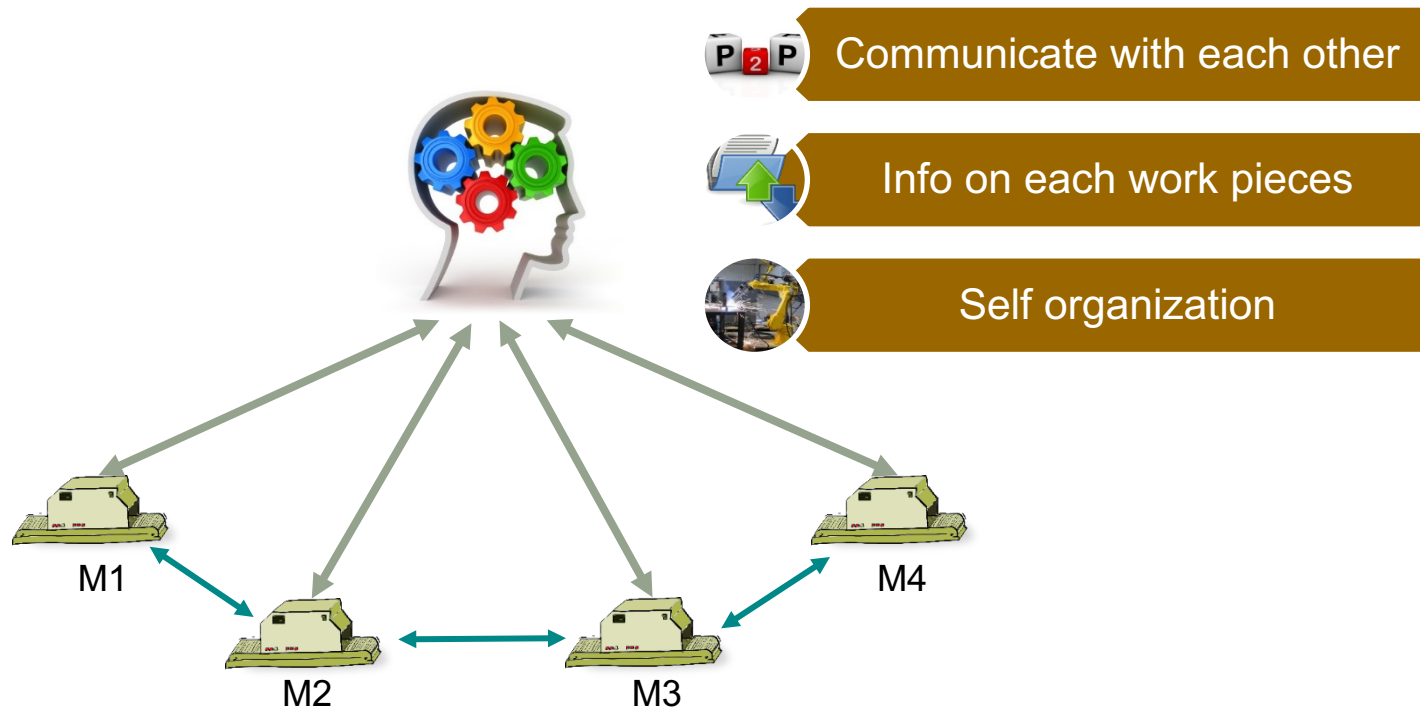
Agenda

- Reasons to upgrade legacy to smart factories
- How Industrial IoT and Industry 4.0 play out
- Challenges of integration and implementation
- Technology trends and open standards
- Best practices
- Q&A

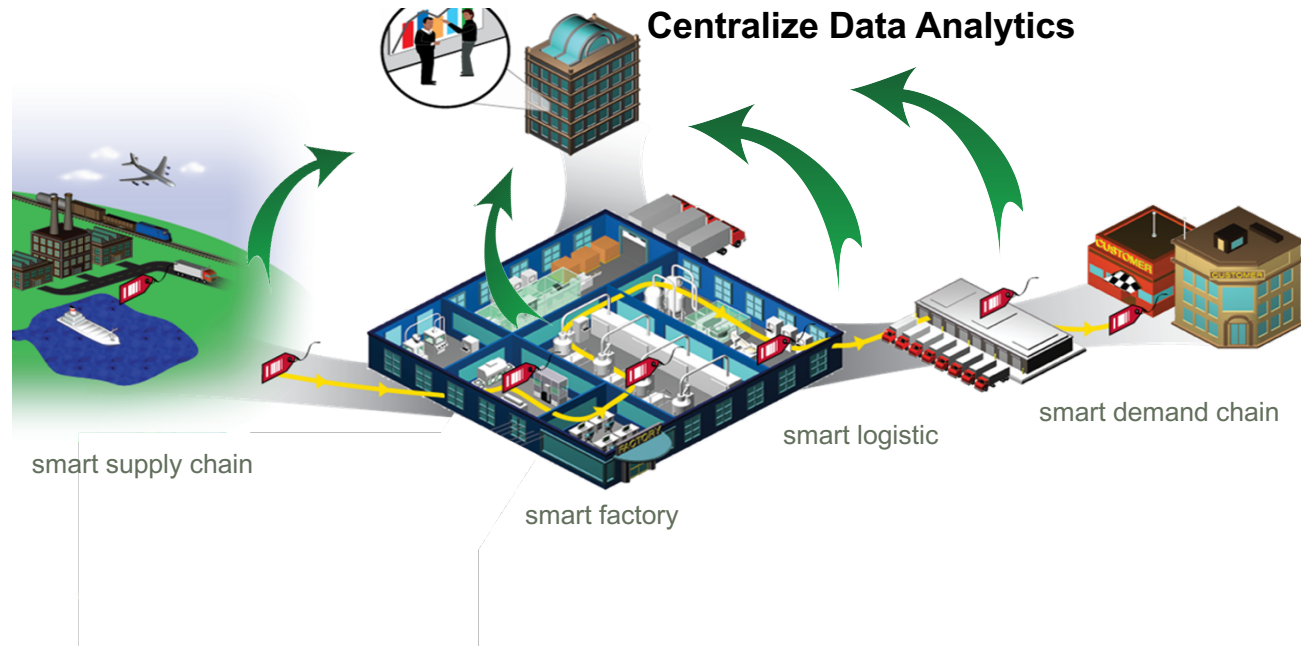
Legacy Factories



Smart Factories & Industry 4.0



Turning Smart Factory into Smart Manufacturing

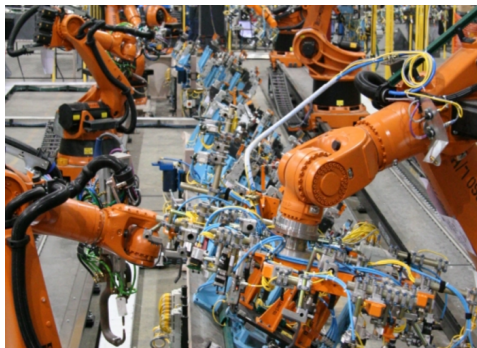


Predictive Analytics Enhances the Value of IIoT



Smart Supply Chains

- Risk analysis
- Delivery optimization
- Supplier assessment



Smart Manufacturing

- Predictive maintenance
- Quality improvement
- Anomaly detection
- Asset optimization
- Root cause analysis
- Machine learning



Smart Demand Chains

- Demand planning
- Customer experience
- Social sentiment
- Warranty analytics

Tech Trends & Open Standards

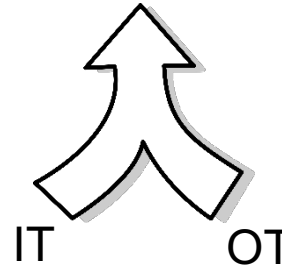
– the industrial landscape is changing



More Data

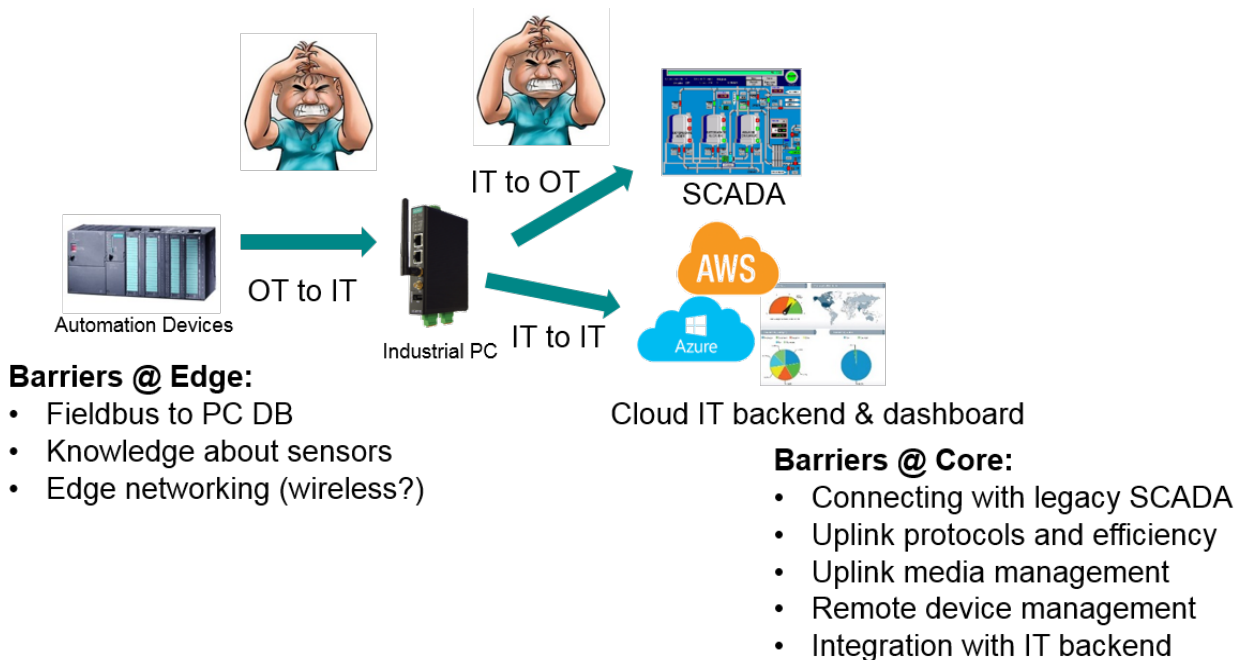


Data Sharing
Across the World



Cloud Infrastructure

Data Challenges: OT > IT > OT



Data Challenges: Integration With IT Back Stages



Common IIoT Protocols

- Publish/Subscribe



- Client/Server

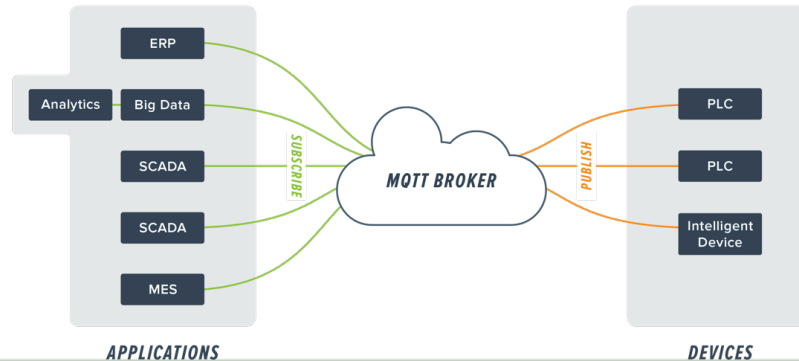


MQTT for IIoT

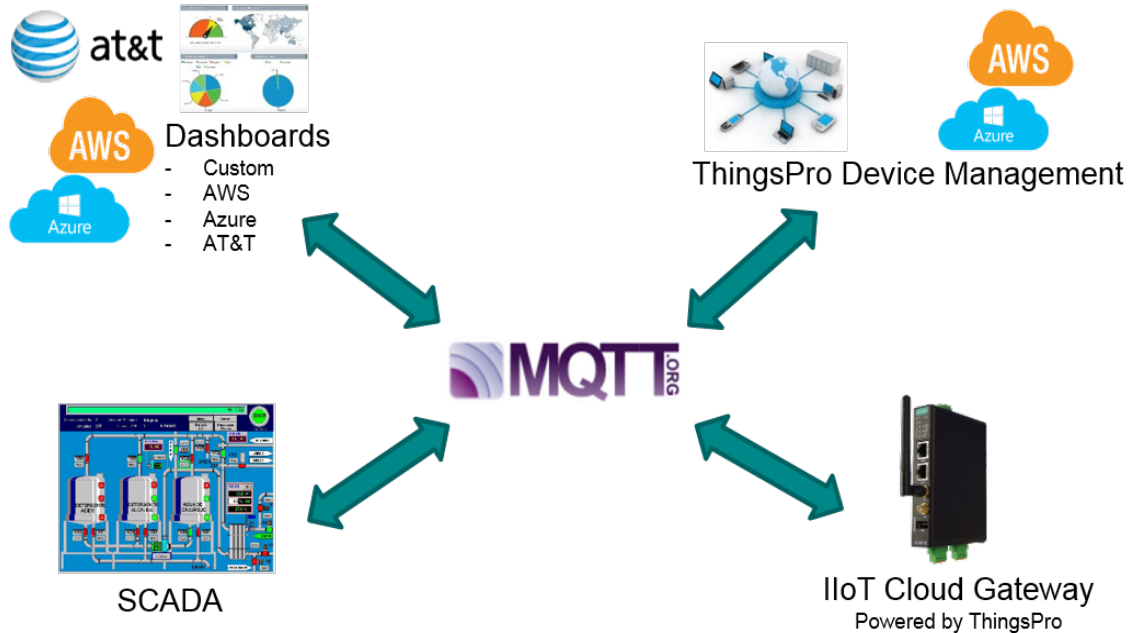
- Choose MQTT As Your IIoT Messaging Protocol
 - Developed 18 years ago by Arlen Nipper and Dr. Andy Stanford-Clark
 - Originally designed as a message transport for real-time SCADA systems
 - Developed for oil & gas companies
 - Adopted for IoT and IIoT purposes
- MQTT is more than a IIoT protocol; it's an architecture for IIoT



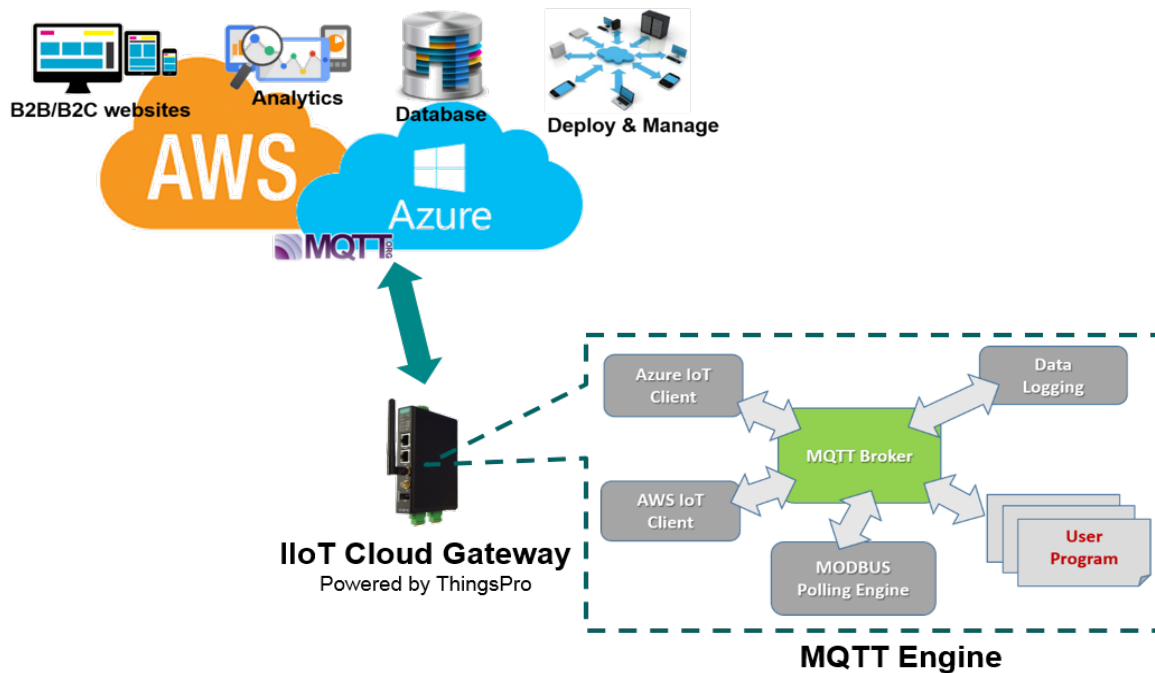
DECOUPLED APPLICATIONS & DEVICES



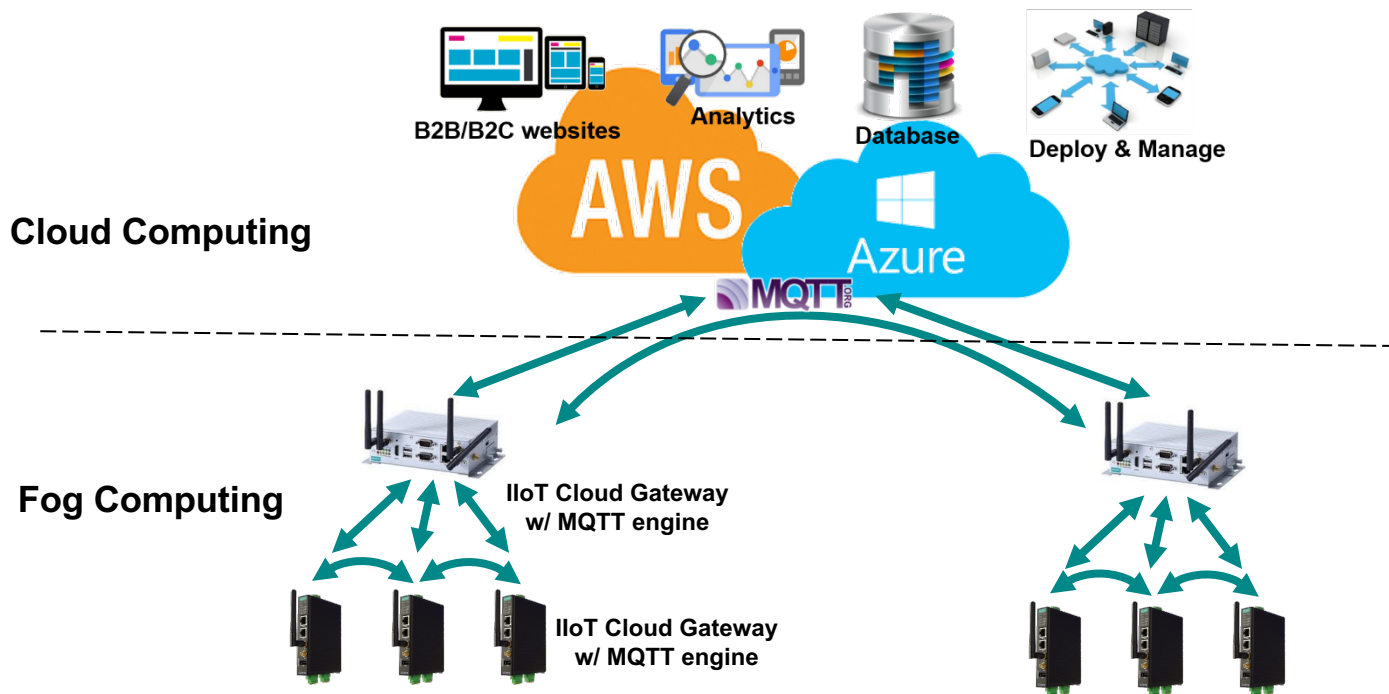
Best IIoT Practices One Infra Data for Everything



Edge IoT Gateway MQTT Engine Implementation



Cloud & Fog Computing in One Infrastructure



Thank You

