



Accelerate industrial transformation

Getting started and experience the power of Azure IoT Operations end-to-end from OPC-UA to Microsoft Fabric

Offer short presentation



Meeting the challenge of managing IoT platforms at scale

125B

IoT-connected devices in the world by 2030

> 50%

Data processed at the edge by 2025

> 50%

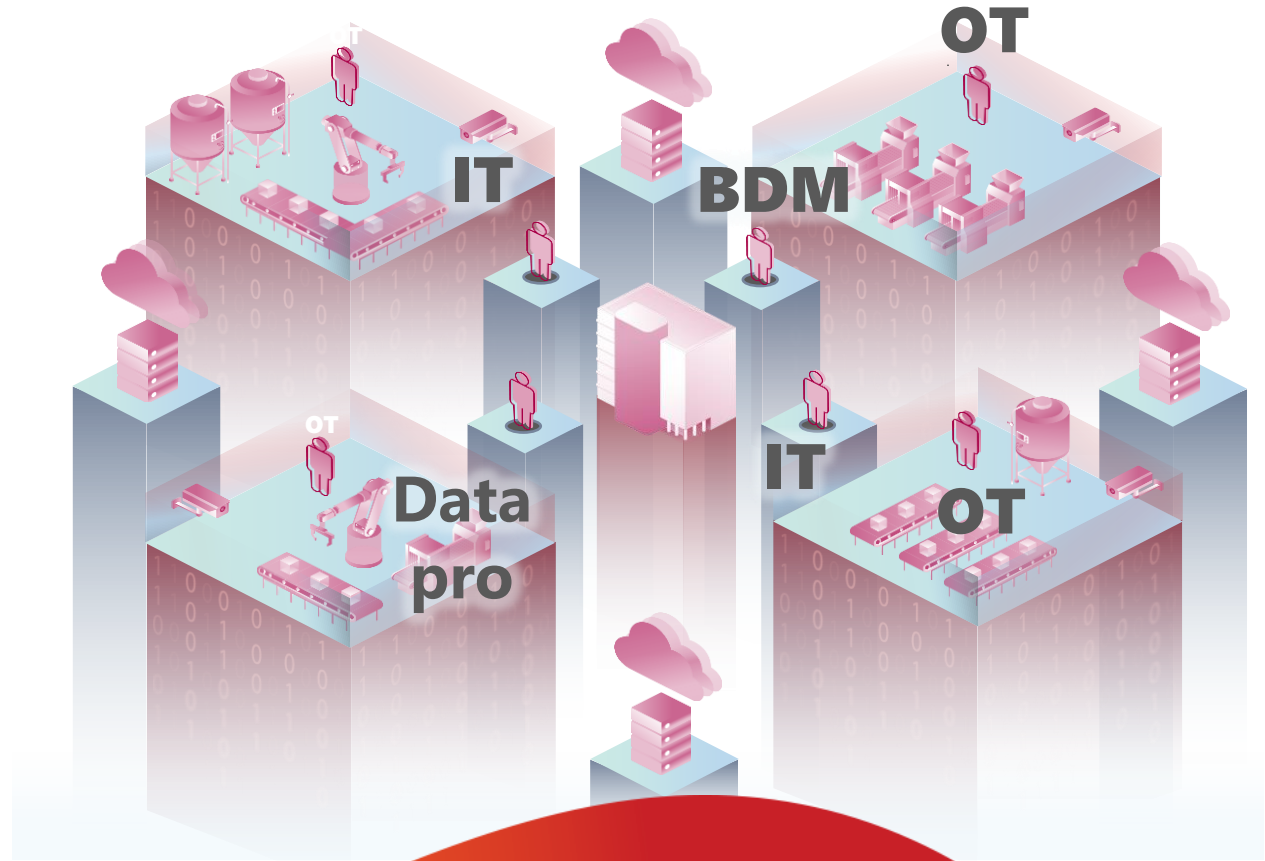
AI/ML-driven edge computing deployments by 2026

> 50%

Of IoT gateways capable of running applications in 2027

Complexity and data silos limit insights and prevent global scaling

Each site has unique teams, equipment, and processes, where data is siloed and doesn't flow to the people and places where it's needed.



OT solution complexity further siloes data and limits scale



Management and security is resource intensive



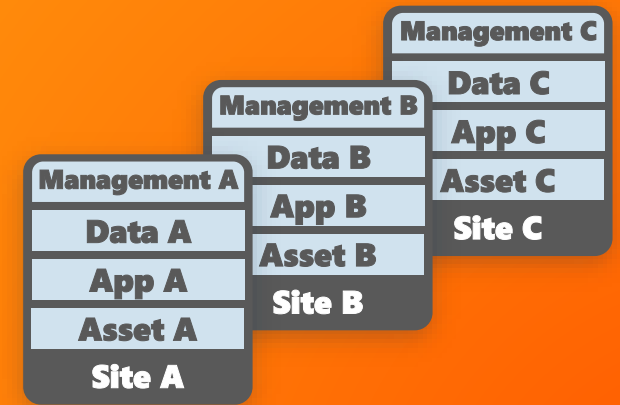
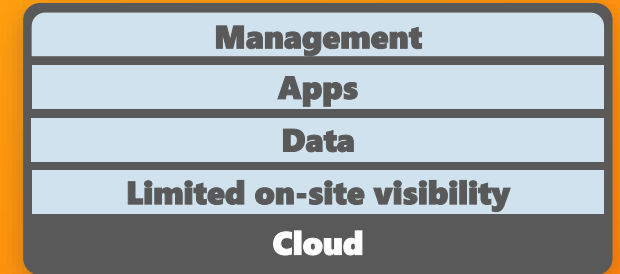
No end-to-end visibility of global operations



Lack of collaboration between stakeholders due to silos



No integration of data and insights between solutions



How the adaptive cloud approach enhances every aspect of operations



OT receives insights to optimize production while maintaining control of physical assets and processes



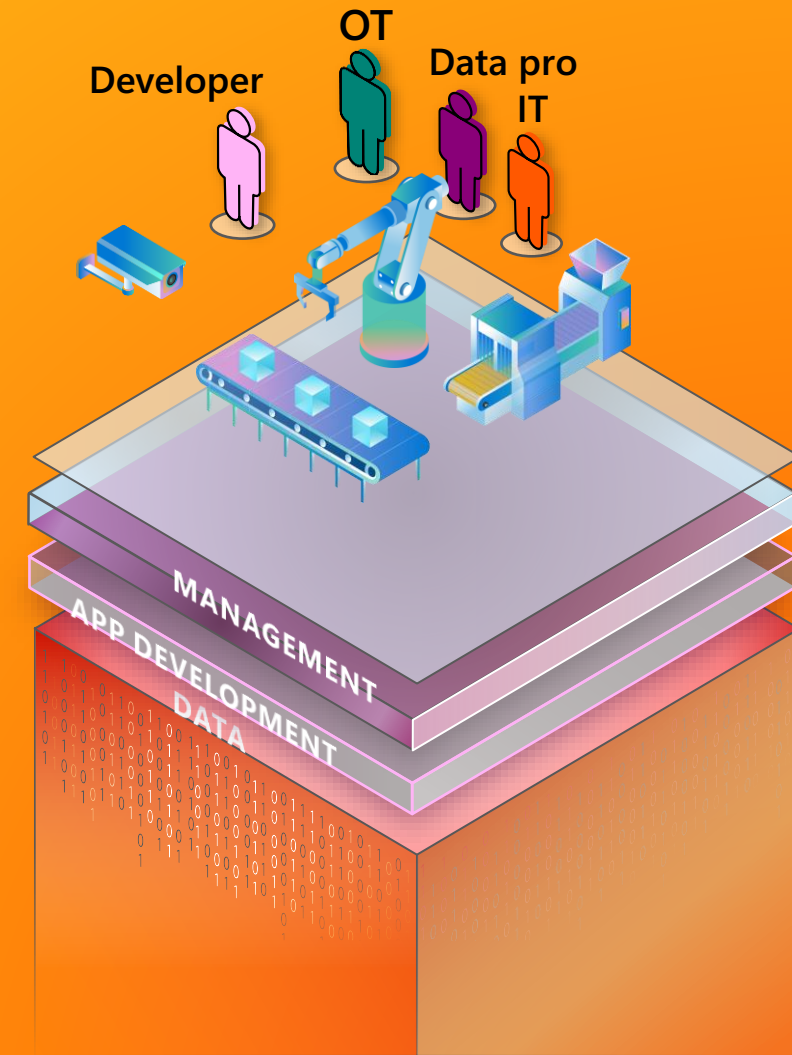
Data professionals can use analytics and build data visualizations that give global visibility and local insight



Developers can build cloud-native apps that can also be deployed repeatably across locations

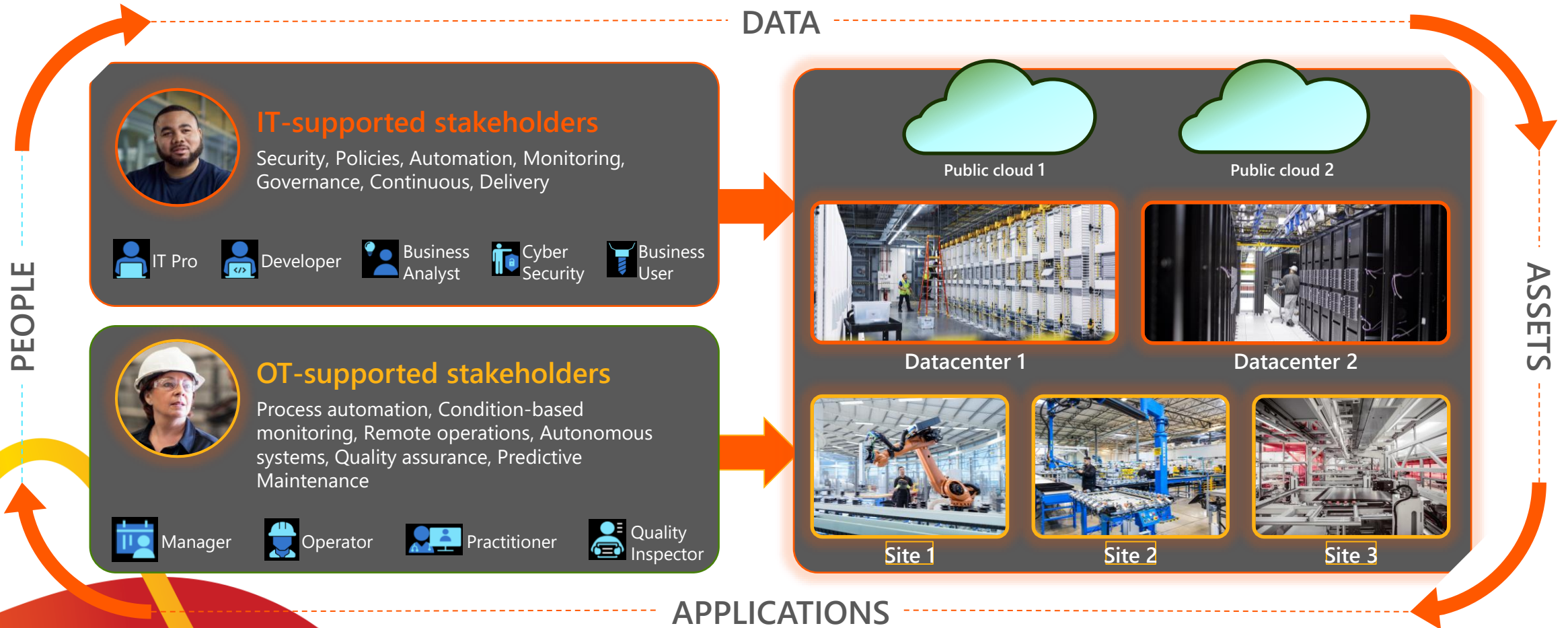


IT uses familiar tools for centralized, repeatable, and secure management across the enterprise

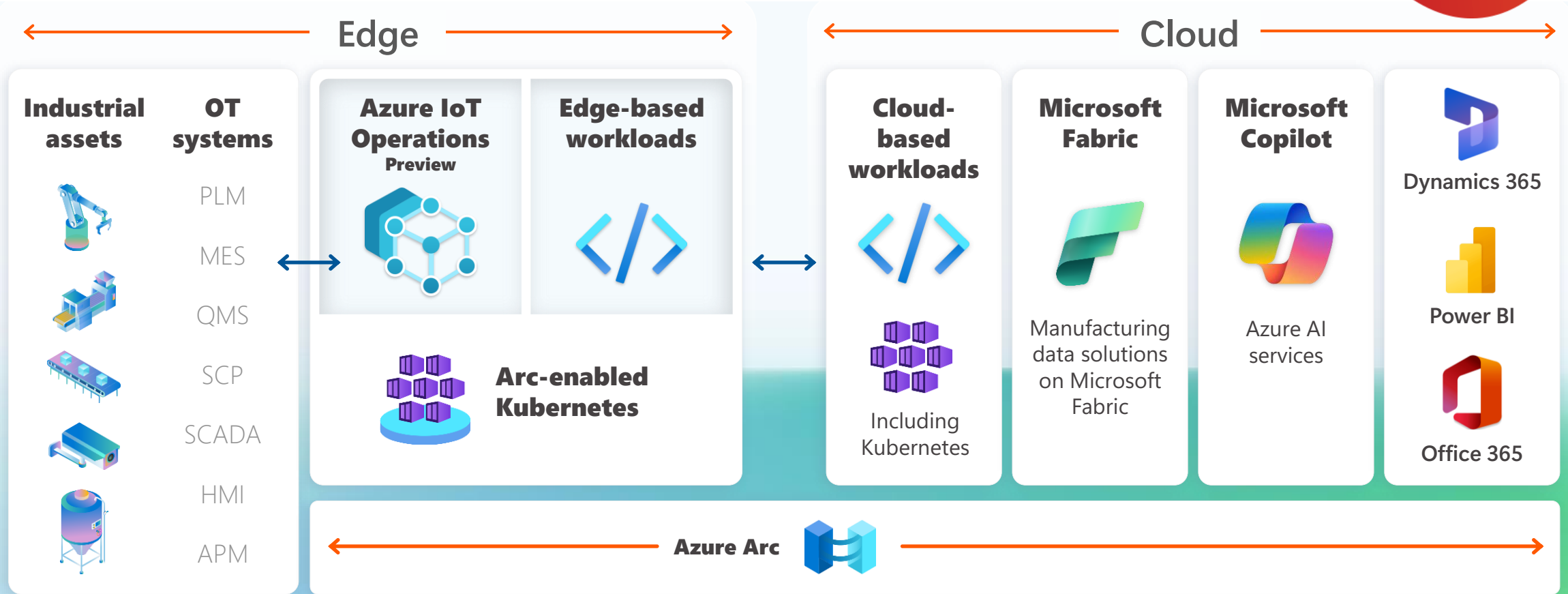


Achieving scale

From distributed environments to unified operations



Microsoft Technology helps unify operations



Works with existing partner ecosystem



... more



Get ahead with Azure IoT Operations

Learn | Explore | Test

Work together with Avanade SMEs to understand and realize the benefits of Azure IoT Operations, taking process edge data locally and integrate with cloud services which will help you to increase quality and throughput from the added business insights you will get.

Avanade will join your team on-site (or remote) to envision how Azure IoT Operations onboard assets, capture insights, and take actions to scale the digital transformation of your physical operations.

Our offerings:

Discover and explore offerings that will help you to learn about Azure IoT Operations, get first hands on experience about deployment, management and usage.

Architecture & implementation support to create your factory of the future architecture and plan and execute implementation from pilot to scale

1

2 Hour Learn & Discuss

Introduction to Azure IoT Operations, highlighting current maturity and existing & future applications. Identify client questions and brainstorm scenarios.

2

Discovery Workshop

Workshop focusing on first hands-on experience, insights and training for Azure IoT Operations. Learn about how to set it up, domain models as well as monitoring and visualization

Implement your first data ingestion scenario

Workshop series with the goal to implement a complete data ingestion scenario, end-to-end from OPC-UA to Microsoft Fabric. Experience the data transformation and analytics capabilities

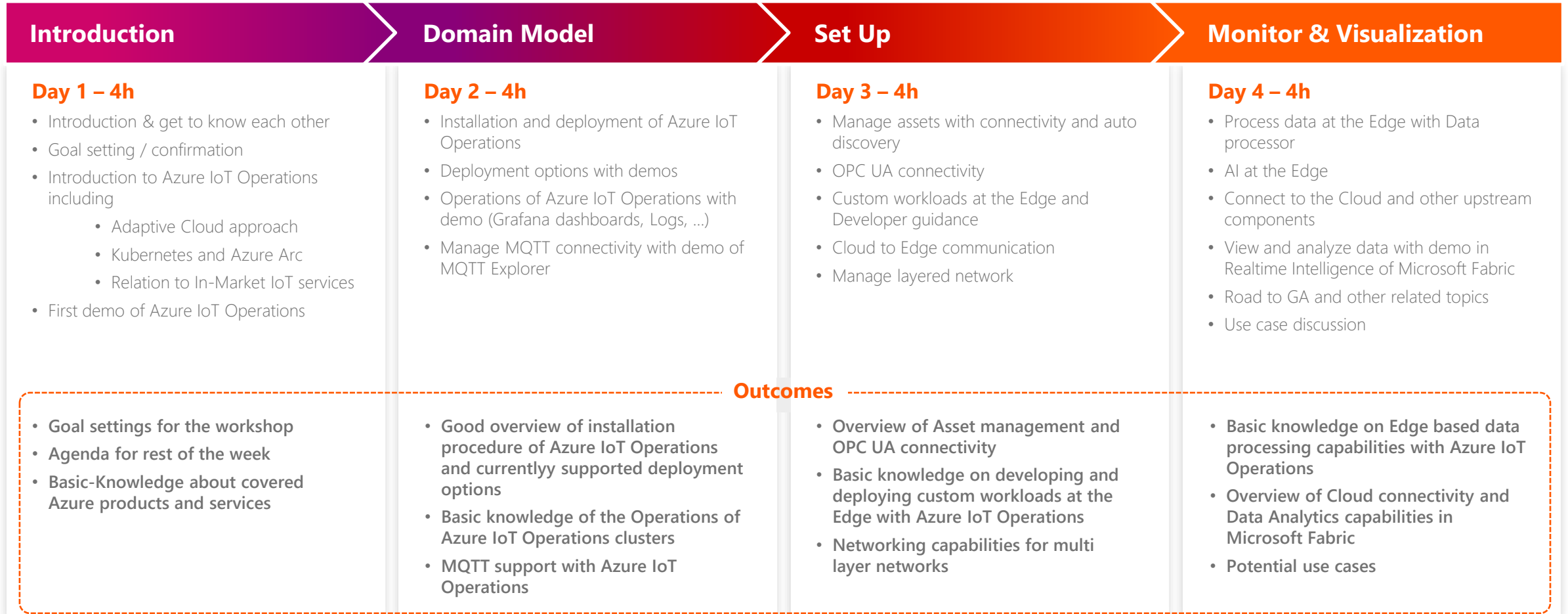
3

Architecture & implementation of Azure IoT Operations for Smart Factory from pilot 2 scale

To realize your Smart Factory of the future with a unified data plane for the edge that enables data capture from a variety of different systems and integrates with data modeling applications such as Microsoft Fabric.

Discovery Workshop - Azure IoT Operations

Overall goal is to provide hands-on insights and training for Azure IoT Operations



Avanade gets you started and help to implement a complete data ingestion scenario with Azure IoT Operations

Overall goal is to show an end-to-end implementation end-to-end from OPC-UA to Microsoft Fabric

	Introduction	Data Processing and Ingestion	Data Analysis and Visualization	Operational Insights and Optimization
PRESENTATION	<p>Day 1 – 4h</p> <ul style="list-style-type: none"> • Introduction & get to know each other • Present Trainings Environment • Goal setting / confirmation • What problems will be solved • Prerequisites for setting up IoT Operations 	<p>Day 2 – 4h</p> <ul style="list-style-type: none"> • Datamodel - Simulator. • Presentation of prepared use Case • Configuring the data flow from OPC-UA to Microsoft Fabric 	<p>Day 3 – 4h</p> <ul style="list-style-type: none"> • Exploring Microsoft Fabric’s data transformation tools • Tools are used in prepared Use Case • Building data pipelines and workflows. (Microsoft Fabric) 	<p>Day 4 – 4h</p> <ul style="list-style-type: none"> • Analyzing ingested data using Microsoft Fabric’s analytics tools • Presentation of distributed Kubernetes Monitoring
HANDS ON	<ul style="list-style-type: none"> • Show MQTT Browser • Show combined cluster view 	<ul style="list-style-type: none"> • Configuring OPC-UA Devices • Establishing secure communication • Streaming Processor due to contextualization 	<ul style="list-style-type: none"> • Creating a data transformation pipeline in Microsoft Fabric 	<ul style="list-style-type: none"> • Developing a dashboard for real-time monitoring and control
	Outcomes			
	<ul style="list-style-type: none"> • Goal settings for the workshop • Overview of Training environment • Basic-Knowledge to begin with Hands-on task. 	<ul style="list-style-type: none"> • Learn how to connect OPC-UA data sources • Build and transform data models for higher level functions 	<ul style="list-style-type: none"> • Understanding the tools and techniques in IoT operations for normalizing individual data models • Knowledge of connecting databases and streaming functions for developing dashboards in Power BI 	<ul style="list-style-type: none"> • Getting started with running a distributed Kubernetes cluster • Understand basic Kubernetes cluster metrics • See horizontal scaling in action

Avanade in action - client projects & experiences



Automotive Supplier

Challenge:

- In tire manufacturing, ensuring material uniformity before cutting is crucial.
- Currently, significant mixed waste is generated, causing financial and environmental impacts.
- This excess material degrades over time, becoming unusable and resulting in company losses.

Our approach and solution:

- Pilot project, in the form of an MVP, with an Edge solution capable of recalibrating the industrial equipment to ensure the material is uniform before cutting
- Leveraging and testing Azure IoT Operations to develop a closed-loop self-regulation system for the machine

Outcome and value:

- Designed and piloted a scalable solution leveraging latest technologies like Azure IoT Operations, Edge, Cloud, GitOps, DevOps, and MLOps
- Fast and agile approach focused on business outcomes
- Solution with potential to reduce the financial impact of mixed waste at scale



Consumer Packaged Goods

Make **work in its plants easier, more intuitive and safer** is the target of the client. Therefore, we are designing and building together their **Scalable Connected Edge-Cloud Plant Platform**, that drives business value and improvements with many different use cases across the plant network.

Industrial edge connectivity powered by Azure is an essential part of the overall solutions and enables that **machine data** is available with the right protocol, format, frequency and contextualized for easy use. It also enables **event driven data orchestration** with data stored and processes at the **edge and in the cloud**.



Industrial Engineering Company

The client wants to **optimize the operations and performance** of **machinery assets** that are used in the energy and oil industry; therefore, the client wants to combine real-time insights from the machines with historical information and other related data.

In our pilot solution we **connect machines** using Azure IoT Edge with a migration path to Azure IoT Operations to **collect and transform the machine data and make it available in Microsoft Fabric**. Furthermore, we are using AI and GenAI to help the client to generate insights that lead to performance improvements.

A proven partner in manufacturing & automotive



Unparalleled Microsoft manufacturing and automotive expertise



Power of 3 alliance: Accenture, Avanade and Microsoft

50%

Of the world's leading manufacturers are Avanade clients

60K+

Professionals working in 28 countries around the globe

1K+

Manufacturing clients

5K+

Clients served worldwide since 2000

Let's get started

The journey begins with a conversation. Connect with us to schedule a discussion of your unique situation. Together, we can identify use cases valuable to your firm and chart a course forward to value and increased security for your organization. To get started, contact:

MicrosoftOfferings@avanade.com



avanade