

OCTOBER 2025

Trends Influencing Industrial Operations

Industrial Intelligence Summit

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AVEVA

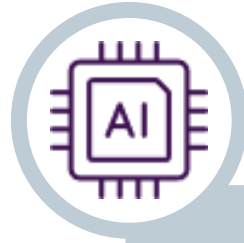
Trends Influencing Industrial Operations

Challenging Traditional Approaches – OCTOBER 2025



Customer Trends

- Organizational Convergence (IT/OT)
- Software Sprawl
- Resource Challenges
- Informational Silos Breakdown (IT/OT)
- Globalization/Consolidation
- Digital Transformation/Data Priority



Technology Trends

- Hybrid-Cloud
- Containers/Kubernetes
- Managed Services/SaaS
- Generative AI
- Agentic AI/LLM/MCP
- Industry 4.0/4IR/UNS
- MQTT Brokers
- Data Ops
- IIoT



Market Trends

- Inflation/Trade Issues
- Distributed Workforce
- Geo-Political Events
- Digital Natives Become the Majority
- Cyber Security/CRA
- Increasing Rate of Change
- Sustainability
- Data Sovereignty

EU Cyber Resilience Act

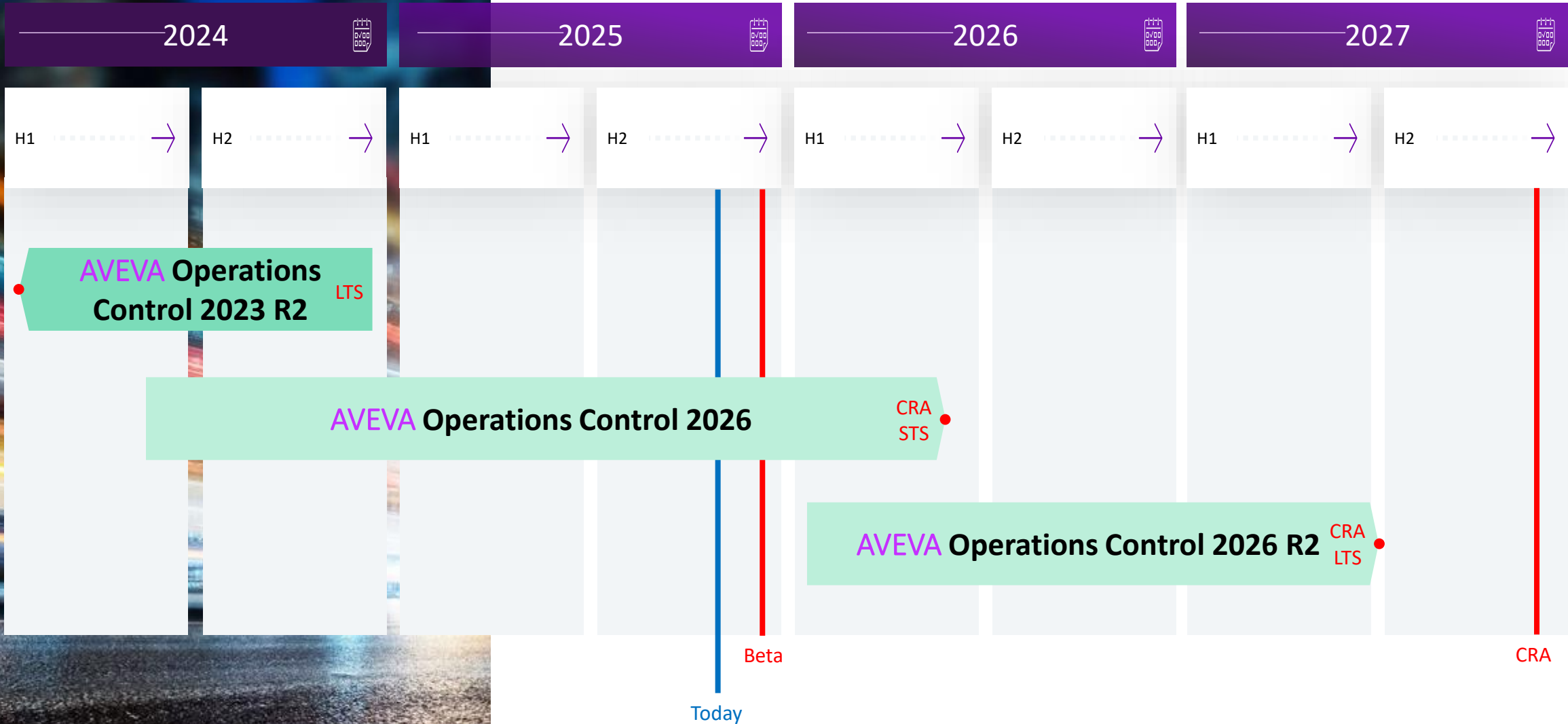
AVEVA and the EU Cyber Resilience Act

We are preparing for the EU Cyber Resilience Act

- At the date of applicability, the CRA will impact predominately on-premise and hybrid offers, but the compliance strategy will adhere to the following principles:
- 1. Security Culture: Ensuring our internal stakeholders are aware of this important regulation and its impact on our global business practices including value chain partnerships.
- 2. Lifecycle Policy: The 2024 update to our product lifecycle policy was informed by CRA requirements. AVEVA will diligently implement these product lifecycle policy changes to provide transparency and flexibility in the support models we offer customers.
- 3. Security Development Lifecycle: Essential requirements are integrated with our formal development process to ensure they are addressed throughout a product's lifecycle – from training to release and subsequent management of security response as needed until product sunset.
- 4. Conformity Attestation: Our plans for security assurance measures and artifacts include comprehensive documentation, online trust center, legal and commercial contract governance, transactional controls, CE marking of compliant products, and integration of CRA requirements into global service delivery.
- **The mark on a product indicates that the manufacturer or importer of that product affirms its compliance with the relevant EU legislation and the product may be sold anywhere in the European Economic Area (EEA).*
- In conclusion, AVEVA is dedicating focused resources to support our proactive work towards the 2027 effective date of the CRA. While compliance is a mandatory duty, this effort is part of our mission to continuously develop and maintain resilient solutions at the core of industrial value chains. We aspire to deliver CRA essential requirements with excellence and in a manner that will have significant benefits worldwide in our service to our customers

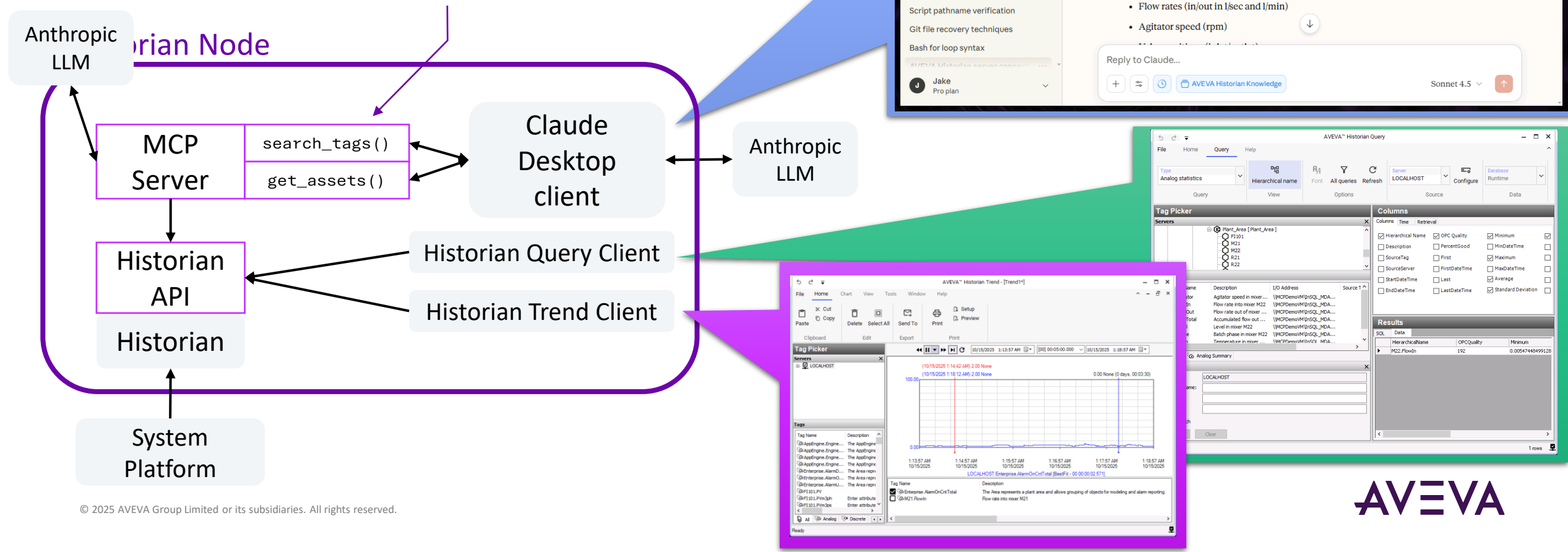
<https://www.aveva.com/en/legal/policies-compliance/eu-cyber-resilience-act/>

AVEVA Operations Control Roadmap



PoC currently running in Integration Studio

MCP exposes “tools” that accept parameters described in a JSON package retrieved by the LLM. It describes the parameters in plain text for the model to interpret and reason about how to use them. There are also hints on how the results from one tool relate to parameters of others



Proof of Concepts

Prompt

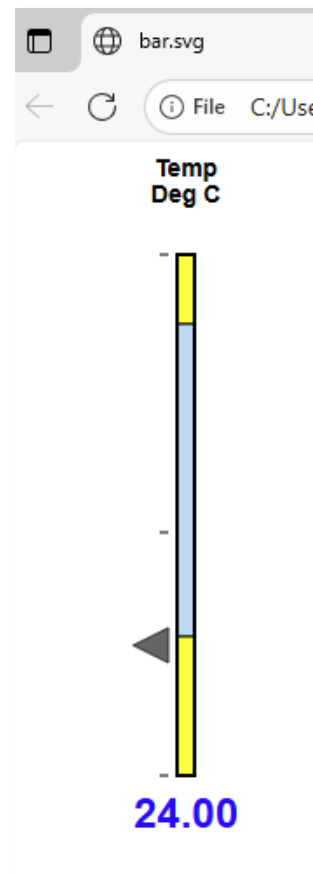
build an svg graphic. each shape will be a unique object or element of the SVG. This SVG will be of a simple bar graph, showing the current value, High and low limits for alarms and be in the same style as the attached graphic.



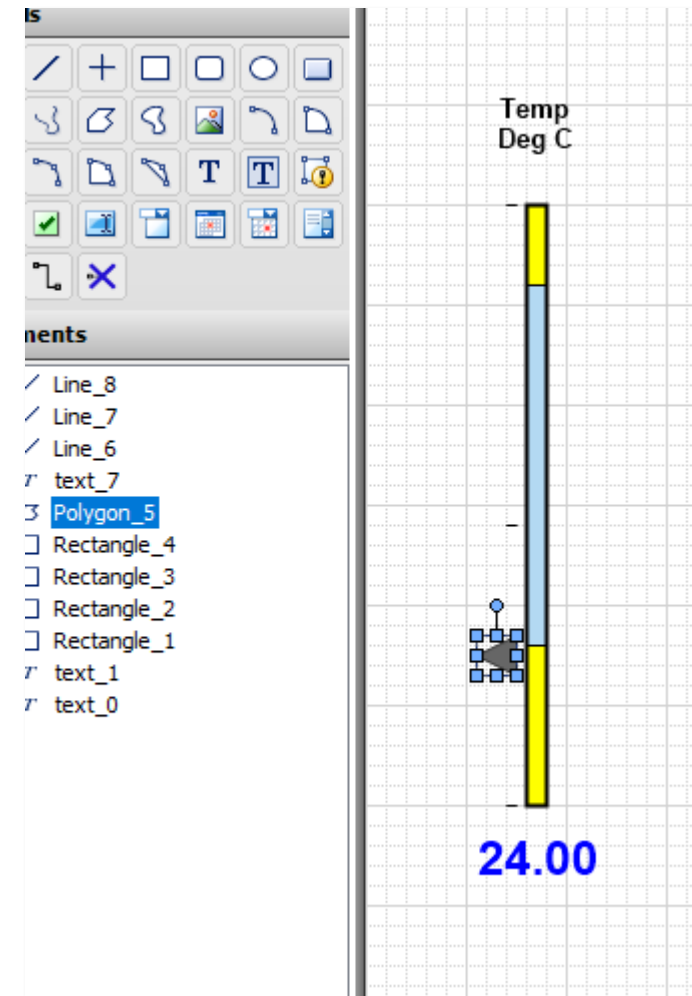
I'll create an SVG bar graph in the same style as your reference image, with individual elements for each component.

```
xml
<svg width="200" height="500" xmlns="http://www.w3.org/2000/svg">
  <!-- Title Text -->
  <text x="100" y="20" font-family="Arial, sans-serif" font-size="14" font-weight="bold" text-anch
  <text x="100" y="35" font-family="Arial, sans-serif" font-size="14" font-weight="bold" text-anch
```

Validate

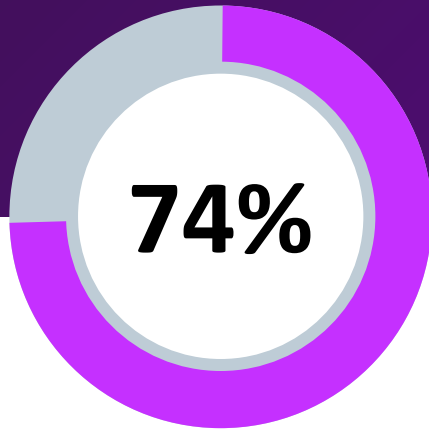


Import





Gen AI Graphic builder

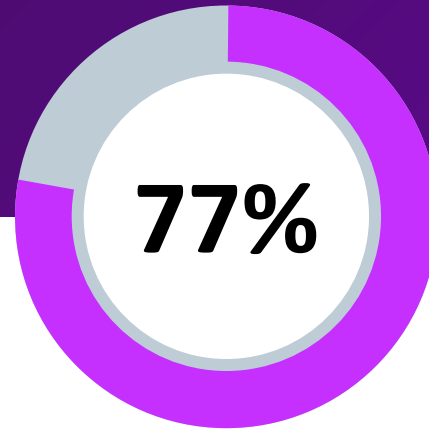


74%



Digital transformation is a top priority for **74%** of organizations.

Source: Flexera

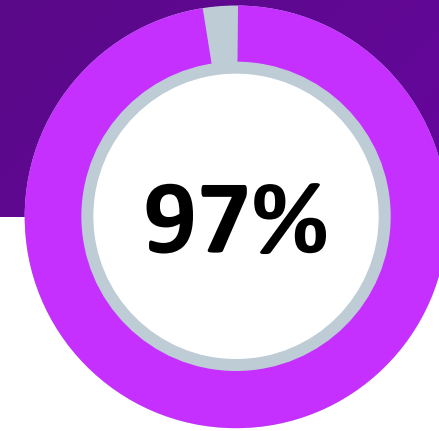


77%



77% of companies have already started their digital transformation.

Source: McKinsey & Company



97%



97% of companies say the COVID-19 pandemic sped up their digital transformation initiatives

Source: Twilio

Digital Transformation

Digital transformation is a business strategy initiative that incorporates digital technology across all areas of an organization.

- *IBM*

Digital transformation is the process of integrating digital technologies into all parts of an organization, such as products, services, or operations, to deliver value to customers.

- *Coursera*

Digital transformation is the rewiring of an organization, with the goal of creating value by continuously deploying tech at scale.

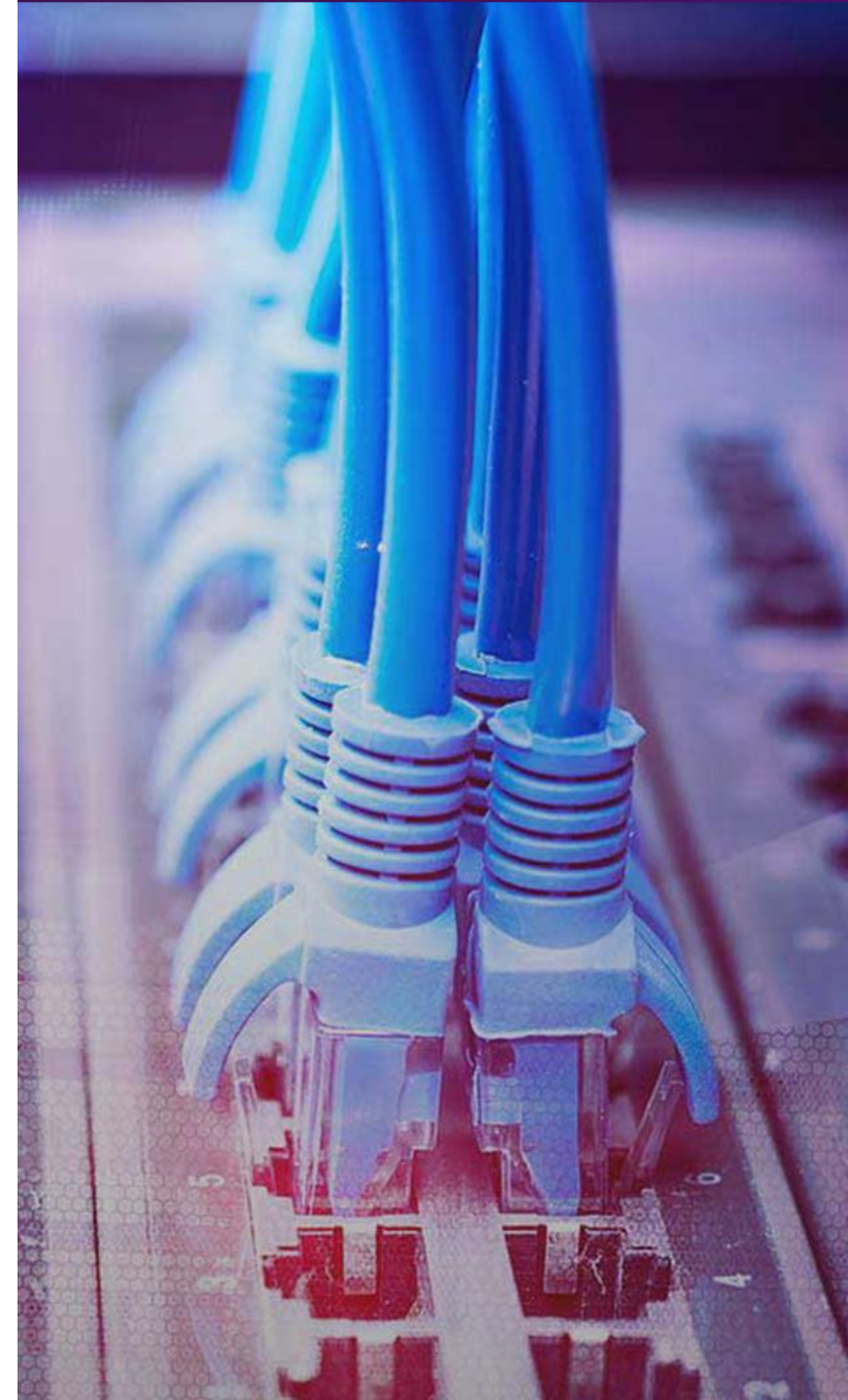
- *McKinsey & Company*

Digital transformation is the process by which companies embed technologies across their businesses to drive fundamental change.

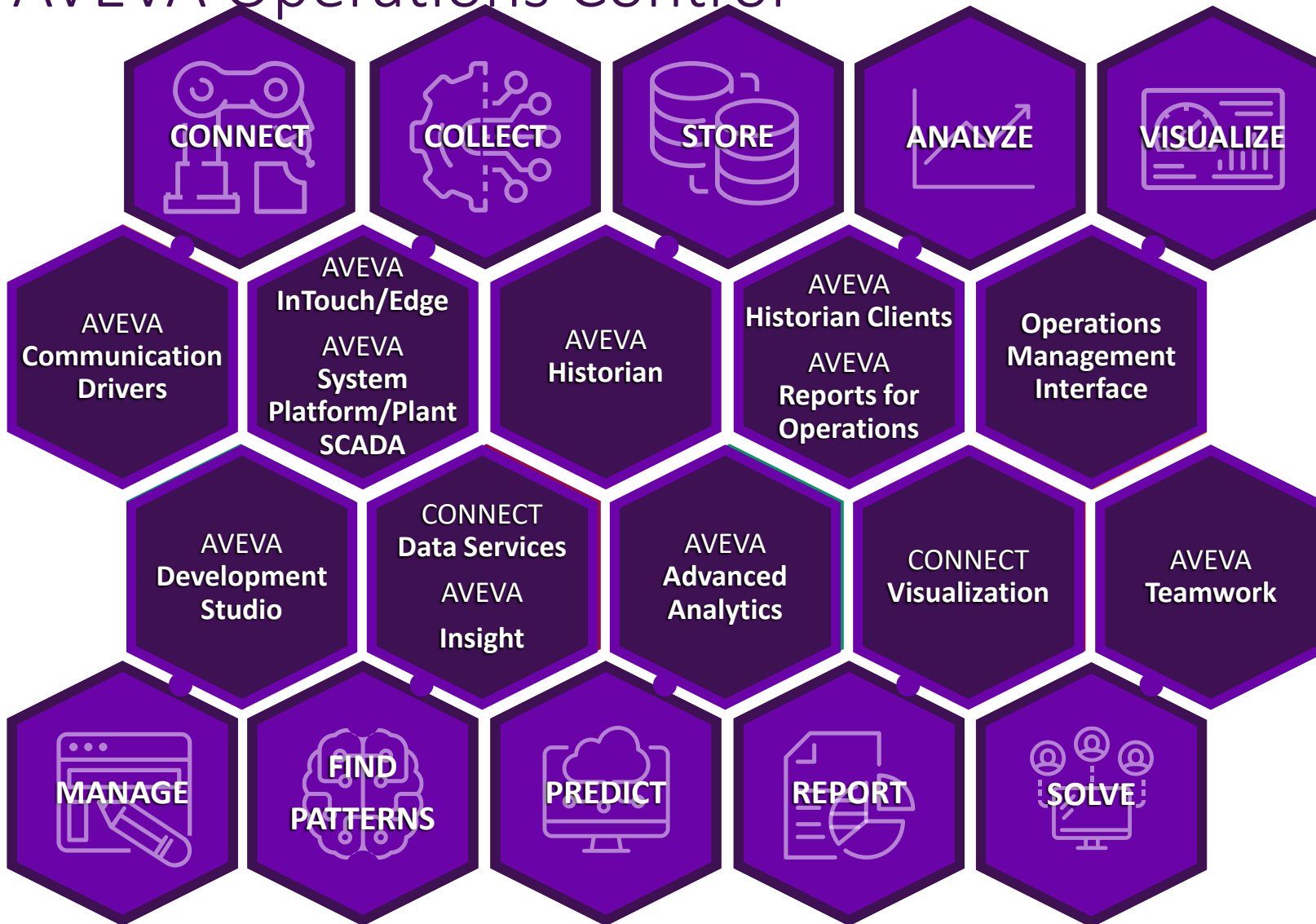
- *Accenture*

Digital transformation is a strategy for making data the primary commodity in your business.

- *Industry 4.0 Solutions*



AVEVA Operations Control



Empowering Digital Transformation with the power to choose the configuration, architecture and deployment options that best meet your objectives

Expectations for Industrial Operations are Changing

Customer Examples

2024



Philip Morris International Migrates Over 400 Services to AWS in Business Transformation

Philip Morris International (PMI), a worldwide leader in tobacco manufacturing, migrated 400 applications to AWS in 2 years as part of its efforts to embrace smoke-free products. The company has invested over \$10 billion in the development and commercialization of its smoke-free products since 2008 and plans to replace cigarettes with smoke-free alternatives. PMI migrated to AWS to improve business agility and meet new scalability and security requirements. PMI learned lessons from its migration that virtually any company migrating to AWS can apply. After migration, PMI met General Data Protection Regulation requirements, achieved a 50 percent performance improvement across the business, and trained hundreds of employees to gain AWS Certification.

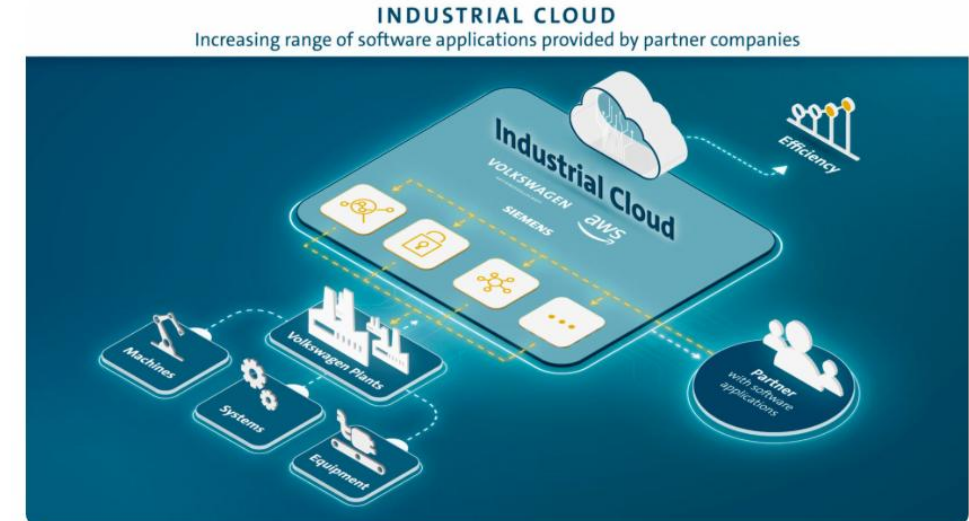
[Overview](#) | [Opportunity](#) | [Solution](#) | [Outcome](#) | [AWS Services Used](#)

newsroom
The Media Portal by Porsche

PORSCHE

"The Industrial Cloud will become a flywheel for innovation"

15/02/2021 - Volkswagen's Industrial Cloud will drive digital transformation along the entire value chain.



Digital Strategy

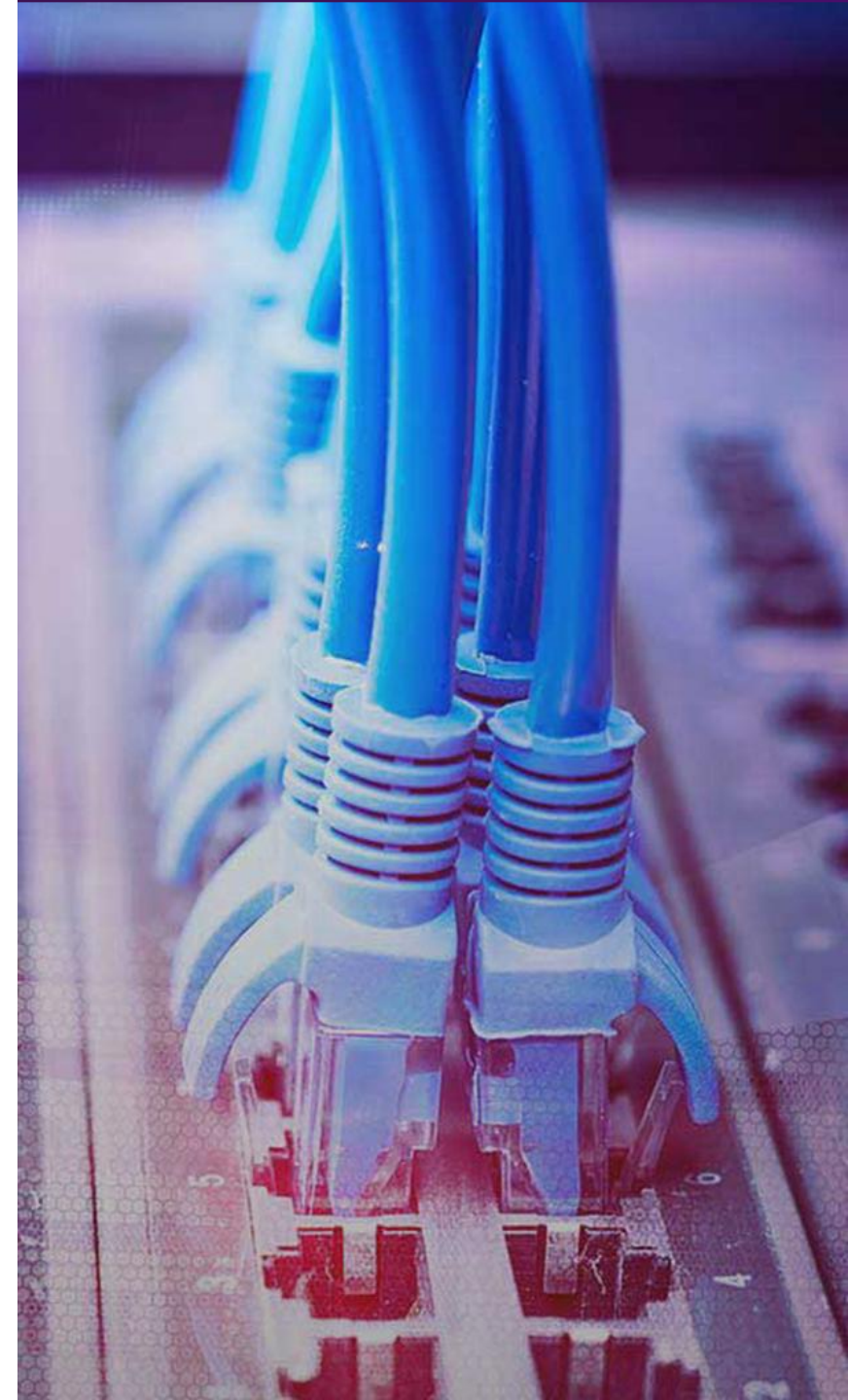
The Customer's Digital Strategy: Setting the Vision

Break down data silos across our business units.

Empower teams with real-time insights and analytics.

Enable new digital services and business models.

Ensure compliance and security in a rapidly changing regulatory landscape.



Digital Transformation Journey

From Vision to Action

Data Inventory & Assessment: We map all our data sources—legacy systems, cloud apps, IoT devices—and understand what we have and where it lives.

Data Governance & Standards: We establish clear rules for data quality, ownership, access, and compliance, ensuring our data is trustworthy and secure.

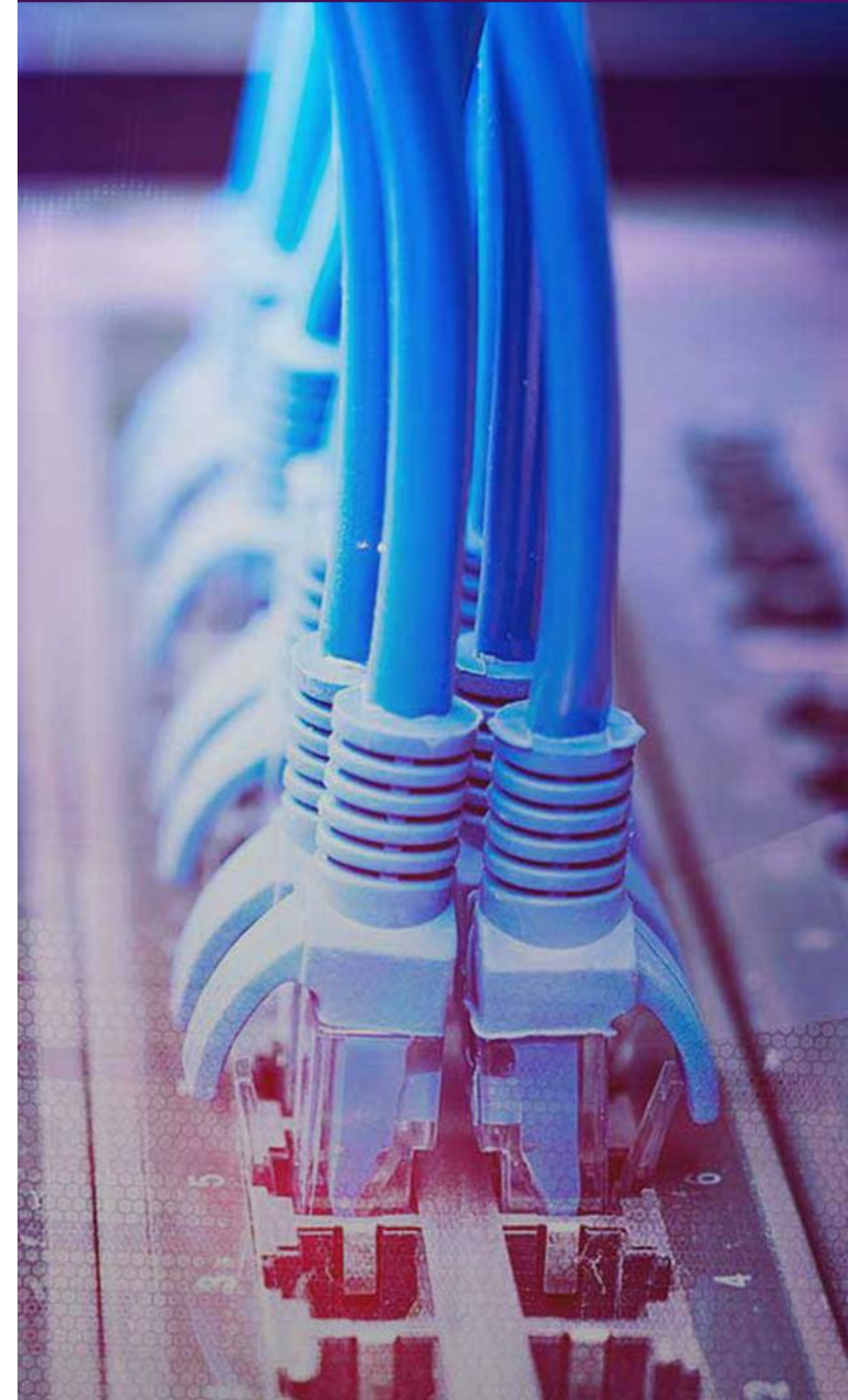
Platform Selection/Build: We define our requirements for a unified data platform—scalability, integration, security, analytics—and evaluate the best solutions.

Integration & Migration: We connect our systems, cleanse and migrate data, and ensure everything works seamlessly together.

Unified Access & Analytics: We provide intuitive dashboards and analytics tools, so every team can make data-driven decisions.

Change Management & Training: We invest in training and support, helping our people embrace new ways of working.

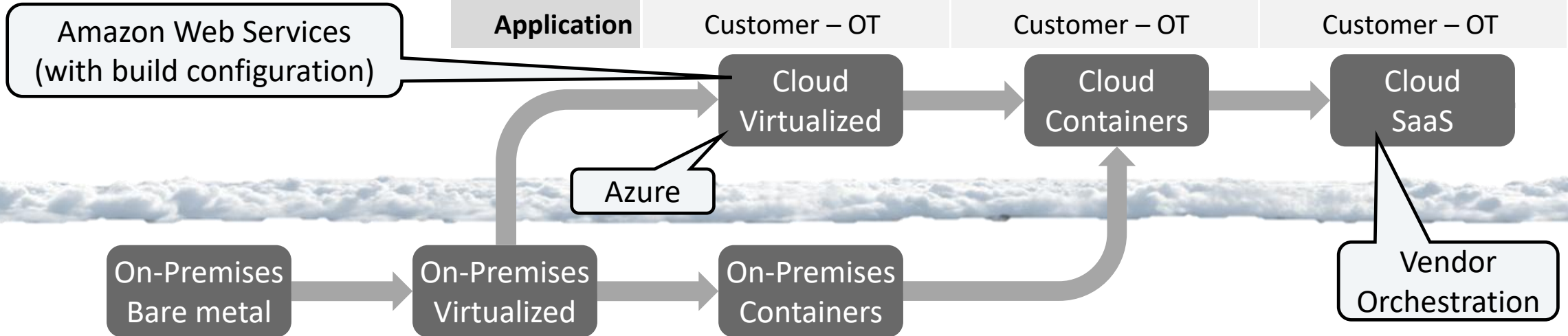
Continuous Improvement: We monitor, refine, and expand our platform to meet evolving business needs.



The Software hosting journey

- Configuration
- Comms(I/O)
- Data Services
- Visualisation
- History
- Licensing

Hardware	<i>Vendor</i>	<i>Vendor</i>	Vendor
Environment	Customer – IT	Customer – IT	Vendor
Software	Customer – OT	Customer – IT	Vendor
Application	Customer – OT	Customer – OT	Customer – OT



Hardware	Customer – IT	Customer – IT	Customer – IT
Environment	Customer – OT	Customer – IT	Customer – IT
Software	Customer – OT	Customer – OT	Customer – IT
Application	Customer – OT	Customer – OT	Customer – OT

Self Orchestration

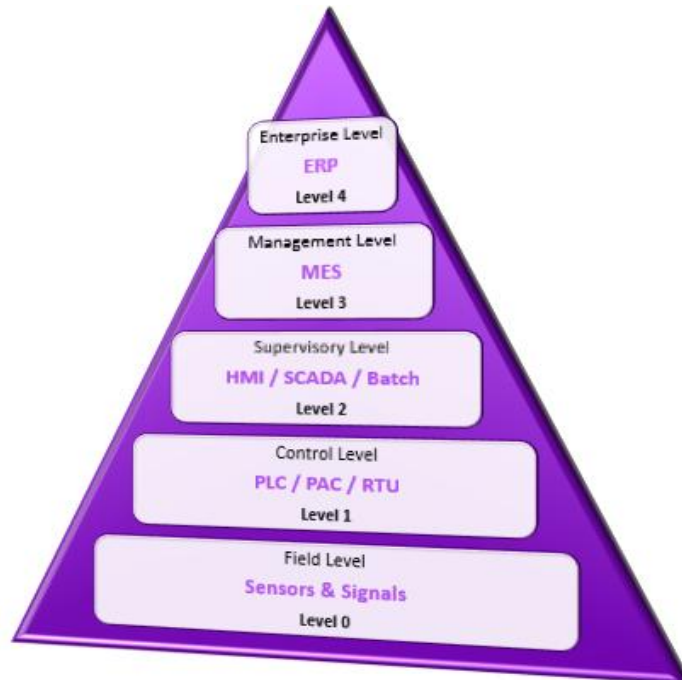
Shift in skills requirement...
No reduction in overhead
Additional complexity (elasticity)

Evolution to Digital Strategy

Many Names: IT/OT Convergence – Unified Namespace – Industrial Cloud – Industry 4.0

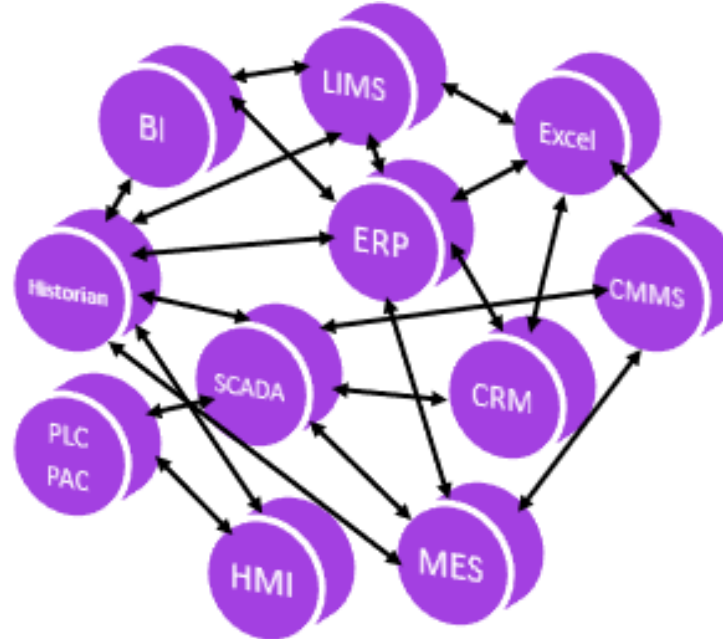
- Traditional Methodology

- Restricted Scope



- Point to Point Integration

- Costly to Deploy and Maintain

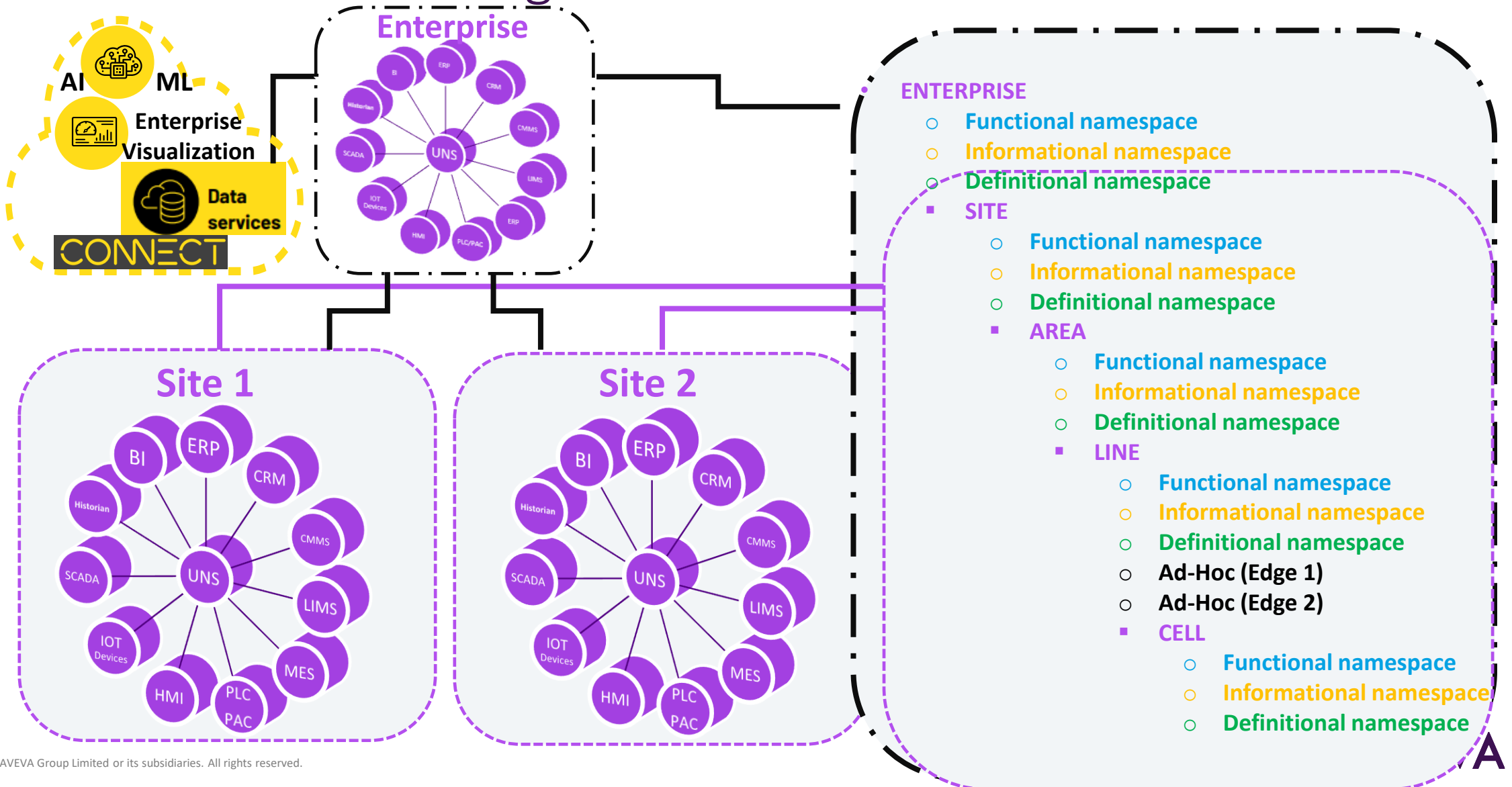


- Industry 4.0 Approach

- Supports IT/OT Digital Strategy



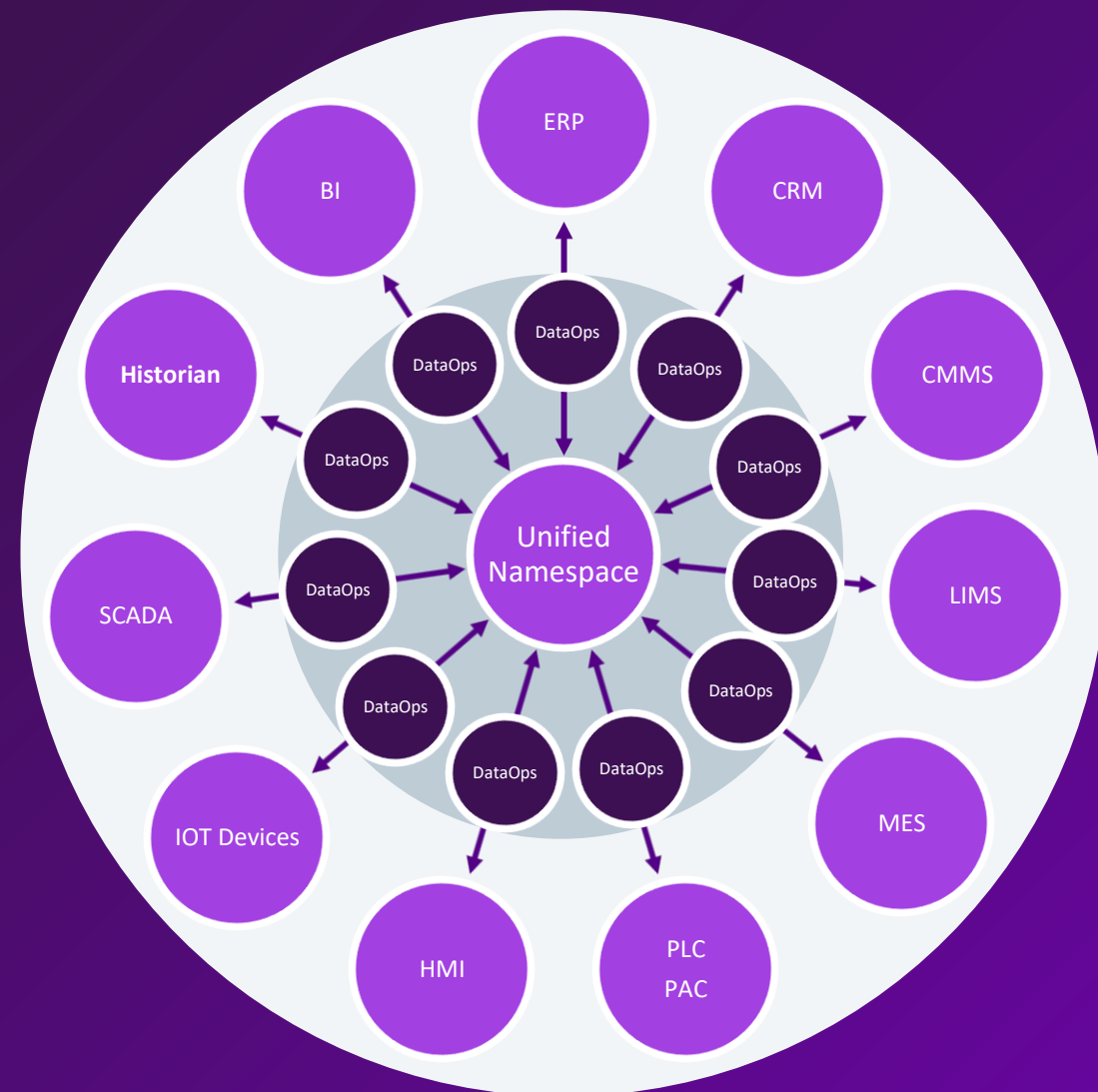
Contextualized from Edge to Cloud



Industrial Data Operations

Core to Corporate Digital Strategies

- Customers have a significant investment in hardware and software data sources that each have their own unique and disparate data models.
- A key aspect of most corporate digital strategies is to establish a single contextualized model for access to all data.
- The role of the DataOps layer is to connect to the individual data sources, transform the disparate data and models into the desired unified structure, execute logic/AI, publish that data to consumers, and facilitate secure read and write of the data.



Industrial Data Ops

Centralized Management with Execution At the Edge

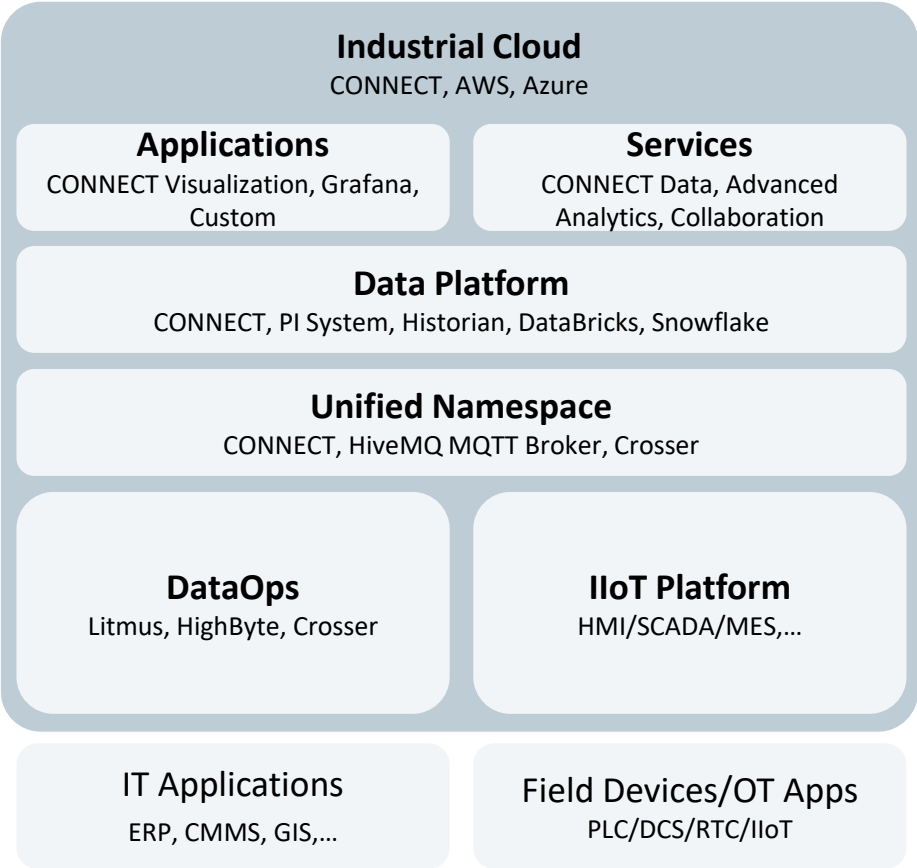
Cloud/CONNECT AVEVA Development Studio	Central Management WEB/API	Orchestration and Administration	- Global Configuration, Diagnostics, & Security Management - Enterprise Software Orchestration to Edge or Customer Orchestrator or CONNECT - Centralized Change Management and Baselining
		Standards	- Enterprise Entity/UDT Model Standards - Enterprise Logic Standard Templates - Generative AI/Relationship Rules for Discovery
		Enterprise Data Model	- Data Organization and Structure - Enterprise Entity/Asset Model Instances - Associated Meta Data (alternate models)
On Prem (Or Prvt Cloud) Edge Data Ops	Local Execution WEB/API	Data Publishing	- CONNECT Data/Model/Diagnostics Publishing - IT/OT Data Access (OPCUA/MQTT/API) - AI Integration - Model Context Protocol Server
		Custom Logic and Calculations	- Event Trigger Definition - Custom Logic and Calculations (AI Hosting, Python and extended languages) - Diagnostic and Debugging
		Local Data Model	- Local Entity/Asset Model Templates - Local Entity/Asset Model Instances & Local Administration - Real Time Values
		Edge Data Sources	- Data Connectivity and Communications (OPCUA, MQTT, SQL, API, etc.) - Edge Driven Data Discovery and Population - Connection Status

Core Considerations

- Platform Agnostic
- Centralized Orchestration/High Availability
- Comply with all IT policies
- Microservice Based
- Broad Data Type Support IT & OT
- Built on Open Standards
- Python, JavaScript, C#
- Edge Driven
- Ease of Use, E-Learning
- Web Everything (Build, Manage Use)
- GIT Integration
- Modern Tech Stack
- Centralized Status Management

Modern Industrial Operations Components

Customer Perspective



Industrial Cloud - The use of cloud computing services (like AWS, Google Cloud, or Microsoft Azure) to host and manage industrial applications and data with centralized management. This allows for increased scalability, security, and flexibility compared to traditional on-premise systems, turning operational costs from a large capital expense into a more manageable operating expense.

Data Platform - A comprehensive, end-to-end technology solution that enables the secure and reliable collection, storage, and transformation of data from all sources (e.g., machines, sensors, ERP systems). It serves as a central hub for an organization's data ecosystem, ensuring a single source of truth for analytics, business intelligence, and AI applications. Access to a historical record of the UNS contents.

Unified Namespace - A real-time, event-driven data architecture that acts as a single, central source of truth for all operational data across an entire enterprise. It standardizes the naming and organization of data from different sources (e.g., PLCs, SCADA, ERP) so that any authorized user, device, or application can access it instantly, eliminating data silos.

DataOps Platform - The software that automates and streamlines data flows from the factory floor to the Unified Namespace. It ensures that data is high-quality, consistent, and available for real-time analysis, enabling faster and more accurate decision-making.

IIoT Platform - A software system that connects industrial equipment, sensors, and devices to the DataOps Platform to collect and analyze data. It provides the foundation for digital transformation, enabling remote monitoring, custom OT application creation, predictive maintenance, and data-driven decision-making. It is the "brain" that connects the physical factory floor to the digital enterprise. Product can serve a roll a both HMI/SCADA as well as IIoT Platform.

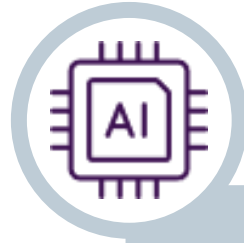
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THANK YOU!