

NOVEMBER 2022

Edge to Enterprise MES

Overview

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AVEVA

Edge to Enterprise MES

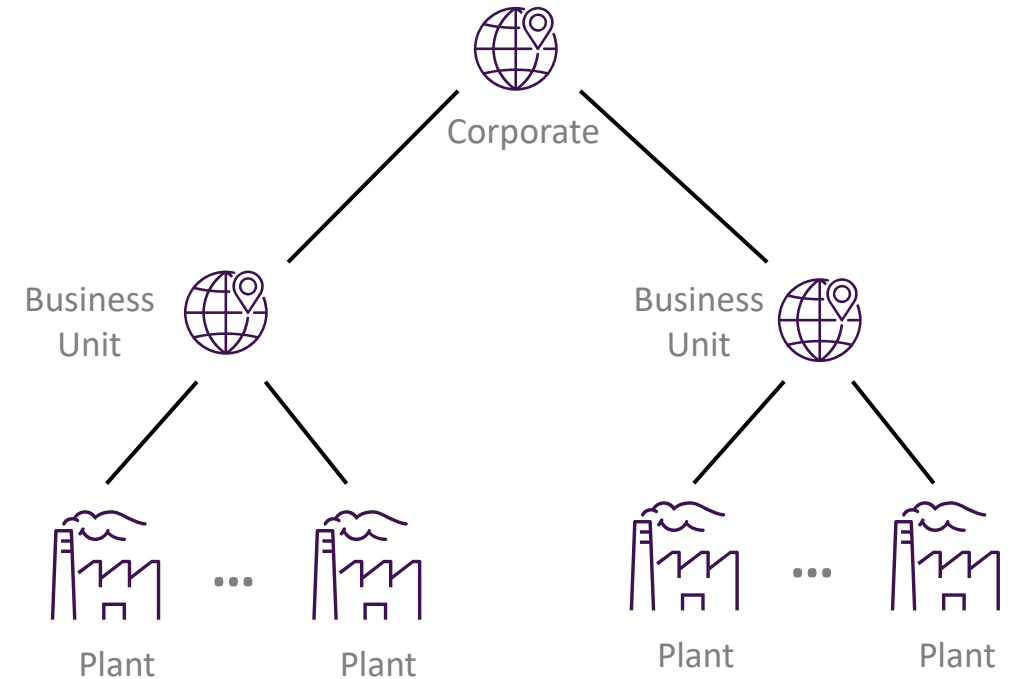
Challenges of Implementing MES Solutions



Edge to Enterprise MES

Challenges of Implementing MES Solutions

- Significant investment in hardware & software infrastructure within manufacturing plants
- Need IT resources in plants to support infrastructure and MES solution
- MES software license and solution deployment costs
- Life cycle cost to maintain hardware, software and MES solution
- Not able to deploy MES solution in smaller plants due to cost and complexity – impediment for digital transformation across enterprise



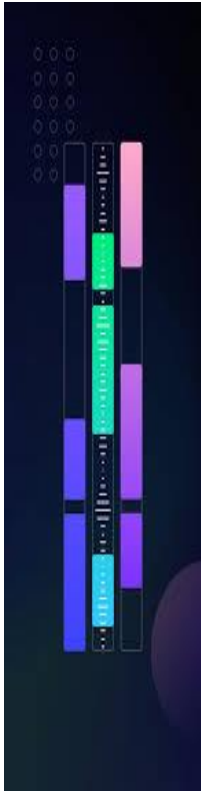
Edge to Enterprise MES

Overview



Edge to Enterprise MES

AVEVA Manufacturing Execution System (MES) - Multi-Year Investments Initiatives



Our AVEVA MES investment initiatives have been established to **align with the strategic imperatives** that have been set forth by **modern enterprises to digitally transform their business operations** to become more **agile, optimized, sustainable and customer-focused**.

1. Multi-Site Standardization & Governance (Model-Driven MES)

A low-code, process centric approach to MES application configuration, standardization and continuous improvement.

2. Edge to Enterprise MES Solutions

A suite of modern cloud and edge-based offerings that range from simple productivity apps to more complex operations management apps.

3. Enterprise-Wide Data Management (Connected MES)

Historize, visualize, analyze and share MES operations data across the enterprise and with partners through AVEVA's cloud-based industrial information management service.

4. Predictive & Prescriptive Analytics for Continuous Optimization

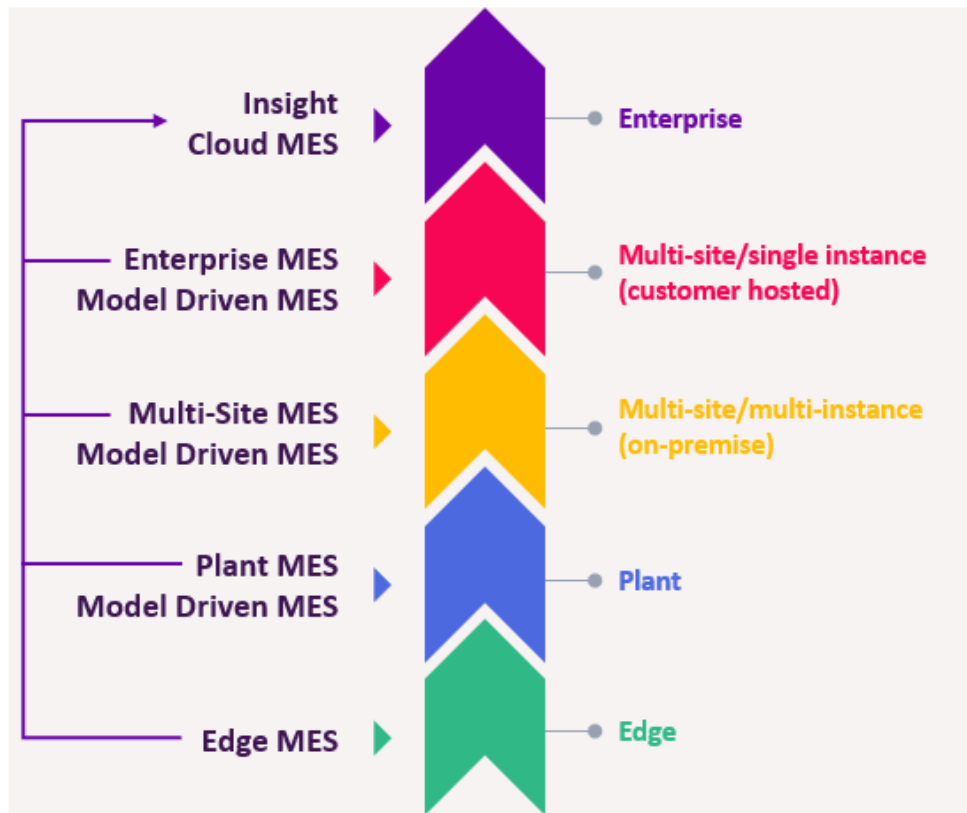
Infuse advanced analytics and machine learning (ML) into MES offerings to enable continuous production optimization.

5. Multi-Site Planning & Production Schedule Optimization

Multi-site planning and production schedule optimization capability.

Edge to Enterprise MES

The Approach

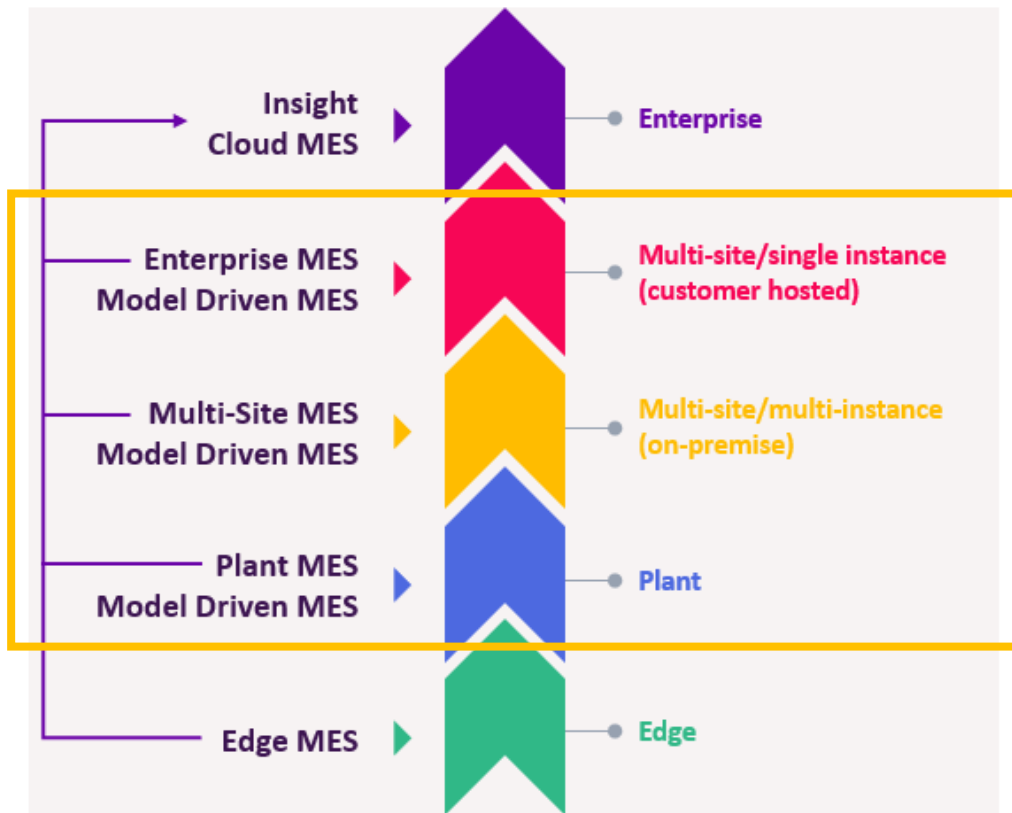


With this suite of solutions, our ambition is to...

- Provide a solution footprint that better aligns with our customers business needs which **range from simple productivity apps to more complex operations management capabilities**
- Reduce the **total cost of ownership (TCO)** and **time to value**
- Allow our customers to **seamlessly move up the solution maturity curve** as their business needs evolve

Edge to Enterprise MES

The Approach (cont.)

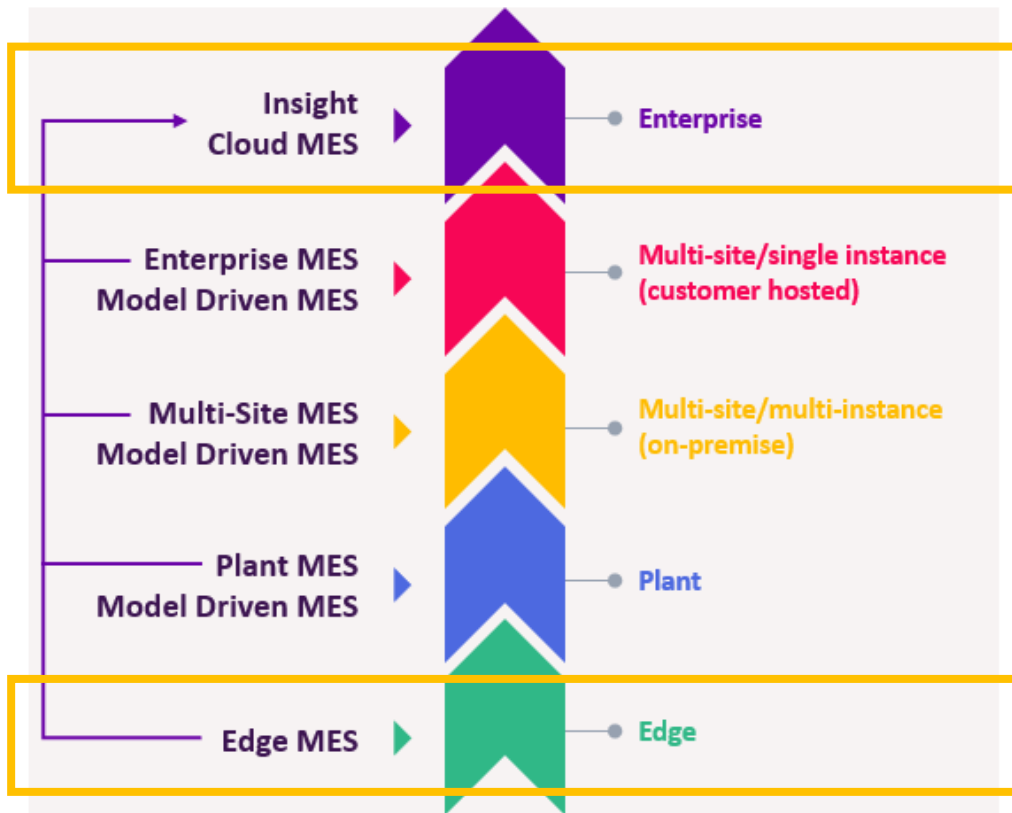


The **Enterprise MES**, **Multi-Site MES**, and **Plant MES** offerings are used for more complex operations management solutions.

These are **Model-Driven MES solutions** that deliver a broad set of capabilities that help customers **manage production, inventory and quality operations** across a single plant or fleet of plants.

Edge to Enterprise MES

The Approach (cont.)



Insight Cloud MES and **Edge MES** are used to deliver less sophisticated solutions (e.g. OEE, Work Instructions, etc.) with little to no solution footprint.

These solutions are all about reducing “time to value” and getting quick wins.



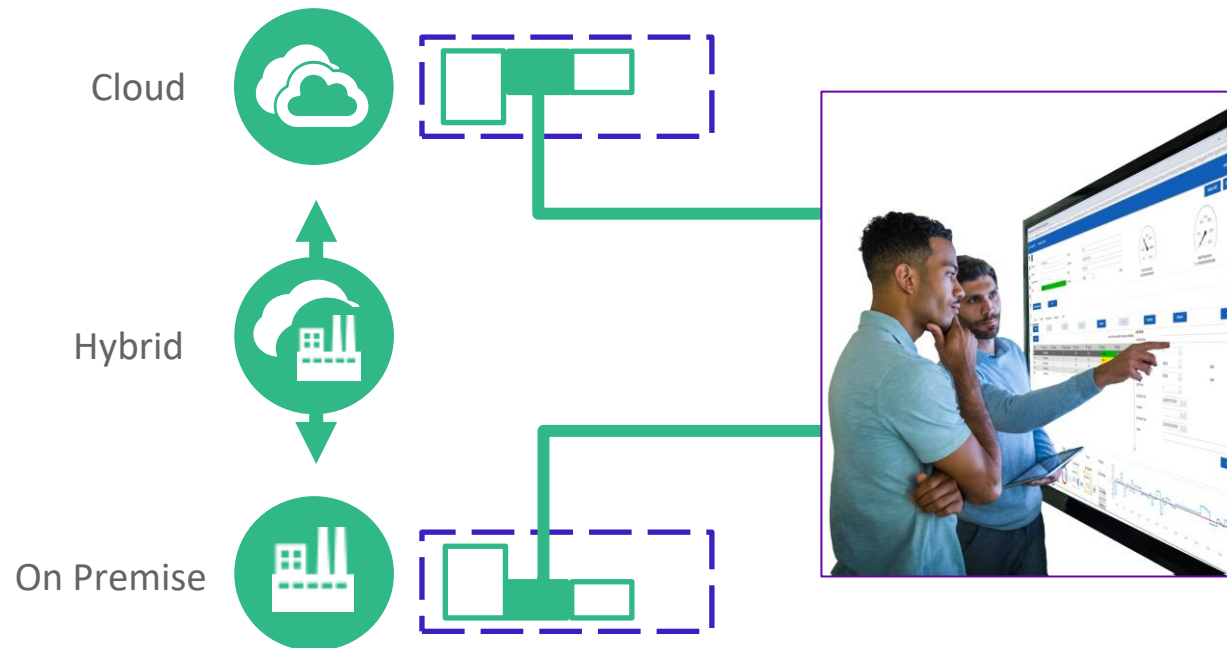
Edge to Enterprise MES

Evolving to a Hybrid Cloud Architecture



Edge to Enterprise MES

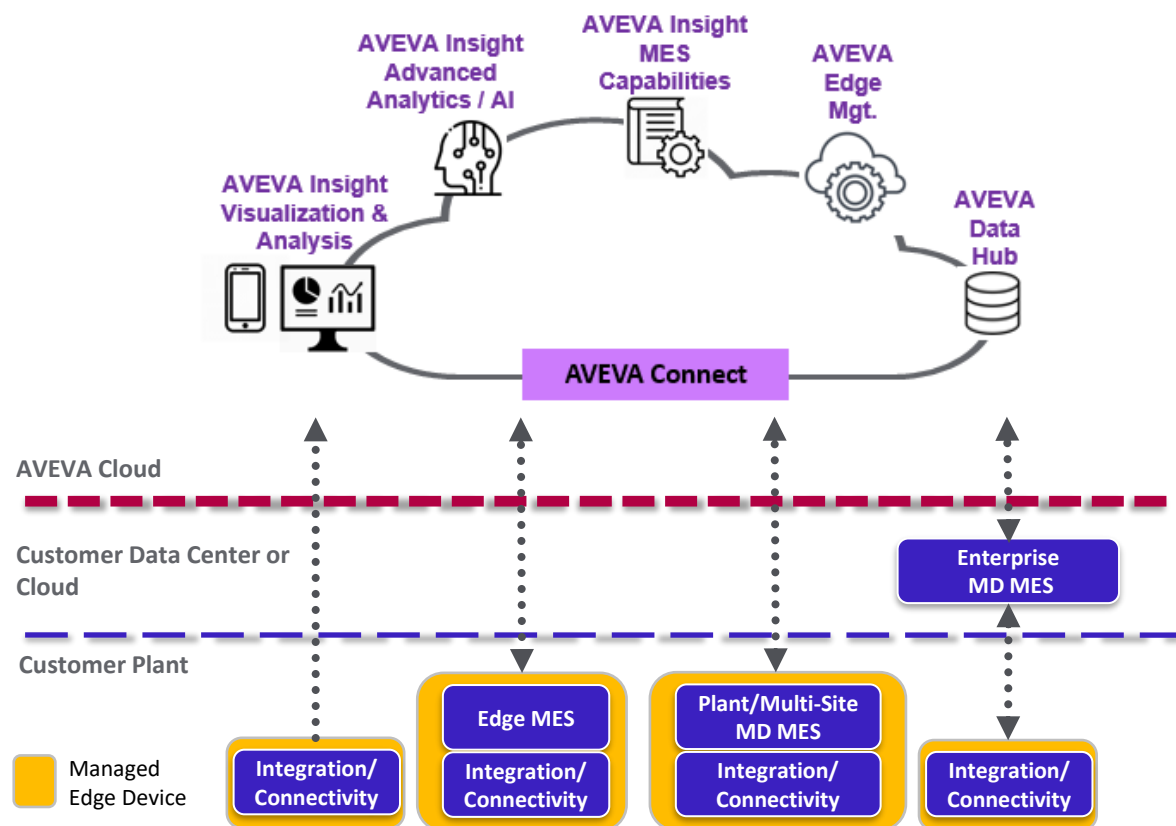
Evolving to a Hybrid Cloud Architecture



- MES application capabilities will be running at the “edge” (on-premise) and on the “cloud”
- Some MES deployments will be mostly cloud with very minimal edge capability
- Some MES deployments will have minimal cloud computing and heavy edge capability
- Customers will have flexibility to choose a deployment option that aligns with their business risks and needs

Edge to Enterprise MES

Evolving to a Hybrid Cloud Architecture



Native MES Cloud Capabilities...

Light-weight MES capabilities for less sophisticated operations

Value-Add Cloud Apps & Services...

These cloud-based apps & services extend our on-premise (edge) and cloud-based MES capabilities with:

- **Data Hub** - enterprise MES data historization & sharing
- **Visualization** - enterprise MES dashboarding, analysis & alerts
- **Advanced Analytics/AI** - predictive & prescriptive analytics
- **Edge Mgt.** - centralized MES app deployment at the edge

Containerized MES Applications (Edge Modules)...

MES edge modules managed centrally from AVEVA Connect to reduce TCO and simplify application deployment & standardization

Edge to Enterprise MES

Investment Timelines



Edge to Enterprise MES

Investment Timelines

CY2023

Edge to Enterprise MES Solutions

- New Edge MES offering
- Enhanced support for data center solutions - performance/scale/ reliability, infrastructure (AZURE & AWS)
- Begin transition of MES apps into edge apps to support configuration and deployment from the cloud
- New and improved Production, Quality and Inventory Operations capabilities for Insight MES

Enterprise-Wide Data Management (Connected MES)

- New MES data management (e.g. historization & dashboarding) with AVEVA Data Hub & AVEVA Insight

Predictive & Prescriptive Analytics for Continuous Production Optimization

- New predictive and prescriptive analytics (AI/ML) in the cloud

CY2024 / CY2025

Edge to Enterprise MES Solutions

- Continued transition of MES apps into edge apps to support configuration and deployment from the cloud
- Continued enhancements to support data center solutions
- New and improved Production, Quality and Inventory Operations capabilities for Insight MES
- Transition enterprise integration capabilities to hybrid cloud offering

Predictive & Prescriptive Analytics for Continuous Production Optimization

- Enhanced AI/ML that delivers more sophisticated predictive and production optimization capabilities



Edge to Enterprise MES

Available Through our AVEVA FLEX Subscription Program



Edge to Enterprise MES

Available through our AVEVA FLEX Subscription Program



Flexible

Optimize your software investments by reducing upfront costs and capital expenditures with a subscription program that gives you full flexibility to access our market-leading industrial software portfolio.

Scalable

Easily scale your software to your evolving needs by allocating investments across teams and sites or scaling up your existing contract – It has never been easier to do business with AVEVA.

Outcome-focused

Enable your team to drive transformation faster. On top of regular software upgrades, tailor your program and benefit from expert technical support and success services to accelerate time to value.



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Related Sessions

- Operations Management, at the Center of Your Digital Thread (Tuesday 2:00 - 2:30)
- Optimize Asset Utilization & Efficiency with AVEVA Insight OEE and Guided Analytics (Tuesday 2:40 - 3:10)
- AVEVA Learning Lab - Deploying an Asset Utilization & Efficiency Solution with AVEVA Insight OEE (Thursday 1:30 - 2:15)
- AVEVA Learning Lab - Integrating AVEVA Model Driven MES Forms into OMI (Thursday 10:45 - 11:15)

Questions?

Please wait for the microphone.
State your name and company.



Please remember to...

Navigate to this session in the mobile
app to complete the survey.



Thank you!

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ABOUT AVEVA

AVEVA is a global leader in industrial software, sparking ingenuity to drive responsible use of the world's resources. The company's secure industrial cloud platform and applications enable businesses to harness the power of their information and improve collaboration with customers, suppliers and partners.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. With operations around the globe, we are headquartered in Cambridge, UK and listed on the London Stock Exchange's FTSE 100.

Learn more at www.aveva.com