aspentech

Brochure

# Next-Generation OT Data Fabric: Key Capabilities

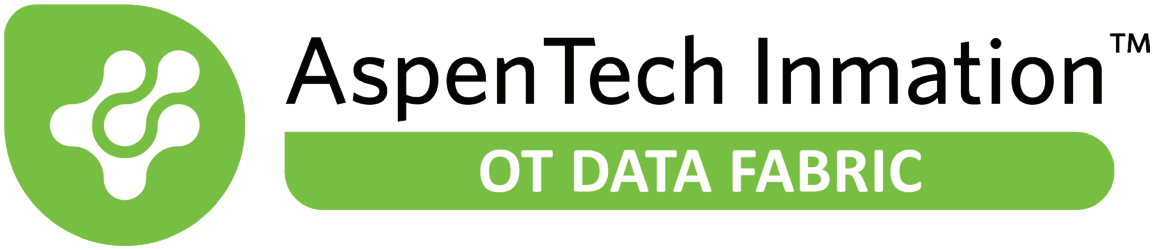

AspenTech Inmation™
OT DATA FABRIC

# Introduction

AspenTech Inmation OT Data Fabric unifies OT data into a stateful, persistent enterprise namespace and continuously contextualizes it into trusted, AI-ready intelligence. It connects plants, assets and applications across edge, cloud, and on-premises to establish a consistent, real-time, query-ready operational picture that scales from a single site to the global enterprise.

With centralized governance, role-based access and auditability, it accelerates secure decision-making while meeting compliance needs. For chemicals, energy, life sciences and other industries, it replaces brittle point integrations with a reliable data fabric that adds business and operations context—so teams move faster, analytics perform better, and AI delivers measurable value across production, reliability and sustainability initiatives. The enhancements that follow focus on efficient scale, deployment freedom and consistent governance—so you can run one fabric everywhere and realize measurable outcomes sooner.

| "Legacy" AspenTech Inmation | "Next-Gen" AspenTech Inmation OT Data Fabric |
|---|---|
| Windows | Windows, Linux, ARM |
| 3-4 Component Nesting Levels | Unlimited |
| Server-Based | Cloud, Hybrid, Edge, On-Prem |
| Millions of Data Streams | Billions of Data Streams |
| Built-for-Purpose Components | Generic OT Functional Nodes |
| Desktop-Based User Interface | Modern, Web-Based Interface |




## Next-Generation Enhancements

AspenTech Inmation OT Data Fabric is designed to help industrial organizations scale beyond the limits of traditional data infrastructure. With expanded platform support, a more flexible architecture and a modern user experience, it enables enterprises to connect, contextualize and operationalize industrial data at far greater scale.

From edge to cloud, AspenTech Inmation OT Data Fabric delivers the flexibility required for today's hybrid operating environments. It extends support beyond Windows to include **Linux and ARM**, making deployment more adaptable across diverse infrastructure strategies. Its architecture also evolves from limited component nesting to **virtually unlimited scalability**, allowing organizations to support increasingly complex industrial systems and data models.

As industrial operations continue to generate ever-larger volumes of information, AspenTech Inmation OT Data Fabric is built to grow with them—**scaling from millions to billions of data streams**. At the same time, it moves beyond built-for-purpose components toward generic OT functional nodes, giving users a more flexible and reusable framework for connecting and structuring operational data.

The user experience has also been modernized. Replacing a desktop-based interface with a **modern web-based environment**, AspenTech Inmation OT Data Fabric makes it easier for teams to access, manage and act on industrial data wherever they work.

The result is a more powerful industrial data fabric—one that helps organizations simplify complexity, accelerate digital initiatives and build a foundation for enterprise-wide industrial intelligence.

# Next-Generation Node Architecture

The new node-based architecture replaces rigid, predefined components with a modular, runtime-configurable design. All capabilities run from one executable, with functional roles turned on through configuration at runtime opposed to settings at install time. **The result:** faster rollouts and upgrades, fewer moving parts, consistent behavior across environments and straightforward scaling from a single plant to the global enterprise—with horizontal distribution and unlimited layering—while maintaining centralized security and governance.

**Smallest Scale Scenario**

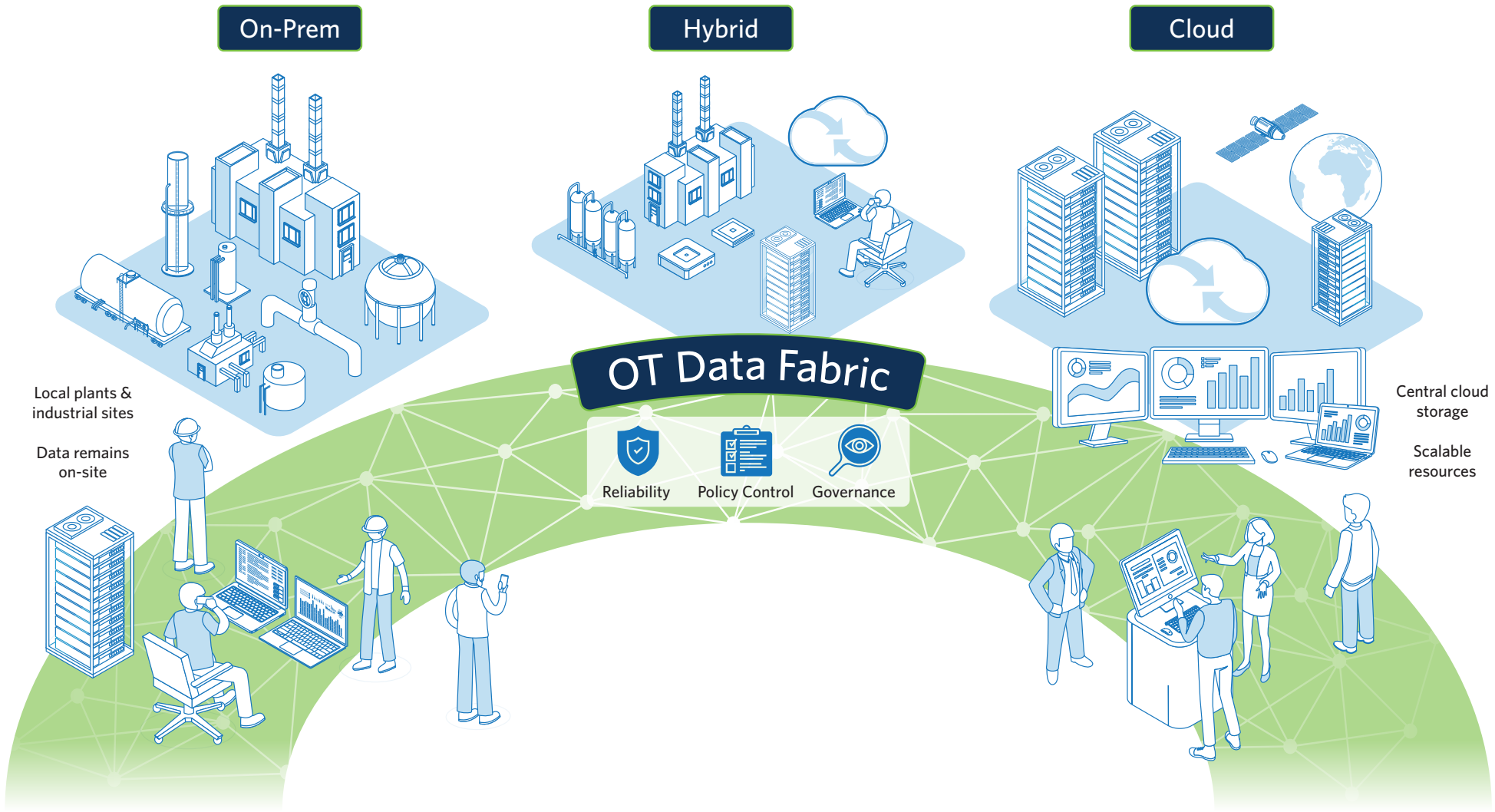
All components run on a single edge device


**Largest Scale Scenario**

Selected components running globally

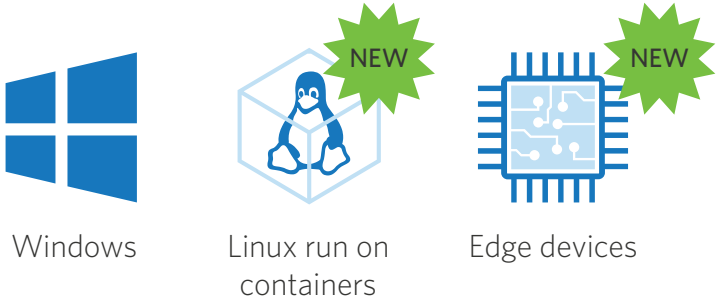
# Deployment Freedom: Cloud, Hybrid, On-Prem—Containerized

AspenTech Inmation OT Data Fabric is no longer server-bound; it operates as a fully adaptable fabric with cloud-native, on-premises and hybrid deployment options. The same reliability, policy controls and governance travel with every deployment, so teams standardize on one operating model while placing workloads where they deliver the most value—centrally in the cloud, locally in plants and industrial sites, or a resilient mix of both.



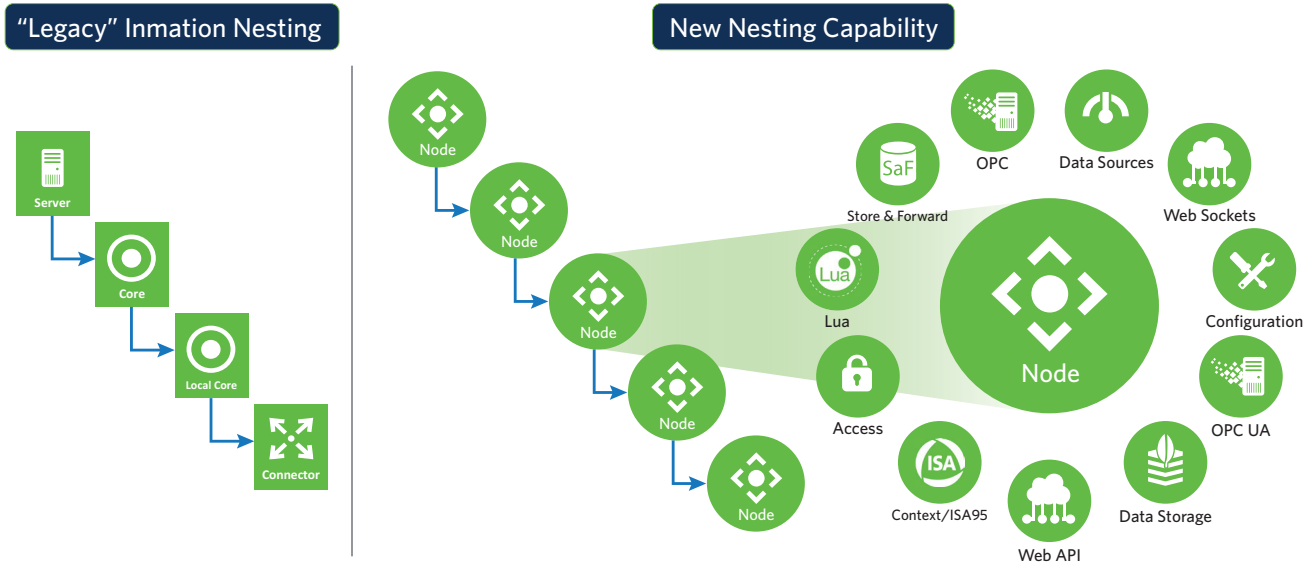
# Multi-Platform Support (Windows & Linux, Including ARM-Based Linux)

What began as Windows-only now runs seamlessly across Linux and Windows—including ARM-based Linux for compact, power-efficient edge devices deployed on the plant floor and in remote industrial locations. This expands hardware choice, lowers deployment and licensing costs, and opens flexible paths for edge, cloud and containerized rollouts. A consistent runtime across platforms standardizes operations and scaling so you can run one fabric wherever the business needs it.




Windows | Linux run on containers | Edge devices

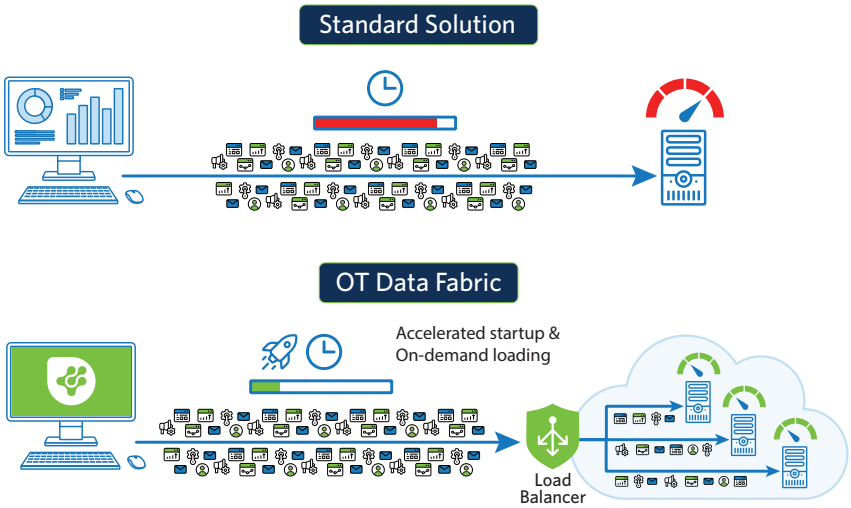
# Unlimited Component Nesting Levels




Earlier versions of AspenTech Inmation capped hierarchies at 3 to 4 layers. It now supports unlimited hierarchical nesting (unlimited layering), so structures can mirror real operations and governance—without workarounds or duplication. The result is better-organized data and more sophisticated enterprise rollups that stay aligned as your footprint grows.

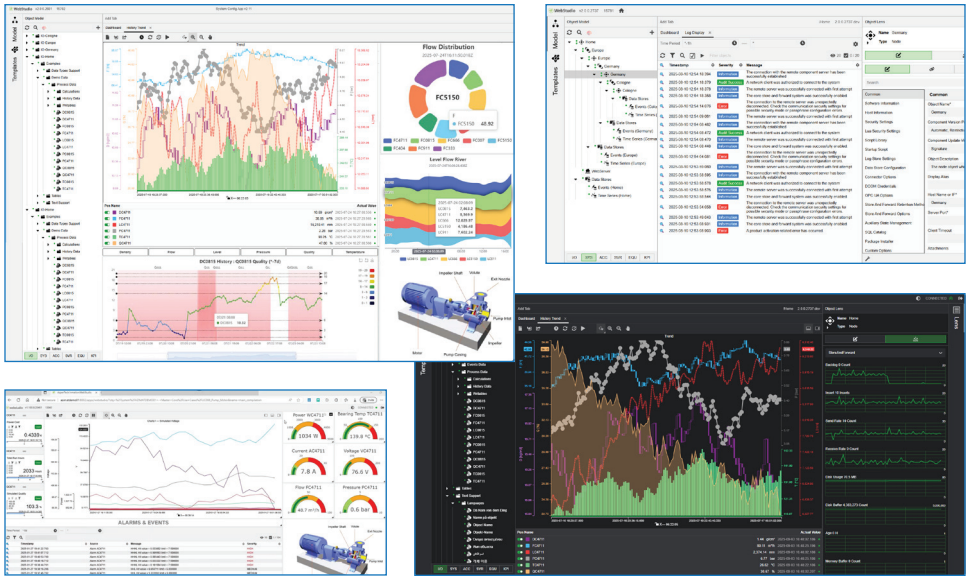
# Optimized Memory & CPU for Horizontal Scaling

The AspenTech Inmation OT Data Fabric pairs an optimized memory footprint with distributed compute to deliver efficient performance at scale. On-demand loading reduces hardware requirements and accelerates startup, while task distribution across nodes lowers per-component CPU load. Together, these improvements support continued growth and horizontal scaling across sites—without re-architecting—while maintaining consistent reliability and governance.




# New and Advanced Embedded Web API & WebStudio

The modern evolution of DataStudio, the embedded Web API and WebStudio provide a clean, browser-based experience—no desktop installation required. Configure, visualize and manage the fabric from anywhere, with the same controls and governance across cloud, hybrid and on-prem deployments—including role-based access and auditability. The built-in Web API enables automation and integration, while the unified web UI standardizes day-to-day operations across plants and remote industrial sites.



**Additional Enhancements: Python Capability**

Python-friendly interface support lets teams script transformations, orchestrate analytics workflows and automate routine tasks directly in the fabric. This keeps advanced work inside a single, governed environment and reduces handoffs between tools.

## About AspenTech

Aspen Technology, now part of Emerson, is a global software leader helping industries at the forefront of the world's dual challenge meet the increasing demand for resources from a rapidly growing population in a profitable and sustainable manner. AspenTech solutions address complex environments where it is critical to optimize the asset design, operation and maintenance lifecycle. Through our unique combination of deep domain expertise and innovation, customers in asset-intensive industries can run their assets safer, greener, longer and faster to improve their operational excellence.

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