



 | Brochure

Aspen Artificial Intelligence of Things (AIoT) Hub™

Unlock the Business Value from Industrial Data



The Challenge

Industrial organizations are drowning in data. They lack accessible and useful data for the Industrial AI solutions they want to implement. The challenge is that they do not have a scalable data infrastructure to power their industrial AI models.

Engineers, data scientists, and executives at industrial organizations are switching their focus from mass data accumulation to strategic industrial data analysis. They are explicitly targeting data integration, mobility and accessibility with the goal of using AI-enabled technologies to analyze previously unoptimized and undiscovered data sets.

By integrating Artificial Intelligence (AI) and the Industrial Internet of Things (IIoT)—two game-changing technologies currently leading the digitalization charge for capital-intensive industries—AspenTech has created the Aspen AIoT Hub™, which enables the next generation of Industrial AI infrastructure, allowing organizations to achieve more efficient operations, create seamless human-machine workflows, and rapidly harmonize and transform data into tangible business outcomes.



The Solution: The Aspen AIoT Hub

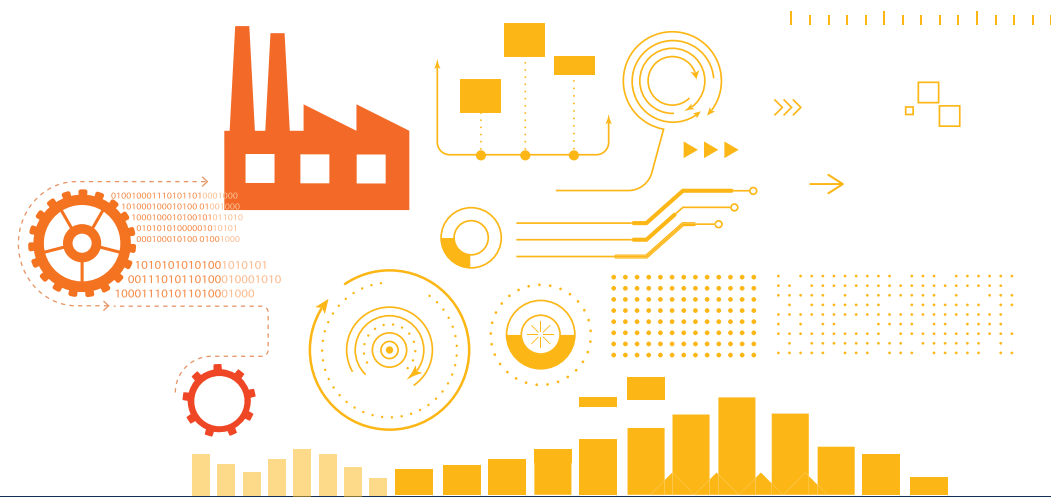
The Aspen AIoT Hub is the cloud-ready Industrial AI infrastructure that delivers the vision for the Self-Optimizing Plant. It provides the integrated data management, edge, and cloud infrastructure, and a production-grade AI environment to build, deploy and host Industrial AI applications at enterprise speed and scale to unlock the value from industrial data across plants and the enterprise.

Addressing the rapid convergence of IT and OT that customers are experiencing, the Aspen AIoT Hub significantly reduces the risks and time to market for leveraging AI for complex operations. Unlike generic AI platforms, which require a massive data integration effort and an army of data scientists to implement, this new approach can seamlessly integrate industrial data sources and deliver actionable insights quickly with ready-to-use, built-for-industry applications. Our technology is also extensible, enabling customers and partners to collaborate on Industrial AI applications.

The Aspen AIoT Hub consists of several well-established and innovative technologies. At its core is Aspen InfoPlus.21® (IP.21), the information management system for real-time industrial processes, which collects

large volumes of process data for reporting and analysis. It also integrates cloud-native connectivity, capabilities providing the ability to assemble and deploy AI-driven IoT applications, and the advanced enterprise workflows, analytics, and governance that is designed for industrial companies.

Industrial AI combines domain expertise and first principles with artificial intelligence and analytics algorithms to deliver fit-for-purpose, domain-specific industrial applications.



“AspenTech’s new **AIoT Hub** appears to be well positioned to help forward-thinking industrial enterprises share data, collaborate, and provide users with the insights needed to support digital transformation.”

-Janice Abel, Principal Analyst, ARC Advisory Group

What's Unique About the Industrial-AI-Powered AIoT Hub?

- **Embedded AI**

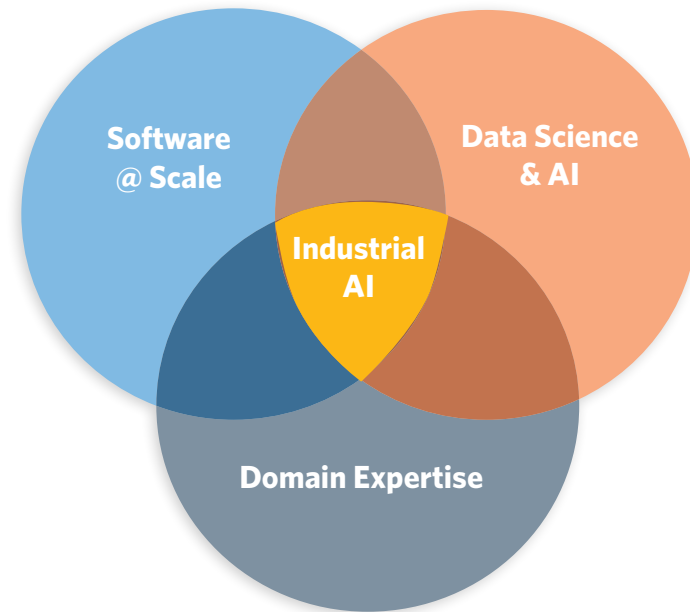
We embed AI into our solutions —so you don't have to. Embedded AI can significantly enhance existing models and approaches by tuning them with real-world data and experience. When combined with domain expertise, it brings new levels of asset performance and creates Industrial AI, much more powerful than a generic AI approach.

- **Holistic Solution**

Get seamless, flexible data mobility and integration across your entire enterprise, from sensors to the edge and cloud. Gain actionable insights faster than ever with Industrial AI.

- **Digital DNA-Powered AI Applications**

The Aspen AIoT Hub supplies the data management, edge and cloud infrastructure, and a production-grade AI environment to build, deploy and host Industrial AI applications—including AspenTech's proven family of solutions.



Industrial AI combines domain expertise and first principles-based models with artificial intelligence and analytics algorithms to deliver fit-for-purpose, domain-specific solutions.

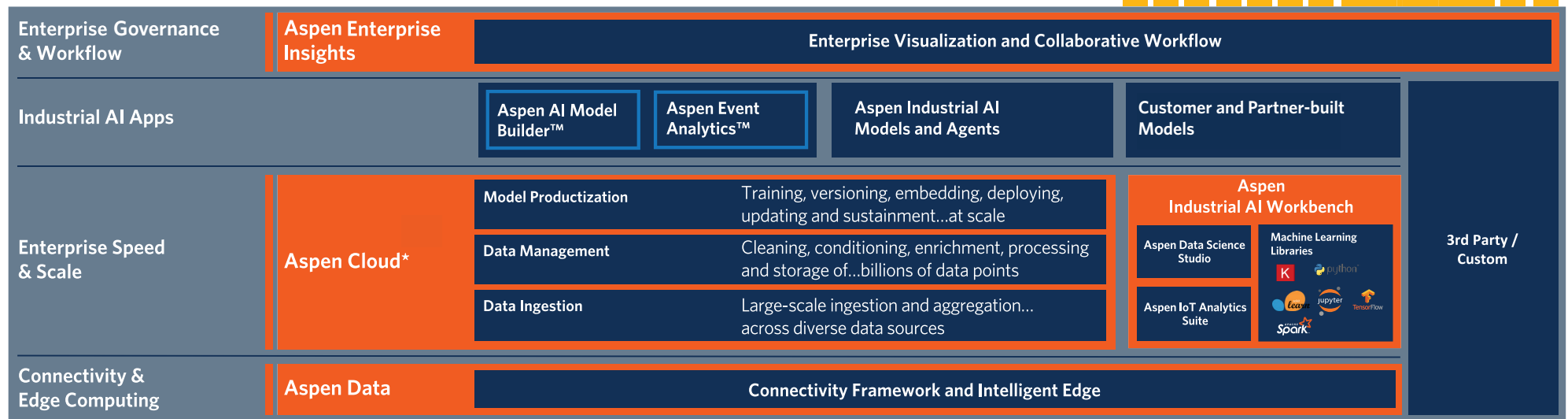
Key Capabilities

Aspen AIoT Hub is categorized into four areas:

1. **Data Integration & Mobility.** Access and leverage fully integrated data, from sensors to the edge and cloud—across the enterprise.
2. **Cloud-ready Infrastructure.** Foundation of the Industrial AI Infrastructure, highly scalable to power the journey to the Self-Optimizing Plant.
3. **Enterprise-wide Data Governance and Workflows** Tap into the power of accelerated insights and enhanced visualization from data across plants and the organization.
4. **Industrial AI Applications Ecosystem.** Empower data scientists or engineers to collaborate and build their own data-rich AI apps using the Aspen Industrial AI Workbench.



How the Aspen AIoT Hub Works



The Aspen AIoT Hub provides the underlying, enterprise-scale infrastructure powered by Industrial AI applications and AspenTech solutions.

Making Industrial AI Strategy a Reality

Next-generation, AI-powered applications augment the value of existing software solutions and help companies transcend functional silos within the enterprise to drive greater productivity, efficiency, and reliability across their operations. Here are three examples that show how industrial organizations can leverage the Aspen AIoT Hub to make Industrial AI strategy a reality.

1. A refinery can apply Industrial AI technology by leveraging a highly-scalable data infrastructure to simultaneously evaluate thousands of different scenarios, across diverse data sources and identify the optimum crude oil slate for processing.

Coupled with AI-rich capabilities, enterprise-wide insights and integrated workflows to improve executive decision-making, the Aspen AIoT Hub accelerates time-to-value and allows the workforce to focus on more strategic tasks.

2. A process plant can deploy an advanced class of Industrial AI-enabled models—requiring deeper collaboration between domain experts and data scientists—that combines machine learning and first principles to deliver more comprehensive, more accurate and more performant models. The AIoT Hub allows enterprises to improve cross-functional collaboration, move faster on their Industrial AI roadmap and with limited resources—by providing a cloud-ready infrastructure and a production-grade AI environment to host and manage Industrial AI applications at enterprise speed and scale.



3. A chemical plant can leverage the AIoT Hub to gain real-time insights from integrated industrial data from the edge to the cloud, across plants and throughout the enterprise—enabling agile decision-making across the organization. Using richer, dynamic workflows, supply chain and operations technologies are seamlessly linked together to create a system that detects changes in market conditions and automatically adjusts the operating plan and schedule in response.

Summary

For many industrial organizations, the challenge in AI adoption is understanding where to start. The key to making AI work in real-world applications is getting the learning right—and more importantly, making it valuable and actionable in an industrial business context. Therefore, the development of Industrial AI-enabled applications needs to be purposefully guided by domain knowledge to derive real business value, with systems purpose-fit for tangible use cases.

The Aspen AIoT Hub provides a fit-for-purpose, cloud-ready and built-for-industry Industrial AI infrastructure solution—to unlock the immense value from industrial data assets, across the enterprise, and deliver actionable outcomes faster than ever before.

To stay on top of the latest news and developments as it relates to the AIoT Hub and your ongoing pursuit of Industrial AI applications, visit the [Aspen AIoT solutions page](#).



About AspenTechnology

Aspen Technology (AspenTech) is a global leader in asset optimization software. Its solutions address complex, industrial environments where it is critical to optimize the asset design, operation and maintenance lifecycle. AspenTech uniquely combines decades of process modeling expertise with artificial intelligence. Its purpose-built software platform automates knowledge work and builds sustainable competitive advantage by delivering high returns over the entire asset lifecycle. As a result, companies in capital-intensive industries can maximize uptime and push the limits of performance, running their assets safer, greener, longer and faster.

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