INFOSYS MANUFACTURING CLOUD: AN ECOSYSTEM FOR ENDLESS POSSIBILITIES
Cloud service providers are moving to the next level of service. After migrating high performance workloads to the cloud, they are now offering solutions to address specific industry processes and issues. Cloud services are getting verticalized to accelerate cloud-led transformation and unleash more possibilities. Hyperscalers, product companies and systems integrators are creating industry clouds. Industry clouds for manufacturing, finance and retail are evolving, and delivering value in terms of performance, agility and time-to-market.

The industry cloud market could grow up to 64% of the US$ 1 trillion cloud market, according to Deloitte¹.

A few trends are driving the increased adoption of the industry cloud:

- Collaboration with external stakeholders is an imperative to accelerate product development and supply chain operations.
- Servitization / product-as-a-service is creating new revenue streams.
- Data from ecosystem partners is required to grow market share and service offerings.
- Interconnected and transparent supply chains are needed for resilient, sustainable operations.
- Digital twins and high performance computing workloads require scalable resources, and secure interoperability.

What is an industry cloud?

Digital core services offered on the cloud have evolved into a comprehensive set of solutions, data and AI tools to address specific industry sectors, and is called the industry cloud. The solution or set of functionalities addresses unique process requirements, enterprise challenges, regulations, data models, and external data requirements of a specific industry, and is offered as a comprehensive cloud ecosystem.

Industry cloud platforms are designed to meet the needs of different industry verticals. It combines digital software, platforms and IaaS resources to provide specific solutions for each vertical, according to Gartner².
The Manufacturing Cloud

The manufacturing cloud helps enterprises address disruptions through product innovation, global supply chain networks, real-time visibility, operational agility, digital business models, and process optimization. Industry clouds enable enterprises to respond to challenges by leveraging advanced digital capabilities, including artificial intelligence (AI), machine learning (ML), 5G communication, and blockchain. An industry cloud ecosystem fulfills operational, security, analytics, and collaboration requirements of manufacturers.

Discrete manufacturing is one of the top five industries deploying industry cloud solutions for digital transformation initiatives. Almost 88% of discrete manufacturers plan to adopt the industry cloud to improve digital networks. Customer experience enhancement, servitization, supply chain collaboration, digital twins for operational performance management, and product innovation are the leading use cases for adoption. In addition, manufacturers are replacing traditional enterprise systems with cloud-based hybrid application architectures to offer collaboration-driven value propositions across products and services.

The industry cloud for manufacturing enhances capabilities by connecting data, integrating systems, and accelerating software configuration and application development. It is achieved by an ensemble of participants: cloud service providers, application / software vendors, global service integrators, data aggregators, and data interoperability (API) service providers.

Leading cloud service providers are partnering with SaaS solution providers and systems integrators to develop industry use cases and expand the solution sets available on cloud platforms. Notably, the cloud supports collaboration between competitors within an industry for combining external data and enterprise capabilities to address specific issues.

Microsoft Cloud for Manufacturing provides a comprehensive solution for manufacturers to align people, resources, plans, and processes. The value of the offering is further enhanced by the network of Microsoft’s manufacturing partners.

Google offers a manufacturing data engine and visual AI for quality management along with data APIs, as a cloud native solution. A network of partners provide AI-driven digital twins and anomaly detection solutions as part of the manufacturing cloud solution set.

An industry cloud combines edge devices, applications, data, and analytics within the enterprise and across the extended supply chain. The Volkswagen Group collaborated with AWS to create a Volkswagen Industrial Cloud for managing 124 global factory sites on a single platform. In the next phase, Volkswagen’s global supplier network will be integrated with the Industrial Cloud. The Volkswagen Industrial Cloud built on AWS Cloud 4 transforms shop floors across plants as well as partner systems.
Infosys Manufacturing Cloud

Infosys Cobalt framework enables connected operations on the cloud. Developed in collaboration with hyperscalers, the framework offers vertical-specific solution blueprints, accelerators, data models, and APIs for sub-industry-level integration. It also provides point solutions for specific use cases, as a service. The solutions help manufacturers address challenges across the supply chain and shop floor, including productivity and safety.

Infosys Cobalt for Manufacturing presents a compelling value proposition for enterprises in the industrial manufacturing, automotive, and aerospace and defense sectors. From connected products to smart manufacturing, from servitization to B2B2C transformation, from energizing the core to transforming the workforce, Infosys Cobalt harnesses the potential of the cloud. It shapes a ‘live enterprise’ that is ready for a digital future by supporting not only core manufacturing functions, but also operational analytics, training and maintenance.

**Add-ons and accelerators**

- **CPQ digital solution**
- **Drill & blast optimizer**
- **CORTEX**
- **Digital supply chain offerings**
- **Analytics for EHS**
- **B2B2C transformation**
- **Process optimizer**
- **Manufacturing customer e-connect**
- Cognitive source-to-pay software and subscription service offerings

**Core competency development**

- **Increase in market penetration, and reverse collaboration**

**Ecosystem and alliance solutions**

- IBM
- Microsoft Dynamics CRM
- Dassault Systems
- enablon
- Microsoft
- Amazon Web Services
- Google Cloud
- SAP
- Oracle
- ServiceNow
- Pega

**Industry segment solution blueprints**

- Industry-level solutions
- Third-party data brokers
- TradeEdge
- Equinox

**Digital core**

Workload migration
DevOps
The advanced suite of solutions, platforms, cloud assets, and accelerators of Infosys Cobalt de-risks migration to a multi-cloud environment. In addition, it accelerates business transformation, enabling manufacturing enterprises to achieve business goals faster. The Infosys Cobalt suite combines cloud expertise with services to address user experience, compliance, data governance, and security requirements.

Infosys Manufacturing Cloud solutions are built on a digital thread, which facilitates the seamless integration of data assets in the cloud ecosystem. Further, the digital thread ensures a unified data source across core technologies:

With Infosys Cobalt, a set of services, solutions and platforms for enterprises to accelerate their cloud journey, manufacturers have 35,000 cloud assets and over 300 industry cloud solution blueprints, including:

- Infosys Enterprise Service Management Café, an AI-powered service management solution built on Service Now platform
- Discrete industrial manufacturing solution blueprint on Oracle cloud
- iBridge, an integration repository for industrial manufacturing built on OIC
- iDSS, a data validation and migration suite for accelerating ERP implementations
- Digital factory and auto factory automation with varied solutions to accelerate the adoption of IOT components of hyperscale cloud platforms like Azure and AWS
- Automation-driven, engineered-to-order solution
- Configuring, Pricing and Quoting (CPQ) solution framework for manufacturing enterprises

Infosys Cobalt ecosystem places the cloud in the center of business transformation engines to realize hyper-productive, hyperconnected and hyperintelligent manufacturing.

From sentient shop floors and predictive field service to virtual showrooms, whatever next manufacturing enterprises seek to realize, Infosys Cobalt is envisioned to accelerate the future with unique sets of ready-to-use solutions.
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Vijay Narayan is Senior Vice President and Industry Head of Manufacturing at Infosys, where he is responsible for managing sales and delivery professionals as well as developing and executing strategic roadmaps for Infosys's manufacturing sector. A business leader with over 25 years of experience, Vijay strategizes and delivers technology-enabled, business performance improvements for Fortune 1000 Enterprises.

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