
Whitepaper

The Rise of Industry Cloud & What It Means to System Integrators?

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What are **industry cloud solutions**?

Industry cloud platforms/solutions are intended to solve specific challenges of the sector or a segment of industry vertical by leveraging the power of public cloud platforms. These solutions are designed and delivered through a composable enterprise model that allows enterprises to plug in industry solutions as and when required in their existing business process.

We can understand what is happening within the Industry Cloud space by correlating it to what happened in Java open-source world.

The early adoptions of Java 1.2 started with building applications using only core Java. As the adoption of Java increased with the advent of Web 1.0, new frameworks similar to the ORM frameworks, such as Servlets, Struts, Spring MVC, Vertex, SpringBoot, Micronut, Quarkus, and so on, started evolving. Subsequently, frameworks for cross-cutting concerns like caching, search, security, and so on also became popular. Then came ready-to-use industry solutions composing all these frameworks underneath.

Similarly, public cloud service providers started with Infrastructure as a Service. Then came ready-to-use Platform as a Service (PaaS), and Software as a Service (SaaS). Since then, the obvious, inevitable evolution has been to build industry-specific solutions like financial services, health and life sciences, manufacturing, and retail, by composing all of these beneath overarching cloud capabilities. For the end consumers, these industry solutions are delivered just like any other cloud solution that is already familiar, thus making it easy to adopt.

Industry cloud solutions are autonomous, specialized, and agile for enterprises to adopt seamlessly.

Industry cloud solution providers **in the market**

We can clearly understand what the emerging Industry Cloud Solutions are if we keep a close watch on their **three contributors** -

01

Naturally, Cloud Solution Providers (CSPs) are leveraging their technology solutions to solve industry-specific solutions to increase their market share and fuel growth. All the **CSPs (AWS/Azure/GCP)** are bringing industry-specific solutions for verticals like retail, healthcare, manufacturing, etc. We shall deep dive into each of these offerings subsequently.

02

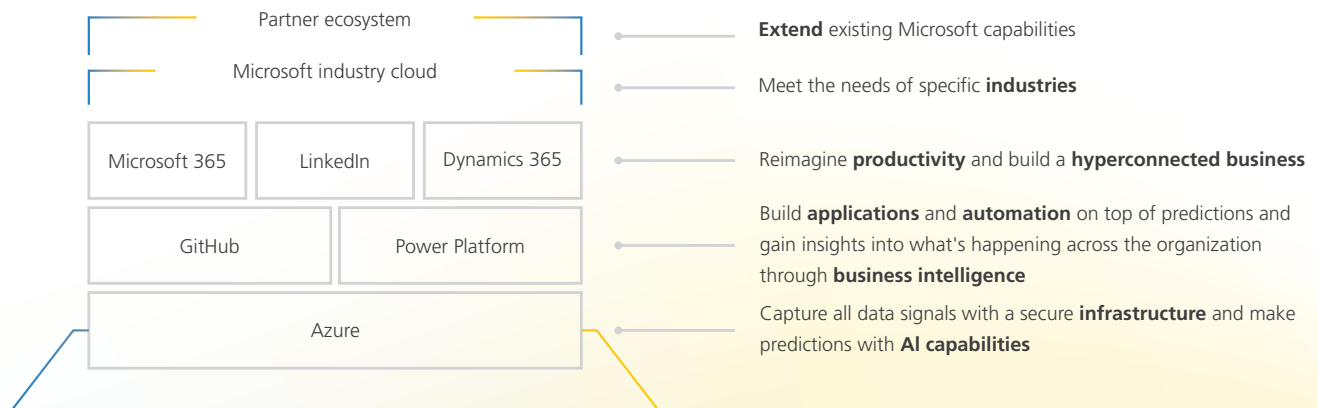
Successful **SaaS service providers** like Salesforce have their solutions built for Health Cloud, Financial Services Cloud, Media Cloud, etc., and SAP solutions for Oil, Gas, and Energy and similarly Oracle Retail Cloud. We can categorize them as Enterprise SaaS platform providers who are venturing into industry cloud solutions.

03

This Industry trend of Product SaaSification is allowing a lot of business-to-business solutions providers to play in this space, like Guidewire Cloud for insurance, Cerner Healthcare Cloud, Temenos, Finestra Banking Cloud solutions, etc. These are niche players capturing specific vertical segments with their industry-specific solutions.

It is important to understand how each of these providers can quickly build industry solutions for different vertical problems, this will help us as **service providers to look at it from the lens of industry solution providers so that we can adopt the same pattern.** We will look into the 'how' aspect in the next section.

Microsoft is uniquely positioned to help you transform



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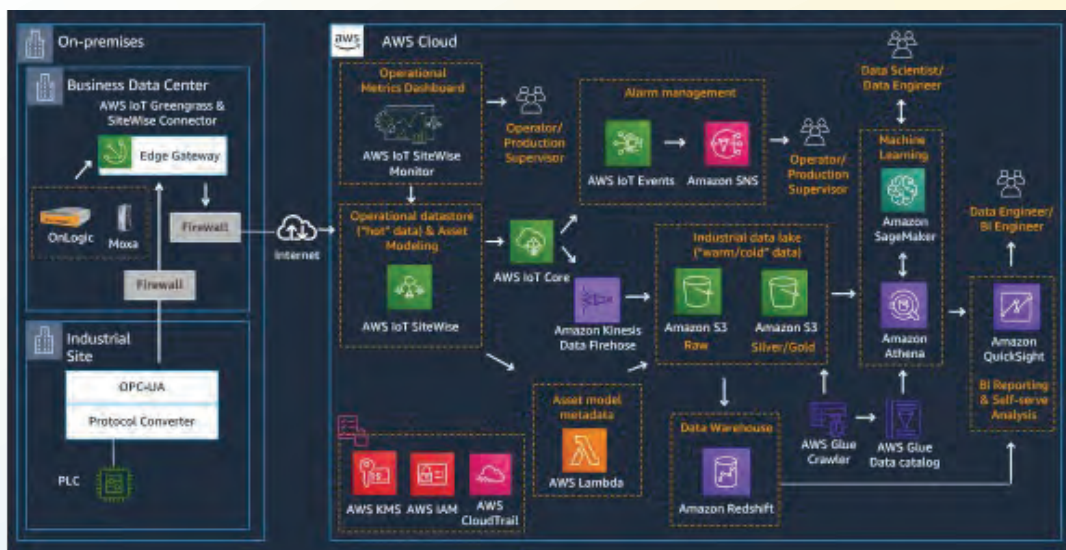
The evolution of CSPs to offer industry cloud solutions is based on the composability pattern. Building solutions one on top of another.

As you peel the onion, Azure Industry Cloud solution is built on top of Azure services, Microsoft 365 & Dynamics 365 solutions. They are composing their solutions to solve industry-specific problems.

It is the case with AWS as well – more granular and defined industry-specific solutions using multiple AWS services. Interestingly, AWS also engages its industry partner network in building industry solutions.

Understanding how CSPs are building industry solutions, we can extrapolate this to SaaS providers and B2B solutions providers as well, where solutions are built through composability.

Connected factory solution architecture for real-time data



<https://aws.amazon.com/blogs/architecture/category/industries/>

Industry cloud solutions providers are built on the principles of composable enterprise, enterprise agility, and familiarity of adoption making them easy to adopt in the existing ecosystem.

Analyst views on **industry cloud solution adoption**

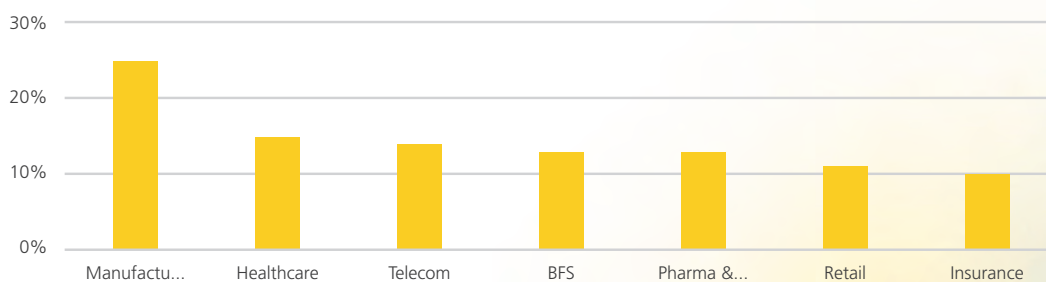
Now that we have understood what industry cloud solutions are, and who the providers are, let us look at the future, how they are evolving, and the market trend in this space, using Gartner and Forrester’s research on this topic as a yardstick.

Forrester Report Prepared For Vikramjit Singh Bindra With Mindtree Ltd.

Industry Cloud Solutions Will Be The Preferred Platforms In The Next Five Years

Forrester’s analysis predicts that in the next five years, industry solutions platforms will be preferred over custom development. This is driven by 1) the need for speed 2) digitization accelerated by cloud solutions 3) cost pressure 4) the maturity of industry cloud solutions.

2022 Gartner Industry Cloud Platform Adoption Survey



According to Gartner, industry cloud solutions are trending because enterprises are looking for outcome-based engagements with System Integrators (SI), with a caveat that any such outcomes must be agile and adaptable to change in business circumstances. Business outcomes are expected to be tangible, measurable, specific, and concrete – a goal of this nature can only be achieved when approached in an industry-specific context. Hence industry solutions are relevant and here to stay.

This is a great opportunity for SIs to think like and correlate to the automotive industry. Automotive Original Equipment Manufacturers (OEMs) can now design dozens of different vehicles with an ecosystem of parts, based on a single platform. Similarly, SIs play the role of assemblers to build different industry-specific solutions using providers' platforms.

What does this mean for **IT services organizations?**

At the heart of the industry cloud boom, continuous fast-paced **Digital Transformation** has been driving adoption. Five business imperatives that have been pushing organizations to undertake a transformation journey include –

- 01 Faster time-to-market**
Get ahead of the competition
- 02 Extensible**
Make solutions easy to extend and create new business avenues
- 03 Innovative**
Secure the future with cutting-edge tech
- 04 Agility**
Business agility, elasticity to scale
- 05 Efficiency**
Operational efficiency, the cheaper the better

To solve this, SIs are adopting different architectural principles like API First, Cloud First, Data First, Monolith-to-Microservices, and Agile. On similar lines, readily available or reusable industry cloud solutions are adding to the architectural principles for digital transformation journeys. System integrators can use these solutions as building blocks to roadmap the larger transformation journey. SIs can adopt the approach of incremental and agile modernization and focus on the user journeys that matter the most, like managing loyalty for a consumer while transforming a marketing platform, fraud payment detection in a banking system, and dynamic pricing in travel reservation applications.

System integrators can be involved in this journey in three different possible ways –

01

Adopt

This is a smart no-brainer, adopt readily available industry cloud solutions by CSPs, SaaS providers, or B2B solution providers in your integrated transformation solution. This is faster, more efficient, and more agile.

02

Innovate

System integrators are in the sweet spot of understanding industry-specific challenges that they come across, and solve, for different customers in their ecosystem. Use those experiences in building and solving a specific business problem and deliver the integrated solution as a reusable business component.

03

Co-create

CSPs are stretching their hand to collaborate with SIs in building Go-To-Market (GTM) solutions to solve specific problems for the integrators. Leverage the partnership in building and launching those solutions with CSPs.

As we see it, industry clouds are on the rise. Competitors are adopting. Industry leaders themselves are partnering with CSPs to build solutions. For example, Morgan Stanley partnered with Microsoft Azure to build financial services offerings, while Volkswagen partnered with AWS. Many such examples of offering 'Business-as-a-Service' are emerging, and system integrators cannot ignore this.

System integrators are in the sweet spot to take full advantage of the rise of the industry cloud. They are the glue between the use cases/challenges, the customer environment and the solutions built by CSPs. Integrators have a significant advantage, taking the best of both worlds and being successful.

What is LTIMindtree doing in the industry cloud?

LTIMindtree being a digital-born organization has always focused on the platform context first approach in every solution that we have delivered to our customers. **The experience** of working with different customers and the common challenges faced by specific sectors have inspired us to create platforms that are contextual with tangible outcomes to specific business contexts.

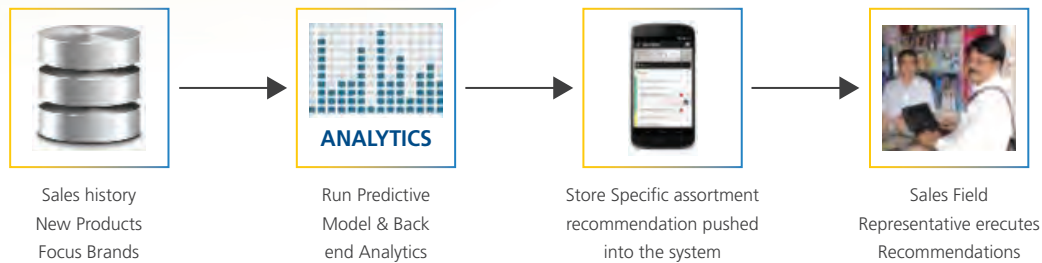
We are also using this experience to build our industry cloud solutions.

Here we discuss a few such experiences that have turned into successful industry-specific solutions, and we have taken these to many of our customers.

APEX Platform

Based on **our experience** of working with Multinational Consumer Packaged goods (CPG) organizations, and their last-mile challenge of supply-chain maintenance in developing countries we built the APEX platform. The APEX platform helps in making available, the right assortment of products, in the right quantity, at every store, and on every visit.

In developing South-Asian countries like India, there are lots of Kirana (small, typically family-owned businesses selling groceries) shops. Inventory fulfillment to these shops happens through the delivery network of suppliers. However, since these suppliers have no visibility into the supply and demand at each Kirana shop by SKUs, the product mix and quantities are determined at the delivery point. Consequently, it becomes a question of what is in demand versus what is available in the supplier truck.



APEX platform addresses this particular challenge through predictive analytics. **APEX is LTIMindtree’s Sales Analytics Platform that delivers store-level sales recommendations aimed at enhancing assortment and on-shelf availability by identifying the right assortment mix and optimum quantity to be sold to each store.** This is one of our early industry cloud solutions for the retail

NxT Insights Platform

The NxT Insights platform leverages AI-powered vision and Deep Learning (DL) models to perform material classification, label inspection, parts counting, quality inspection, and many such specific functions. It helps fast-track enterprises’ Industry 4.0 Smart and Connected Journeys.



The LTIMindtree NxT Insights platform is built using cloud-native / non-native features. Pre-trained analytical models that address problems specific to the manufacturing and construction industries are delivered through this platform. NXT Insights is envisioned based on our **experience** of working closely with and solving challenges faced in our parent company’s manufacturing and construction business.

Genie on the Go

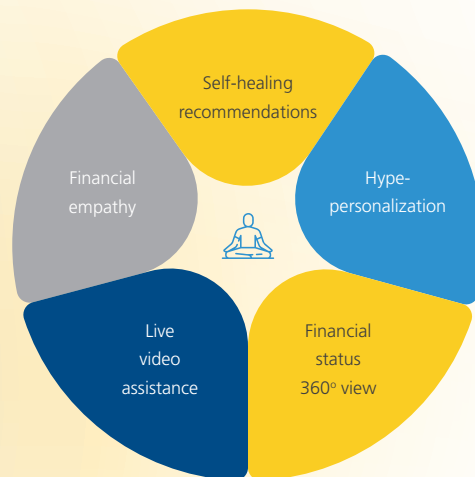
We work closely with many airlines, CPG organizations, hospitality providers, and cosmetic companies across the world. The constant problem/challenge that we hear is *“How do we engage effectively with our consumers?”* *“How do we convert consumer intent into actual purchases?”* *“How do we improve consumer loyalty?”*



To address these specific problems ‘Genie on the Go’ was built to engage with the customer on the go at a given customer context and location, dynamically, and allow them to purchase the goods on the go. Utilization of the loyalty points across a family of products in the purchase basket encourages the consumer to use the loyalty points. Seamless last-mile processing of delivery is done through the Deliver-on-the-Go solution.

Financial Engine for Well-being (FEW)

Finance is often an area of stress. For example, 41% of US adults¹ and 47% of UK adults² lack confidence when taking financial decisions. Similarly, 77% of British residents are facing stress while managing their finances³. The majority of the population in the Middle East, Asia Pacific and African countries have sub-par financial conditions. In the Middle East, the top 10% of people account for 64% of wealth⁴. Wealth inequality cuts across all geographies resulting in large segments of the population being vulnerable to maintaining their financial well-being.



Financial Engine for Well-being focuses on helping retail customers improve their financial health, helping micro, small, and medium enterprise owners in business growth, and enabling banking and financial institutions to improve their ESG score and also improve their revenue streams by facilitating cross-selling.

**For system integrators, it's a simple formula to follow to be part of this new Industry cloud trend -
 [(Expertise + Experience) * Product Engineering] + Domain knowledge = Industry Cloud Solution.**

Conclusion

Ultimately, we can confidently say that industry clouds are here to stay. Integrators need to take a closer look at the verticals where they have deep roots for common, industry-specific challenges, and focus their time, energy, and resources on co-creating the industry solution differentiators. The journey of any digital transformation going forward will see new dimensions and acceleration due to this industry solutions collaboration.

As system integrators tap into the full potential of the industry cloud boom, they must consider the following –

Collaborate to build an ecosystem

Work closely with customers to understand their business challenges at the root. Understand the existing business process flow, and while laying out the digital transformation path, consider injecting industry solutions as composable components, as applicable. System integrators must not forget to collaborate with service providers while evolving specific solutions.

Platform at the core

Using the automotive industry base platform and multiple vehicle models on top of it as a template, system integrators can create a common platform that can be quickly extended to another industry context. The platform enables innovation at a faster pace and allows differentiated solutions to be built for different industries.

Make it composable

Like microservices, specific solutions should solve specific autonomous problems, but easily integrate with the rest of the ecosystem.

About the Author



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Santhosh heads the Cloud Native Application Development Practice Group as part of the Digital Engineering service line at LTIMindtree and is based in Bangalore, India. This group is responsible for greenfield application development and application modernization using cloud-native services across all three hyperscalers. He has worked on large cloud transformation engagements to help customers in adopting the cloud efficiently. In his current role, he and his team are responsible for the successful implementation of cloud-native solutions and growing the cloud-native development business by creating cutting-edge solutions on the cloud and helping the sales team with GTM offerings, Requests for Proposal (RFP) responses, partnerships, and differentiators. He is a continuous learner and passionate about customer success.

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