TRANSFORMING DISCRETE MANUFACTURING
As the powerful convergence of technologies such as cloud computing, IoT, big data, analytics, and robotics changes our world, the manufacturing industry has the opportunity to transform itself. Connected machines and plants, smart factories, product servitization, remote maintenance, asset optimization, and sustainable production present manufacturers with opportunities for new revenue models as well as optimizing costs, impacting both top and bottom lines.

**Industry Imperatives**

The challenges that manufacturers face today are multifold. Adapting to transformational technologies at speed is critical for survival in the face of new and disruptive business models. To deal with demand volatility and supply disruptions such as the ones caused by the COVID-19 pandemic, geopolitical events, and tariff restrictions, manufacturing models and supply chains need to be flexible and adaptive. Increasing focus on sustainable manufacturing requires optimizing the use of assets and resources while reusing parts and components. The fast-changing landscape of customer preferences, demands, and interactions adds to the challenges.

In today’s technology-centric fourth industrial revolution, manufacturers need to transform their processes and create a modern digital platform to embrace technologies of the present and future. Oracle and Infosys have invested significant time and effort to help manufacturers build modern and resilient manufacturing platforms. With the tools and techniques that we have developed jointly, we accelerate the modernization journey while making it predictable for enterprises.

The need to engineer and build smarter products that not only perform their operational duties but also create feedback mechanisms for maintenance requires innovation to be at the heart of manufacturing design.

With the cloud being at the center of transformative technologies today, manufacturing enterprises must move to the cloud to navigate their future. An Infosys 2021 Cloud Radar study found that the cloud adoption rate, as well as performance cohorts of those adoptions, are among the highest for the manufacturing and hi-tech industry cluster. In short, the cloud is where the next generation of manufacturing is being built.

According to the Infosys 2021 Cloud Radar Study:

“Owing to the recent pandemic and other disruptions, manufacturers felt the impact across areas including dispatching technicians to repair machines, finding alternate suppliers in the event of shortage, and engaging with customers spread across regions and geographies. Manufacturers have taken the lessons seriously and have doubled down on digital transformation leading to greater cloud adoption across areas. Enterprises were forced to shift initiatives and restructure their business to combat the challenges brought on by the pandemic. While many were forced to focus solely on defensive priorities during the pandemic, the high-tech and manufacturing cluster targeted both defensive and offensive goals. Their top objective in 2020 was to speed up cloud deployment.”
Infosys Discrete Manufacturing Solution

As enterprises consider rapid cloud adoption, there are some changes occurring in IT transformation projects. Process harmonization across lines of business or geographies is time and resource intensive and often met with resistance to change. Coexistence with legacy ERPs poses increasing challenges in terms of desired scalability and flexibility. At the same time, business gaps in SaaS platforms hinder the adoption of the cloud across functions.

To overcome these challenges, Infosys brings a packaged industry solution leveraging the Oracle SaaS platform along with Infosys value-added features to help manufacturers with the capabilities they need across functions. A combination of Oracle SaaS, augmented through Infosys’ AI/ML-based analytics and prediction solutions, Infosys Live Enterprise Suite, and RPA solutions, Infosys Discrete Manufacturing is aimed at making cloud transformations focused, quick, and predictable.

The Infosys Discrete Manufacturing solution is a part of Infosys Cobalt – a set of services, solutions, and platforms for enterprises to accelerate their cloud journey. The solution offers 14,000 cloud assets and over 200 industry cloud solution blueprints. Infosys Cobalt services have the experience to envision and help build the “next” in manufacturing – from shaping sentient shop floors to digitalizing core manufacturing systems on the cloud.

Infosys Discrete Manufacturing accelerates the manufacturing modernization program, by bringing end-to-end business processes on industry-recognized SCOR/APQC models for discrete manufacturing firms. The solution has been developed based on 30 years of manufacturing industry experience and over 200 Oracle cloud engagements.

Key Features

- Covers all key processes such as sales, engineering, supply chain planning, manufacturing, purchasing, logistics, shipping, service, compliance, projects, finance, and human resource management
- Available for all manufacturing environments such as make to stock, make to order, configure to order, and engineer to order
- Preconfigured instances with end-to-end and key processes ready to use to give customers a head-start
- Infosys IP solutions to address emerging needs of the manufacturing industry - such as Engineer to Order Automation, Remanufacturing Solution, Material Waste Reduction, Smart Manufacturing, Solutions for Resilient Supply Chains, Servitization, Smart Quoting etc..
- Integration adapters for common satellite systems such as PLM, MES, and banks available for reuse
- Full set of implementation artefacts such as process flows, test scripts, testing scenarios, and data reconciliation available to avoid starting a project from scratch
- Approximately 80 OTBI reports, 50+ integration artefacts available across different functional areas

In addition, Infosys Discrete Manufacturing Solution uses the Infosys Live Enterprise Suite platform that hosts key dashboards and productivity solutions (such as workbenches, and dashboards), and pre-built analytics including AI/ML based ones (such as predictive quality, cash flow prediction, business KPIs, IoT data analysis etc.). The solution also contains chatbots and RPA-based automation solutions in different functional areas.

**Infosys IP**

- Material waste reduction
- Smart factory
- Smart quoting
- Digital field service
- Planning cloud accelerator
- Subscription solutions

**Solution Assets**

1. **Oracle Integration Cloud**
2. **Oracle Software as Service**
3. **Oracle Commerce Cloud**
4. **Oracle Workbench**
5. **Oracle Human Resource Management**
6. **Oracle Supply Chain Management**
7. **Oracle Field Service Management**
8. **Oracle Product Lifecycle Management**
9. **Oracle Field Service**
10. **Oracle WebCenter**
11. **Oracle Analytics Cloud**

**Infosys Differentiators**

- Cobalt
  - Repository of all cloud solutions
- Infosys Live Enterprise Suite
  - Workbenches and dashboards on PaaS for better UX and productivity
- Infosys Cloud Suite for Oracle
  - for accelerated deployments
  - integration repository using OIC
  - tool for data validation and conversion

**Oracle Integration Cloud**

- 12 Functional areas
  - Sales, engineering, supply chain planning, manufacturing, purchasing, logistics, shipping, service, compliance, projects, finance, and human resource management
- 4 Manufacturing environments
  - Make to stock, make to order, configure to order, engineer to order

**Oracle Software as Service**

- 10+ End-to-end flows
- Preconfigured instances available across flows
- 100+ implementation artefacts
- Process flows, test scripts, testing scenarios, data reconciliation – nothing to start from scratch
- 10+ Prebuilt solutions
- Solutions designed to plug the product white spaces are available for use as is, or as solution frameworks
- 50+ Integration designs
- Integration repository to common satellite systems such as PLM, MES, banks, and compliance
- 80+ Reports and KPIs
- Approximately 80 OTBI reports across different functional areas are available to use
Deployment and commercials

Infosys Discrete Manufacturing Solution is an end-to-end preconfigured solution with accelerators and add-ons that can be fully deployed by customers looking for a complete cloud transformation. The solution is also modular for customers who require a particular set of processes or functions to be moved to the cloud.

Infosys Discrete Manufacturing is available in different commercial models with only the solution pricing or a bundled pricing with one or more of the following - SaaS licenses, implementation services, and support services. The solution is built using industry best practices with a mix of SaaS and open-source technologies to ensure that the platform is extensible and scalable for years to come.

Benefits

Infosys Discrete Manufacturing Solution helps businesses jump-start their manufacturing modernization by:

- Enabling manufacturers with business capabilities essential to compete today- such as Smart Manufacturing, Resilient Supply Chains, Ability to Mass Customize products etc.
- Enabling manufacturers with Digital Sales and Services, deploying newer business models such as Servitization
- Accelerating the manufacturing modernization journey on the cloud platform
- Enabling shift to Industry 4.0 with a manufacturing platform that promotes innovation
- Leveraging existing investments by blending legacy on-premises and new cloud applications
- Allowing a modular architecture while delivering an end-to-end solution
- Driving continuous improvements through analytics driven insights and automation

Case Study

Infosys helped an Ohio-based manufacturer of equipment for data centers modernize their manufacturing, financials, and operations using a hybrid model of Oracle Cloud SaaS and Oracle on-premises applications.

Approximately 60 facilities (including plants, distribution centers, warehouses, contract manufacturing organizations, and service parts locations) were transformed as part of this program.

The modernization was completed in 15 months and helped the customer move from a multitude of systems for manufacturing, into a future-ready platform built using industry reference processes and architecture.

The modernization transformed the processes across the enterprise bringing all sales, operations, projects, services, and financials into one hybrid Oracle platform.

As part of this transformation, long-standing business needs were met. These included:

- Zero-touch engineer to order process
- Integrated sales and fulfilment of bundled products and services
- Comprehensive solutions for Aftermarket Sales, Cross Sell, UpSell of products, Upgrades and Replacements
- Revenue recognition solution
- Unified network of external service providers into the service execution solution

Infosys Cobalt is a set of services, solutions and platforms for enterprises to accelerate their cloud journey. It offers over 35,000 cloud assets, over 300 industry cloud solution blueprints and a thriving community of cloud business and technology practitioners to drive increased business value. With Infosys Cobalt, regulatory and security compliance, along with technical and financial governance comes baked into every solution delivered.

For more information, contact askus@infosys.com