



## Asset Performance Excellence - Cognizant's Comprehensive Game changing solution for Medical Device Industry

An integrated remote monitoring and predictive maintenance solution that delivers "Asset Management as a Service"

Radical, ongoing shifts in the healthcare industry are increasing pressure on the medical device industry to operate with more efficiency and agility while embracing innovative technologies. While the industry is operating under cost cutting pressure and implementing several cost containment initiatives, Hospitals and medical device manufacturers are doing everything they can to maintain quality and patient care.

Medical Devices Manufacturers are faced with challenges like need for high uptime due to criticality of the machines, high monetary loss due to service level failures and unplanned downtime due to reactive maintenance strategy. In addition to these challenges manufacturers also need to develop a strategy to address huge amount asset data spread asset types and across different facilities globally.

Failure to assess asset criticality and improper maintenance strategy will not only increase the cost of maintenance but also erode the competitive advantage in long run. Manufacturers are increasingly leveraging Industrial Internet of Things (IIoT) and Machine to Machine (M2M) technologies to meet increasing demand of business, and to gain deep insights into their assets' performance and to extract maximum value from their assets. IIoT offers radically new ways to make and think about products and to

operate assets and facilities and to achieve new levels of efficiencies in operations.

### Asset Performance Excellence Remote Monitoring. Predictive Strategies. Improved Productivity.

For over a decade, in the FDA-regulated business environment, the medical device manufacturers are facing unique challenges in the critical areas of quality & compliance. Cognizant's APEX (Asset Performance Excellence) solution is a comprehensive solution that enables Medical Device manufacturers to address these unique challenges & streamline their processes.

Asset Performance Excellence or APEX provides a smart platform focused on optimizing utilization of assets, align operations with overall business, helping companies in proactive and predictive maintenance of assets, and improve productivity and performance.

Built with cutting edge tools on IoT platform, APEX provides a single integrated view of enterprise information management that delivers the right information, in the right format, to the right person, at the right place and time, enabling to make the best possible decision. APEX helps turn what were mere machine data into actionable intelligence and prepare a robust strategy for predictive maintenance of assets.

# Comprehensive Asset Intelligence Strategy

APEX helps businesses take a collaborative approach towards managing asset performance, by creating a common platform to synchronize machine operations data, production, maintenance and corporate goals. APEX helps streamline the Medical Device Lifecycle end to end from Manufacturing & Assembly through Distribution & Maintenance process and ensures Quality & Compliance throughout the lifecycle.

Built on smart platform, it helps manufacturers remotely monitor the machines and deploy predictive maintenance strategies to achieve new levels of efficiencies in processes and operations.

**Integrated View, Real time visibility:** With an ability to integrate data from single or multiple sites, APEX securely captures data from various systems and various facilities like RFID, EAM, ERP, Device Data, GIS, etc. and provides real time visibility into asset performance for improved decision making.

**Analyze, Predict, Prevent:** Analytics Engine enables businesses to correlate data from diverse data sources to measure asset performance, run remote diagnostics, recognize evolving patterns in issues, analyze asset performance considering the condition and operational requirements of the assets and predict future state of asset failures.

**Standardize, Automate:** Helps standardize processes for managing asset performance across the organization and automate the maintenance management process

**Optimize Workforce:** Role-based user configuration, authentication, and authorization enabling right information to right people everywhere, with multiple levels of analysis.

**Delivering information and Intelligence as needed:** enables different views of manufacturing & business processes that can be configured as per the client's needs or user roles:

- Global/Organizational View for the Business Owner
- Business Owner's client View e.g. Hospitals, Clinics, Doctor's, etc.
- End Users View - Patients or their associates
- End to End Production View - Plant wise , Product wise and Shift wise
- Step by Step Process Flow View , which can be customized
- Operational View showing the Operation specific details e.g. Downtime by duration & occurrence along with analysis report, reworks details and operation metrics
- Maintenance View showing the Maintenance specific details e.g. Maintenance Cost spent/month against Target, Energy Consumption/month, Work Order details...
- Inventory View showing the Inventory specific details e.g. Lot ID, Material Ids current stock status ...

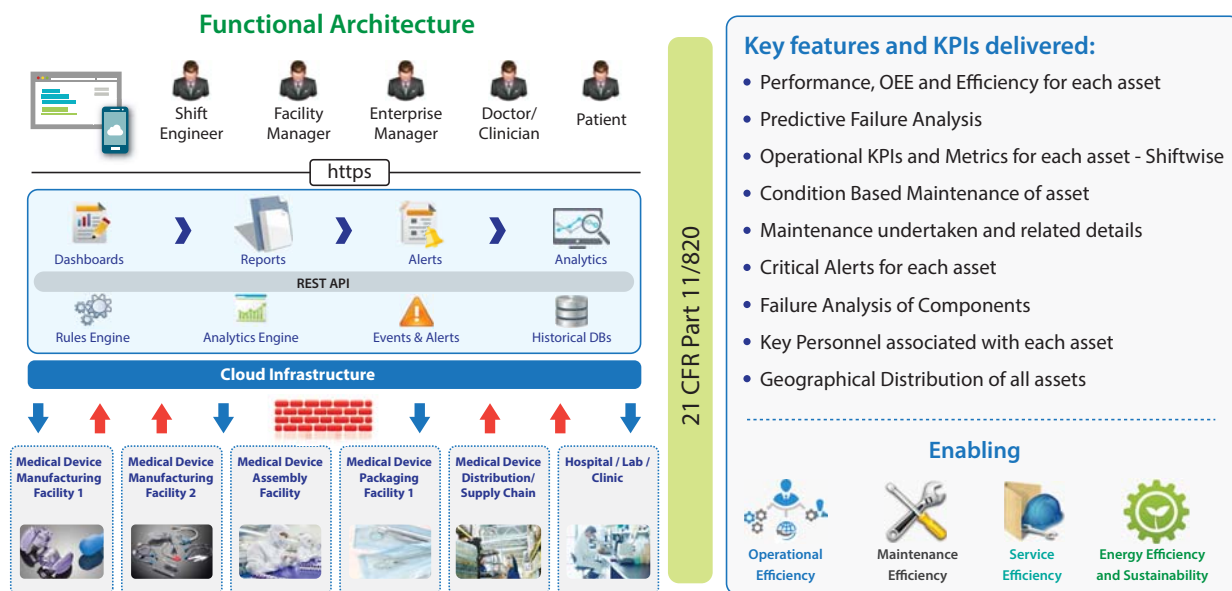


Fig 1: APEX for Medical Devices

## Benefits to Clients

APEX platform helps manufacturers Execute asset management strategy with a focus on improving Return on Asset.

- **Single source of truth:** Manage all asset across locations from a single platform and a single view
- **End to End visibility:** enhanced business agility
- **Faster Decision making:** Anytime, anywhere access to data through multiple devices
- **Improved Efficiency in Operations:** Improve asset availability, reliability and performance
- **Reduced TCO:** Reduced Maintenance cost
- **Increase collaboration** to achieve Operational and Organizational excellence
- **Improved OEE**
- **Optimizes production cost** by avoiding manual errors, recalls & streamlines the process
- **Efficient monitoring** of every step from Genealogy of every material used in the Medical Device across the lifecycle avoiding nonconformance & counterfeiting
- Enables to abide by the pre & post approved regulatory requirements governed by FDA

## Cognizant: Helping You Deliver Market-Leading Products and Performance

We help your company create superior medical devices and IVD platforms and successfully launch and support them with strategies, technologies and services that mitigate the many idiosyncrasies of today's healthcare market. We have helped our clients reduce development efforts by as much as 40%; shrink the design cycles up to 35%; accelerate time-to-market by 30% and deliver products at 40-50% lower price points.

Our life sciences business, clinical and technology experts leverage leading-edge technologies, state of the art labs, innovative development frameworks, accelerators and alliance partnerships to help your company optimize:

- **New Product Introductions:** Bring to market the products today's healthcare climate demands with our end to end services, from product portfolio assessment and market research through product development and design optimization.
- **Manufacturing and Supply Chain:** Achieve optimal process efficiencies with our comprehensive approach to and solutions for transforming operations.
- **Quality and Regulatory Compliance:** Meet and exceed global quality and compliance requirements with our proven programs.
- **Sustenance Solutions:** Ensure ongoing customer satisfaction and extract full value from your product portfolio with our post-launch support services.

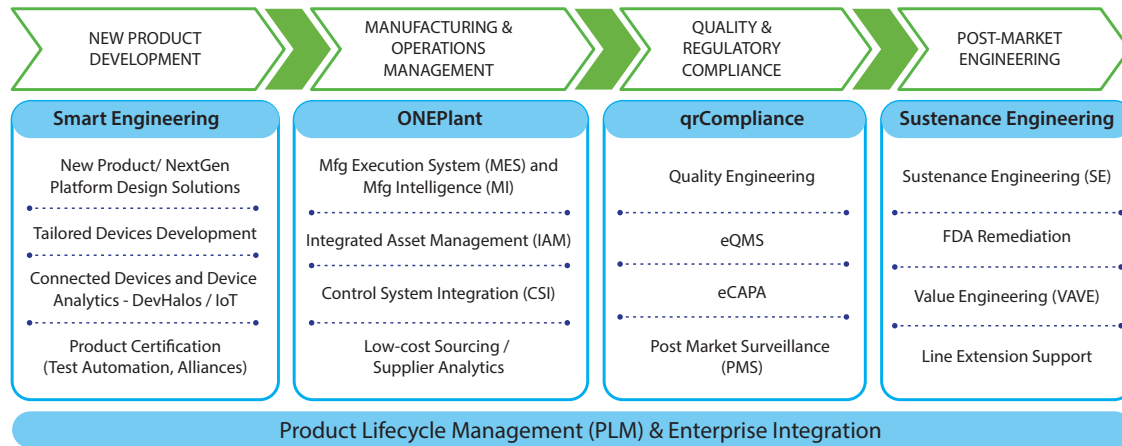


Fig 2: E2E Integrated Engineering Solution Offerings

Our business-oriented approach, extensive expertise in the therapeutics and diagnostics space and most important, the results we achieve for them is why 12 out of the top 20 global medical device companies and 27 out of the top 30 biopharma organizations choose to partner with Cognizant. They make our life sciences and healthcare the largest industry practice among all worldwide service providers.

## About Cognizant

Cognizant (NASDAQ: CTSI) is a leading provider of information technology, consulting, and business process outsourcing services, dedicated to helping the world's leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise, and a global, collaborative workforce that embodies the future of work. With over 100 development and delivery centers worldwide and approximately 218,000 employees as of June 30, 2015, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world. Visit us online at [www.cognizant.com](http://www.cognizant.com) or follow us on [Twitter: Cognizant](#).



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