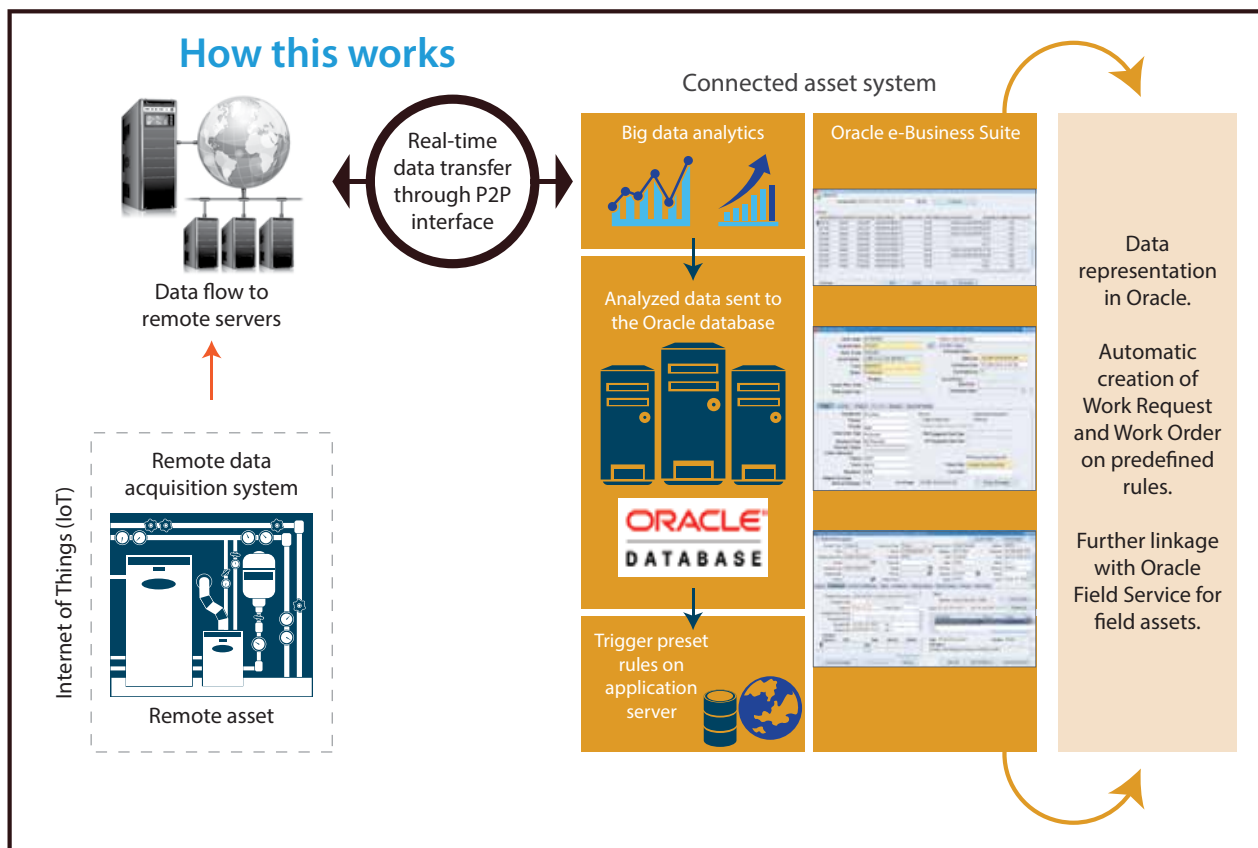# ASSET MONITORING & ADVANCED MAINTENANCE

Internet of Things (IoT), which is fueled by the latest innovations in information and communication technology, has led to connections that were never deemed possible earlier in the century. Now, machines that can communicate and collaborate with each other without human intervention can be connected.

Asset Monitoring & Advanced Maintenance solution, designed by Infosys uses IoT to ease the way in which operations and maintenance tasks are executed. Infosys has developed this in-house solution on Oracle e-business suite to capture real-time data from various asset units installed across locations and monitor

them to deliver a maintenance service par excellence. With inherent ability to sense data deviations and act proactively, IoT-enabled Oracle EBS capabilities can result in the highest levels of asset utilization and overall system efficiency.

How this works

Connected asset system

Real-time data transfer through P2P interface

Data flow to remote servers

Internet of Things (IoT)

Remote data acquisition system

Remote asset

Big data analytics

Analyzed data sent to the Oracle database

ORACLE DATABASE

Trigger preset rules on application server

Oracle e-Business Suite

Data representation in Oracle.

Automatic creation of Work Request and Work Order on predefined rules.

Further linkage with Oracle Field Service for field assets.
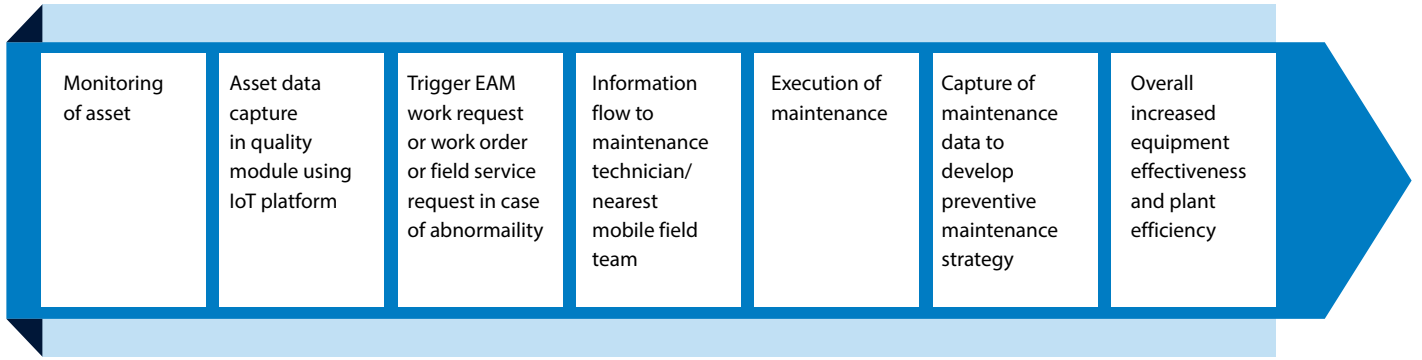
Infosys offering

Infosys aims to provide an asset monitoring solution that integrates every aspect of asset maintenance; from monitoring the health of asset-using quality module, creation of work requests, work orders, preventive maintenance using Oracle enterprise asset management (EAM) module to automatic spare part replenishment using inventory and

purchasing module. This solution can further create field service requests for field assets. And also brings to the table an intelligence on the nearest available mobile field teams to assist planner in planning the field service jobs. The scheduled job information quickly flows to the nearest field team on their mobile devices. On completion of the task,

information flows back to the application and the field request is closed. Complete automation of data collection and data analysis ensures painless execution of maintenance requests that eventually increase the uptime of machines. This increases the overall plant efficiency and customer order fulfillment capability.

Monitoring of asset	Asset data capture in quality module using IoT platform	Trigger EAM work request or work order or field service request in case of abnormaility	Information flow to maintenance technician/ nearest mobile field team	Execution of maintenance	Capture of maintenance data to develop preventive maintenance strategy	Overall increased equipment effectiveness and plant efficiency

Solution benefits

Remotely connected assets and autonomous monitoring without human intervention	Remote monitoring both onsite and offshore	Remote authorization of assets	Holistic view of assets and equipment	Archive historic maintenance data to formulate preventive maintenance strategy
Substantial increase in uptime of asset and reduced maintenance costs	Compliance with regulatory laws such as OSHA and increase in workplace safety by reduction in accidents	Track important parameters such as mean time to repair (MTTR) and mean time between failure (MTBF)	Increase overall equipment effectiveness (OEE) and overall plant efficiency (OPE)	Automatic spare part replenishment

Industry-wide applicability

Manufacturing	Transportation	Food and beverage	Oil and gas	Metals and mining	Healthcare	Waste management
Capture critical asset parameters, track abnormality to avoid failures, formulate preventive maintenance strategy	Capture speed, mileage data to schedule preventive maintenance, and report breakdowns	Quality and weight analysis of food produced to record any deviation and implement preventive maintenance plan	Temperature and pressure analysis to detect losses and schedule maintenance tasks accordingly	Preventive maintenance of mining equipment	Critical data analysis of health statistics of patients to ensure timely scheduling of preventive tests	Water purity and content analysis for detection of deviations from standards and schedule maintenance appropriately

Indicative only. Applicable to many more industries and varied business scenarios

Infosys®
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For more information, contact askus@infosys.com