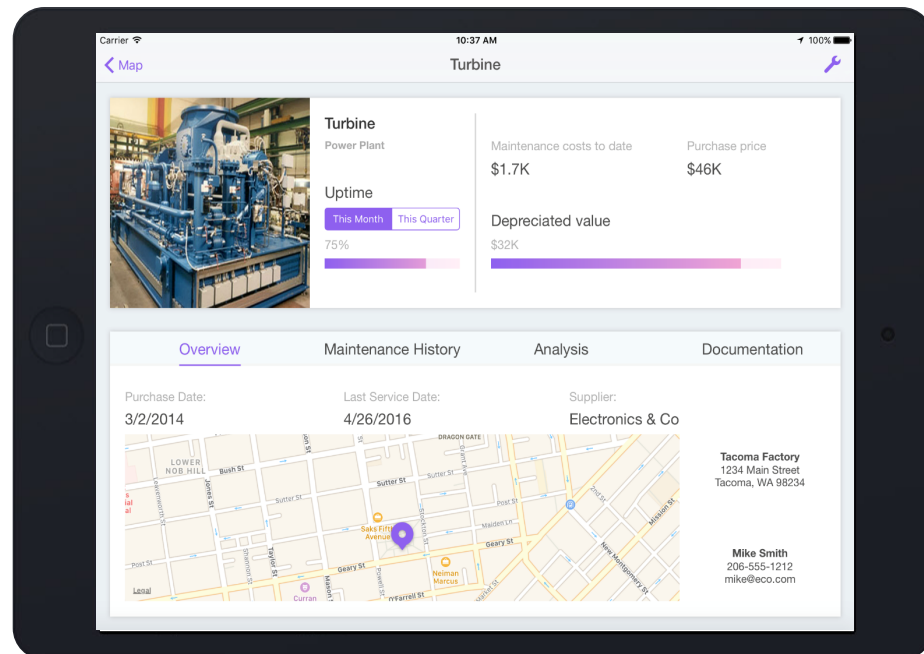# Take Charge of <mark>Asset Maintenance</mark> with Mobile and Predictive Tools

Asset intensive industries are constantly under pressure to reduce costs and extend the lifespan of expensive machinery and critical assets.
To facilitate condition-based maintenance of these assets, sensors are being deployed on assets to constantly monitor their status. With SAP's IoT and Predictive analytics capabilities, this data can now be harnessed to drive the next stage in the maintenance maturity model: Predictive Maintenance.
Our iOS-based solution can help technicians to proactively monitor and maintain assets in the field and perform repairs before the equipment fails and causes disruption to the business.

ENTERPRISE ASSET MANAGEMENT CHALLENGES AT UTILITIES

Utilities face several challenges when ensuring that thousands of assets are well maintained to avoid any disruption to electric, water, or gas service. Apart from the sheer number of assets, other challenges include:

CHALLENGES

Regulatory Requirements	Unexpected or unplanned regulatory inspections and maintenance within specified time periods. Need to produce proof of completion and results
Field Worker Expectations	In today's digital age, field workers expect to use the same mobile tools that provide significant convenience in their personal lives
Social Media Reputation	Unplanned or extended outages can quickly become a public relations issue with the rise of social media platforms
Cost pressures	Utilities are constantly under pressure to increase speed, efficiency and accuracy while reducing costs to maximize the productivity of their geographically distributed assets

To address these challenges, we have created a mobile solution that allows utility companies to take a proactive approach to maintenance rather than the current traditional reactive or preventative approach.

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FOR MORE ON APPLE AND DELOITTE VISIT WWW.DELOITTE.COM/APPLE

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DELOITTE'S MAINTENANCE & RELIABILITY ENGINEER APP

Through a combination of field surveys and Deloitte's extensive experience, we offer a mobile capability that can revolutionize maintenance at utility companies. With this tool, you can manage your existing preventative and reactive maintenance process, and now extend them to become predictive and proactive.
Below are some of the key features of the solution:

Predictive Analytics	Allows the engineer to analyze the real time and historical data to help predict failures using multiple algorithms in the field
IoT Real-Time Data	Engineers can monitor critical parameters with real-time data received from the sensors installed on the equipment
Maintenance History & KPIs	Displays historical maintenance data along with key metrics including Mean Time Between Repair (MTBR), Mean Time to Repair (MTTR), and capacity utilization of the equipment
Map View	Engineers can view scheduled work and the planned route as well as other assets in the field. Nearby crews can be contacted for support
Machine Master Data	Displays nameplate details of the asset from its master data
Create Maintenance Requests	Create maintenance requests for any specific equipment by the reliability engineer and notify the maintenance team to take corrective actions based on the observations

BUSINESS IMPACT

Improvements as a Result of Mobilizing	Mobile work management solutions can help organizations experience a 15-20% average increase in technician productivity and 20-30% average increase in dispatch overhead Source: How to Build a Business Case for Field Service Management Software Investment, Gartner, Feb 2017
Asset Reliability Improvements from IoT	Deployment of sensors on equipment is projected to result in 5-10% Reduction in maintenance costs and 5-10% Reduction in equipment capital investment by extending the useful life of machinery Source: The Internet of Things: Mapping the Value Beyond the Hype, McKinsey Global Institute, June 2015

BENEFITS OF APPLE DELOITTE SOLUTIONS

- Transition in operations strategy from reactive to proactive to predictive maintenance
- Reduced downtime length and frequency (SAIDI and SAIFI)
- Predictive analytics and insights in the field
- GPS-enabled visibility to nearby work
- Real-time data capture using IoT sensors for better visibility
- Enhanced visualization of assets for better decision making
- Social collaboration with nearby technicians

REIMAGINE WORK.
FREE THE ENTERPRISE.

The world is completely connected, and iOS devices are designed for our mobile lifestyles. Apple and Deloitte have joined forces to help employees work the way they live: sharing information; accelerating ideas; connecting people, inventory, supply chains, and customers on the same devices they use every day. The leader in consumer experience and the leader in enterprise digital transformation have come together to Free the Enterprise.