



Outcomes based Solutions powered by IoT

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50

Billion devices
by 2018

8

Zeta bytes
of data today

\$3

Trillion market
by 2020



IoT is at the top
of the Hype Cycle

Our Goal: Make IoT Easy to
Drive Business **Outcomes**



Yet, IoT is hard

1. Lack of clarity
2. Where do I start?
3. Ambiguous ROI

Business Outcomes

(Impact business processes
through IoT data from
connected assets)

1 – 2 – 3

(Get there with simple steps)







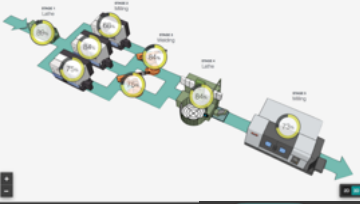







Get Smart

(Predictive, machine
learning algorithms)

Automate

(Integrate with business
applications)

Oracle IoT Cloud Applications & Industry Solutions

<p>Monitor assets, their health, utilization & availability</p>	<p>Manufacturing equipment & production line monitoring & prognostics</p>	<p>Monitor shipments, fleet vehicles, driver behavior and costs</p>	<p>Enhance worker safety through monitoring of workers and environment</p>	<p>Automate asset monitoring and customer service to enhance customer experience</p>	
<p>Asset Monitoring</p> 	<p>Production Monitoring</p> 	<p>Fleet Monitoring</p> 	<p>Connected Worker</p> 	<p>Service Monitoring for Connected Assets</p> 	
					
<p>95% Asset Availability</p> <p>1 Open Incidents</p>	<p>2% Down</p> <p>78% In Use</p> <p>3h to 5h ago</p>	<p>68% On Track</p> <p>5% Down</p> <p>3 Driver Alerts</p>	<p>21 Over Time</p> <p>3 Evacuation risks</p> <p>0% Unsafe Zones</p>	<p>38% Assets Connected</p> <p>63% Asset Utilization</p>	
<p>Internet of Things Cloud Enterprise (Platform)</p>		<p>Connect </p>	<p>Analyze </p>	<p>Integrate </p>	<p>Learn </p>

Available

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How do we extend CX applications to deliver a new value driven solution for our customers?

X-Industry

Digital Field Service **B2C & B2B**



95% Asset Availability **1** Open Incidents

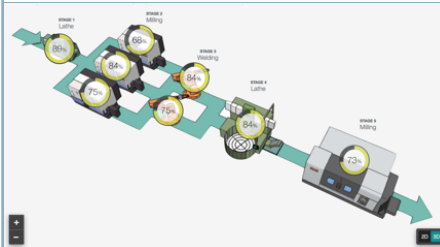
B2C: Service Cloud
Field Service Cloud

B2B: Engagement Cloud
Field Service Cloud

IoT Asset Monitoring

Industry X.0

Smart Connected Factory



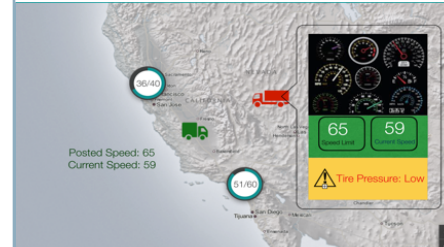
2% Down **78%** In Use **3h to 5h ago**

Supply Chain Mgmt Cloud
ERP Cloud

IoT Product Monitoring

X-Industry

Digital Fleet Management



68% On Track **5%** Down **3** Driver Alerts

Logistics: Logistics Cloud

Fleets: Service Cloud
Field Service Cloud

IoT Fleet Monitoring

X-Industry

Digital Spaces Monetization

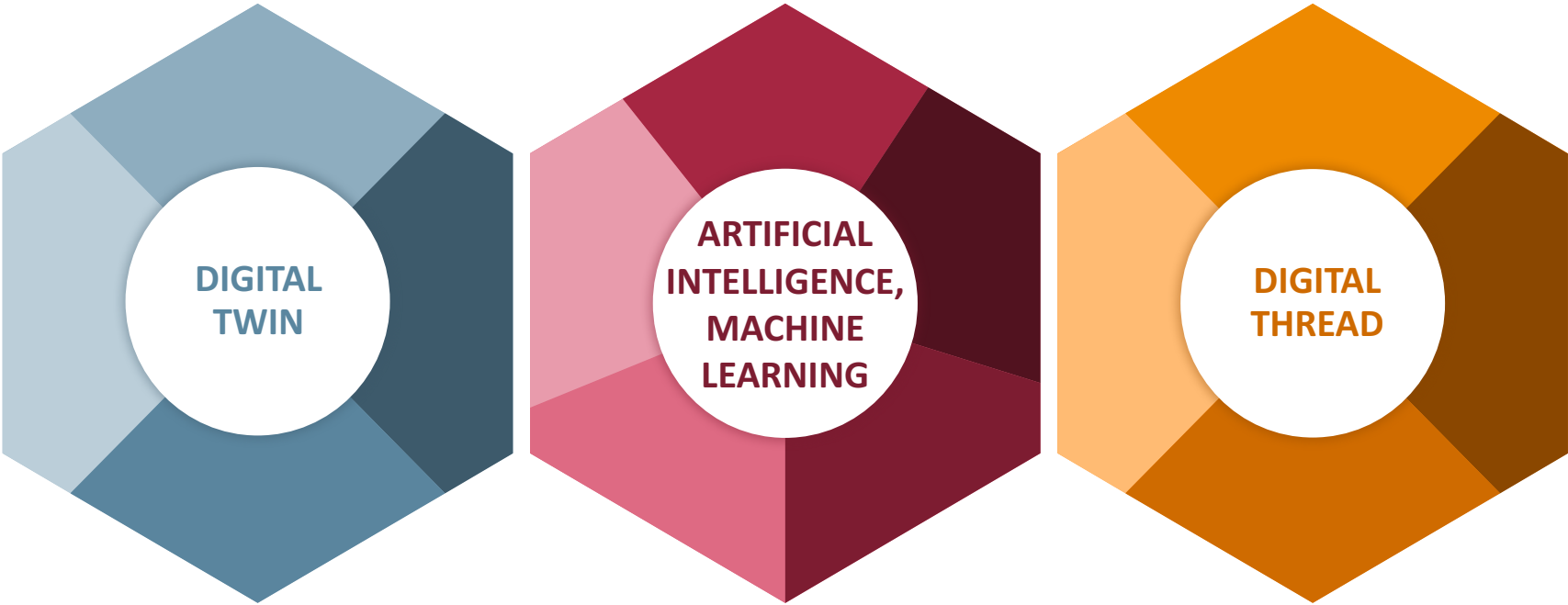


21 Over Time **3** Evacuation risks **0%** Unsafe Zones

Marketing Cloud

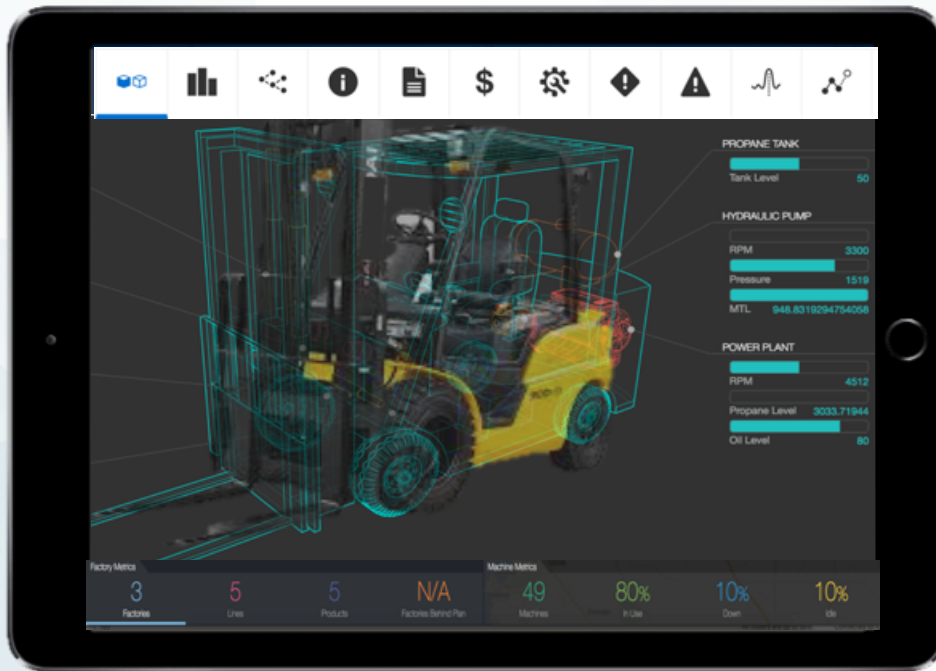
IoT Cloud
Mobility Cloud

The Future of Applied IoT for Manufacturing



Digital Twin

Simplify Interaction with Physical Assets



Digital Twin: IoT made Simple



Visibility & Digital Interaction model

Single pane of glass – 360 degree view of assets

- KPIs
- Incidents
- Maintenance
- Financials



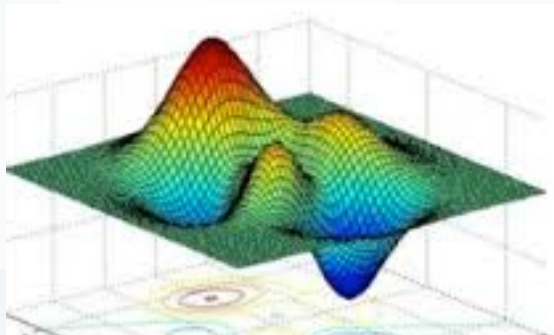
Business Context, Hierarchical, Relationships

- View the asset in the context of the business processes, and relate it to other assets and hierarchies



AI & Machine Learning

Applied ML and Specialized Time-series Algorithms



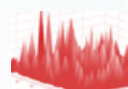
Analytics models

Predictions **Logistic regression**
Symbolic Aggregate approximation
Support Vector Machine **Random Forest**
BAYESIAN NETWORK **Correlation Analysis**
Decision Tree **Linear regression**
Grubb's test **Kernel Density Estimation**



Operational Analytics

- Detect anomalies
- Predict failures



Specialized time series algorithms to analyze IoT data.



Automatic model creation and tuning



Predictive models using IoT data + Business data (Manufacturing, Maintenance, Service, Logistics, Warehouse, Financial, ERP data)

Digital Thread with Supply Chain Management



Interconnected supply chain with real time visibility

- Design → Manufacturing → Logistics → Transportation → Service



Integrate Organization Silos

- IT and OT, Logistics and Finance, Production and Design



Transformative Business Models

- Product as a Service, Dynamic planning based on demand signals

A man in a dark suit, light blue shirt, and dark tie is looking at a tablet. The background is a blurred city night scene with bokeh lights. The image is overlaid with a teal geometric pattern.

Digital Field Service Leveraging IoT Asset Monitoring

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Service is the New Battleground for Driving Sales, Capturing and Retaining Customers

- **Results:** Move towards “outcomes” based service contracts
- **Real Time:** Shift from reactive to predictive service models
- **Smarter:** Customer experience is becoming more personalized, more connected and more data driven



Higher Customer Expectations...

Enabled by Digital Technology

Zendesk

45%

of customers shared their bad customer experience via social media

Accenture

52%

of customers are willing to switch supplier because of bad customer service

Kolsky

86%

of customers are willing to pay for better service

Gartner

>50
Billion

number of IOT enabled "things" by 2020

Gartner

40%

of all data generated by 2020 will come from sensors

US Department
of Energy

25%

reduction in asset maintenance costs due to advanced technology

DID YOU KNOW?

Power By The Hour

Rolls-Royce paid for “continuous uptime,” rather than revenue from turning wrenches during aircraft downtime



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Inefficiencies Plague Current Approaches

Manual

70%

Businesses rely on manual techniques to locate & track assets

#1

Reason for unplanned asset write-offs is inability to locate them

Reactive

25%

Of service calls require repeat visits

30%

Of customers demand more predictive and proactive services

Costly

76%

Of Field Service Orgs are struggling to achieve profitability

25%

Of total operating costs of a typical mfg company is for asset maintenance

Oracle Digital Field Service

A modern, cloud based offering,
Transforming service businesses

Monitor



**Remote Monitoring and
Predictive Maintenance**

Increase Equipment Uptime

Resolve



**Remote Issue
Resolution**

Reduce Cost of Service

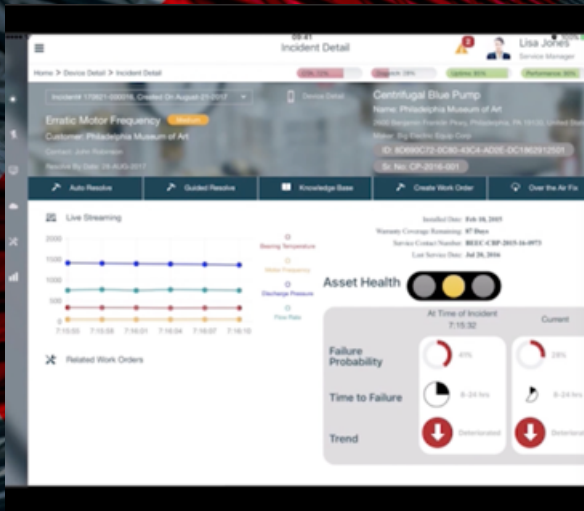
Optimize



Optimized Dispatch

Improve First Time Fix Rate

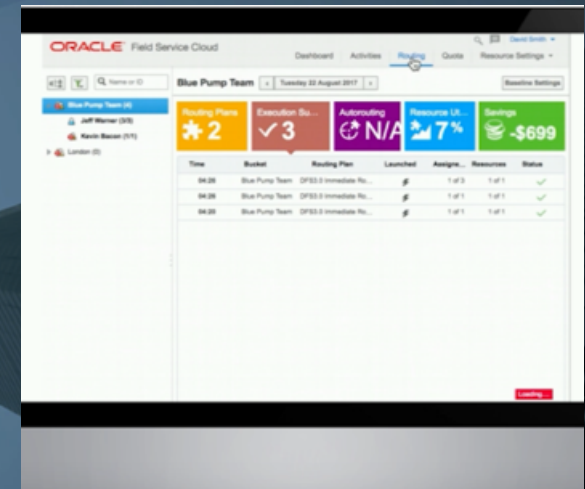
Digital Field Service: Demonstration



Real-Time Predictive Analytics with integration to Service Cloud & IoT Asset Monitoring



**Asset Simulator
Digital Twin of Connected Asset**



Oracle Field Service Cloud



**Service Manager –
Lisa Jones**



Connected Assets



**Dispatcher –
David Smith**



**Field Service Technician –
Jeff Warner**

Smart Connected Factory (City, Campus...) Leveraging IoT Production Monitoring

Automation
machine

PERFORMANCE CHECK

Part No. 11 - 81%

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Manufacturing Industries are Experiencing Considerable Disruption

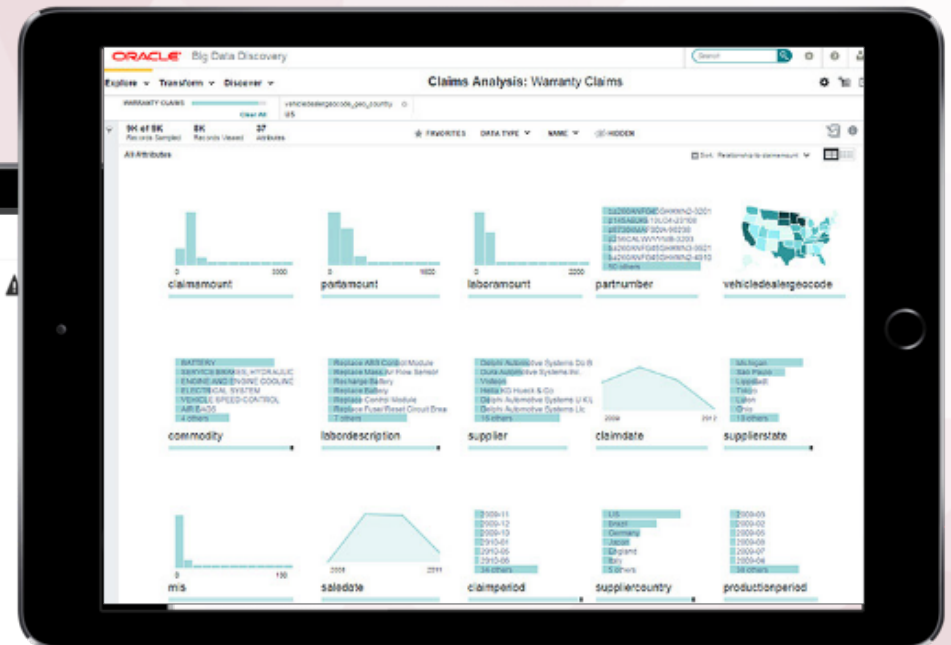
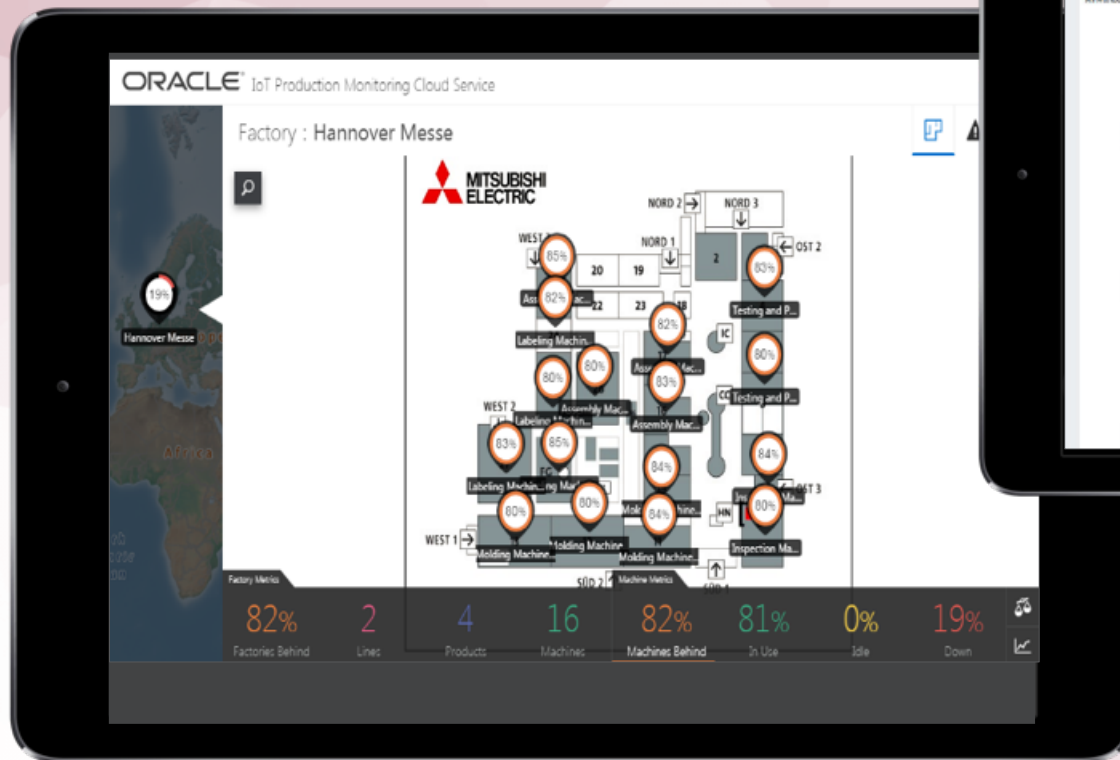
- **Consumer demand volatility** is changing manufacturing processes.
- **Market competition** is constantly putting pressure on Executive decisions.
- **New digital business models** are disrupting manufacturing companies.
- **We are only at the beginning** of the 4th industrial revolution.



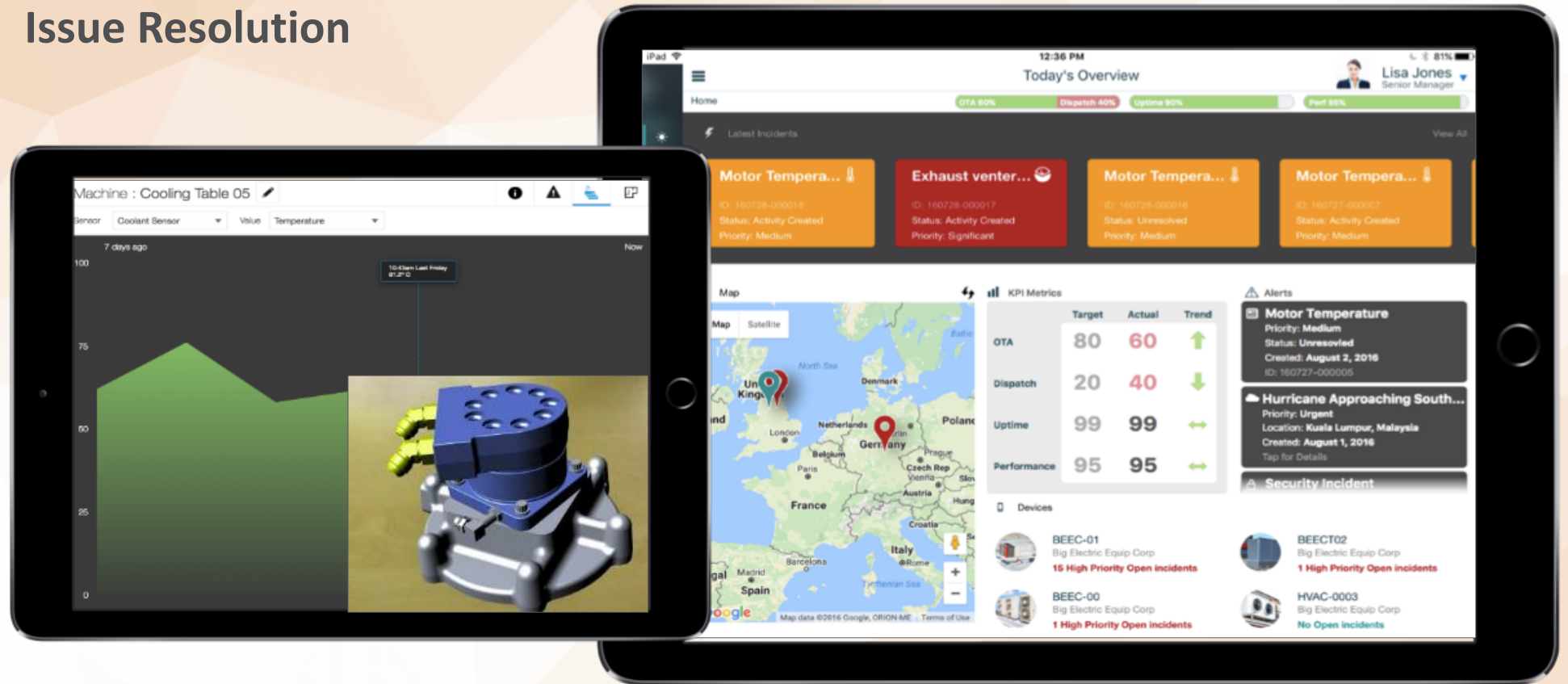
Connected & Disconnected Factories Monitoring



Production Monitoring & Predictive Maintenance



Asset Monitoring and Predictive Issue Resolution



Oracle IoT Cloud Applications & Industry Solutions

Monitor assets, their health, utilization & availability

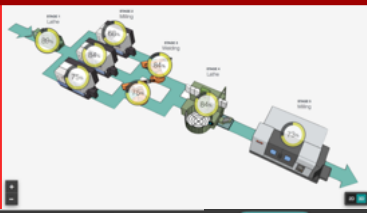
Asset Monitoring



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Production Monitoring



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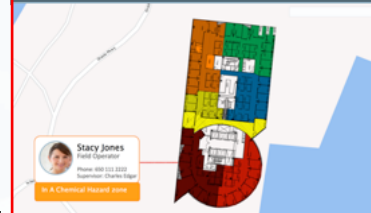
Fleet Monitoring



68% On Track
5% Down
3 Driver Alerts

Enhance worker safety through monitoring of workers and environment

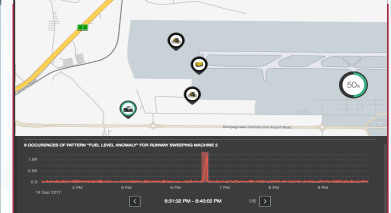
Connected Worker



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Service Monitoring for Connected Assets



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Analyze



Integrate



Learn



Available

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Take the Next Step Forward

- Learn More from the detailed information on Sales Central
- Speak with an Oracle representative
- Schedule a discovery session

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