IOT and Big Data
Disruptive forces in Business

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Digital Disruption: Consumer Engagement

IoT, Is Actively Driving Digital Disruption
The Opportunity Is Big....

By 2020
$3 Trillion Market

By 2020
25 Billion Devices

Today
8 Zeta bytes of data

Source: BI Intelligence Apr 2016
IoT Adoption
Global Implementation Investment by the end of CY2016

- 43% of businesses to implement IoT (50% growth over CY2015)
- An additional 21% planning to implement in CY2017
- Heavy industries (utilities, oil and gas, and manufacturing) leading with 56% adoption

Gartner Survey, March 2016
IoT is enabling new business models.

Maintenance

Break / Fix or Scheduled

Preventative

Predictive

Prescriptive

Ownership As a Service

Consumption Model

Ownership

As a Service

Service

Central Service

Self-Serve / Self-Guided Service

Business Analytics

Static Analytics

Real-Time Big-Data Analytics

Self-Serve / Self-Guided Service
The OT-IT Disconnect

Today, many conditions are manually detected, and then manually entered in the business applications.
IoT Deployment Phases

Time to Value

Business Value

Connected Assets
- Remote monitoring
- Business validation

Predictive Analytics
- Proactive decisions
- Improved products

Service Excellence
- IoT blended into enterprise applications
- Differentiation through customer experience
Introducing: Oracle Internet of Things Cloud Service

- **Connect**: Reliably and securely collect data from devices
- **Analyze**: Perform real-time, Big Data and predictive analytics on IoT streams and events
- **Integrate**: Seamlessly extend enterprise Applications and processes with IoT data

- Get started quickly and with no up-front capital costs
- Scale your applications rapidly as your business evolves
IOT Cloud Service - Connect

Devices

- Digital Twin
  
  Software representation of a physical device/asset

--trained System Integrators
  
  Multiple System Integrator partners are trained to connect a wide variety of devices

- Client Libraries and Gateway Software
  
  Connect directly or via a gateway

- Certified Device Partners Ecosystem
  
  Certified Gateways and endpoint devices

Connect

- Analyze
  
  - Stream Processing, Business Intelligence
  
  - Pre-built Patterns

- Integrate
  
  - EBS Asset Mgmt, JDE
    
    Condition based Maintenance, Logistics

  - Third-party or custom App integration

Business Applications

- E-BUSINESS SUITE

- SALES CLOUD

- JD EDWARDS ENTERPRISEONE

- SERVICE CLOUD

- FUSION APPLICATIONS
**IOT Cloud Service - Integrate**

### Devices

**Zero Effort Integration with Oracle Apps**
Pre-built Integrations with Oracle Applications such as Service Cloud, E-Business Suite, JD Edwards, Fusion Applications

**Minimal Effort**
Integrate using a large set of built-in adapter in Integration Cloud Service

**Custom**
Build your own integration using HTTPS/REST APIs

### Connect

**Device Virtualization, Secure Device Onboarding**

**Reliable, Bi-directional communication**

### Analyze

**Stream Processing, Business Intelligence**

**Pre-built Patterns**

### Integrate

**Integration Cloud Service**
Oracle IoT Applications

### Asset Monitoring

For monitoring assets, their utilization, availability, and data from connected sensors

- **95%** Asset Availability
- **1** Open Incidents

### Production Monitoring

Manufacturing factory floor equipment monitoring and prognostics

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

### Fleet Monitoring

For medium sized business who have fleets of vehicles (trucks, buses, maintenance vehicles, delivery vehicles)

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

### Connected Worker

For tracking employees in Mining industry, Engineering and Construction industry

- **21** Over Time
- **3** Evacuation risks
- **0%** Unsafe Zones
Oracle IoT Cloud Service

and extend the reach of the IoT and business applications to your physical devices and sensors.
Oracle IoT Deployments - Remote Monitoring

**Oracle IoT Deployments - Remote Monitoring**

- Next generation sensor-driven building automation
- Reduce the number of “truck rolls”
- Integration with Oracle Service Cloud and SAP

- Real-time filtering and processing of valve events
- Proactive parts replacement
- Integration with CRM and Service Ticketing system

**Berkshire Hathaway Automotive**
- Drive better Customer experience at every dealership
- Deliver targeted promotions based on driving behavior
- OBDII integration with IOT, Mobile and Service Cloud

**SoftBank**
- IoT to deliver mobility as a service
- Monitoring vehicle location for billing and geo-fencing
- Launched in Mar 2016 in Japan
For More Information

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