



# I M P A C T

A I • I O T • B L O C K C H A I N

# Safe Harbor Statement

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A photograph of a modern cityscape at sunset. In the foreground, a curved glass walkway or balcony railing is visible, leading the eye towards the background. The background features several tall skyscrapers, including the Shanghai Tower, under a warm, orange and pink sky. The overall mood is futuristic and urban.

# The Promise and Perils of Transformational Technology

**ASHISH MOHINDROO**

Vice President, Oracle Cloud Platform

**ORACLE**

# Emerging Technologies Are Creating New Opportunities



**Artificial  
Intelligence /  
Machine Learning**



**Blockchain**



**Autonomous  
Software**



**IoT**



**Containers /  
Serverless /  
Microservices**



## CHALLENGES ORGANIZATIONS ARE EXPERIENCING IN CLOUD

High Cost of  
Software  
Operations

Significant Effort  
to Secure

Reactive  
Management

Lack of AI / ML  
expertise

# Cloud Automation Journey



**Customer  
Managed**

**Focus: Max Control**



**Cloud Vendor  
Managed**

**Focus: Operational  
Efficiency, SLAs**



**Autonomous  
Cloud**

**Focus: Innovation,  
Lower Risk**

**Increasing Automation**

# The Future is Autonomous: **By the Numbers**

**90%**

of enterprise applications  
will feature AI

**>50%**

of enterprise data  
managed autonomously

**86%**

of IT leaders believe  
automation is critical

# Security Challenges

**85%** of the attacks have a patch available for more than 1 year

**74%** of businesses take more than 3 months to patch



# ORACLE'S VISION FOR SOFTWARE



**2000s**

Manual Configuration  
Manual Monitoring  
Manual Management  
Manual Scale Out




**2020?**

Software Configures & Scales Platforms  
Software Automatically Manages Platforms  
Software Learns & Tunes Platforms  
Software Predicts & Avoids Problems

# CUSTOMER BENEFITS

- Move from operations to innovation
- New ways to develop and deliver services and experiences
- Use the abundance of data to drive better outcomes
- See the signals and adapt faster
- Run your organizations smarter, more efficiently, securely



New Category of Platform as  
a Service: Automation Based  
on *Machine Learning*

# ORACLE AUTONOMOUS CLOUD

## Self-Driving

Automatically provision, secure, monitor, backup, recover, tune and upgrade.

## Self-Securing

Automatically apply security patches with no downtime.

## Self-Repairing

Maximize availability; downtime < 2.5 min / mon for planned & unplanned.



# Oracle Autonomous Cloud Platform



Application Development



Analytics



Mobile and Bots



IoT



Blockchain



Service and Integration



Data Management



Security and Management

# AUTONOMOUS DATABASE



Automated  
Database  
Operations



Policy-driven  
Optimization, ML



Database  
Optimized  
IaaS



# Hertz

## Enterprise Data Warehouse

- 1000s of locations with 10,000s of customer touch points a day
- Spin up a new database quickly; from 2 weeks to 8 minutes
- Reduced 70% of project launch time
- Every hour removed from admin now spent on innovation

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# Application Development

Policy-driven  
Optimization, ML



# Develop and Deploy on infrastructure of Choice

Infrastructure

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# Choose any SQL, NoSQL, Graph, or In-Memory DB

Database

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Powered by  
MySQL®

 **hadoop**

 **Cassandra**

 **redis**

  
PostgreSQL

 **mongoDB**

 Microsoft®  
SQL Server™

Infrastructure

  
Virtual

  
Bare Metal

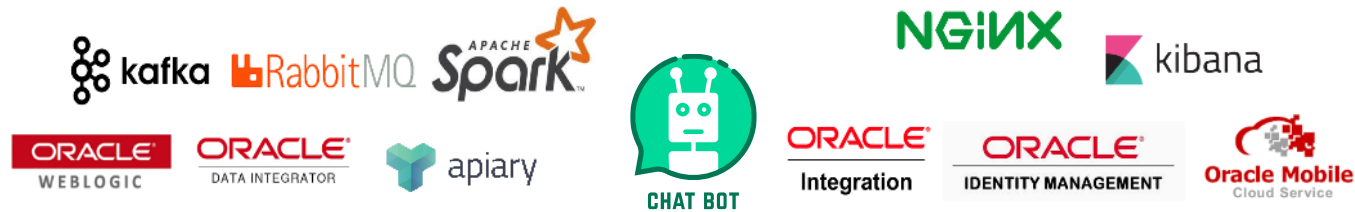
  
**docker**

**f(x)**

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# Wide range of middleware cloud services: no lock-in

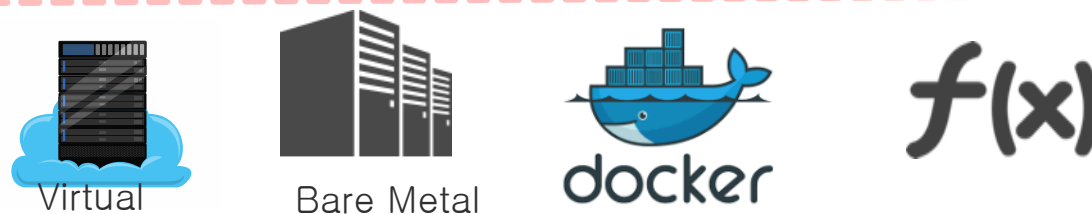
## Middleware



## Database



## Infrastructure



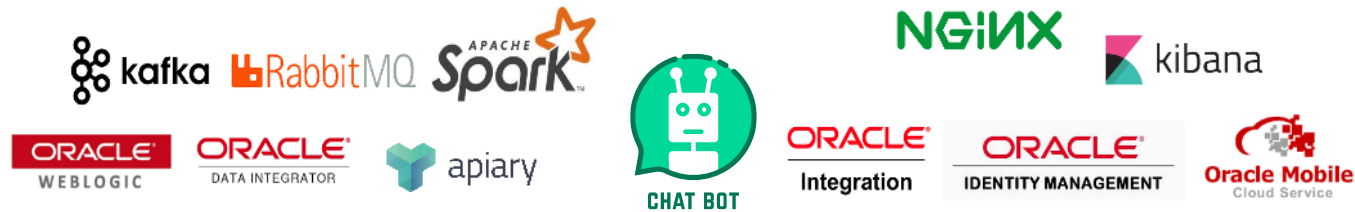
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# Oracle Cloud: 1000+ certified open source offerings



# Wide range of middleware cloud services: no lock-in

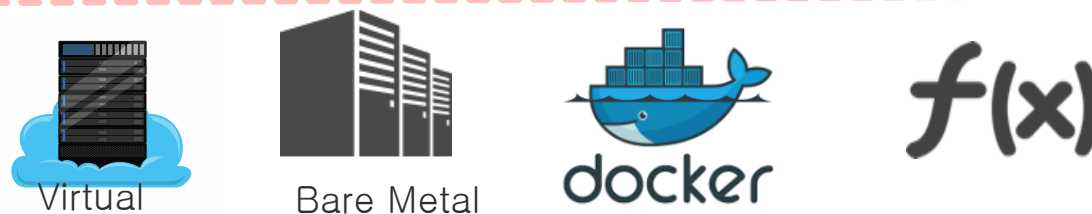
## Middleware



## Database



## Infrastructure



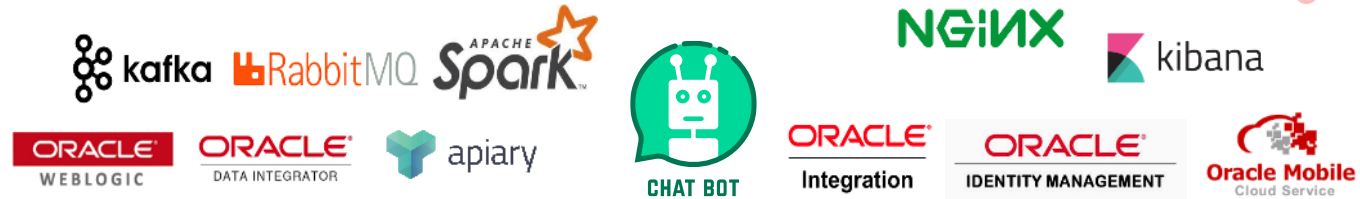
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# Develop apps using languages & frameworks of your choice

Languages,  
Frameworks



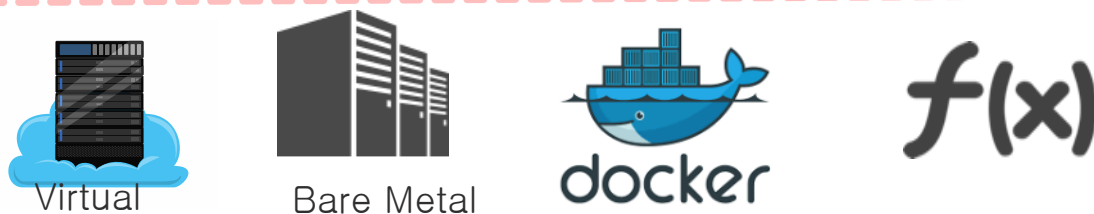
Middleware



Database



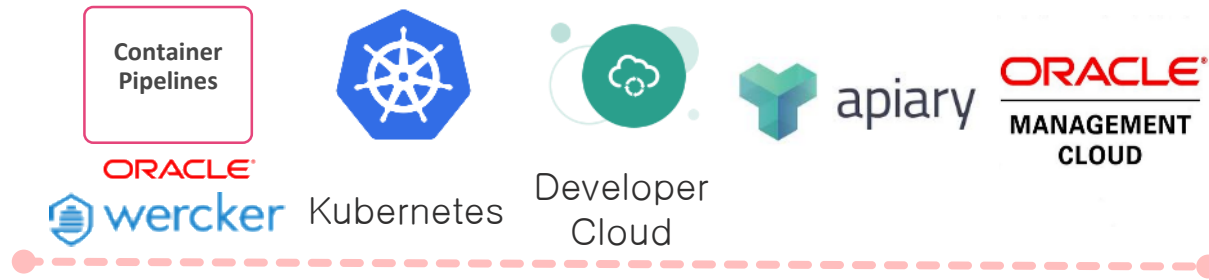
Infrastructure



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# Build, deploy, operate with CI/CD

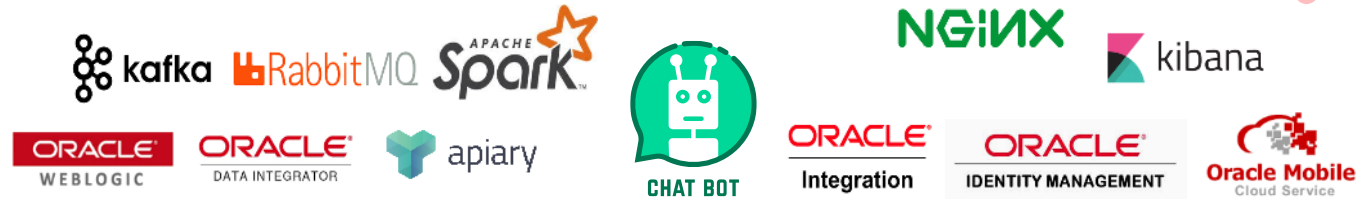
## DevOps Tools



## Languages, Frameworks



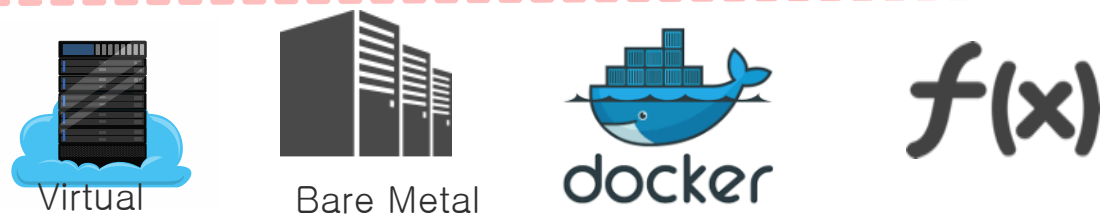
## Middleware



## Database



## Infrastructure



# DevOps automation



Source Control

git

Build, Test, Publish, Deploy

wercker  
JIRA  
Jenkins  
Se

Workflow

servicenow

Create & Operate Environment

kubernetes

Bare Metal

Virtual

Containers

Serverless





VERITONE®

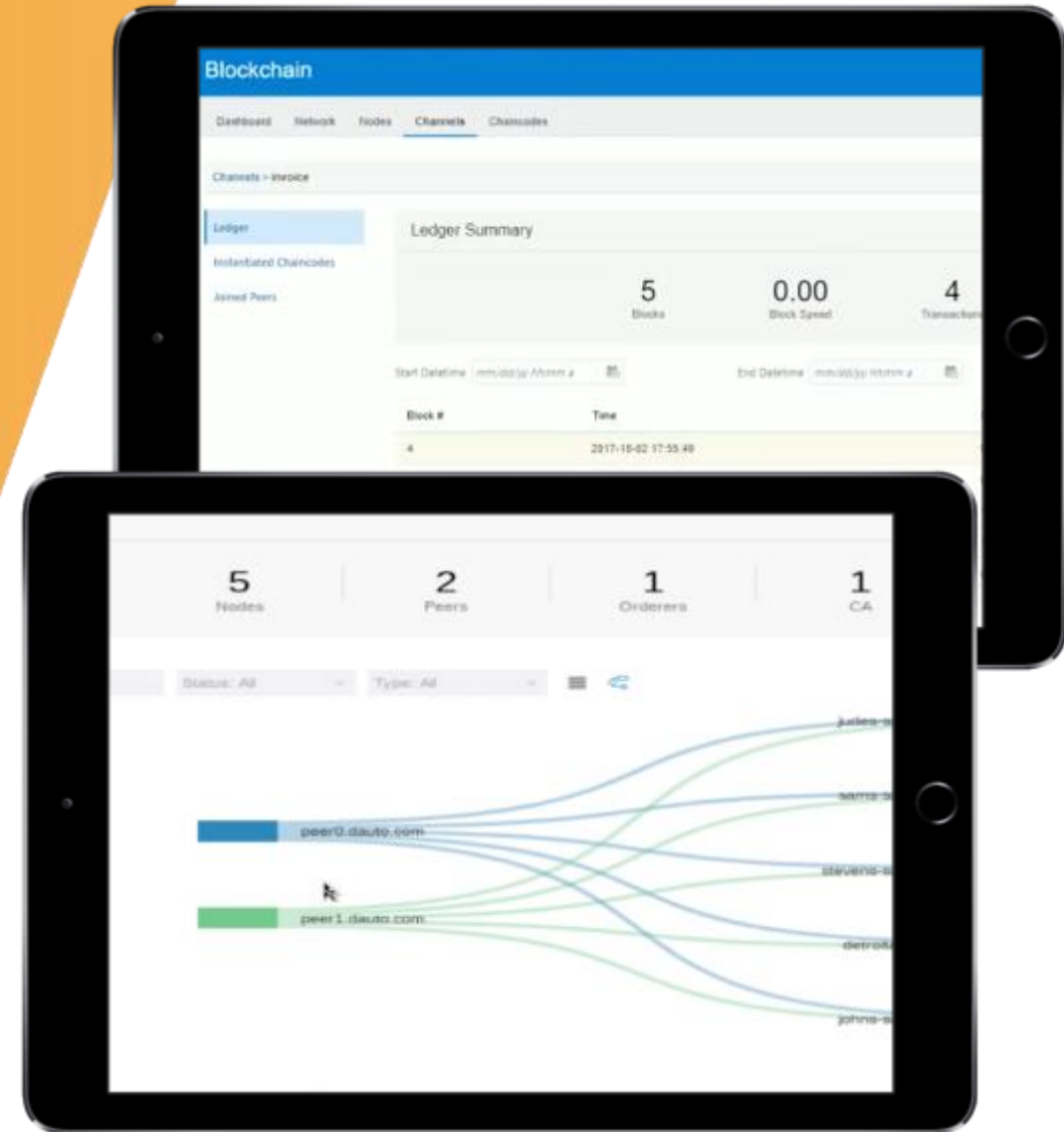
## Faster App Dev

- AI based cognitive computing company that analyzes unstructured data for clients
- Oracle Container Pipelines delivered fast integration and NLP of 5,500+ artifacts
- **85%** reduction in time to develop new app

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# Industry's 1<sup>st</sup> Autonomous Blockchain Cloud Platform

- Enterprise-grade platform that is pre-assembled, secure, scalable & resilient
- Extend and enhance existing SaaS or on-premises apps
- Set of pre-built integrations with Oracle SaaS & PaaS offerings



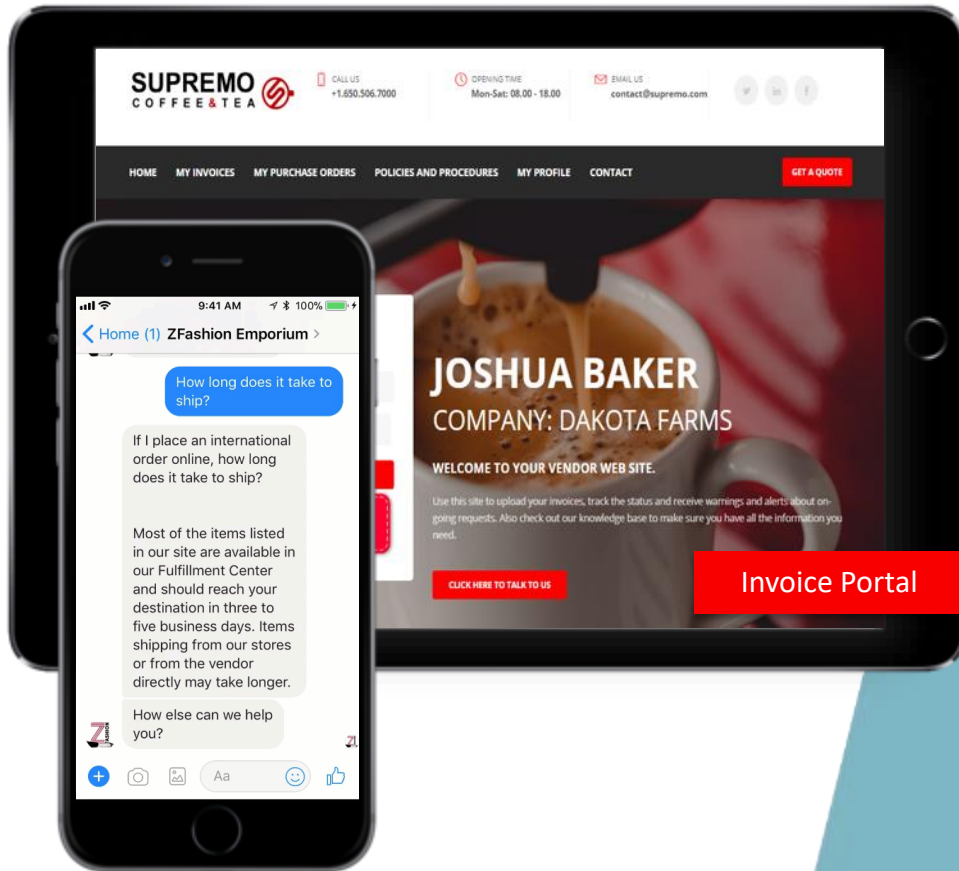


## Increase Trust & Transparency

- Visibility into the flow of documents, goods, and payments
- Using Blockchain to provide a distributed single source of truth
- Improved utilization by 50%
- Improved bottom line by 5%

# Oracle Chatbot Solution

- Simplify mobile & chatbot dev; faster TTM
- Reach more customers anywhere, anytime
  - FB, Slack, Alexa, Web, more
- Create multi-channel experiences (web, mobile, chat/text, voice) from single Cloud platform





Bajaj Electricals Ltd.


*Inspiring Trust*

## Digital Transformation

- Developed new bots for customer service in 2 weeks
- Developing Smart Appliances that plugs into IoT
- Integrated customer data across ERP, CRM & POS systems

A pleasant working ambiance with uniform distribution of light, energy efficiency and low maintenance

Know More



**Bajaj Paddy**  
Your virtual assistant for consumer care

APRIL 30 2018, 3:39 AM

Hi!

Paddy

Hi, I am Paddy. Welcome to Bajaj Electricals consumer care.

I can help you to raise a service request for Consumer Products. Please choose one.

Repair

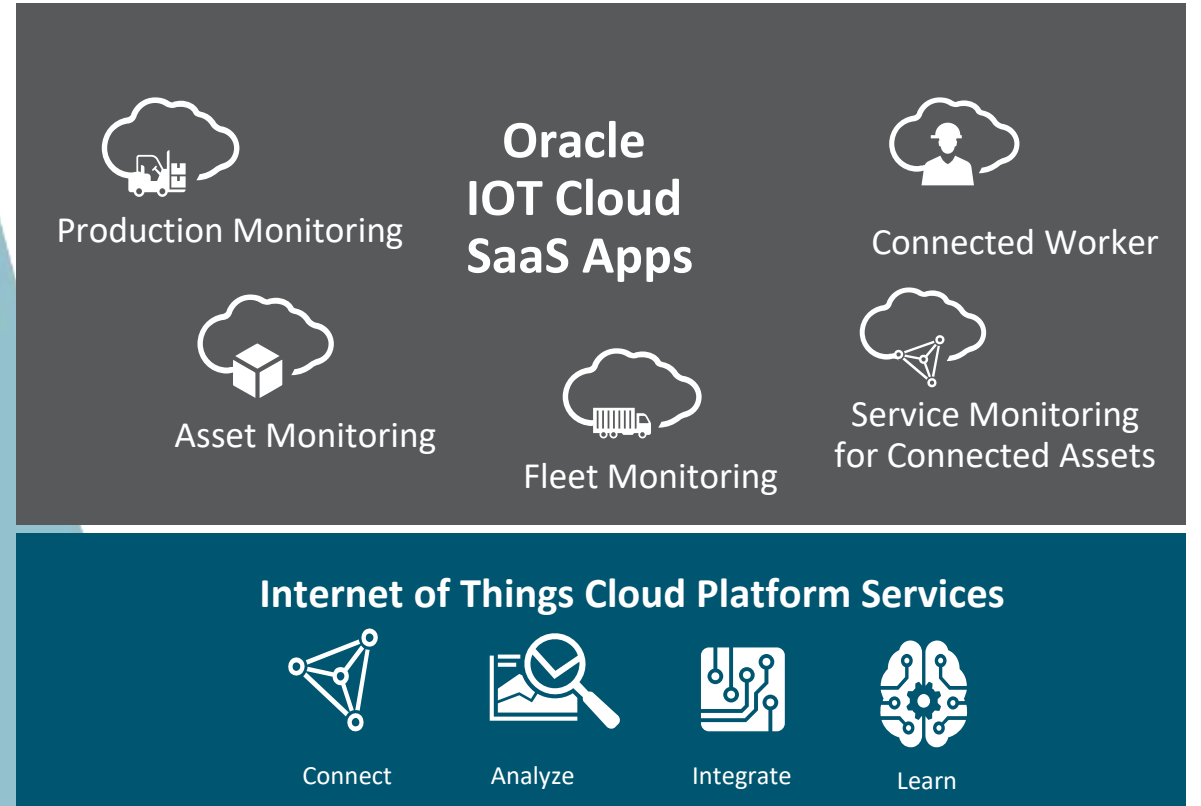
Demo

Installation

Just now

# Oracle IoT Solution

- Powerful, ready-to-use applications for popular use cases
- Only pay for what you use and scale when needed – you focus on business
- Pre-integrated workflows with other SaaS applications

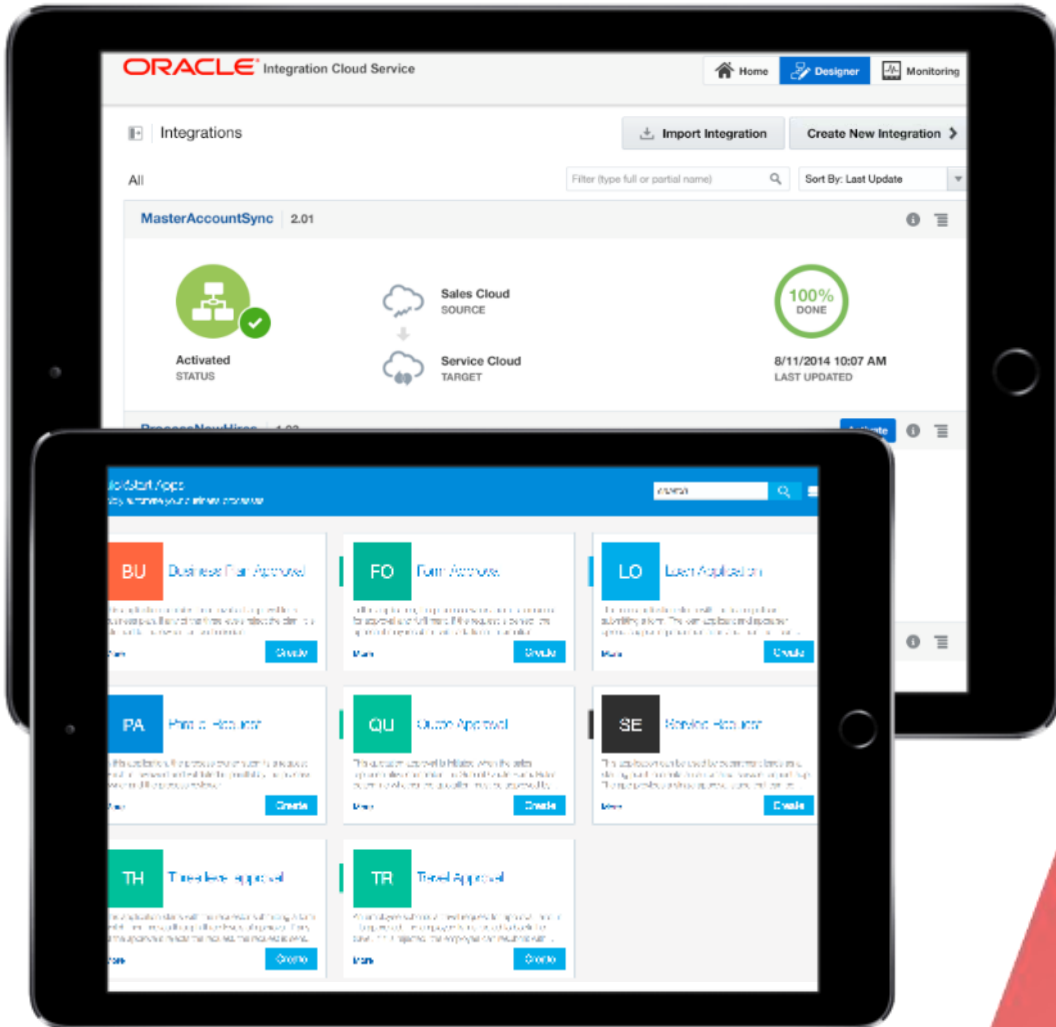




## Extreme Scale for Research

- Provide reliable and secure computing capacity for 30 PB of data from 50,000 sensors using IoT
- Predict and prevent faults by collecting and experimenting with big data via Oracle Analytics





# Autonomous Integration

- 50+ pre-built adapters and flows for CX, HCM and ERP integrations
- ML-based ratings, recommendations and automation
- Point-and-Click interface for non-developers
- Intelligent data profiling auto populate data catalogs & warehouses



**BRAKE PARTS** INC.™

## Automated Processes

- Connected Sales Cloud with on-prem apps (EBS, OBI, Custom PLM, Spreadsheets) using pre-built process templates
- Automated repetitive tasks with robotic process automation “record & playback”
- Automated 50 sales processes <1 month
- Increased project delivery by 10X

# AUTONOMOUS SECURITY



# UBI

# UBI <> Banca

## Autonomous Security

- New online banking platform for deposits & payments, across devices
- ML automatically detects unusual behavior; preventive security measures
- Discovers unsanctioned cloud apps in minutes

# PATH TO AUTONOMOUS

- Upgrade to Autonomous with portability of on-prem license spend to Oracle Cloud (BYOL)
- Self-driving, self-securing, and self-repairing
- Lower cost, reduce risk, accelerate innovation and get predictive insights
- Our unique position: technology, experience, imagination



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