PRJ Consulting Inc.

ORACLE Gold Partner

Cloud 101 - Webinar

Patrick Murray – President
Shane Snyder – Senior Technical Solutions Consultant
Maharshi Desai – Director, Oracle Enterprise Architecture

November 2nd, 2016

Vendor Overview

- **PRJ Consulting, Inc.**
  - Offices on East and West Coasts
  - Been providing PeopleSoft, Cloud and Project Management services for 10+ years in the United States and Internationally
- **Highlights**
  - Specialized Expertise- Certified Oracle Cloud, Oracle Hosting, PeopleSoft
  - Leading Oracle/PeopleSoft Integration company for Higher Education
  - One of first companies to successfully migrate PeopleSoft to Oracle's new IaaS servers
  - PRJ Management Team – Over 17 Years Experience in PeopleSoft / Oracle
  - Strong Referral business (90%) – Client, Oracle, IBM partnerships
  - Existing support contracts – (99% Client/Consultant Retention)
  - PRJ is an Oracle/PeopleSoft Partner with senior, experienced, dedicated consultants worldwide
  - All Senior Consultants with 15+ years experience

Client List

University of Maryland	Cal State Northridge	Fedex Corporate
New Jersey City College	San Francisco State University	Fedex Office
Cal State Chancellor's Office	Long Beach City College	Alaska Airlines
Cal State Channel Islands	San Diego State University	Lehman Brothers
Cal State Dominguez Hills	Vanguard University	Hilton Hotels
Cal State Chico	County of Riverside	PETCO
Anderson University	County of Ventura	Business Objects
Sacramento State	County of Los Angeles	St. Joseph Hospital
Grant MacEwan University	County of Placer	Carl Karcher
Pepperdine University	County of San Joaquin	Pixar, Inc.
Walla Walla University	State of Indiana	Premera Blue Cross

Services

- **Cloud Transitions**
  - Cloud “Jump Start” Solutions
  - Cloud Strategy and Mapping
  - Cloud “Core” Migration
  - Fusion “Fit” Services – Oracle Cloud Apps
- **PeopleSoft Solutions**
  - International Consolidations
  - Consulting Solutions
  - Project Management
  - Change Management
  - Strategy Planning
  - Technology Services
  - Mobility and Digital

Client Quotes

PRJ has supported our organization through numerous technical PeopleSoft Campus Solutions issues. They are very responsive to our emergency needs as well as our planned project needs. The PRJ Consulting teams have numerous years of PeopleSoft experience and brings best practice experiences to every challenge our project team has. As a client, I would recommend the PRJ team without any reservations.

Brandy McLelland
California State University – Dominguez Hills

We have worked with PRJ Management for over 15 years supporting our PeopleSoft Enterprise Projects in all the major modules. PRJ brings a vast wealth of experience to any PeopleSoft project, with an uncanny ability to bring the right fit of consultant expertise to meet the needs and culture of our organization.

Chris Xanthos
San Diego State University

PRJ Consulting Inc.

Agenda

- What is Cloud?
- Cloud Advantages/Disadvantages
- Who are cloud major Players?
- Cloud Services Offerings

PRJ Consulting Inc.

What is Cloud?

A little confusing due that the term "cloud computing" is everywhere.

In the simplest terms, cloud computing means storing and accessing data and programs over the Internet instead of your computer's hard drive. The cloud is just a metaphor for the Internet. It goes back to the days of flowcharts and presentations that would represent the gigantic server- farm infrastructure of the Internet as nothing but a puffy, white cumulus cloud, accepting connections and doling out information as it floats.

By PCMAG

PRJ Consulting Inc.

Forbes

In 2016, spending on public cloud Infrastructure as a Service hardware and software is forecast to reach $38B, growing to $173B in 2026. SaaS and PaaS portion of cloud hardware and infrastructure software spending are projected to reach $12B in 2016, growing to $55B in 2026

The worldwide cloud computing market grew 28% to $110B in revenues in 2015. Synergy Research Group found that public IaaS/PaaS services attained the highest growth rate of 51%, followed by private & hybrid cloud infrastructure services at 45%

TBR predicts worldwide public cloud revenue will increase from $80B in 2015 to $167B in 2020

IDC predicts external cloud adoption will increase from 22% today to 32.1% in 24 months achieving 45.8% growth.

By Forbes

Advantages/Disadvantages

PRJ Consulting Inc.

Advantages

- Improved Disaster and Recovery
- Collaboration and Flexibility
- Cost Savings
- Reliability and Manageability
- Scalability (Pay as you need for how much you really need)
- Environmentally Friendly

Disadvantages

- Internet Connectivity
- Ongoing Costs
- Security (Can you trust it? Is your data safe?)
- Possible Downtime (Maintenance, Connectivity, Incidents)
- Confusing about Limited or full control

Who are the main players?

PRJ Consulting Inc.

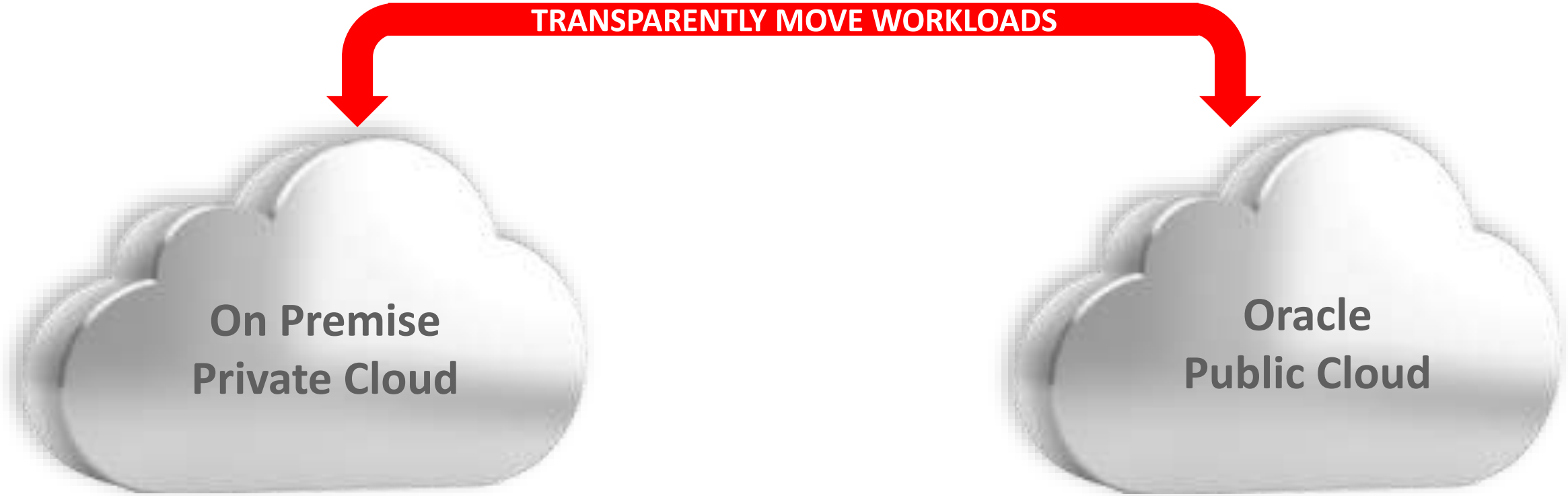
Added more than 1,600 new SaaS customers and more than 2,000 new PaaS customers in FY 2016 Q4. Nearly 2600 Fusion ERP customers in the Oracle Public Cloud - 10 times more cloud ERP customers than Workday

Morgan Stanley as predicting Microsoft cloud products will be 30% of revenue by 2018.

In 2015, Amazon Web Services (AWS) generated $7.88B in revenue with Q4 2015, up 69% over last year. VentureBeat's financial analysis of AWS performance also found AWS profitable, contributing $687M in operating income for the quarter, up $240M from one year earlier.

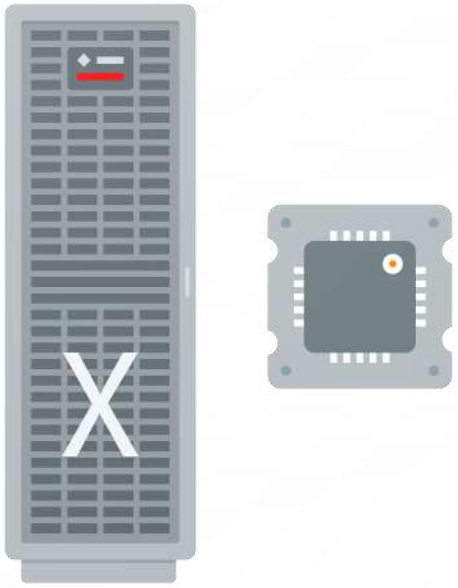
Customer Cloud Deployment Choice

Open Standards, Secured by Oracle



Open. Integrated. Secure. Complete.

What Types of Services are Available?



Infrastructure as a Service

Platform as a Service

Software as a Service

Oracle's strategy is to offer a complete set of cloud services in all three categories in either **private**, **public or hybrid** clouds.

SaaS (Software as a Service)

- Human Capital Management (HCM)
- Enterprise Performance Management (EPM)
- Supply Chain Management (SCM)
- Financials

Oracle SaaS Offering

52 | Copyright © 2014, Oracle and/or its affiliates. All rights reserved. |

ORACLE

PaaS (Platform as a Service)

PRJ Consulting Inc.

- Application Development (Java/Developer etc)
- Data Management (Database/MySQL)
- Management (Monitoring/Management/Analytics)

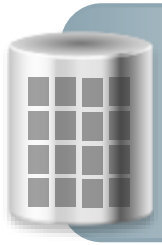
Oracle PaaS - Addressing the Needs of the Business

Developers and DevOps

Architects and IT Ops

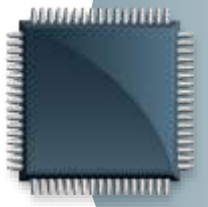
Line of Business

Infrastructure as a Service
Extensive set of secure, reliable and low-cost services



Compute Services

Dedicated virtual machine instances, rapid self-service provisioning and complete flexibility



Storage Services

Secure and scalable storage for managing and accessing data from any connected environment

Network Services

Efficient, secure and flexible connectivity of users, applications and data in the Oracle Cloud

Why Oracle Cloud?

Trusted Leader
#1 Database. #1 Application and Middleware. Trusted Industry leader.

Largest Portfolio of Cloud Offerings
Comprehensive Cloud Service offering (IaaS, PaaS, SaaS).

Expertise in Enterprise Security
Companies of all sizes trust Oracle's end to end security solution.

Seamless Integration
Only Oracle offers seamless integration across PaaS and SaaS.

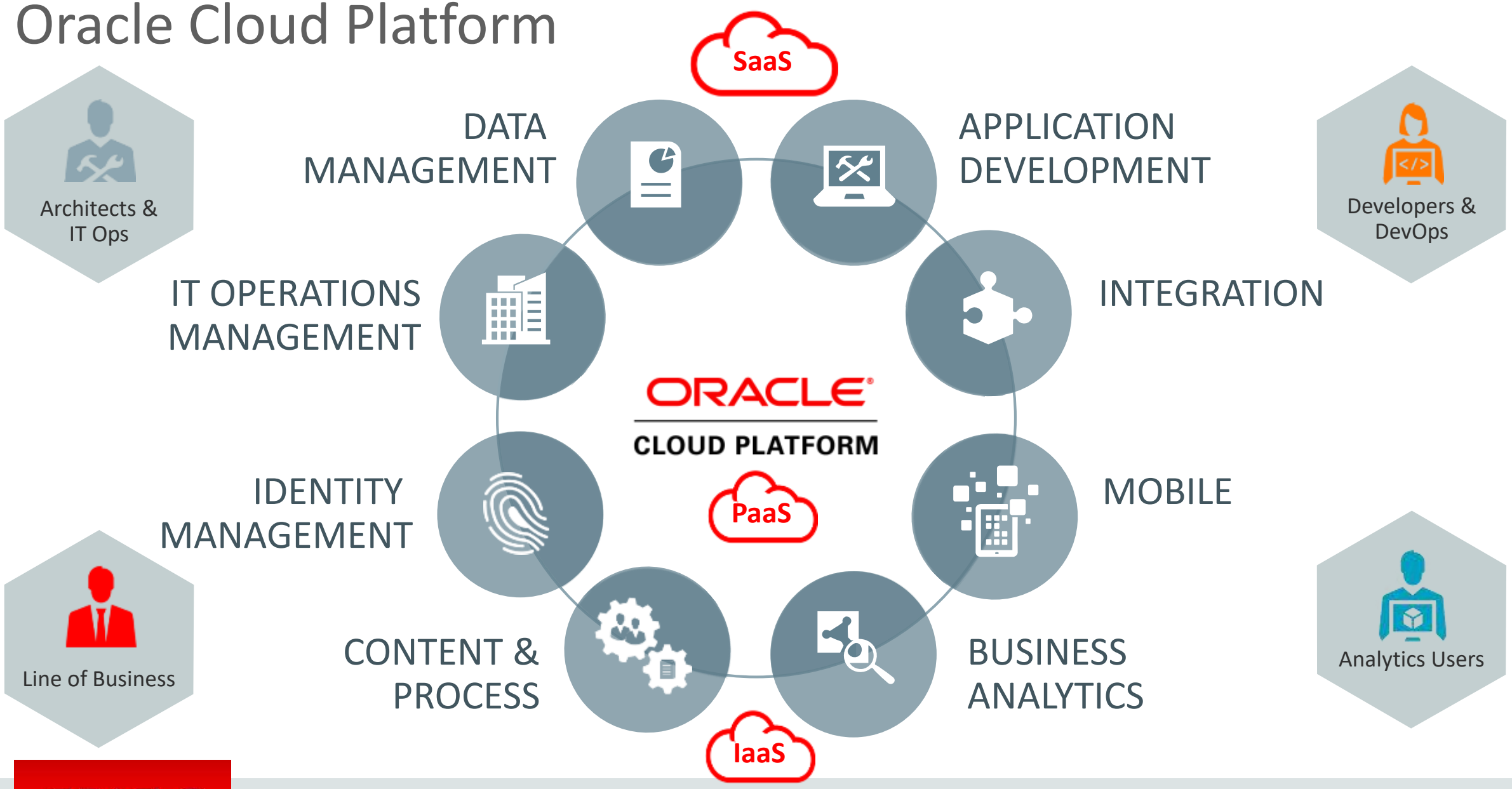
Enterprise Class Industry Standard Platforms
Reliable, Scalable Secure Platforms.

Deployment Choice
Public, Private or Hybrid cloud, the choice is yours.

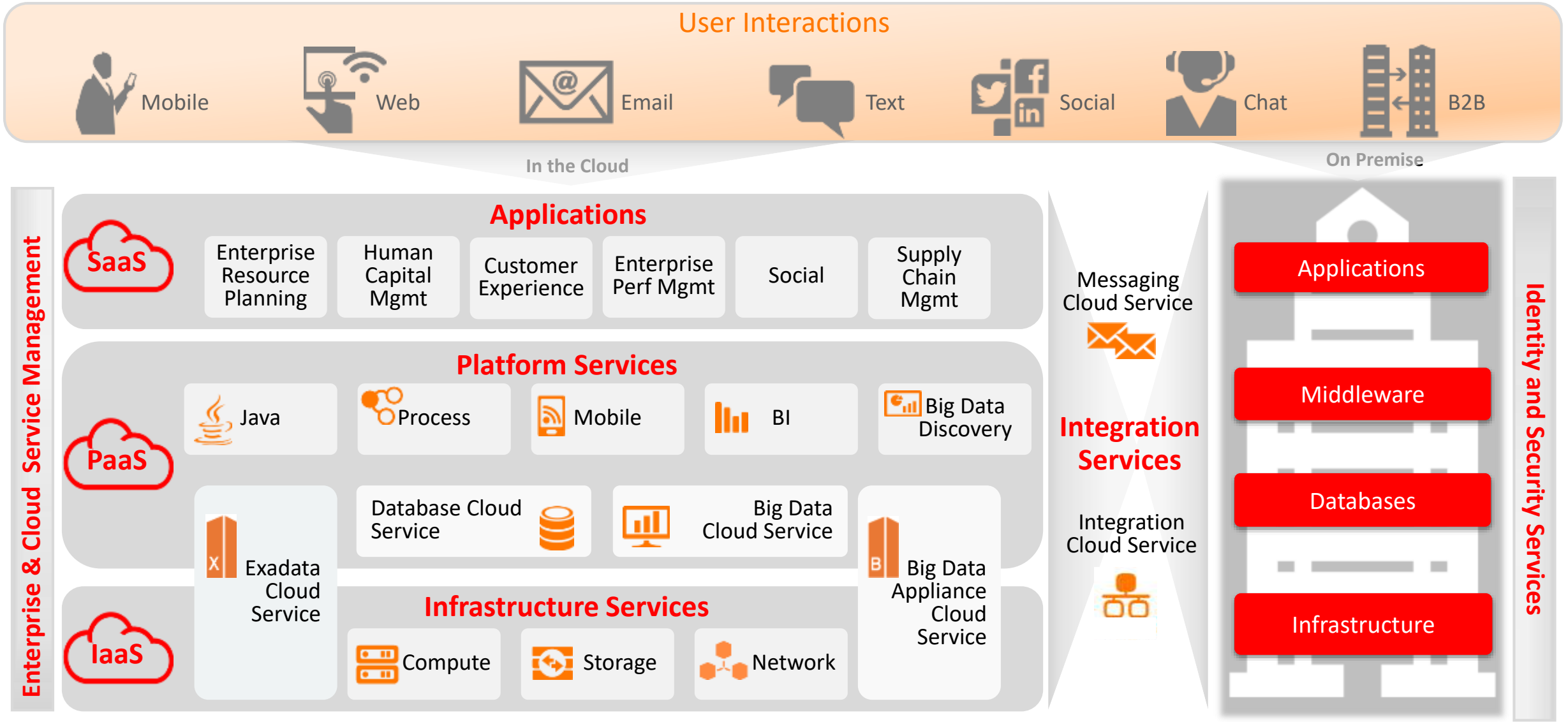
Research & Development
Investment in Innovation and Integration.

ORACLE

Oracle Cloud Platform

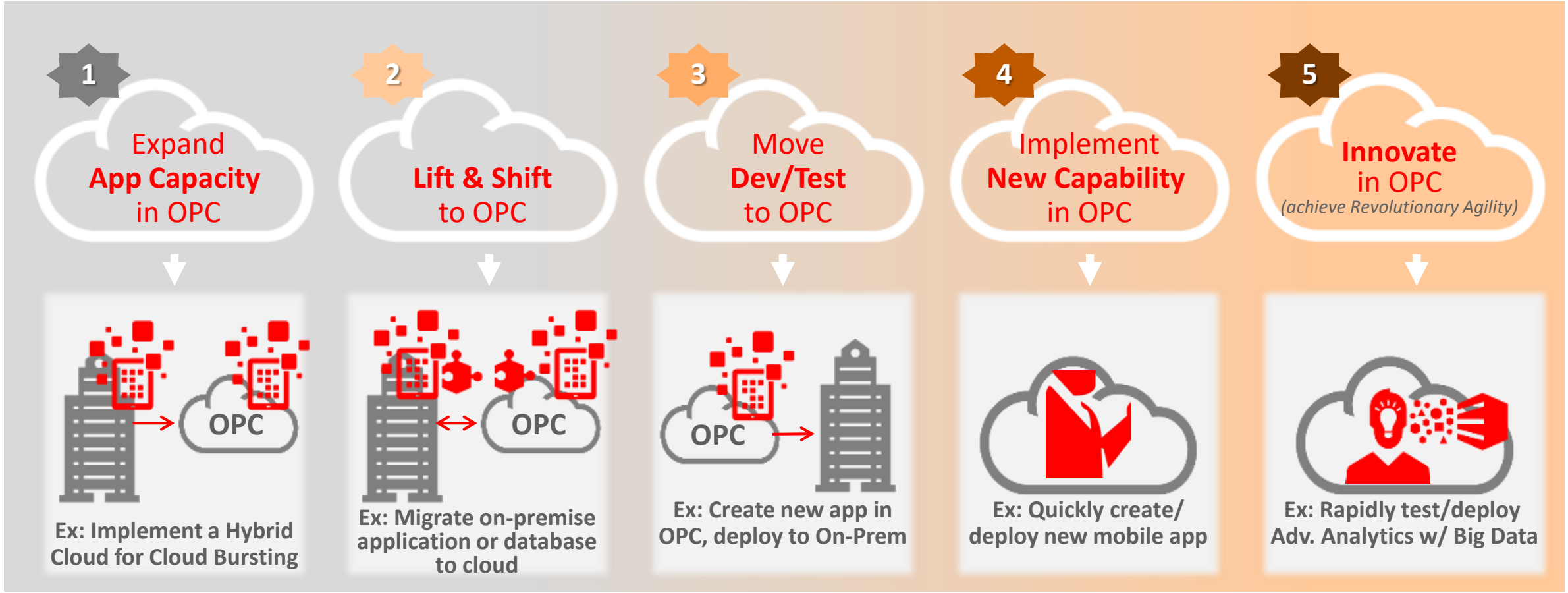


Oracle Cloud Reference Architecture



Oracle Public Cloud Common Use Cases

Giving businesses a competitive advantage



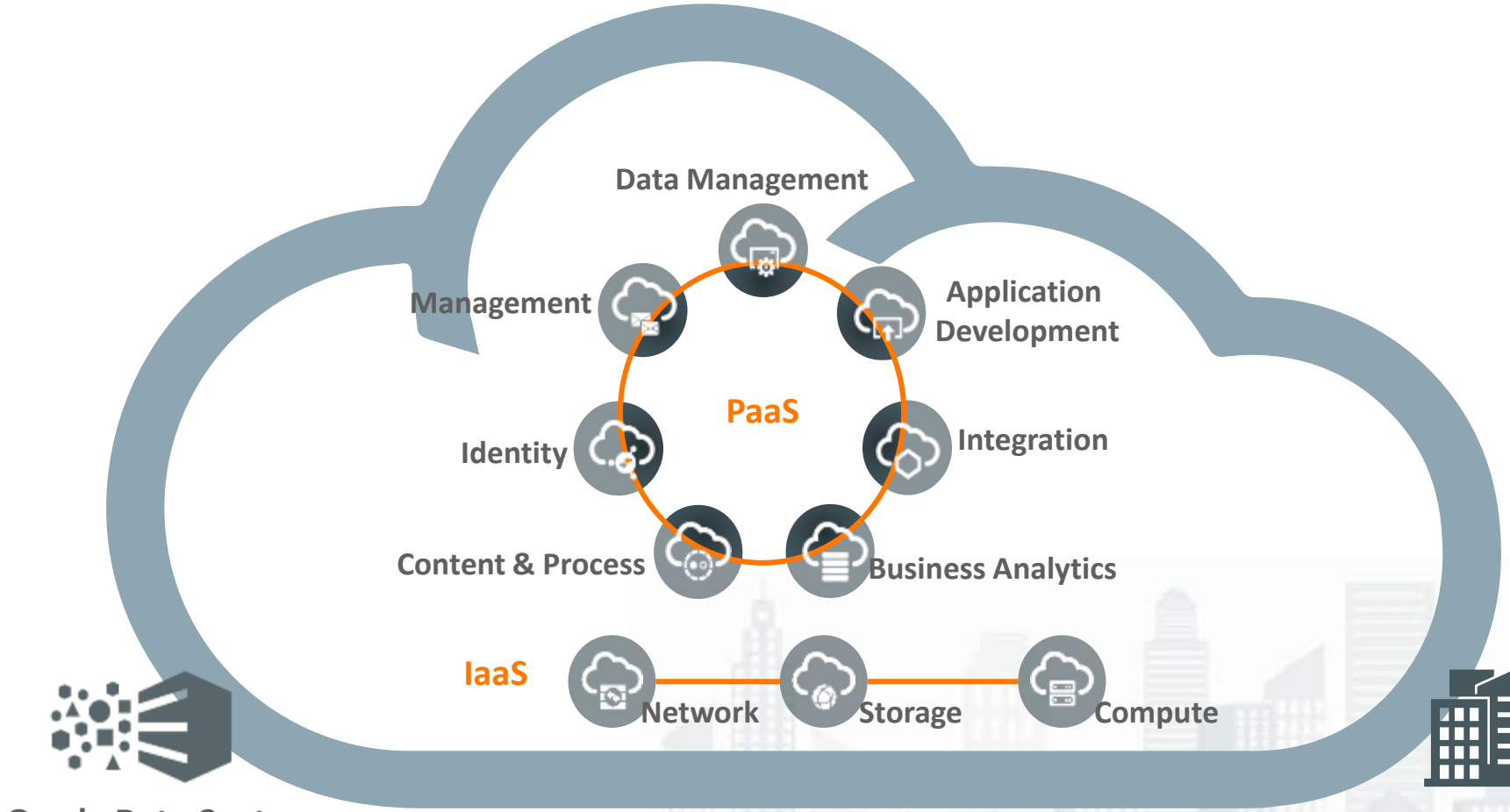
Lower IT Cost

Increased Business Value

(increased agility, faster time-to-market)

Oracle Cloud Machine

Oracle Public Cloud in your premise



- Same PaaS and IaaS software, same updates as Oracle Cloud
- Oracle Cloud operated and delivered as a service behind your firewall
- Same cost-effective subscription pricing model as Oracle Cloud
- Conforms to regulatory, privacy, legal, and business requirements

Oracle SaaS Cloud Services

Complete, Modern Suite of Cloud Applications

CX Cloud	Marketing	Sales	Configure, Price & Quote	Commerce	Service	Social
HCM Cloud	Global HR	Talent Management	Workforce Rewards	Workforce Management	Work Life	
ERP Cloud	Financials	Governance, Risk & Compliance	Project Portfolio Management	Procurement		
SCM Cloud	Planning & Collaboration*	Manufacturing*	Order Management	Inventory & Logistics	PLM	Procurement
Data Cloud	DaaS for Marketing	DaaS for Sales	DaaS for Customer Intelligence			
EPM Cloud	Enterprise Planning	Financial Reporting	Account Reconciliation*	Financial Consolidation & Close*		

Apps Marketplace

* Coming Soon

EPM Cloud

Service Cloud

HCM Cloud

Talent Cloud

Service Cloud

Talent Cloud

ERP Cloud

EPM Cloud

Oracle PaaS: Delivering Agility and Efficiency

The Oracle Cloud Differentiator

Faster to Deploy, Simpler, Less IT Skills

88

Steps to Deploy an Oracle DB Server On Premise

Procure-to-Deploy takes several weeks. Requires skilled Sys Admin & DBA.

Procure & Allocate Admin

1. Procure Data Center Floor space
2. Procure Servers
3. Procure Storage Devices
4. Procure Network Devices
5. Procure SSL Certificates & Keys for Servers
6. Procure SSL Certificates & Keys for Storage
7. Procure SSL Certificates for Network
8. Procure HSM Devices (for Encryption)
9. Procure Operating System Licenses
10. Procure Hypervisor Licenses
11. Procure Anti-Virus Licenses
12. Procure SIEM Licenses
13. Allocate Storage Admin
14. Allocate System Admin
15. Allocate Database Admin
16. Allocate Network Admin
17. Allocate Shared Services

Install/Configure Server & O/S

18. Install Server
19. Cable Server to Network
20. Install SSL Certficates & Keys
21. Acquire IP Addresses (Private)
22. Acquire IP Addresses (Public)
23. Acquire Domain Name (from Internal DNS)
22. Install Storage Device
23. Acquire IP Addresses (Private)
24. Acquire IP Addresses (Public)
25. Install SSL Certificates & Keys
26. Cleanup existing Storage Volumes
27. Create Physical Storage Volumes
28. Register Storage Devices with Server
29. Install Operating System
30. Create System Administrator Accounts
31. Register with Corporate LDAP Directory
32. Register with Audit Software
33. Add Users to System Administrator Accounts
34. Register Servers w/ Redhat Admin Console
35. Install Hypervisor
36. Create Virtual LAN Partitions
37. Allocate IP Addresses (Private)
38. Carry out Network Address Translation (NAT)
39. Register Virtual LANs with Network Switch
40. Create System Administrator Accounts
41. Register with Corporate LDAP Directory
42. Register with Audit Software
43. Add Users to Hypervisor Administrator Accounts
44. Register Guests with VMWare ESX Console
45. Run Clusterware Pre-requisite checks

Install the Oracle Database

46. Run Oracle DBMS Install Pre-requisite checks
47. Read the installation Guide
48. Choose the class of DBMS – Server, Desktop
49. Install Oracle Database
50. Configure Oracle Database

Verify Install & Complete Configuration

51. Log In to the System as root
52. Check the Hardware Requirements
53. Check Memory Requirements
54. Check System Architecture
55. Check Disk Space Requirements
56. Check the Software Requirements
57. Check OS Requirements
58. Check Kernel Requirements
59. Check Package Requirements
60. Check Compiler Requirements
61. Check Additional Software Requirements
62. Create Required OS Groups and Users
63. - The Oracle Inventory group (typically, oinstall)
64. - The OSDBA group (typically, dba)
65. - The Oracle software owner (typically, oracle)
66. - The OSOPER group (optional; typically, oper)
67. Synchronize these groups with LDAP Directory
68. Configure Kernel Parameters and Resource Limits
69. Create Required Directories
70. Configure the oracle User's Environment
71. Set the default file mode creation mask (umask) to 022 in the shell startup file.
72. Set the DISPLAY environment variable.
73. Mount the Product Disc
74. Install Oracle Database
75. Select Install Option
76. Select System Class
77. Select Clusterware/Grid Installation or Single Instance DBMS
78. Specify Oracle Base Installation Pathname
79. Specify Oracle Software Location
80. Specify Storage Types – File System or Automatic Storage Management
81. Specify Database File Location
82. Specify ASNSNMP Password
83. Specify Database Edition
84. Specify OSDBA Group
85. Specific Global Database Name
86. Specify Database Name Domain
87. Specify Administrative Password
88. Confirm Password

The Oracle Cloud Differentiator

Faster to Deploy, Simpler, Less IT Skills

5

Simple steps to Deploy an Oracle DB in the Cloud

Execute 5 simple steps in a process driven UI, press Go and get a deployment URL in just 30 minutes!

1. Choose Service Level & Billing Frequency
2. Select Database Version
3. Choose Edition of DBMS (e.g. SE, EE, HPE, XPE)
4. Provide simple Configuration instructions
5. Confirm and press Go

Compare to 88 steps and several weeks to get the same functionality On-Premise.

Note: This is just one PaaS & IaaS example

These benefits are multiplied when getting most of your application, MW, DB, and Infrastructure services from the Oracle Public Cloud.

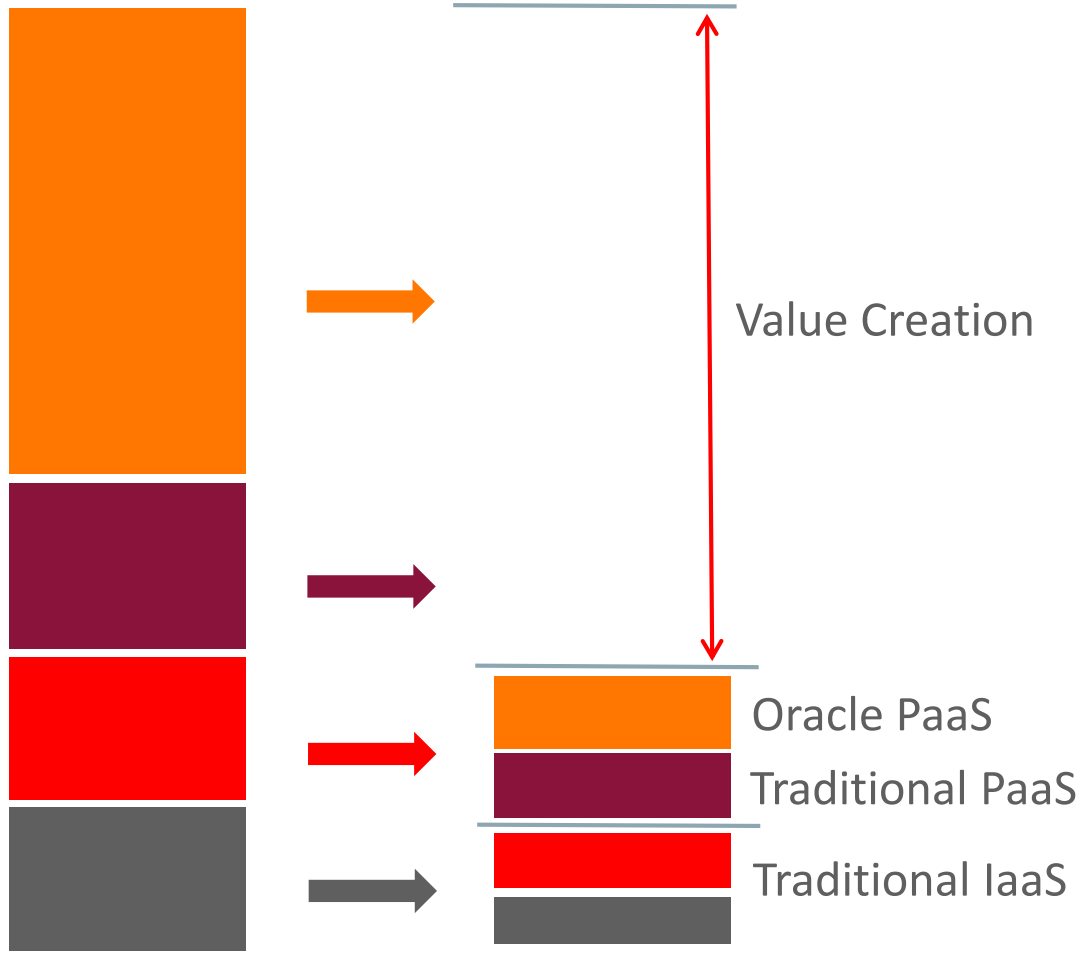
Highest Value Creation with Cloud Automation

Ongoing Maintenance Cost: Backup, Patching, Hardware Upgrade, OS Upgrade, Firmware Upgrade, Software Upgrade, Test-Dev Synchronization, Cloning, Data Masking, Security Configuration Checks, Security Auditing, …

Software Cost: License, Installation, Configuration, Security Setup, DR Setup, ...

Hardware Cost: Servers, Storage, Network, …

Facilities Cost: Data Center, ISP, CDN, DNS, ...



Compare: PaaS vs. IaaS

Standing up a new environment with DB, App, and Web Tiers

	Time	Clicks	Commands
On Premise	14h 17m	1,403	539
amazon web services	12h 52m	1,578	827
ORACLE CLOUD	3h 46m	131	0

Oracle Infrastructure as a Service

Oracle Cloud: Infrastructure as a Service

Storage Cloud

- Backup & Archive non-Oracle databases
- Long-term retention of unstructured data
- Object storage solution for enterprise needs

Archive Cloud

- On demand capacity, scales to petabytes
- Multiple redundant copies of data for highest availability
- Industry standard RESTful APIs

ODBS

- Backup Oracle Database to the public cloud
- Compression & Encryption by RMAN
- Keys kept locally
- Triple-Mirroring of data w/ anti-degradation

Compute

- Flexible Computing
- Raw Virtual Machine
- Enterprise Grade Security
- Networking Capabilities

ORACLE

Infrastructure as a Service: Compute, Storage & Network

Elastic Compute

Compute

Dedicated Compute

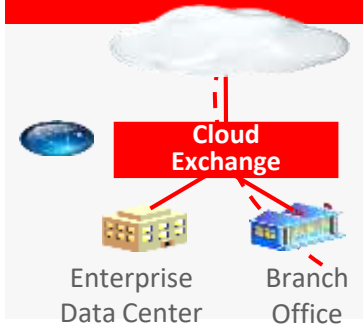
Bare Metal

Docker Containers

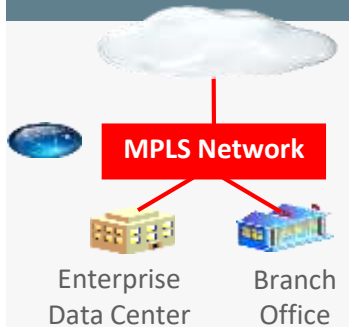
Multiple Hypervisors/OS

VPN

Oracle Cloud Connect



Oracle Cloud Direct Connect*



Object Storage

Archival Storage

File & DB Backup*

Symantec NetBackup

Cloud NAS*

NFS

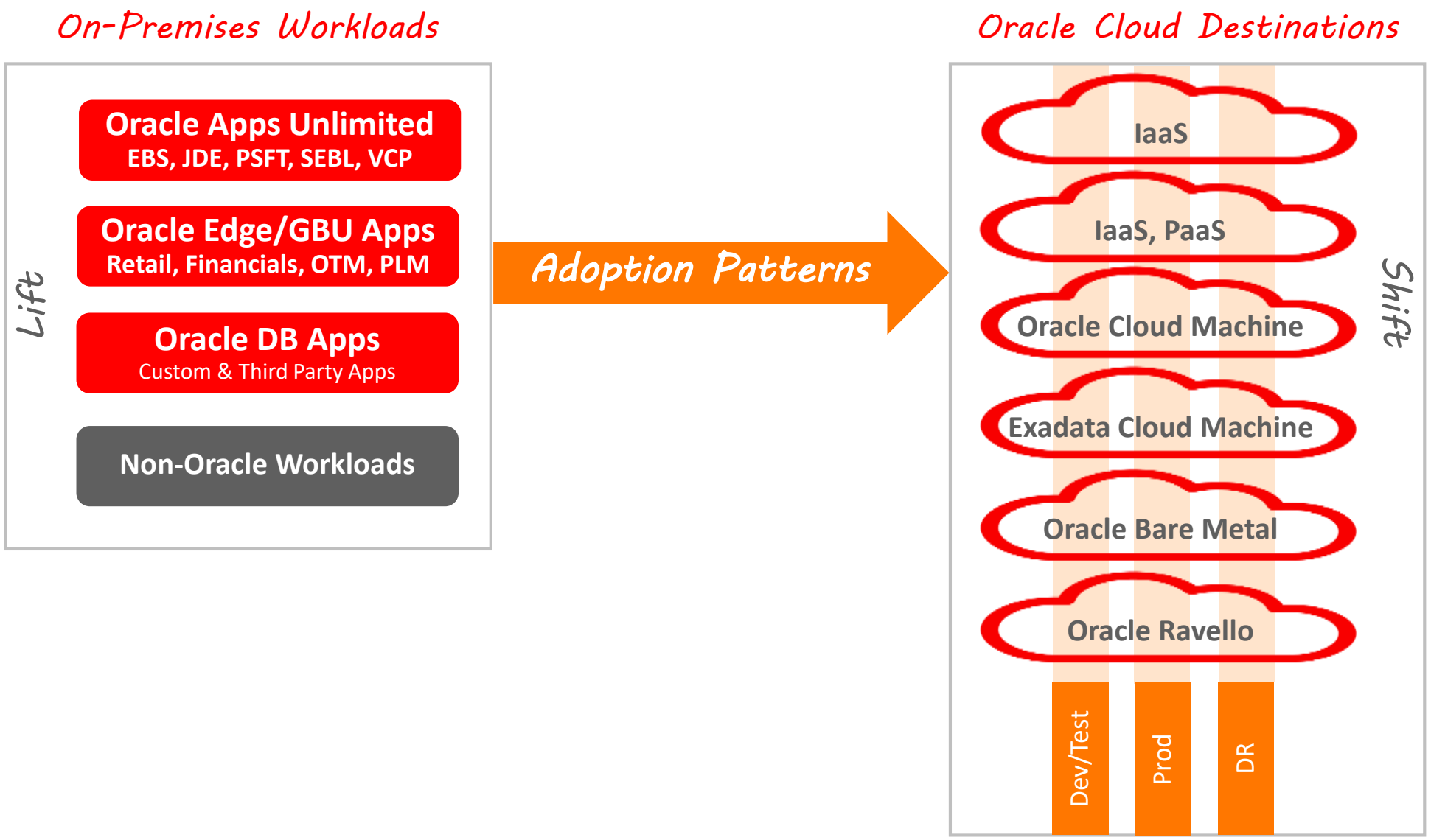
Lift & Shift Adoption Patterns

Standard L&S Patterns

- Re-Platforming
- Dev/Test in Cloud
- Prod in Cloud
- DRaaS
- Patching & Upgrading

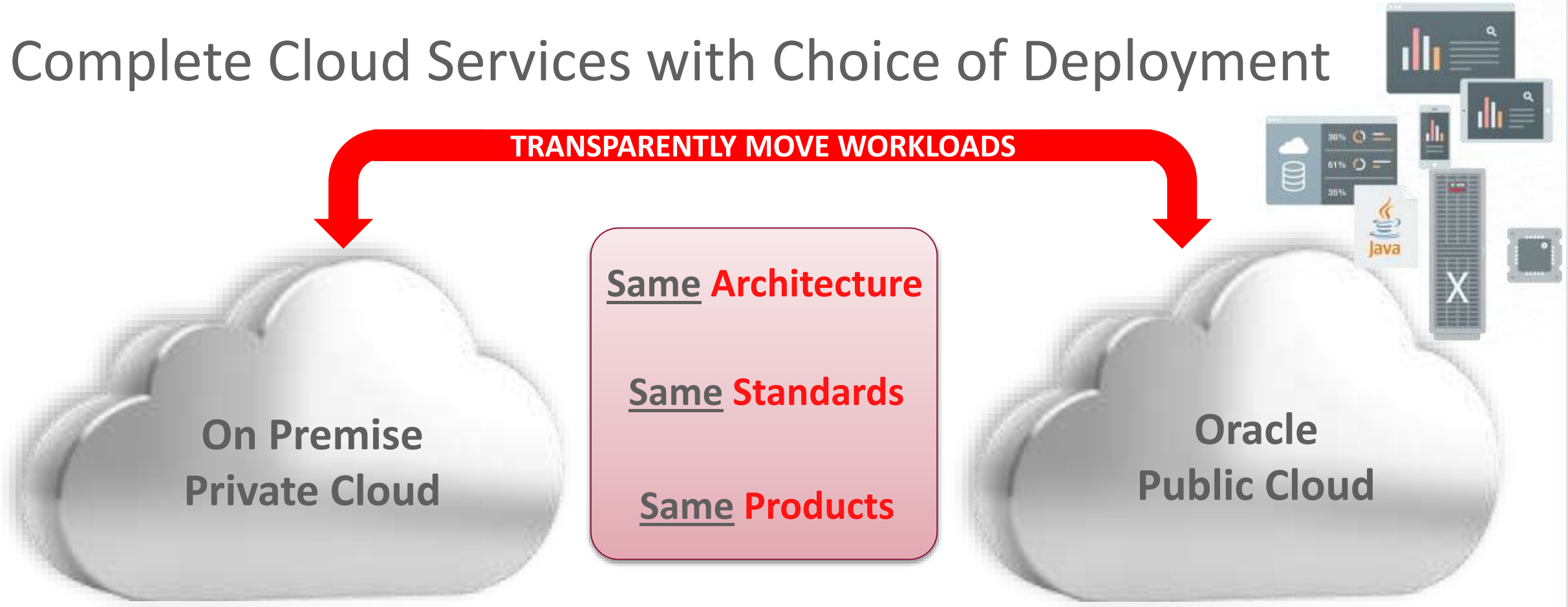
Extending L&S Patterns

- Full Data Center Transformation
- Re-Factoring
- Cloud Slicing for SaaS



Summary

Complete Cloud Services with Choice of Deployment

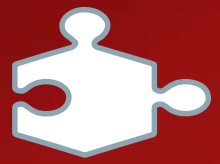


Open. Integrated. Secure. Complete.

Oracle's strategy is to offer a complete set of cloud services in all three categories in either **private**, **public or Hybrid** clouds.

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

If you'd like additional info, use "Chat" to send us your contact info and we'll get back with you after the presentation.



Integration: For Web Based, Point & Click Integrations or the full Power of SOA (Service Oriented Architecture

Data Management: End-user & server monitoring: web, mobile, on-premises, cloud; Capacity and resource planning; Light-touch log aggregation with topology-aware search

Mobile: Enterprise grade Mobile Backend as a Service

Security: Identity Management via the Oracle Cloud

Custom App: Enable business users to rapidly create web and mobile apps

Collaboration: File Sync & Share & Business Process Automation

ORACLE

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

Questions

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

Contact Info

Thanks for attending!

Feel free to contact Denise Johnston at denise.Johnston@prjconsulting.com if you have any questions or would like to setup any more focused demos.

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

Appendix

Addressing the Needs of the Business

Developers and DevOps

Develop & Deploy Applications

- **Application Builder**
- **Java Cloud Service**
- **Developer Cloud Service**

Monitor Applications

- **Application Performance Monitoring**

Integrate Systems

- **Integration Cloud**
- **SOA Cloud Service**

Create Mobile Apps Harness the Internet of Things

- **Mobile Cloud Service**
- **Internet of Things Cloud Service**

Secure Applications

- **Identity Cloud Service**

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

Addressing the Needs of the Business

Architects and IT Ops

Run Databases & Applications

- **Database Cloud Service**
- **Exadata Cloud Service**
- **Java Cloud Service**
- **Application Container**
- **Database Backup**

Monitor Applications

- **Log Analytics**

Utilize Big Data

- **Big Data Cloud Service**

Integrate Data

- **Golden Gate Cloud Service**

Understand and Plan for Systems Lifecycle

- **IT Analytics Cloud Service**

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

Addressing the Needs of the Business

Line of Business

Perform Analytics

- **Business Intelligence Cloud**
- **Data Visualization Cloud**
- **Big Data Preparation**
- **Big Data Discovery**

Automate Forms

- **Process Cloud Service**

Build Websites

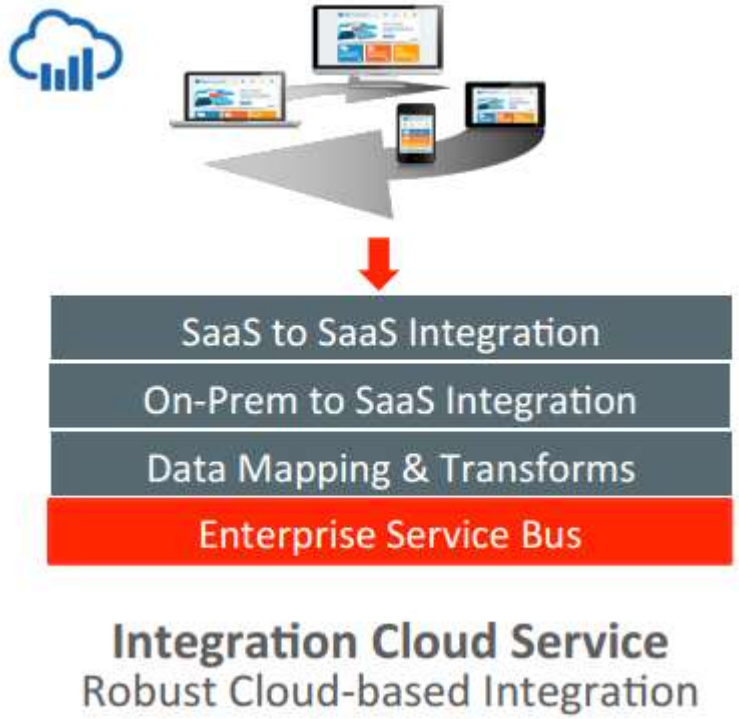
- **Sites Cloud Service**

Automate and Collaborate on Documents

- **Document Cloud Service**
- **Process Cloud Service**
- **Oracle Social**

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

Oracle Cloud Platform: Integration Services



Integration Cloud Service
Robust Cloud-based Integration

INTEGRATION

- Integration
- SOA
- API Manager
- Internet of Things
- GoldenGate

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

Oracle Cloud Platform: Mobile Services

APIs
Shaping
Persistence
Analytics

Mobile Cloud Service
MBaaS

Composer
Components
Device Integration

Mobile App Framework
Cross OS, Cross Device

MOBILE

- Mobile
- Integration
- Internet of Things

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

Oracle Cloud Platform: Business Analytics Services

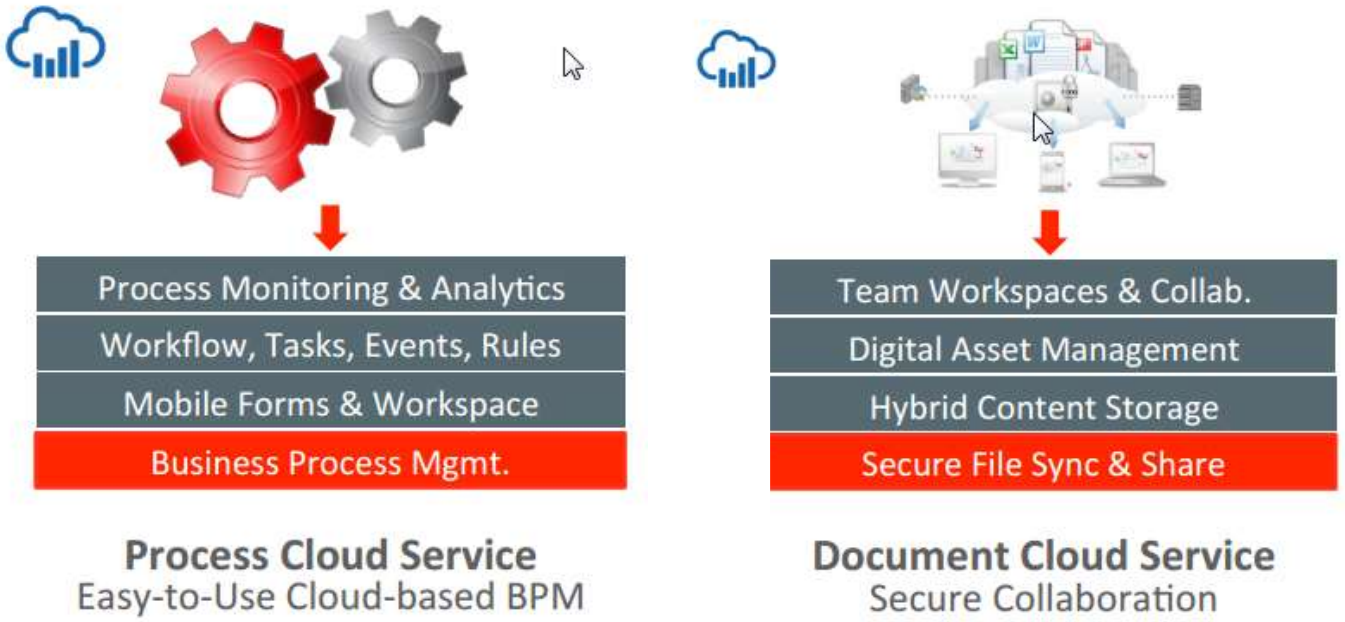
BUSINESS ANALYTICS

- Business Intelligence
- Data Visualization
- Big Data Discovery*
- Big Data Preparation
- Internet of Things

* Announced, not yet available

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

Oracle Cloud Platform: Content & Process Services



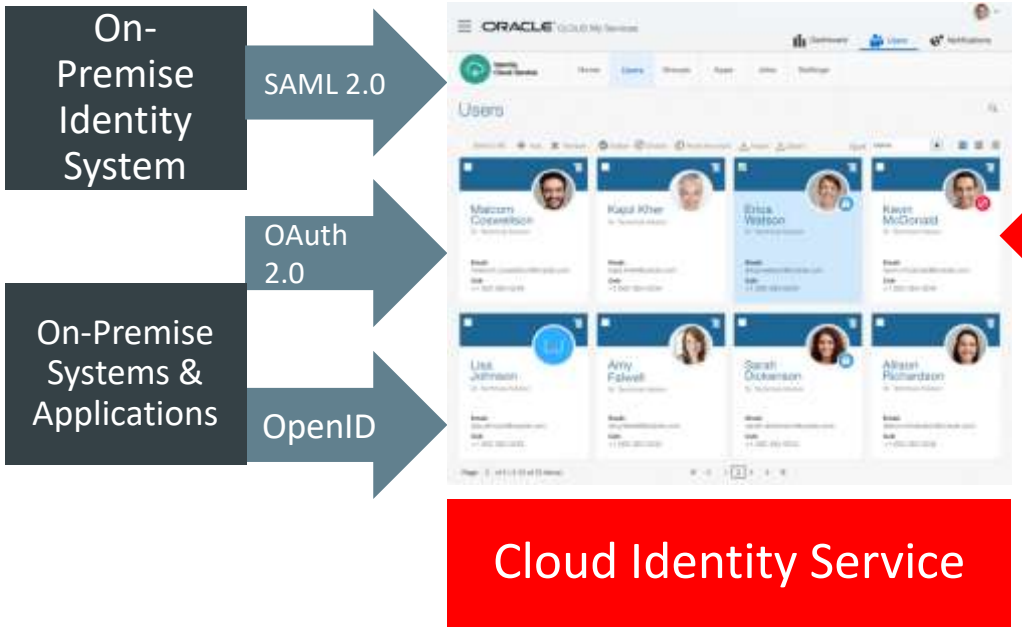
CONTENT & PROCESS

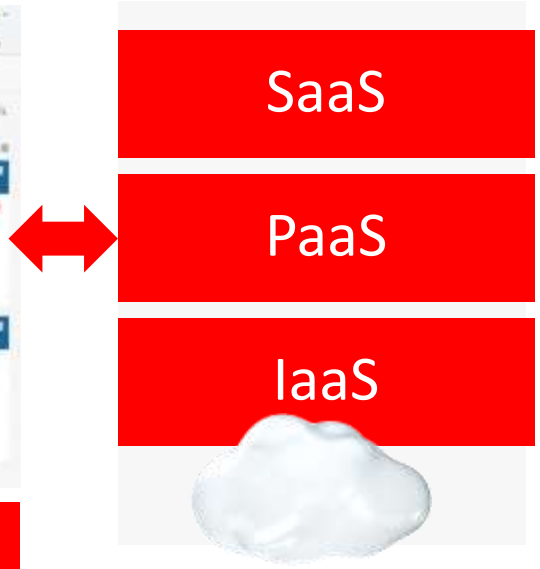
- Documents
- Process
- Social
- Sites

* Announced, not yet available

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

Oracle Cloud Platform: Identity Management Services





IDENTITY MANAGEMENT

- Identity*

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |

IT Operations Management Services

Application Performance Monitoring

Improve End-User Experience and System Performance; Diagnose Performance Issues Faster

Log Analytics

Extract Value from Logs by Collecting, Correlating, and Searching Any Kind of Log Data; Quickly Discover Anomalies

IT Analytics

Make Critical Decisions About Your IT Estate; Plan For Growth, Run What-If Analyses, Compare Resource Usage

IT OPERATIONS MANAGEMENT

- Application Performance Monitoring
- Log Analytics
- IT Analytics

Copyright © 2015 Oracle and/or its affiliates. All rights reserved. |