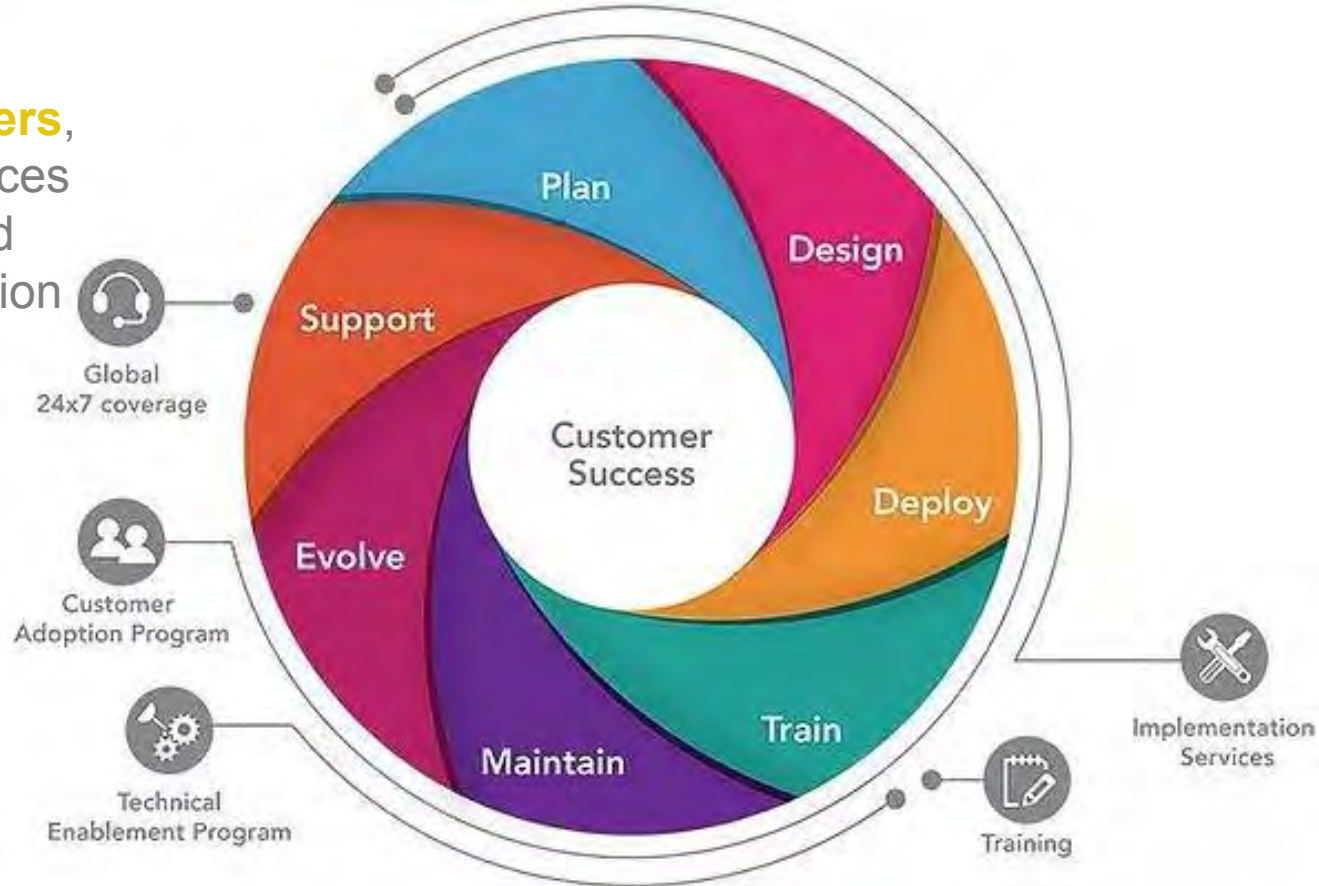Kuwait

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As Oracle **Gold Partners**, Our Value added services related to Oracle Cloud Adaption/ implementation

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NIST Definition of Cloud Computing

Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

This cloud model promotes availability and is composed of:

5 Essential Characteristics
- Broad network access
- Resource pooling
- Rapid elasticity
- On-demand self-service
- Measured service

3 Service Models
- SaaS
- PaaS
- IaaS

4 Deployment Models
- Public Cloud
- Private Cloud
- Community Cloud
- Hybrid Cloud

From Grid to Cloud @ Oracle

2011: From 11g to 12c and some „First's"

- Oracle OpenWorld – October 2011

  - From Oracle Enterprise Manager Grid Control 11g to 12c Cloud Control

    - „the industry's first solution to combine management of the full Oracle stack with complete enterprise cloud lifecycle management"

    - „Oracle Enterprise Manager 12c is the first product in Oracle's portfolio numbered „12c" where „c" stands for Oracle's significant investment in delivering cloud-ready products."

    - From Oracle WebLogic Suite 11g to 12c

      - the Foundation for Cloud Applications and Application Infrastructure Consolidation

  - Nevertheless: Oracle 11 – The First Cloud OS

- Oracle Cloud – June 2012

  - PaaS and SaaS Public Cloud Offerings

- What's in it beyond marketing?
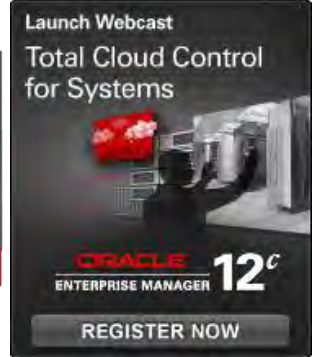
Evolution of Computing

Paradigm	Abstract	from
Programming Languages	Algorithms	Machine instructions
Operating Systems	Application environment	Hardware
Filesystems & volume managers	Unstructured data	Physical storage
Databases	Structured data	Storage
Virtual machines	Operating System	Physical hardware
OS Containers	Application environment	Operating system
(Java) Application Server	J2EE Application Environment	Operating system & middleware
Grid Computing	Distributed application	Distributed platform
Cloud Computing	Application	Infrastructure

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Abstraction Layers in Cloud Computing
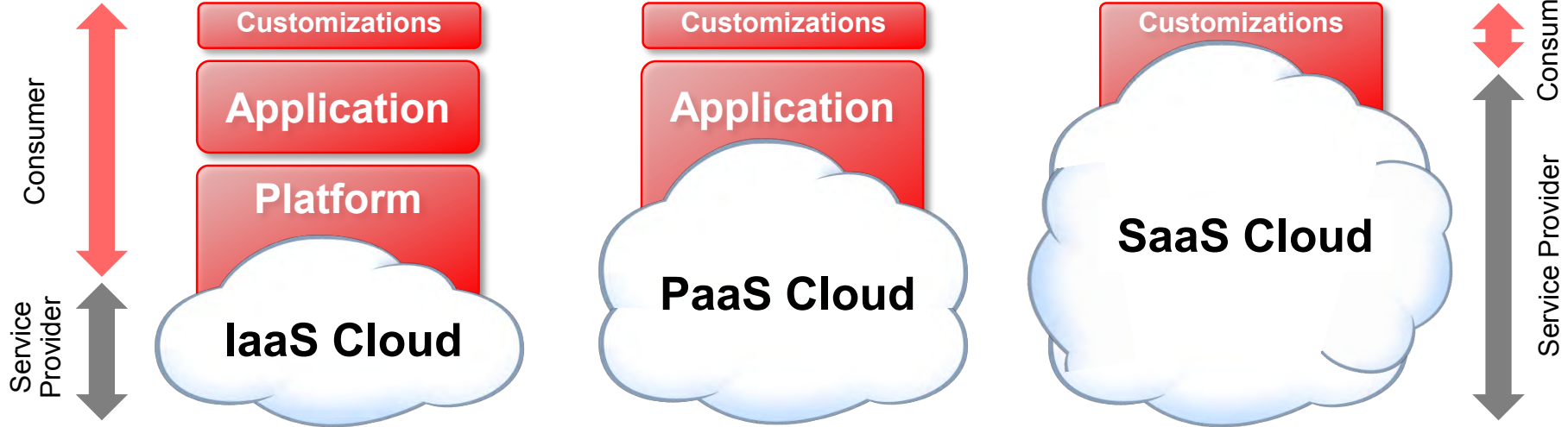## IaaS, PaaS, SaaS

Different Users
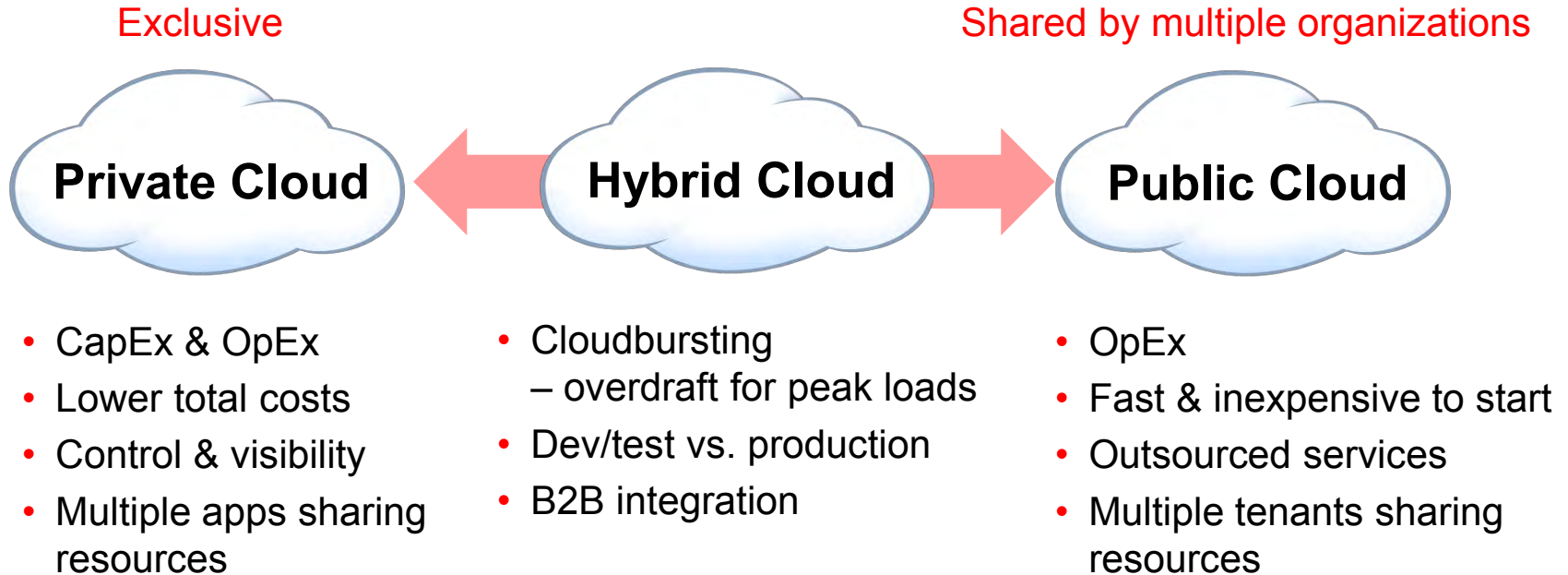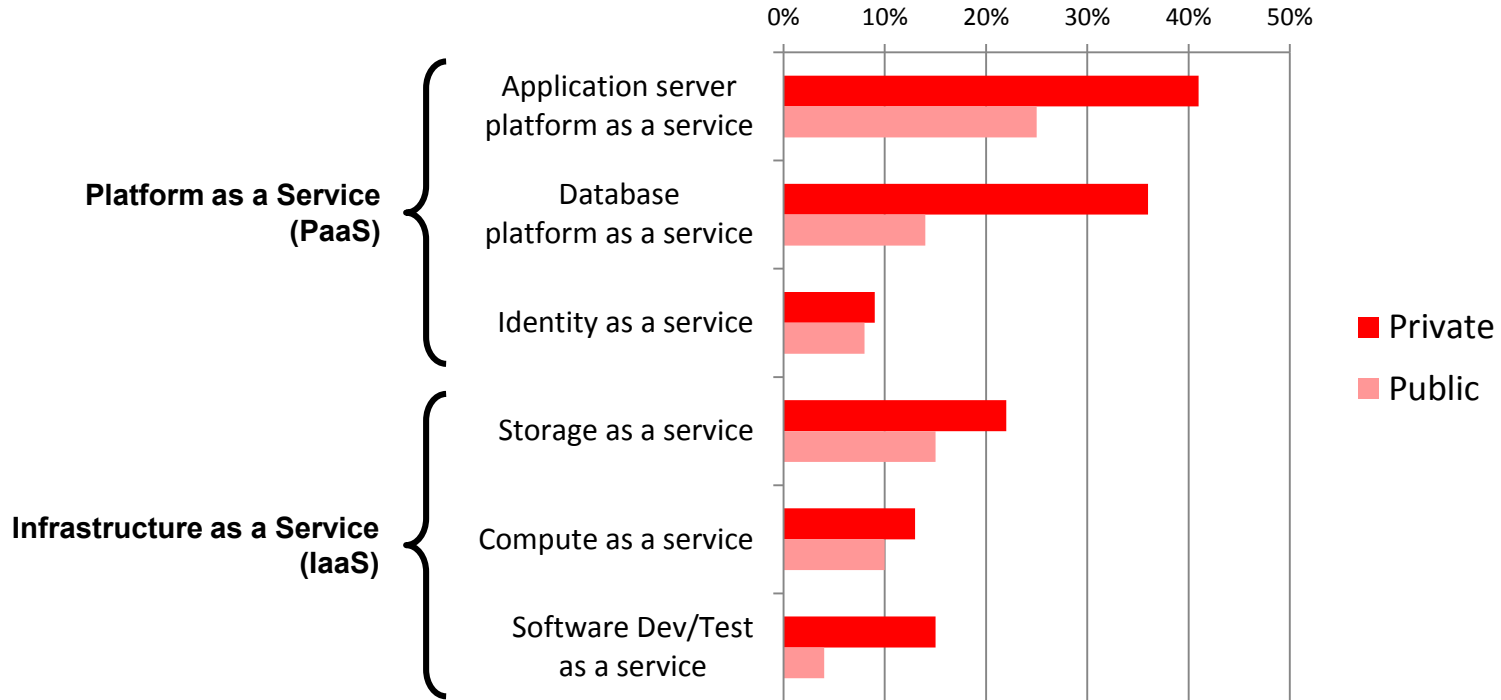
IT Professional

Developer

Business End User

Consumer

Service Provider

Consumer

Service Provider

Customizations

Application

Platform

IaaS Cloud

Customizations

Application

PaaS Cloud

Customizations

SaaS Cloud

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Choice of Deployment Models
Private, Public, Hybrid (and Community)

Exclusive

Shared by multiple organizations

Private Cloud →← **Hybrid Cloud** → **Public Cloud**

- CapEx & OpEx
- Lower total costs
- Control & visibility
- Multiple apps sharing resources

- Cloudbursting – overdraft for peak loads
- Dev/test vs. production
- B2B integration

- OpEx
- Fast & inexpensive to start
- Outsourced services
- Multiple tenants sharing resources

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PaaS Outpacing IaaS

Platform as a Service (PaaS)
- Application server platform as a service
- Database platform as a service
- Identity as a service

Infrastructure as a Service (IaaS)
- Storage as a service
- Compute as a service
- Software Dev/Test as a service

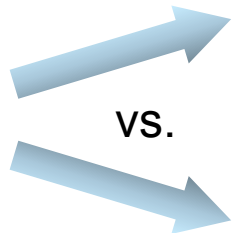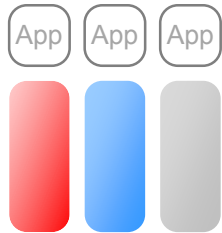Legend: ■ Private ■ Public

Chart axis: 0% 10% 20% 30% 40% 50%

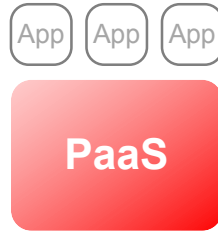Source: IOUG ResearchWire member study on Cloud Computing, conducted in Aug-Sept 2011

Consolidation as a First Step to Private Cloud

Consolidate onto standard, shared and elastically scalable PaaS

App App App

PaaS

vs.

- Standardized PaaS for all applications reduces heterogeneity, cost and complexity
- Accelerated new application development
- Cost savings from less hardware, power and data center space

App App App

IaaS

- Software stack heterogeneity, cost and complexity persists
- No administration (O&M) cost savings

- Cost savings from less hardware, power and data center space

Consolidate onto shared IaaS
without standardization

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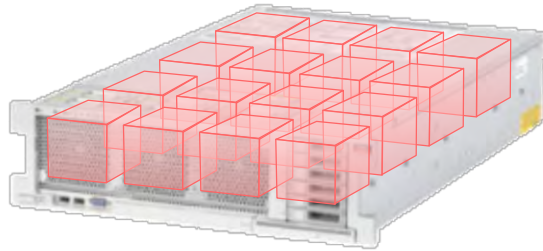# Building a Private Cloud

5 Essential Characteristics

- Broad network access
- Resource pooling
- Rapid elasticity
- On-demand self-service
- Measured service

Resource Pooling and Elastic Scalability

Delivered through Server Virtualization and Clustering

Server Virtualization

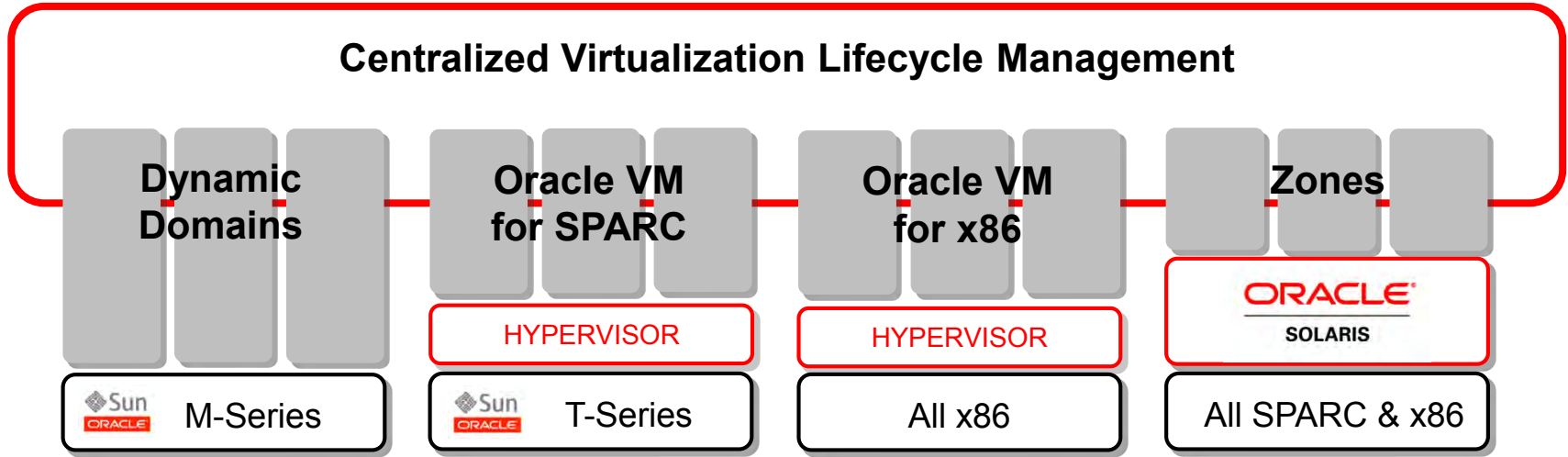Make one physical resource look like many

Clustering

Make many physical resources look like one

for scalability and/or availability

Both server virtualization and clustering are key technologies for cloud

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Server Virtualization Options

Centralized Virtualization Lifecycle Management

Dynamic Domains	Oracle VM for SPARC	Oracle VM for x86	Zones
	HYPERVISOR	HYPERVISOR	ORACLE SOLARIS
Sun ORACLE M-Series	Sun ORACLE T-Series	All x86	All SPARC & x86

Broad choice of server virtualization technologies

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Clustering Options Throughout Stack

- Oracle Cloud Application Foundation
- Oracle WebLogic Server
- Oracle Coherence In-Memory Data Grid
- Oracle Exalogic Elastic Cloud

- Oracle Database Real Application Clusters
- Oracle In-Memory Database Cache (TimesTen)
- Oracle Exadata Database Machine

- Oracle Clusterware
- Oracle Solaris Cluster
- Oracle SPARC SuperCluster
- Sun Servers
- Sun Storage

Broad choice of clustering technologies

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Enterprise Cloud Architecture

|
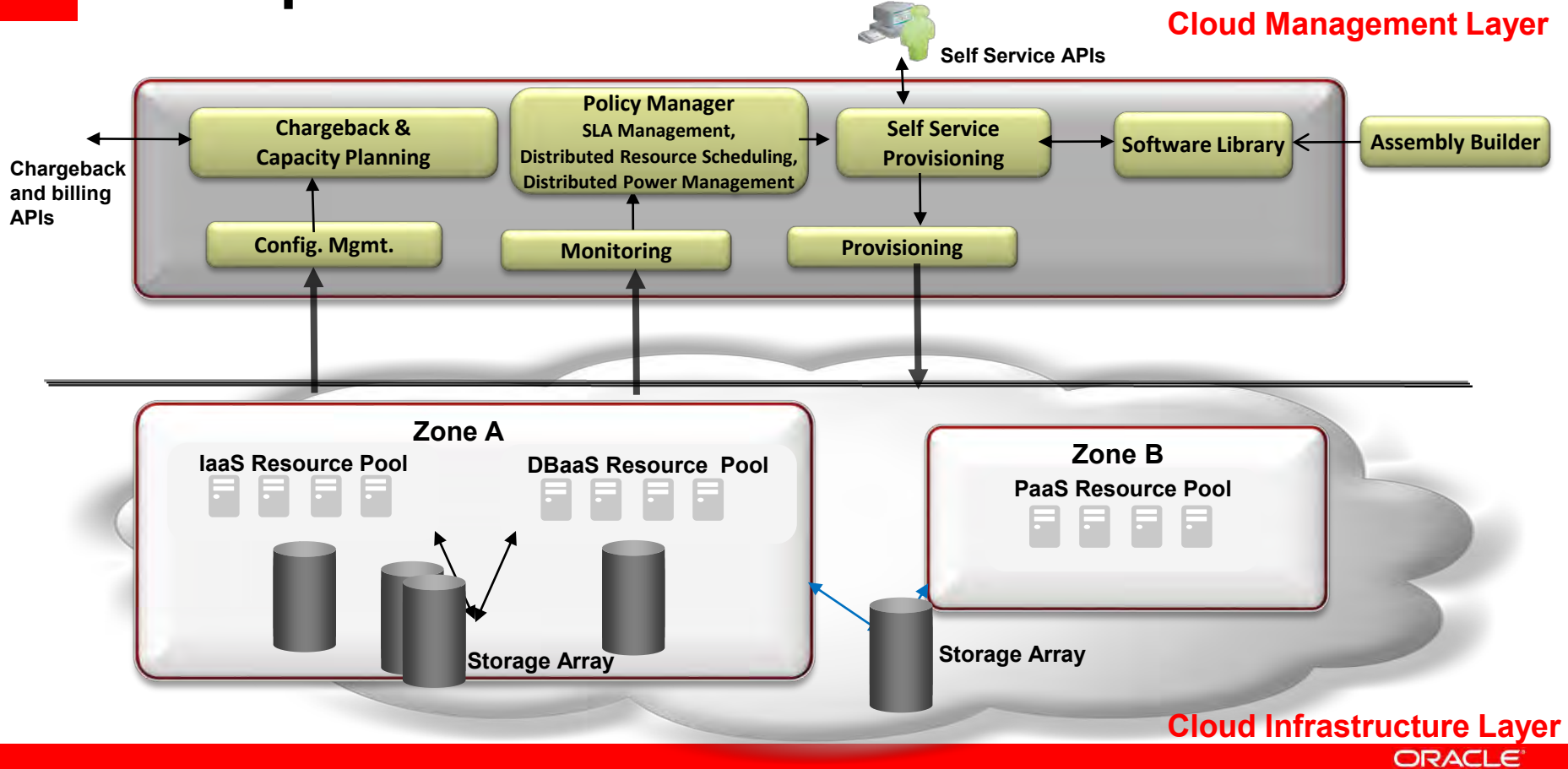
New Administrator Roles in Clouds (IaaS)

Cloud Administrator

1. Provision bare metal hypervisor
2. Configure storage arrays and network (VLAN)
3. Create server pools
4. Define zones based on functional and operational boundaries
5. Configure software library

Self Service Administrator

1. Define allowable VM sizes
2. Assign quotas to users and roles
3. Define access boundaries (map roles to zones)
4. Setup chargeback plans
5. Make software available for deployment by self-service users

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Oracle Enterprise Manager 12c
Total Cloud Control

The complete management
solution for Oracle-based clouds

- Consolidation Planner
- Cloud Design and Setup
- Self-Service Provisioning
- Elastic Workload Management
- Metering and Chargeback

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Self-Service Provisioning

Out-of-Box, Self-Service Portal
- – Part of the base product,
  no additional setup required

Rich service catalog:
- - VM Templates, Assemblies
- - Database service
- - Java applications

Full Operational Control
- – Start/stop services, request additional
  resources, backup/restore
- – Basic resource monitoring
- – Chargeback information
- – Quota monitoring

Programmatic Access using APIs
- – RESTful APIs and CLI (Submitted to DMTF)

Metering and Chargeback

App-to-Disk Resource Metering

- VM Guests, Database, Web Logic Server, Host
- Composite Target: aggregation over supported target types
- CPU, Memory, Storage, Network Bandwidth
- Database transactions, SQL Executions, etc.
- Mid Tier resource usage
- Application/Activity metering (planned)

User Defined Chargeback Plan

- Usage-based items (Resource and Activity)
- Configuration-based items
- Fixed-cost items

Chargeback Reporting

- Rollup based on LDAP hierarchy

- Generate reports in variety of formats (Excel, Work, PowerPoint, HTML, PDF)

- Accessible from self service portal

- Integrated with BI Publisher
  - Generate and email reports to recipients on defined schedule
   (e.g. monthly)

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Monitor and Manage Cloud Operations

- Track resource flux, tenants, policy violations, etc

- Monitor requests and failures

- Manage resource and capacity utilization

- Automatic, policy driven elasticity

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Package Multi-tier Enterprise Applications
Oracle Virtual Assembly Builder

Capture Complete Application Topology

HTTP	HTTP
OVM	OVM

WLS
OVM
DB
OVM
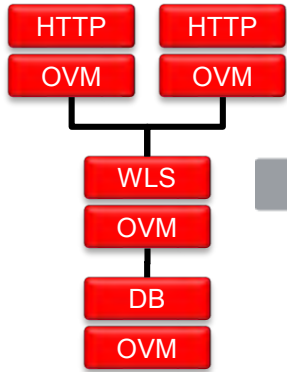
Package Into Single Assembly

Metadata
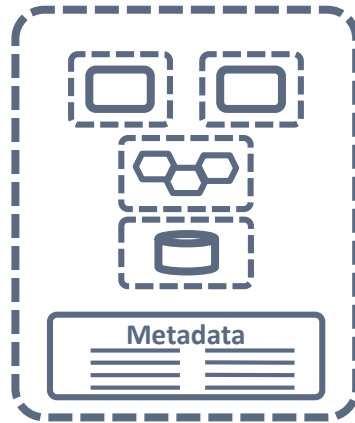
Upload to Software Library

Oracle Enterprise Manager

Deploy Self-Service
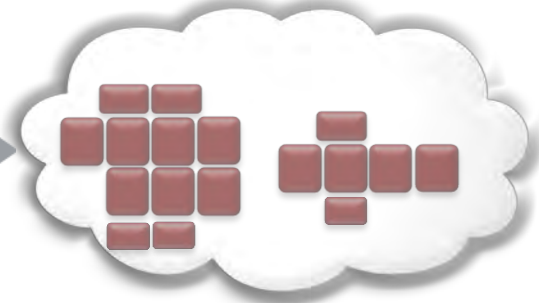
ORACLE
VM

ORACLE

Oracle Platform for Private Clouds

Oracle Enterprise Manager 12c

|
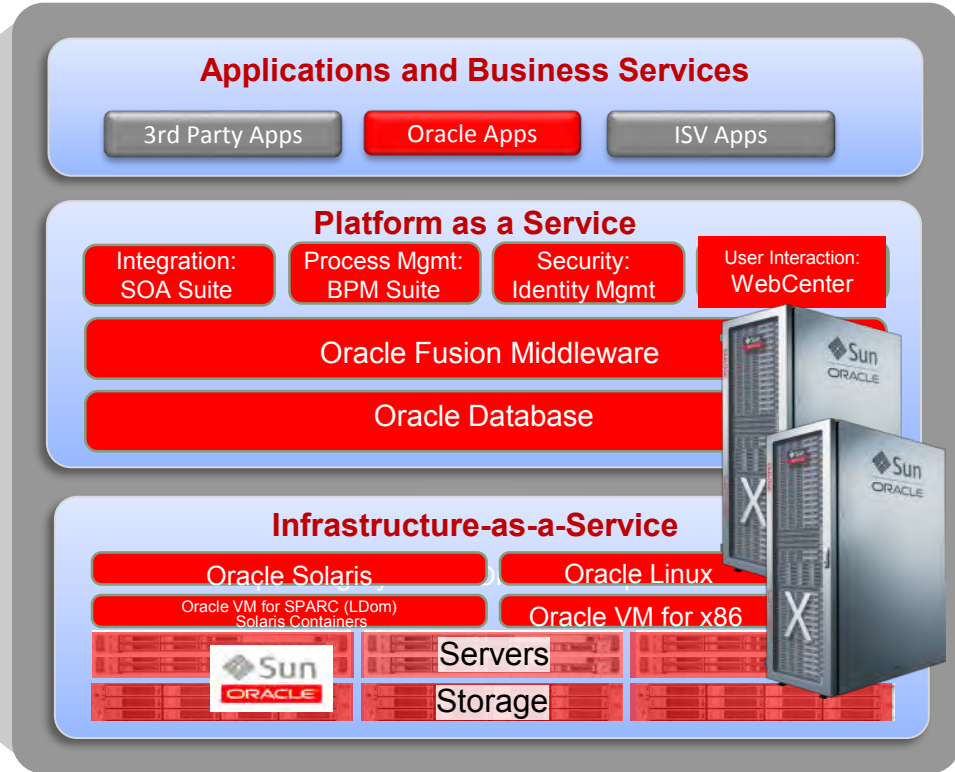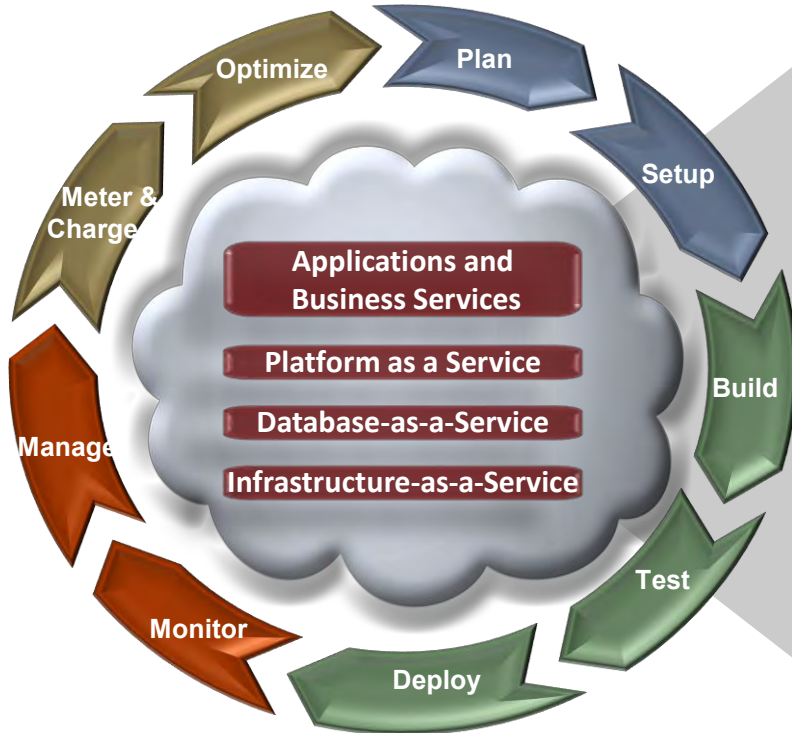
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Oracle Cloud Computing
Solid foundation.
Elastic cloud.

Oracle Public Cloud

Oracle Cloud SaaS

Customer Relationship Management

Sales Planning
Installed Base
Accounts & Contacts
Sales Prediction
Territories

Sales Management
Quotas
Commissions
Forecasting
Partners

CRM

Marketing
Campaigns
Google Ad-Words
E-mail & Web
Leads

Sales Execution
Opportunities
Sales Contracts
Sales Intelligence
Mobile Sales

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Oracle Cloud SaaS
Human Resources

Workforce Management
Workforce Planning
Lifecycle Management
Workforce Prediction
Workforce Intelligence

Compensation
Compensation
Benefits
Payroll
Absence

Human Resources

Employee Self-Service
Worker Directory
Network@Work
Worker Portrait
Mobile Self-Service

Talent Management
Performance Management
Goal Management
Talent Review
Personal Profile

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Oracle Cloud SaaS

Oracle Social Network

Social Network
Enterprise Social Graph
Facebook
Linked-In
Expertise Identification

Document Sharing
Workspaces
Sharing
Co-Editing
Tags, Topics, Search

Oracle Social Network

Feeds
Activity Streams
Application Feeds
Recommendations
Conversations

Real-Time Communications
Discussion Forums
Presence & Chat
Conferencing
Mobile Social

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Application Services: 100+ Cloud Applications
Complete Suite, Best-of-Breed, Enterprise Grade

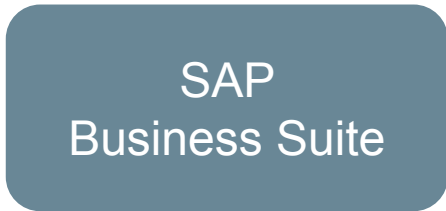|			
Human Capital Management	**Talent Management**	**Sales & Marketing**	**Customer Experience**
Financial Management	**Procurement, Sourcing, Inventory**	**Project Management**	**Governance, Risk, Compliance**

Common Infrastructure Services

Runs In The Cloud And On Premise

CRM Only

HCM Only

Talent Only

Cloud Only Silos

SAP
Business Suite

On Premise Only Suite

ORACLE®
FUSION APPLICATIONS

Complete Suite
In Cloud **AND** On Premise

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Oracle Cloud PaaS
Database Service

- Runs Oracle Database on the cloud
- Runs any Oracle DBMS Application
  - SQL & PL/SQL
  - Java & REST APIs
- Web-based application development
  - Oracle Application Express (APEX)
- Seamless: from cloud to on-premise
- Secure: data, schema, & table-space isolation

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Oracle Cloud PaaS
Java Cloud Service
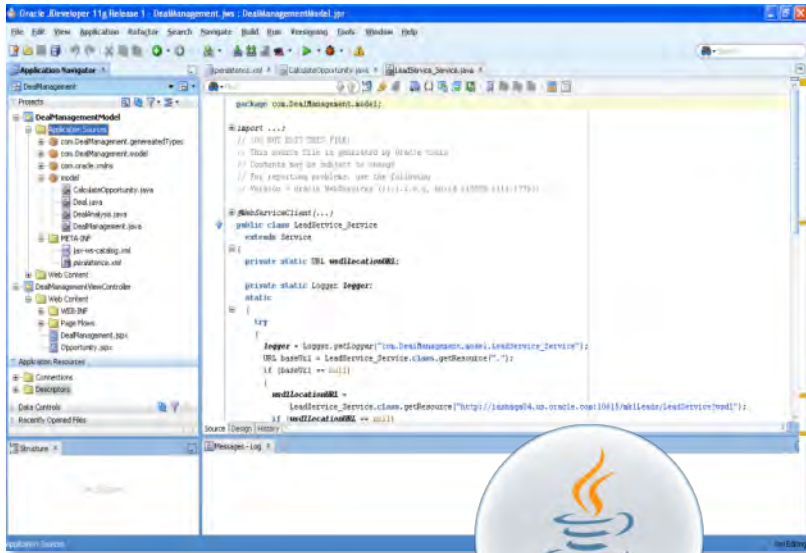
- Runs any Java application in the cloud

- Complete Java EE Support

- SOAP & RESTful Web Services

- Eclipse, NetBeans, & JDeveloper Tools

- Auto-generate Database Schemas

- Secure: application and data isolation
  - dedicated virtual machines

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Platform Services

Develop	Web	Mobile
• **Enable development teams** • **Lifecycle management**	• **Script in popular languages** • **Fast, secure, reliable**	• **Native or HTML5 applications** • **Cross-platform and device**

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Platform Services
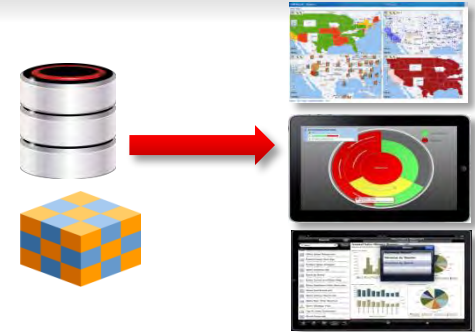
Documents

- **Team collaboration**
- **Document workspaces**
- **File & device synchronization**

Sites

- **Build rich media sites**
- **Visual drag & drop design**
- **Self-service publishing**

Analytics

- **Load data and model KPIs**
- **Build reports and dashboards**
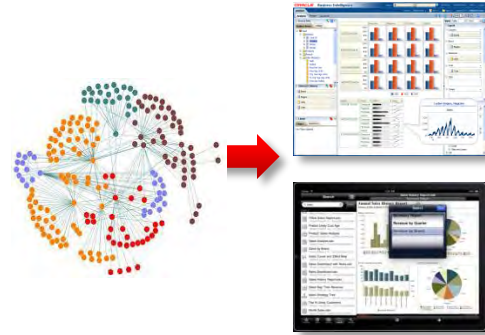- **Publish to Web, mobile**

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Social Services

Social Marketing & Engagement

- **Social Relationship Marketing**
- **Build brands on social**
- **Market, engage, transact socially**

Social Intelligence

- **Social media monitoring**
- **Collect and analyze social streams**
- **Respond and service**

Oracle Cloud

Platform Services   **Application Services**   **Social Services**

Common Infrastructure Services
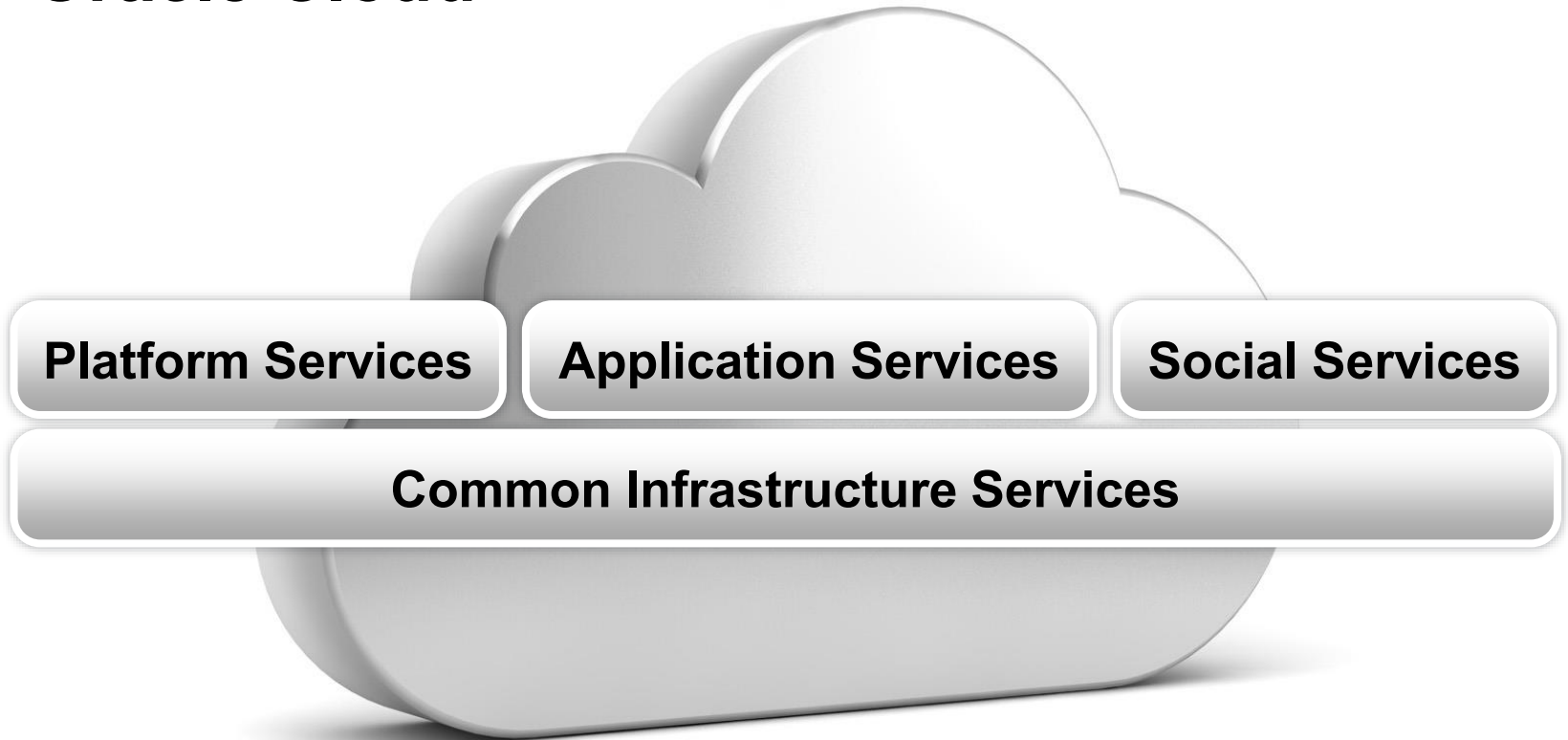
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Oracle Cloud
Extremely Easy-to-Use

1. Pick Service → 2. Select Plan → 3. Configure Service

cloud.oracle.com

6. Use and Manage ← 5. Get Credentials ← 4. Submit Request

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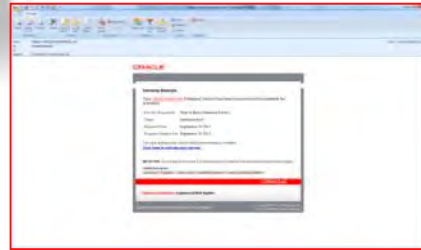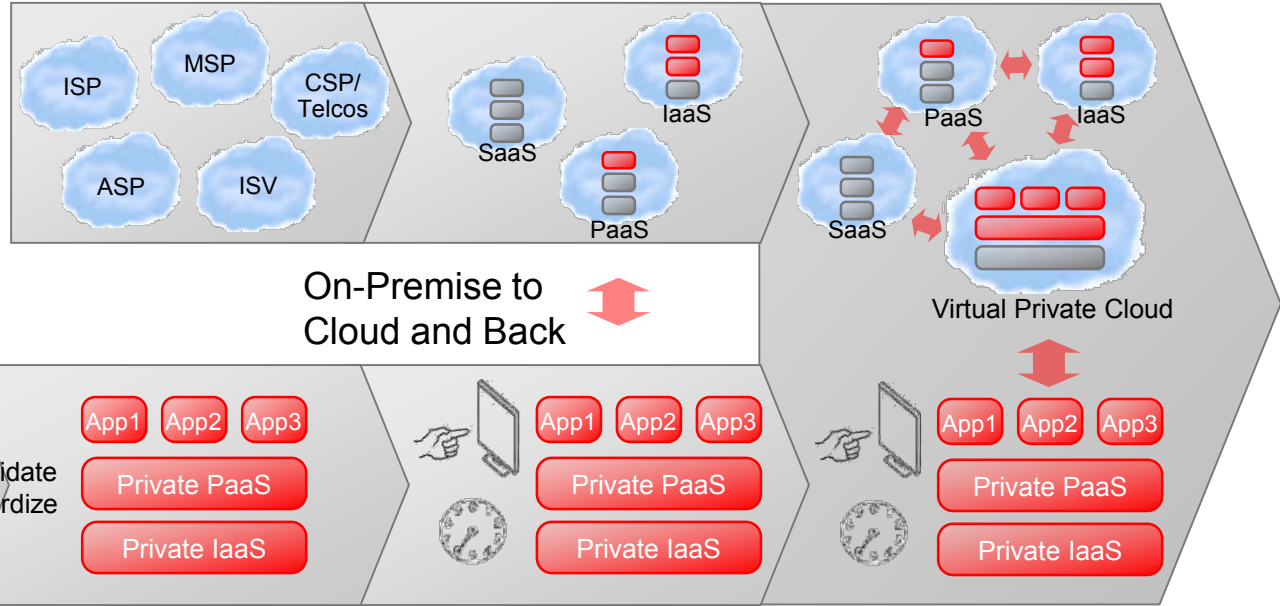# Evolution of Private and Public Clouds

Public Cloud Evolution — Service Providers ▶ Public Clouds ▶ Hybrid

ISP
MSP
CSP/Telcos
ASP
ISV

SaaS
IaaS
PaaS

PaaS
IaaS
SaaS
Virtual Private Cloud

On-Premise to Cloud and Back

Private Cloud Evolution

App1 App2 App3
Consolidate Standardize

App1 App2 App3
Private PaaS
Private IaaS

App1 App2 App3
Private PaaS
Private IaaS

App1 App2 App3
Private PaaS
Private IaaS

Silo'd ▶ Consolidated ▶ Private Cloud ▶ Hybrid

Silo'd
- Physical
- Dedicated
- Static
- Heterogeneous

Consolidated
- Virtual
- Shared services
- Dynamic
- Standardized appliances

Private Cloud
- Self-service
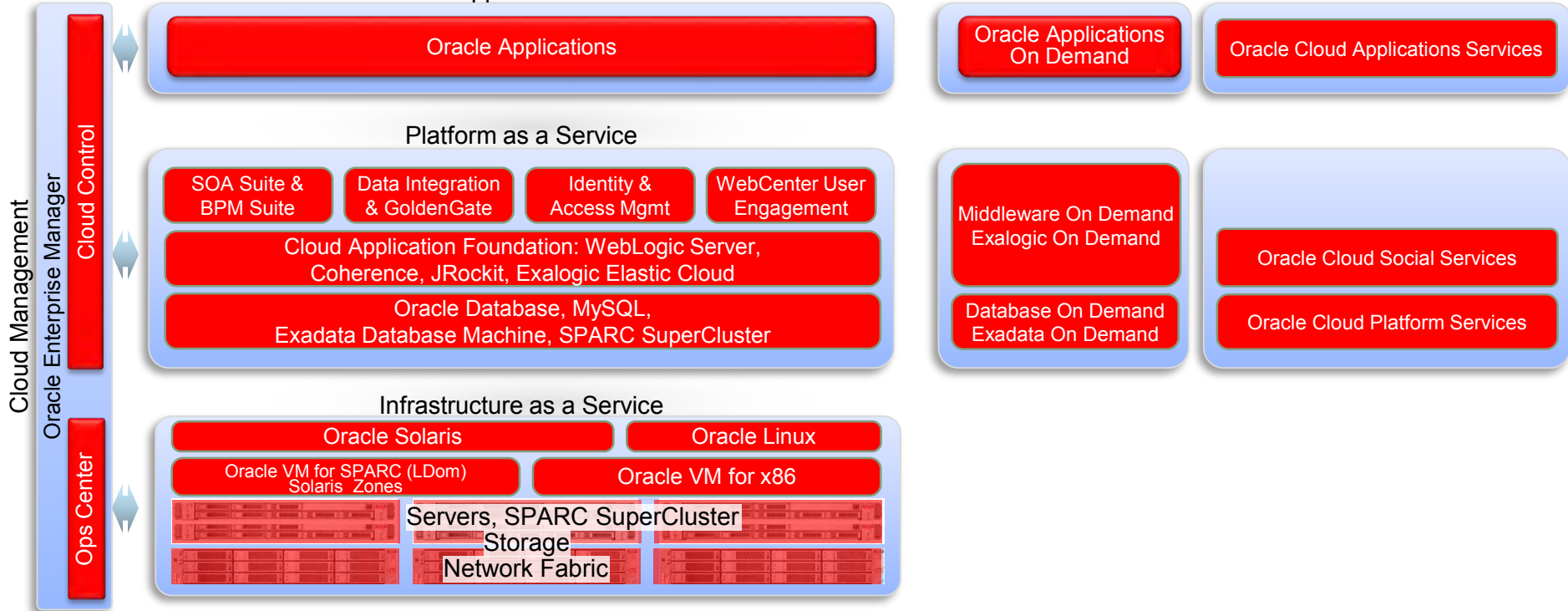- Policy-based resource mgmt.
- Chargeback
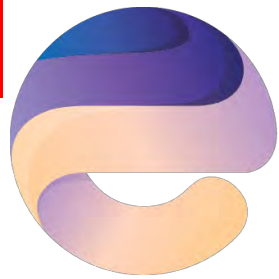- Capacity planning

Hybrid
- Federation with public clouds
- Interoperability
- Cloud bursting

Oracle Cloud Offerings – Complete Choice

Private Cloud Products

Private & Public Cloud Services

Cloud Management

Oracle Enterprise Manager

Cloud Control

Ops Center

Applications

Oracle Applications

Platform as a Service

| SOA Suite & BPM Suite | Data Integration & GoldenGate | Identity & Access Mgmt | WebCenter User Engagement |

Cloud Application Foundation: WebLogic Server, Coherence, JRockit, Exalogic Elastic Cloud

Oracle Database, MySQL, Exadata Database Machine, SPARC SuperCluster

Infrastructure as a Service

| Oracle Solaris | Oracle Linux |

| Oracle VM for SPARC (LDom) Solaris Zones | Oracle VM for x86 |

Servers, SPARC SuperCluster
Storage
Network Fabric

Oracle Cloud Services

Oracle Applications On Demand

Middleware On Demand
Exalogic On Demand

Database On Demand
Exadata On Demand

Oracle Cloud

Oracle Cloud Applications Services

Oracle Cloud Social Services

Oracle Cloud Platform Services

ORACLE

elogics Systems

The technology solutions architects

ORACLE Gold Partner Cloud Standard

Cloud Excellence Implementer

We are directly connected with Oracle world wide expertise on cloud. We have recently completed successful cloud implementation of DR and ERP production site setups on latest Oracle Cloud (OCI). We can provide you excellent solution.

Please feel free to send us an email on sales@elogicssystems.com to set an appointment with our team to discuss a suitable solution for your organization. Thank you

Kuwait