

Oracle Applications and Cloud Computing - Future Direction

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Agenda

Introduction to CLOUD

Oracle Corporation and CLOUD

Oracle Applications in the CLOUD

The Future Direction

Questions and Answers

How did the CLOUD form?

- Mainframes and Virtualization
- TCP/IP and the Internet
- SOA
- Grid Computing
- Automatic Storage Management
- Identity Management
- Application Grid
- RAC
- Distributed Application Design

CLOUD – The Simple Picture

- Service over the internet
- Infrastructure separated from the service
- Pay as you use
- Allows scalability of operations without investment
- Elasticity

What does CLOUD offer

- Agility rapid, inexpensive re-provisioning of resources
- Independence of Device and location
- Multi-tenancy sharing resources and costs across large pool of users
- Reliability improves through use of multiple redundant sites
- Scalability via dynamic ("on-demand") provisioning of resources

Layers of Clouds

- SaaS – Software as a Service
- PaaS – Platform as a Service
- IaaS – Infrastructure as a Service

Cloud – SaaS

Features

- Single Application
- Multiple Users across Customers

Examples of Uses

- HR – ADP Processing Services
- Credit Card Services to Vendors and Consumers

Cloud – PaaS

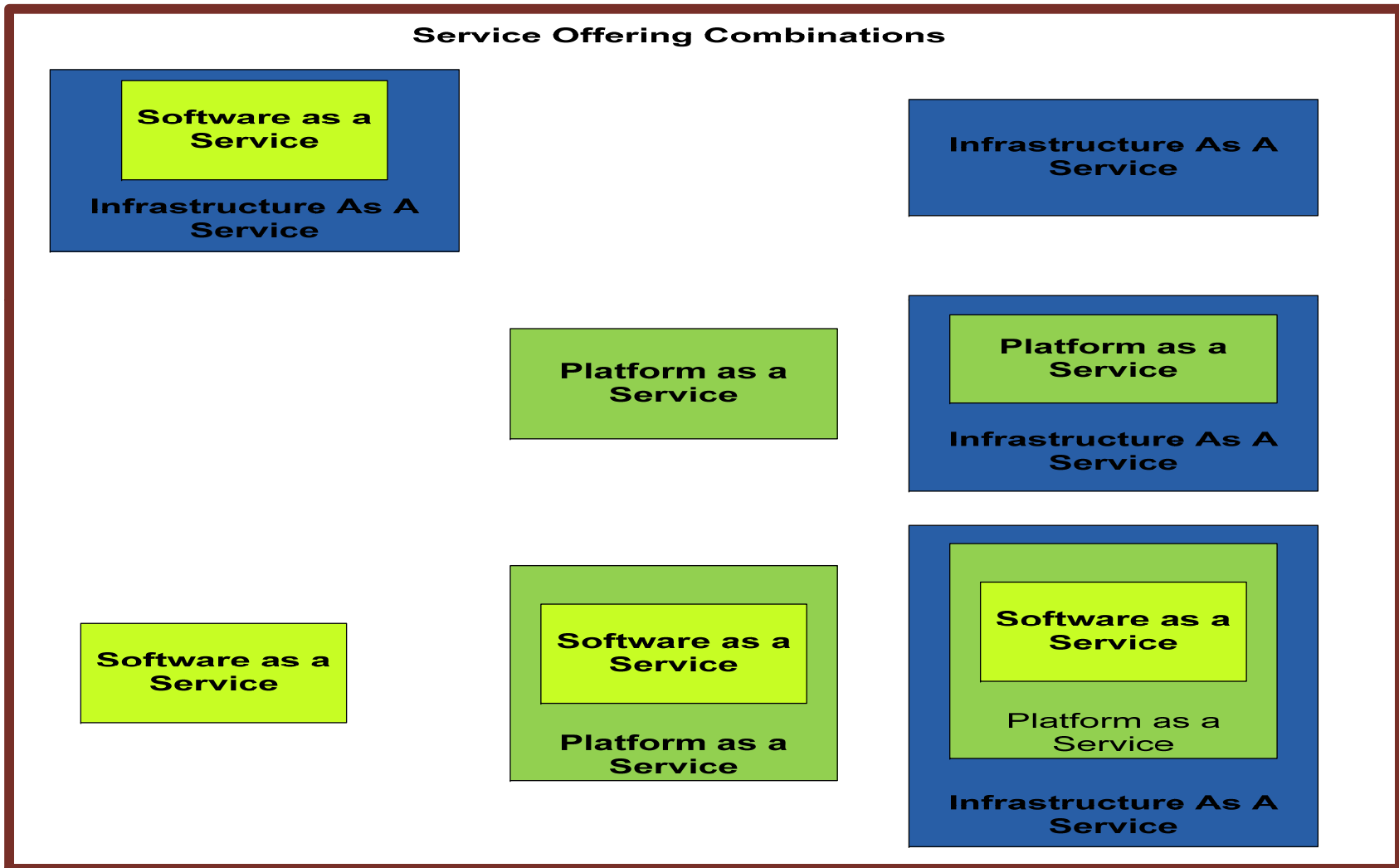
- Software development tools hosted on the provider's servers
- Computing platform and/or solution stack
- Deployment at lower cost

Cloud – IaaS

- Virtual servers with unique IP addresses
- Blocks of storage on demand.
- Customers control their servers from an API.
- Pay as you user - also called utility computing

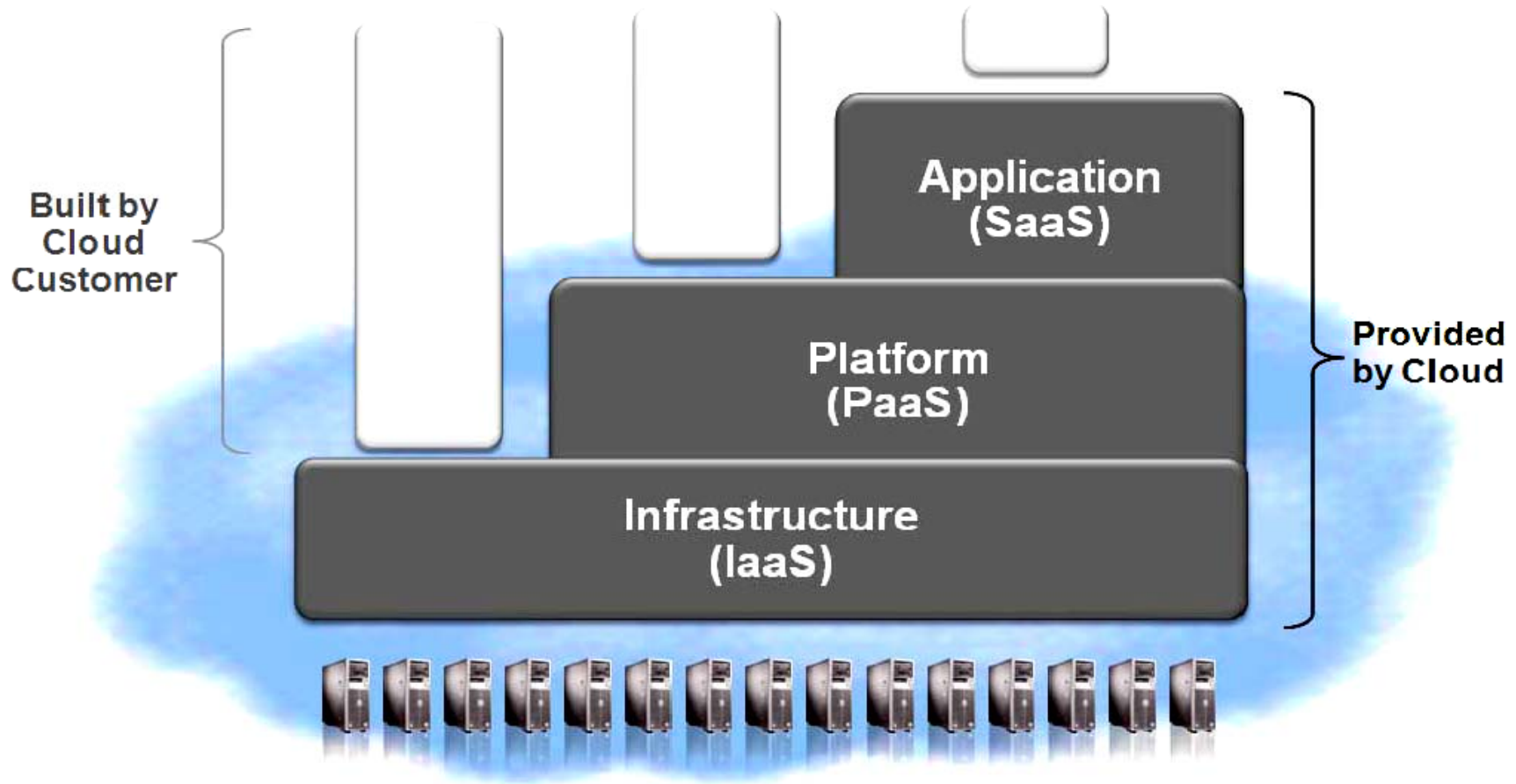


Service Offering Combinations





Layers of Clouds

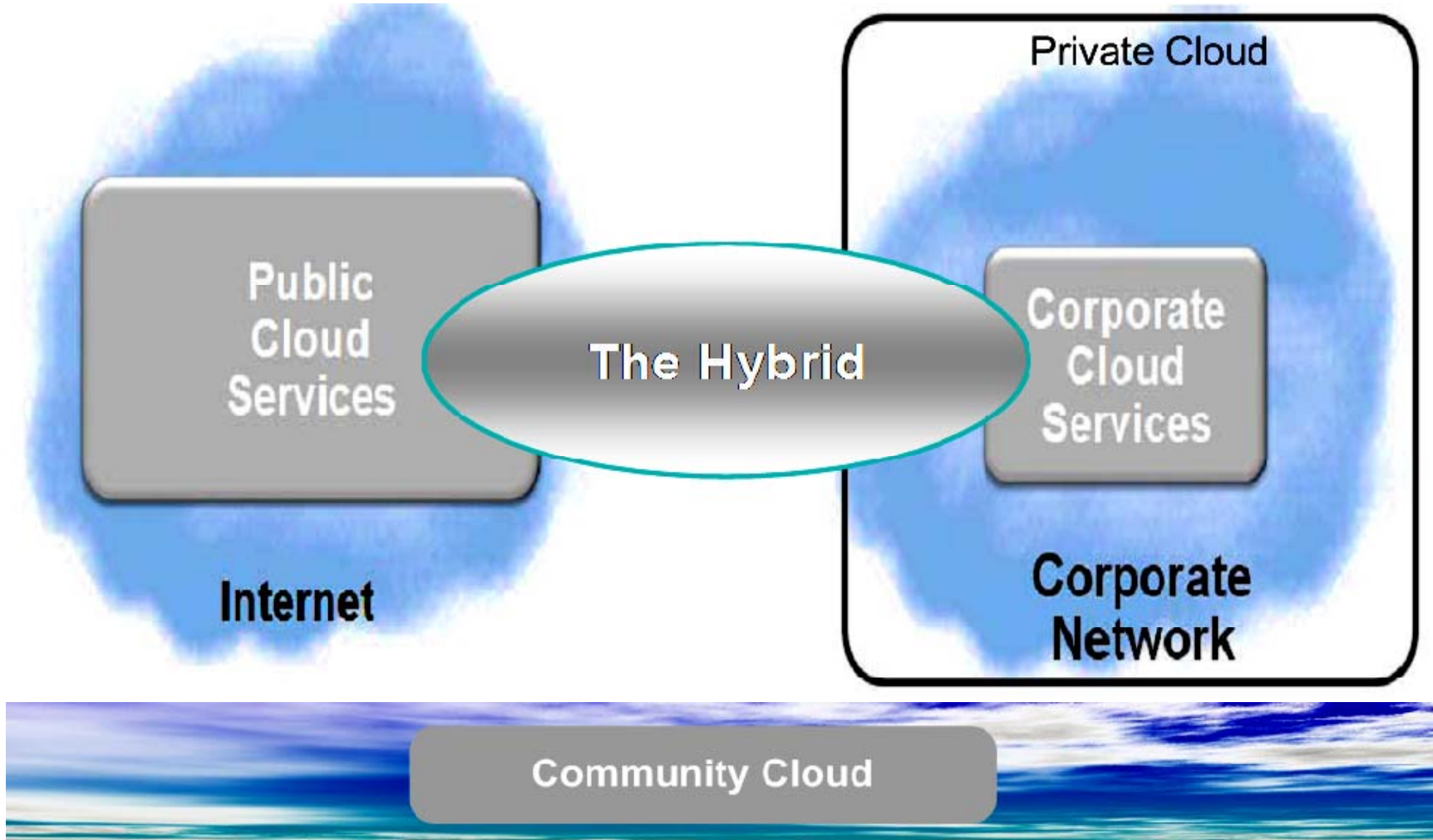


Deployment in the Cloud

- Private
- Public
- Hybrid
- Community



Deployment in the Cloud - Contd





Oracle and the Cloud

Private Cloud

- PaaS: Fusion Middleware
- IaaS : Oracle On Demand

Public Cloud

- SaaS: Oracle CRM on Demand
- IaaS : Amazon Web Services

Oracle and PaaS

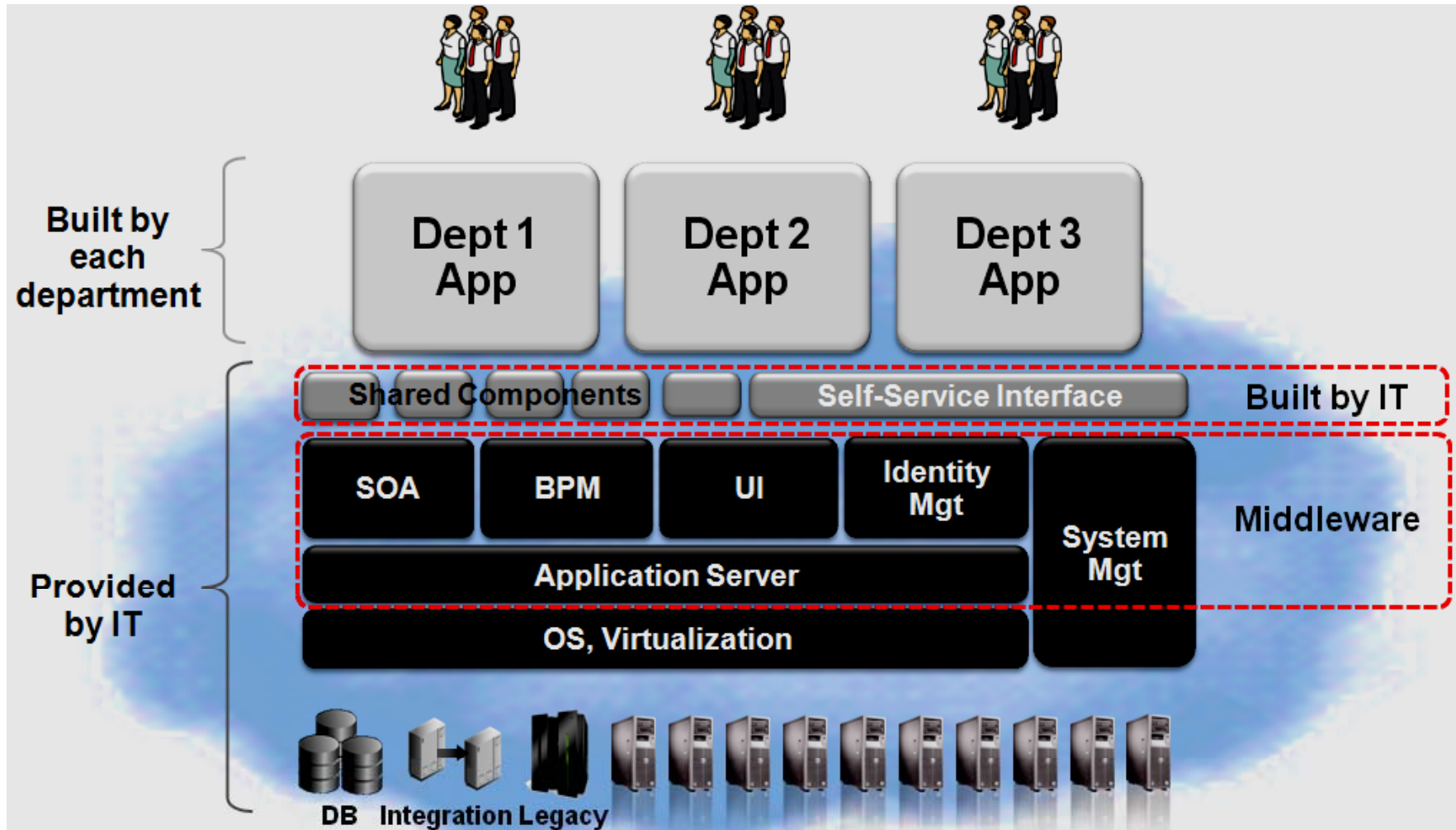
Oracle helps Cloud formation in PaaS Space

Fusion Middleware

- WebLogic Server
- SOA and BPM
- User Interaction
- Identity and Access Management
- Systems Management



PaaS - Architecture





PaaS - Application Grid

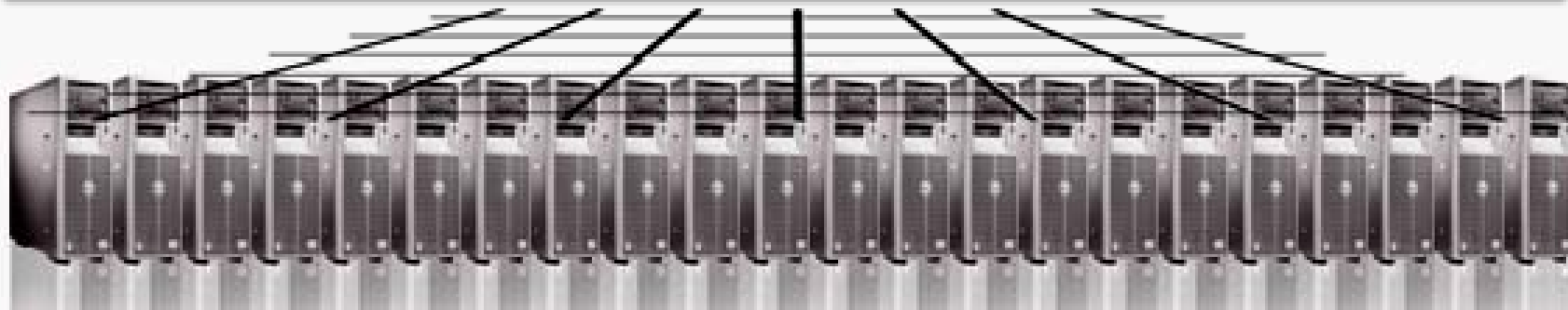
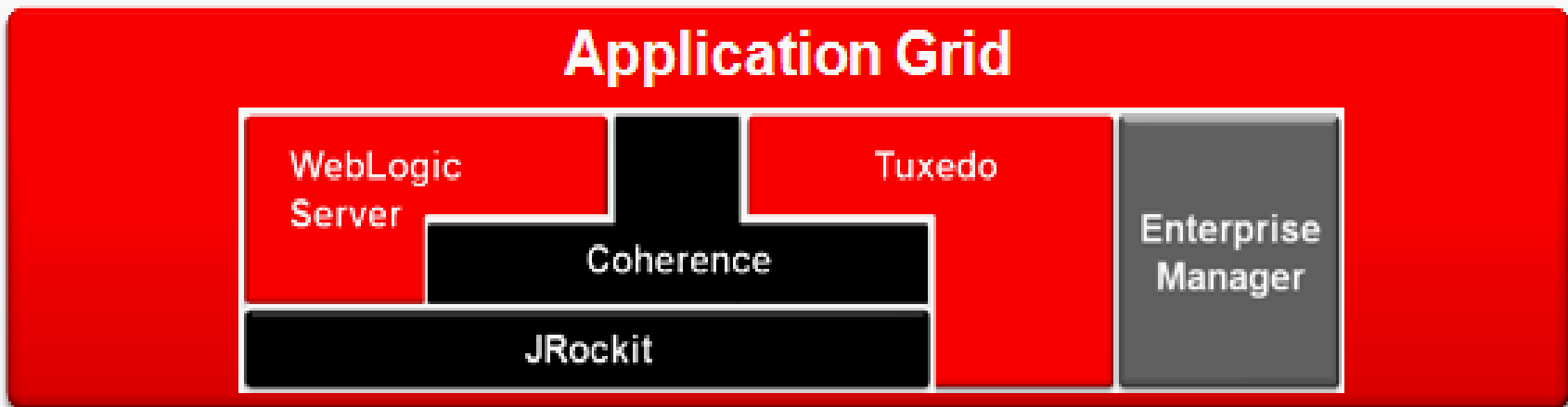
Custom App

Packaged App

SOA Service

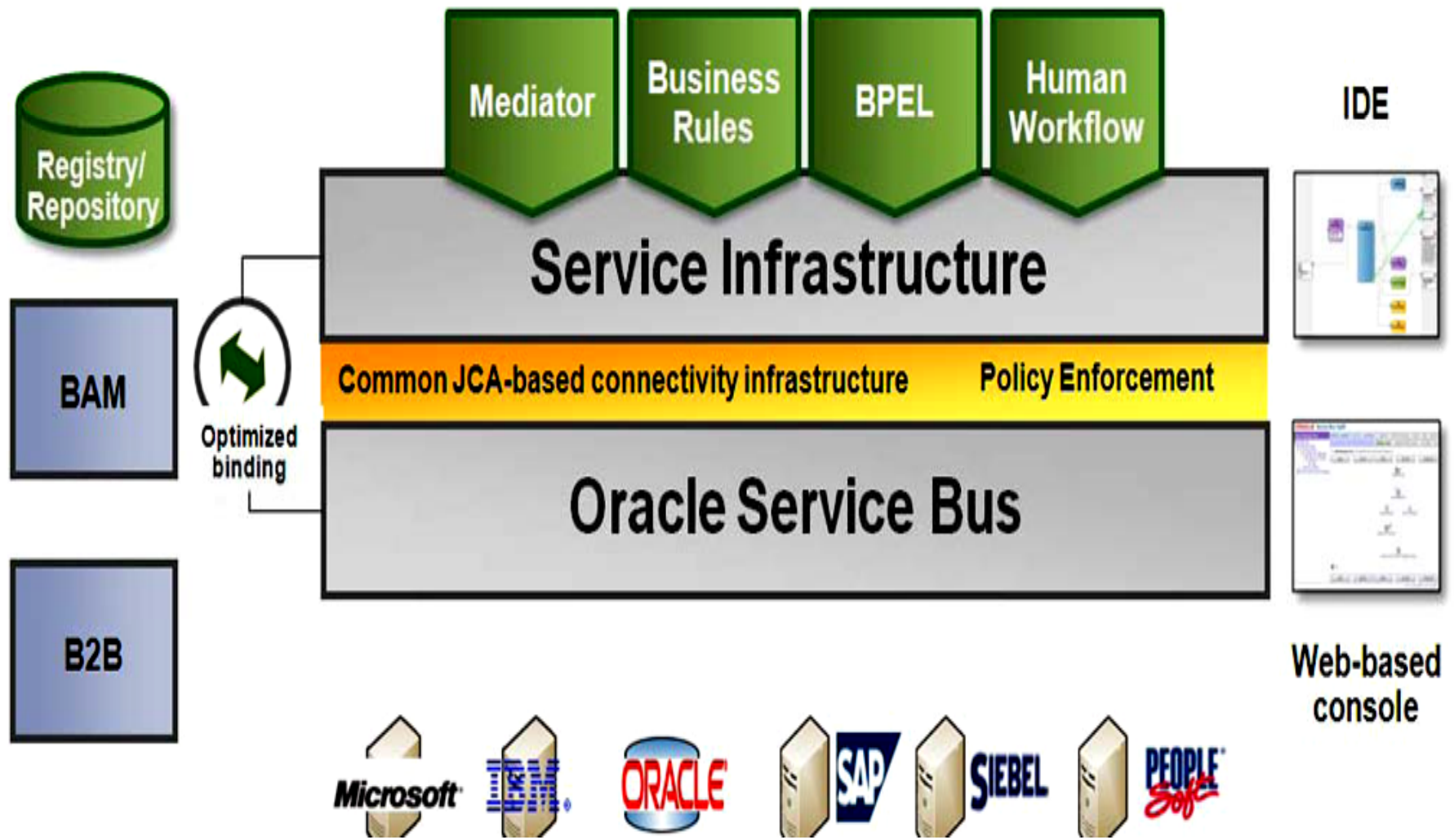
C/C++/ COBOL

Legacy



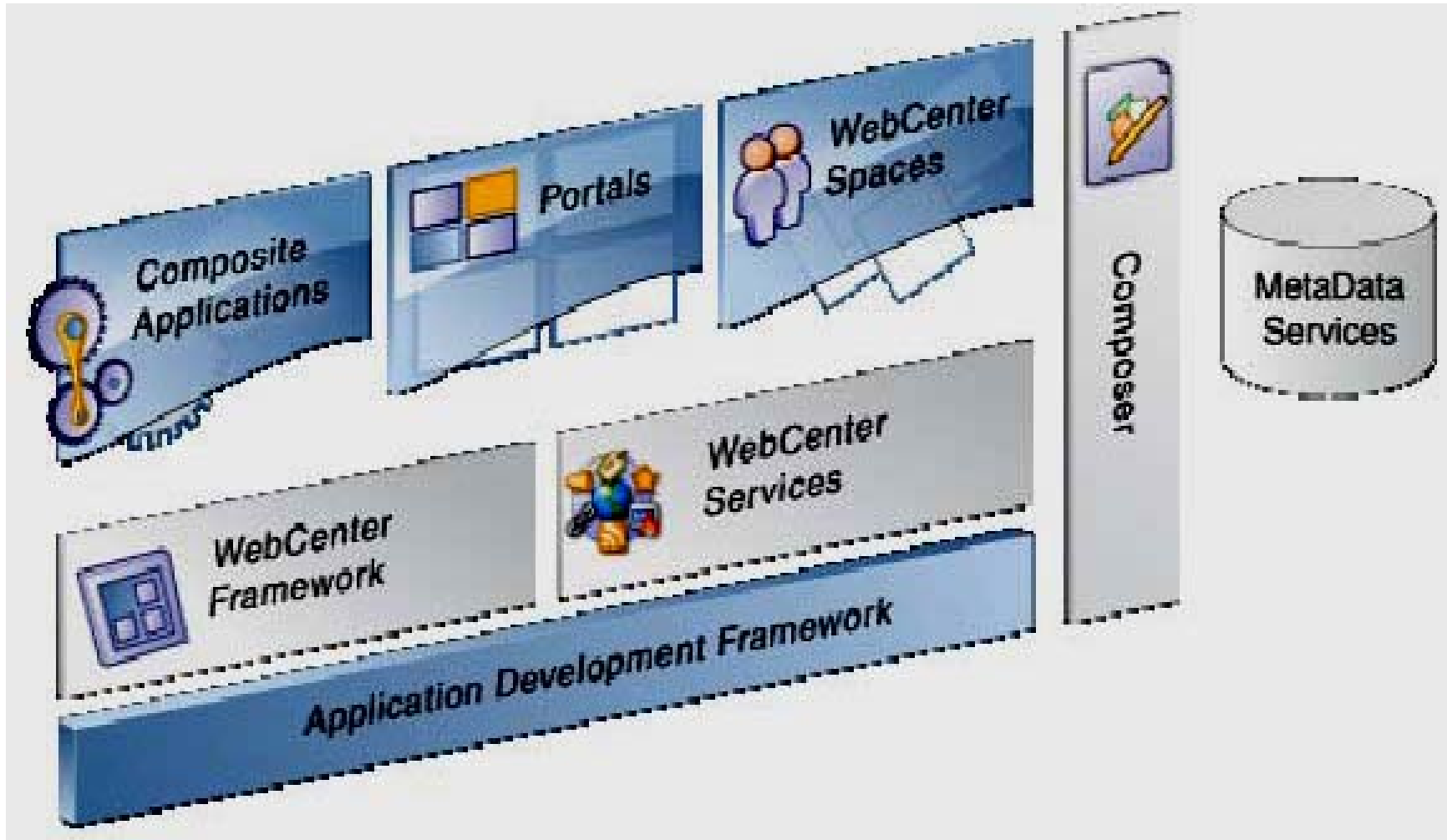


PaaS – SOA and BPM



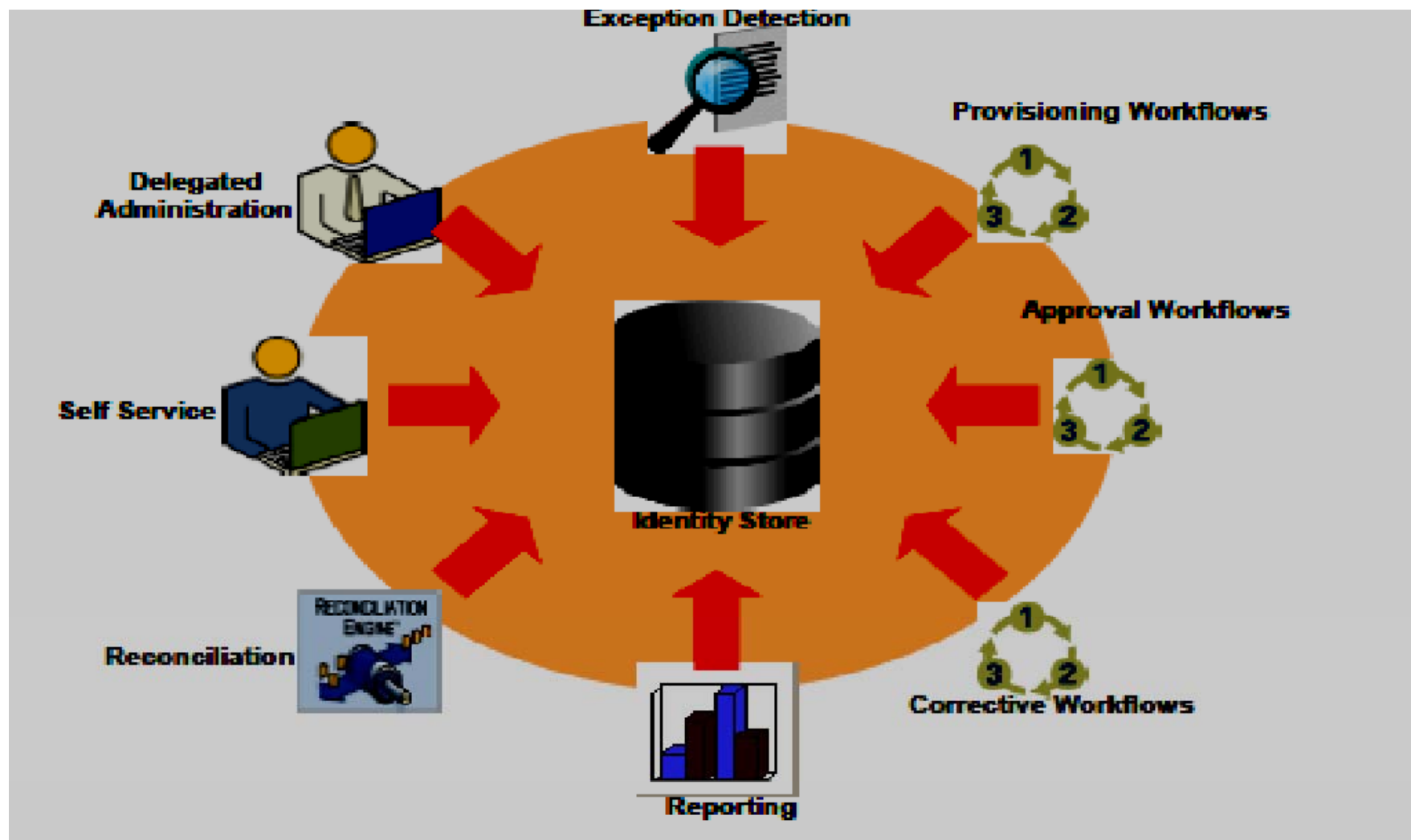


PaaS – User Interaction



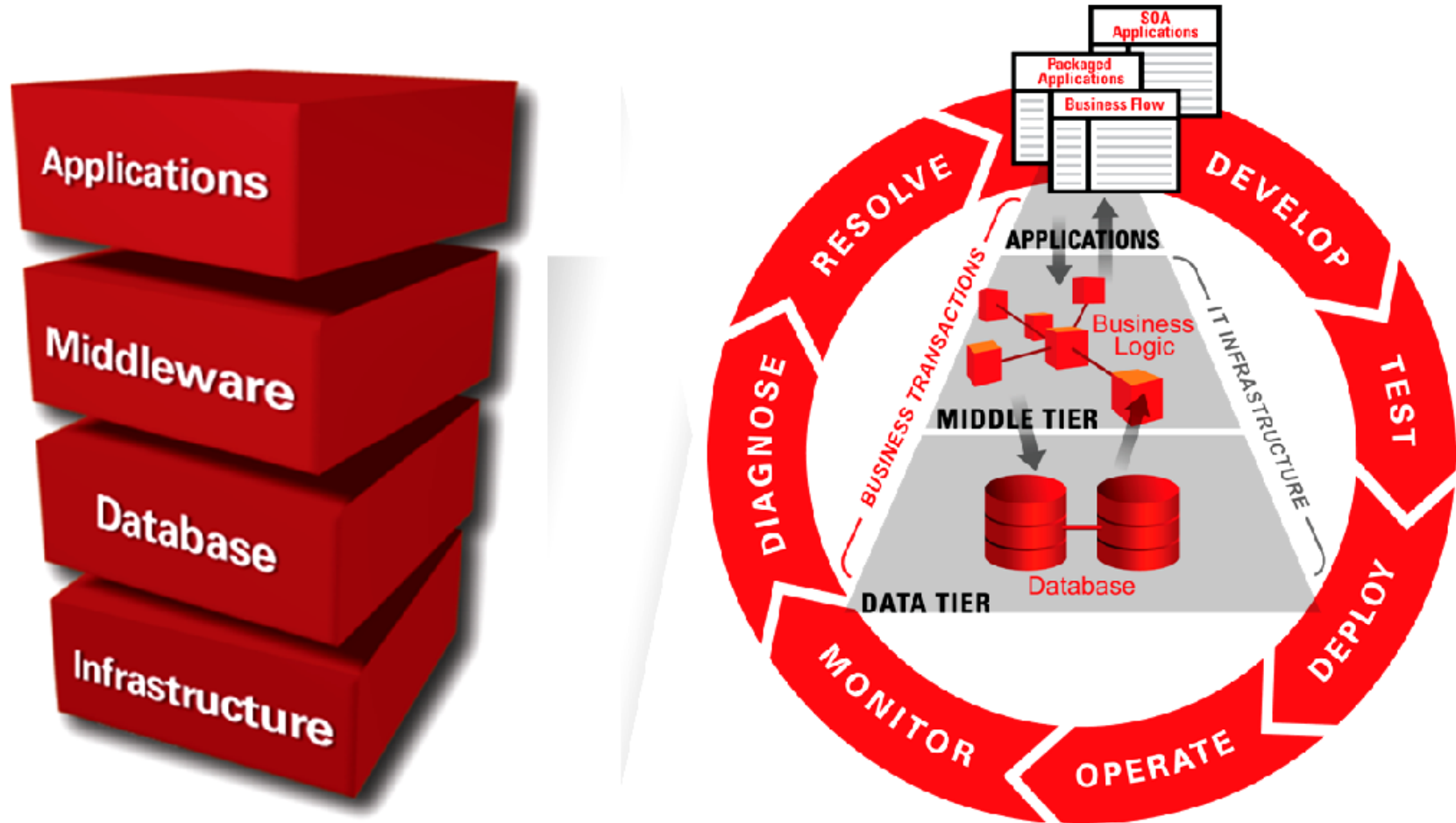


PaaS - Identity and Access Management Suite





PaaS - Oracle Enterprise Manager



Oracle and Private IaaS

Oracle On Demand

- Completely managed by Oracle
- Virtualization Engine manages resource allocation.
- Dependent on the size of the Application/Users

Oracle and Public Cloud - IaaS

Association with Amazon Web Services (AWS)

- Database
- Elastic Block Storage
- Applications





What is AWS – EC2

Elastic Compute Cloud (EC2) from Amazon
a web service
that provides resizable computing capacity
in the cloud





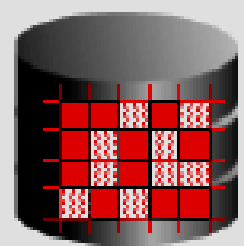
Oracle in Amazon EC2

- Pre-packaged Amazon Machine Images (AMI's)
- Weblogic Server
- User Authentication
- Ready-to-use scripts for new database creation
- Supported by Oracle and Amazon Premium Support
- Separate licensing fee

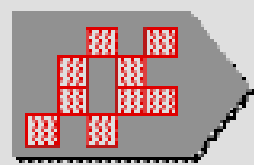


Oracle Database Backup in the Cloud

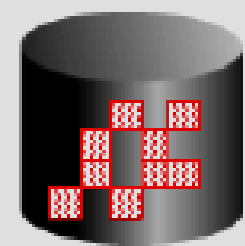
Database Files



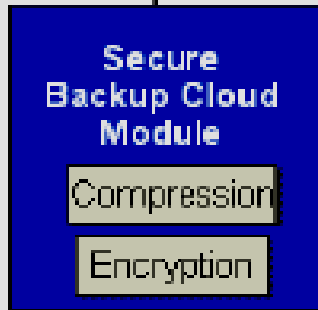
RMAN Backup



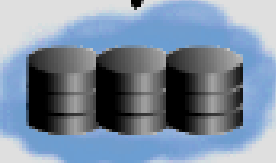
Local Disk Backup



RMAN Tape Interface



- **New Oracle Secure Backup Cloud interface**
 - Works with 9i and higher DB versions
- **More Reliable than tapes, Faster Restores**
- **Eliminates tape backup and offsite tape management overhead**



E-Business Suite Deployment

Models

- @Oracle
- @Customer/@Partner

EBS Deployment on AWS

- Supported for the US-east region
- Dual AMI for EBS Ver. 12.1.3
- Database tier VM includes Oracle Linux 5.5
- Single environment for virtual and physical infrastructure

EBS Deployment on AWS – (Contd)

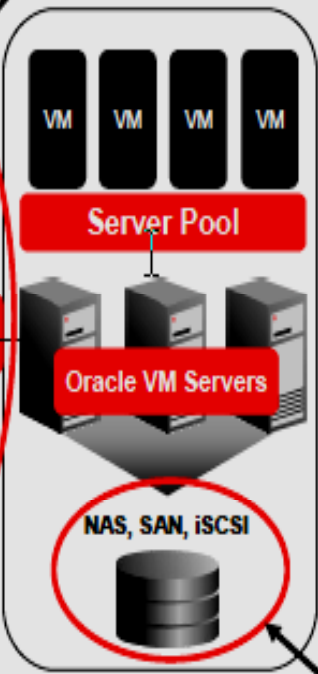
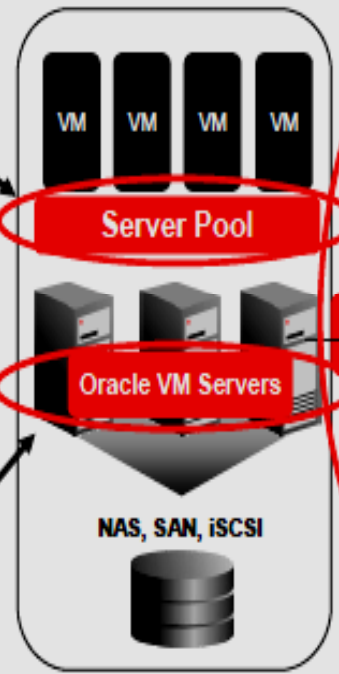
- Monitor performance and utilization at every level
- Improve speed of true end-to-end provisioning
- Do it in an extendable, customizable way



Oracle VM Concepts Overview

VM

- Server Pools:**
- Pool resources
 - Load balance
 - Migrate
 - Auto failover



- Oracle VM Manager:**
- Browser-based
 - Java server
 - Scalable & Available

- Oracle VM Servers:**
- Hold guest VMs
 - Enterprise Linux
 - Windows

- Shared Storage Pool Options:**
- NAS/NFS
 - SAN
 - iSCSI

Sticky Issues

- Licensing
- No Global Support
- No RAC
- Only instance types in the High-Memory family supported
- Unable to use Oracle VM Server Management console
- Security Issues?



Cloud – Current Developments

Predictions

- \$150 billion by 2013 
- 3.2 % of U.S. Small businesses 
- Small-business spending 36.2 % 

Cloud -Future Direction

Questions without answers – External

- Interoperability
- Standards still being developed
- Failover reliability
- Performance SLA's
- Quantifiable Measures not defined

Cloud -Future Direction (Contd)

Questions– Internal

- Moving to new Process
- Management/IT/Organization -willingness to change
- Risk capacity to invest in new concepts
- Resist from IT due to role change
- Sunk costs on existing infrastructure?
- Security Issues



Major Movements

- Standards
- Measures of Effectiveness
- Firmer definitions of Cloud
- Better understanding
- Voice of Customer



Oracle EBS & Cloud -Future Direction

- Licensing
- Support for more regions
- Better infrastructure and facilities
- More support to Public and Private Cloud
- EBS & SaaS?
- PaaS with EBS – more enhancements



Questions and Answers



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