boussias conferences

Cloud Computing Conference
Marousi Plaza Auditorium
28 Feb 2013

ORACLE

Demystifying Cloud for IT Business

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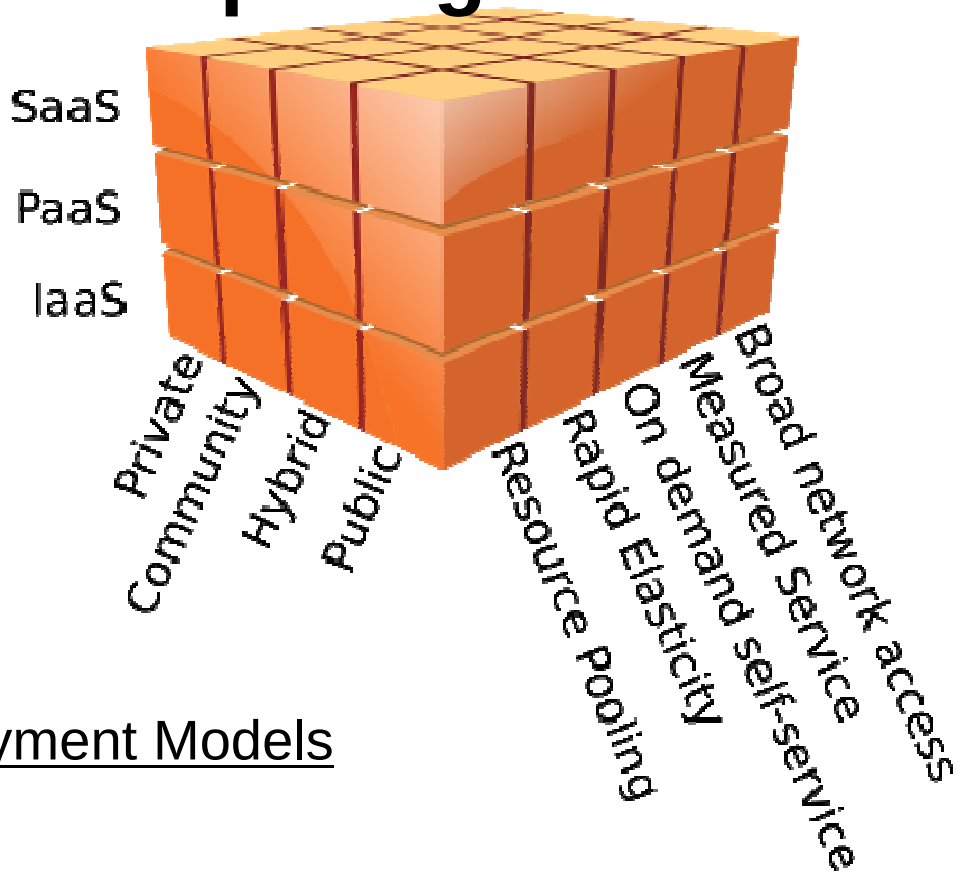
Definition of Cloud Computing

3 Service Models



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:

4 Deployment Models

5 Essential Characteristics

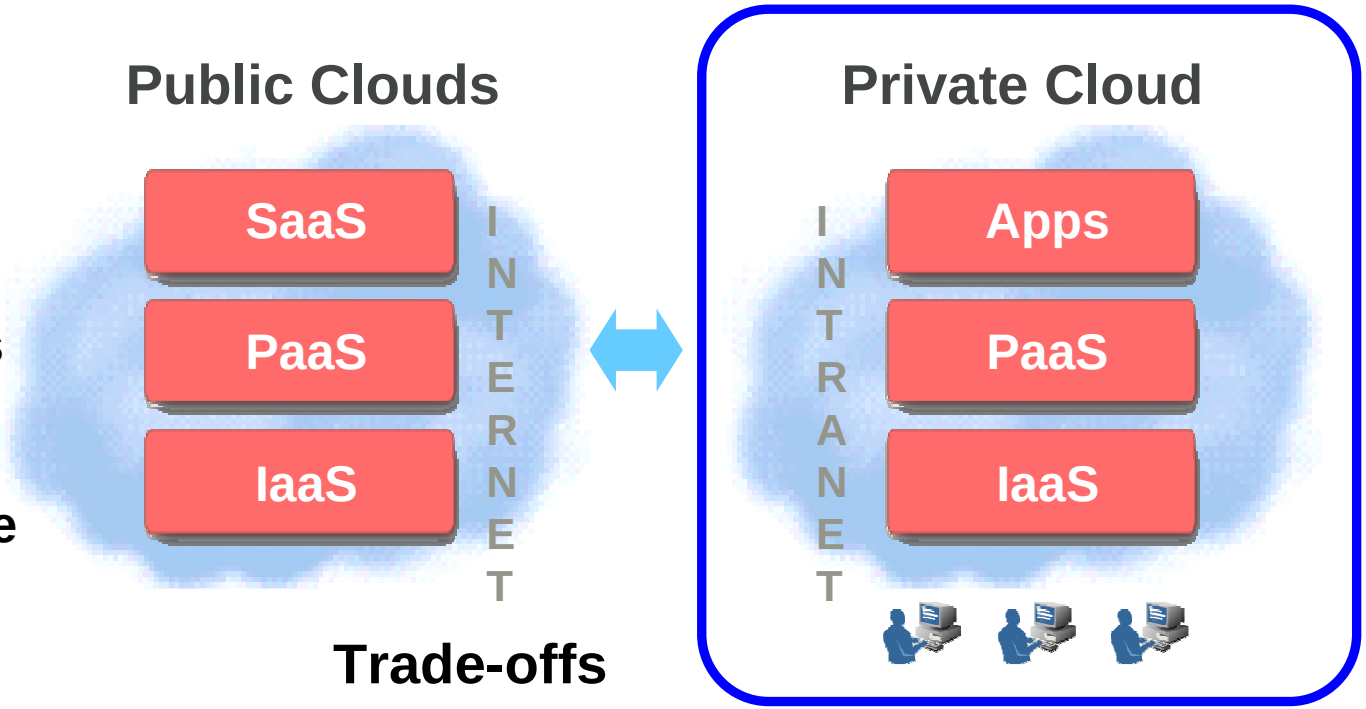
Source: NIST Definition of Cloud Computing v15

Oracle Cloud: Mission

Bring Oracle's leading Enterprise Technology and Business Applications Software to any customer or partner, anywhere in the world, through the Internet

Public Clouds and Private Clouds

- Used by multiple tenants on a shared basis
- Hosted and managed by cloud service provider



- Exclusively used by a single organization
- Controlled and managed by in-house IT

Trade-offs

Lower *upfront* costs ⟷ Lower *total* costs

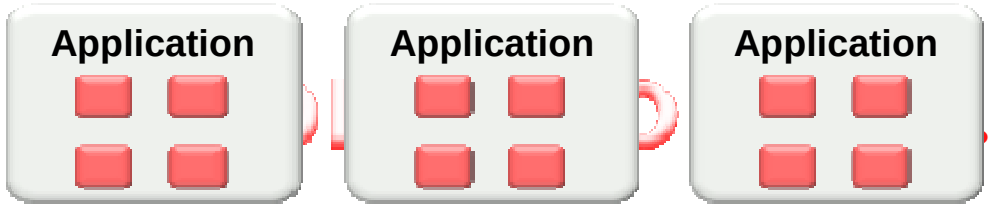
Outsourced management ⟷ Greater control over security, compliance, QoS

OpEx ⟷ CapEx & OpEx

Enterprises will adopt a mix of public and private clouds

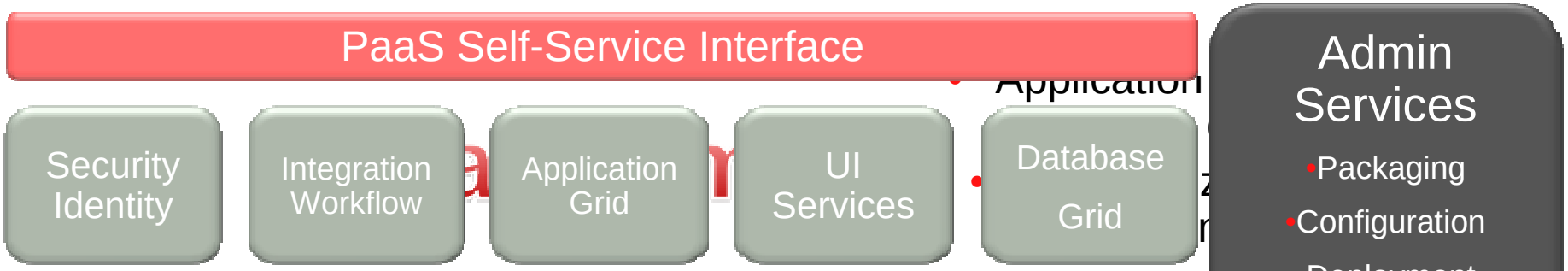
Cloud Computing Service Models

SaaS

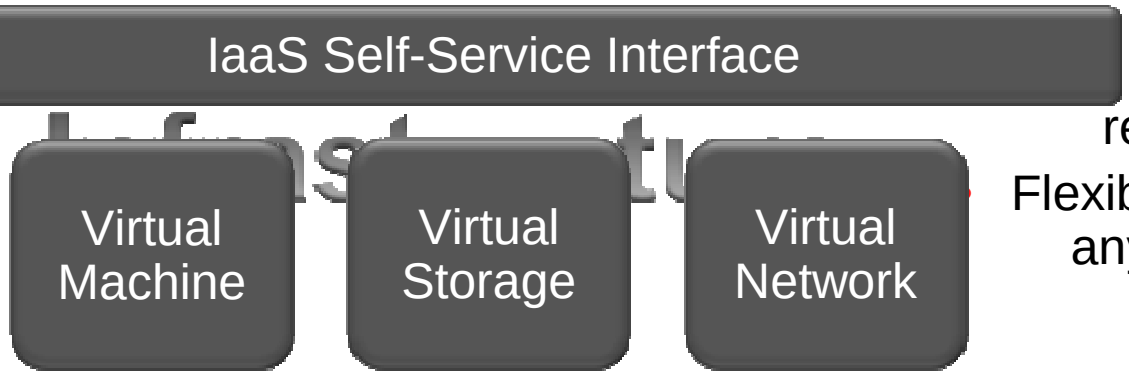


Locked into using available features

PaaS



IaaS



Flexibility

Traditional Computing Environments

Silos of hardware, storage, software & applications

- Sized for individual peak loads
  - Inefficient and expensive
- Meet changing business needs?
  - Inflexible and unresponsive
- Expensive to manage
  - Too many moving parts

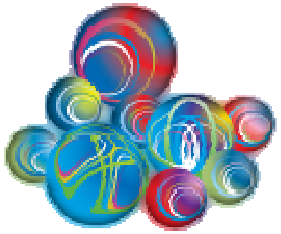
Virtualization SPRAWL

Lack of TIME

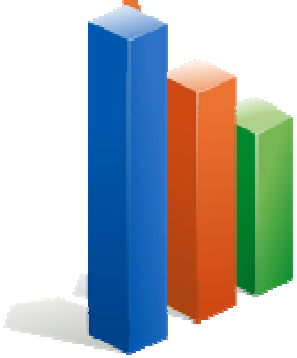
Encourages broad standards and shortcuts, and well as inconsistent environments

Lack of Automation

Increases Management time, and creates inconsistencies reducing time available for optimization



SPRAWL

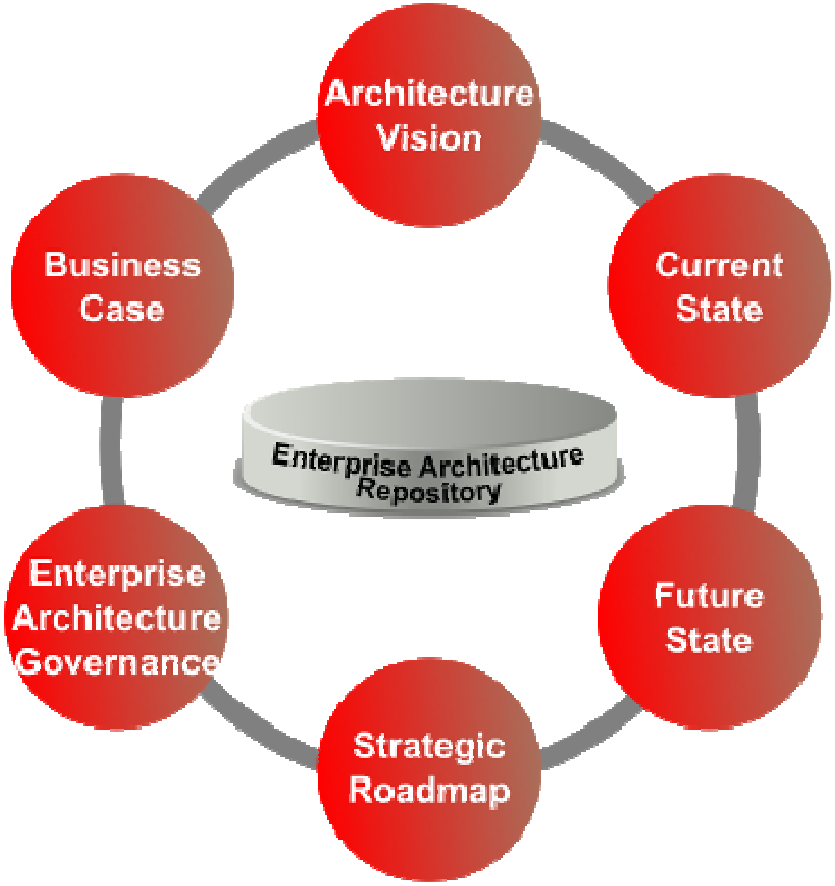


Lack of Insight/Reporting

Increases troubleshooting and management time, reducing time available for optimization

What is
Oracle Enterprise Architecture Framework

- Enterprise Architecture (EA) is a method and an organizing principle that aligns functional business objectives and strategies with an IT strategy and execution plan.



What is ITIL

- The Information Technology Infrastructure Library (ITIL) is a set of practices for IT service management (ITSM) that focuses on aligning IT services with the needs of business

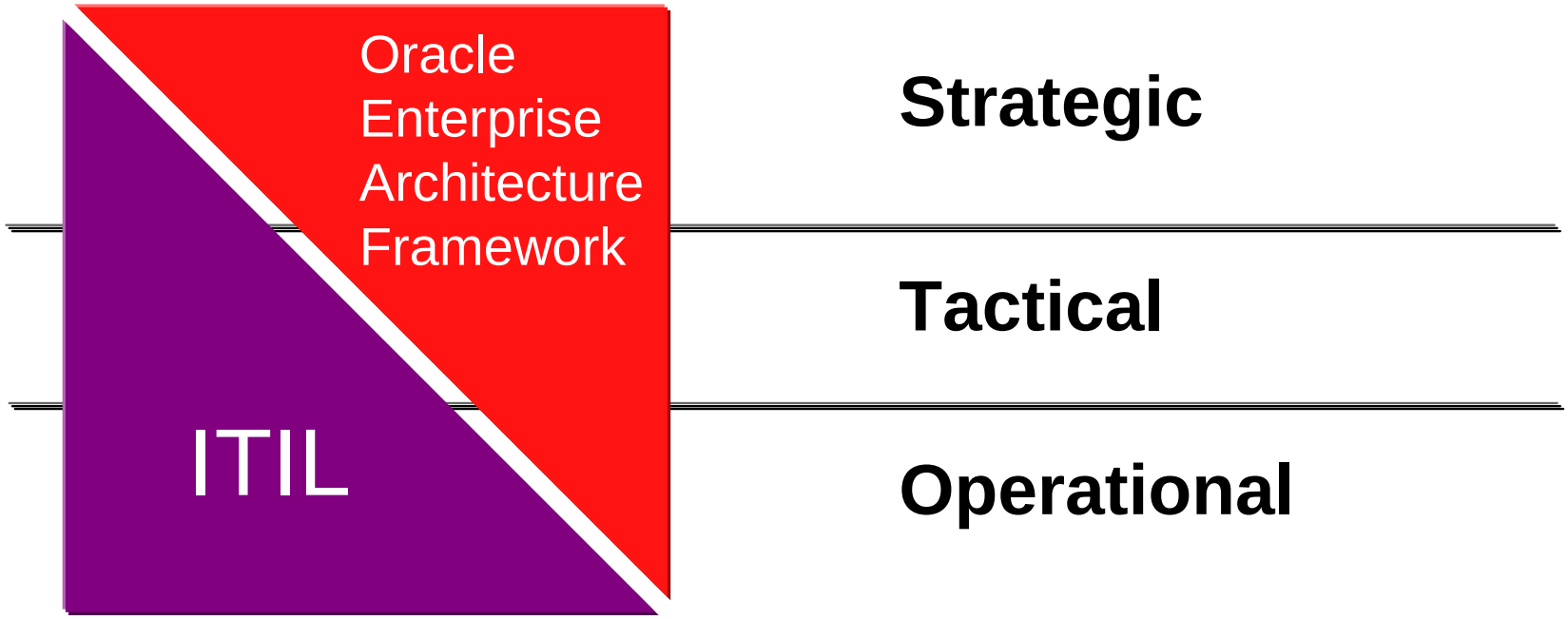
Service Support describes operational IT processes:

- Service Desk (Function)
- Incident Management
- Problem Management
- Change Management
- Configuration Management
- Release Management

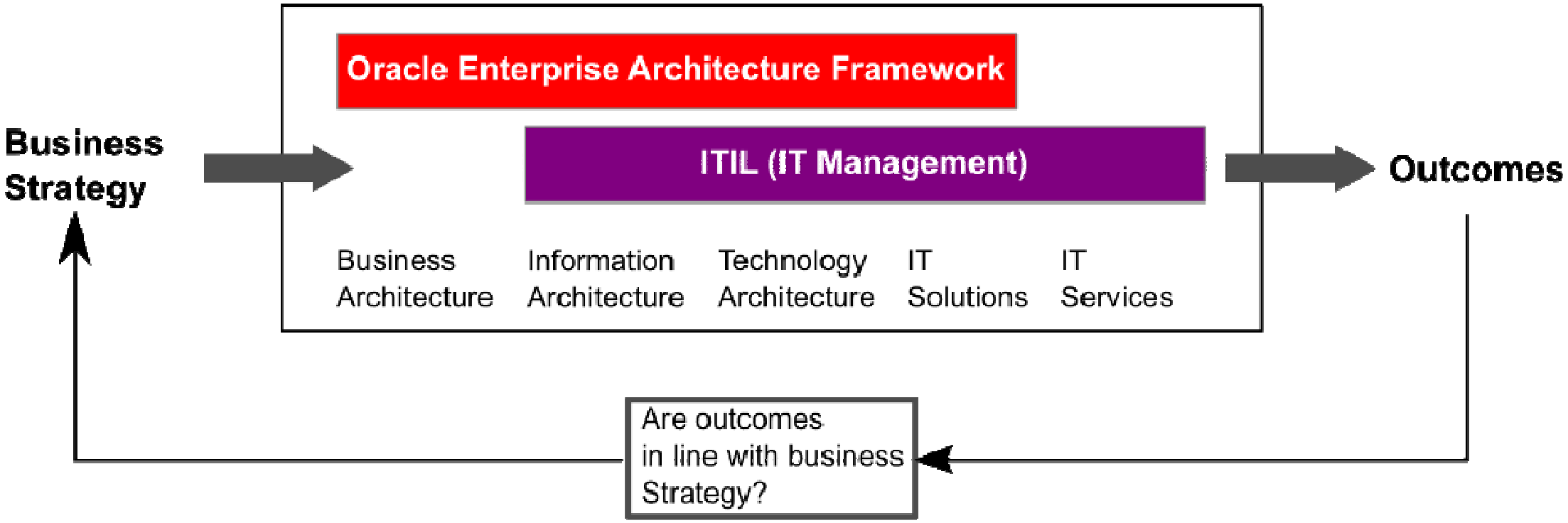
Service Support describes tactical IT processes:

- Service Level Management
- Availability Management
- Capacity Management
- IT Service Continuity Management
- Financial Management

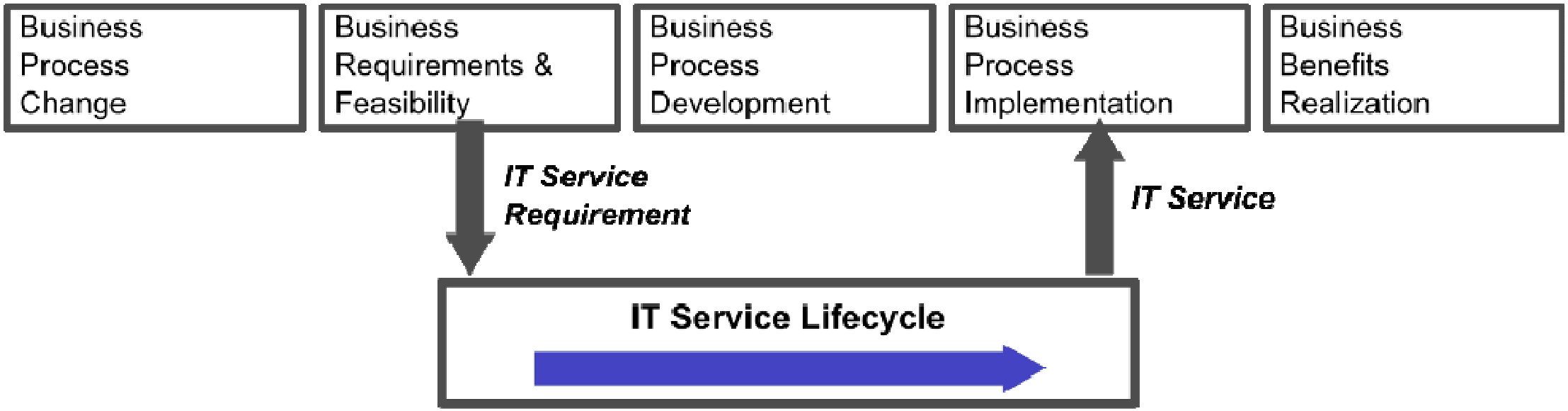
How can Oracle Enterprise Architecture Framework and ITIL help



Where OEAF and ITIL meet?



The business change process

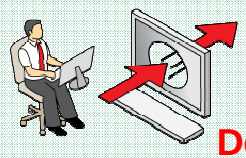


Five Essential Requirements

Cloud Lifecycle

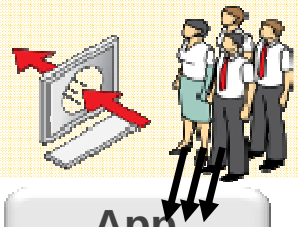
2. Build, Package and Test Applications

- Assemble app using shared components
- Deploy through self-service



Developer

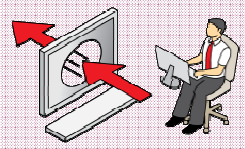
3. Self-service Deployment



Developer / IT Admin

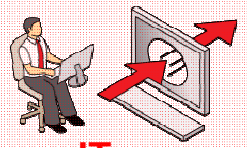
4. Manage/Monitor

- Monitor via self-service
- Adjust capacity based on policies
- Manage (patch, backup)



IT/App Owner

1. Set Up Cloud



IT

- Set up PaaS
- Set up shared components
- Set up self-service portal

App

Shared Components

Oracle Enterprise Manager Self-Service Interface

Oracle Enterprise Manager

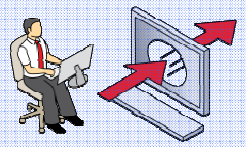
Oracle Fusion Middleware

Oracle Database

Oracle VM, Linux, Solaris

Sun Servers & Storage

5. Charge



IT/App Owner

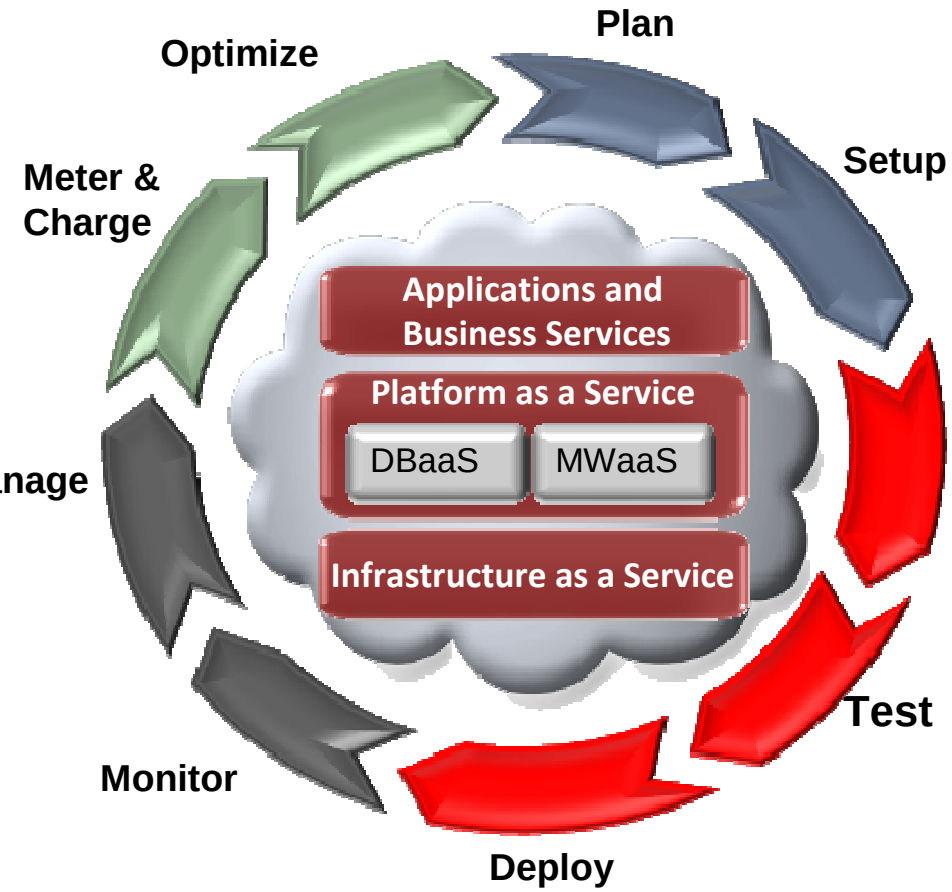
- Meter and Chargeback

Complete Lifecycle Management

Comprehensive coverage across all lifecycle phases

- Meter resource utilization and cloud usage
- Optionally chargeback to application owners, end-users, and/or business departments
- Optimize cloud performance, capacity, QOS, agility, geography, people, costs…

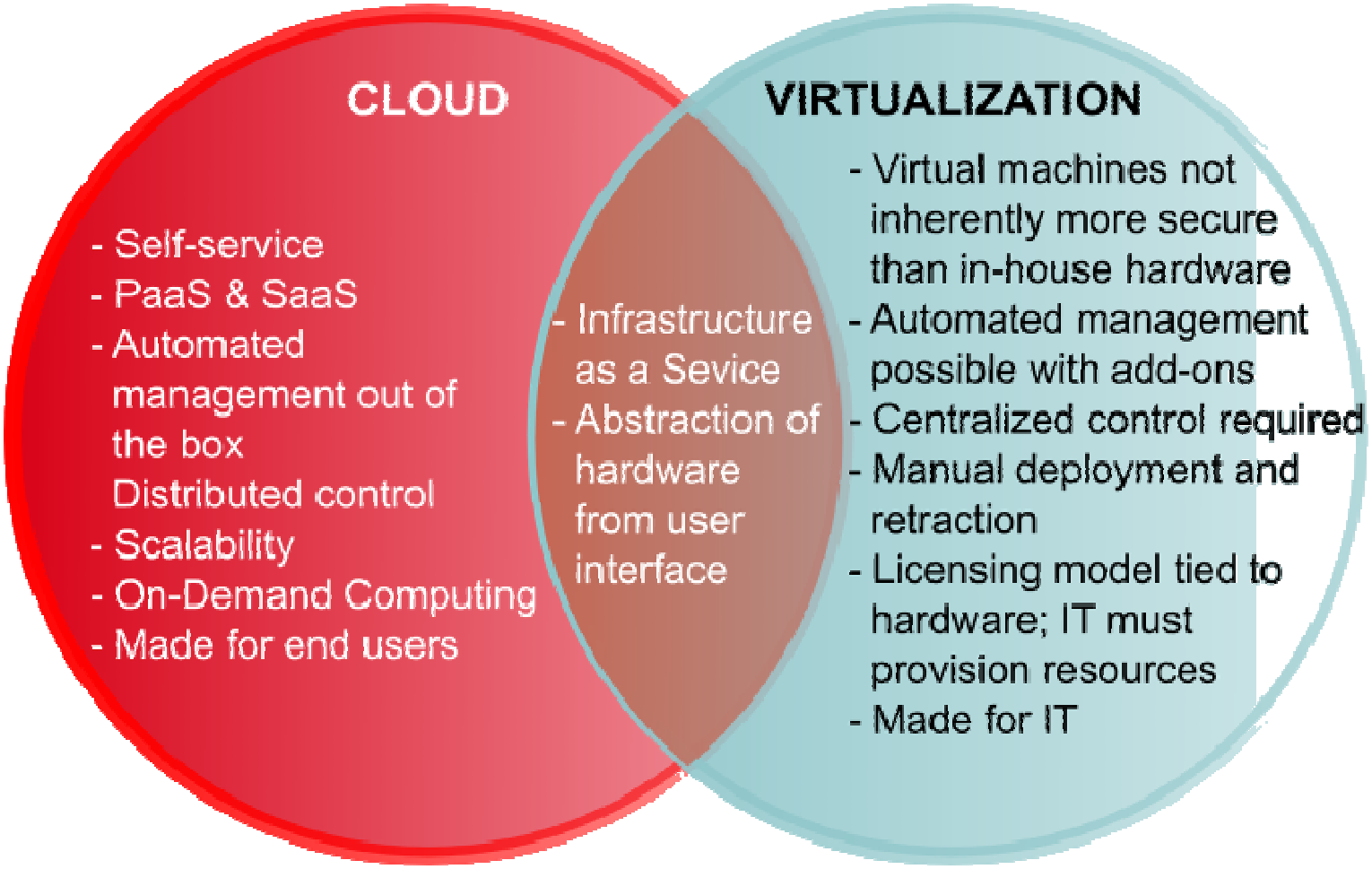
- Self-Service resource management
- Cloud resource and request monitoring
- Application to Disk stack management
- Centralized incident and configuration management
- End-user , business-level , application monitoring



- Identify all IT assets
- Decide apps, cost models, policies, roles…
- Consolidation planning (P2V, P2E, DB, App..)
- Setup infrastructure…
- Setup shared services (IaaS, DBaaS, PaaS, Apps)

- Assemble using shared components
- Test applications
- Deploy apps through self service GUI/API

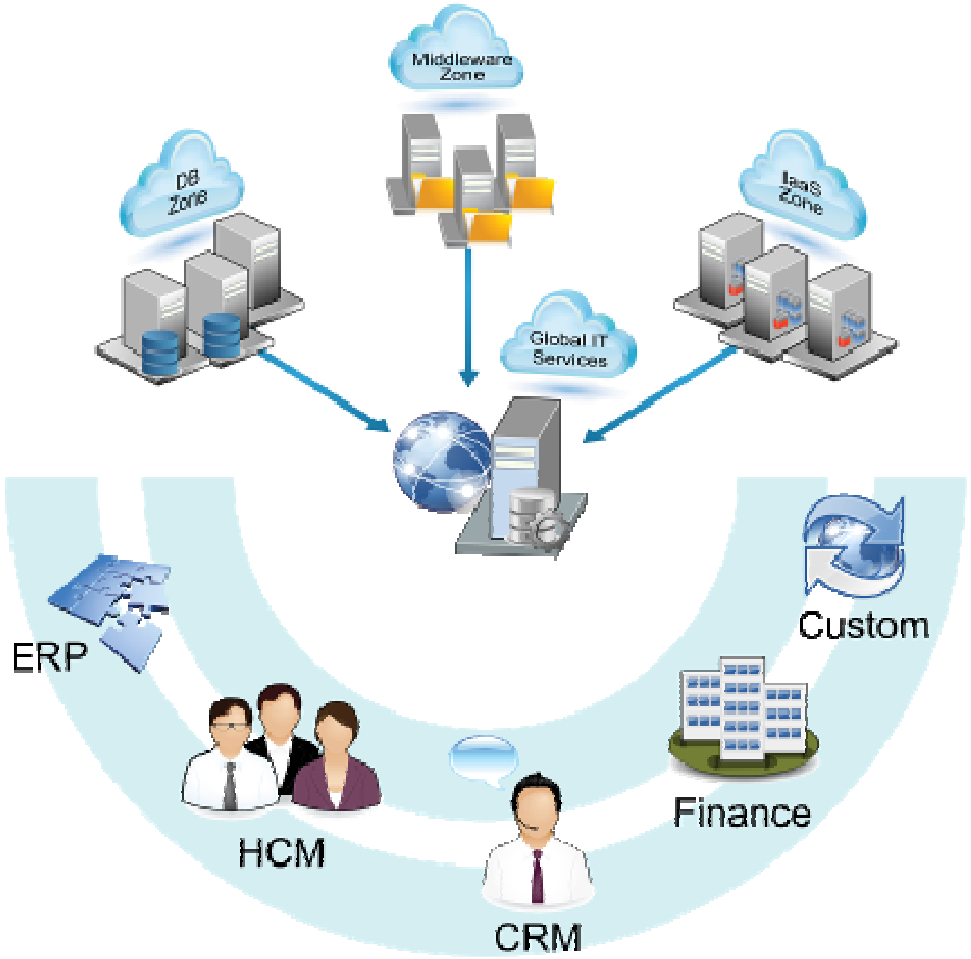
Gaps Between Virtualization and Cloud Computing



Implementing zones with EM 12c

Zones

- Iaas Zones
  - Oracle VM
- Database Zones
  - using Oracle VM
  - using instance caging QoS
  - using schema consolidation
  - Using Exadata
- Fusion Middleware Zones
  - using VM
  - using Exalogic



Cloud in a box Concept

Engineered Systems

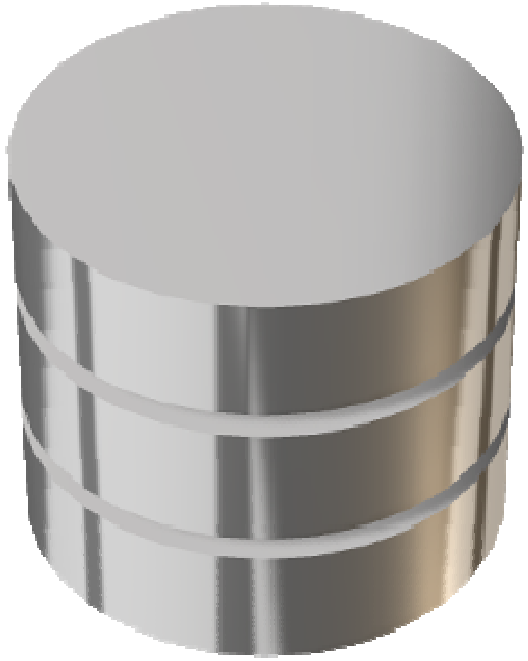
Exadata

SPARC SuperCluster

Exalogic

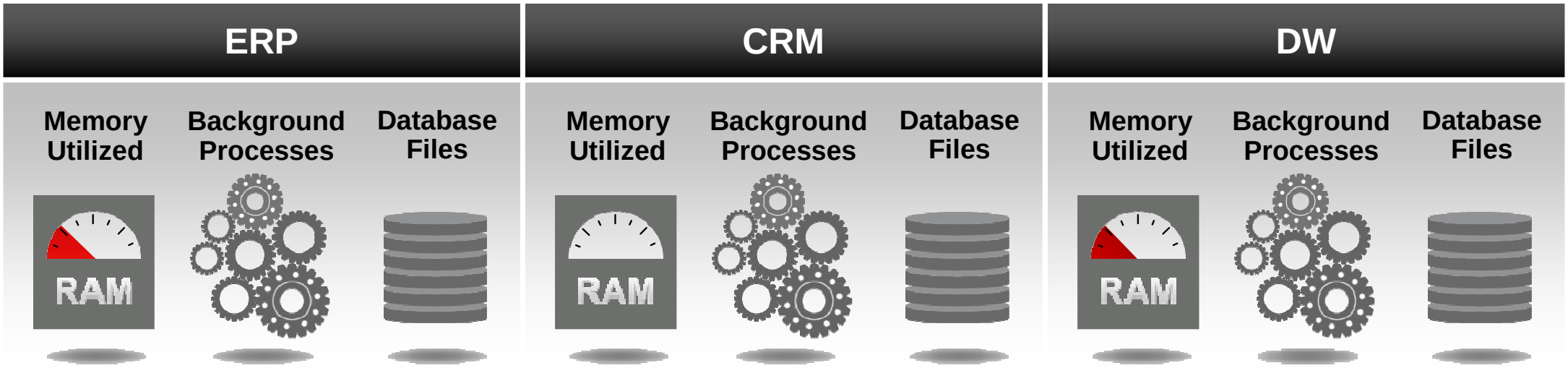
ORACLE'S NEXT-GENERATION DATABASE

A Multitenant D*at*abase for the Cloud



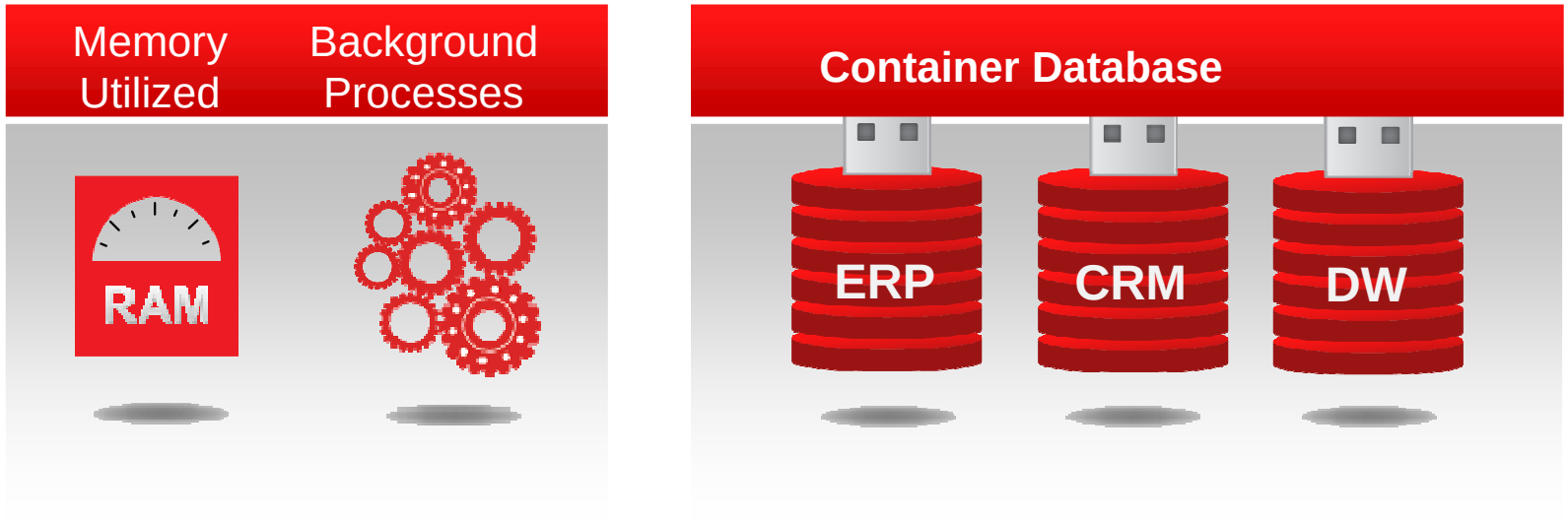
Traditional Database Architecture

Separate Memory and Processes Allocated to each Database



Multitenant Pluggable Database Architecture

Multiple Databases' Memory, Processes, Storage: All in One Container



- Efficient: More Scalable, Less Hardware
- Lower Operational Costs: Manage Many as One
- Transparent: No Application Changes

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