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Oracle Virtual Assembly Builder 11.1.1.6 Overview

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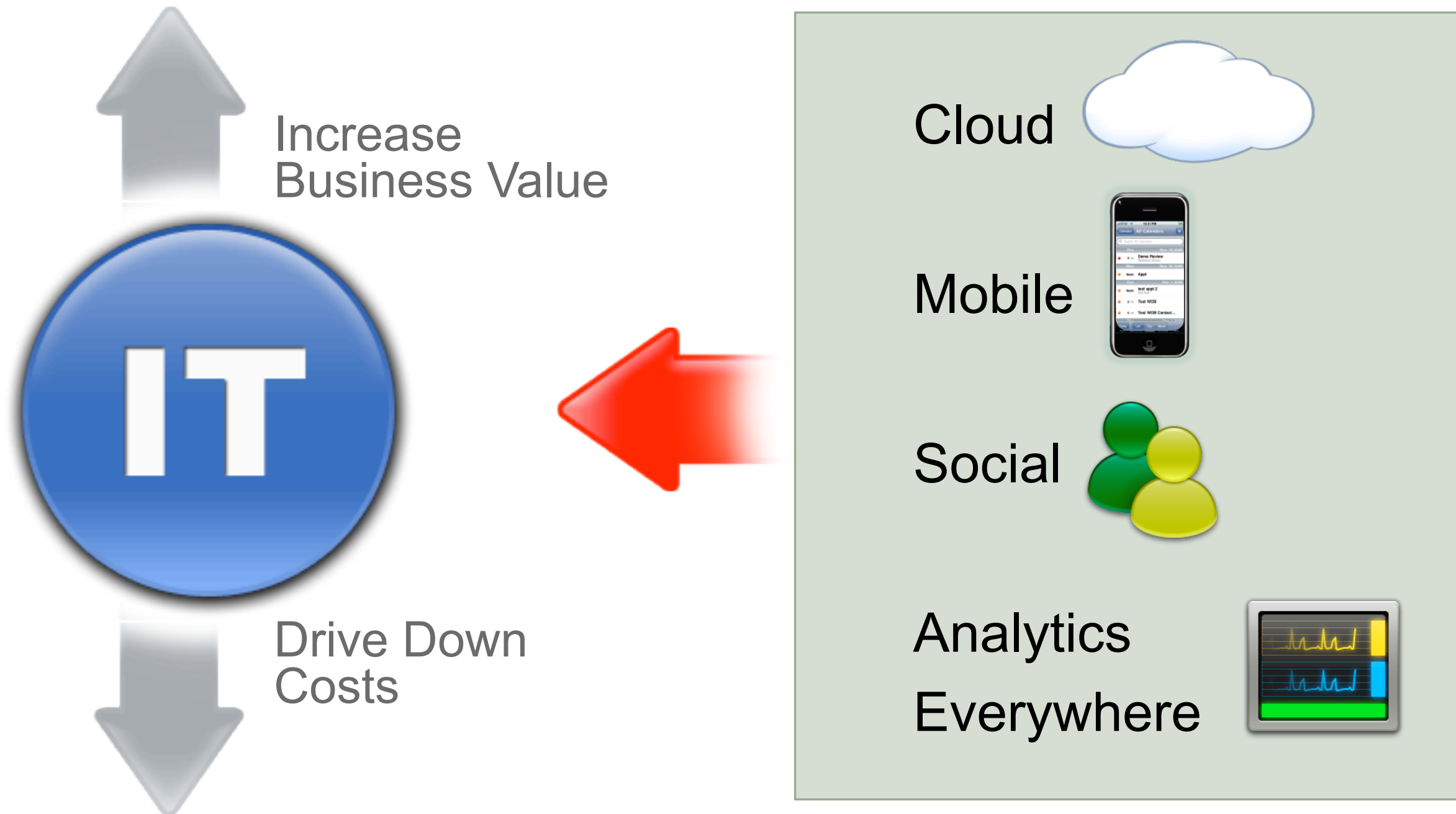


Program Agenda

- Business and IT Challenges
- Enabling Application Virtualization
- Oracle Virtual Assembly Builder



Innovations are Reshaping IT Delivery

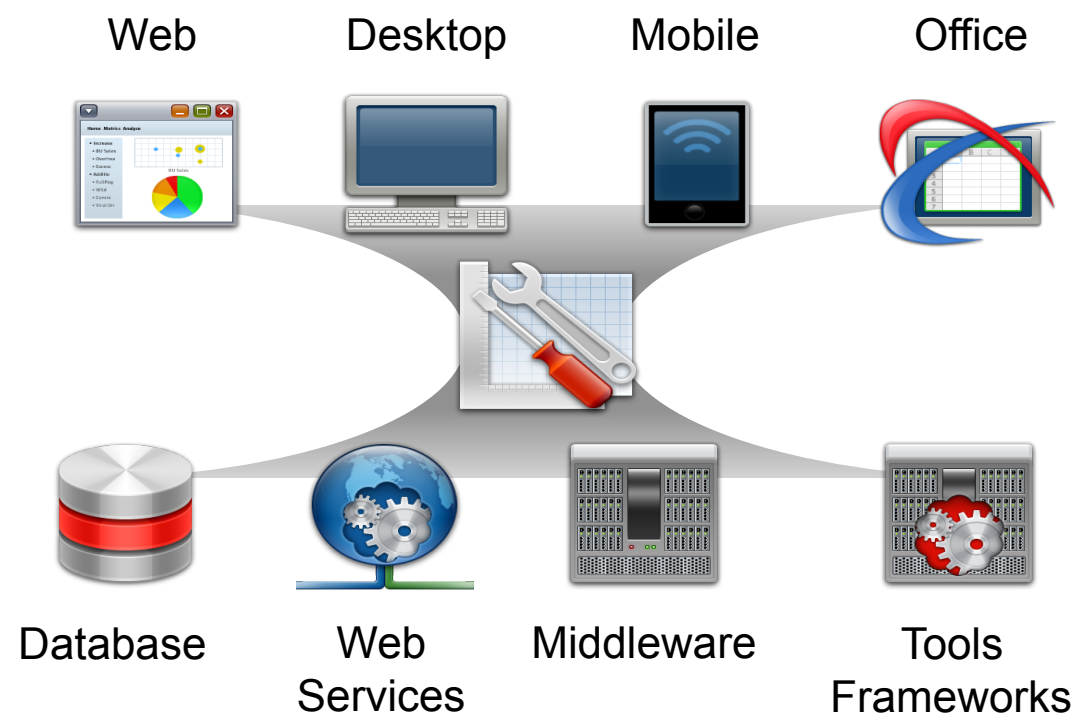


Balance Between Competing Priorities

Developers Demand Flexibility **BUT** IT Requires Standardization

- Rapid development
- Choice of components
- Customized configurations

- Supported products and frameworks
- Known environments and configs.
- Common standards for security, monitoring, management, and HA



Rapid Provisioning
and
Management

Performance,
Scalability,
Reliability

Security
Best Practices


Increase H/W
Utilization &
Efficiency



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Leverage Cloud Innovations for the Enterprise



Offload Capital Expenditures
Elastic Scalability
Enterprise Agility
Better Resource Utilization

Challenge: How to Harmonize On-Premise and Cloud Computing?

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Program Agenda

- Business and IT Challenges
- **Enabling Application Virtualization**
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Typical Process For Creating and Deploying New Applications

1 to 3 weeks



Acquire and install new platform components

Configure all platform software

Create / customize scripts to "automate" process

Fine tune the installed environment

Replicate the environment for build, test, deploy

Build and Deploy App!

1-5 days

1-2 days

1-5 days

1 day

1-2 days

Start

Create Standardized Model for IT

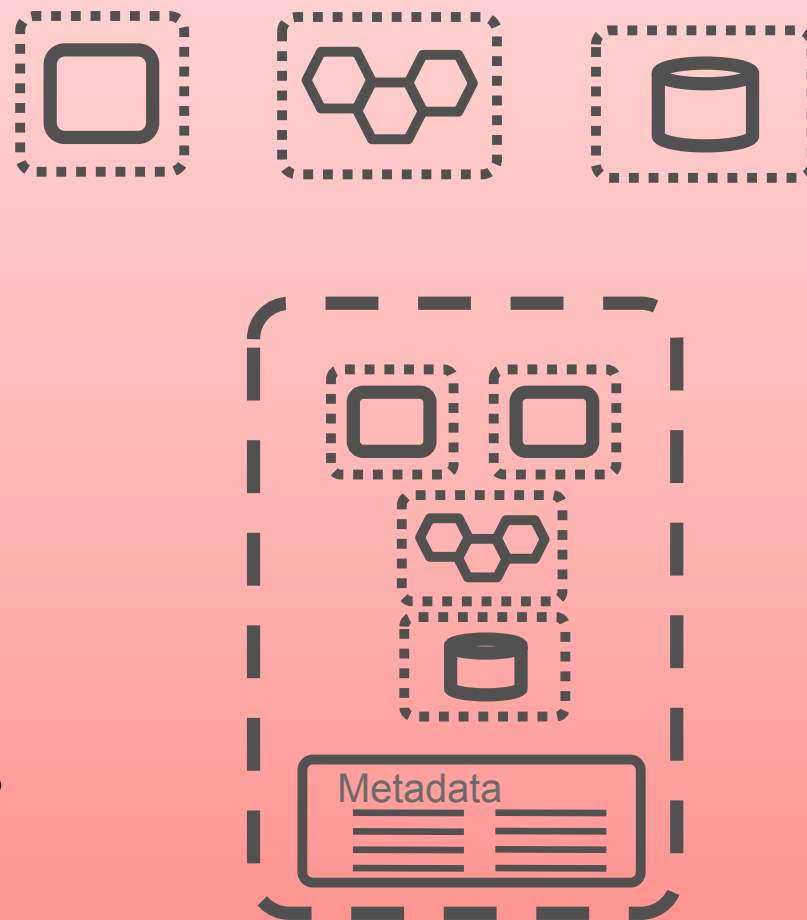
One Time Effort

Standardize

- Create self-contained software appliances
- Eliminate customized one-offs & config. errors

Templatize

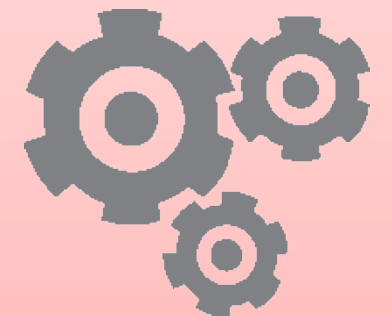
- Configurable blueprints for entire application topology
- Simplify repeatable process for predictable outcomes



Repeated Activity

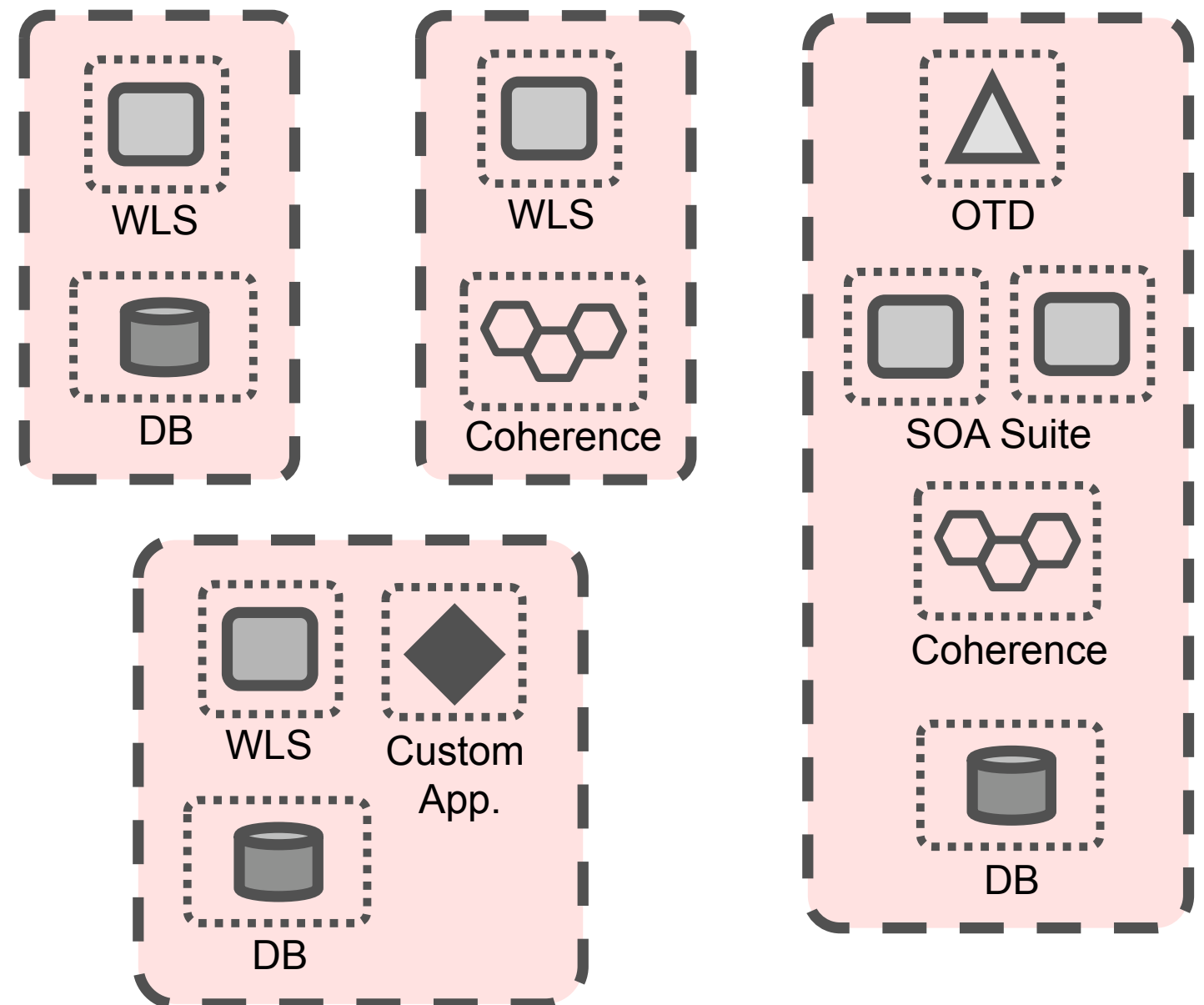
Automate

- Orchestrate deployment and configuration of all appliances
- Reduce manual effort and administration



Maintain Flexibility for Developers

- Select their own set of components
- Package desired apps. & binaries
- Construct custom assemblies
- Define desired size and scaling
- Customize with own config. and identity



Deploy to Virtual and Cloud Environments



Enterprise Cloud



Public Cloud



Run IT as an Enterprise Cloud
Run applications in the Cloud

Deploy Applications to Wherever it is Optimal



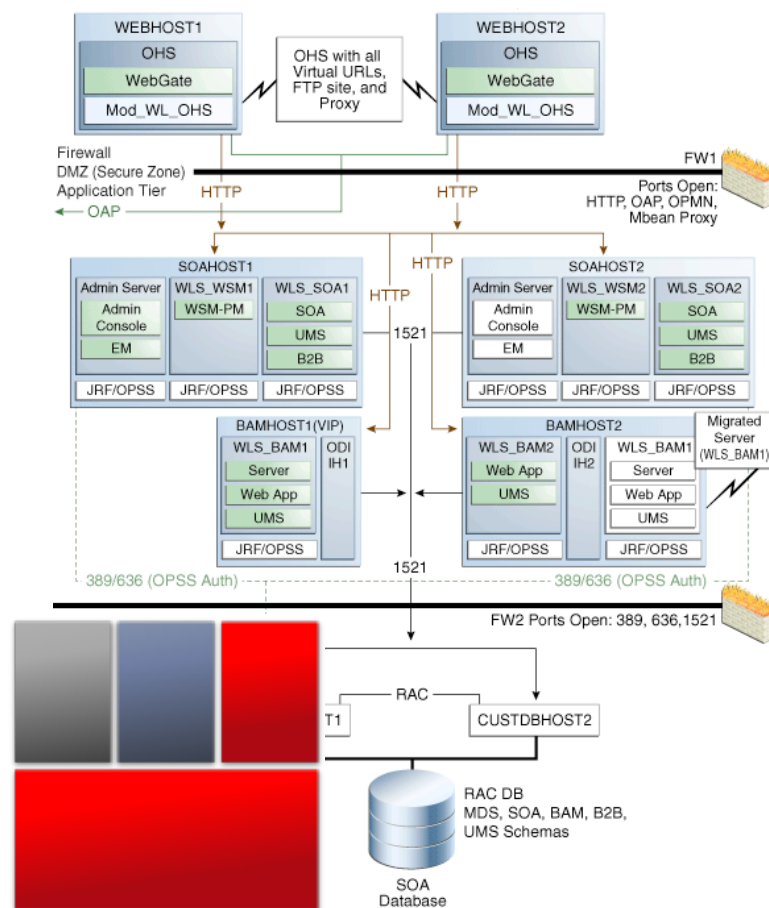
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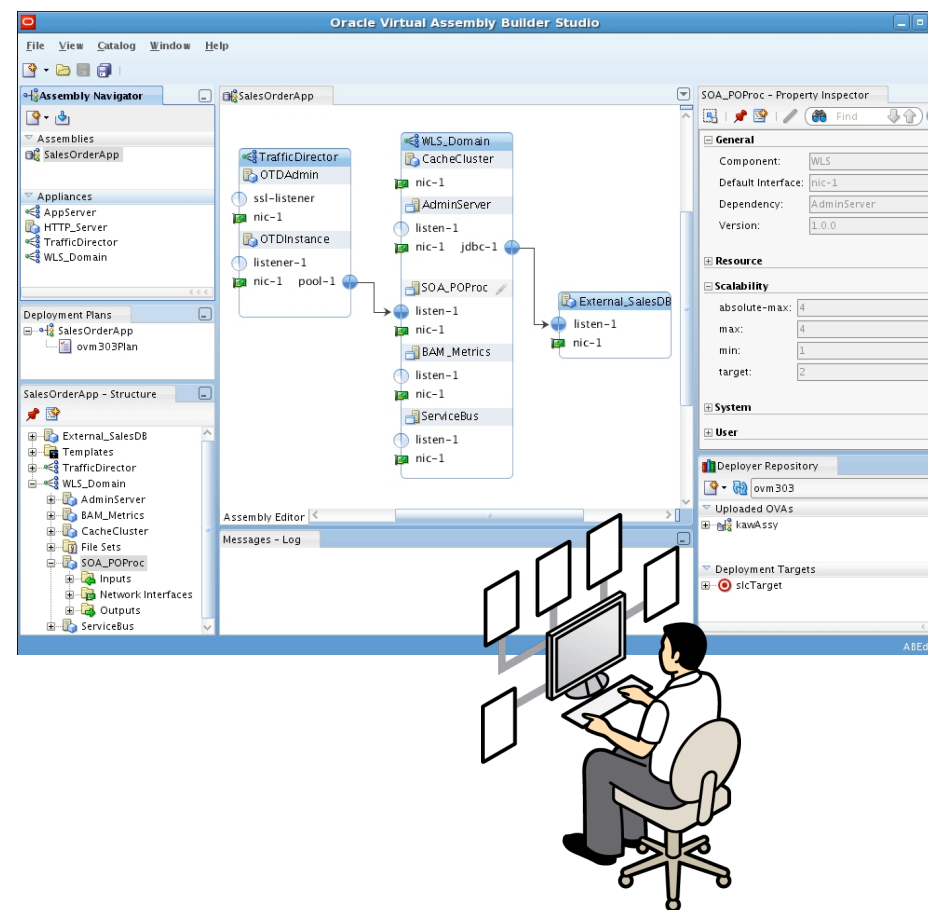


Assemblies: Standardization with Flexibility

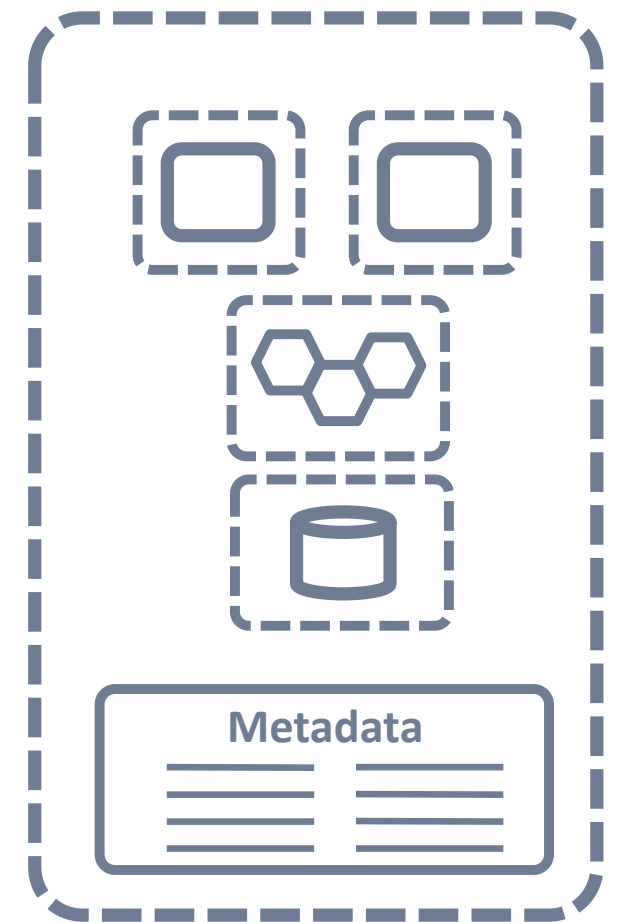
Capture Complete Application Topology



Oracle Virtual Assembly Builder Studio

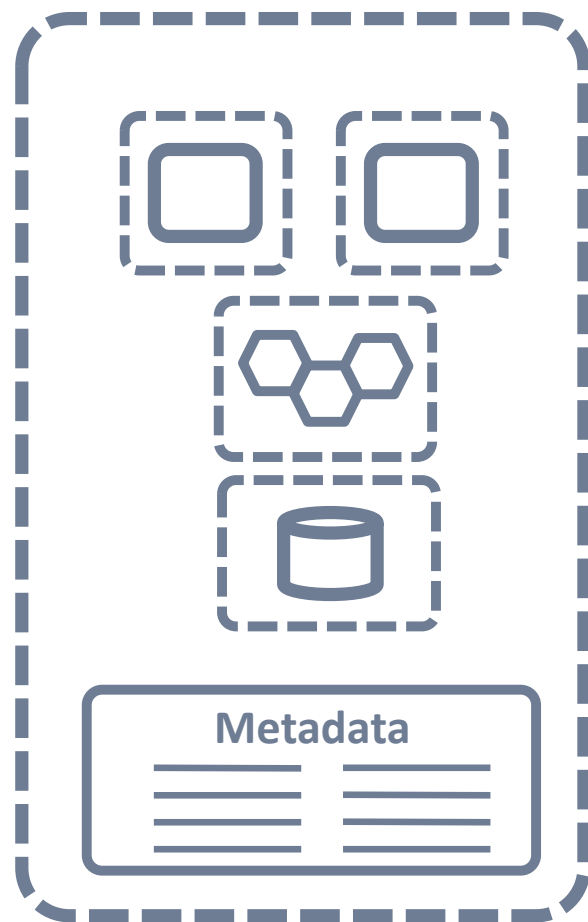


Package Into Single Assembly



Automated Deployment and Configuration

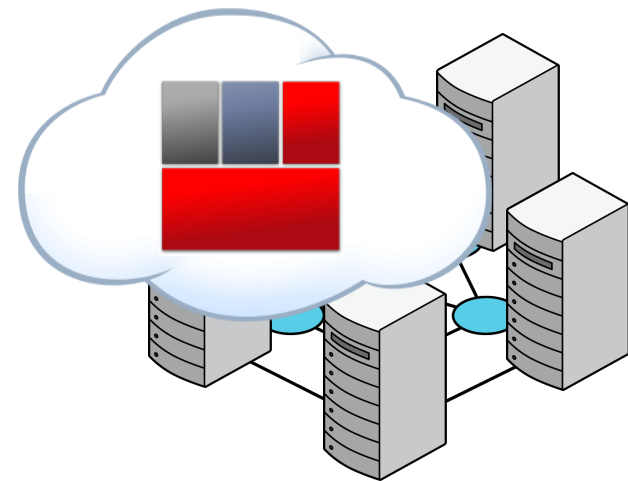
Assembly



Enterprise Cloud



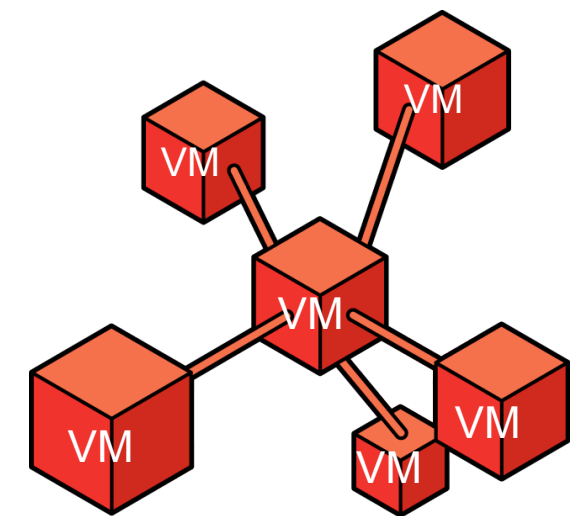
Exalogic Elastic Cloud



Oracle VM Resource Pool



Virtualized Deployment

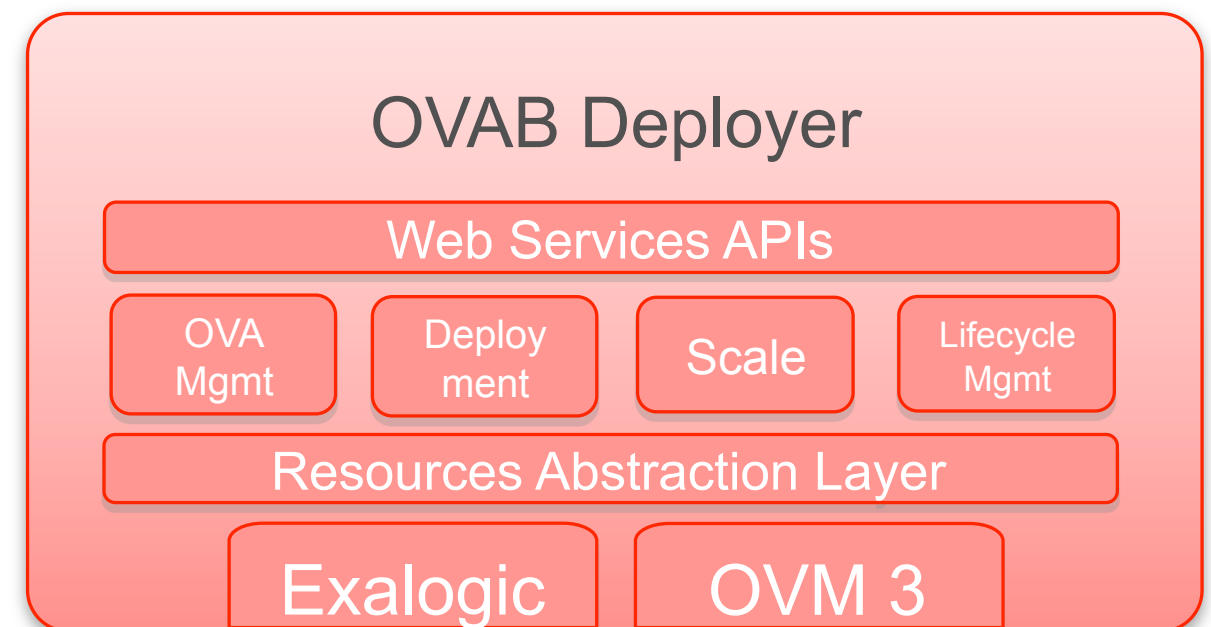
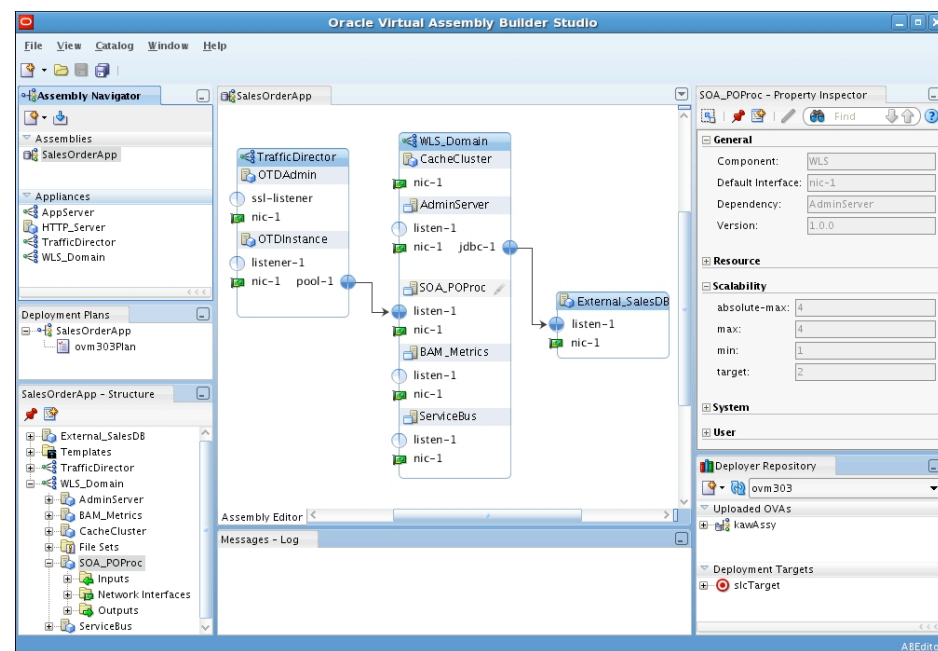


Assembly deployed as collection of interconnected VM instances

Oracle Virtual Assembly Builder

Studio Tool for Assembly Creation

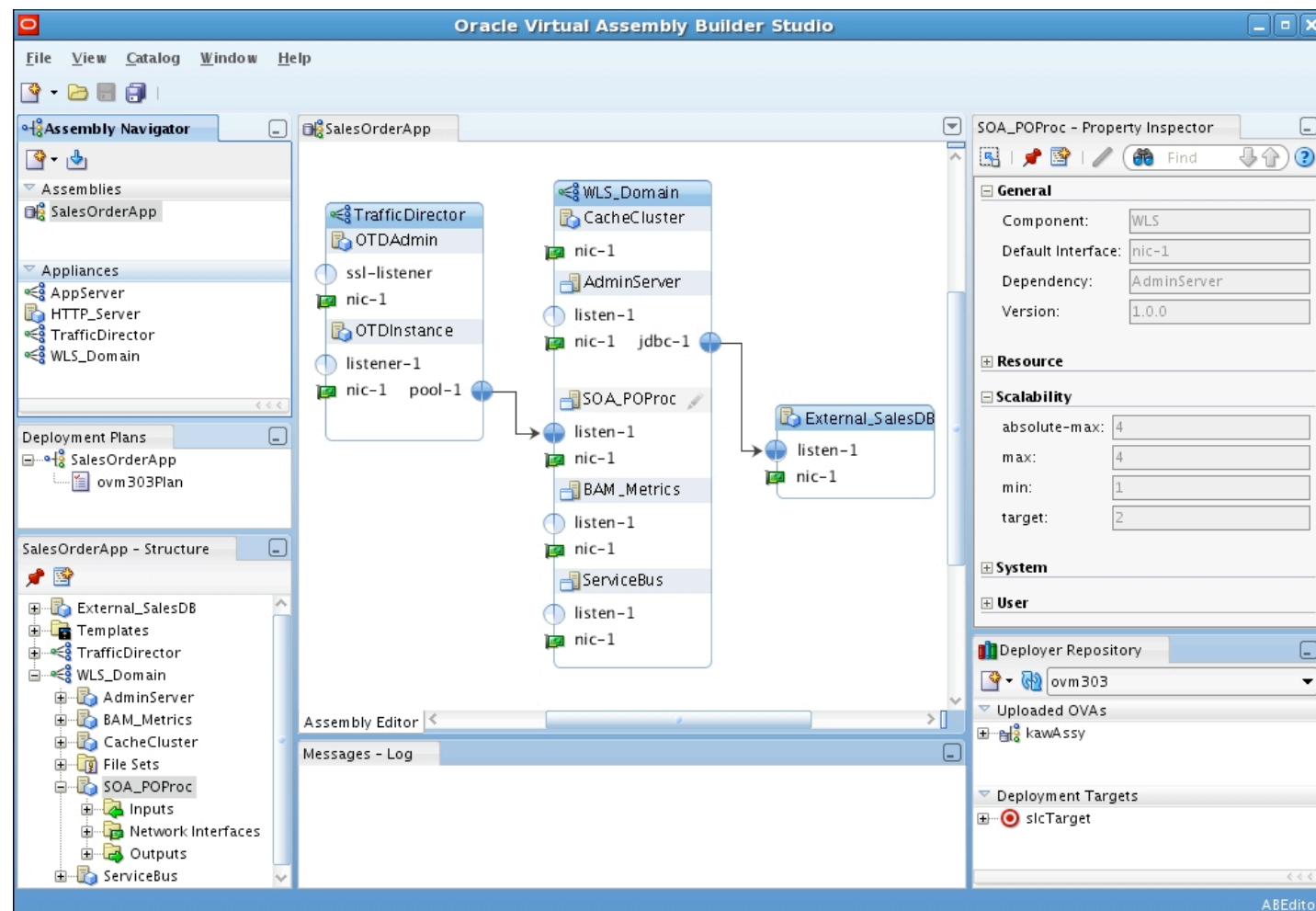
Server Application for Deployment



- Create appliances
- Construct assemblies
- Create deployment plans
- Transfer & deploy via Deployer

- Maintain assembly repository
- Manage deployment lifecycle
- Enable automated scaling
- Programmatic API and CLI

Oracle Virtual Assembly Builder Studio



- Create and customize appliances
- Create assembly blueprint
- Define vNIC and vLAN bindings
- Define volume configuration (local, remote, shared)
- Add custom configuration scripts
- Create custom appliances
- Customize late-binding properties
- Manage deployment plans
- Create single deployable archive (OVA) and export to Exalogic, Enterprise Manager, or OVAB Deployer

Designer tool for Application Architects



Supported and Custom Appliances

- Weblogic Server
- Coherence*Web
- Oracle Traffic Director
- Oracle HTTP Server
- Oracle Web Cache
- SOA Suite
- Oracle Service Bus
- Tuxedo
- Oracle Database (RAC & single instance)
- Custom applications
- Black-box templates

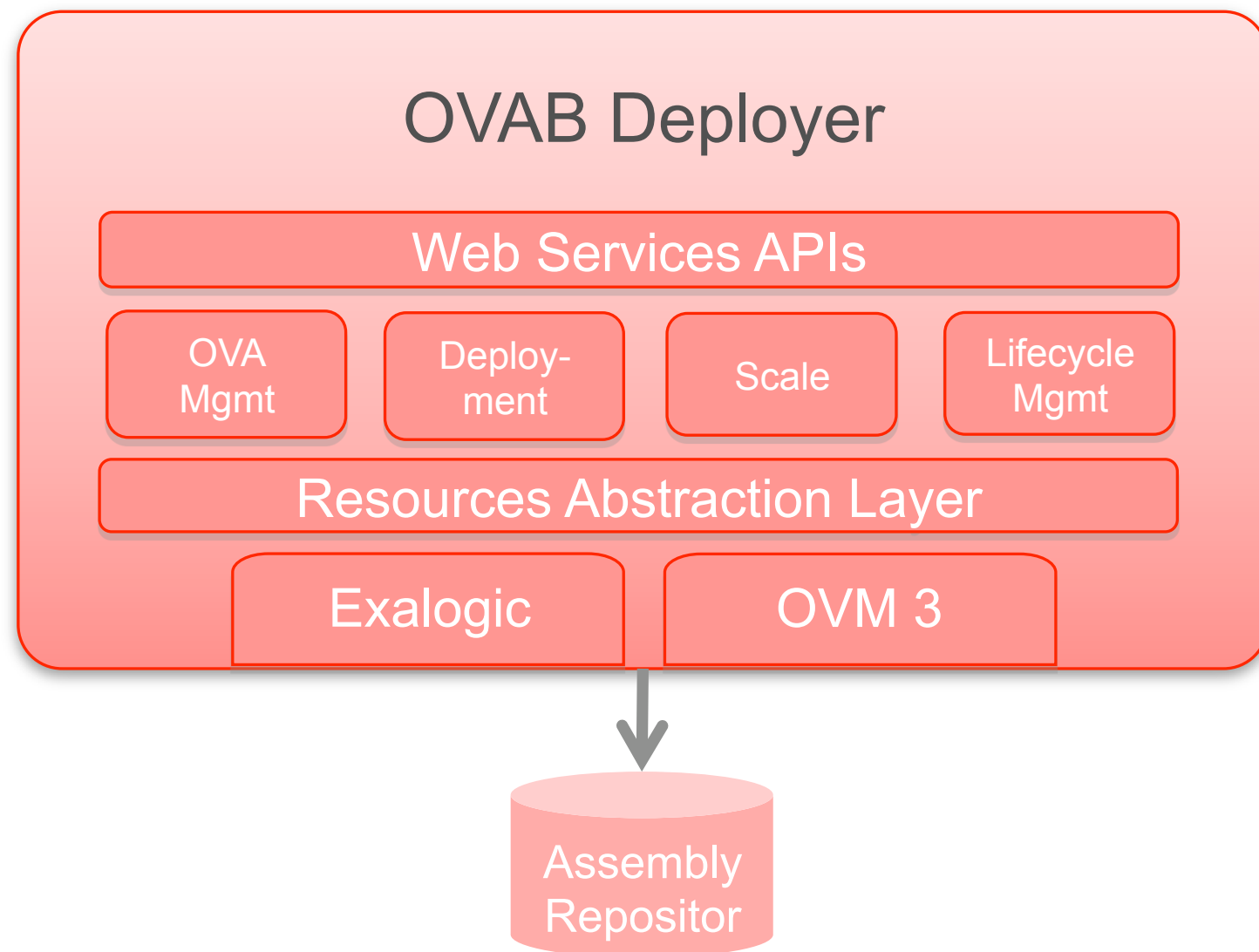
Appliance Use Cases

	Oracle Product Appliances	Custom Appliances	Black-Box Appliances
Introspection	Yes	No	No
Dynamic Wiring Connections	Yes	No	No
Custom S/W Packages	Yes	Yes	No
Custom Late Binding Properties	Yes	Yes	No
Custom Scripts	Yes	Yes	No
VM Resource Configuration	Yes	Yes	Yes
Automated VM Deployment	Yes	Yes	Yes
Custom VM Templates	No	No	Yes

3rd Party Applications

Existing VM Templates

Oracle Virtual Assembly Builder Deployer



- JEE application with HA and scalable architecture deployed in WebLogic
- Multi-user access with RBAC
- Concurrent access and operations
- Shared assembly catalog with assembly archive versioning
- Heterogeneous deployment targets
- Automate all lifecycle and scale operations for deployed assemblies
- Maintain state of all active deployments
- Secure web services API and CLI



Assembly Lifecycle APIs

- Catalog

- UploadArchive
- DownloadArchive
- DeleteArchive
- DescribeArchive
- UpdateArchive
- RegisterArchive
- UnregisterArchive

- Deployment

- CreateInstance
- DeleteInstance
- DescribeInstances
- Deploy
- Undeploy
- StartInstance
- StopInstance
- Scale

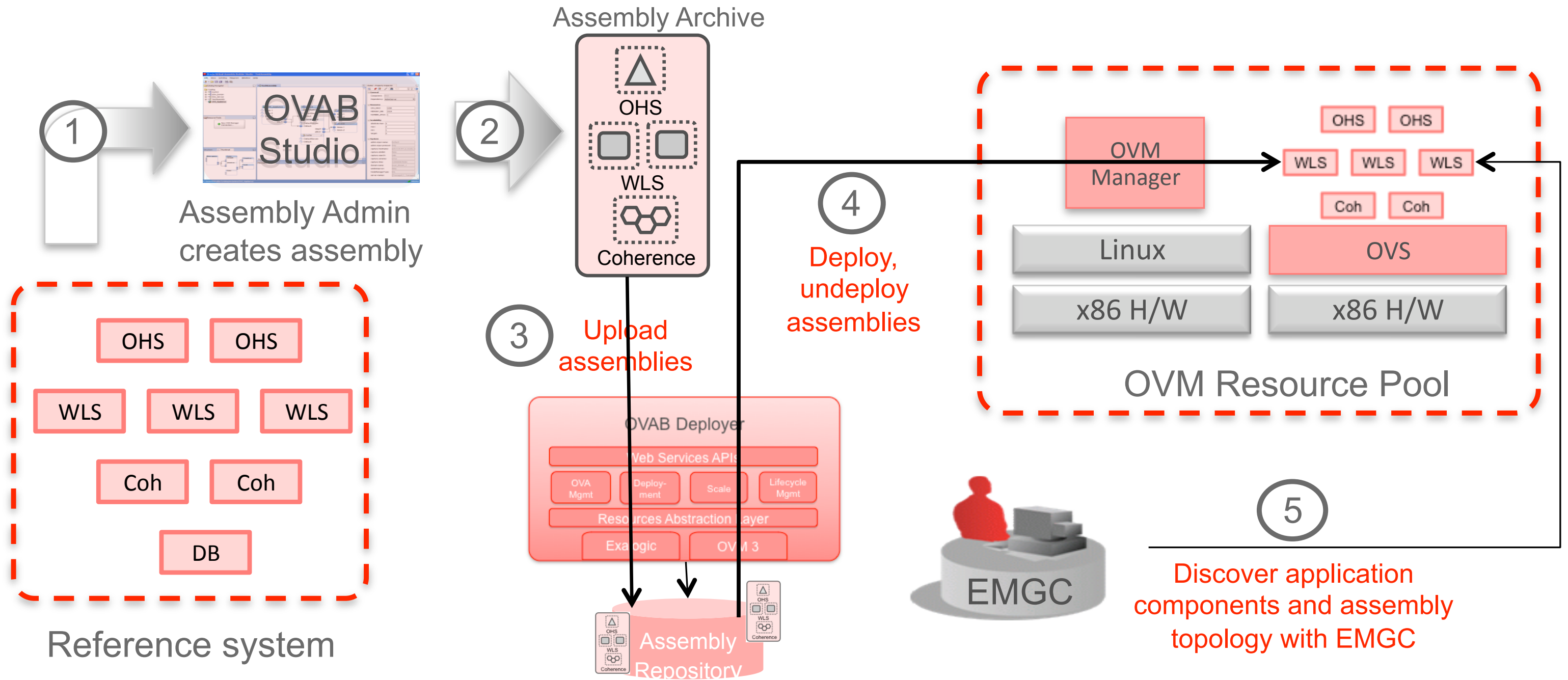
- Tags

- CreateTags
- DeleteTags
- DescribeTags

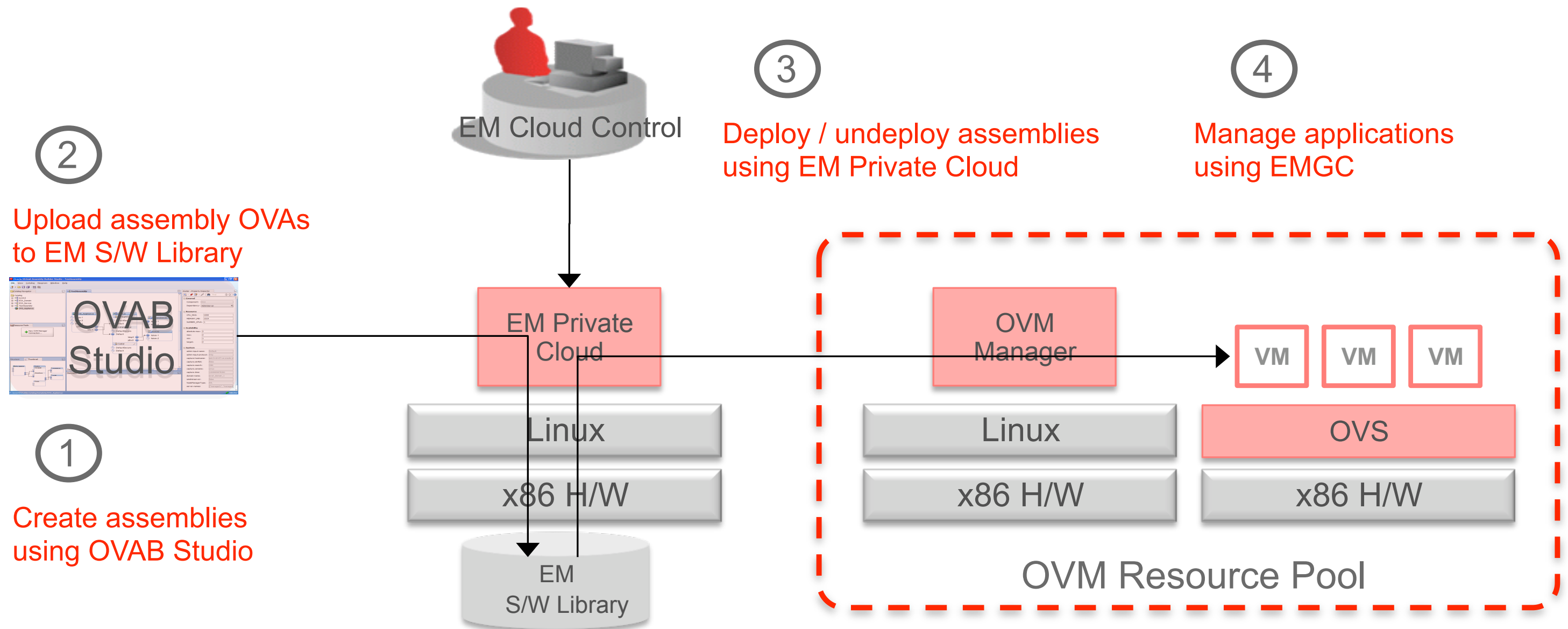
- Others

- DescribeRequests
- DownloadDeploymentPlan
- DownloadAssemblyMetadata
- DescribeTargets

Assembly Deployment Into OVM 3.0



Integration with Enterprise Manager and Oracle VM



Summary – Virtual Assembly Builder

- Flexibility for Developers
 - Pick and choose components
 - Configure for unique needs
- Standardization for Administrators
 - Well-known building blocks eliminates one-off's
 - Repeatable process reduces errors and cycle-time

Hardware and Software

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Engineered to Work Together

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