ORACLE

Java EE und Cloud Computing

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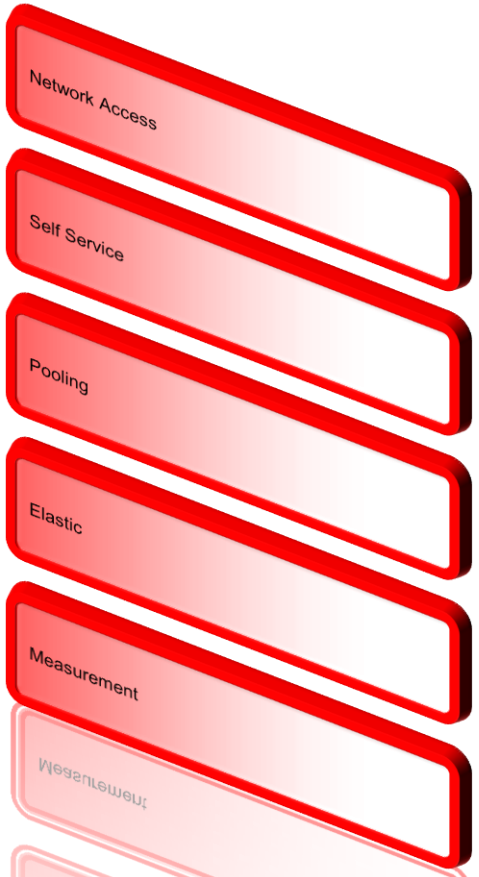
The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions.

The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Cloud Computing ?

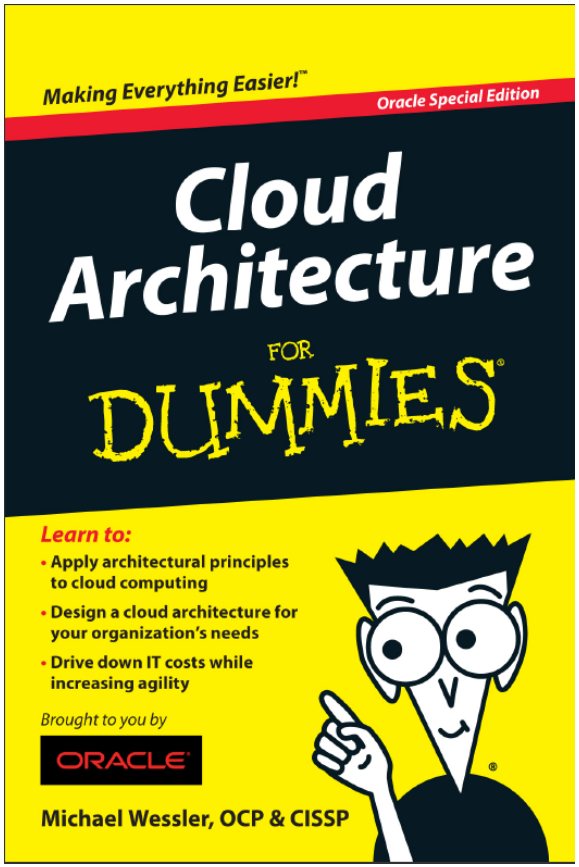
Was ist das (angelehnt an NIST*)?

- Netzwerk
  - Einfacher, schneller Zugriff auf Resourcen
- Zugriff
  - Self Service & Koordination
- Pooling
  - Services zur sofortigen Verwendung
- Elastizität
  - Fehlertoleranz und Skalierbarkeit (Wachsen und Schrumpfen)
- Messbarkeit des Konsums
  - ... und man bezahlt, was man nutzt



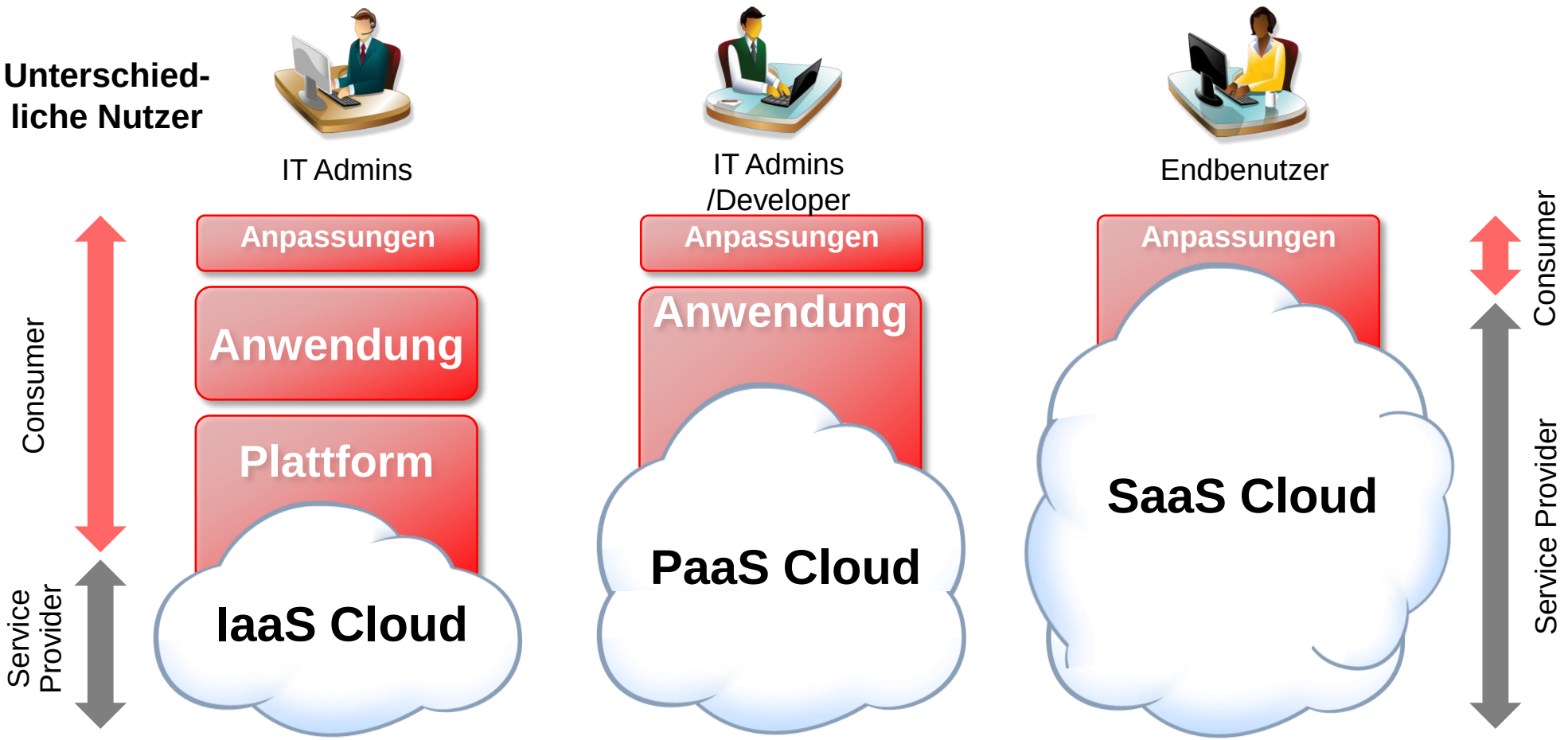
* http://www.nist.gov/itl/csd/cloud-102511.cfm

Kostenloses e-Book

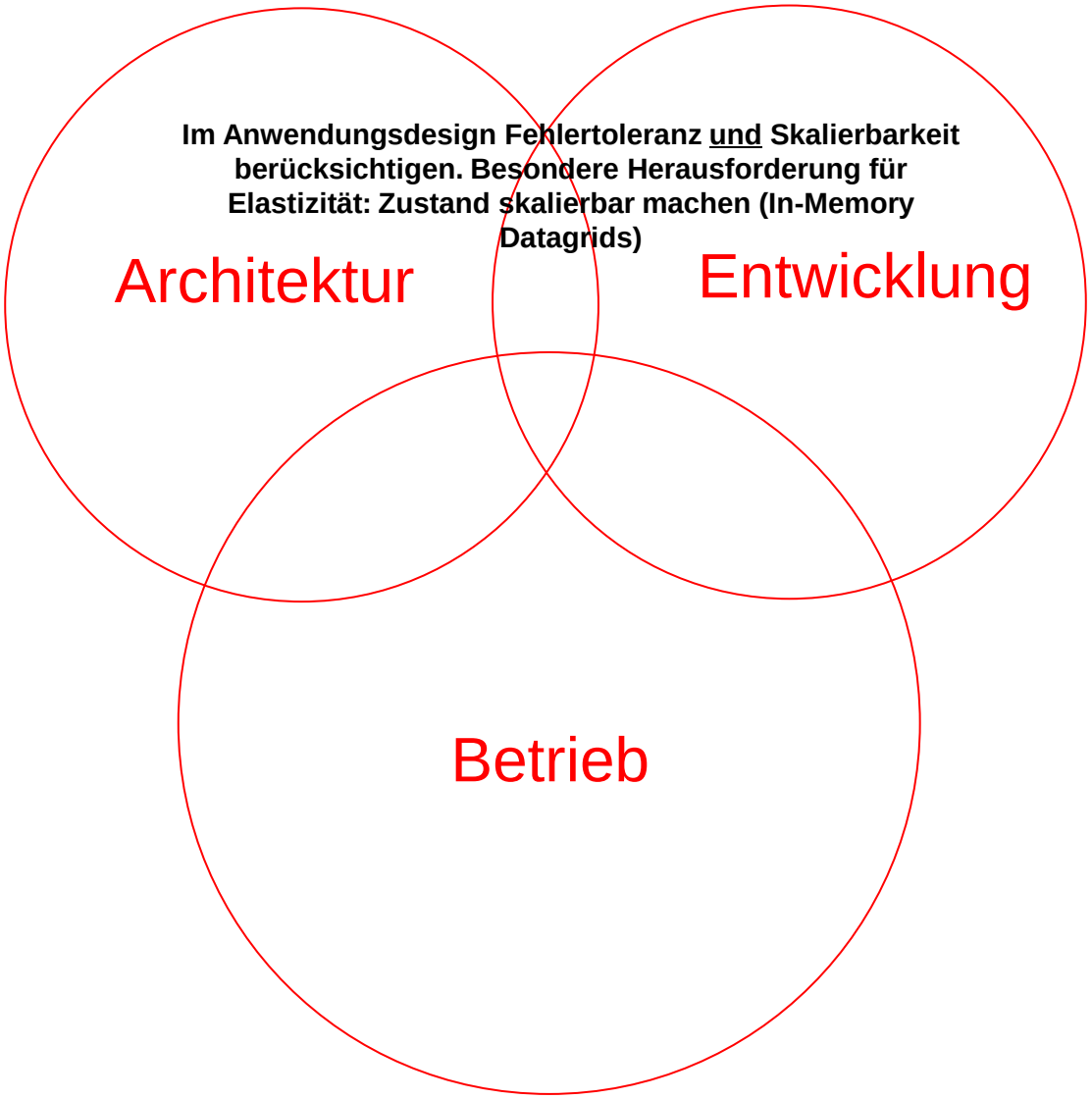


http://media.wiley.com/assets/7037/17/9781118217719_custom.pdf

IaaS, Paas und SaaS



Perspektiven



Consumer

Provider

Warum?

- Ressourcenausnutzung/Computing Dichte erhöhen
- Ressourcenbereitstellung (Zeit, Service Level)

- Aber: Standardisierung der bereitzustellenden Resourcen/Services

Agenda

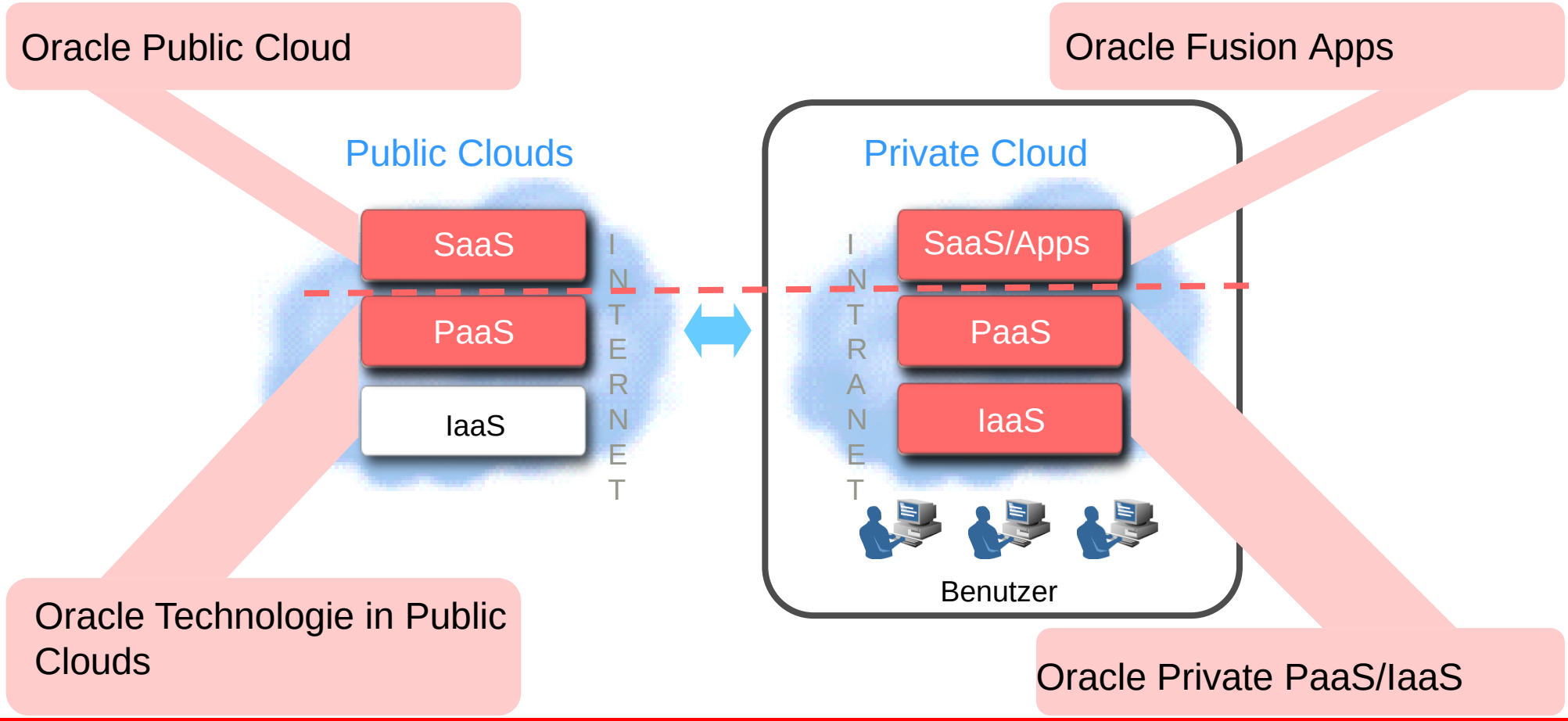
- Oracle Strategie
- Blöcke - MWaaS:
  - Oracle Cloud Application Foundation
  - Oracle Enterprise Manager Cloud Control 12c und Oracle Virtual Assembly Builder
  - Engineered Systems: Exalogic

Strategie

Oracle Cloud Computing Strategie

Ziele:

- Sicherstellen das Cloud Computing voll unternehmensfähig ist
- Unterstützung von Private- und Public-Cloud Lösungen



Welcome to the

Oracle Public Cloud

An Enterprise Cloud for your Business

Notify Me of Updates

Application Services

Fusion CRM
Sell smarter with Fusion CRM in the cloud.

Fusion HCM
Bring power to your people with Fusion HCM.

Social Network
A secure collaboration tool for everyone you work with.

Platform Services

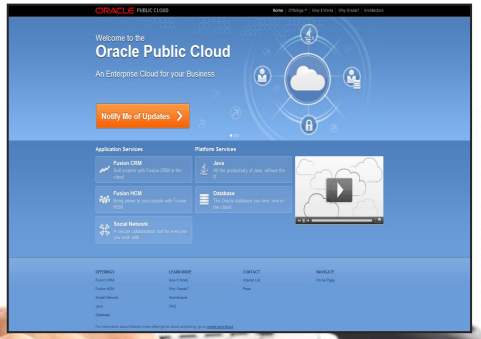
Java
All the productivity of Java, without the IT.

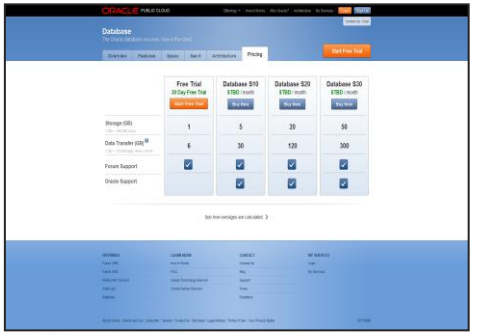
Database
The Oracle database you love, now in the cloud.

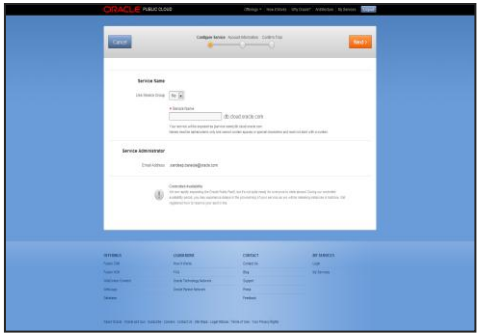
For information about Oracle's other offerings for cloud computing, go to oracle.com/cloud

Oracle Public Cloud

1. Service auswählen → 2. Plan auswählen → 3. Service konfigurieren

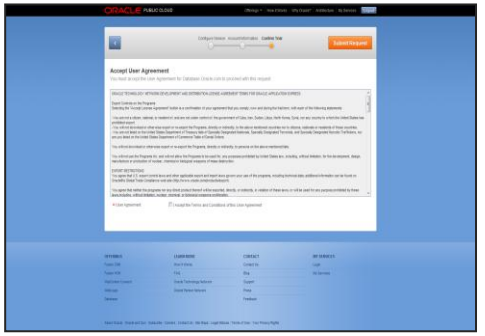


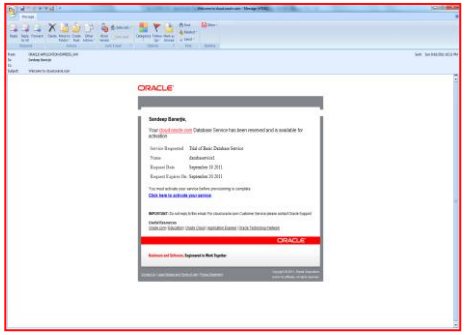


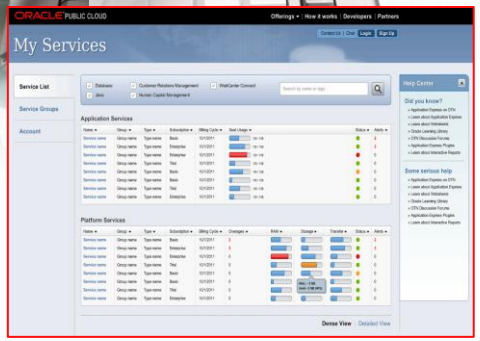


cloud.oracle.com

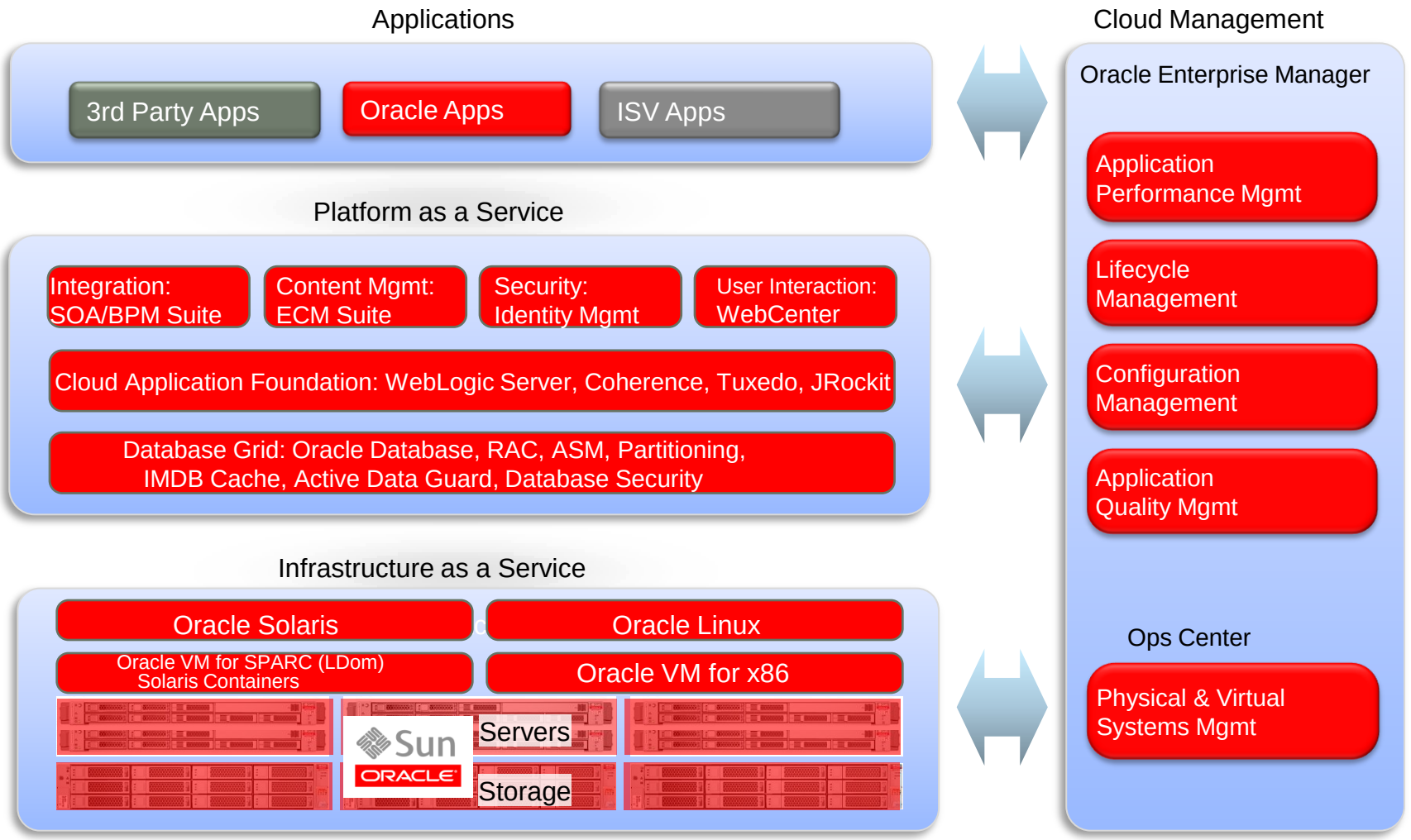
4. Request abschicken ← 5. Anmeldedaten ← 6. Nutzen



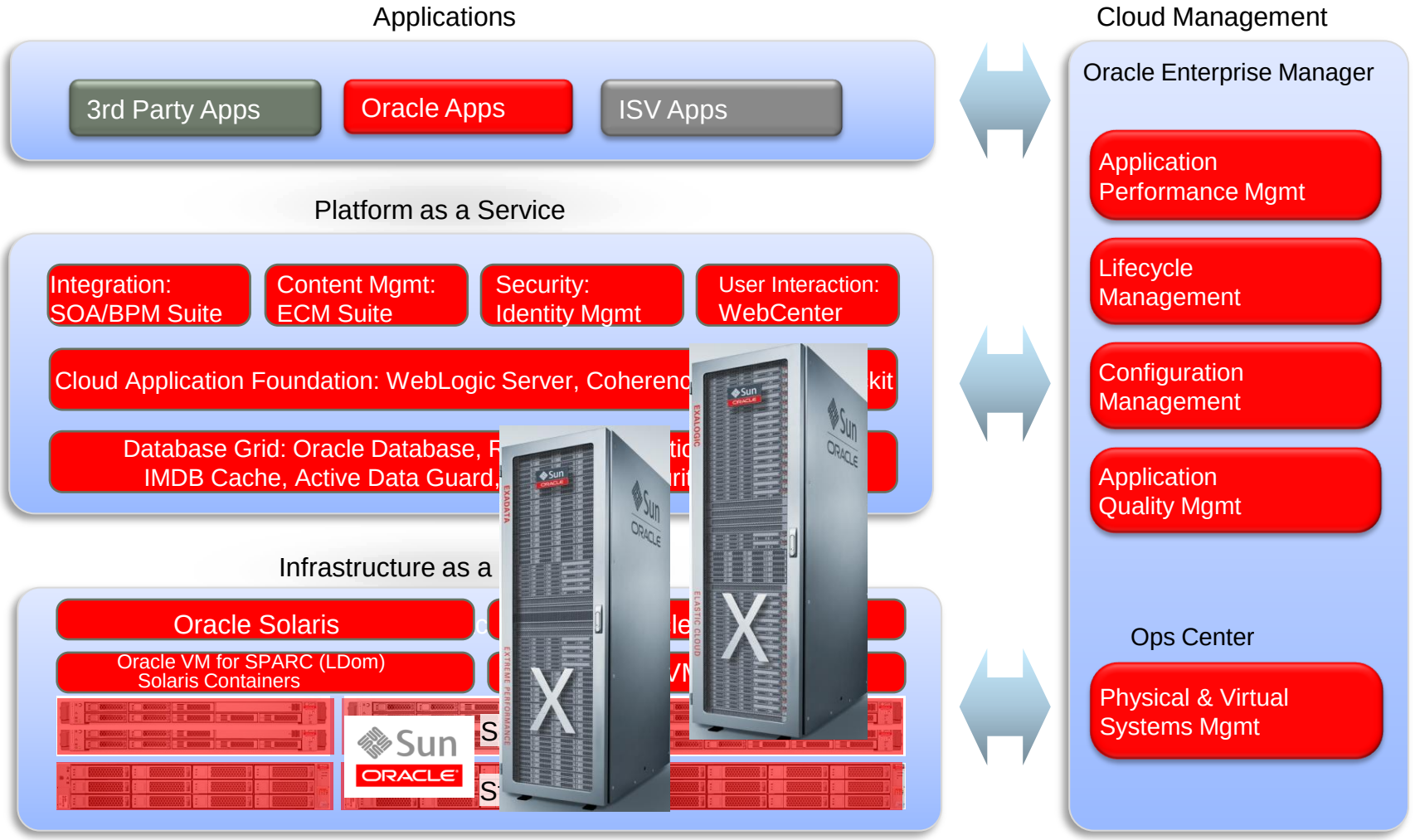




Oracle Private Cloud Plattform



Oracle Private Cloud Plattform

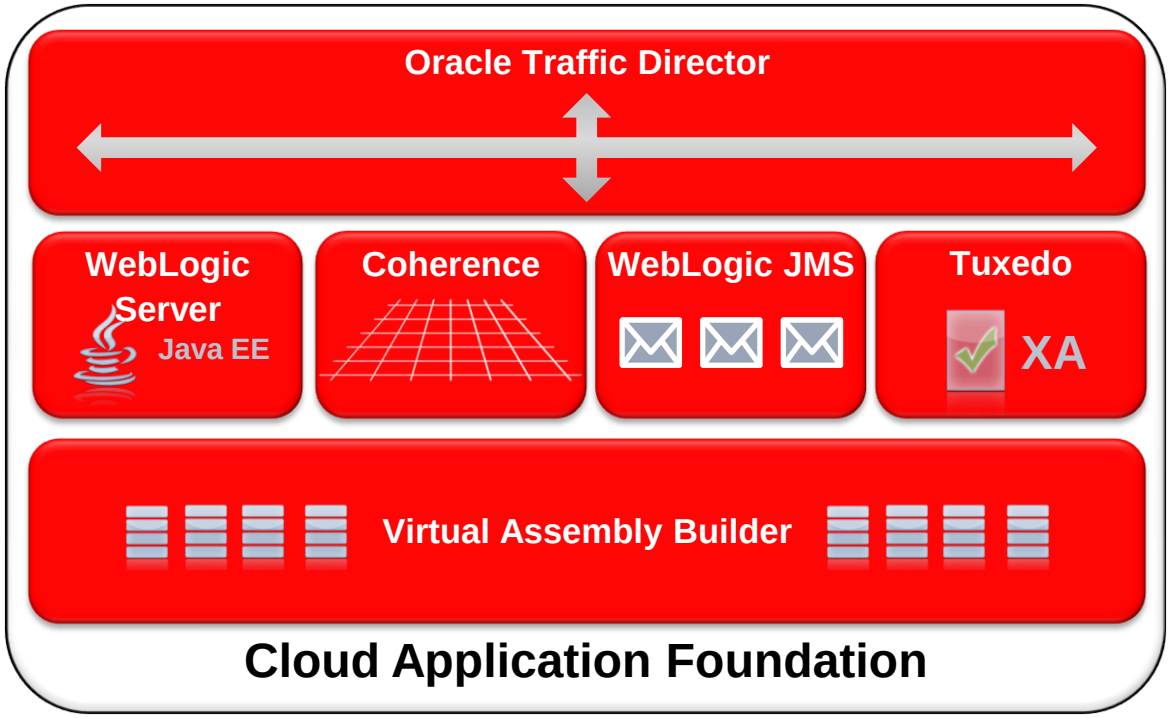



Cloud Application
Foundation

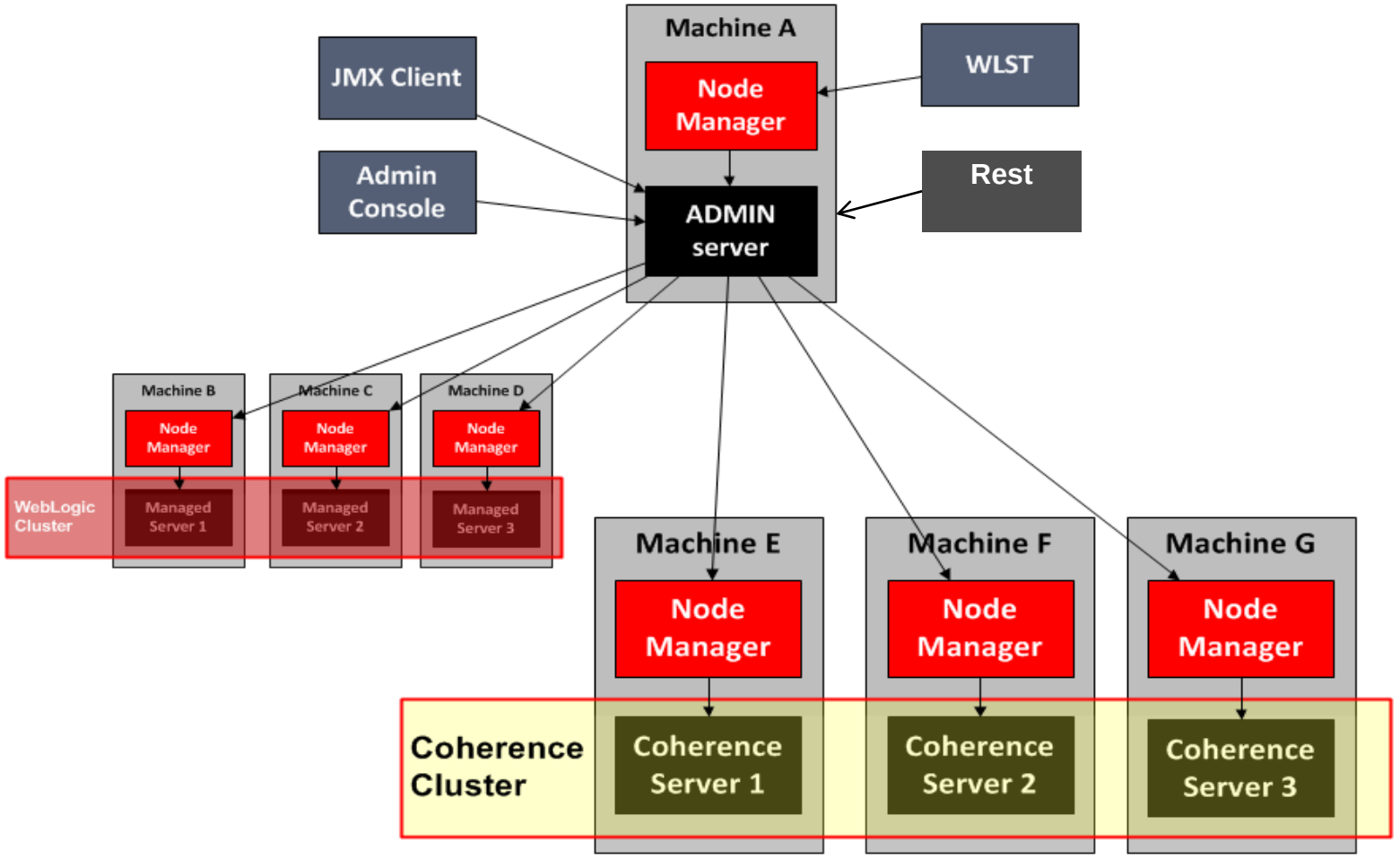
Paas Middleware

Cloud Application Foundation

Elastizität, Performance, *keiten



Einheitliche Architektur – Einheitliche Administration



WebLogic Server 12c – Neue Features

Java EE 6

- JSP 2.1, JSF 2.0
- EJB 3.1, JPA 2.0
- Context and Dependency Injection
- Restful Web Services

Developer

- JDeveloper
- Eclipse
- NetBeans
- Maven

Java SE

- Java SE 6
- Java SE 7

Database

- GridLink – Session Affinity
- GridLink – Transaction Affinity
- GridLink – Fast Connection Failover

Performance

- SPECjEnterprise World Records– EjOPS Overall, EjOPS/Core, EjOPS/Processor

Traffic Management

- Software Load Balancer
- Traffic Shaping
- SSL Termination

Enterprise Scale

- Database Transaction Logs
- Database Store Performance

Enterprise Manager 12c

- Cloud Management
- Diagnostics Advisor
- Incident and Problem Management
- Patch Automation

Distributed Caching

- Coherence Transactions
- Coherence Rest
- Coherence Query Explain Plan

Cloud

- Optimized WebLogic Virtual Appliances
- Coherence Exalogic Exabus
- WebLogic Elastic Message Overflow
- Coherence Elastic Data
- Exalogic HTTP, JMS and Web Service Performance
- TopLink Multi-Tenancy

Security Updates

- New Certification Validation
- New SPNEGO Update
- New RSA Update
- New JSSE Support

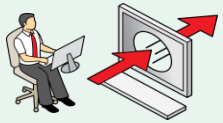
Über 200 neue Features

Oracle Enterprise Manager 12c Cloud Control und Virtual Assembly Builder

Private Cloud Lifecycle

2. Build, Package

- Assemble app using shared components

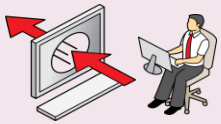


3. Provision via Self-Service

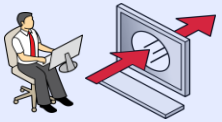
- Provision through self-service

4. Manage/Monitor

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

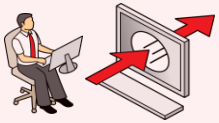


5. Charge

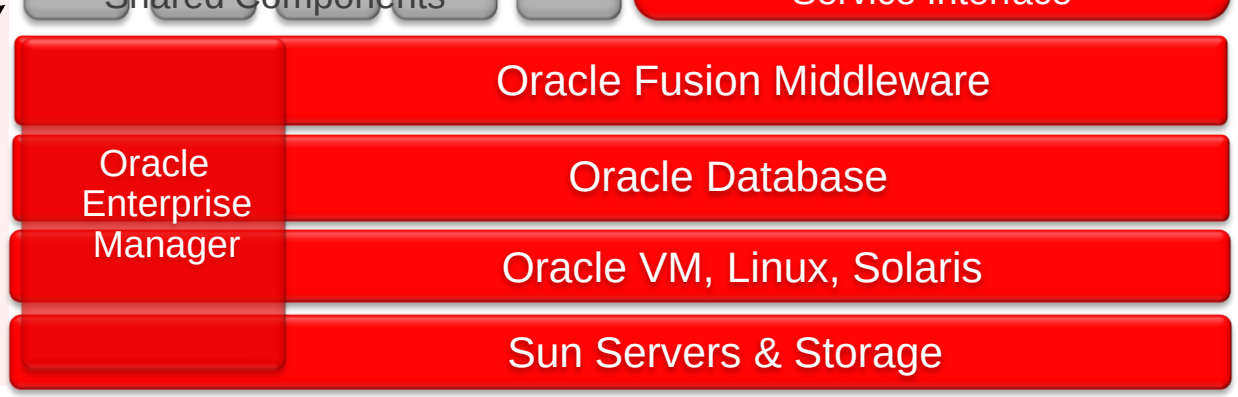


- Meter and Chargeback

1. Set Up Cloud



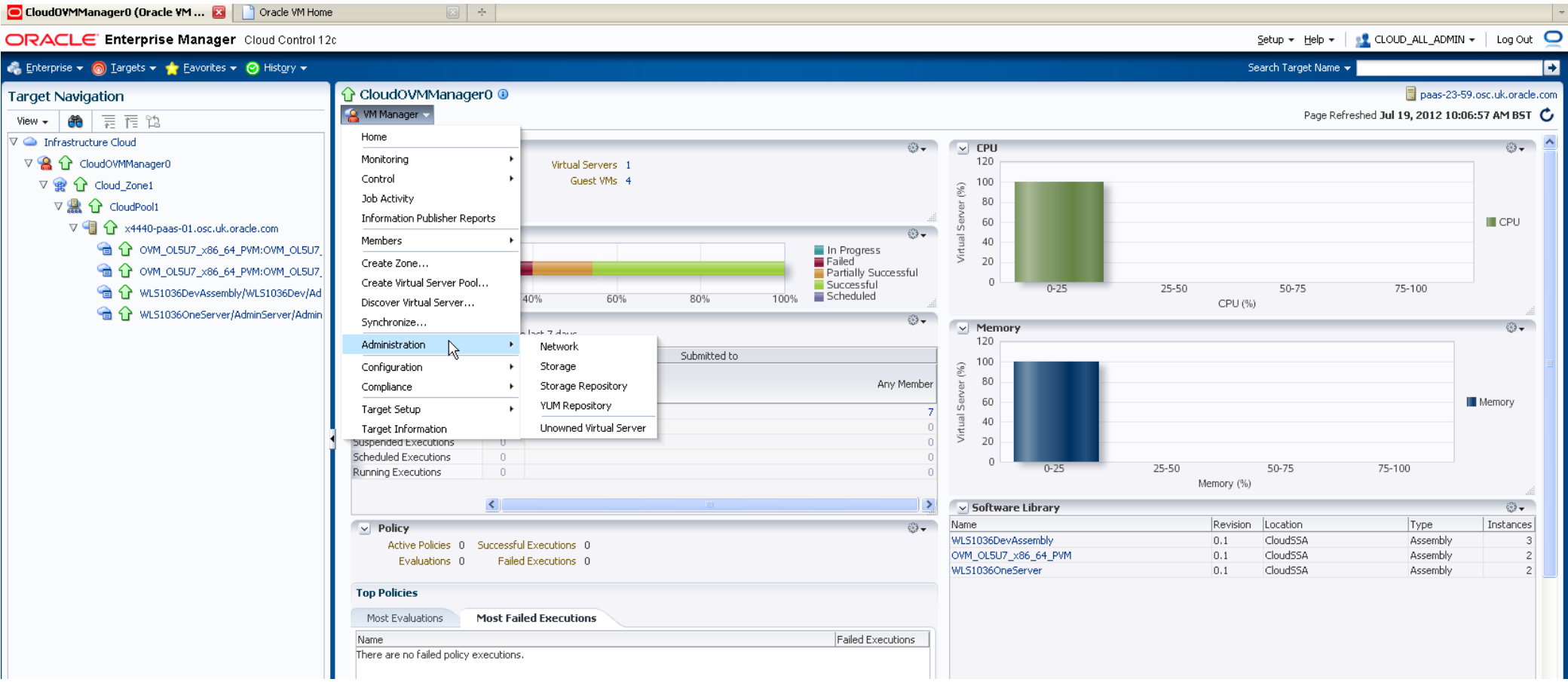
- Set up PaaS Infrastruktur
- Set up shared components
- Set up self-service portal



DEMO

DEMO
(Screenshots)

1. Set-Up Cloud



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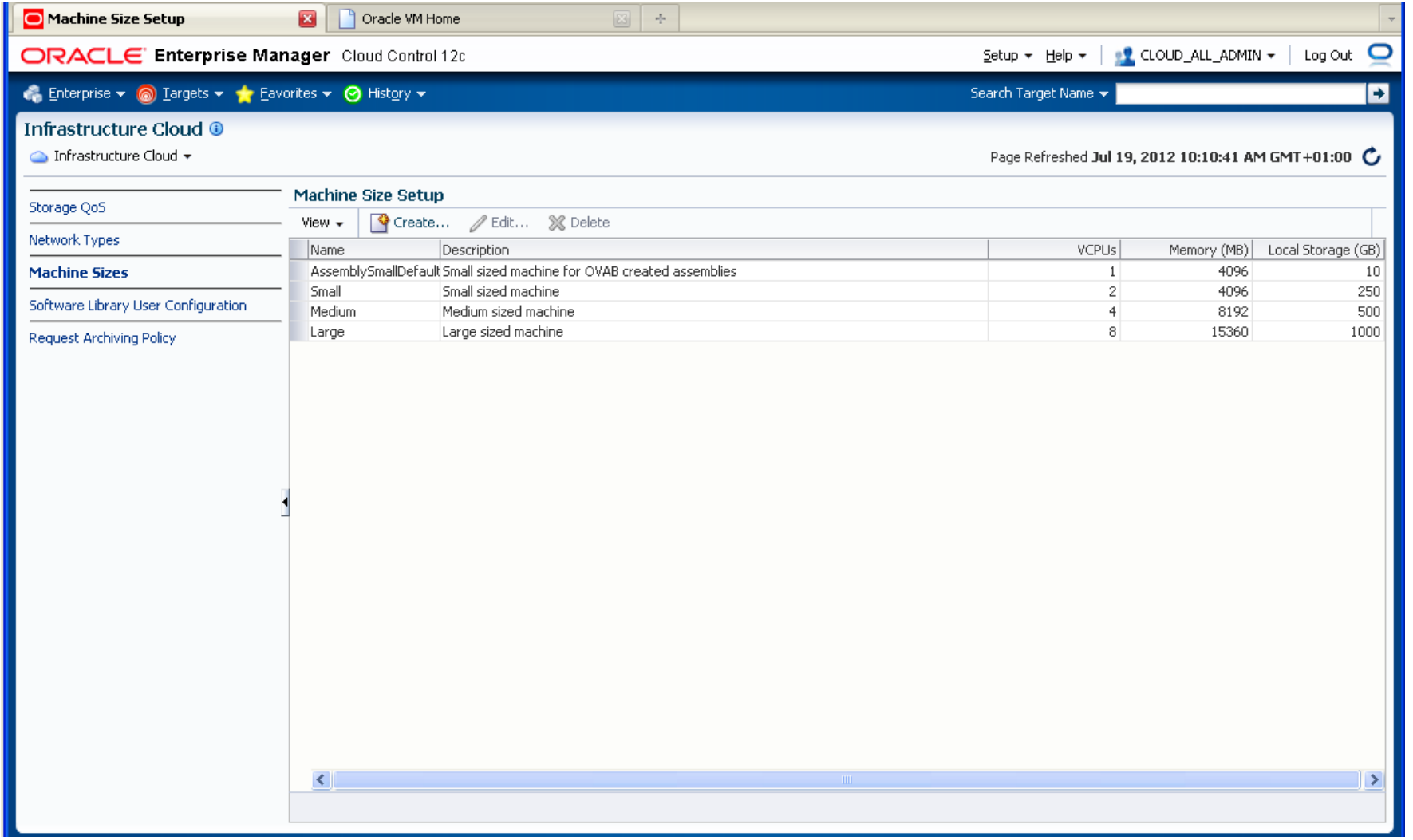

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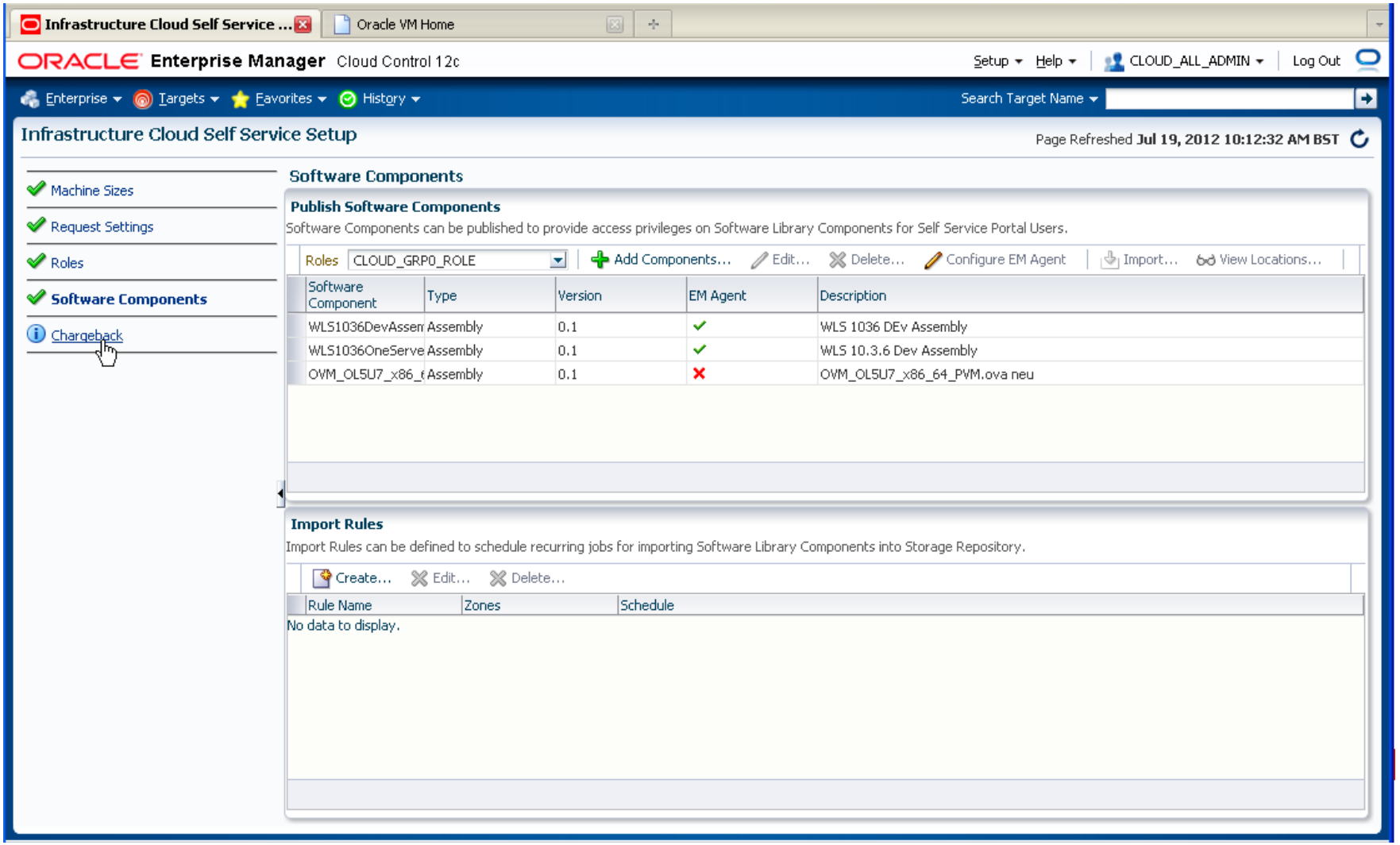
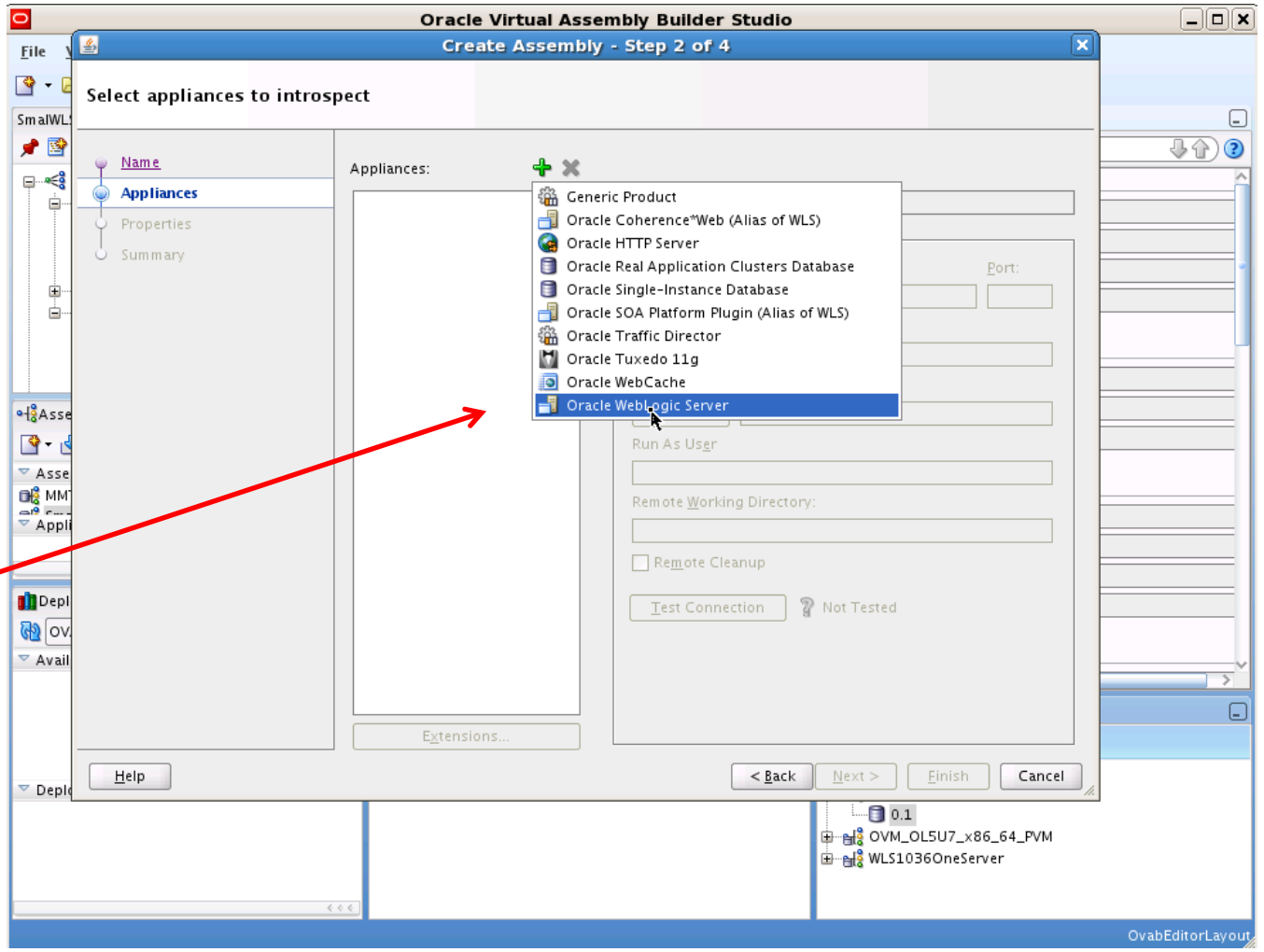


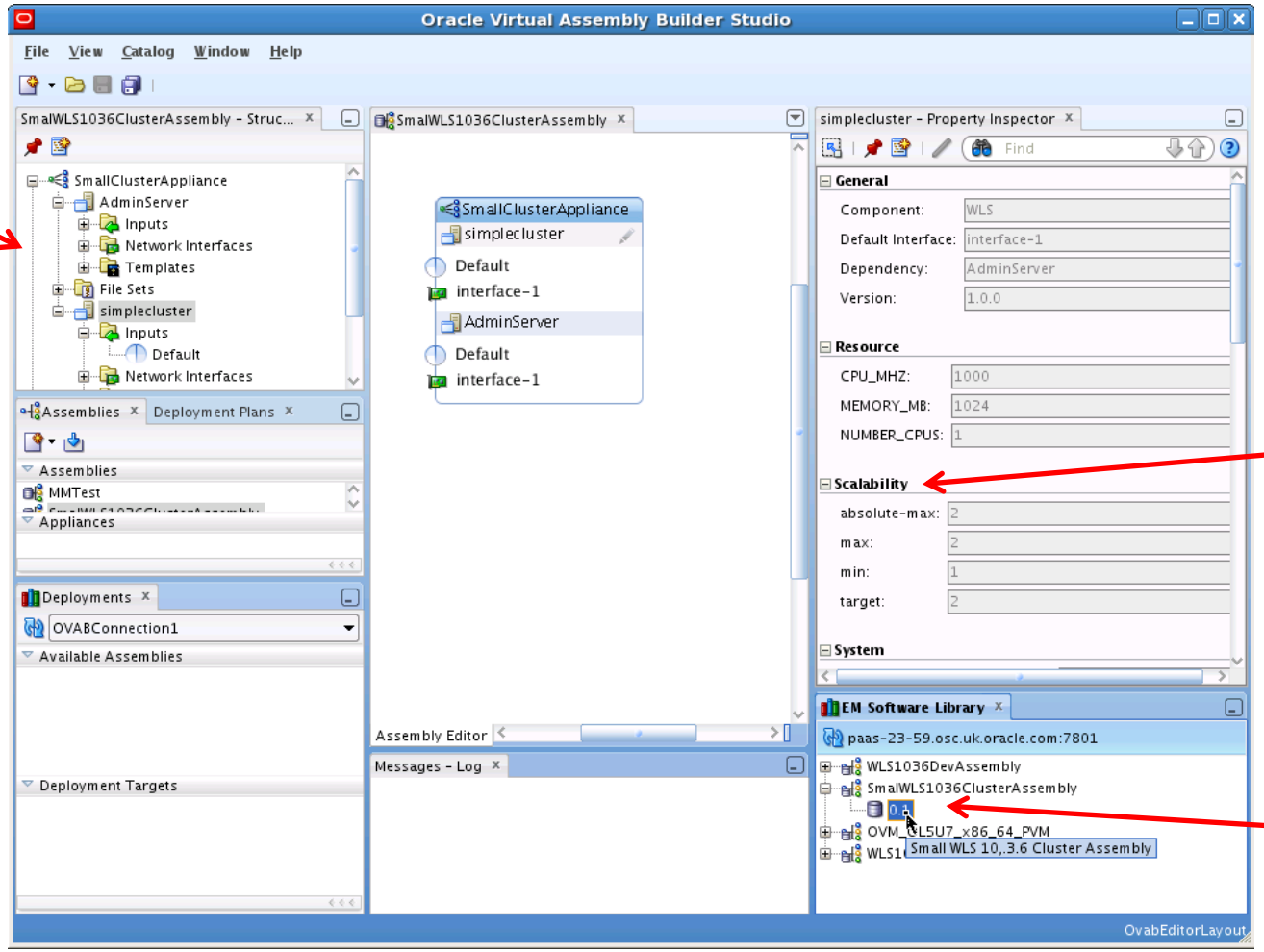
2. Build, Package

Assembly Ersteller erzeugt Assembly aus bestehender Standardumgebung



2. Build, Package

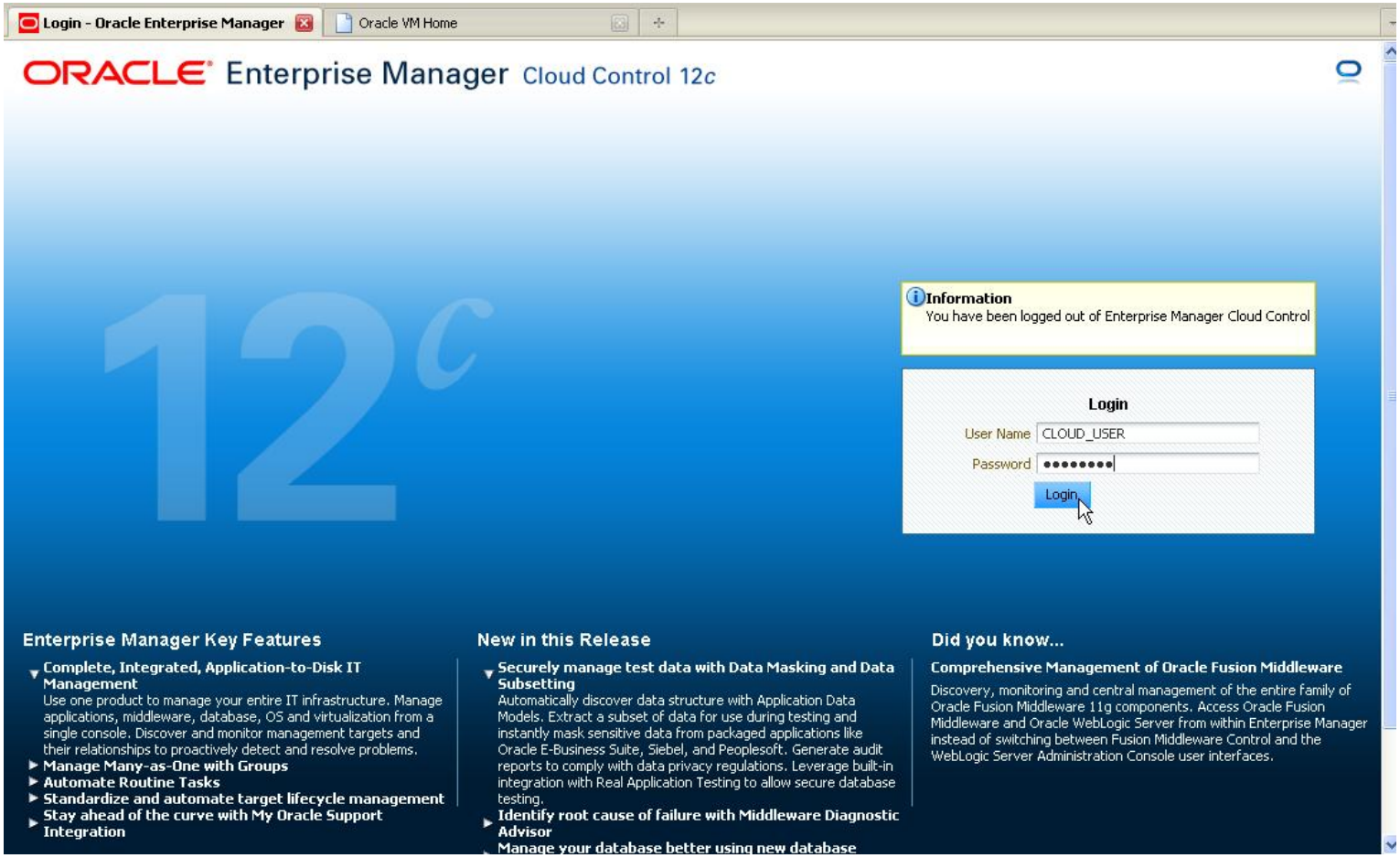
Erzeugtes Assembly.
Hier WebLogic Cluster.



Elasitizität: Hier 2 Knoten-Cluster. Minimal muß ein Knoten laufen.

Assembly wurde in Enterprise Manager 12c Cloud Control Software Library hochgeladen

3. Provision via Self-Service



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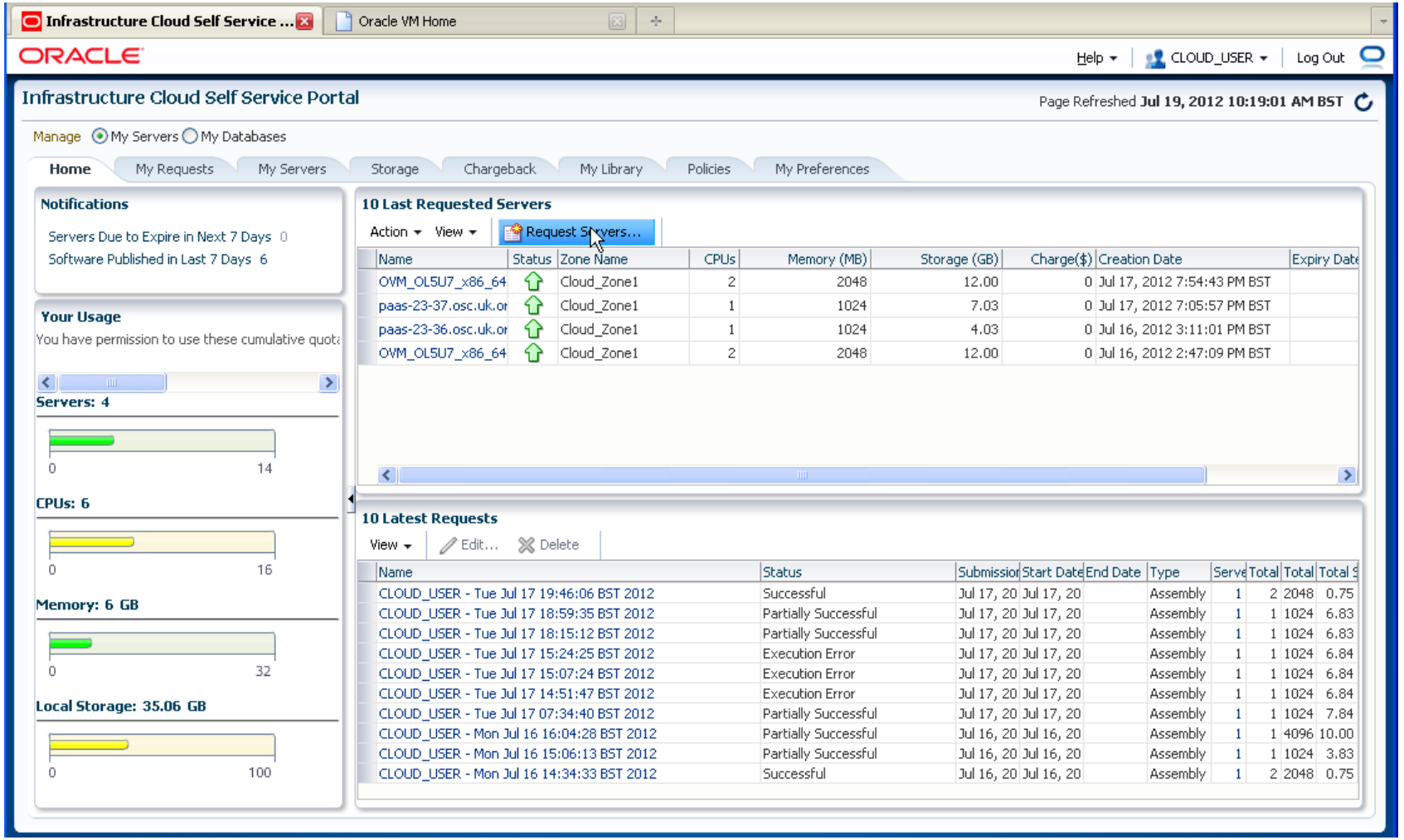

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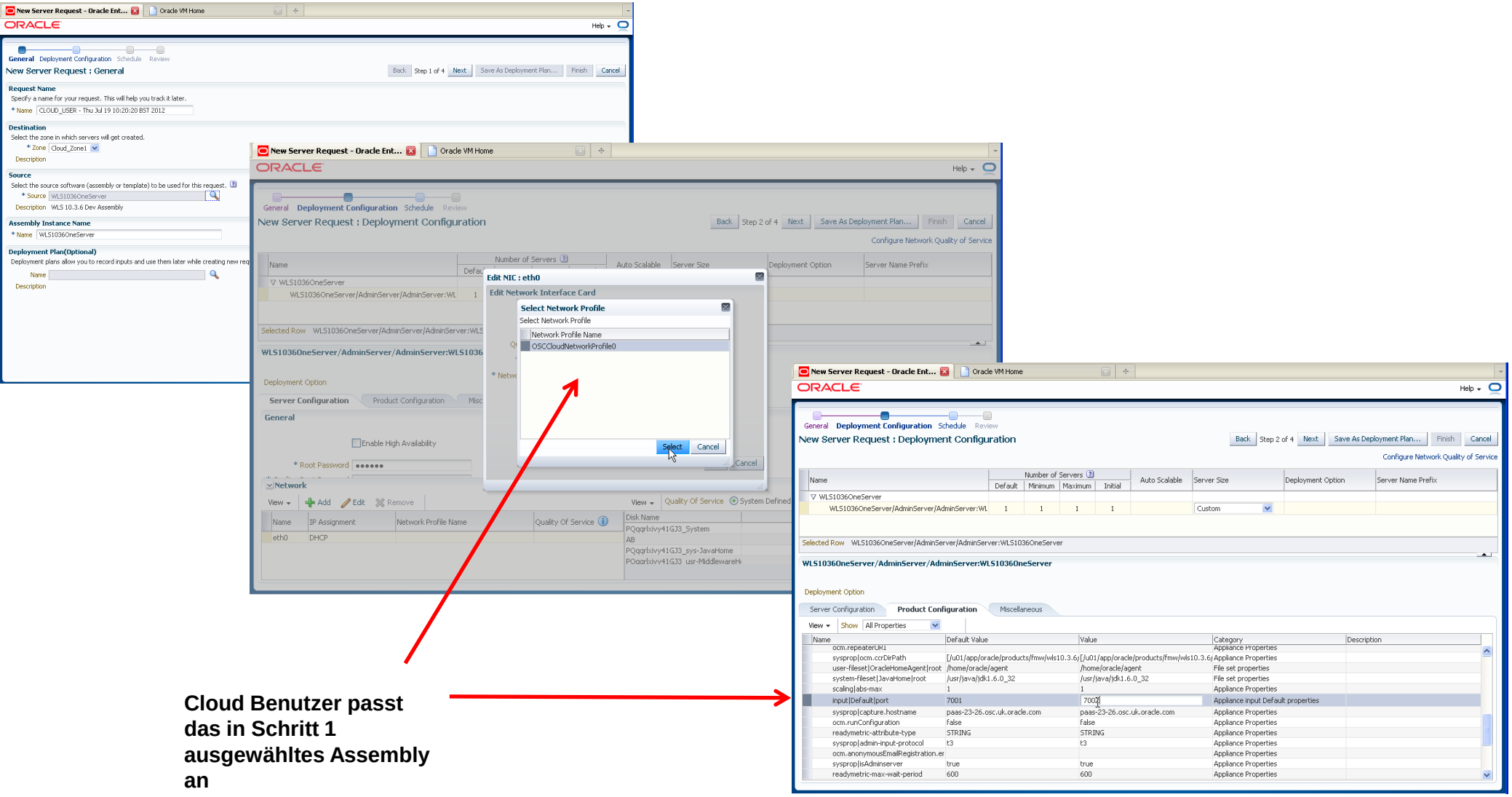
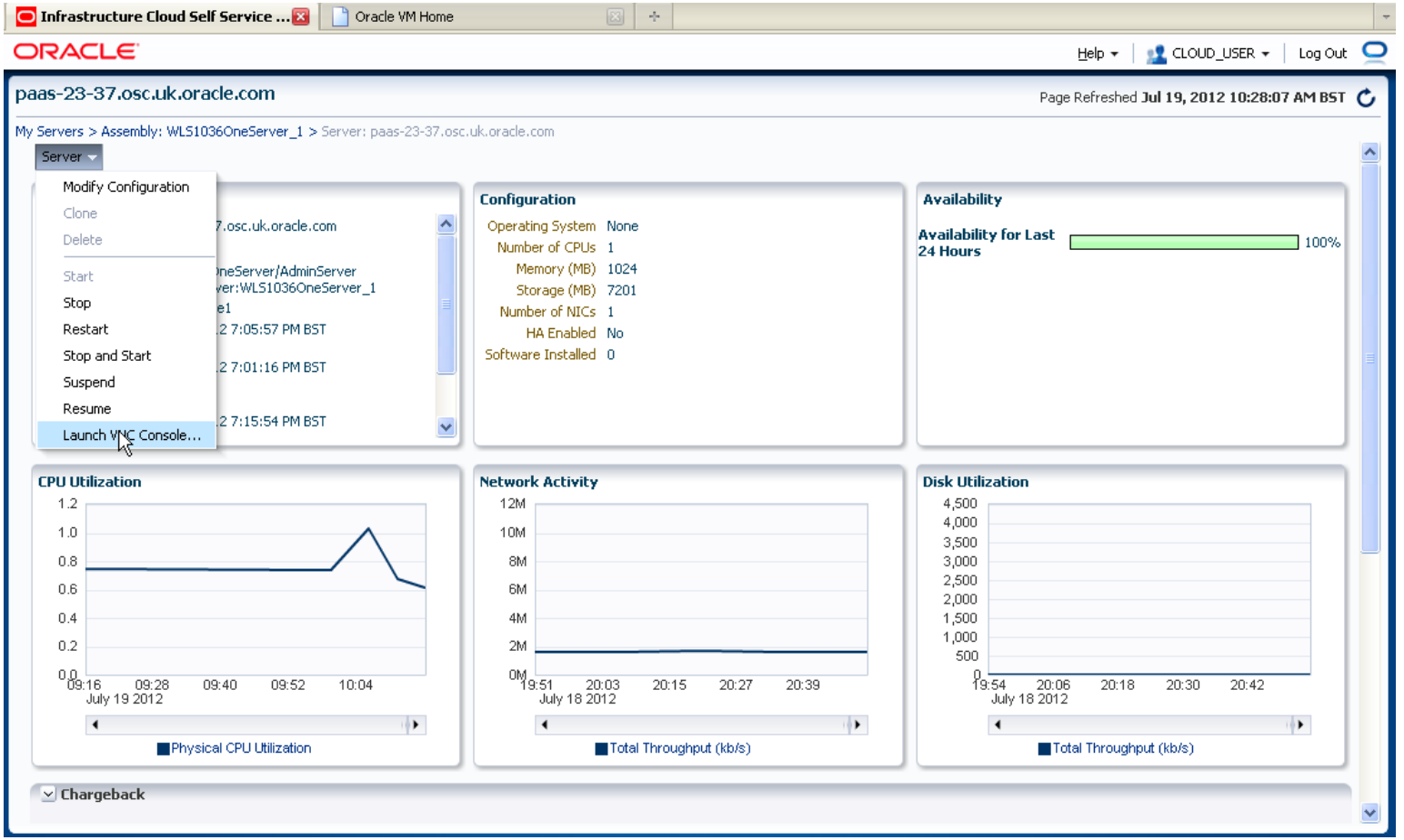
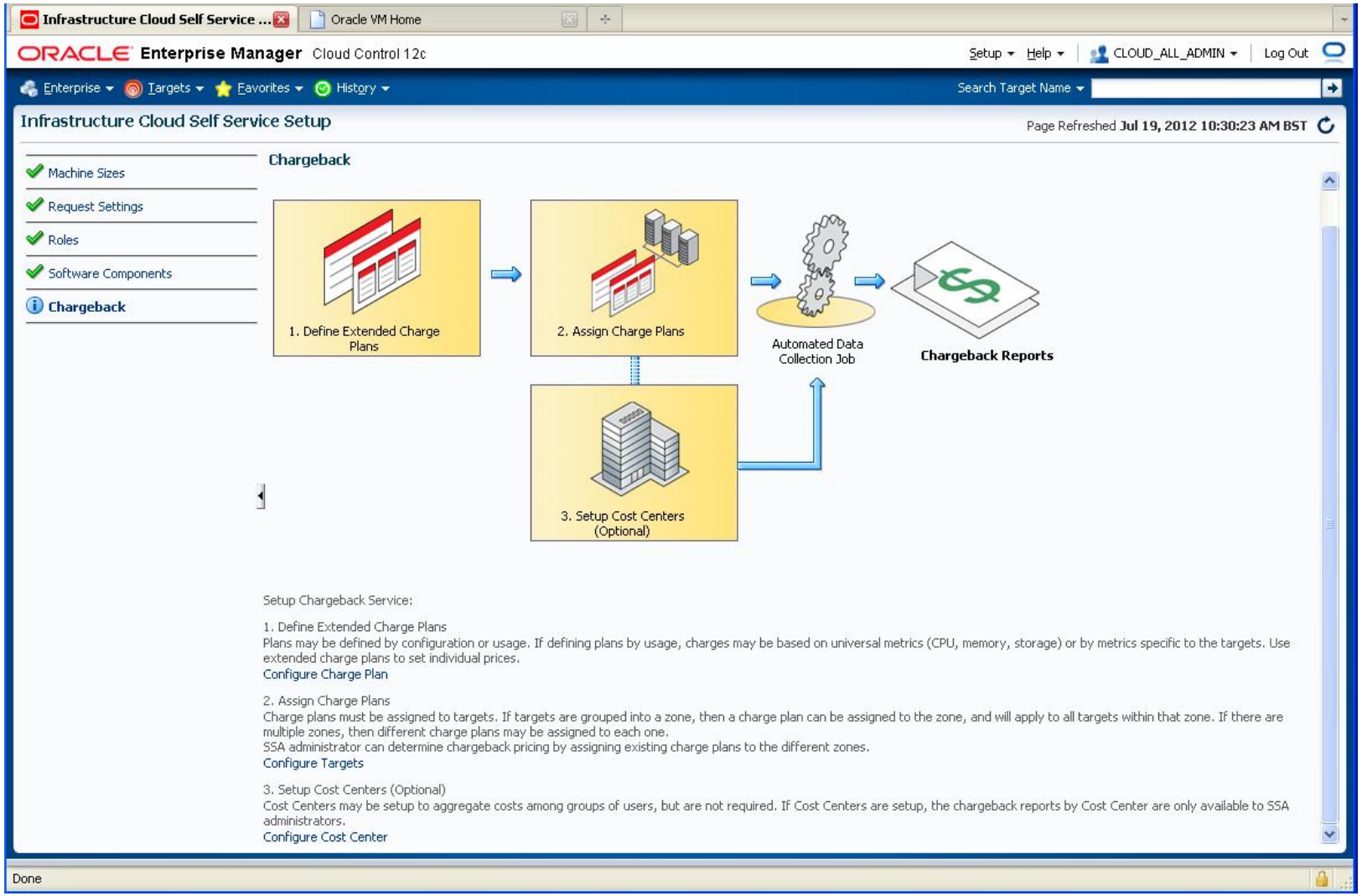


Cloud Benutzer passt das in Schritt 1 ausgewähltes Assembly an

4. Manage and Monitor



5. Metering and Chargeback



Engineered Systems: Exalogic

Oracle Exalogic Elastic Cloud X2-2

Integrated Compute, I/O, Networking and Storage

Integrated Storage

- Shared storage for applications
- Clustered for HA
- 40 TB SAS disk
- 4 TB read cache
- 72 GB write cache

Flash Accelerated

InfiniBand I/O Fabric and 10GbE/GbE

- 40 Gb/sec links
- 10 Gigabit Ethernet connectivity to datacenter

Fully Redundant

Compute Nodes

- 30 x86 compute nodes
- 360 Xeon cores (2.93 GHz)
- 2.8 TB DRAM
- 960 GB SSD

Balanced for Performance

EL X2-2

Oracle Exalogic and Exadata Together

Designed for Seamless Interoperability, Unmatched Performance

960 Gigabits/second
(Maximum: 24x InfiniBand QDR)

- *Exclusive: direct InfiniBand integration!*
- *Extreme performance, reliability, security*
- *Simple to deploy and manage*

Exalogic

Exadata

Active GridLink

- *Resource-aware load balancing*
- *Instantaneous connection failover*
- *Transaction affinity to RAC nodes*
- *SQLnet optimized for InfiniBand SDP*

Hardware and Software

ORACLE

Engineered to Work Together