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SOACS - What's New on PaaS Session-I

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The Oracle logo is displayed in a bold, red, sans-serif font. Below the logo is a thick black horizontal line. Underneath the line, the text "SOA Suite" is written in a bold, black, sans-serif font.

SOA Suite

Safe Harbor Statement

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Malay Kumar Khawas (Profile Summary)



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12+ Years of Oracle Technologies Experience

Professional Recognition

- Bachelors of Technology from NIT Jalandhar
- Oracle Enterprise Architect Program
- Oracle CIO Award Winner
- Oracle Top Performer (Multiple Awards)

Key Competences

- Oracle Database
- Oracle Cloud Implementation
- Oracle EBS Implementation & Upgrade
- Oracle Identity Management
- Disaster Recovery & High Availability
- Solution Architect
- Performance Tuning Expert

Oracle Product Expertise

- Database 11g & 12c
- RAC
- ASM
- Disaster Recovery
- High Availability
- GoldenGate
- EBS 12.1 & 12.2
- Identity Management
- WebLogic
- SOA
- Siebel
- WebCenter
- GRC
- OBIEE
- Discoverer
- Demantra
- Endeca
- Hyperion
- OTD
- Oracle Retail
- OTM
- OEM 12c & 13c
- Exadata
- DBCS
- EXACS
- EBS on OPC
- IDCS
- IaaS
- PaaS
- SOACS
- JCS
- DBaaS
- VPNaaS
- ML & AI
- ..
- ..
- ..
- & Continuing



Difference of SOA at OnPremise and SOACS

Overview

Difference of SOA at OnPremise and SOACS

SOACS (Provisioning)

- Available by Subscription
- Provisioning of Oracle SOACS automatically includes Oracle JCS, which provides an Oracle WebLogic Server domain.

OnPremise (Provisioning)

- Install Oracle SOA Suite using RunInstaller.
- Domain Creation is Manual

SOACS (Backup)

- DBBaaS and OPC Based Backup Services for Middle Tiers
- Automated, learn How and What

OnPremise (Backup)

- Manual InHouse Backup Script Development.
- Separate backup for Database and MiddleTiers.

Difference of SOA at OnPremise and SOACS

SOACS (Database)

- DBaaS is used as Database for SOACS
- You must provision DBaaS prior to provisioning Oracle SOA Cloud Service.

OnPremise (Database)

- Database at OnPremise must be installed and created manually / separately.

SOACS (HA)

- High Availability is provided by default
- High Availability with Virtual Machine Restart

OnPremise (HA)

- Design and Setup High Availability

Difference of SOA at OnPremise and SOACS

SOACS (LBR)

- Load Balancer
- Load balancing is provided by the built-in Oracle Traffic Director.

OnPremise (LBR)

- Oracle HTTP Server serves as the load balancer.
- Implement BigIP F5, OTD, Netscaler on top of HTTP Server

SOACS (Storage)

- Shared Storage is not available for SOACS
- Use DBFS for Shared file Use Cases

OnPremise (Storage)

- Use built in feature of storage appliance for shared filesystem.

Difference of SOA at OnPremise and SOACS

SOACS (BPM)

- Oracle Business Process Management Suite is not available with SOACS. Instead, you can subscribe to Oracle Process Cloud Service or run Oracle Business Process Management Suite on Oracle Java Cloud Service.

OnPremise (LBR)

- After installing Oracle SOA Suite Cloud Service, you can install Oracle Business Process Management Suite on top of it.

SOACS (Healthcare)

- Oracle SOA for Healthcare is not available with Oracle SOA Cloud Service.

OnPremise (Healthcare)

- You can deploy Oracle SOA Suite for Healthcare Integration.



Difference of SOA at OnPremise and SOACS

Behavioral Differences

How SOA is different in Oracle Cloud

Technical Short Note

- **No Share Storage, Managed Server to Local Storage:**

- ✓ Because shared disk is currently not available, writing to a shared file from multiple managed servers running in a cluster is not possible. To make this work in the cloud, managed servers would have to write to a file on their own local disks, and then an additional process would have to consolidate the files on one of the VMs.

- **File Adapters and Local Storage**

- ✓ File adapter Read Actions - Each Managed Server only reads from its local directory.

How SOA is different in Oracle Cloud

Summary

- **JMS and JTS**

- ✓ JMS Store and JTA Transaction logs must use the Oracle database instead of file stores.

- **SOA Debugger and SOA-CAT**

- ✓ The SOA Debugger and Automatic SOA Composite Application Tester (Unit Tester) in Oracle JDeveloper are not supported when connecting to the SOA Cloud Service server.

- **SOA Reports**

- ✓ Reports are not supported in Oracle Real-Time Integration Business Insight, installed as part of Integration Analytics Cluster Service.

How SOA is different in Oracle Cloud

Technical Short Note

- **iWay Application Adapters**

- ✓ iWay Application Adapters are not supported by SOACS

- **High Availability Features of OTD 12.2 / 12.1**

- ✓ High Availability Features of OTD 12.2 / 12.1 are not supported with Oracle SOA Cloud Services.

How SOA is different in Oracle Cloud

Technical Short Note

- **Dehydration Store**

- ✓ Dehydration Store doesn't work in SOACS as it works in SOA at OnPremise. Read and Understand the limitation exclusively. Some important components of Dehydration Store:
 - ✓ CUBE_INSTANCE: Stores the information about the composite instance that gets created.
 - ✓ CUBE_SCOPE: Stores information about the scopes and variables declared and used.
 - ✓ DLV_MESSAGE: All the incoming payload details are stored.
 - ✓ INVOKE_MESSAGE: All the outgoing message payload details are stored.
 - ✓ AUDIT_TRAIL: Used to store information of the xml that is rendered in EM console.



Adapters Available for Oracle SOA

Overview

Adapters Available for Oracle SOA

Available for SOA 12.2 (OnPremise and SOACS)

- **Cloud Adapters**

- ✓ Oracle Cloud Adapter for Eloqua, Salesforce.com, RightNow, Sales Cloud, NetSuite, ERP Cloud

- **Technology Adapters**

- ✓ Oracle Fusion Middleware Technology Adapters

- **Enterprise Application Adapters**

- ✓ Oracle Integration Adapter for SAP R/3, Oracle E-Business Suite Adapter (12.2.1.2.0)

- **Application Adapters (iWay)**

- ✓ Oracle Application Adapter for PeopleSoft, ,SAP R/3, Siebel, J.D. Edwards OneWorld



SOACS on OCM, OCIC and OCI

Restrictions and Differences

SOACS on OCIC and OCI

Summary

- RAC Deployment of DBaaS is not supported for SOACS on OCI. You can only have Single Node Database Instances (03-Jun-2018)
- **OCIC Underlying Architecture**
 - The underlying compute environment is a virtual machine (VM). A virtual machine is an independent computing environment that runs on top of physical bare metal hardware. The virtualization makes it possible to run multiple VMs that are isolated from each other. VMs are ideal for running applications that do not require the performance and resources (CPU, memory, network bandwidth, storage) of an entire physical machine.

OCI and OCIC Differences

Feature	OCIC	OCI
Availability Domains	Not Applicable	Each region has multiple isolated availability domains, with separate power and cooling. The availability domains within a region are interconnected using a low-latency network. When creating an instance, you can select the availability domain that the instance should be placed in.
Compute Shapes	General Purpose Computing Power and High Memory Computing Power	VM.Standard.* and BM.Standard.* shapes
Network	You <i>can</i> attach instances to IP networks defined in OCIC.	You <i>must</i> attach each instance to a subnet, in a virtual cloud network created in OCI
Public IP Reservation	Supported	Not Supported
Scale Up / Down of Compute Shape	Supported	Not Supported
Block Storage Addition	The minimum size and scaling increment for block storage volumes is 1 GB.	The minimum size and scaling increment of block storage volumes is in multiples of 50 GB.
Object Storage for Backup	You can create the object storage container either before or during instance creation.	You must create the object storage bucket in Oracle Cloud Infrastructure before creating the instance.
Billing	You can buy Oracle SOACS on a metered or non-metered basis.	OCI services can only be billed through Universal Credit Service accounts. Existing Universal Credit Service accounts can be used.

SOACS on OCM and OCI

Feature	OCI	Oracle Cloud at Customer
API Manager	Available	API Manager is available as a listed service on Oracle Cloud at Customer.
External Database	You can have a Hybrid Environment like Database in AWS, Azure, GCP or OnPremise	External database support is not available on Oracle Cloud at Customer
Public Network Access	Available	Option to specify the public access network and database network while provisioning is not available on Oracle Cloud at Customer.
NFS Remote Backup	Available	Option to specify NFS remote backup is not available on Oracle Cloud at Customer.
Domain and Database Backup	Both domain and database backup are supported on OCI.	Both domain and database backup are supported on Oracle Cloud at Customer.



SOACS on OCIC - Provisioning

Let us have 2 Quick Demonstration

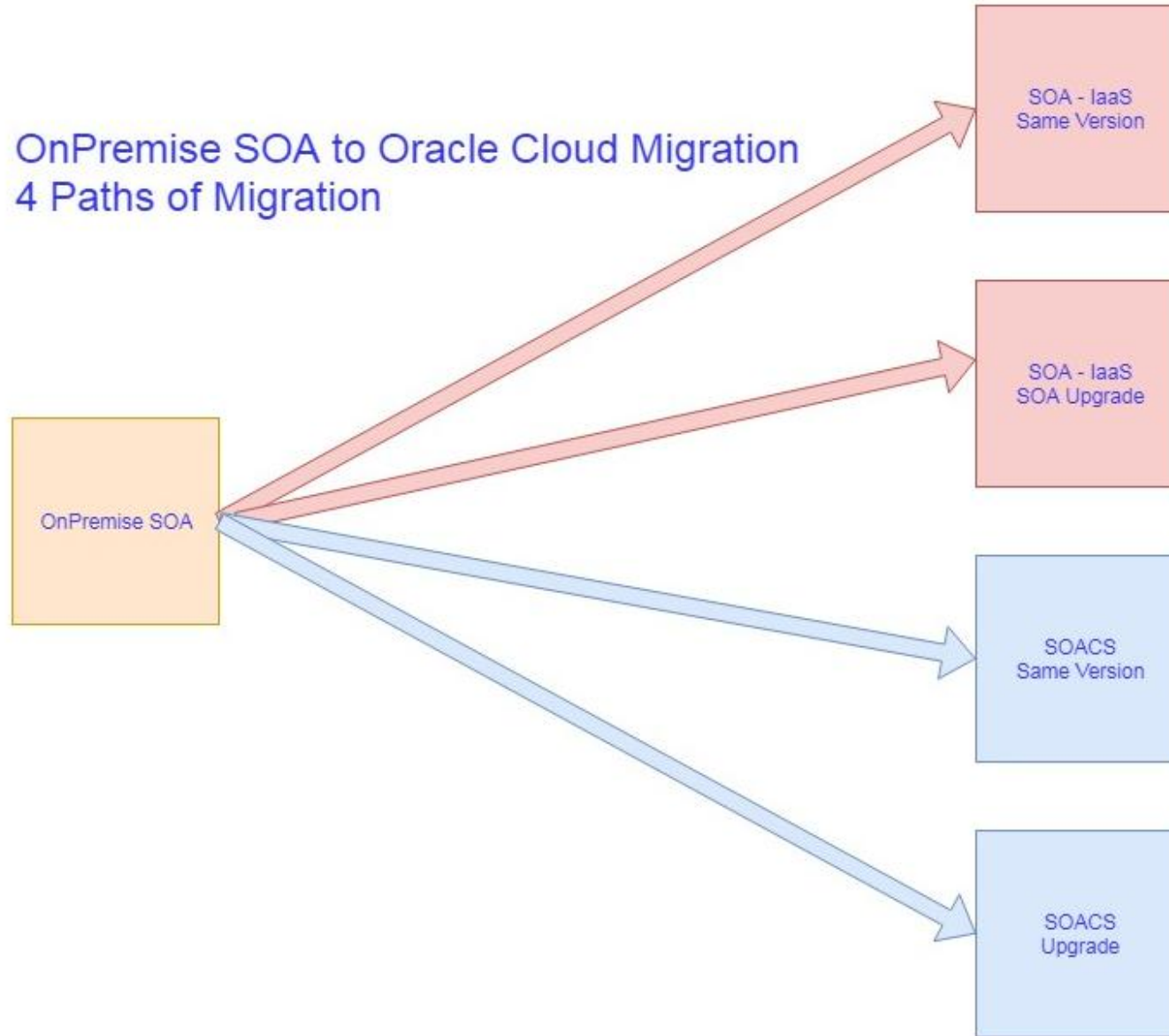
2 Simple Demonstration !!!!
Let's See



Migrate OnPremise SOA to Oracle Cloud

Overview

OnPremise SOA to Oracle Cloud Migration 4 Paths of Migration



Migration Vs Side by Side Upgrade to SOACS

Migration	Side by Side Upgrade to SOACS
The source version of your on-premises SOA application can be 11.1.1.7 or later.	The source version of the cloud SOA instance that you want to upgrade can be 12.1.3 or later.
On-premises SOA application may use internal LDAP, third party LDAP or Oracle IDM.	SOA Cloud Service uses internal LDAP.
On-premises SOA application may use Oracle Traffic Director (OTD), Oracle HTTP Server (OHS) or a third party load balancer.	SOA Cloud Service uses OTD.
On-premises SOA application may use Java Keystore (JKS) or Keystore Services (KSS).	SOA Cloud Service uses KSS.
You cannot copy security information directly between an OnPremises SOA application and SOA Cloud Service during the migration. You have to first export the security information from your OnPremises SOA application to a local file, and then copy the file and import it to the target environment.	You can directly copy and import security information between the source and the target SOA Cloud Service instances.

SOA Migration to Oracle Cloud

Summary

- For SOA and MFT, the source on-premises version for **migration** to the cloud is 11.1.1.7 or later.
- For SOA and MFT, the source version for **side-by-side upgrade** in the cloud is 12.1.3 or later.
- For SOA and MFT, it is assumed that disaster recovery is not configured for the source environment. Note that appropriate changes have to be made to the instructions if disaster recovery is configured.
- For SOA, it is assumed that the source environment has a load balancer. Otherwise, the steps have to be modified and adapted accordingly.



Storage Option – a Little Steps

Overview

Storage Details for SOACS

Storage Type

Ephemeral

- Ephemeral storage is built every time the virtual machine is started - nothing is saved (stateless).

Block

- Block storage is similar to regular file storage. The Oracle SOA code and data is written from virtual machine (stateful) to file storage

Object

- Object Storage is used for long term storage and backups.

What Next?

Detailed Instruction on SOA Migration to SOA-IaaS and SOACS

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