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Safe Harbor Statement

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Coherence and Caching in the Oracle Cloud

Coherence SIG– London

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Senior Product Manager – Coherence and Caching Cloud Services
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A woman with long brown hair and glasses is sitting at a wooden table in a bright, modern office or cafe. She is wearing a brown jacket and a blue scarf. She is holding a black mobile phone to her ear with her left hand and looking down at a newspaper or magazine on the table with her right hand. The background is slightly blurred, showing other people and large windows.

Coherence Feature of the Java Cloud Service

Released February 2015

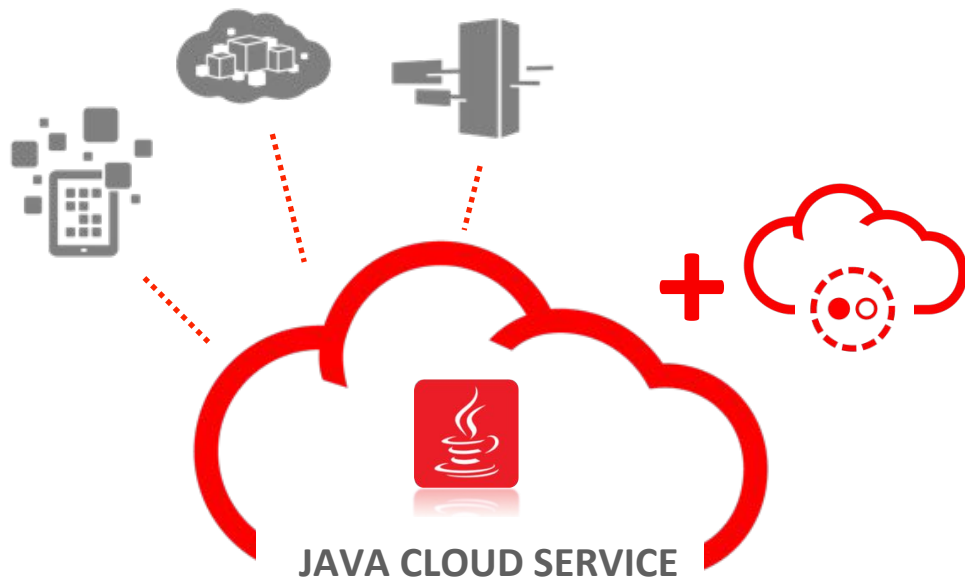
Java Cloud Service Basics

Your platform for running business applications in the cloud

- Self-service application platform with advanced cloud tools
- Save time and cost with simplified provisioning
- Reduce down time: automated patching, backup, recovery
- Increase data and processing capacity on demand to scale for new business needs
- **Enable Oracle Coherence for caching & data grid functions**
- Pre-configured for Database and Developer Cloud Services for complete cloud application management



Java Cloud Service Option: Oracle Coherence



- Cache frequently-used data to avoid expensive round-trips to underlying data sources (e.g. databases)
- Scale applications' data in-memory to quickly support growth
- Offload and protect shared cloud services and databases
- Deliver real-time data to cloud apps
- Provide transparency and high-availability in the cloud's data grid tier

Oracle Coherence is Your Cloud Data Grid

Scalable, fault-tolerant cloud infrastructure

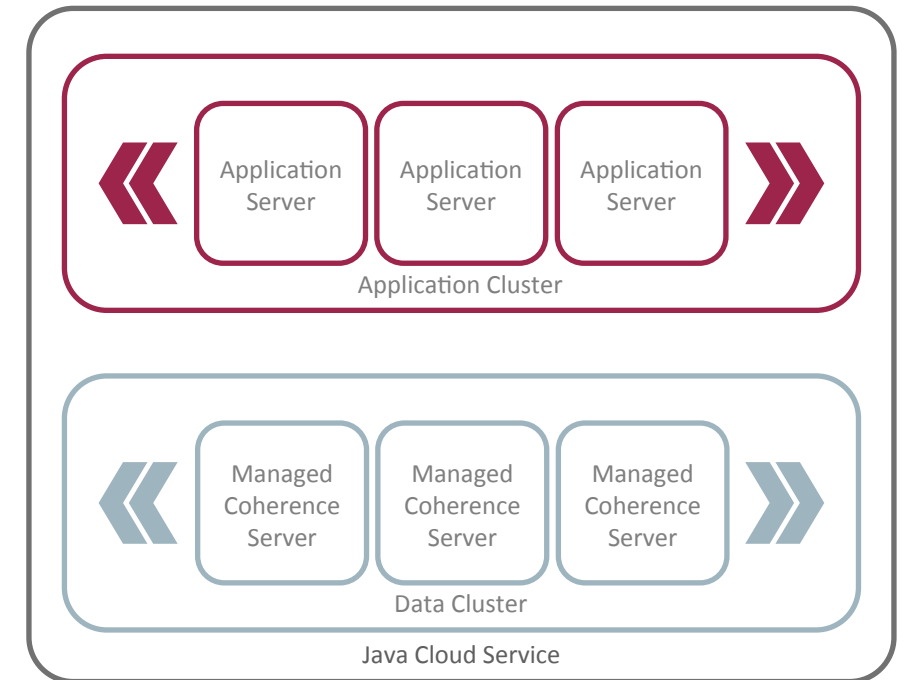
- Fully integrated into the JCS instance creation workflow
 - Create a new JCS instance with Coherence in four easy steps
- Automated infrastructure patching and rollback
 - Patches are applied in a rolling fashion with no application downtime



Coherence Option: Infrastructure & Architecture

Integration with Oracle Cloud and Management Tools

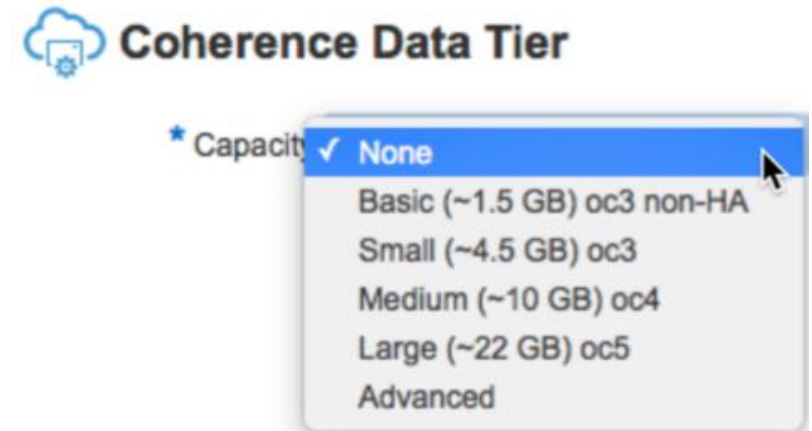
- Built on WebLogic & Coherence 12c (12.1.3) Enterprise Edition
- Leverages WebLogic Management Framework
 - Develop, deploy, manage and monitor your applications via Managed Coherence Servers
- One Coherence cluster per domain
- Creates an additional WebLogic cluster of Managed Coherence Servers nodes
- Coherence (TCMP) cluster spans Java Cloud Service and Managed Coherence Servers
- Cache storage automatically disabled in the app cluster



Coherence Feature: Simplified Provisioning

Planning for capacity and scale of your cache

- Select the cache capacity your application requires
- Passively selecting a predefined set of resources (known as a “capacity unit”) to support the desired cache capacity
- Scale-out/in cache capacity based on selected capacity unit
- A capacity unit is made up of:
 - a configurable number of Virtual Machines (one in the non-advanced mode)
 - a configurable number of Managed Coherence Servers per Virtual Machine
 - a configurable heap size per Managed Coherence Server



Coherence Feature: Simplified Provisioning (Advanced)

Planning for capacity and scale for your cache

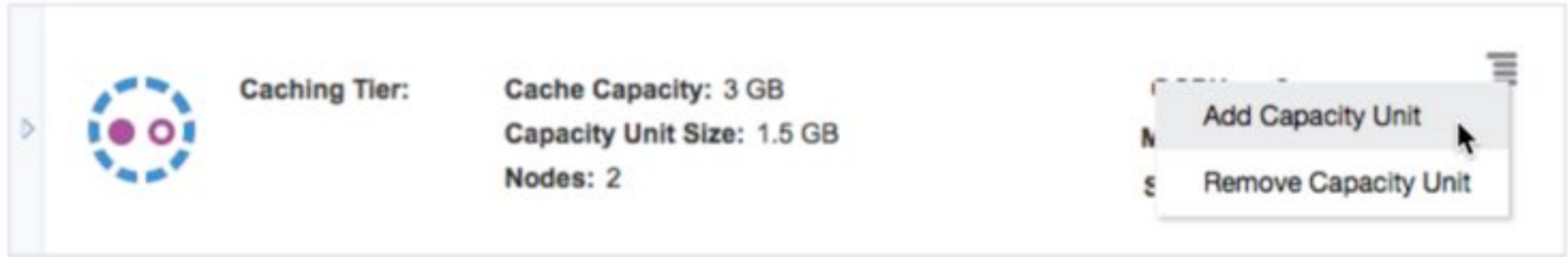
- Advanced users can define custom capacity units
- Selecting the number of Virtual Machines, Managed Coherence Servers & heap size
- Scale-out/in cache capacity based on defined capacity unit



The screenshot shows the 'Coherence Data Tier' configuration interface. It includes a cloud icon and the title 'Coherence Data Tier'. Below the title, there are four configuration fields, each with a blue asterisk icon and a help icon (question mark in a circle):

- Capacity:** A dropdown menu set to 'Advanced'.
- Cache Capacity:** A text input field containing '1.5 GB'.
- Compute Shape:** A dropdown menu set to 'OC3 - 1 OCPU, 7.5 GB RAM'.
- Nodes:** A text input field containing '1'.
- Servers Per Node:** A text input field containing '1'.

Coherence Feature: Simplified Scaling



Caching Tier:

- Cache Capacity: 3 GB
- Capacity Unit Size: 1.5 GB
- Nodes: 2

Context Menu:

- Add Capacity Unit
- Remove Capacity Unit

Add Capacity Unit [X]

Based on the capacity unit configuration declared for your instance, the appropriate number of nodes are added to your instance when you add a capacity unit.

Current Capacity: 3 GB Projected Capacity: 4.5 GB

[Add Capacity Unit] [Cancel]

Remove Capacity Unit [X]

Based on the capacity unit configuration declared for your instance, the appropriate number of nodes are removed from your instance when you remove a capacity unit.

Current Capacity: 3 GB Projected Capacity: 1.5 GB

[Remove Capacity Unit] [Cancel]



Caching Cloud Service

In the planning phase

Caching Cloud Service

Goals

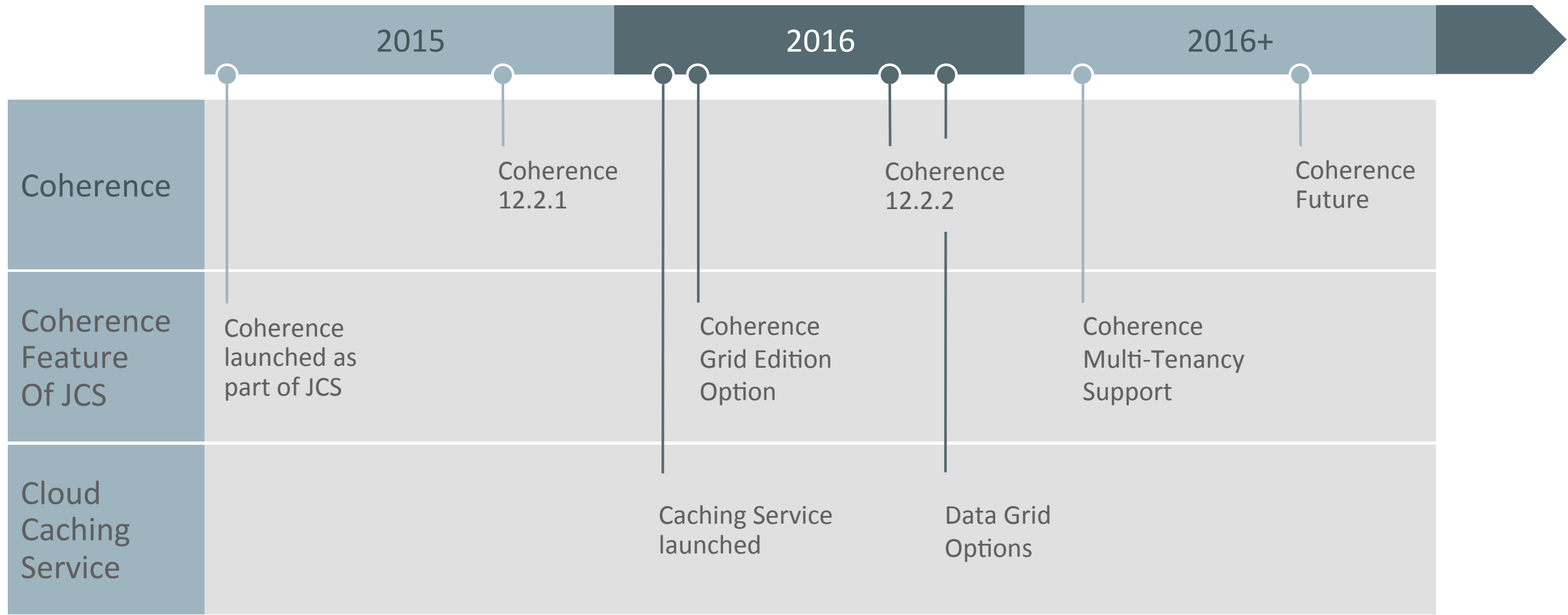
- Provide a first class caching service
- Provide both “Caching” and “Datagrid” feature sets
- Provide a caching/datagrid tier for use by the Oracle Cloud ecosystem
- Simplify provisioning, scaling patching, deployment & upgrade

A woman with long brown hair and glasses is sitting at a wooden table in a cafe. She is wearing a brown jacket and a blue scarf. She is talking on a black mobile phone held to her ear with her left hand, while her right hand is on a newspaper she is reading. The background is a bright, modern cafe with other tables and chairs, and a person is visible sitting at a table in the distance.

Integrated Roadmap

Coherence, Coherence on JCS and Caching Cloud Service

Oracle Coherence and Caching Projected Roadmap



For More Information



cloud.oracle.com/java

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