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New Coherence (WebLogic) Features

Using Managed Coherence Servers

Dave Felcey
Coherence Product Manager

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Agenda

1. Overview
2. Coherence Cluster Lifecycle Automation and Management
3. Coherence ALM and Isolation
4. Coherence Runtime Management
5. Coherence Security

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Overview

Coherence Managed Servers

- What are Coherence Managed Servers?
- Is there an extra charge?
- How do I install them?
- How do they effect monitoring?
- Is there a performance overhead?
- Do I have to use them?

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Coherence Cluster Lifecycle Automation and Management

- Node Manager used to start, stop and re-start Coherence nodes remotely
- Administration Console provides Web UI for Coherence Management
- Fusion Middleware Control will extend this capability to monitoring
- WebLogic Scripting Tool (WLST) enables management scripts to be written in Jython
- Administration Console can also be used to record commands
- All management operations can be scripted, like cluster creation and cloning
- Wizard Driven Configuration Tools
- Group wide operations can be performed using WebLogic clusters
- Dynamic WebLogic clusters simplify cluster expansion and automated provisioning
- Log management built-in – rolling and archiving log files

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Coherence ALM and Isolation

Coherence Application Lifecycle Management (ALM) and Isolation

- Coherence applications deployed as a GAR file. JAR file format containing all Coherence application artefacts
  - All application classes and any library dependencies
  - POF and cache configuration file
- Complete Applications deployment, un-deployment and re-deployed using a rolling restart independently, using WLST, Maven, ANT and Admin Console
- Coherence Application completely isolated
  - Separate class loader, so no class collisions
  - Scoped services to ensure cache and so data isolation

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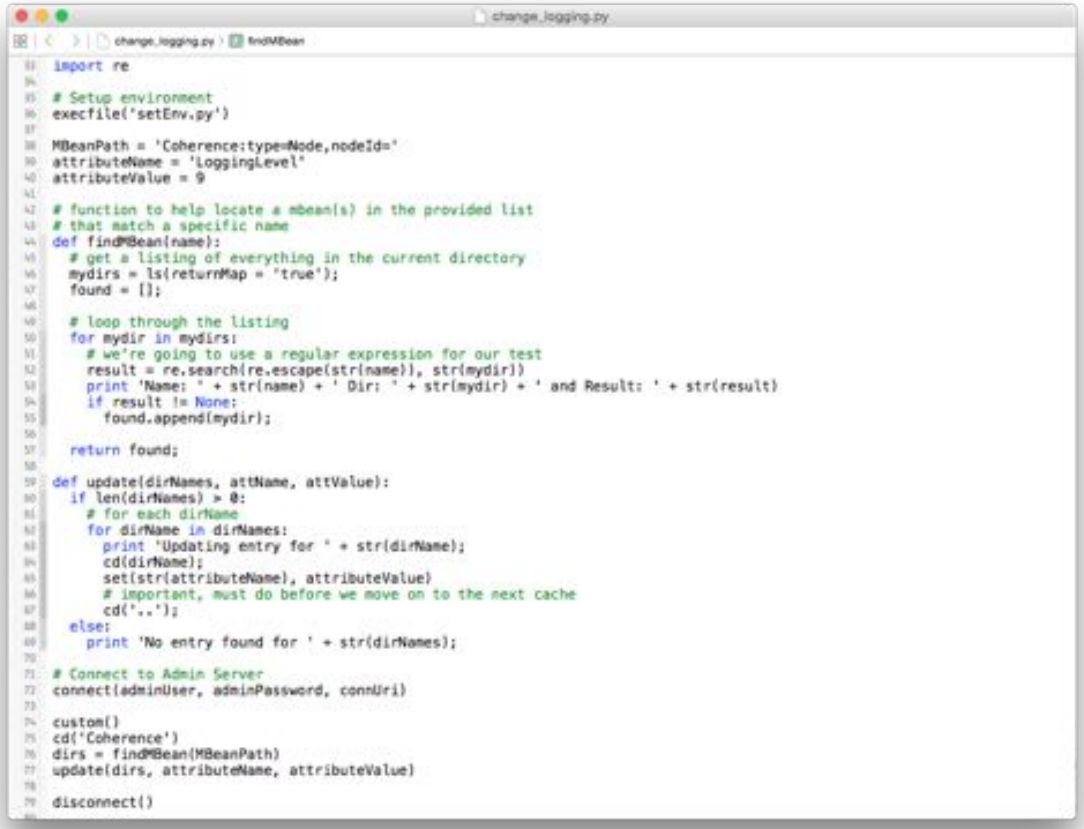
Coherence Runtime Management

- Access to all Coherence and WebLogic MBean's through the Admin Console
- MBean's are navigable using WLST
- Scripts are easy to write to make Coherence cluster wide changes
- Distributed Thread Dumps
- Rolling restarts



WLST Script to change the cluster wide log level at runtime

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Coherence Security

- Cache and Service Security
  - Identity passed though Web Application using authentication
  - Permissions are “create”, “join” and “destroy”
  - For a service create=create, join=join and destroy=destroy
  - For a cache create=create, join=access and destroy=destroy
  - Default Identity Asserter is `com.tangosol.net.security.DefaultIdentityAsserter`
- Cluster Security
  - Specify Java keystore location and password
  - Secures cluster membership using encrypted token

Summary

- WebLogic Management Framework FREE with Coherence Enterprise Edition
- Managed Coherence Servers
- Coherence applications packaged as a GAR file
- WebLogic includes Coherence and is FREE for developers on OTN
- Architecture of Coherence Cloud Service
- Basis for Multi-Tenancy features in next release of Coherence and WebLogic Server
- Standalone Coherence will continue to be available

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