

ORACLE COHERENCE 3.7: COHERENCE*WEB SESSION MANAGEMENT MODULE

KEY FEATURES AND BENEFITS

ORACLE COHERENCE IS THE #1 IN-MEMORY DATA GRID.

FEATURES

- Distributed HTTP Session Management
- Scales to hundreds of servers
- Automatic failover for HTTP session data
- Span Applications
- Span Heterogeneous Environments
- Handle large sessions
- Native Integration with WebLogic Server
- Native Integration with WebLogic Portal
- Native Integration with Glassfish Server
- Drop-in Replacement for P13N Cache
- Session Provider for the Microsoft .NET Framework

BENEFITS

- Decouple Session Management from Web Container
- Handle more users without adding more application servers
- Restart and maintain applications and/or containers without losing sessions
- Handle very large sessions efficiently
- Keep session data coherent under heavy load
- Improve portal application responsiveness
- Reduce load on backend systems
- Bring fault tolerance to your portal application

*One common use case for Oracle Coherence clustering is to manage user sessions - conversational state - in the cluster. This capability is provided by the Coherence*Web module, which is a built-in feature of Oracle Coherence. Coherence*Web provides linear scalability for HTTP Session Management in clusters of hundreds of production servers. It can achieve this linear scalability because at its core it is built on Oracle Coherence dynamic partitioning.*

What is Coherence*Web?

Coherence*Web is an HTTP session management module dedicated to managing session state in clustered environments. Built on top of Oracle Coherence, Coherence*Web:

- Enables **session sharing** and management across different web applications, domains and heterogeneous application servers;
- Brings Coherence data grid's **data scalability, availability, reliability and performance** to in-memory session management and storage;
- Supports **all the mainstream application servers** such as Oracle WebLogic Server, IBM WebSphere, Tomcat, etc.;
- Supports **numerous portal containers** including Oracle WebLogic Portal;
- Allows session state to be managed in the **various caching topologies** available in Coherence (i.e. Replicated, Partitioned, Near Caching, Read-Through, Write-Through, Write-Behind and Refresh-Ahead Caching, etc.);
- Allows storage of session data outside of Java EE application server – **freeing up application server heap space and enabling server restarts without session data loss**;
- Supports **multiple advanced session models** which define how the session state is physically managed, serialized and deserialized in the cluster;
- Supports **fine-grained session and session attribute scoping** by way of pluggable policies.

Using Coherence*Web with WebLogic Server and WebLogic Portal

In Coherence 3.6, Coherence*Web integrates with WebLogic Server and WebLogic Portal 10.3 and 9.2 MP1 using the native WebLogic session management SPI. The result of this tighter integration with WebLogic is simplified installation and deployment that no longer requires application instrumentation (via the WebInstaller).

RELATED PRODUCTS

Oracle Coherence enables in-memory data management for clustered applications and application servers. Coherence makes sharing and managing data in a cluster as simple as on a single server.

RELATED PRODUCTS

To make application grid computing possible, Oracle brings together key industry-leading technologies:

- Oracle Coherence
- Oracle WebLogic Suite
- Oracle WebLogic Server
- Oracle Application Grid
- Oracle JRockit
- Oracle Enterprise Manager
- Oracle WebLogic Operations Control
- Oracle Tuxedo
- Java Technology

Improved HTTP session management capabilities for WebLogic Server with Coherence*Web. Oracle Coherence and WebLogic integration customers benefit from improved fault-tolerance for the web-tier that results from the ability to manage large HTTP session state objects. Whereas WebLogic is able to provide session state persistence within the application server, Coherence*Web is able to extend it across application domains and application servers. Session state is now stored in Coherence cache(s) which can span multiple applications, multiple domains, and heterogeneous application server environments (e.g. WebLogic and iAS).

This integration also provides improved performance for the web application from having the ability to load more user/application specific session data in-memory without having to worry about failure or data loss. With this capability more data is stored closer to the application, which results in improved performance over having to retrieve data from the backend systems.

Deployment productivity is improved by the integration of WebLogic Server and Coherence out of the box. Customers who now want to use WebLogic and Coherence*Web together, do not need to instrument their web applications.

Improved HTTP session management capabilities for Glassfish Server with Coherence*Web. Native integration with Glassfish Server via the Coherence*Web SPI for Glassfish provides “no code change” installation and configuration of Coherence*Web, making it dramatically easier for Glassfish users to scale their applications. Coherence*Web SPI for Glassfish helps organizations reduce the complexity of providing HA and high performance while scaling out Glassfish-based applications deployments.

Improved portal application responsiveness and scalability for WebLogic Portal with Coherence*Web. Since the relevant data now resides closer to the applications (i.e. in-memory), the access and update is much faster.

A key benefit of Coherence is that it scales linearly up to hundreds of servers, and as a result the application is able to scale predictably and easily as more users are added.

With Coherence data is replicated across multiple nodes, resulting in increased fault tolerance of portal applications by leveraging Coherence for personalization cache data in WebLogic Portal.

Customers experience accelerated time to market with out of the box integration between Coherence and WebLogic Portal, since there is no code development or change required.

Reduced Load on backend systems. Coherence provides a cushion in the mid-tier to absorb unexpected load on backend systems. This minimizes the risk to business continuity.

Contact Us

For more information about Oracle Coherence, please visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.



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