

# Oracle Coherence 12c: Share and Manage Data in Clusters

## Introduction to Coherence

- Performance Concepts, Caching and Scalability
- Introduction to Coherence
- Coherence Concepts
- Coherence Terms and Technologies

## Getting started with Coherence

- Coherence Installation
- Working with Caches
- Configuring a Simple Cluster
- Developing Coherence Applications

## Working with Objects

- Accessing Coherence
- Developing Objects
- Improving Performance Using Custom Serialization

## Configuring Coherence Caches

- Coherence Cache Topologies
- Cache Configuration Concepts
- What is a Topology?
- Choosing the Right Cache
- Elastic Data

## Data Grid Events

- Coherence Event Model Concepts
- Live Events
- Map Listeners
- Map Triggers
- Continuous Query Cache

## Querying and Aggregating Data

- Coherence Filters
- Sorting and Aggregating
- Coherence Query Language
- Improving Query Performance Using Explain Plans and Trace

## Performing In-Place Process of Data with Entry Processors

- Managing Concurrent Access to Data
- EntryProcessors Concepts

- EntryProcessors Development and Registration
- Partition Level Transactions
- Invocation Services

## Extending and Integrating Coherence with Other Services

- Persisting Data to a Database
- Data Source Integration
- Coherence and JPA
- The GoldenGate Adapter for Coherence

## Typical Caching Architectures

- Evolution of Data Grid Design Patterns
- Single vs Multiple Application Instances
- Local Caching Pattern
- Distributed Caching Pattern
- Cache Aside and Read-Through Pattern
- Write Thru Pattern
- Near Caching and Client Side Processing Patterns
- Server Side Processing and Distributed Computing Patterns

## REpresentational State Transfer

- Exposing Data using REST
- Deploying REST Applications Using Proxies
- Deploying REST Applications Using WLS Proxies
- Accessing REST Objects
- Securing REST

## WebLogic Server and Coherence

- Coherence Container for WLS
- Coherence Cluster
- Managed Coherence Servers
- Grid ARchives
- Deploying GARs
- Coherence\*Web

## Coherence\*Extend

- Concepts
- Configure and Run Coherence\*Extend
- Developing \*Extend Clients
- Simplifying and Tuning Coherence\*Extend Configuration

## Coherence Security

- Security Overview
- Cluster Security
- Access Control
- Coherence\*Extend Security