

# **SOA ADVANCED TRAINING**

April 30-May 4, Redwood City CA

---

## **OVERVIEW**

Attend an advanced Oracle SOA Suite internals training developed and delivered by the people responsible for the development of the Oracle SOA engine!

This training is intended for Oracle SOA Suite developers who have taken an introductory training from Oracle or who have participated in a SOA Suite implementation project. Much of the content was developed by the Oracle product management team and delivered previously in workshop formats and is intended to help turn SOA developers into experts. It covers many of the internals of the SOA Suite platform and advanced topics around components such as the SOA Composite, BPEL engine, Mediator and MDS. It is not an introductory or overview course but rather assumes a basic working knowledge of the SOA platform and goes deep into areas such as fault handling, performance tuning, transaction management, etc.

This training will be hands-on, instructor-led training with a mixture of lecture and lab exercises as well as discussion among the students and the instructors. Come prepared to discuss your specific project challenges and also to share your experiences as we find that in an advanced course such as this, the students can learn a great deal from each other, beyond the structured content provided.

## **COURSE CONTENT AND INSTRUCTOR**

This class will be led by Roman Dobrik of Exilor. Roman was one of the first employees of Collaxa, the company Oracle acquired to get the BPEL Process Manager engine. Roman spent several years within the Oracle SOA Product Management team, focused on delivering advanced training, mentoring and development and architectural assistance and has as much experience with BPEL processes and SOA composites as anyone in the world, spanning 11 years and thousands of processes and composites. The content for the course was originally developed by the Oracle SOA product management team as part of a blackbelt workshop and has been enhanced by Roman and Dave Shaffer of Middleworks. Prior to founding Middleworks in 2011, Dave was the Vice President of Product Management for the Oracle Integration products, including SOA Suite, BPM Suite and related components and was also brought into Oracle through the acquisition of Collaxa in 2004.

## **PRE-REQS AND HARDWARE REQUIREMENTS**

Attendees should have some experience developing BPEL processes or SOA composites and be looking for deeper, advanced knowledge to allow them to increase expertise around the Oracle SOA platform. The course will utilize the latest public release of the SOA platform, 11g, and a vmware image will be provided to attendees for their use on their own laptops. Attendee laptops should have at a minimum:

- 4 GB RAM
- 20 GB free disk
- Dual-core CPU (or better)

## **DETAILED AGENDA and SCHEDULE**

**Day 1 – Intro, SOA Composites and Fabric**

## Introductions and Course overview

### Platform Architecture

- Overview
- Architecture decisions – OSB, SOA Composite, BPEL vs BPMN, etc
- Configuration (WLS + SOA)
- Classloading
- Work Management
- Networking
- Transaction Management

### SOA Composites

- SCA
- Composite Internals
- WSDL
- Service
- JCA Binding

### Fabric

- Deployment lifecycle
- Message routing
- Security (delegated to OWSM)
- Instance tracking
- Metadata management
- Fault handling

## Day 2 – BPEL Service Engine Internals

### BPEL Service Engine

- Architecture
- Threading model
- Flow through engine, sync/async invoke, delivery queue
- Transaction boundaries
- XA with JTA and Tx manager
- Fault handling
- Recovery
- Callback resolution
- Correlation

### LABS

- Transaction mangling
- BPEL JMS-to-JMS

## Day 3 – MDS and Mediator Internals

### MDS

- MDS overview

### **Mediator Service Engine**

- Core Components and High Level Architecture
- Mediator Service Engine Lifecycle
- Inbound/Outbound Invocation and End-to-End Invocation
- Sequential and Parallel Routing Rules
- Threading Model and Transaction
- Dynamic Routing Rules
- Events
- Message Exchange Patterns
- Resequencing
- Database Tables Used By Mediator

### **LABS**

- MDS
- Threading model and transaction
- Mediator resequencing

## **Day 4 – Fault Policies, JCA, EDN, HA**

### **Fault Policies, JCA, EDN**

- Fault policies
- JCA / Adapter architecture
- WebLogic config
- Binding component config
- EDN architecture
- EDL
- EDN security

### **HA**

- Basic / EDG topology
- Whole Server Migration
- Mediator automatic failover
- Adapters

### **LABS**

- Fault policies
- Adapter configuration

## **Day 5 – Java Callout, Troubleshooting and Tuning**

### **Troubleshooting & Performance Tuning**

- Performance tuning
- EM monitoring and troubleshooting

### **Java Callout**

- Calling Java from SOA Composite, BPEL and Mediator

## SOA Suite Blackbelt Training

### Discussion and feedback session

#### **COST**

The cost for attendees is \$2495 which includes breakfast and lunch each day. Registrations which are completed by Mar 15, 2012 are eligible for a discounted rate of \$2195. Contact Exilor or Middleworks for group discounts.

The cancellation policy provides a full refund for cancellations prior to Feb 28, 2012. Cancellations prior to Mar 31, 2012 will receive a 50% refund and cancellations after April 1, 2012 are non-refundable. Another student may be substituted for a registered student at any time up to the start date of the class.

To register, call or email either:

Abe Mathew  
[Abe.mathew@exilor.com](mailto:Abe.mathew@exilor.com)  
C: 925.683.5327

David Shaffer  
[dave@middleworks.com](mailto:dave@middleworks.com)  
C: 415.652.9712