

# Oracle SOA Suite 12c

## Installation

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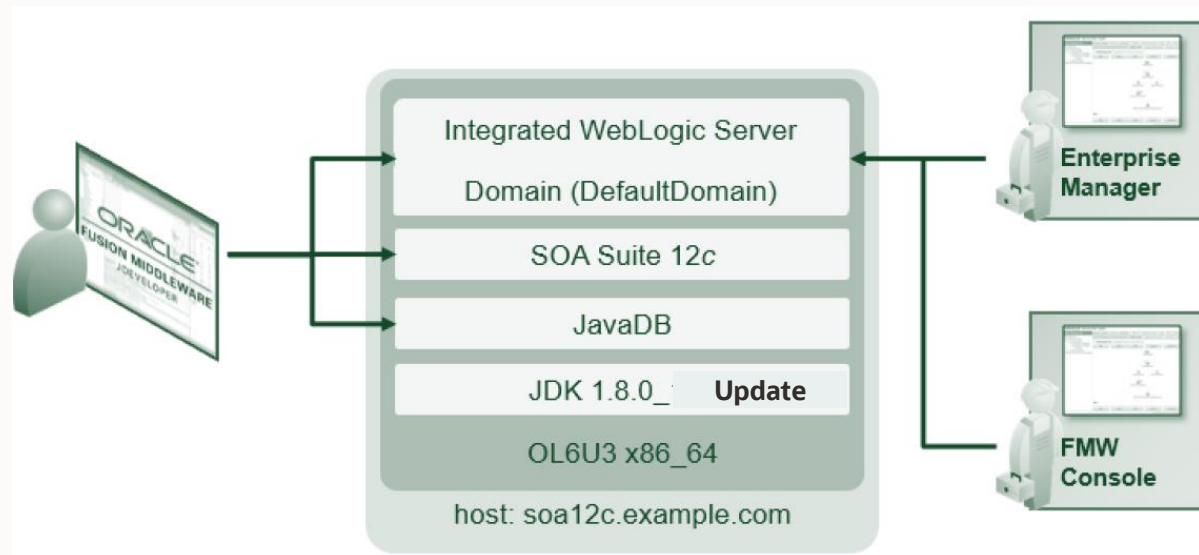
**Heba Owis**

26 May, 2024

# SOA Suite Installer

SOA Suite 12c Developer installation contains the followings:

- Jdeveloper
- WebLogic
- SOA
- Service Bus



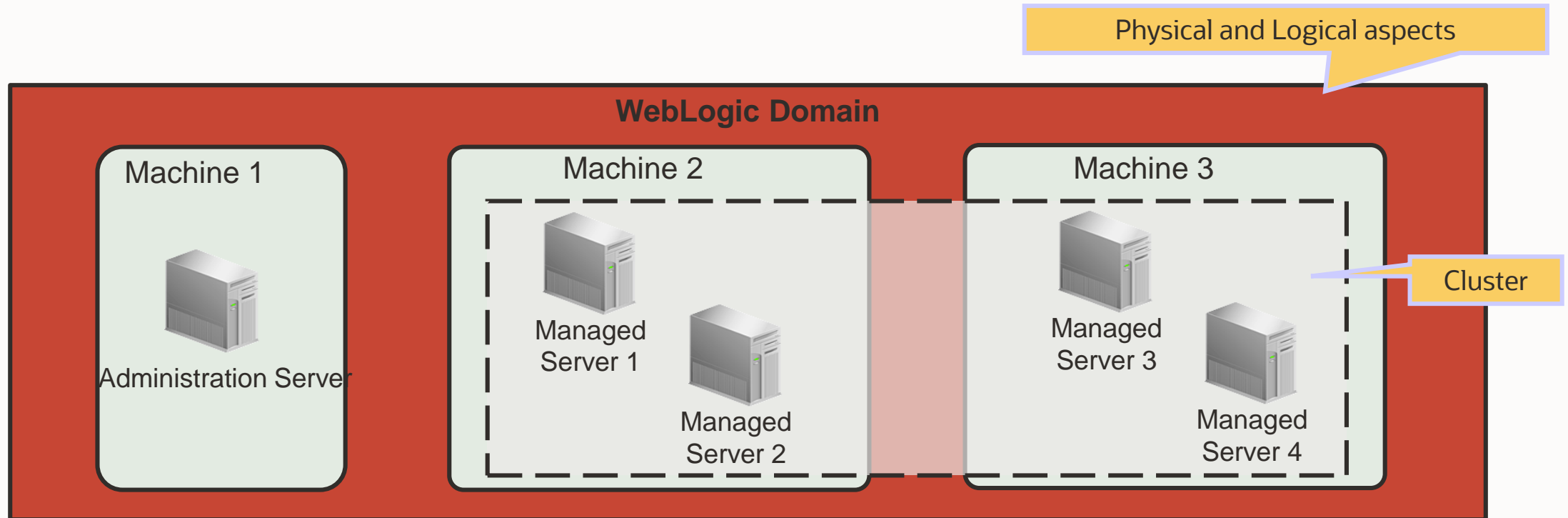
# Developer and Production Distributions

Developer/QuickStart	Production Distribution
<p data-bbox="180 482 1233 525"><b>One single package of an integrated server includes:</b></p> <ul data-bbox="180 544 800 829" style="list-style-type: none"><li data-bbox="180 544 453 586">• <b>JDeveloper</b></li><li data-bbox="180 605 563 648">• <b>WebLogic Server</b></li><li data-bbox="180 666 800 709">• <b>SOA Suite (incl. Service Bus)</b></li><li data-bbox="180 728 377 771">• <b>JavaDB</b></li><li data-bbox="180 789 626 832">• <b>Enterprise Manager</b></li></ul>	<p data-bbox="1294 482 1513 525">Modularity:</p> <ul data-bbox="1294 544 1900 829" style="list-style-type: none"><li data-bbox="1294 544 1888 586">• Oracle SOA Suite Foundation</li><li data-bbox="1294 605 1829 648">• SOA Foundation with B2B</li><li data-bbox="1294 666 1895 709">• Oracle Managed File Transfer</li><li data-bbox="1294 728 1798 771">• Oracle Event Processing</li><li data-bbox="1294 789 1913 832">• Oracle Enterprise Repository *</li></ul> <p data-bbox="1294 851 2257 936">*Does not contain database, WebLogic Server, and IDE</p>

# WebLogic Server Domain

A domain is an administrative unit or boundary that provides for a single point of administration for a collection of servers. A domain consists of:

- One administration server
- Zero or more managed servers

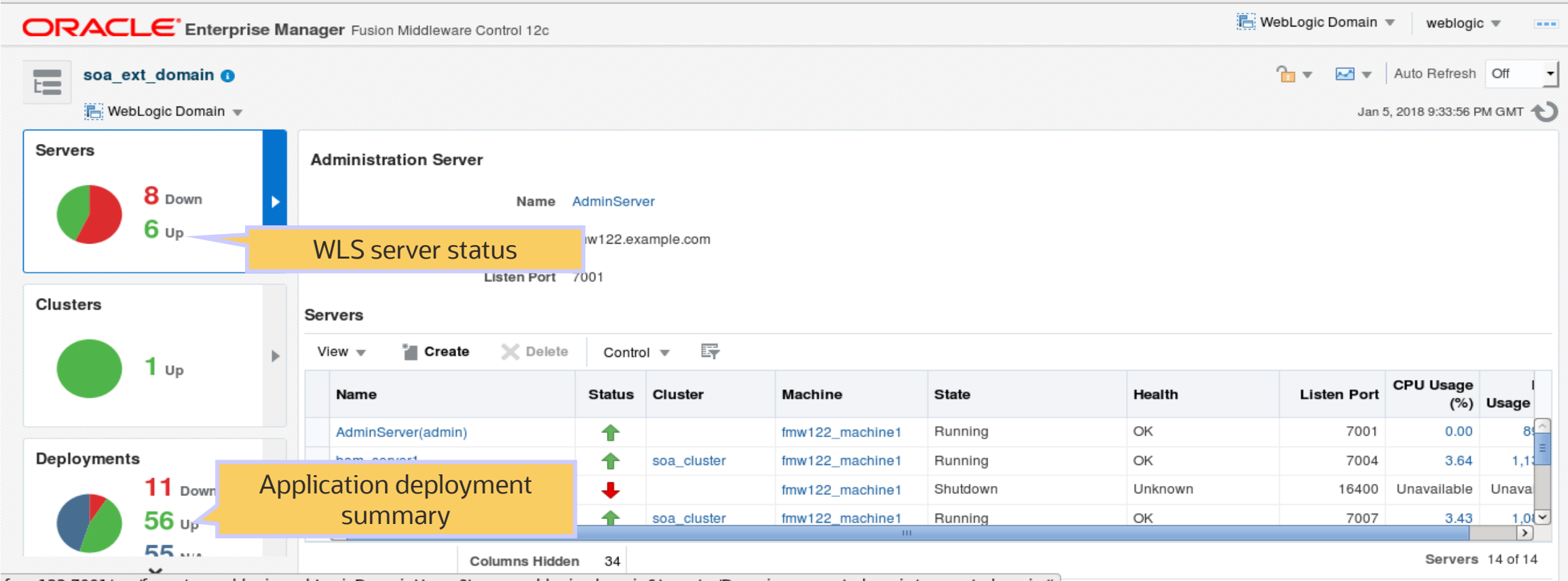


# Domain Configuration with QuickStart Installation

Domain configuration options:

- Oracle JDeveloper's Integrated WebLogic Server's default domain
- A standalone instance of the Integrated WebLogic Server to create a domain with features identical to the default domain
- A compact domain that uses an external Oracle database

# Oracle Enterprise Manager Fusion Middleware Control



# Initiating Composite Application Instances

- Composite applications can be initiated by using the testing tool of Oracle Enterprise Manager Fusion Middleware Control.
- A new composite instance is created when a SOA composite application is initialized.
- Each instance is identified through its unique Flow ID.
- After a composite instance is initiated, you can use Enterprise Manager to:
  - View responses for synchronous requests
  - Track message flow through a composite application
  - View faults and log files
  - Manage fault conditions

# Initiating a Test in Enterprise Manager

The screenshot displays the Oracle Enterprise Manager (EM) console for SOA Infrastructure. The breadcrumb navigation shows the path: SOA Infrastructure > default (SOA Folder) > HelloWorld (Composite) > Test Web Service. The Endpoint URL is set to `http://edvmr1p0.us.oracle.com:7001/soa-infra/services/default/HelloWorld/ReceiveData`, with an "Edit Endpoint URL" button. Below this, there are tabs for "Request" and "Response", with "Request" currently selected. A sidebar on the left contains expandable sections: Security, Quality of Service, HTTP Header, Additional Test Options, and Input Arguments (which is expanded). In the "Input Arguments" section, there is a "XML View" dropdown, an "Enable Validation" checkbox (checked), a "Load Payload" button, a text input field containing "po-medium-player.xml", an "Update..." button, and a "Save Payload" button. The main area displays the XML payload for the request, which is a SOAP message. The XML is as follows:

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body xmlns:ns0="http://www.example.org/ns/porder">
    <ns0:PurchaseOrder>
      <ns0:custID>2</ns0:custID>
      <ns0:ID>102</ns0:ID>
      <ns0:payOption>credit</ns0:payOption>
      <ns0:shipChoice>two_day</ns0:shipChoice>
      <ns0:status>Initial</ns0:status>
      <ns0:ccType>VISTA</ns0:ccType>
      <ns0:ccNumber>1234-1234-1234-1234</ns0:ccNumber>
      <ns0:items>
        <ns0:item>
          <ns0:productId>SKU304</ns0:productId>
          <ns0:productName>Music Player 8Gb</ns0:productName>
          <ns0:price>140</ns0:price>
          <ns0:quantity>10</ns0:quantity>
        </ns0:item>
        <ns0:item>
          <ns0:productId>SKU303</ns0:productId>
          <ns0:productName>Music Player 4Gb</ns0:productName>
          <ns0:price>99</ns0:price>
        </ns0:item>
      </ns0:items>
    </ns0:PurchaseOrder>
  </soap:Body>
</soap:Envelope>
```

At the bottom, there are "Request" and "Response" tabs, with "Request" selected.



# Tracking a Message Flow

The Flow Trace page:

- Presents a tree view of the message flow
- Enables drilling down into composite components

**Flow Trace** ⓘ  
This page shows the flow of the message through various composite and component instances.

Data Refreshed Jan 3, 2018 1:48:58 AM ⓘ

**Flow ID 10004**  
**Started Jan 3, 2018 1:48:42 AM**

**Faults** Composite Sensor Values Composites

Recover ▾ View ▾ Flow Instance 10004

Error Message	Fault On
No faults found.	

**Trace**


View ▾ Show Instance IDs ☐ [Show XML](#)

Instance	Type	Usage	State	Time	Composite
Receive	Web Service	Service	✓ Completed	Jan 3, 2018 1:48:42 ...	HelloWorld [1.0]
<a href="#">RouteData</a>	Mediator		✓ Completed	Jan 3, 2018 1:48:42 ...	HelloWorld [1.0]
WriteData	JCA Adapter	Reference	✓ Completed	Jan 3, 2018 1:48:42 ...	HelloWorld [1.0]

Click a component link to view an audit trail of message flow within the component.

# Working with a Component Audit Trail Page


Flow Trace > Instance of RouteData Data R


 **Instance of RouteData** ⓘ

This page shows Mediator component instance details.

**Audit Trail**

View ▾

▲  **onMessage**

▲  Jan 3, 2018 1:48:42 AM **onCase "WriteData.Write"**

Jan 3, 2018 1:48:42 AM	Evaluation of xpath condition "No Filter" resulted true
Jan 3, 2018 1:48:42 AM	Transformed message part "body" using "../Transformations/PurchaseOrder_To_PurchaseOrder1.xsl"
Jan 3, 2018 1:48:42 AM	Invoked 1-way operation "Write" on target service "WriteData"