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3.2.2.3 Cluster Configuration Changes and Deployment Requests

When a managed server is down during session activation, configuration changes from the activation are not reflected on that server. In addition, the task status of the session activation is listed as *Partially Activated* to indicate that the activation was not completed on all managed servers. After the managed server is restarted, it synchronizes with the information available with the administration server, and any unactivated changes are activated on the managed server. For more information about session activations, see "Using the Change Center" ([../admin.1111/e15867/change_center.htm#OSBAG804](#)) in the *Oracle Fusion Middleware Administrator's Guide for Oracle Service Bus*.

You can only re-configure a cluster (for example, add new nodes to the cluster or modify business service configuration) when its administration server is active.

If the administration server for a cluster is down, deployment or undeployment requests are interrupted, but managed servers continue serving requests. You can boot or reboot managed servers using an existing configuration, as long as the required configuration files (`msi-config.xml`, `SerializedSystemIni.dat`, and optionally `boot.properties`) exist in each managed server's root directory.

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3.3 Load Balancing in a Oracle Service Bus Cluster

One of the goals of clustering your Oracle Service Bus application is to achieve scalability. For a cluster to be scalable, each server must be fully utilized. Load balancing distributes the workload proportionately across all the servers in a cluster so that each server can run at full capacity. The following sections describe inbound message processing load balancing for Oracle Service Bus clusters:

- Section 3.3.1, "Load Balancing HTTP Functions in a Cluster"
- Section 3.3.2, "Load Balancing JMS Functions in a Cluster"

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For more information about inbound **message load balancing**, see "Load Balancing in a Cluster" ([../web.1111/e13709/load_balancing.htm#CLUST171](#)) in *Oracle Fusion Middleware Using Clusters for Oracle WebLogic Server*. For information about configuring load balancing for business services, see "Transport Configuration" ([../admin.1111/e15867/business_services.htm#OSBAG999](#)) in the *Oracle Fusion Middleware Administrator's Guide for Oracle Service Bus*.

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3.3.1 Load Balancing HTTP Functions in a Cluster

Web services (SOAP or XML over HTTP) can use HTTP load balancing. External load balancing can be accomplished through the WebLogic HttpClusterServlet, a WebServer plug-in, or a hardware router. For an overview of a cluster topology that includes load balancing, see Figure 5-1 ([highav.htm#i1488481](#)). Oracle WebLogic Server supports load balancing for HTTP session states and clustered objects. For more information, see "Communications in a Cluster" ([../web.1111/e13709/features.htm#CLUST127](#)) in *Oracle Fusion Middleware Using Clusters for Oracle WebLogic Server*.

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3.3.2 Load Balancing JMS Functions in a Cluster

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6.1.15 WebLogic Cluster WS-AT Recovery Can Put a Server into a 'Warning' State

In certain WebLogic cluster process crash scenarios, WS-AT recovery will result in stuck threads that put the server into a "warning" state. WS-AT data recovery is successful in these cases despite the fact that the logs display "failed state" messages, due to the fact that commit acks are not being processed correctly for this scenario (this issue does not occur when the scenario involves the rollback of the transaction). While the server may continue to function in this "warning" state, the threads will continue to be stuck until the transaction abandonment timeout (which defaults to 24 hours) is reached. The workaround is to restart the server, which removes the stuck threads and "warning" state. A patch for this issue can be obtained from Oracle Support.

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6.1.16 Very Intensive Uploads from I/PM to UCM May Require Use of IP-Based Filters in UCM Instead of Hostname-Based Filters

The "Adding the I/PM Server Listen Addresses to the List of Allowed Hosts in UCM" section in the *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Enterprise Content Management Suite* ([./../doc.1111/e15483/extend_ipm.htm#CMEDG658](#)) and the "Adding the I/PM Server Listen Addresses to the List of Allowed Hosts in UCM" section in the *Oracle Fusion Middleware High Availability Guide* ([./../core.1111/e10106/ecm.htm#ASHIA5323](#)) describe how to add hostname-based filters for Oracle I/PM managed server listen addresses to the list of allowed hosts in Oracle UCM.

When using hostname-based filters in Oracle UCM (`config.cfg` file) a high latency/performance impact may be observed in the system for very intensive uploads of documents from Oracle I/PM to Oracle UCM. This is caused by the reverse DNS lookup that is required in Oracle UCM to allow the connections from Oracle I/PM servers. Using hostname-based filters is recommended in preparation for configuring the system for Disaster Protection and to restore to a different host (since the configuration used is IP-agnostic when using hostname-based filters). However if the performance of the uploads needs to be improved, users can use instead IP-based filters. To do this:

1. Edit the file `/u01/app/oracle/admin/domainName/ucm_cluster/config/config.cfg` and remove or comment out:

```
SocketHostNameSecurityFilter=localhost|localhost.mydomain.com|ecmhost1vhn1|ecmhost2vhn1

AlwaysReverseLookupForHost=Yes
```

2. Add the IP addresses (listen address) of the WLS_IPM1 and WLS_IPM2 managed servers (ECMHOST1VHN1 and ECMHOST2VHN1, respectively) to the `SocketHostAddressSecurityFilter` parameter list as follows:

```
SocketHostAddressSecurityFilter=127.0.0.1|0:0:0:0:0:0:0:0:1|X.X.X.X|Y.Y.Y.Y.
```

where X.X.X.X and Y.Y.Y.Y are the listen addresses of WLS_IPM1 and WLS_IPM2 respectively. Notice that 127.0.0.1 also needs to be added as shown above.

3. Restart the UCM servers.

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6.1.17 Worklist Application May Throw Exception if Action Dropdown Menu is Used During a Failover 18

If you use the Oracle Business Process Management Suite Worklist application **Actions** dropdown menu to take action on a task while a failover is in progress, an exception similar to the following may be thrown:

```
<oracle.adf.view.rich.component.fragment.UIXInclude> <ADF_FACES-10020> <Tear
down of include component context failed due to an unhandled e
xception.
java.util.NoSuchElementException
    at java.util.ArrayDeque.removeFirst(ArrayDeque.java:251)
    at java.util.ArrayDeque.pop(ArrayDeque.java:480)
    at
oracle.adfinternal.view.faces.context.ApplicationContextManagerImpl.popContext
Change(ApplicationContextManagerImpl.java:66)
.
.
.
```

In this case, the approval or rejection of the task does not go through.

To work around this problem, use either of these approaches:

- Instead of using the **Actions** dropdown menu to take action on the task, use the TaskForm to take action.

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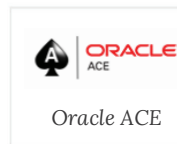


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Oracle ACE



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Fault Handling in Oracle SOA Suite : Advanced Concepts

Posted on [July 18, 2011](#) by [Arun Pareek](#)

This tutorial is meant to cover extensively the mechanism that we can adopt for Fault Management for a SOA Suite composite. It will deal with a fairly overall strategy for handling faults and dealing with them in various ways.

Before diving more into advanced concepts of Handling Faults let me present a small introduction covering the basics of a Service composite.

Basic Architecture of a Service Composite in Oracle SOA Suite

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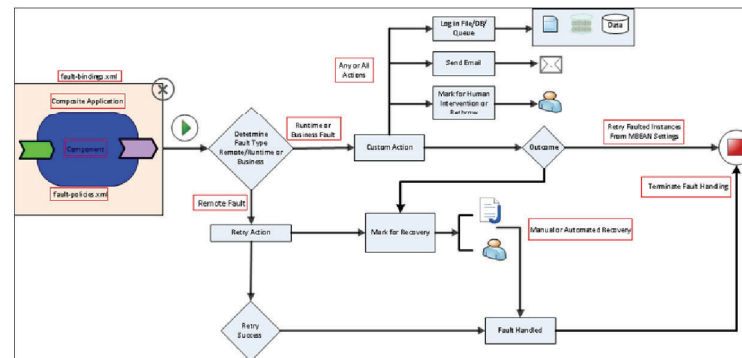
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Management :
Using Human
Task Events to
Invoke Microsoft
Exchange Web
Services
Eliminating

1. The **fault condition** that activates the policy block—we specify what type of fault(s) the policy is relevant for. We can then apply even more finer grained policy and actions based on error codes, error messages.
2. The **action(s)** that should be performed when the condition is satisfied. An action for an fault may be to retry it for a certain number of time at a specified interval, or to mark it in recovery for human intervention, use a custom Java code or simply to throw the fault back. If the fault is rethrown then if we have specified any explicit 'catch' block in our BPEL process that will be executed.

It should also be noted that fault policies need to be explicitly associated with composites, components, or references. This is done in a **fault-bindings.xml** file. Fault bindings link the composite, specific components in the composite, or specific references in the components on the one hand to one of the fault policies on the other.

Have a look at the diagram below to understand a mechanism to throw a fault from a service composite, identify the fault type and then take necessary action.



The following post will try and cover all aspects of what is covered in the diagram above.

Consider the following fault-policies.xml. Read the comments in the XML to understand what each of the condition, action and policy is about.

```

1 <faultPolicies xmlns="http://schemas.oracle.com/b
2 <faultPolicy version="2.0.1" id="CompositeFaultPo
3 <Conditions>
4 <!-- Conditions can be fine grained to include Ac
5 <faultName xmlns:bpelx="http://schemas.oracle.com

```