10

# Administering Composite Applications at Run Time

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# Objectives

After completing this lesson, you should be able to:

- Configure logging, audit levels, and sensors
- Manage faults in the error hospital


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# Agenda

- Configuring Logging, Audit Levels, and Sensors
- Managing Faults in the Error Hospital

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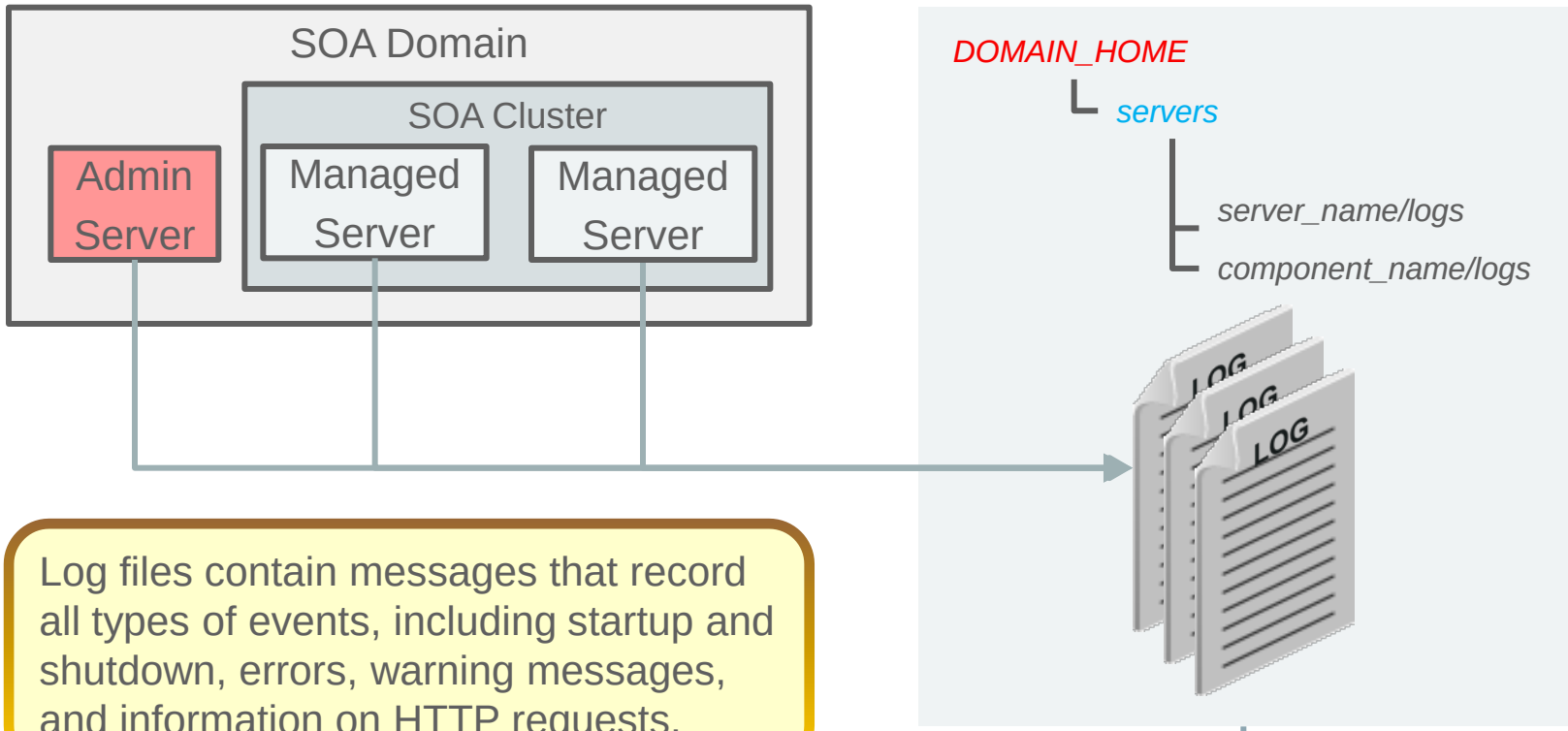
# Log Files: Overview




Log files contain messages that record all types of events, including startup and shutdown, errors, warning messages, and information on HTTP requests.

**/u01/oracle/config/domains/edg_domain/servers/soa_server*N*/logs**

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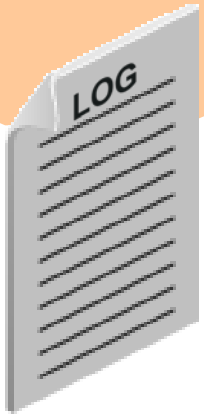
# ODL Log File Format

```
[2015-05-13T12:31:29.0584-07:00] [OHS]
[NOTIFICATION:16] [OHS-9999]
[mod_weblogic.c] [host_id: example] [host_addr:
nn.nnn.nn.nn] [pid: 12789]
[tid: 46919953675776] [user: username VirtualHost: main
WebLogic Server Plugin version 12.1.2
<WLSPLUGINS_MAIN_LINUX.X64_130502.1731>
```

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# Logging Levels

| Message Type | Level | Description |
|---|---|---|
| INCIDENT_ERROR | 1 | A serious problem that may be caused by a bug in the product and that should be reported to Oracle Support. Examples are errors from which you cannot recover or serious problems. |
| ERROR | 1 | A serious problem that requires immediate attention from the administrator and is not caused by a bug in the product. An example is if Oracle Fusion Middleware cannot process a log file, but you can correct the problem by fixing the permissions on the document. |
| WARNING | 1 | A potential problem that should be reviewed by the administrator. Examples are invalid parameter values or a specified file does not exist. |
| NOTIFICATION | 1 | A major lifecycle event such as the activation or deactivation of a primary sub-component or feature. This is the default level for NOTIFICATION. |
| NOTIFICATION | 16 | A finer level of granularity for reporting normal events |
| TRACE | 1 | Trace or debug information for events that are meaningful to administrators, such as public API entry or exit points |
| TRACE | 16 | Detailed trace or debug information that can help Oracle Support diagnose problems with a particular subsystem |
| TRACE | 32 | Very detailed trace or debug information that can help Oracle Support diagnose problems with a particular subsystem |

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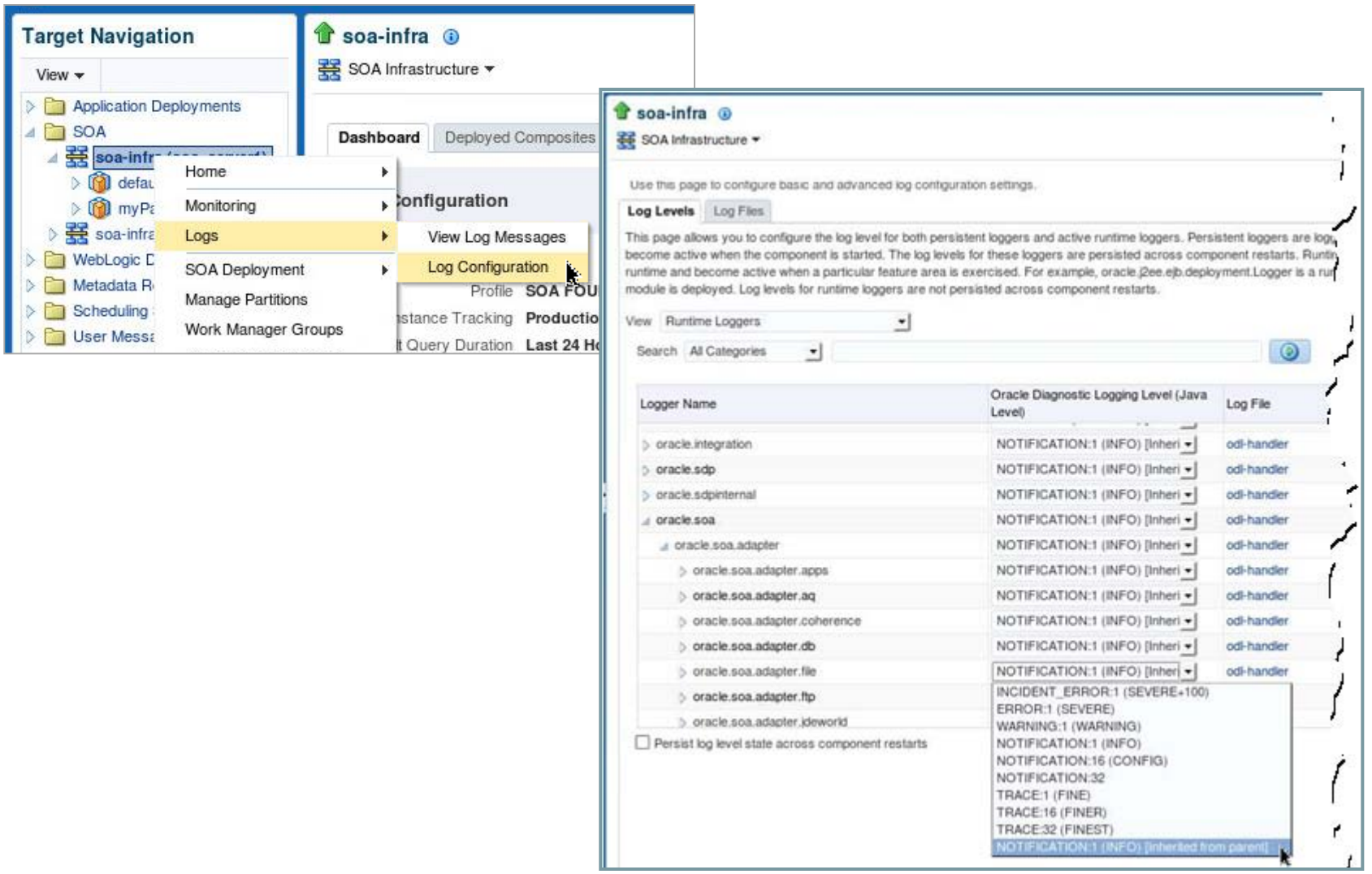
# Configuring Logging Levels

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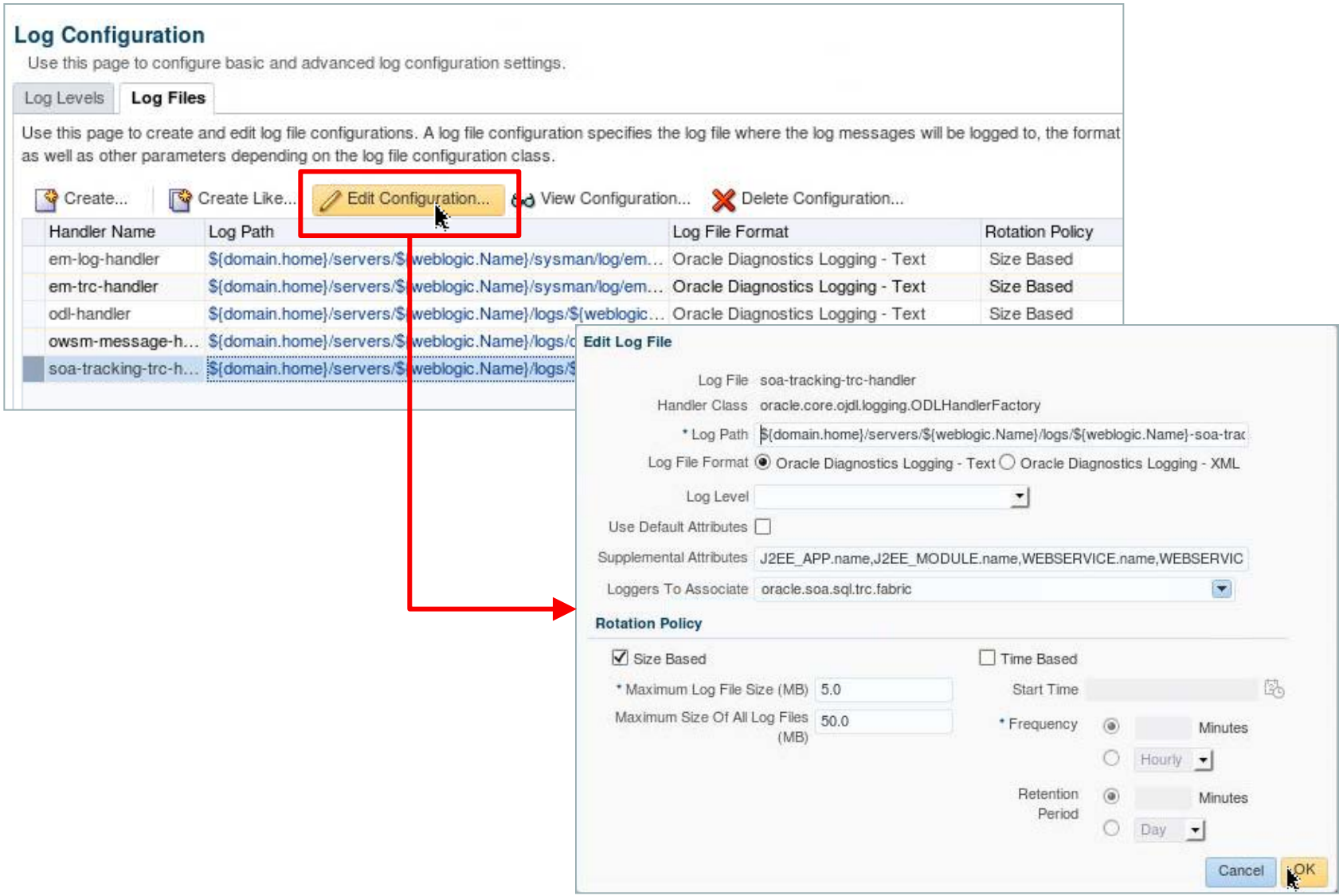
# Configuring Log Files

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# Audit Levels

| Audit Level | Composite Instance Tracking | Message Payload Tracking |
|---|---|---|
| Off | No | No |
| Production | Yes | Partial |
| Development | Yes | Yes, with all the details |

Setting the *audit level* allows you to select the amount of message data to be collected by the message tracking infrastructure.

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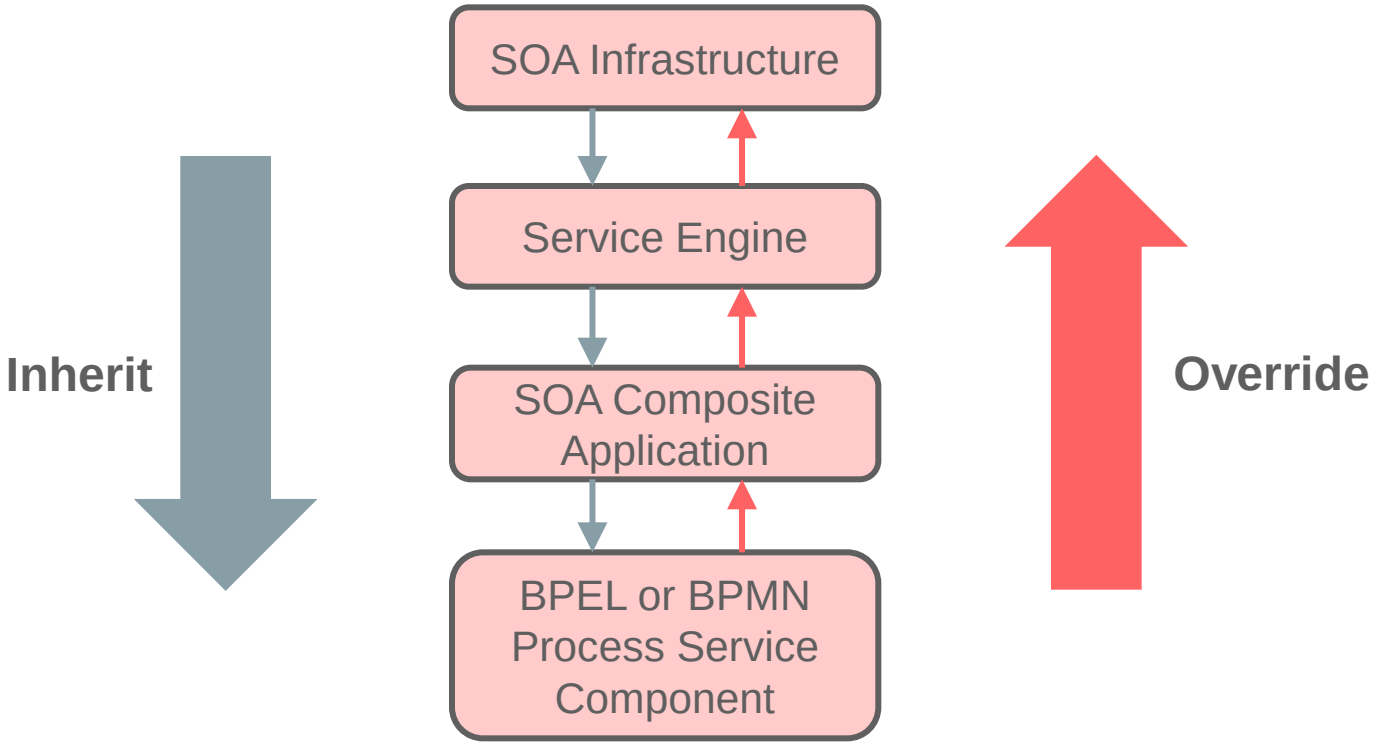
# Order of Precedence for Audit Level Settings




Properties set at the SOA Infrastructure level impact all service engines and deployed SOA composite applications, except those for which you explicitly set different audit level values.

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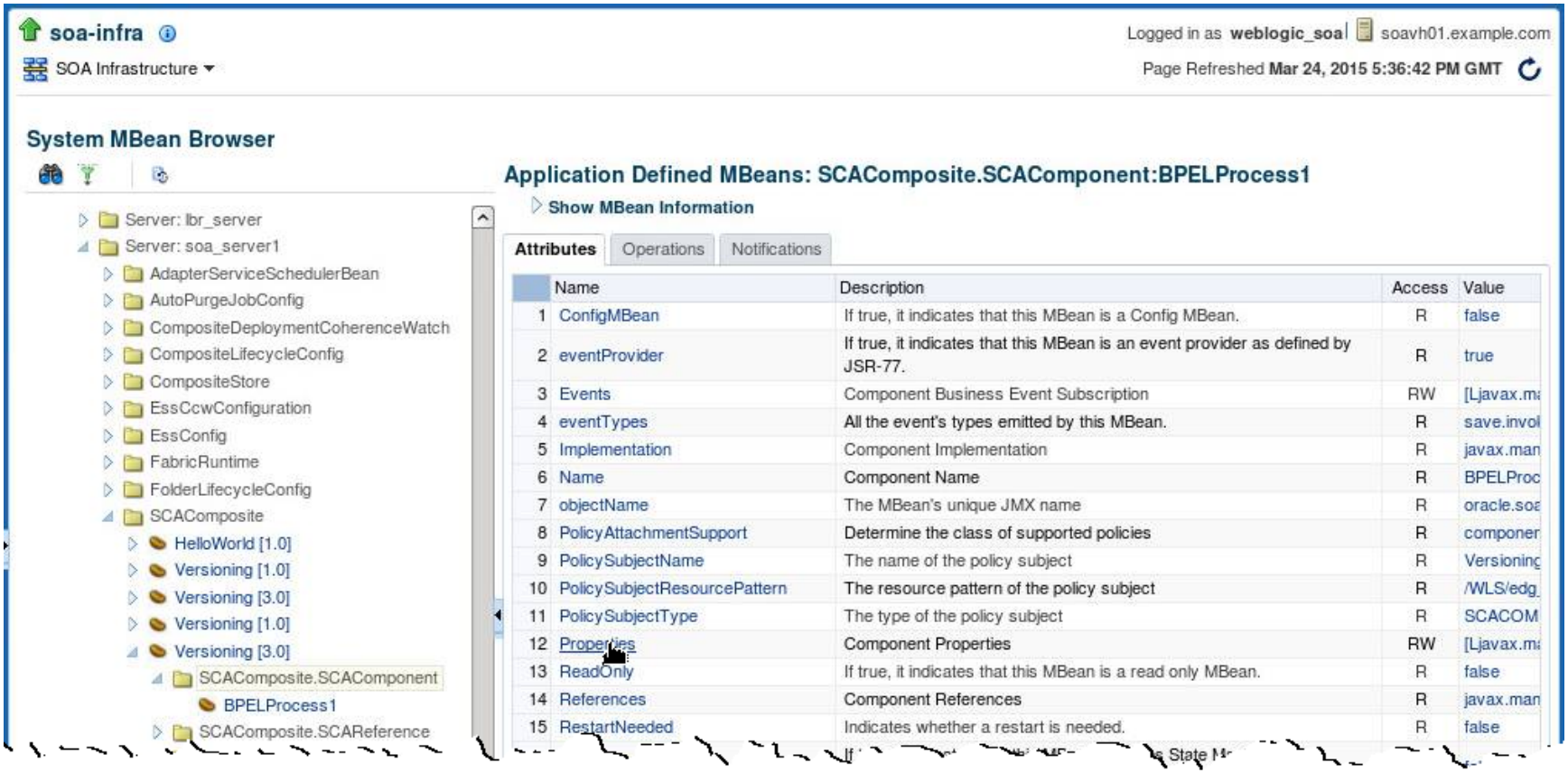
# Managing the Audit Level of BPEL Components

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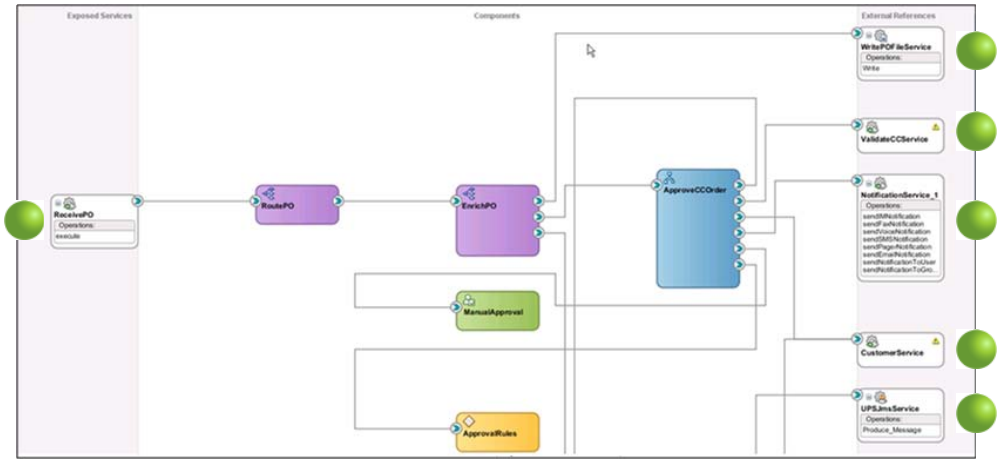
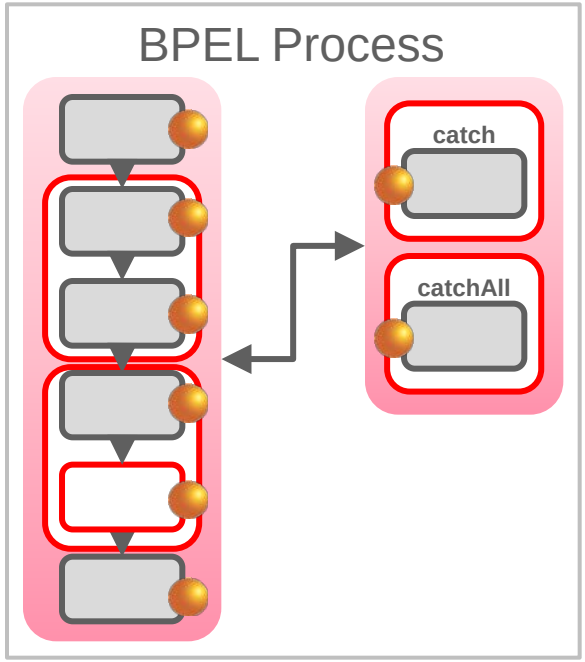
# Sensors

## Composite Application




Composite Sensors enable you to monitor incoming and outgoing messages.

BPEL Sensors enable you to collect data in BPEL faults, activities, and variables.

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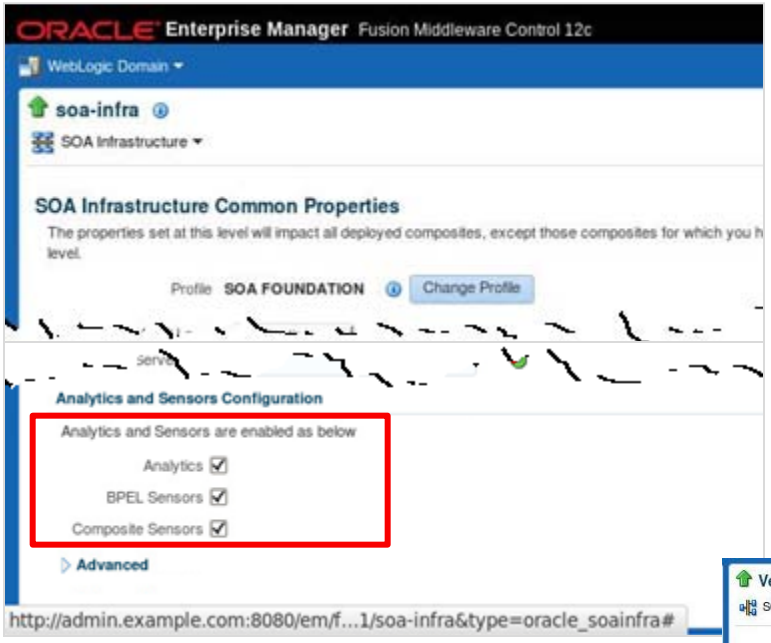
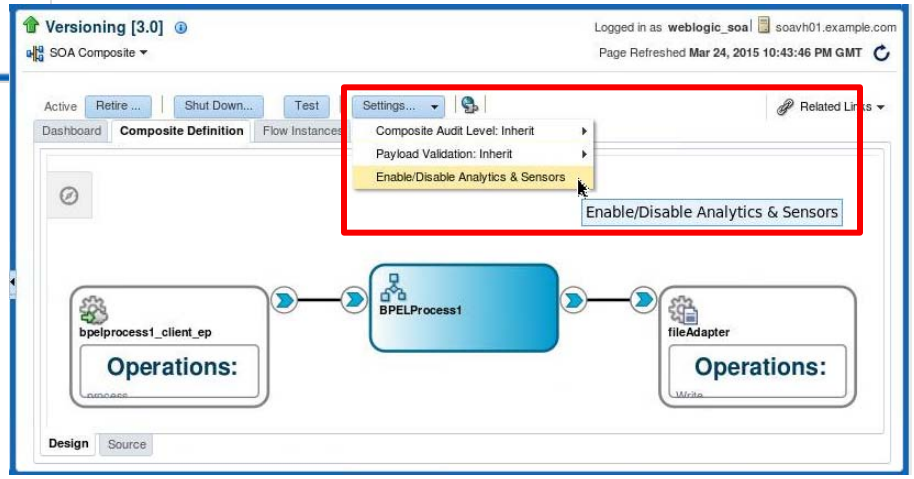
# Enabling and Disabling Sensors




Enable or disable sensors at the soa-infra level from the Common Properties page.

Enable or disable sensors at the composite level from the home page for the composite.

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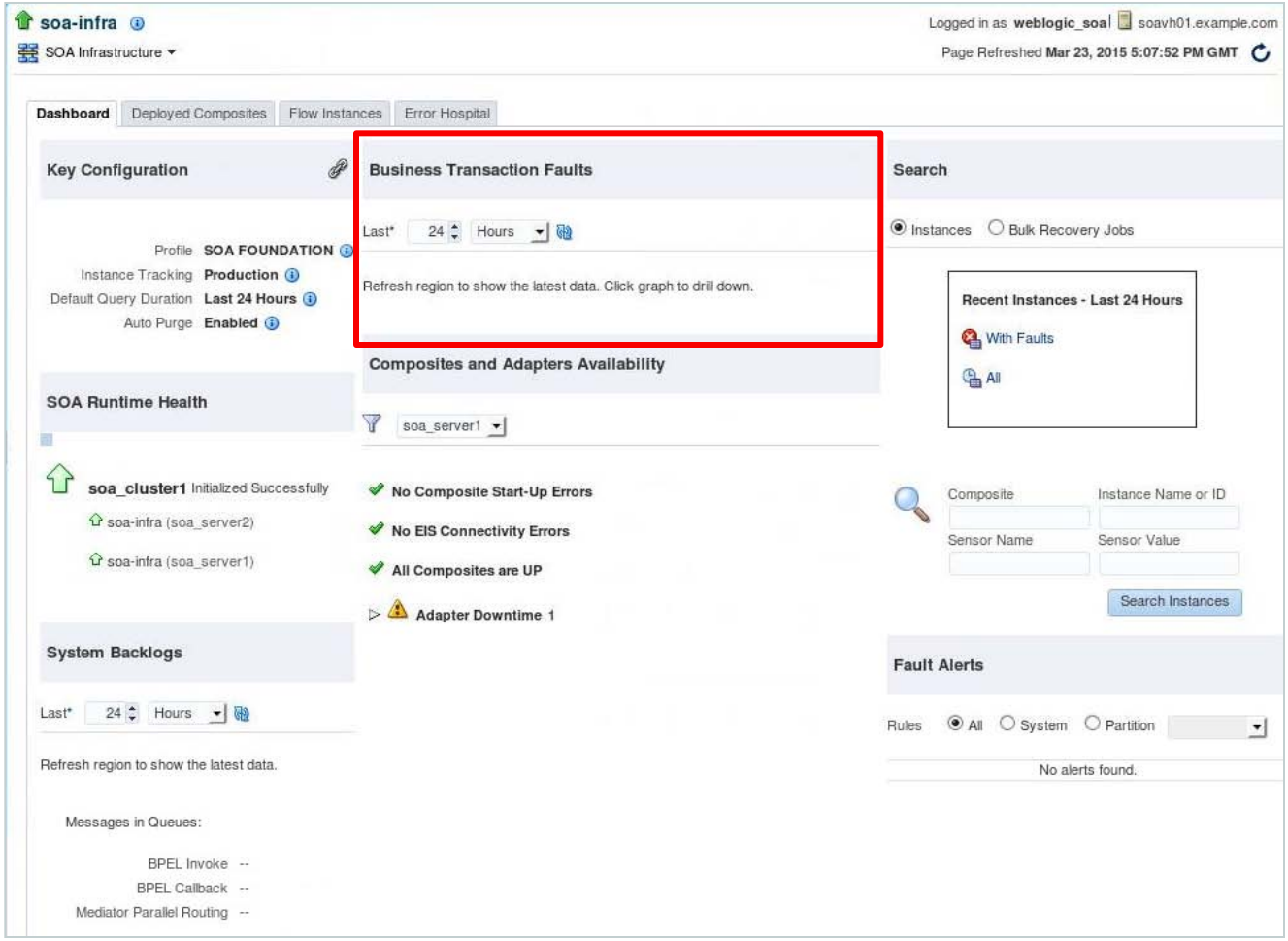
# Monitoring Composite Instances and Faults

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# Quiz

Audit level is used to select the amount of information to be collected by the log files.

a. True
b. False

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# Agenda

- Configuring Logging, Audit Levels, and Sensors
- Managing Faults in the Error Hospital

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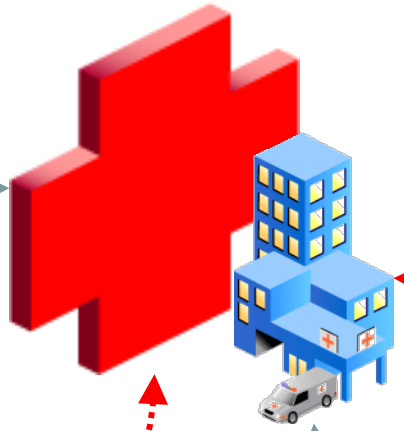
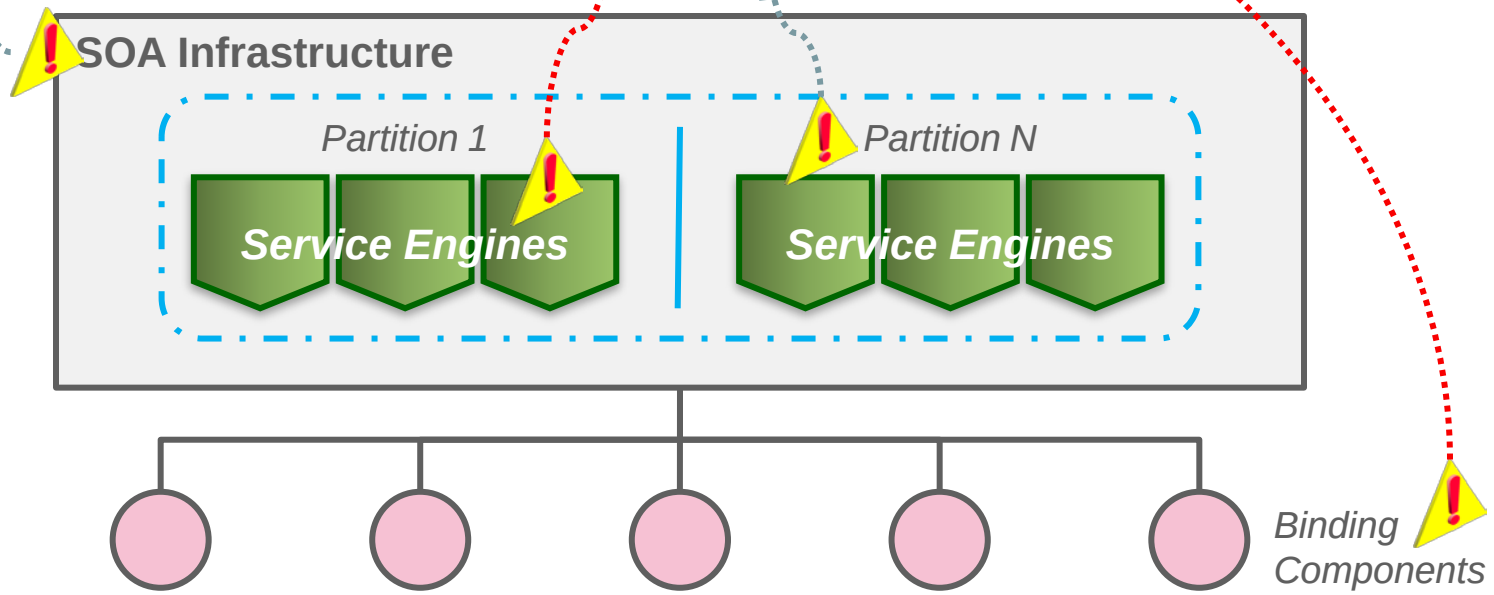
# Managing Faults in the Error Hospital

View and manage faults aggregated by SOA Infrastructure or partition.



- Error notification rules
- Fault filtering
- Bulk recovery

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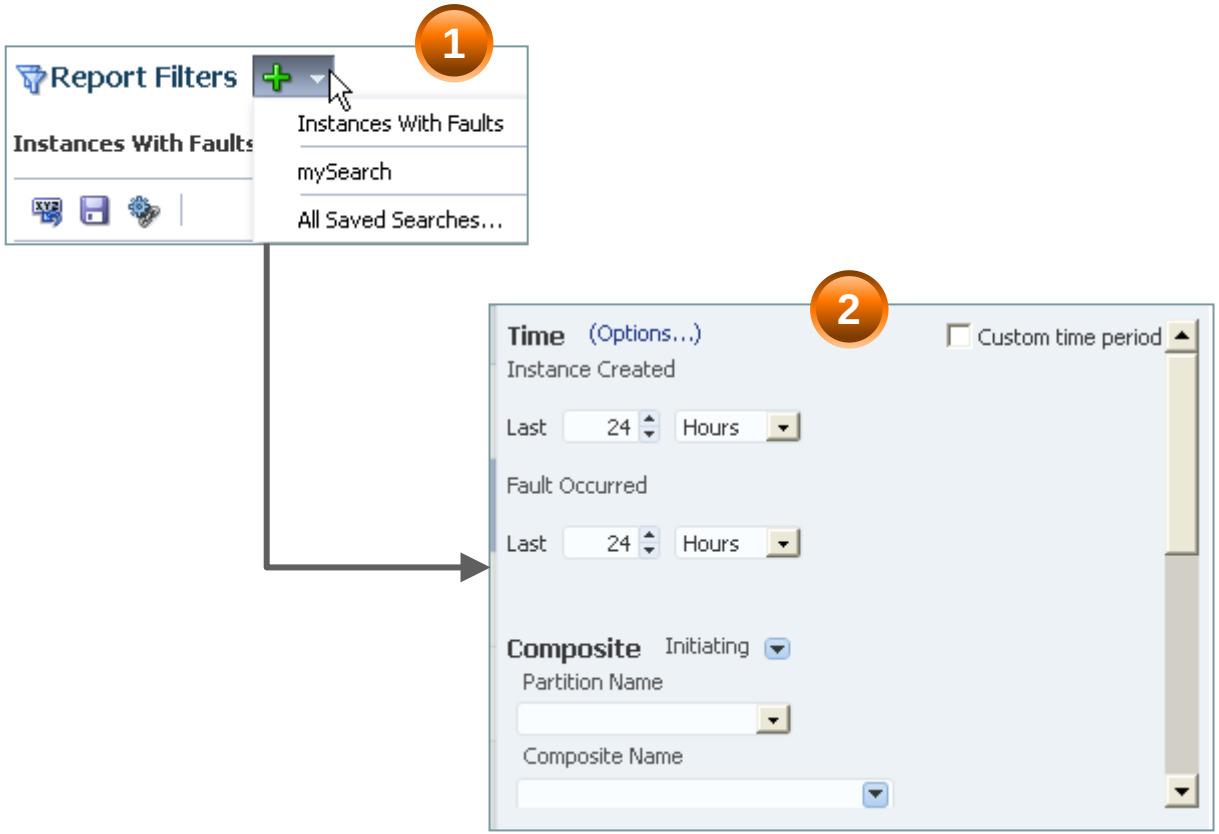
# Specifying and Saving Fault Search Criteria

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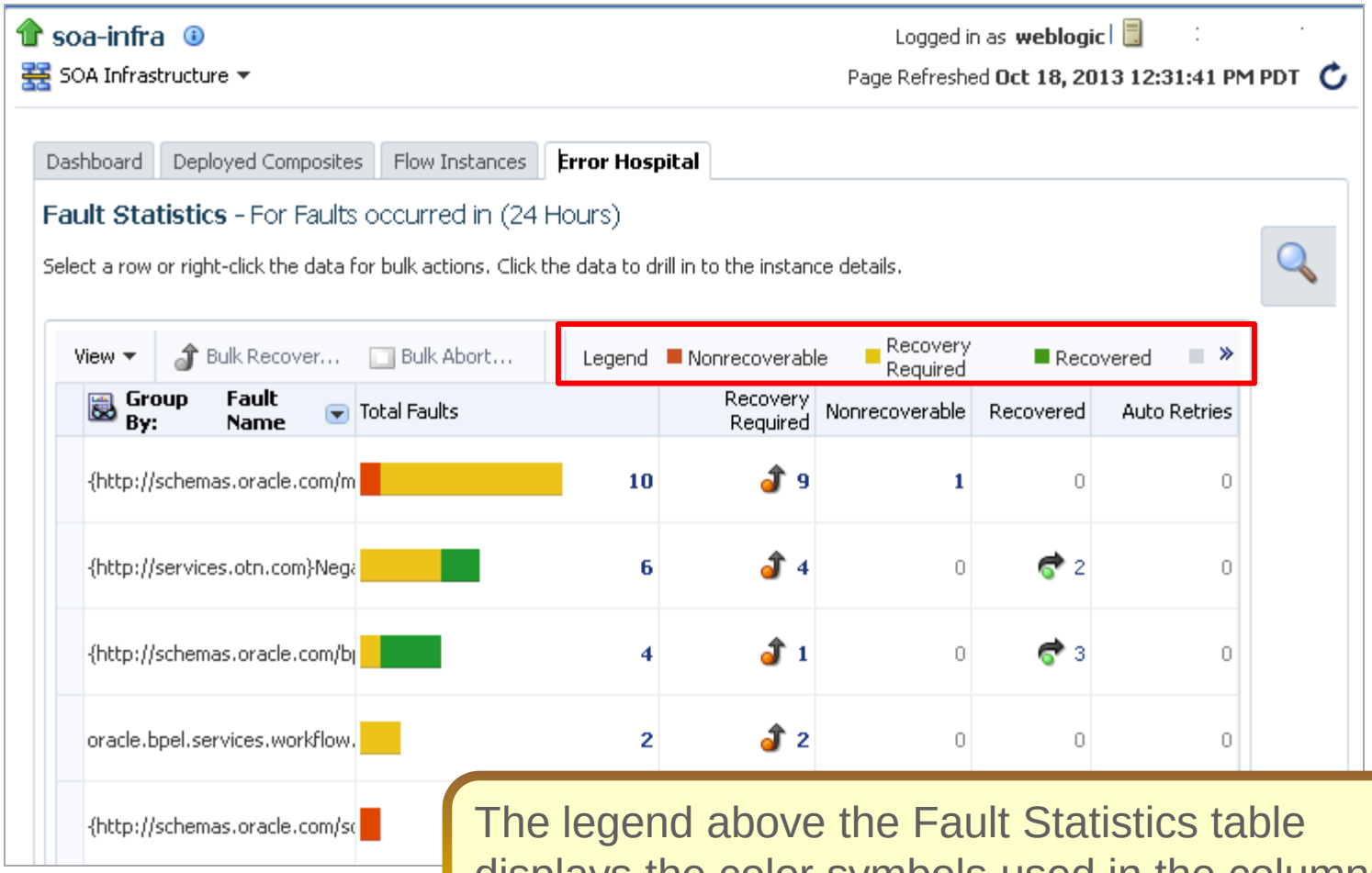
# Viewing Aggregated Fault Statistics




The legend above the Fault Statistics table displays the color symbols used in the columns of the table to identify the state of the faults.

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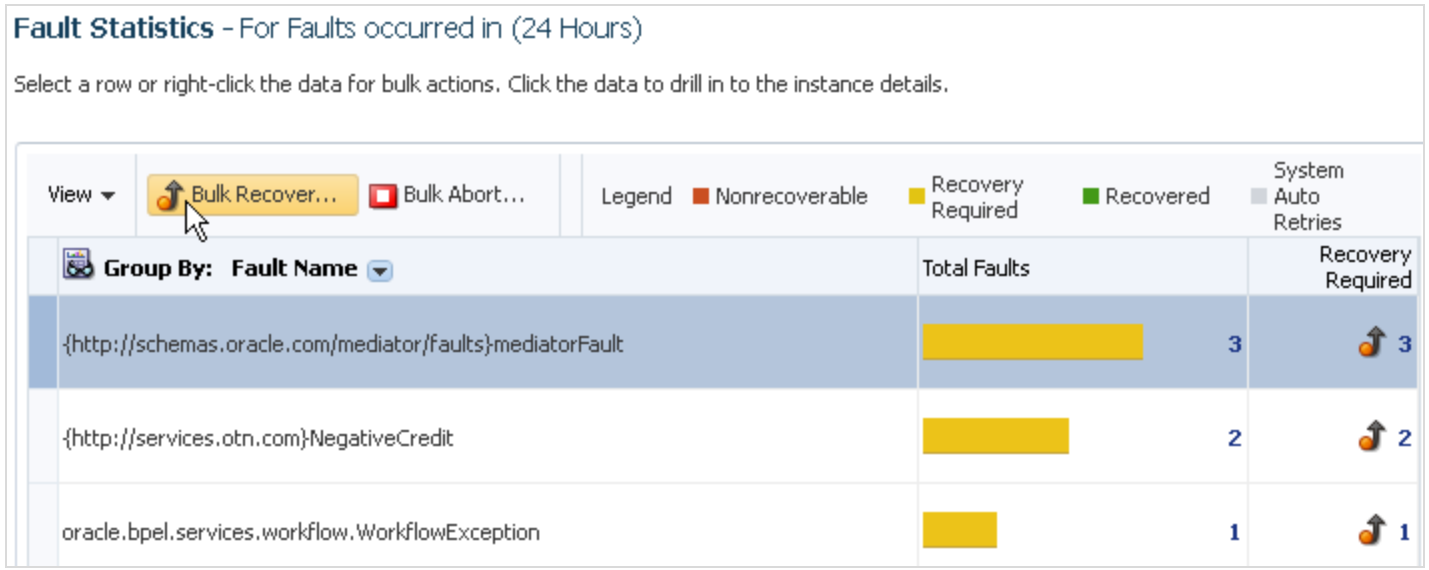
# Performing Bulk Fault Recoveries and Terminations

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# Quiz

Using the error hospital, at which level can you view and manage fault data?

a. SOA Infrastructure level
b. Individual partition level
c. Composite level
d. Service component level
e. All of the above
f. Only a and b

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# Summary

In this lesson, you should have learned how to:

- Configure logging, audit levels, and sensors
- Manage faults in the error hospital

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# Practice 10: Overview

This practice covers the following topics:

- Practice 10-1: Deploying the Composite Applications
  - In this practice, you use an ant script to deploy a pair of composite applications to the SOA server. A second script generates a series of data files that provide input to the applications. You use the Enterprise Manager web application to monitor the sensors, events, analytics, faults and more.
- Practice 10-2: Exploring the Features of the Error Hospital
  - In this practice, you cause an application to generate a large number of faults, and then use the bulk recovery feature of the error hospital to recover them.

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