

Oracle® Cloud

Oracle Management Cloud for Oracle E-Business Suite



E95892-24
January 2022



Oracle Cloud Oracle Management Cloud for Oracle E-Business Suite,
E95892-24

Copyright © 2018, 2022, Oracle and/or its affiliates.

Primary Author: Oracle Corporation

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software" or "commercial computer software documentation" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle, Java, and MySQL are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Preface

| | |
|-----------------------------|----|
| Audience | v |
| Documentation Accessibility | v |
| Related Resources | v |
| Conventions | vi |

1 Get Started with Oracle E-Business Suite Monitoring

| | |
|---|-----|
| About Oracle Management Cloud for Oracle E-Business Suite | 1-1 |
| About Oracle Management Cloud Roles and Users | 1-2 |
| Before You Begin | 1-3 |

2 Set Up the Environment

| | |
|---|------|
| Perform the Prerequisite Tasks | 2-1 |
| Configure MBeans on Oracle WebLogic Servers | 2-2 |
| Activate MBeans on Oracle WebLogic Servers | 2-2 |
| Verify the Activation of MBeans | 2-2 |
| Verify Collection of Forms Sessions Data | 2-2 |
| Set Up DNS in an Oracle E-Business Suite Environment | 2-3 |
| Install a Cloud Agent | 2-3 |
| Apply Grants to an EBS Database for Monitoring | 2-4 |
| Add EBS Database | 2-6 |
| Configure Oracle Application Performance Monitoring for EBS | 2-7 |
| Perform Oracle E-Business Suite Specific Tasks | 2-9 |
| Add Oracle E-Business Suite Entities | 2-9 |
| License Oracle E-Business Suite Entities | 2-13 |
| Enable or Disable Log Collection for Oracle E-Business Suite Entities | 2-13 |
| Enable the Collection of EBS Transaction Log from the Database | 2-15 |
| Define Applications for Oracle Application Performance Monitoring | 2-15 |
| Perform Optional Configuration Tasks | 2-15 |
| Verify the Setup | 2-16 |
| Update the Setup Post-install | 2-16 |

| | |
|--|------|
| Rediscover the Composite After Adding or Removing Entities | 2-17 |
| Update the Credentials | 2-17 |
| Update Database Credentials for Metric Collection | 2-17 |
| Update Credentials on the Database Entity | 2-18 |
| Update WebLogic Server Credentials for Metric Collection | 2-19 |
| Change the Path of Oracle E-Business Suite Logs | 2-19 |
| Update the Setup After Oracle E-Business Suite Patching | 2-20 |

3 Set Up Alert Rules

| | |
|---|-----|
| Configure Oracle E-Business Suite Alert Rules | 3-1 |
| Create Alert Rule for Program Run Time | 3-6 |
| Create an Alert Rule on Oracle Log Analytics | 3-8 |
| Create an Alert Rule on Oracle Application Performance Monitoring | 3-8 |

4 Use Out-of-the-Box E-Business Dashboards

| | |
|----------------------------------|-----|
| EBS Fleet | 4-1 |
| Access the Entity Dashboards | 4-2 |
| EBS Health | 4-2 |
| EBS Concurrent Processing Health | 4-5 |
| EBS Forms System Health | 4-6 |
| EBS Workflow Health | 4-8 |

5 Typical Use Cases

| | |
|--|-----|
| Analyze Oracle E-Business Suite Data | 5-1 |
| Analyze Data Using Oracle Infrastructure Monitoring | 5-1 |
| Analyze Data Using Oracle Log Analytics | 5-2 |
| Analyze Data Using Oracle Application Performance Monitoring | 5-3 |
| Proactively Monitor the User Experience | 5-3 |
| Monitor Infrastructure Components of Oracle E-Business Suite | 5-4 |
| Track the Oracle E-Business Suite Transactions | 5-6 |

Preface

By configuring Oracle Management Cloud for an Oracle E-Business Suite environment, you can:

- Monitor the Oracle E-Business Suite infrastructure for its performance and availability
- Monitor the performance of your applications
- Analyze the log data collected from the entities for troubleshooting the issues that are encountered in them

Topics:

- [Audience](#)
- [Documentation Accessibility](#)
- [Related Resources](#)
- [Conventions](#)

Audience

Oracle Management Cloud for Oracle E-Business Suite is intended for the following users:

- Admins who want to deploy Oracle E-Business Suite on Oracle Management Cloud
- Users who want to monitor Oracle E-Business Suite on Oracle Management Cloud

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Related Resources

For more information, see these Oracle resources:

- *Using Oracle Application Performance Monitoring*
- *Using Oracle Infrastructure Monitoring*
- *Using Oracle Log Analytics*

Conventions

The following text conventions are used in this document:

| Convention | Meaning |
|-----------------|--|
| boldface | Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary. |
| <i>italic</i> | Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values. |
| monospace | Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter. |

1

Get Started with Oracle E-Business Suite Monitoring

Learn about the environment required to start monitoring Oracle E-Business Suite using Oracle Management Cloud.

Topics:

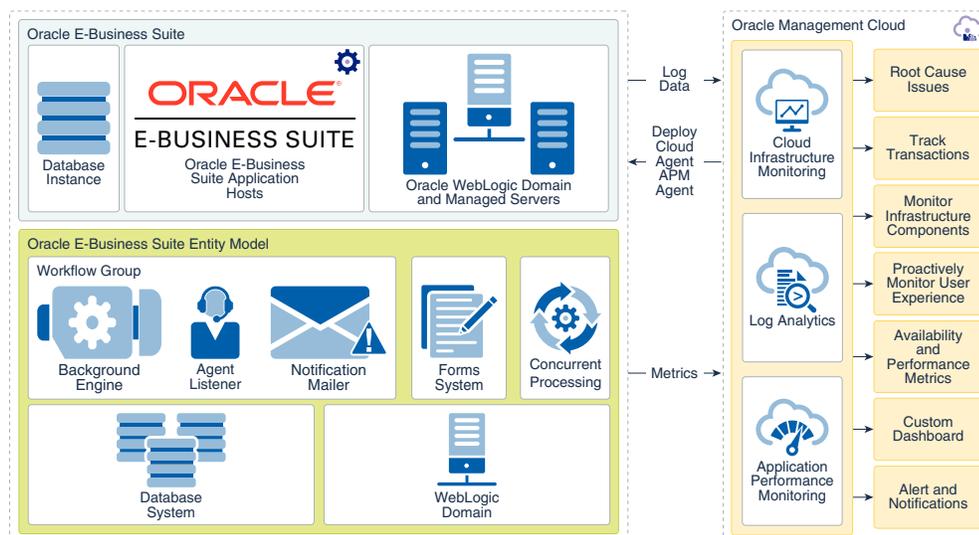
- [About Oracle Management Cloud for Oracle E-Business Suite](#)
- [About Oracle Management Cloud Roles and Users](#)
- [Before You Begin](#)

About Oracle Management Cloud for Oracle E-Business Suite

Oracle Management Cloud is a suite of integrated monitoring, management, and analytics cloud offerings. This suite is designed for today's heterogeneous environments: on-premises, Oracle Cloud, and third-party cloud services.

Using Oracle Management Cloud, you can eliminate multiple information silos in end-user and infrastructure data, resolve application issues faster, and analyze data using machine learning for Oracle E-Business Suite.

An overview of the environment that must be set up to use Oracle Management Cloud for monitoring Oracle E-Business Suite:



Monitoring Oracle E-Business Suite on Oracle Management Cloud enables you to:

- View the performance metrics for Oracle E-Business Suite, Concurrent Processing, and Forms System, and the availability metrics for Workflow components
- Use the Out-of-the-Box dashboards for Oracle E-Business Suite health, Forms Systems Health, and Concurrent Processing

- Analyze the host log trends and determine their performance
- Monitor infrastructure components such as Oracle WebLogic Servers, Database, Oracle E-Business Suite application hosts, and Database hosts
- Proactively monitor the user experience and trace the issues to back-end functions
- Perform root cause analysis through machine learning and alerting capabilities
- Correlate issues with Oracle Infrastructure Monitoring and Oracle Application Performance Monitoring logs
- Identify and resolve infrastructure capacity bottlenecks
- Forecast seasonal capacity trending and potential issues

The Oracle E-Business Suite infrastructure consists of the database instance, application tier hosts, and Oracle WebLogic Servers. The Oracle E-Business Suite entity model comprises mainly of three components such as Concurrent Processing, Forms System, and Workflow. The following are the entity types in Oracle E-Business Suite:

- **Oracle E-Business Suite:** This is a top level grouping of the entities and has a few metrics associated with the packaged application that it represents.
- **Concurrent manager:** This is a composite entity that has hosted entities under it, and has metrics available for monitoring.
- **Forms System:** This is a system entity which provides metrics for the forms database sessions.
- **Workflow Group:** The workflow group has three key hosted entities namely Background Engine, Notification Mailer, and Agent Listener, whose availability metrics can be viewed.

About Oracle Management Cloud Roles and Users

Once you are an Oracle Cloud customer and you create an Oracle Management Cloud instance, the following user roles are provisioned:

- Oracle Management Cloud Administrator
- Oracle Management Cloud User

For more information about the tasks that the users assigned with the above roles can perform, see Add Users and Assign Roles in *Getting Started with Oracle Management Cloud*.

The following table lists the Oracle Management Cloud roles and the tasks that a user can perform in that role:

Table 1-1 Roles for Oracle Management Cloud

| Role | Tasks |
|---------------------------------------|---|
| Oracle Management Cloud Administrator | <p>The tasks that a user with the <i>Oracle Management Cloud Administrator</i> role can perform:</p> <ul style="list-style-type: none"> • Set up infrastructure monitoring and log analytics by deploying and configuring the gateway and cloud agents. • Manage Cloud Agents. • Add entities to be monitored. • Configure alert rules. • Delete entities. • Disable notifications on alerts (during maintenance periods). • View and monitor infrastructure status and performance. • Receive alert notifications and view alerts. • Create and administer new log sources. • Create and administer new log parsers. |
| Oracle Management Cloud User | <p>The tasks that a user with the <i>Oracle Management Cloud User</i> role can perform:</p> <ul style="list-style-type: none"> • View and monitor infrastructure status and performance. • Receive alert notifications and view alerts. • Select targets, groups, or systems to explore. • Search and analyze logs. • Save and share log searches. • Build custom dashboards. |

Before You Begin

Here are some of the common terms and basic concepts for Oracle Management Cloud.

- **Terms used across Oracle Management Cloud:**

| Term | Definition |
|--------------|---|
| Agents | Oracle Management Cloud agents collect configuration, performance, availability, and log data from monitored entities and make this information available in Oracle Management Cloud. |
| Associations | Associations (association instances) define a relationship between two managed entities. The association type that you define, either via the user interface or based on a written document Oracle provides, determines how data is correlated and visualized in Oracle Management Cloud. In many cases, associations are defined automatically by Oracle Management Cloud. |
| Entities | Entities are monitored resources such as databases, host servers, compute resources, or application servers. |

| Term | Definition |
|--------------------------------|---|
| Entity Types | Entity types are a type of monitored resource, such as a host or database, which define where that entity fits in the Oracle Management Cloud hierarchical structure. In Oracle Management Cloud, each entity is defined by a set of characteristics, it has a parent and may have other children. For example, a generic host is an operating system (OS) independent target and it has children entities that are specific OS hosts, such as Linux and Windows. The metrics collection functionality takes advantage of this inheritance model so each monitored entity has entity-specific metrics as well as metrics inherited from each level it descended from. For example, Oracle Management Cloud collects metrics at level three that are common to all generic hosts, independent of the vendor. A Linux host, since its parent is a generic host, inherits all the metrics collected for generic hosts and its ancestors, as well as Linux-specific ones, if any. |
| JSON | JavaScript Object Notation (JSON) allows data to be concisely and precisely defined in a format that is both human and machine-readable. Oracle provides sample JSON files for defining entities. JSON files are then edited with your own custom parameters and are passed on to agents. This configuration step defines the entities with that agent and Oracle Management Cloud. |
| License Editions | License editions are pre-defined categories of Oracle Management Cloud offerings. |
| omcli | Oracle Management Cloud agent control command line interface utility (<code>omcli</code>) is used to interface with Cloud agents and define entities using customized JSON files. |
| Oracle WebLogic Server | Oracle WebLogic Server is the Java EE application server, part of the Oracle Fusion Middleware suite of products, used for building and deploying enterprise applications. |
| Oracle WebLogic Server Cluster | An Oracle WebLogic Server Cluster consists of multiple Oracle WebLogic Server instances running simultaneously and working together to provide increased scalability and reliability. |
| WebLogic domain | A WebLogic domain is a logically related group of Oracle WebLogic Server resources. Domains include a special Oracle WebLogic Server instance called the Administration Server , which is the central point from which you configure and manage all resources in the domain. Usually, you configure a domain to include additional Oracle WebLogic Server instances called Managed Servers . You deploy web applications, EJB, and other resources onto the Managed Servers and use the Administration Server for configuration and management purposes only. |
| Oracle home | Oracle home refers to a directory where Oracle products are installed, pointed to by an environment variable. Multiple active Oracle homes can exist on the same host. |

| Term | Definition |
|---------|---|
| Gateway | A gateway is a Cloud Agent that acts as a proxy between Oracle Management Cloud and all other Cloud Agents. |

- **Terms used in Oracle Log Analytics:**

| Term | Definition |
|------------------|--|
| Log source | A log source is a named group of log files. The files that belong to this group can be configured using patterns such as <code>/var/log/ssh*</code> . A log source can be associated with one or more parsers. |
| Log entity | A log entity is the actual name of a log file. |
| Parser | A parser is a named entity used to define how to parse all log entries in a log source and extract field information. It uses one or multiple parse expressions and a log entry delimiter to parse all log entries in a log source. It also specifies how the parsed content is converted into fields. |
| Parse expression | A parse expression is the regular expression used to parse a log entry. |

- **Terms used in Oracle Infrastructure Monitoring:**

| Term | Definition |
|-------------|---|
| Metrics | The metrics are generated from a set of parameters and values measured and collected periodically for a particular system for tracking performance and availability. For a complete list and description of all metrics collected for each entity, see List of Supported Entities in <i>Metric Reference for Oracle Infrastructure Monitoring</i> . |
| Thresholds | Thresholds are boundary values that the monitored metric values are compared against. If a metric value crosses a set threshold, then, an alert is raised. |
| Alert | An alert is the information that's generated in response to an availability issue or when a metric crosses its thresholds. Conditions for generating alerts are defined in Alert Rules. Alerts sent to administrators by using various channels, such as email and SMS are known as notifications . |
| Alert rules | The alert rules are a set of rules that define the conditions under which alerts are generated and notifications sent when an alert is raised. Alert conditions consist of a metric, a comparison operator, and thresholds against which metric values are evaluated. |

- **Terms used in Oracle Application Performance Monitoring:**

| Term | Definition |
|--|--|
| Asynchronous JavaScript and XML (AJAX) | Asynchronous JavaScript and XML (AJAX) is a group of web technologies used to implement asynchronous web applications that communicate with a server in the background, without interfering with the current state of pages. |
| APM Java Agent | The APM Java Agent is a lightweight agent, which runs in the Java Virtual Machine (JVM) of a web application and collects performance monitoring data for Java web applications that are running in your data center or in the cloud. |
| Application request | An application request is typically an HTTP request sent by the client application to the server. |
| Application server | An application server is a server on which applications and services are installed, hosted and operated. It is part of the middle-tier in a three tier architecture. |
| Server request | A server request is an application server request that can come through HTTP or some other service. A server request might be called by an HTML page, an AJAX request, or another server request. |
| Garbage collection | Garbage collection, built into many programming languages, is an automatic way of managing the memory available to various objects. The garbage collection mechanism tracks objects that are being used, marks the objects that are no longer in use as garbage, and through the process of garbage collection it automatically frees up the memory for use by other objects. In the case of Java, garbage collection is done within the Java Virtual Machine environment. |
| Garbage collection overhead | Garbage collection overhead refers to the additional resources and the processing time used by the garbage collection mechanism. |
| Garbage collection types | Software applications can choose to implement various garbage collection types depending on the performance goals. In Java, for example, developers can choose to implement garbage collection of type single threaded (serial), multi-threaded (parallel), concurrent mark then sweep (CMS), or parallel collection in multiple memory zones. Each method uses various resources and CPU time, affecting the overall application performance. |
| Heap, Heap size tuning, Heap map | The heap, is the sum of active objects, dead objects (marked for garbage collection), and free memory. Java heap , for example, is a repository of Java objects. Heap size tuning in Java refers to minimizing the time that the Java Virtual Machine (JVM) spends doing garbage collection while maximizing the number of clients that the application server can handle at a given time. A heap map provides the memory details of a given process. |
| Java Virtual Machine (JVM) | Oracle Java Virtual Machine (JVM) is a standard Java-compatible environment that runs any pure Java application. It supports the standard Java binary format and the standard Java APIs. |

| Term | Definition |
|----------|---|
| Servlets | Servlets are Java programming language classes that dynamically process requests and construct responses. |

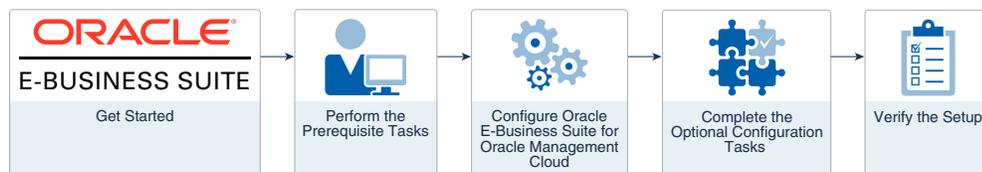
2

Set Up the Environment

View the common tasks for configuring the on-premise or the cloud deployment of Oracle E-Business Suite for Oracle Management Cloud.

This workflow is supported for *Oracle E-Business Suite Release 12.2* and *Oracle E-Business Suite Release 12.1*. For the list of operating systems supported on Oracle E-Business Suite, see [System Software, Patch Level, and Networking Requirements](#) in *Oracle E-Business Suite Upgrade Guide Release-12.0 and 12.1 to 12.2*.

This is an overview of the workflow for setting up the environment:



Depending on the version of your Oracle E-Business Suite release, the tasks that you must perform may vary.

Topics:

1. [Perform the Prerequisite Tasks](#)
2. [Perform Oracle E-Business Suite Specific Tasks](#)
3. [Perform Optional Configuration Tasks](#)
4. [Verify the Setup](#)
5. [Update the Setup Post-install](#)

If Oracle Management Cloud is *already monitoring* your Oracle E-Business Suite entities, and you're performing a switch between the run and patch file system, then see [Update the Setup After Oracle E-Business Suite Patching](#).

Perform the Prerequisite Tasks

Topics:

1. [Configure MBeans on Oracle WebLogic Servers](#)
 - a. [Activate MBeans on Oracle WebLogic Servers](#)
 - b. [Verify the Activation of MBeans](#)
2. [Verify Collection of Forms Sessions Data](#)
3. [Set Up DNS in an Oracle E-Business Suite Environment](#)
4. [Install a Cloud Agent](#)
5. [Apply Grants to an EBS Database for Monitoring](#)

6. [Add EBS Database](#)
7. [Configure Oracle Application Performance Monitoring for EBS](#)

Configure MBeans on Oracle WebLogic Servers

Follow the instructions in this section if you're setting up the environment to use Oracle Management Cloud with *Oracle E-Business Suite Release 12.2*.

To collect the JVM performance metrics from platform MBeans, the MBeans must be made accessible through the runtime MBeanServer. Activate MBeans by logging in to your Oracle WebLogic Server and verify the activation by running the WLST script:

1. [Activate MBeans on Oracle WebLogic Servers](#)
2. [Verify the Activation of MBeans](#)

Activate MBeans on Oracle WebLogic Servers

Activate MBeans by accessing each Oracle WebLogic Server by logging into it or from the WebLogic console as follows:

- Log in to your Oracle WebLogic Server:
Follow the user actions in the WebLogic Scripting Tool session demonstration at [Activating Platform MBeans on WebLogic Server 9.x to 10.3.2 versions](#) in *Enterprise Manager Cloud Control Middleware Management Guide*.
- Access your WebLogic console:
Navigate to **Domain > Configuration > General** page > **Advanced** options.
Select the **Platform MBean Server Used** check box.

If MBeans are not registered after you've followed the above steps, then start the Oracle WebLogic Servers with the following system property:

```
-  
Djavax.management.builder.initial=weblogic.management.jmx.mbeanserver.W  
LSMBeanServerBuilder
```

Verify the Activation of MBeans

To verify if MBeans is successfully activated, run the WLST script that's available at [Using the Platform MBean Server](#) in *Fusion Middleware Developing Custom Management Utilities With JMX for Oracle WebLogic Server*. The WLST script demonstrates how to use the Platform MBeans to monitor the resources of a running Oracle WebLogic Server domain.

Ensure that MBeans are registered under `java.lang`.

Verify Collection of Forms Sessions Data

Verify the collection of forms sessions data to view it later in the Forms System Health Dashboard by performing the following task. This is in addition to the steps performed in the section **Configure MBeans on Oracle WebLogic Servers**. If this step is not configured, then some of the Forms System metrics will not be collected.

When you log in to Oracle E-Business Suite, the system creates a user session in the database identified by a unique session ID (SID) by using the APPS schema credential. Each database session is associated with an Oracle E-Business Suite application user. This enables linking the database session with the application user for troubleshooting purposes. Using a Forms session, you can determine how the Oracle E-Business Suite user opened a database session.

1. Log in to your Oracle E-Business Suite.
2. From the user interface, navigate to **System Administrator > Profile > System**.
3. Ensure that the value of **Sign-On: Audit Level** is set to **FORM**. Set this at the site level.
4. Ensure that the value of **AuditTrail: Activate** is set to **YES**.

Save the changes.

Set Up DNS in an Oracle E-Business Suite Environment

The Oracle E-Business Suite hosts must be able to detect one another on the network. For example, in the UNIX environment, the DNS servers are configured in the file `/etc/resolv.conf` on each host.

To verify that the DNS servers are configured correctly, run the command:

```
nslookup any_publicDomain_hostname
```

Install a Cloud Agent

You must perform the following tasks to install a cloud agent.

Required Role: To complete these tasks, you must have the *Cloud Account Administrator* role. If this role isn't assigned to you or you're not sure, then ask your system administrator to ensure that the role is assigned to you in Oracle Cloud.

An operating system *user* who is the owner of the database tier must install the cloud agent, typically, the `oracle` user.

| Task | Description |
|---|--|
| <i>Task 1:</i> Understand the agent deployment topology. | Review and understand the deployment topology of Oracle Management Cloud agents. See <i>Understand the Architecture of Oracle Management Cloud in Installing and Managing Oracle Management Cloud Agents</i> . |
| <i>Task 2:</i> Review the prerequisites for deploying Oracle Management Cloud agents. | Review the hardware and software requirements for deploying Oracle Management Cloud agents. See <i>Generic Prerequisites for Deploying Oracle Management Cloud Agents in Installing and Managing Oracle Management Cloud Agents</i> . |
| <i>Task 3:</i> Download the agent software. | Download the agent software that contains the script required to install the Oracle Management Cloud agents. See <i>Download the Oracle Management Cloud Agent Software in Installing and Managing Oracle Management Cloud Agents</i> . |

| Task | Description |
|--|---|
| <i>Task 4:</i> Install the cloud agent on each of the application tier hosts and database hosts. | Install the cloud agent on each host in the Oracle E-Business Suite topology. See Install Cloud Agents in <i>Installing and Managing Oracle Management Cloud Agents</i> . |
| <i>Task 5:</i> Verify the deployment. | See Verify the Cloud Agent Installation in <i>Installing and Managing Oracle Management Cloud Agents</i> . |

Apply Grants to an EBS Database for Monitoring

To monitor the database instance using Oracle Infrastructure Monitoring, create a special database user and provide the requisite privileges to the user. Typically, in the UNIX environment, the database is located at `<EBS_home>/VISION/11.2.0` in the Oracle E-Business Suite directory structure for release 12.2. You can log in to the database instance as any user or with any `SYSDBA` role.

For steps to apply grants for monitoring CDB or PDB, see [Monitor CDB and PDB](#).

The example code below uses the schema name `APPS`. If the schema name is different in your setup, then replace `APPS` with it accordingly in the following code.

- Run the SQL script `grantPrivileges.sql` to automatically perform the following tasks that are required for monitoring the database instance. See Oracle Database in *Using Oracle Infrastructure Monitoring*.
 - Create a monitoring role.
 - Create a special database user and provide the requisite privileges to the user.
 - Grant the monitoring role to the user.
 - To the monitoring user, grant access to the database.
 - Allow the monitoring user to create sessions.
 - To use the Oracle Infrastructure Monitoring, provide generic grants to the monitoring user.
- Provide the Oracle E-Business Suite specific grants to the user:

```
GRANT SELECT ON APPS.FND_OAM_CONTEXT_FILES TO MONCS;
GRANT SELECT ON APPS.FND_PRODUCT_GROUPS TO MONCS;
GRANT SELECT ON APPS.FND_CONC_PROG_ONSITE_INFO TO MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_PROGRAMS_VL TO MONCS;
GRANT EXECUTE ON APPS.FND_OAM_EM TO MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_REQUESTS TO MONCS;
GRANT SELECT ON APPS.FND_APPLICATION_VL TO MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_QUEUES TO MONCS;
GRANT SELECT ON APPS.FND_LOOKUPS TO MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_WORKER_REQUESTS TO MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_QUEUES_VL TO MONCS;
GRANT SELECT ON APPS.FND_OAM_FNDUSER_VL TO MONCS;
GRANT SELECT ON APPS.FND_FORM_SESSIONS_V TO MONCS;
GRANT SELECT ON APPS.FND_CP_SERVICES TO MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_PROCESSES TO MONCS;
GRANT SELECT ON APPS.FND_SVC_COMPONENTS TO MONCS;
```

```

GRANT SELECT ON APPS.FND_LOG_MESSAGES TO MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_PROGRAMS TO MONCS;
GRANT SELECT ON APPS.FND_CONFLICTS_DOMAIN TO MONCS;
GRANT SELECT ON APPS.FND_ORACLE_USERID TO MONCS;
GRANT SELECT ON APPS.FND_APP_SERVERS TO MONCS;
GRANT SELECT ON APPS.FND_NODES TO MONCS;
GRANT SELECT ON APPS.ICX_SESSIONS TO MONCS;
GRANT SELECT ON APPS.FND_USER TO MONCS;
GRANT SELECT ON APPS.FND_RESPONSIBILITY TO MONCS;
GRANT EXECUTE ON APPS.FND_PROFILE TO MONCS;
GRANT SELECT ON APPS.WF_DEFERRED TO MONCS;
GRANT SELECT ON APPS.WF_NOTIFICATION_IN TO MONCS;
GRANT SELECT ON APPS.WF_NOTIFICATION_OUT TO MONCS;

```

Monitor CDB and PDB

If you're deploying the Oracle E-Business Suite application to monitor the pluggable database (PDB) or multitenant container database (CDB), then follow these steps for providing grants to the monitoring user:

1. Verify that the database is CDB or PDB:

```
select cdb,name from v$database;
```

2. Check the value of the CDB parameter `_common_user_prefix`. `C##` is the default value in the CDB root. Use it as the prefix for the `MONCS` user. So the resultant user is `C##MONCS`.
3. Log in to the database node and create OMC monitoring user and grant the privileges:

```

sqlplus / as sysdba
show con_name
@grantPrivileges.sql C##MONCS <password> Y

```

Note:

The script is found under `<Agent_Home>/plugins/oracle.em.sgf.m.zip/
<agent_version>/ scripts/ directory.`

This will create `C##MONCS` database user in the CDB with privileges which can be used as a credential when discovering Oracle Management Cloud database entity.

4. Log in to the database node and obtain the PDB name of the Oracle E-Business Suite instance:

```

sqlplus / as sysdba
SELECT PDB_ID, PDB_NAME, STATUS FROM DBA_PDBS ORDER BY PDB_ID;
alter session set container=<EBSPDB>;
grant connect to C##MONCS;

```

5. Provide the Oracle E-Business Suite specific grants to the C##MONCS user:

```
GRANT SELECT ON APPS.FND_OAM_CONTEXT_FILES TO C##MONCS;
GRANT SELECT ON APPS.FND_PRODUCT_GROUPS TO C##MONCS;
GRANT SELECT ON APPS.FND_CONC_PROG_ONSITE_INFO TO C##MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_PROGRAMS_VL TO C##MONCS;
GRANT EXECUTE ON APPS.FND_OAM_EM TO C##MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_REQUESTS TO C##MONCS;
GRANT SELECT ON APPS.FND_APPLICATION_VL TO C##MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_QUEUES TO C##MONCS;
GRANT SELECT ON APPS.FND_LOOKUPS TO C##MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_WORKER_REQUESTS TO C##MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_QUEUES_VL TO C##MONCS;
GRANT SELECT ON APPS.FND_OAM_FNDUSER_VL TO C##MONCS;
GRANT SELECT ON APPS.FND_FORM_SESSIONS_V TO C##MONCS;
GRANT SELECT ON APPS.FND_CP_SERVICES TO C##MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_PROCESSES TO C##MONCS;
GRANT SELECT ON APPS.FND_SVC_COMPONENTS TO C##MONCS;
GRANT SELECT ON APPS.FND_LOG_MESSAGES TO C##MONCS;
GRANT SELECT ON APPS.FND_CONCURRENT_PROGRAMS TO C##MONCS;
GRANT SELECT ON APPS.FND_CONFLICTS_DOMAIN TO C##MONCS;
GRANT SELECT ON APPS.FND_ORACLE_USERID TO C##MONCS;
GRANT SELECT ON APPS.FND_APP_SERVERS TO C##MONCS;
GRANT SELECT ON APPS.FND_NODES TO C##MONCS;
GRANT SELECT ON APPS.ICX_SESSIONS TO C##MONCS;
GRANT SELECT ON APPS.FND_USER TO C##MONCS;
GRANT SELECT ON APPS.FND_RESPONSIBILITY TO C##MONCS;
GRANT EXECUTE ON APPS.FND_PROFILE TO C##MONCS;
GRANT SELECT ON APPS.WF_DEFERRED TO C##MONCS;
GRANT SELECT ON APPS.WF_NOTIFICATION_IN TO C##MONCS;
GRANT SELECT ON APPS.WF_NOTIFICATION_OUT TO C##MONCS;
```

6. Grant additional privilege to the C##MONCS user:

```
GRANT INHERIT PRIVILEGES ON USER C##MONCS TO APPS;
```

7. Verify the grants for C##MONCS user.

Log in to the database node and run the below SELECT statements to verify the grants:

```
sqlplus / as sysdba
alter session set container=<EBSPDB>;
SELECT GRANTEE, TABLE_NAME, PRIVILEGE FROM DBA_TAB_PRIVS WHERE
GRANTEE='C##MONCS';
```

Add EBS Database

Discover the Oracle E-Business Suite database entity before you discover the Oracle E-Business Suite composite entity.

To complete this task:

- Set up monitoring credentials for database system discovery

- Add a database system using Oracle Management Cloud Console or Command Line Interface (OMCLI) via JSON files

After the database entity is discovered, it is automatically reconciled with Oracle E-Business Suite application during the discovery of the Oracle E-Business Suite composite.

For the steps and detailed instructions, see Discover Oracle Database Systems in *Using Oracle Infrastructure Monitoring*.

Configure Oracle Application Performance Monitoring for EBS

Follow the instructions in this section if you're setting up the environment to use Oracle Management Cloud with *Oracle E-Business Suite Release 12.2*.

If you also want to monitor the performance of Oracle E-Business Suite applications using Oracle Application Performance Monitoring, then perform the following tasks:

1. Install the APM agent on the managed servers **oacore**, **oafm**, and **forms clusters**. A user who is the owner of the application tier must install the APM agent, typically, the `ApplMgr` user.

After you install the agent, you get an output that instructs you to execute more steps. Ignore the instructions in the output, and proceed to the step below. For details about the installation, see Install and Configure APM Java Agent on Oracle E-Business Suite in *Installing and Configuring Oracle Application Performance Monitoring*.

2. Enable the APM Java Agent in the WebLogic Managed Servers: To enable the access to Oracle E-Business Suite from Oracle Application Performance Monitoring, JVM configuration changes must be made to the WebLogic Managed Servers. Perform the required steps on each of the managed servers of the **oacore**, **oafm**, and **forms clusters** services. See Install and Configure APM Java Agent on Oracle E-Business Suite in *Installing and Configuring Oracle Application Performance Monitoring*.
3. Deploy the APM Java Agent with Oracle Forms monitoring: Ensure that Oracle Forms server is configured in servlet mode. For the steps to verify that Oracle Forms server is running in servlet mode and the APM agent is deployed with Oracle Forms monitoring, see Install and Configure APM Java Agent on Oracle E-Business Suite in *Installing and Configuring Oracle Application Performance Monitoring*.

If Oracle Forms monitoring is not working after deploying APM Java Agent, then troubleshoot the errors by using the tips at Troubleshoot APM Java Agent Deployment in *Installing and Configuring Oracle Application Performance Monitoring*.

4. Configure the browser agent on **oacore** managed servers. See Enable and Configure End User Monitoring in *Installing and Configuring Oracle Application Performance Monitoring*.

When you enable End User Monitoring, you may also want to configure **User Name Reporting** for Oracle E-Business Suite.

Insert JavaScript code in the Oracle E-Business Suite environment to **all the used home pages** for extracting the user name:

- a. Log into Oracle E-Business Suite as the SYSADMIN user > In the left navigation pane, expand **Functional Administrator** option > Click **Home**.
- b. Navigate to **Personalization** tab > Enter the path `/oracle/apps/fnd/framework/navigate/webui/` in the **Document Path** field > Click **Go** to retrieve the document.
- c. Click the **Personalize Page** icon for the home page document, for example, `NewHomePG`.

The default home page for Oracle E-Business Suite *version 12.2.10* is / oracle/apps/fnd/framework/navigate/webui/NewHomePG. It is possible that one or more other home pages are configured. You can identify the home page name from the URL when logging in to Oracle E-Business Suite using the *OAFunc* parameter. For example, in the log in URL `http://ebs12210.example.com:8000/OA_HTML/OA.jsp?OAFunc=OANEWHOMEPAGE`, the home page is OANEWHOMEPAGE.

- d. Accept the defaults on the **Choose Personalization Context** screen and click **Apply**.
- e. Select the **Complete View** option > Click on the **Create Item** icon for the **Page Layout** row.
- f. In the **Create Item** page:

The screenshot shows the 'Create Item' page in the Personalization section. The 'Item Style' dropdown is set to 'Raw Text'. The '* ID' field is empty. The 'Text' field is empty. The form includes various other fields with default values or dropdown menus.

- From the **Item Style** menu, select **Raw text**.
- Enter a name for the **ID**.
- In the **Text** field, enter the following script:

```
<script type='text/javascript' charset='UTF-8'>
  var spanList2 = document.getElementsByClassName("x2u");
```

```
apmeum.username = spanList2[0].innerHTML;  
</script>
```

Note: You may need to adjust the above script for it to work with the specific page that you are using.

To verify that the script works as expected, you can optionally add `console.log('user name is:' + spanList2[0].innerHTML);` to the script.

For example patterns to identify the user name, see *step 4 > a*, *step 4 > b*, and *step 4 > c* in *Configure User Name Reporting in Installing and Configuring Oracle Application Performance Monitoring*.

- Click **Apply** to save the changes.

Perform Oracle E-Business Suite Specific Tasks

Topics:

1. [Add Oracle E-Business Suite Entities](#)
2. [License Oracle E-Business Suite Entities](#)
3. [Enable or Disable Log Collection for Oracle E-Business Suite Entities](#)
4. [Enable the Collection of EBS Transaction Log from the Database](#)
5. [Define Applications for Oracle Application Performance Monitoring](#)

Add Oracle E-Business Suite Entities

You can discover the Oracle E-Business Suite entities that are monitored by Cloud Agents by:

- Using the Oracle Management Cloud interface **Add Entities**.
- Using the command-line interface `omcli` and Oracle E-Business Suite specific JSON files. See *Add Entities Using JSON Files in Using Oracle Infrastructure Monitoring*.

Download the Oracle E-Business Suite specific sample JSON files `omc_oracle_ebiz_sample.json` and `omc_oracle_ebiz_sample_creds.json` from **Sample JSON Files (zip file)**. See *Download and Customize Oracle Infrastructure Monitoring JSONs in Using Oracle Infrastructure Monitoring*.

Customize the sample JSON files with the properties suitable for your Oracle E-Business Suite setup. See *Entities Attributes and Properties for the entity type Oracle E-Business Suite (EBS) in Using Oracle Infrastructure Monitoring*.

This section pertains to the discovery of entities using the Oracle Management Cloud console.

Required Role: To complete these tasks, you must have *Oracle Management Cloud Administrator* role. If this role isn't assigned to you or you're not sure, then ask your system administrator to ensure that the role is assigned to you in Oracle Cloud. See [About Oracle Management Cloud Roles and Users](#).

1. From the Management Cloud main menu, navigate to **Administration > Discovery > Add Entity**. The **Add Entity** page is displayed.
2. In the **Entity Type** list, select **EBS**.

Property, monitoring credential fields, and entity attribute fields specific to the selected entity type are displayed as shown in the following graphic:

The screenshot shows the 'Add Entity' dialog box. At the top right, there are 'Add Entity' and 'Cancel' buttons. Below them is a warning message: 'Before proceeding further, make sure that all the prerequisites are met. If your entity type is not on the list, refer to the documentation for adding entities using omcli.' The form contains several fields: 'Entity Type' with 'EBS' selected and highlighted by a red box; 'Entity Name' (empty); 'Database Host Name' (dropdown menu with 'Select a Database Host Name'); 'Database Port' (text field with '1521'); 'Database Service Name' (empty); and 'Cloud Agent' (dropdown menu with 'Select a Cloud Agent'). A red arrow points to the 'Add Entity' button.

 **Note:**

After a fresh Cloud agent installation, agent configuration information first needs to be collected before you can select it from the **Add Entity** dialog box. Wait for five minutes after a Cloud agent installation before you select it from the **Cloud Agent** drop-down list.

3. Enter the **Entity Name**.
4. Enter the **Database Host Name**, **Database Service Name**, and **Database Port** fields. Ensure that you've already added the database so that it can be discovered in this step (See [Add EBS Database](#)). Under **Discover Database**, select **true**.

The discovery job will obtain the database entity information, validate the entity, and ensure that the database is included in the Oracle E-Business Suite composite. If you choose to associate the logs automatically in step 8, then the log data from the database is automatically associated with Oracle E-Business Suite entity.

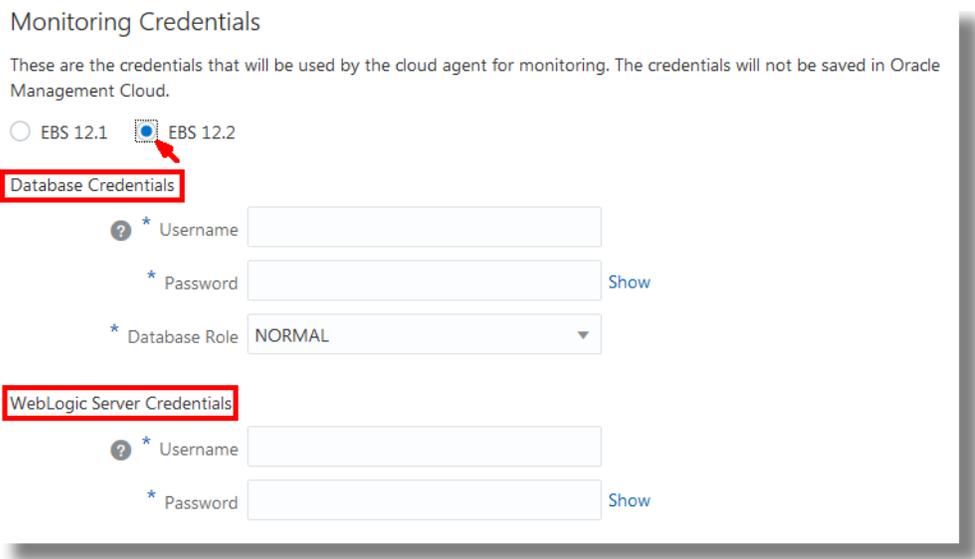
5. In the **Cloud Agent** list, select the cloud agent from which the discovery must be run.

 **Note:**

It is recommended to run the discovery from the cloud agent that's installed on the WebLogic Administration Server host. Alternatively, if the relevant ports of all the managed servers are accessible, then the discovery can be run from a cloud agent that's installed on any of the Oracle E-Business Suite hosts.

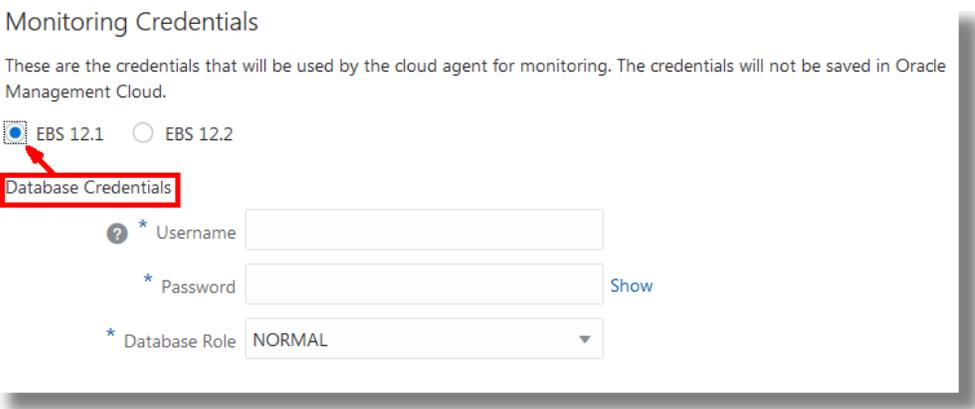
6. Under **Monitoring Credentials** section:

- For Oracle E-Business Suite Release 12.2, click the **EBS 12.2** button, enter the Database Credentials, and WebLogic Server Credentials.



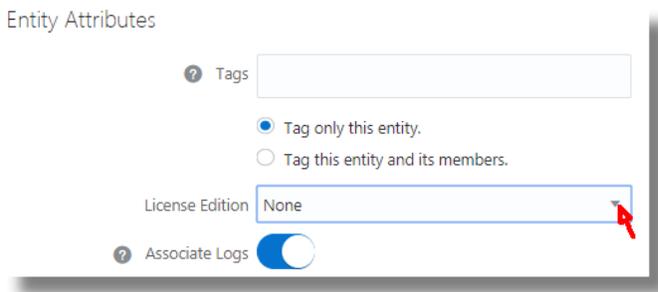
The screenshot shows the 'Monitoring Credentials' configuration page. At the top, it states: 'These are the credentials that will be used by the cloud agent for monitoring. The credentials will not be saved in Oracle Management Cloud.' Below this, there are two radio buttons: 'EBS 12.1' and 'EBS 12.2'. The 'EBS 12.2' button is selected and highlighted with a red box and a red arrow. Below the radio buttons, there are two sections: 'Database Credentials' and 'WebLogic Server Credentials', both highlighted with red boxes. The 'Database Credentials' section includes fields for 'Username', 'Password' (with a 'Show' button), and 'Database Role' (set to 'NORMAL'). The 'WebLogic Server Credentials' section includes fields for 'Username' and 'Password' (with a 'Show' button').

- For Oracle E-Business Suite Release 12.1, click the **EBS 12.1** button, and enter the Database Credentials.



The screenshot shows the 'Monitoring Credentials' configuration page. At the top, it states: 'These are the credentials that will be used by the cloud agent for monitoring. The credentials will not be saved in Oracle Management Cloud.' Below this, there are two radio buttons: 'EBS 12.1' and 'EBS 12.2'. The 'EBS 12.1' button is selected and highlighted with a red box and a red arrow. Below the radio buttons, there is one section: 'Database Credentials', highlighted with a red box. This section includes fields for 'Username', 'Password' (with a 'Show' button), and 'Database Role' (set to 'NORMAL').

7. Under **Entity Attributes**, select the license edition from the **License Edition** list. Select **Standard** or **Enterprise**.



The screenshot shows the 'Entity Attributes' configuration page. It includes a 'Tags' field, two radio buttons: 'Tag only this entity.' (selected) and 'Tag this entity and its members.', a 'License Edition' dropdown menu (set to 'None'), and an 'Associate Logs' toggle switch.

If this option is unavailable to you, then see *Version 1 Licensing* in [License Oracle E-Business Suite Entities](#).

8. To associate the logs automatically with the Oracle E-Business Suite entity during log collection, toggle the **Associate Logs** button.

If this option is unavailable to you, then manually associate the log sources with the Oracle E-Business Suite entities. See [Enable or Disable Log Collection for Oracle E-Business Suite Entities](#).

9. Optionally, you can create tags that define additional relationships between the Oracle E-Business Suite entities. These relationships will help search and group these entities in Oracle Management Cloud. For example, you may want to use the same tag for all entities that are physically in the same location, or entities that are part of the same custom logical group. The *Tag all members* option applies to composite entities and allows you to specify the same tag to all members discovered under this entity.
10. Click **Add Entity**. You are returned to the **Entity Addition Job Status** page. The entity addition job name will appear in the table of entities on the page.

From the summary, you can also note the details of the discovery operation, and verify that you've completed the required prerequisite tasks.

Refresh the status and wait for the discovery job to complete. The job status will notify if any specific grants must be provided to the database user to complete the discovery process. If the discovery job failed, then update the parameters that caused the failure and re-run the discovery.

11. Navigate to **Administration > Entity Configuration > Licensing**. Ensure that the Log Collection toggle button is **ENABLED** for your Oracle E-Business Suite entity. See *Enable License Editions* in *Getting Started with Oracle Management Cloud*.
12. For Oracle E-Business Suite Release 12.1, verify that the following entities are discovered:

- EBS
- Concurrent Processing
- Concurrent Processing Node (one for each application node)
- Forms System
- Workflow Group
- Workflow Agent Listener
- Workflow Background Engine
- Workflow Notification Mailer
- Oracle Database
- Oracle Database Instance
- Middleware Systems and Services

Note that the Middleware Systems and Services entity will represent the OC4J set of entities present in Oracle E-Business Suite 12.1.3 release composite.

13. With the application of a patch in September 2018, the Oracle E-Business Suite servers might routinely switch between file systems. This might possibly result in a change in the location of the server logs because of:

- Change in the home location of WebLogic domain.
- Change in the ports on which the WebLogic Administration Server and managed servers are running.

As a work around, add an additional log search path to the applicable Oracle WebLogic Server log sources. See [Change the Path of Oracle E-Business Suite Logs](#).

License Oracle E-Business Suite Entities

Versions with the Licensing Option:

The Oracle E-Business Suite entities are already licensed based on the selection you made while adding the entities by using the discovery UI or by customizing the credentials JSON files. See [Add Oracle E-Business Suite Entities](#).

To change the selection of license for your entities:

1. Navigate to the license page. From the Oracle Management Cloud Console navigation pane, select **Administration**, select **Entities Configuration**, and then **Licensing**.
2. Click **Select Entities** and select the Oracle E-Business Suite composite entity.
3. Select **Standard Edition** or **Enterprise Edition**.

If **Enterprise Edition** license is enabled for the Oracle Database entities, then Oracle IT Analytics is enabled. If you've not already provided additional privileges required for Oracle IT Analytics data collection from Oracle Database, then see [Apply Grants to an EBS Database for Monitoring](#).

4. Click **Save**.

Versions without the Licensing Option:

If you're an existing customer of Oracle Management Cloud who has individual Oracle Management Cloud services provisioned, then depending on the type of licensing, you may or may not see a **Licensing** option. To enable Oracle Management Cloud services on the Oracle E-Business Suite entities, see [Enable or Disable Services on Entities in Working with Oracle Management Cloud](#).

Enable or Disable Log Collection for Oracle E-Business Suite Entities

- *For Oracle E-Business Suite Release 12.1:*

Enable the logs of the Oracle E-Business Suite entities **EBS Concurrent Processing Node**, **EBS Workflow Notification Mailer**, and **Oracle Database Instance** for collection by associating them with the corresponding log sources. See [Work With Entity Associations in Using Oracle Log Analytics](#).

The Oracle E-Business Suite entities and the corresponding log sources that you must associate them with, are as listed below:

| Oracle E-Business Suite Release 12.1 Entity | Log Sources |
|---|--|
| EBS Concurrent Processing Node | <ul style="list-style-type: none"> – EBS Concurrent Manager Logs – EBS Concurrent Request Logs – EBS Output Post Processor Logs – EBS Transaction Manager Logs – EBS Internal Concurrent Manager Logs – EBS Conflict Resolution Manager Logs |

| Oracle E-Business Suite Release 12.1 Entity | Log Sources |
|---|--|
| EBS Notification Mailer | – EBS Workflow Notification Mailer Logs |
| Oracle Database | – Database Alert Logs – Database Audit Logs – Database Trace Logs – Oracle EBS Transaction Logs |

- *For Oracle E-Business Suite Release 12.2:*

While discovering the composite Oracle E-Business Suite entity, if you've selected the option to automatically enable the logs of individual entities of Oracle E-Business Suite for collection, then each discovered entity is tagged indicating that the log collections should be enabled for it. Oracle Log Analytics monitors these tag notifications and enables the log collections accordingly. For Oracle E-Business Suite composite entity, the following logs are automatically enabled for collection:

| Oracle E-Business Suite Release 12.2 Entity | Log Sources |
|---|--|
| EBS Concurrent Processing Node | – EBS Concurrent Manager Logs – EBS Concurrent Request Logs – EBS Output Post Processor Logs |
| EBS Notification Mailer | – EBS Workflow Notification Mailer Logs |
| Oracle Database Instance | – Database Alert Logs – Database Audit Logs – Database Incident Dump Files |
| Weblogic Server | – FMW WLS Server Logs – FMW WLS Server STDOUT Logs – FMW WLS Server Access Logs |

However, you can change the association of log sources with entities, add more log sources as suitable for your application, or remove some from the list of log sources that are automatically enabled for collection. Additional out-of-the-box log sources are available for the entities **EBS Concurrent Processing Node**, **EBS Workflow Notification Mailer**, **Oracle Database Instance**, **WebLogic Server**, and **Host Linux**. See *Work With Entity Associations* in *Using Oracle Log Analytics*.

Go to **Oracle Log Analytics Home** and verify the log collection. In case of error, you can take the following corrective actions:

- Ensure that the path of the logs in the log sources is correct.
To change the location of the logs, or to provide an additional path from where the logs of a specific log source can be collected, see [Change the Path of Oracle E-Business Suite Logs](#).
- Verify that the cloud agent user has access to the logs. Make the log files readable to the Oracle Management Cloud agents.

See the section *Requirement for Logs Collection on Unix* in the topic *Generic Prerequisites for Deploying Oracle Management Cloud Agents* in *Installing and Managing Oracle Management Cloud Agents*.

Enable the Collection of EBS Transaction Log from the Database

To extract log data from the database entity, add the credentials to the agent that is installed on the database host. See [Provide the Database Entity Credentials](#) in *Using Oracle Log Analytics*.

Define Applications for Oracle Application Performance Monitoring

Follow the instructions in this section if you're setting up the environment to use Oracle Management Cloud with *Oracle E-Business Suite Release 12.2*.

If you're using Oracle Application Performance Monitoring to monitor the application performance of Oracle E-Business Suite, then you can define and save a filter to pull together a set of pages or server requests in the application that match the defined filter criteria at a particular time point. See [Define Applications](#) in *Using Oracle Application Performance Monitoring*.

Perform Optional Configuration Tasks

Set up the environment to use the various cloud services in Oracle Management Cloud by performing these optional configuration tasks.

Required Role: To complete these tasks, you must have *Cloud Administrator* role. If this role isn't assigned to you or you're not sure, then ask your system administrator to ensure that the role is assigned to you in Oracle Cloud. See [About Oracle Management Cloud Roles and Users](#).

| Task | Description |
|------------------------------|--|
| Configure Alert Rules | Use the out-of-the-box templates available for Oracle E-Business Suite to create alert rules. See Set Up Alert Rules . |
| Create groups | After you've added entities, you can create Groups to monitor and manage those entities. A Group is a single logical unit that can include targets of the same type (for example, all your production databases). You can view, create, and delete groups in the Administration console in Oracle Management Cloud. To create or manage a group, see Manage Groups in <i>Working with Oracle Management Cloud</i> . |
| Create notification channels | You may want to be actively notified through email, by push notifications (mobile devices), or have a third-party application take action when an alert is raised. Set up notification channels and reuse the channels across different alert rules. See Set Up Notification Channels in <i>Using Oracle Infrastructure Monitoring</i> . |

| Task | Description |
|---------------------------|---|
| Create Remediation Action | You can create a remediation action that'll be performed automatically in response to an alert. You can create a Remediation Action by using the Event Service API. Contact your Oracle Support or Sales Representative for more information about accessing and using the Event Service API. |

Verify the Setup

After you've set up the environment for using Oracle Management Cloud with Oracle E-Business Suite, verify the setup with a few tests.

Sanity Tests to Start Using the Setup

You can validate your environment with the following checks to start using it:

- In Oracle Infrastructure Monitoring, topology viewer renders Oracle E-Business Suite hierarchy correctly.
- All the metrics are collected without delay. Metric tables and charts are correlated and the data is accurate.
- Dashboards reflect the right Oracle E-Business Suite hosts, entities, host metrics, Oracle WebLogic Server metrics, and log widgets.
- In the Log Explorer, when the EBS composite is selected, the logs pertaining to Oracle WebLogic Server, database instance, and Oracle E-Business Suite application hosts are included.

Tests Corresponding to Your Use Case

You can test the suitability of the environment for your use case by conducting some of the following example tests:

- Trigger an Oracle E-Business Suite application performance test and verify that the health status is correctly reflected in the EBS Health dashboard.
Navigate to the problem logs and diagnose further.
- Verify against shared and non-shared file system setup.
- Verify by logging in with different roles.

Update the Setup Post-install

After you've set up the environment to monitor Oracle E-Business Suite using Oracle Management Cloud, at a later point, you might want to change the parameters or the entities selected during the set up.

Topics:

- [Rediscover the Composite After Adding or Removing Entities](#)
- [Update the Credentials](#)
- [Change the Path of Oracle E-Business Suite Logs](#)

Rediscover the Composite After Adding or Removing Entities

After you add new entities to the Oracle E-Business Suite composite or remove entities, then Oracle Management Cloud refreshes its Oracle E-Business Suite configuration automatically.

During the discovery of the Oracle E-Business Suite composite entity, if the process did not complete or if it got interrupted, then you can initiate the rediscovery of the entities.

1. From Infrastructure Monitoring Home, click the OMC Navigation  icon, click **Monitoring**, and click **Entities**.

The Oracle Infrastructure Monitoring **Entity Home Page** lists all the entities monitored by Oracle Infrastructure Monitoring.

2. Click the link on the Oracle E-Business Suite composite entity.

The Oracle E-Business Suite composite entity home page is displayed.

3. Click the down arrow next to the Actions menu, and select **Rediscover Members**.

The discovery job is initiated.

4. You can verify the completion of the discovery by checking the discovery job status. From the Oracle Management Cloud console main menu, select **Administration** > **Discovery** > **Discovery Job Status**.

Update the Credentials

If you change the credentials of the *monitoring user*, for example `MONCS`, to access the database or the monitoring user credentials to access the WebLogic Server in Oracle E-Business Suite due to a routine password change policy, then the credentials must be updated on the Oracle Management Cloud side for the corresponding entities to ensure proper functioning of the agents running on the Oracle E-Business Suite entity hosts.

Oracle Management Cloud for Oracle E-Business Suite environment uses three sets of credentials that may require an update if the user name or password changed after the first discovery:

- Credentials to access the Oracle E-Business Suite database from Oracle Management Cloud for metric collection. See [Update Database Credentials for Metric Collection](#).
- Credentials to extract *Oracle EBS Transaction Logs* from the database. See [Update Credentials on the Database Entity](#).
- Credentials to access the WebLogic domain from Oracle Management Cloud for metric collection. See [Update WebLogic Server Credentials for Metric Collection](#).

Update Database Credentials for Metric Collection

From the Oracle Infrastructure Monitoring user interface, update the credentials for monitoring user, for example `MONCS`, to access database for metric collection.

1. Navigate to **Oracle Infrastructure Monitoring** > **Entity Home Page** > **Oracle E-Business Suite composite entity home page**.
2. Click the down arrow next to the Actions menu, and select **Update Monitoring Configuration**.

The Update Monitoring Configuration page is displayed.

3. Select the **Edit Credentials** check box.
In the database credentials section, update the credentials of the monitoring user.
Click **Save** to save the changes.
4. You can verify the update by visiting the **Discovery Job Status** page.

Update Credentials on the Database Entity

If you change the credentials of the *monitoring user*, for example `MONCS`, to access the database due to a routine password change policy, then the credentials must be updated in the agent credential store to ensure continued log collection from the database entity.

The credentials are defined in a JSON file and registered for log collection in the agent credential store of the agent running on the database host. When the credentials change, update the JSON file and the agent credential store.

1. Update the existing credentials JSON registered for log collection with the new credentials information. For example, for a database named `avdf_instance` and user name, password, and role as `moncs`, `newsyspasswd`, and `SYSDBA` respectively, the JSON file should contain:

```
[{
  "entity": "omc_oracle_db_instance.avdf_instance/orcl",
  "name": "LCAgentDBCreds",
  "type": "DBCredsNormal",
  "globalName": "AgentUserCredential",
  "usage": "LOGANALYTICS",
  "description": "DB Credentials",
  "properties": [{
    "name": "USERNAME",
    "value": "CLEAR[moncs]"
  },
  {
    "name": "PASSWORD",
    "value": "CLEAR[newsyspasswd]"
  },
  {
    "name": "ROLE",
    "value": "CLEAR[SYSDBA]"
  }
  ]
}]
```

2. Register the new credential information with the agent credential store. Run the following command from the `<AGENT_BASE_DIR>/agent_inst/bin` location:

```
./omcli add_credentials agent -credential_file
<PATH_TO_CRED_JSON_FILE>
```

3. You can verify the update with the following command by specifying the path to the entity definition JSON file.

```
./omcli status_entity agent <PATH_TO_ENTITY_DEFINITION_FILE>
```

Refer to the sample entity definition file `omc_oracle_db_sample.json` for Oracle Database in [Sample JSON Files \(zip file\)](#) .

Update WebLogic Server Credentials for Metric Collection

From the Oracle Infrastructure Monitoring user interface, update the credentials of monitoring user to access WebLogic Server for metric collection.

1. Navigate to **Oracle Infrastructure Monitoring > Entity Home Page > Oracle E-Business Suite composite entity home page**.
2. Click the **Members** tab. Click the link on the Oracle E-Business Suite WebLogic Domain entity.
The WebLogic Domain entity home page is displayed.
3. Click the down arrow next to the Actions menu, and select **Update Monitoring Configuration**.
The Update Monitoring Configuration page is displayed.
4. Select the **Edit Credentials** check box.
Update the WebLogic Server entity credentials.
Click **Save** to save the changes.
5. You can verify the update by visiting the **Discovery Job Status** page.

Change the Path of Oracle E-Business Suite Logs

Each of the Oracle E-Business Suite log sources has the default path where it will look for the logs. If the log location has changed from the default, the log sources will not be able to find the logs. However, you can specify the changed location of the logs.

1. From Oracle Log Analytics, click the OMC Navigation () icon on the top left corner of the interface. In the OMC Navigation bar, click **Log Admin**.
2. In the **Log Sources** section, click the available count of log sources link.
3. Click **Open Menu** () next to the log source entry that you want to edit and select **Edit**. For example, *EBS Concurrent Manager Logs*.
The Edit Log Source page is displayed. In the **Included Patterns** tab, the default location of the logs is specified under the field **File Name Pattern**. For example `{omc_ebs_applcsf}/{omc_ebs_appllog}/w*.mgr`.
4. To add an additional path where the logs can be located, click **Add**. Specify the alternate path in the field **File Name Pattern**. For example `{omc_ebs_applcsf}/{omc_ebs_appllog}/test/w*.mgr`.
Enter the description of the path.
Ensure that the **Enabled** check box is selected.
5. Click **Save**.

Now, the logs will be picked from any of the specified locations.

Update the Setup After Oracle E-Business Suite Patching

Note that the following steps must be performed only if Oracle Management Cloud is already monitoring your Oracle E-Business Suite entities, and you're performing a switch between the run and patch file system.

1. Update the Oracle WebLogic Server port:
 - a. Go to the Oracle E-Business Suite WebLogic domain entity home page.
 - b. Click **Update Entity Properties**.
 - c. Enter the new port on which WebLogic Administration Server is running.
 - d. Save the configuration.
2. Verify the availability status for all the Oracle WebLogic Servers in Oracle Management Cloud. See Monitor Availability Status in *Using Oracle Infrastructure Monitoring*.
3. Check that the logs are collected from the WebLogic domain.

3

Set Up Alert Rules

The Oracle Management Cloud Administrator can create alert rules from the Alerts Home Page.

Topics:

- [Configure Oracle E-Business Suite Alert Rules](#)
- [Create an Alert Rule on Oracle Log Analytics](#)
- [Create an Alert Rule on Oracle Application Performance Monitoring](#)

Configure Oracle E-Business Suite Alert Rules

Configure alert rules for your monitored infrastructure to trigger alerts based on specific criteria. You can use the out-of-the-box templates available to create the alert rule.

Required Role: To complete these tasks, you must have the *Oracle Management Cloud Administrator* role.

1. From the Management Cloud main menu, select **Administration** and then **Alert Rules**. The **Alert Rules** page is displayed.
2. In the **Service** list, select **Monitoring**. Click **Create Alert Rule**. The **Create Alert Rule** page is displayed.
3. From the **Sample** rule list, select **EBS** or **EBS Concurrent Processing**.

When you select the sample rule, the corresponding alert conditions that are associated with the rule are displayed.

The following graphics show the **Create Alert Rule** page for **EBS** sample rule:

Learn how to set up alert rules. Optionally, choose a sample to fill the rule definition below with suggested values.

Sample: **EBS**

* Rule Name:

Add description

Enable Rule:

Entities

Choose "Entity Types" to apply the rule to all entities of that type or choose "Individual Entities" to limit the rule to just those entities.

Entity Types Individual Entities

EBS X

Alert Conditions

+ Add Condition

| Entity Type | Condition Type | Metric | Operator | Warning | Critical | Duration for alert | Alert Message |
|-------------|-----------------|---------------------------|----------|---------|----------|--------------------|---------------|
| EBS | Fixed Threshold | Average Running Time (ms) | > | 3600 | 36000 | For 15 minutes | Standard |
| EBS | Fixed Threshold | Active User Sessions | > | 200 | 250 | For 15 minutes | Standard |

Notifications

The following graphics show the **Create Alert Rule** page for **EBS Concurrent Processing** sample rule:

Learn how to set up alert rules. Optionally, choose a sample to fill the rule definition below with suggested values.

Sample: **EBS Concurrent Processing**

* Rule Name:

Add description

Enable Rule:

Entities

Choose "Entity Types" to apply the rule to all entities of that type or choose "Individual Entities" to limit the rule to just those entities.

Entity Types Individual Entities

EBS Concurrent Processing X

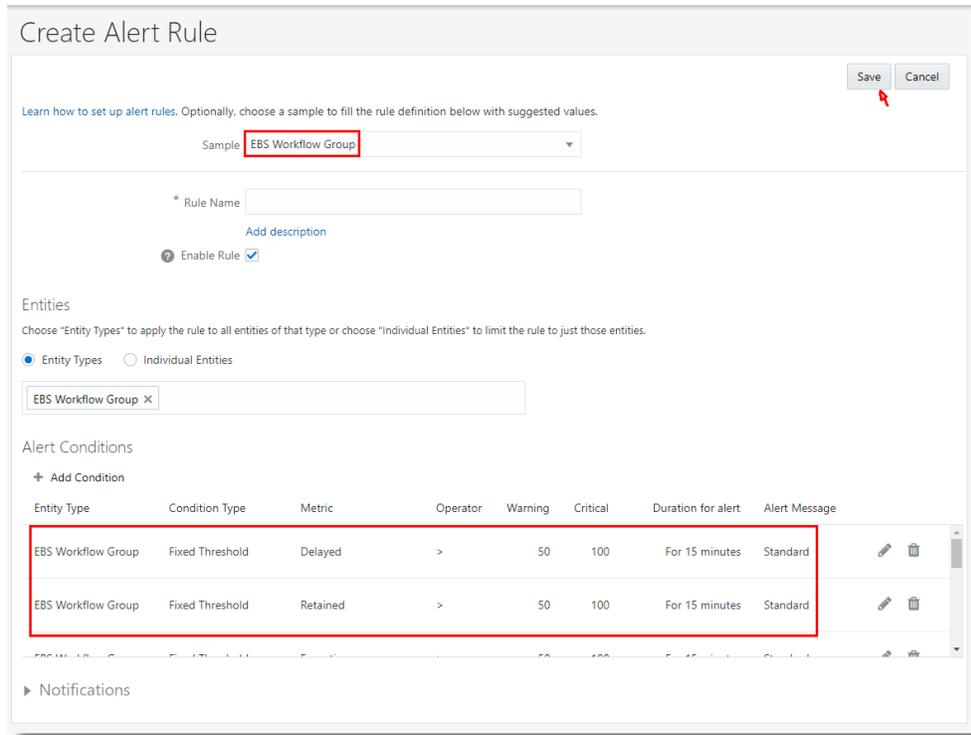
Alert Conditions

+ Add Condition

| Entity Type | Condition Type | Metric | Operator | Warning | Critical | Duration for alert | Alert Message |
|---------------------------|-----------------|------------------------------------|----------|---------|----------|--------------------|---------------|
| EBS Concurrent Processing | Availability | — | — | — | — | — | Standard |
| EBS Concurrent Processing | Fixed Threshold | Concurrent Requests Error Rate (%) | > | 0.1 | 0.25 | For 15 minutes | Standard |

Notifications

The following graphics show the **Create Alert Rule** page for **EBS Workflow Group** sample rule:



4. In the **Entities** section, select **Entity Types** or **Individual Entities** to define where the rule must be applied.
5. To alter an alert condition, click the **Edit** icon. You can change the alert condition parameters such as **Condition Type**, **Metric**, **Alert Message**, and the details of the condition. Click **Save**.
To delete an alert condition from the rule, click the **Delete** icon.
6. In the **Rule Name** field, provide a name for the rule that you're creating by using the sample rule. For example, enter `Demo Rule`.
7. Under **Notifications**, you can specify the recipients to receive notifications when any result violates the specified alert condition. See [Perform Optional Configuration Tasks](#).
8. Click **Save**.

The **Alert Rules** page is displayed as in the following example graphic:



To create your custom alert rule by defining the entity type, see *Set Up Alert Rules in Using Oracle Infrastructure Monitoring*.

The Alert Conditions created for the three Oracle E-Business Suite sample alert rule templates are listed below:

Sample Alert Rule: EBS

| Condition Type | Evaluation Time Period (minutes) | Metric | Warning | Critical | Description |
|-----------------|----------------------------------|---------------------------------|---------|----------|--|
| Fixed Threshold | 15 | Errored Executions (%) | > 0.1 | > 0.25 | The percentage of requests that completed with error |
| Fixed Threshold | 15 | Average Running Time (ms) | > 3600 | > 36000 | The average running time of the requests |
| Fixed Threshold | 15 | Completed Executions (ops/hour) | < 250 | < 100 | The rate of requests completed per hour |
| Fixed Threshold | 15 | Active User Sessions | > 200 | > 250 | The number of active user sessions |

Sample Alert Rule: EBS Concurrent Processing

| Condition Type | Evaluation Time Period (minutes) | Metric | Warning | Critical | Description |
|-----------------|----------------------------------|---|---------|----------|---|
| Availability | NA | Status | NA | NA | The availability status |
| Fixed Threshold | 15 | Concurrent Requests Error Rate (%) | > 0.1 | > 0.25 | The percentage of requests that completed with errors on an hourly basis |
| Fixed Threshold | 15 | Concurrent Requests Warning Rate (%) | > 0.15 | > 0.3 | The percentage of requests that completed with warning on an hourly basis |
| Fixed Threshold | 15 | Concurrent Requests Completed Successfully (ops/hour) | > 2500 | > 10000 | The rate of requests that completed successfully on an hourly basis |
| Fixed Threshold | 15 | Pending Requests | > 2500 | > 10000 | The number of pending requests by user |

| Condition Type | Evaluation Time Period (minutes) | Metric | Warning | Critical | Description |
|-----------------|----------------------------------|---|---------|----------|--|
| Fixed Threshold | 15 | Running Requests | > 2500 | > 10000 | The number of running requests by user |
| Fixed Threshold | 15 | Elapsed Time (min) | > 720 | > 1440 | The elapsed time in minutes for a pending or running request |
| Fixed Threshold | 15 | Concurrent Requests Pending (Standby) | > 100 | > 500 | The number of requests in pending stand-by status |
| Fixed Threshold | 15 | Concurrent Requests Inactive (No Manager) | > 100 | > 500 | The number of requests in inactive <i>no manager</i> status |
| Fixed Threshold | 15 | Concurrent Requests Inactive (On Hold) | > 100 | > 500 | The number of requests in inactive on hold status |

Sample Alert Rule: EBS Workflow Notification Mailer

| Condition Type | Evaluation Time Period (minutes) | Metric | Warning | Critical | Description |
|-----------------|----------------------------------|-----------|---------|----------|--|
| Fixed Threshold | 15 | Delayed | > 50 | > 100 | The number of deferred records in delayed status |
| Fixed Threshold | 15 | Retained | > 50 | > 100 | The number of deferred records in retained status |
| Fixed Threshold | 15 | Exception | > 50 | > 100 | The number of deferred records in exception status |
| Fixed Threshold | 15 | Delayed | > 50 | > 100 | The number of inbound notifications in delayed status |
| Fixed Threshold | 15 | Retained | > 50 | > 100 | The number of inbound notifications in Retained status |

| Condition Type | Evaluation Time Period (minutes) | Metric | Warning | Critical | Description |
|-----------------|----------------------------------|-----------|---------|----------|--|
| Fixed Threshold | 15 | Exception | > 50 | > 100 | The number of inbound notifications in Exception status |
| Fixed Threshold | 15 | Delayed | > 50 | > 100 | The number of outbound notifications in Delayed status |
| Fixed Threshold | 15 | Retained | > 50 | > 100 | The number of outbound notifications in Retained status |
| Fixed Threshold | 15 | Exception | > 50 | > 100 | The number of outbound notifications in Exception status |

Create Alert Rule for Program Run Time

You can create an alert rule that generates an alert if your program exceeds a specific run time.

Required Role: To complete these tasks, you must have the *Oracle Management Cloud Administrator* role.

1. From the Management Cloud main menu, select **Administration** and then **Alert Rules**. The **Alert Rules** page is displayed.
2. In the **Service** list, select **Monitoring**. Click **Create Alert Rule**. The **Create Alert Rule** page is displayed.
3. Provide the **Rule Name** for the rule that you're creating. Check the **Enable Rule** check box.
4. In the **Entities** section, select **Entity Types** or **Individual Entity** depending on whether you want to set the alert only for one specific concurrent manager or all.
5. Under **Alert Conditions** section, click **Add Condition** to define the condition for when the alert must be generated.

The **Add Condition** dialog box opens.

Add Condition

Entity Type * Condition Type * ?

EBS Concurrent Processing Fixed Threshold

Metric *

Elapsed Time (min)

| Condition | Operator | Warning | Critical |
|---|-------------|------------------|----------|
| Program Sho... Program Short Name | Equals > | FNDOAMCOL x 5 | 10 |
| Request ID | | | |

When to generate alert

Immediately, as soon as one metric value is outside the threshold or is anomalous.

If all the values are outside threshold or all are anomalous for minutes.*

When average computed over minutes* is outside the threshold or is anomalous.

* To avoid missing or uncleared alerts, choose a duration at least 2.5 times longer than the metric collection frequency, which is documented for Oracle-defined entity types and metrics. For other types, look at a metric history graph and estimate the collection frequency.

Customize Message Format

Note

Add a note to include with the alert message. Use this to specify your runbook URL or steps to respond to the alert.

Save Cancel

6. Specify the details of the alert condition:
 - a. From Entity Type menu, select **EBS Concurrent Processing**.
 - b. Under Condition Type, select **Fixed Threshold**.
 - c. In the Metric menu, identify the metric **Long Active Concurrent Requests**. Under Long Active Concurrent Requests metric, select **Elapsed Time (min)**.
 - d. Specify the condition for your program's run time. For example, to set the condition to generate a warning alert when your program with program short name `FNDOAMCOL` runs for more than 5 minutes and critical alert when it runs for more than 10 minutes,
 - In the Condition section, select **Program Short Name** > select **Equals** > select the program from the suggestions or specify the program short name for which you want to define the condition, for example, `FNDOAMCOL`.
 - Under Operator, select a suitable operator, for example, `>`.
 - Under Warning, specify the warning limit for your condition, in minutes. For example, 5.
 - Under Critical, specify the critical limit for your condition, in minutes. For example, 10.

 **Note:**

The values of Warning and Critical alert limits must be greater than or equal to the value of **Elapsed Time Threshold** property of the **EBS Concurrent Processing** entity. By default, it is 60 minutes. This is because, the data collected for the metric will only have concurrent requests with a minimum time specified by **Elapsed Time Threshold** property in running or pending phase. However, you can modify the **Elapsed Time Threshold** property of the **EBS Concurrent Processing** entity. See [Set Up Alert Rules](#).

To create similar conditions for more programs, click **Add Row** and repeat the step 6d.

- e. Under **When to generate alert**, specify your preference.
- f. Optionally, you can customize the message format for the alert.
- g. Optionally, you can add a note to include in the alert message.
- h. Click **Save**.

You will return to the **Create Alert Rule** page.

- 7. Under **Notifications**, you can specify the recipients to receive notifications when any result violates the specified alert condition. See [Perform Optional Configuration Tasks](#).
- 8. Click **Save**.

The **Alert Rules** page is displayed where you can verify that the alert rule that you created is listed.

Create an Alert Rule on Oracle Log Analytics

To create an alert rule that generates an alert when an anomaly or a deviation from the fixed threshold is detected in the log data, see [Create an Alert Rule in *Using Oracle Log Analytics*](#).

Create an Alert Rule on Oracle Application Performance Monitoring

In Oracle Application Performance Monitoring, alerts are created for fixed thresholds, anomalies, and early warnings for metrics on Pages, AJAX calls, and Server Requests. See [Create Alert Rules in *Using Oracle Application Performance Monitoring*](#).

4

Use Out-of-the-Box E-Business Dashboards

You can access the out-of-the-box dashboards for Oracle E-Business Suite from Oracle Management Cloud.

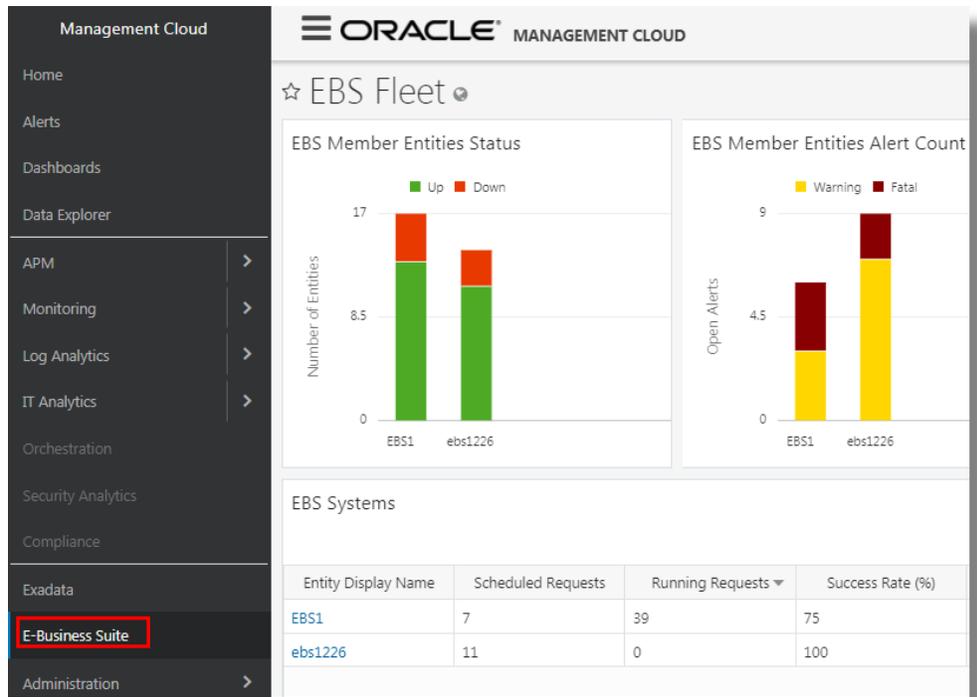
You can create a duplicate of the out-of-the-box dashboard and add more widgets to it or edit it to create your custom dashboard. See *Work with Dashboards in Working with Oracle Management Cloud*.

EBS Fleet

You can view all your Oracle E-Business Suite composite entities, their status, and their alert count by accessing the **EBS Fleet** dashboard.

1. Sign in to the Oracle Management Cloud home page by providing the user name, password, and the tenant name.
2. In the left navigation menu of the Oracle Management Cloud home page, click **E-Business Suite**.

Here's an example **EBS Fleet** dashboard:



In the dashboard, you can view all your Oracle E-Business Suite systems listed in the table along with other details of each composite entity like scheduled requests, running requests, success rate, error rate, warning rate, and the forms sessions. You can also view the status of the member entities and their alert count.

3. In the EBS Fleet page, under **EBS Systems**, click the name of your Oracle E-Business Suite composite entity. The **EBS Monitoring Dashboards** open.

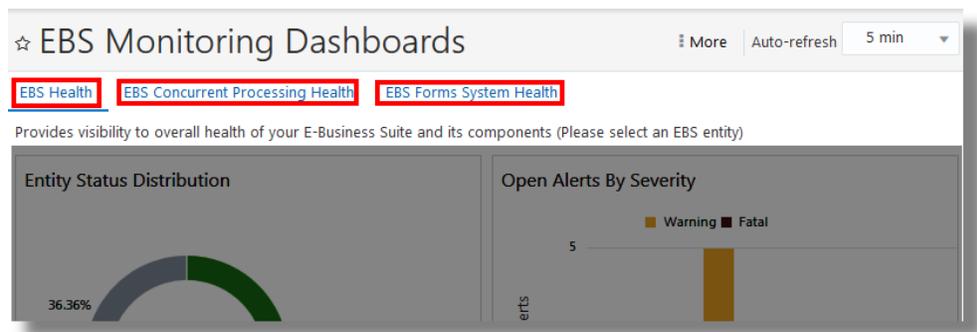
Access the Entity Dashboards

1. Sign in to the Oracle Management Cloud home page by providing the user name, password, and the tenant name.
2. In the Oracle Management Cloud home page, click **Dashboards**. In the Dashboards home page, click **EBS Monitoring Dashboards**. In the entity selector, select the Oracle E-Business Suite composite entity whose health you want to monitor. By selecting the composite entity, you can analyze the health of all those entities that are part of the composite.

Alternatively, from the Oracle Management Cloud Console navigation pane, click **E-Business Suite**. In the EBS Fleet page, under **EBS Systems**, click the name of your Oracle E-Business Suite composite entity. The **EBS Monitoring Dashboards** open.

3. In this dashboard set, you can find the **EBS Health**, **EBS Forms System Health**, and **EBS Concurrent Processing Health** dashboards. Click on the dashboard to view the performance information of the corresponding entity.

The following is an example of the EBS Monitoring Dashboards set:

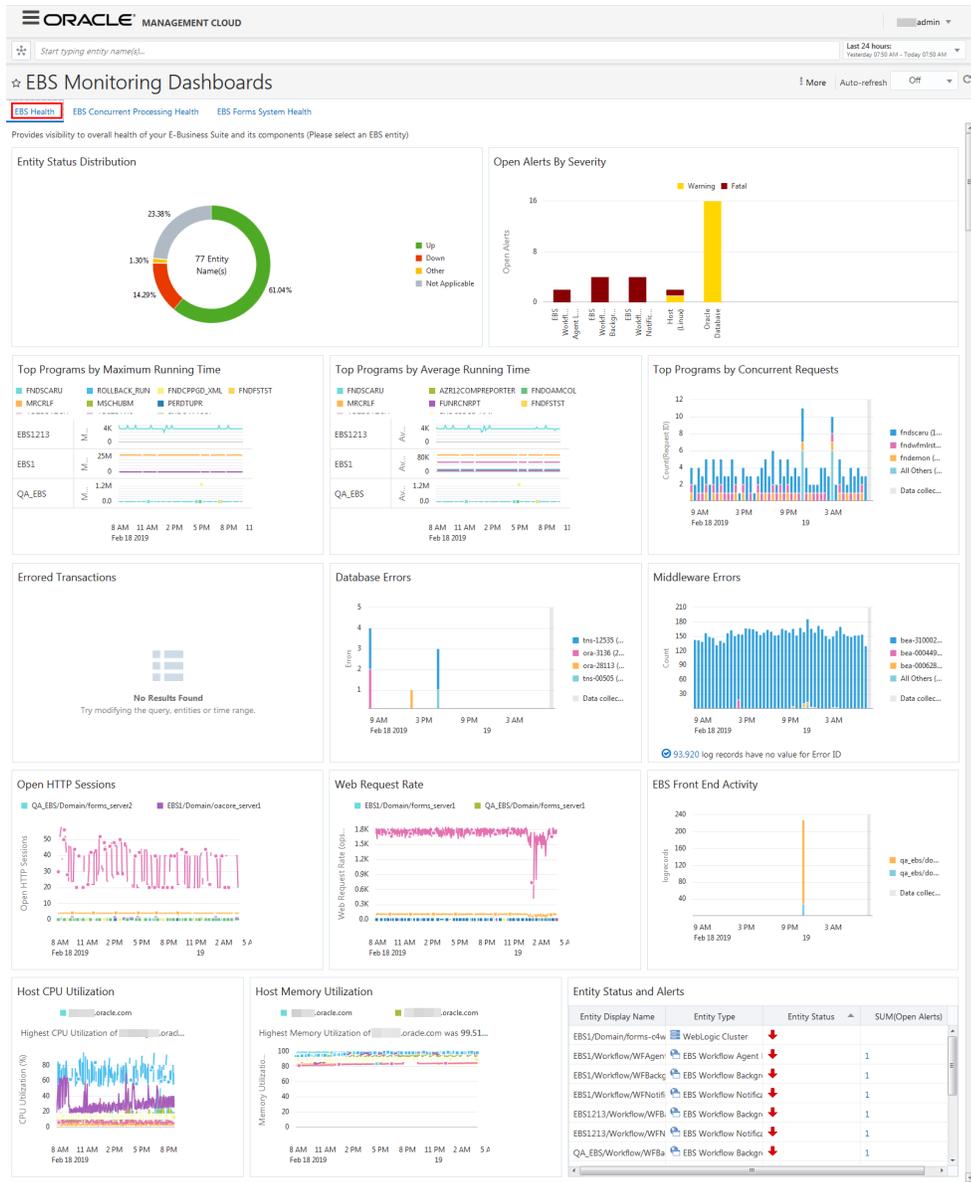


4. The data available in the dashboard depends on the time range you've selected in the time picker at the top right corner of the interface. Select a suitable time range to refine the data displayed.

EBS Health

You can view the overall health of your Oracle E-Business Suite and its components by using the **EBS Health** dashboard.

Here's an example **EBS health** dashboard:



The following widgets are available on the **EBS Health** dashboard:

- **Entity Status Distribution:** Provides a donut distribution of the status of all the entities in your Oracle E-Business Suite.
- **Open Alerts By Severity:** Provides a graph of open alerts that are generated for each entity in your Oracle E-Business Suite, and separates the alerts based on their severity with the use of different colors.
- **Top Programs by Maximum Running Time:** Shows a visual distribution of the top programs that are grouped by the maximum time to execute.
- **Top Programs by Average Running Time:** Shows a visual distribution of the top programs that are grouped by the average running time.
- **Top Programs by Concurrent Requests:** Provides a time based distribution of the top programs that are based on number of requests identified by request ID. This widget collects and displays the log data from *EBS Concurrent Request Logs* log source.

- **Errored Transactions:** Shows a graph of transactions with the number of errors plotted against time. This widget collects and displays the log data from *Oracle EBS Transaction Logs* log source.

Expand the widget from the dashboard to get the *Log Explorer View*. In this view, you can see the fields, **User ID** and **ECID**. You can additionally see the parameter **Session ID** if you've enabled it in the EBS Transaction Logging configuration.
 - If the value of **User ID** is 0, then it suggests that you have only performed transactions which errored out when you used the SYSADMIN account. You can see other values of User ID you use other accounts.
 - **ECID** is available for Oracle E-Business Suite revisions later than 12.2.
- **Database Errors:** Provides a visualization of the number of errors that are plotted against time, by identifying the database errors with the Error ID. The errors are distinguished with the use of different colors. This widget collects and displays the log data from all the log sources associated with the database entity types like *Oracle Database Instance*, *Automatic Storage Management*, *Oracle Database Listener*, and *Oracle Clusterware*.
- **Middleware Errors:** Provides a visualization of the number of errors that are plotted against time, by identifying the middleware errors with the Error ID. The errors are distinguished with the use of different colors. This widget collects and displays the log data from all the log sources associated with the middleware entity types like *Oracle WebLogic Server*, *Oracle Internet Directory*, *Oracle HTTP Server*, *Oracle Access Management Server*, and *Oracle WebLogic Domain*.
- **Host CPU Utilization:** Indicates the percentage of CPU utilization of each host in your Oracle E-Business Suite.
- **Host Memory Utilization:** Indicates the percentage of memory utilization of each host in your Oracle E-Business Suite.
- **Entity Status and Alerts:** Lists the entities in your Oracle E-Business Suite, and provides entity type, status, and alert information of each entity in the tabular format.

From this widget, you can navigate to **EBS Forms System Dashboard** or **EBS Concurrent Processing Dashboard** by hovering the cursor over the **Entity Display Name** > clicking the **View More** icon > clicking the down arrow next to **Open in** list > clicking **Dashboard**.
- **Open HTTP Sessions:** Provides a line chart visualization of the count of open HTTP sessions plotted against time for each server.
- **Web Request Rate:** Provides a line chart visualization of the number of web requests plotted against time for each server.
- **EBS Front End Activity:** Indicates the count of log records collected from the access logs of the each server at a specific point in time.

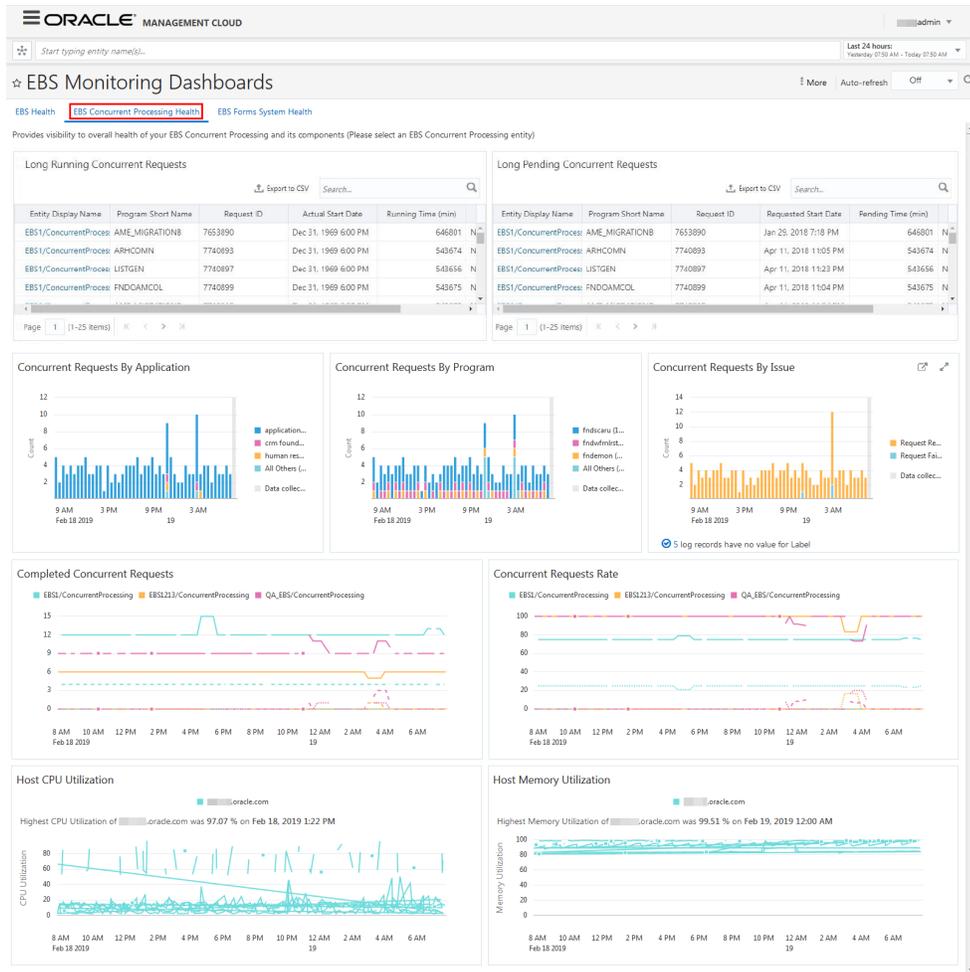
 **Note:**

- Click on the parameters on the right side of the visualizations to view the details of each parameter.
- Some of the widgets have an additional capability of rolling up the entity and time data to view the results in a larger landscape.

EBS Concurrent Processing Health

You can view the overall health of your concurrent processing entities and their components by using the **EBS Concurrent Processing Health** dashboard. Select the concurrent processing composite entity to view the details from the concurrent processing hosts in your Oracle E-Business Suite.

Here's an example **EBS Concurrent Processing Health** dashboard:



The following widgets are available on the **EBS Concurrent Processing Health** dashboard:

- **Latest Long Active Concurrent Requests:** Lists those requests that are not serviced for a long period of time. The table also provide all the other requisite details of the request.

You can select the elapsed time threshold and the maximum elapsed time for this metrics. Navigate to Oracle Management Cloud home page > **Administration** > **Entity Configuration** > **Configure Entities** > Select **EBS Concurrent Processing** entity > In the Conguration Properties dialog box, select **Metrics**. Update the values of the fields **Max Elapsed Time (days) - Long Active Requests** and **Elapsed Time Threshold - Long Active Requests (minutes)**. You can also select to view the metrics earliest-first or

latest-first by specifying **asc** or **desc** respectively in the field **Earliest (asc) / Latest (desc) - Long Active Requests**.

- **Concurrent Requests By Application:** Provides a visualization of the number of application requests processed by the entity, which are plotted over time. The applications are distinguished in the chart with the use of different colors. This widget collects and displays the log data from *EBS Concurrent Request Logs* log source.
- **Concurrent Requests By Program:** Provides a visualization of the number of program requests processed by the entity, which are plotted over time. The programs are distinguished in the chart with the use of different colors. This widget collects and displays the log data from *EBS Concurrent Request Logs* log source.
- **Concurrent Requests By Issue:** Provides a visualization of the number of requests generated due to issues, which are plotted over time. The types of issues are distinguished in the chart with the use of different colors. This widget collects and displays the log data from *EBS Concurrent Request Logs* log source.
- **Completed Concurrent Requests:** Shows a graph of the number of completed concurrent requests completed per hour. The requests are distinguished by their status at completion with the use of different line styles.
- **Concurrent Requests Rate:** Shows the percentage of concurrent requests and the state of the requests.
- **Host CPU Utilization:** Indicates the percentage of CPU utilization of each host in your concurrent processing entity.
- **Host Memory Utilization:** Indicates the percentage of memory utilization of each host in your concurrent processing entity.

 **Note:**

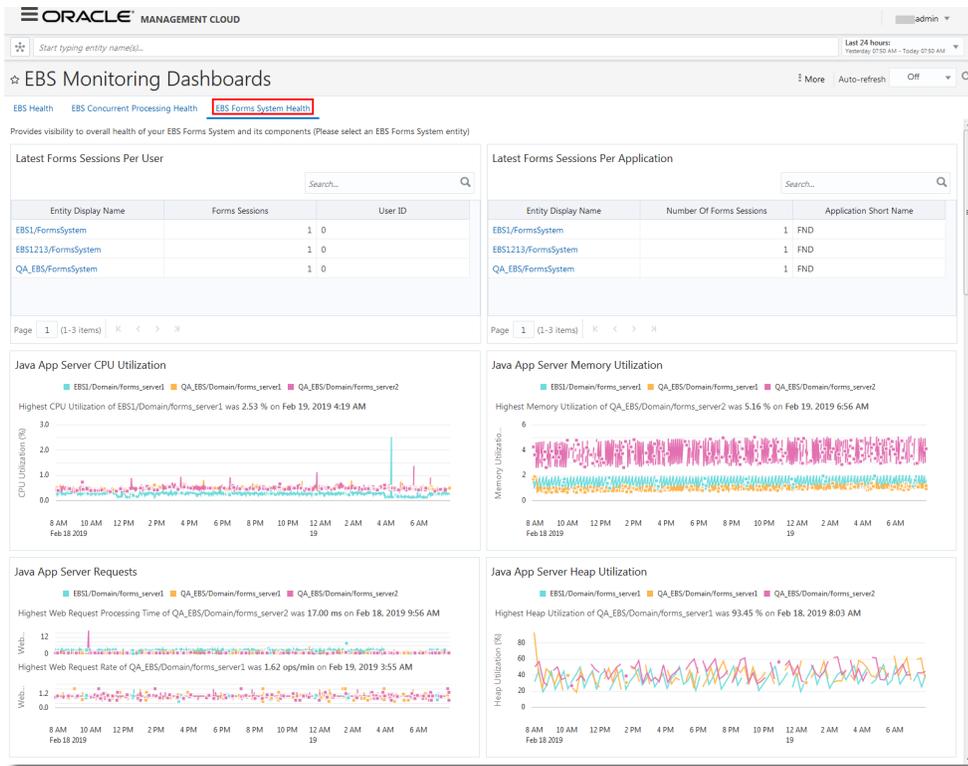
- Click on the parameters on the right side of the visualizations to view the details of each parameter.
- Some of the widgets have an additional capability of rolling up the entity and time data to view the results in a larger landscape.

EBS Forms System Health

You can view the overall health of your Forms System composite entity and its components by using the **EBS Forms System Health** dashboard.

The data for the analysis in this dashboard is obtained from the Oracle WebLogic Server Cluster for Oracle E-Business Suite *Release 12.2*. Select the Forms system composite entity to view the data from right hosts.

Here's an example **EBS Forms System Health** dashboard:



The following widgets are available on the **EBS Forms System Health** dashboard:

- **Forms Sessions Per User:** Displays a chart of the number of forms sessions run per user for all the users.
- **Forms Sessions Per Application:** Displays a chart of the number of forms sessions run per application for all the applications.
- **Java App Server CPU Utilization:** Shows the percentage utilization of the host CPU by the Forms WebLogic Cluster in Oracle E-Business Suite *Release 12.2*.
- **Java App Server Memory Utilization:** Shows the percentage utilization of the host memory by the Forms WebLogic Cluster in Oracle E-Business Suite *Release 12.2*.
- **Java App Server Requests:** Displays a chart of the number of requests handled by the Forms WebLogic Cluster against time in Oracle E-Business Suite *Release 12.2*.
- **Java App Server Heap Utilization:** Shows the percentage utilization of the host heap memory by the Forms WebLogic Cluster Oracle E-Business Suite *Release 12.2*.

To view complete information in the widgets **Forms Sessions Per User** and **Forms Sessions Per Application**, ensure that you've verified the collection of forms sessions data. See [Verify Collection of Forms Sessions Data](#).

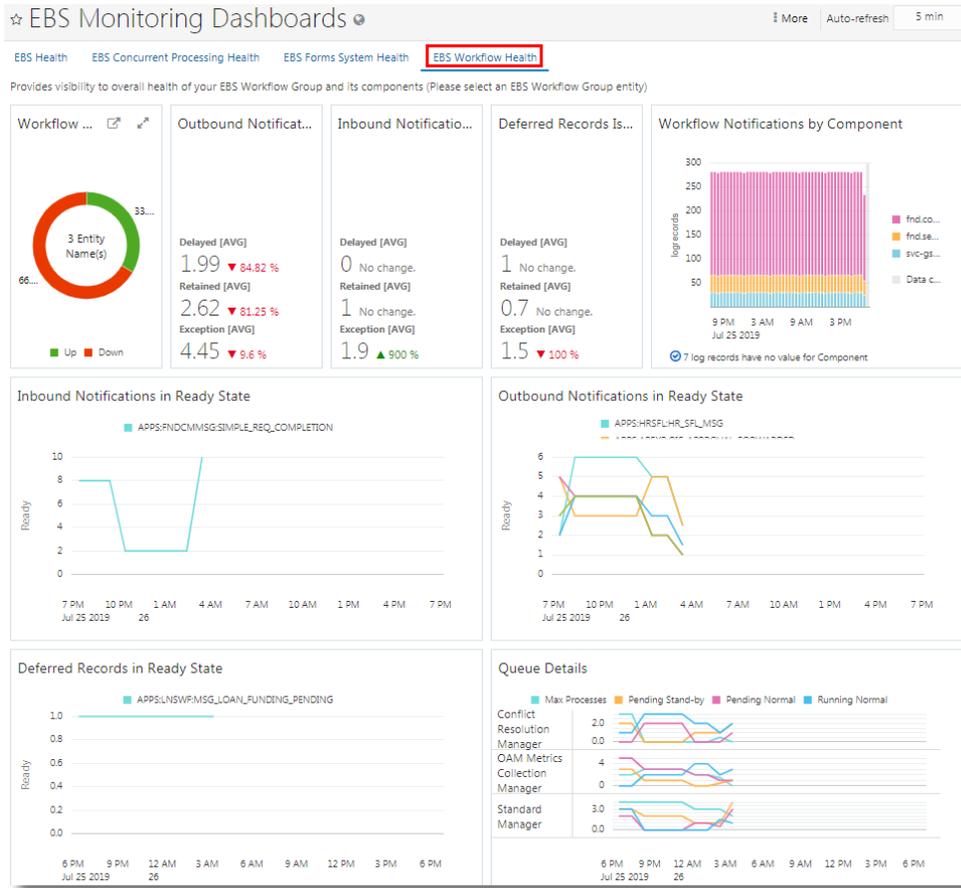
Note:

- Click on the parameters on the right side of the visualizations to view the details of each parameter.
- Some of the widgets have an additional capability of rolling up the entity and time data to view the results in a larger landscape.

EBS Workflow Health

You can view the overall health of your workflow group composite entity and its components by using the **EBSWorkflow Health** dashboard.

Here's an example **EBS Workflow Health** dashboard:



The following widgets are available on the **EBS Workflow Health** dashboard:

- **Workflow Member Entities Status:** Displays the status of the entities in the workflow group.
- **Outbound Notification Issues:** Displays the issues noticed in the outbound notifications like *Delayed*, *Retained*, or *Exception*.
- **Inbound Notification Issues:** Displays the issues noticed in the inbound notifications like *Delayed*, *Retained*, or *Exception*.
- **Deferred Records Issues:** Displays the issues noticed in the deferred records like *Delayed*, *Retained*, or *Exception*.
- **Workflow Notifications by Component:** Summarizes the notifications obtained from the log records, grouped by component.
- **Inbound Notifications in Ready State:** Displays a line graph denoting the number of inbound notifications that are in *ready* state for each component.

- **Outbound Notifications in Ready State:** Displays a line graph denoting the number of outbound notifications that are in *ready* state for each component.
- **Deferred Records in Ready State:** Displays a line graph denoting the number of deferred records that are in *ready* state for each component.
- **Queue Details:** Displays line graphs for all the concurrent queues with the information like *Max Processes*, *Pending Stand-by*, *Pending Normal*, and *Running Normal*.

5

Typical Use Cases

Review some of the scenarios where you can use Oracle Management Cloud to analyze an issue or to get useful data that helps you make decisions in Oracle E-Business Suite.

Topics:

- [Analyze Oracle E-Business Suite Data](#)
- [Proactively Monitor the User Experience](#)
- [Monitor Infrastructure Components of Oracle E-Business Suite](#)
- [Track the Oracle E-Business Suite Transactions](#)

Analyze Oracle E-Business Suite Data

You can analyze Oracle E-Business Suite data using the features of Oracle Infrastructure Monitoring, Oracle Log Analytics, and Oracle Application Performance Monitoring.

Topics:

- [Analyze Data Using Oracle Infrastructure Monitoring](#)
- [Analyze Data Using Oracle Log Analytics](#)
- [Analyze Data Using Oracle Application Performance Monitoring](#)

Analyze Data Using Oracle Infrastructure Monitoring

Oracle Infrastructure Monitoring simplifies monitoring by offering a common set of metrics that enable you to compare the performance across tiers. You can monitor the status and health across tiers and be alerted about issues, troubleshoot, and resolve them before they affect users.

For a typical workflow to use Oracle Infrastructure Monitoring for monitoring the availability and performance of your infrastructure, see *Monitor the Availability and Performance of Your Infrastructure* in *Using Oracle Infrastructure Monitoring*.

Oracle Infrastructure Monitoring has the following metrics for Oracle E-Business Suite:

| Component | Metrics |
|-----------|---|
| EBS | <ul style="list-style-type: none">• Active User Sessions• Active User Sessions By Responsibility• Executions by Program• Requests By Application |

| Component | Metrics |
|---|--|
| EBS Concurrent Processing | <ul style="list-style-type: none"> Capacity Utilization of Concurrent Managers Long Active Concurrent Requests Long Active Concurrent Requests By Manager Users With Most Pending Requests Users With Most Running Requests |
| EBS Forms System | <ul style="list-style-type: none"> Forms Database Sessions Per User Forms Database Sessions Per Application |
| EBS Workflow Notification Mailer | <ul style="list-style-type: none"> Deferred Records Inbound Notifications Outbound Notifications Queue Details |

For the Long Active Concurrent Requests metrics in the EBS Concurrent Processing entity, you can select the elapsed time threshold and the maximum elapsed time. Navigate to Oracle Management Cloud home page > **Administration** > **Entity Configuration** > **Configure Entities** > Select **EBS Concurrent Processing** entity > In the Conguration Properties dialog box, select **Metrics**. Update the values of the fields **Max Elapsed Time (days) - Long Active Requests** and **Elapsed Time Threshold - Long Active Requests (minutes)**. You can also select to view the metrics earliest-first or latest-first by specifying **asc** or **desc** respectively in the field **Earliest (asc) / Latest (desc) - Long Active Requests**.

The Slow Running and Long Pending Requests metrics under Long Active Concurrent Requests metrics are collected every 5 minutes.

Analyze Data Using Oracle Log Analytics

Using Oracle Log Analytics, you can reduce millions of log events into a smaller set of patterns. Oracle Log Analytics provides search and analytics capabilities to users through query language or visual builder to obtain useful information and slice and dice through data. It also provides different mechanisms to be proactive about issues through Machine Learning and Alerting capabilities. The following are the some of the tasks that you can perform on Oracle Log Analytics to analyze your log data:

| Task | More Information |
|---|--|
| Oracle E-Business Suite specific feature: Use out-of-the-box query for EBS Concurrent Requests analysis | Use the Getting Started Panel in <i>Using Oracle Log Analytics</i> |
| Oracle E-Business Suite specific use case: Visualize Time Series Data Using the Link Trend Feature | Visualize Time Series Data Using the Link Trend Feature in <i>Using Oracle Log Analytics</i> |
| Visualize data using charts and controls | Visualize Data Using Charts and Controls in <i>Using Oracle Log Analytics</i> |
| Perform advanced analytics using Link | Perform Advanced Analytics Using Link in <i>Using Oracle Log Analytics</i> |
| Detect anomalies using outliers | Detect Anomalies Using Outliers in <i>Using Oracle Log Analytics</i> |

| Task | More Information |
|---|---|
| Perform dynamic log analysis | Perform Dynamic Log Analysis in <i>Using Oracle Log Analytics</i> |
| Analyze host log trends to proactively monitor infrastructure | <i>Analyzing Host Log Trends to Proactively Monitor Infrastructure</i> ( Tutorial) |

Analyze Data Using Oracle Application Performance Monitoring

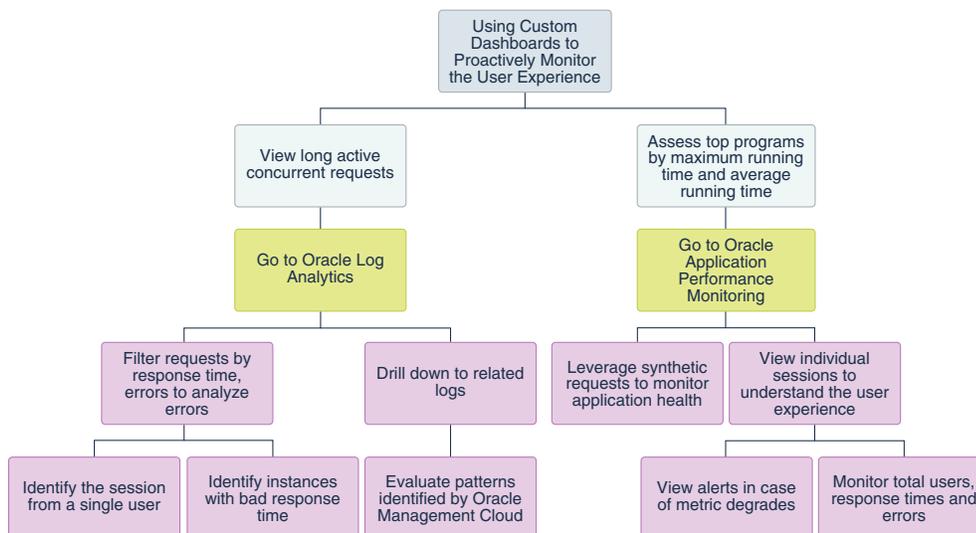
Oracle Application Performance Monitoring provides a platform for monitoring and managing your web applications. The following are the some of the tasks that you can perform on Oracle Application Performance Monitoring to analyze your applications:

| Task | More Information |
|--|---|
| Isolate and diagnose application performance issues | Isolate and Diagnose Application Performance Issues in <i>Using Oracle Application Performance Monitoring</i> |
| Gain end-to-end visibility into the performance of your application across all tiers | Monitor Application Performance in <i>Using Oracle Application Performance Monitoring</i> |
| Troubleshoot end user monitoring | Troubleshoot End User Monitoring in <i>Installing and Configuring Oracle Application Performance Monitoring</i> |
| Troubleshoot synthetic tests | Troubleshoot Synthetic Tests in <i>Using Oracle Application Performance Monitoring</i> |
| Drill down to the related logs in context to a problem and find its root cause | Drill Down to Related Logs in <i>Using Oracle Application Performance Monitoring</i> |

Proactively Monitor the User Experience

You can use the Oracle Management Cloud environment to monitor the user experience on Oracle E-Business Suite. The out-of-the-box dashboards provide an integrated view of the system health, and can be a good place to start your analysis.

The workflow to monitor the user experience:



The following are some of the suggestive methods to pursue the use case:

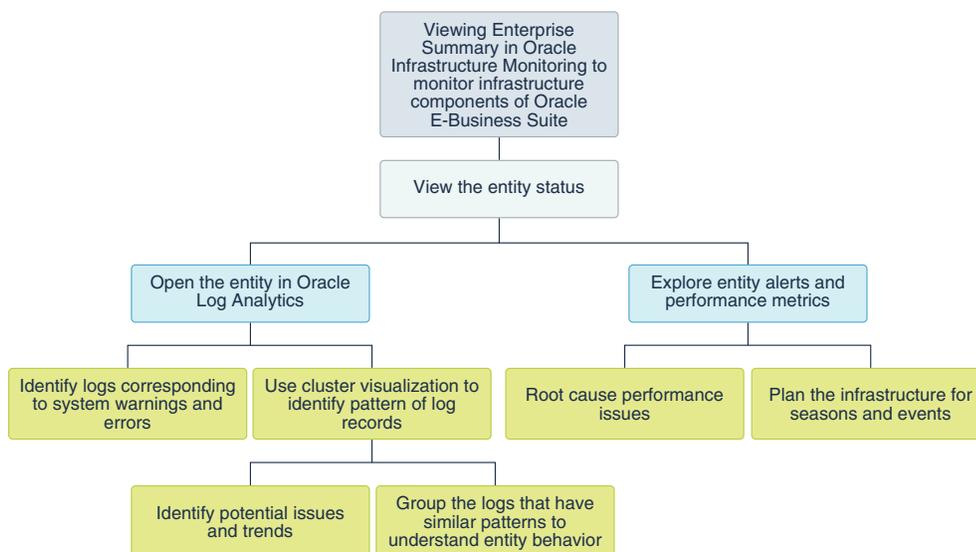
- Understand the user experience by exploring the individual user sessions:
 - Monitor the total number of users, response times, and errors encountered.
 - Receive alerts when any of the Oracle E-Business Suite metrics degrade. You can automate remediation action that must be performed in response to the alert.
- Leverage synthetic requests to monitor application health:
 - Test wide range of pages, transactions, and jobs.
 - Test from different environment options to assess response time.
 - Baseline the response time to obtain interesting analytical results.
- Set up proactive alerts for user response time and transaction completion times.
- Filter requests by useful parameters such as response time and errors:
 - Identify specific instances with bad response time.
 - Identify the session from a single user to understand the system behavior.
- Analyze the delay using Oracle Log Analytics:
 - After you identify the entities that are reporting delayed response or error, drill down to the related logs.
 - Use the analytical capabilities of Oracle Management Cloud to identify problems patterns.
- Use Oracle Management Cloud error tool tips to mitigate the error.

Monitor Infrastructure Components of Oracle E-Business Suite

To maintain the efficiency of your Oracle E-Business Suite infrastructure, monitor your entities' health and performance. Oracle Management Cloud offers out-of-the-box dashboards and metrics to monitor the performance in real-time and also the analytical

capabilities to plan the changes to the infrastructure to scale up or scale down capacity, as required.

The workflow to monitor the infrastructure components:



Oracle Infrastructure Monitoring enables you to setup alerts, investigate alerts, and monitor the availability status and performance of your infrastructure. So, you can start your investigation by viewing the enterprise summary on Oracle Infrastructure Monitoring:

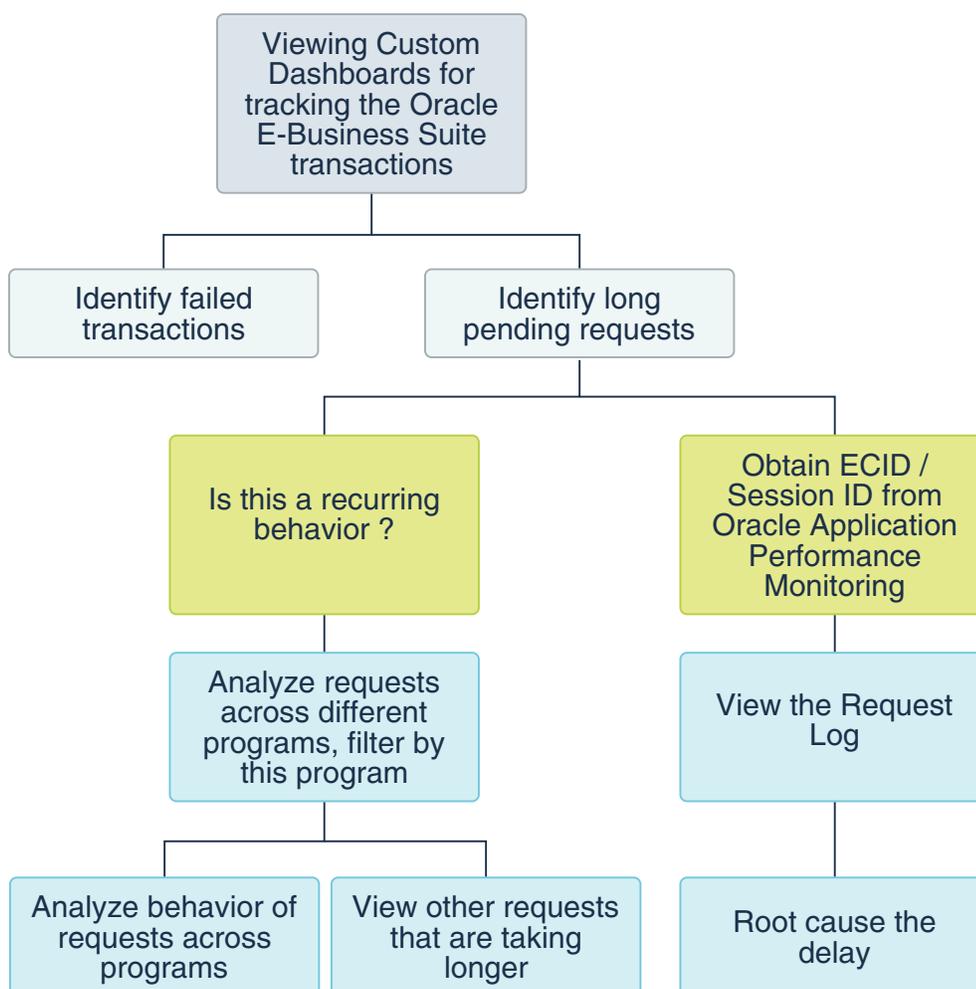
- View entity status:
 - Identify the entities that are not functioning or not responsive.
 - View the alerts that correspond to individual entities and investigate.
- View the performance metrics to identify bottlenecks:
 - Determine the capacity utilization, periodicity of requests, requests status, and response time.
 - View the alerts that are related to performance and analyze the root cause for the issue.
 - Identify the applications with most requests and their capacity utilization.
 - Check if you're seeing an unusually high or low volume of requests.
- Investigate the under-performing entity:
 - View the logs of the entity in cluster to generate patterns.
 - Drill down to the log records that correspond to the errors.
 - Correlate the performance with the programs, the job queue, and analyze the root cause for the issue.
- Plan your infrastructure capacity for seasonal requirements:
 - Use the cluster feature in Oracle Log Analytics to determine potential issues and trends.
 - Based on the current capacity utilization, forecast capacity requirement for the change in volume.

- Determine the application anomalies:
 - Check the error rate of program executions.
 - Check if any of the applications are experiencing slow response times.

Track the Oracle E-Business Suite Transactions

You can track your Oracle E-Business Suite transactions in real-time by using Oracle Management Cloud. The widgets in the out-of-the-box dashboards and the metrics help you to watch the system health parameters and control the performance of the entities.

The workflow to track the transactions:



The following are some of the suggestive investigations that you can perform to pursue the use case:

- Visit the custom dashboards to view the transactions' status:
 - Monitor the customer activity by using the *EBS Front End Activity* widget.

- View *Top Programs by Maximum Running Time*, *Top Programs by Average Running Time*, and *Top Programs by Concurrent Requests* to determine the top programs that are running.
- Catch the errors early and diagnose them:
 - View *Errored Transactions*, and diagnose the errors.
 - Correlate the errors with the requests, and determine the root cause the failure.
 - For failed transactions, identify *Users*, *Concurrent Requests*, and *Database Sessions*.
- Ensure that the overall system performance is optimal:
 - View *Latest Long Active Concurrent Requests* and identify delays in the processing.
 - Obtain the User ID, ECID or Session ID, view the request log, and analyze the root cause for the delay.
To know how to obtain User ID, ECID and Session ID, see [EBS Health](#).
 - For completed transactions, identify completion time anomalies.
- Assess the under-performance of the system for recurrence:
 - Analyze the requests across different programs, and Filter By program.
 - View other requests that are taking longer.
 - Use Log Analytics to obtain the failure pattern.
- Analyze the completed requests by using the request logs in Oracle Management Cloud:
 - Link By Request ID to identify all Request IDs that are spawned in the system.
 - Narrow down to Requests that are running long or taking anomalous time.
 - Drill down and view the complete Concurrent Request Log.