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<td>Links and ExcludeLinks</td>
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- Setting Up Servers
- Creating Partitions
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5 Partition Specific REST API Examples (Deprecated)

- Configuring Users
- Creating Partition-Scoped System Resources
- Deploying Partition-Scoped Applications
- Monitoring Partition Resources
- Starting and Stopping Partition-Scoped Applications
Preface

This preface describes the document accessibility features and conventions used in this guide—*Administering Oracle WebLogic Server with RESTful Management Services*.

**Documentation Accessibility**

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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.

**Conventions**

The following text conventions are used in this document:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>boldface</strong></td>
<td>Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.</td>
</tr>
<tr>
<td><strong>italic</strong></td>
<td>Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.</td>
</tr>
<tr>
<td><strong>monospace</strong></td>
<td>Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.</td>
</tr>
</tbody>
</table>
1

Introduction and Roadmap

This chapter describes the contents and organization of this guide—Administering Oracle WebLogic Server with RESTful Management Services.

- Document Scope and Audience
- Guide to this Document
- Information Roadmap
- New and Changed Features In This Release

Document Scope and Audience

This document describes how to use Oracle WebLogic Server RESTful management interfaces for administration, monitoring, deploying, and configuration tasks which are exposed for developing RESTful clients. The user communities for this documentation are administrators who might use cURL commands to invoke these resources in administration scripts, and software developers who will use this information when writing code, perhaps in Java, perhaps in other languages, that monitors and manages WLS domains.

Guide to this Document

- This chapter, Introduction and Roadmap, describes the organization of this guide.
- About the WLS RESTful Management Interface provides an introduction to the WLS RESTful management interface, useful background and mapping information, and the HTTP status codes returned by WLS REST resources.
- Using the WLS RESTful Management Interface describes how to use the RESTful management services supported by WebLogic Server.
- Domain Level REST API Examples contains example scripts for users in domain level roles that show how to use the WLS REST APIs to perform common domain and partition management and monitoring tasks
- Partition Specific REST API Examples (Deprecated) contains example scripts for users in partition level roles that show how to use the WLS REST APIs to perform common partition management and monitoring tasks.

Information Roadmap

WebLogic Server REST resources are based on WLS bean trees and organized according to their corresponding root resources. See Mapping the WLS Beans to REST.

The REST resources for managing WLS within specified partitions reside in separate manuals (MT reference guides). Each MT manual refers to resources accessible to partition user roles. Each non-MT manual refers to resources accessible to domain user roles. For more information about user roles in WebLogic Server Multitenant, see
Administrative Roles for Configuration and Management in Using Oracle WebLogic Server Multitenant.

**Note:**

WebLogic Server Multitenant domain partitions, resource groups, resource group templates, virtual targets, and Resource Consumption Management are deprecated in WebLogic Server 12.2.1.4.0 and will be removed in the next release.

In the MT reference guides, REST resources:

- Are running in a partition.
- Must be accessed over a partitioned URL by a user defined in that partition's security realm.
- Only can be used to manage that partition.
- Cannot be used to manage all WLS MBeans. Many of the WLS MBeans are not available to partition users.

In the non-MT reference guides, REST resources:

- Run at the domain level (versus in a partition).
- Must be accessed over a non-partitioned URL by a user defined in the domain's default security realm.
- Can be used to manage all partitions.
- Can be used to manage all WLS MBeans.

See **Table 1-1** for a complete listing of the WLS REST reference documents and descriptions of their use.

### Table 1-1  WLS RESTful Management Interface Reference Documentation

<table>
<thead>
<tr>
<th>Book Title</th>
<th>Use These REST Resources To...</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESTful Edit Reference for Oracle WebLogic Server</td>
<td>Edit the WLS configuration.</td>
</tr>
<tr>
<td>RESTful Domain Configuration Reference for Oracle WebLogic Server</td>
<td>View the last activated WLS configuration.</td>
</tr>
<tr>
<td>RESTful Domain Runtime Reference for Oracle WebLogic Server</td>
<td>Monitor the entire WLS domain.</td>
</tr>
<tr>
<td>RESTful Server Configuration Reference for Oracle WebLogic Server</td>
<td>View the WLS configuration that the Administration Server or Managed Server is currently running against.</td>
</tr>
</tbody>
</table>
Table 1-1  (Cont.) WLS RESTful Management Interface Reference Documentation

<table>
<thead>
<tr>
<th>Book Title</th>
<th>Use These REST Resources To...</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESTful Server Runtime Reference for Oracle WebLogic Server</td>
<td>Monitor the Administration Server or a Managed Server. You can monitor a Managed Server either by using the Administration Server's domainRuntime/serverRuntimes/&lt;managedServerName&gt;/... resources or the Managed Server's serverRuntime/... resources.</td>
</tr>
<tr>
<td>RESTful Edit Reference for Oracle WebLogic Server MT (Deprecated)</td>
<td>Edit the WLS configuration in the specified domain partition.</td>
</tr>
<tr>
<td>RESTful Domain Configuration Reference for Oracle WebLogic Server MT (Deprecated)</td>
<td>View the last activated WLS configuration in the specified domain partition.</td>
</tr>
<tr>
<td>RESTful Domain Runtime Reference for Oracle WebLogic Server MT (Deprecated)</td>
<td>Monitor the specified WLS domain partition.</td>
</tr>
<tr>
<td>RESTful Server Configuration Reference for Oracle WebLogic Server MT (Deprecated)</td>
<td>View the WLS configuration that the Administration Server is currently running against in the specified domain partition.</td>
</tr>
<tr>
<td>RESTful Server Runtime Reference for Oracle WebLogic Server MT (Deprecated)</td>
<td>Monitor the Administration Server in the specified domain partition.</td>
</tr>
<tr>
<td>RESTful Lifecycle Reference for Oracle WebLogic Server</td>
<td>Use WLS life cycle management REST resources.</td>
</tr>
</tbody>
</table>

New and Changed Features In This Release

For a comprehensive listing of all the new WebLogic Server features introduced in this release, see *What's New in Oracle WebLogic Server*. 
About the WLS RESTful Management Interface

Learn about the WebLogic Server RESTful management interface, and how the WLS MBeans are mapped to the REST interfaces.

This chapter describes the RESTful management services supported by WebLogic Server.

- Introduction to the WLS RESTful Management Interface
- Mapping the WLS Beans to REST

Introduction to the WLS RESTful Management Interface

The WebLogic Server RESTful management interface provides comprehensive support for WebLogic Server administration through the dynamic generation of REST resources based on WLS MBeans and descriptor interfaces. There are resources to support the configuration and monitoring of partitioned and non-partitioned environments, life cycle management (LCM) resources, and legacy resources from 12.1.3.

Note:

WebLogic Server Multitenant domain partitions, resource groups, resource group templates, virtual targets, and Resource Consumption Management are deprecated in WebLogic Server 12.2.1.4.0 and will be removed in the next release.

For a guide to the WLS REST reference documentation, see the Information Roadmap.
**Note:**

In WebLogic Server 12.2.1.4.0:

- All prior versions are now deprecated: 12.2.1.0, 12.2.1.0.0, 12.2.1.1.0, 12.2.1.2.0 and 12.2.1.3.0
- 12.2.1.4.0: this is the latest version

To summarize the changes in this release:

- All prior versions have been deprecated and you should use the 12.2.1.4.0 REST resources instead
- The latest version has changed from 12.2.1.3.0 to 12.2.1.4.0
- All new MBean features added in 12.2.1.4.0 will show up in 12.2.1.1.0, 12.2.1.2.0 and 12.2.1.3.0, also
- Any MBean features that were deprecated in 12.2.1.4.0, will still be available using the 12.2.1.1.0, 12.2.1.2.0 and 12.2.1.3.0 REST URLs, but not the 12.2.1.4.0 REST URLs

### Generated REST API for WLS Bean Trees

WLS beans are used extensively by WLS components to manage configuration settings and to monitor and manage running servers.

The WLS beans are derived from Java interfaces. At runtime, WLS constructs internal trees of Java beans that can be used to configure and monitor the system. In prior releases, the bean trees were only exposed via JMX, WLST, and configuration files (for example, `config.xml`).

In this release, WLS dynamically generates REST resources, incrementally and on-demand at runtime, by using the bean trees and bean infos. These REST resources provide an alternative for managing WLS.

### WLS Bean Tree Overview

The following sections provide background information about WLS beans which provide the foundation for the REST interfaces.

There are two main bean types:

- **Configuration**—used to configure WLS.
- **Runtime**—used to monitor WLS and for some operations, control WLS (for example, starting and stopping servers, shrinking data source connection pools).

WLS provides the following bean trees:

- **Edit access**—only available on the Administration Server, used to modify the configuration (for example, `config.xml` and system resource files).
- **Runtime access**—available on every server, used to view that server's configuration and to access its monitoring data.
• Domain access—only available on the Administration Server, contains copies of the runtime beans of all of the running servers, provides a single point of access for monitoring, is also used to view the most current configuration that has been persisted.

For more information about WLS MBeans, see Understanding WebLogic Server MBeans in *Developing Custom Management Utilities Using JMX for Oracle WebLogic Server*.

WebLogic Scripting Tool (WLST) presents the bean trees as follows:

- **edit**—matches the underlying edit access bean tree.
- **domainConfig**—the configuration MBean half of the domain access bean tree (such as, the last persisted configuration).
- **domainRuntime**—the runtime MBean half of the domain access bean tree (such as, for monitoring all servers).
- **serverConfig**—the configuration MBean half of the runtime access bean tree (such as, the configuration the server is using).
- **serverRuntime**—the runtime MBean half of the runtime access bean tree (such as, for monitoring a specific server).

The REST resources parallel the MBean trees presentation in WLST: edit, domainConfig, domainRuntime, serverConfig, and serverRuntime.

Within the WLS bean trees, there are several types of parent/child (containment) relationships:

- Writable collections—for example, a domain bean has a collection of server beans.
- Mandatory singletons—for example, a server bean always has an SSL bean which is automatically created and cannot be deleted.
- Optional singletons—for example, an overload protection bean can optionally have a server failure trigger bean.

Beans can include properties (generally scalars, strings, and arrays), references to other beans, and operations (for example, to start a server).

With regard to contained collections:

- Each child has a unique identity within the collection (for example, each network channel has a name that’s unique within its server).
- Most collections are homogeneous (for example, a domain’s applications) though a few are heterogeneous (for example, a security realm’s authentication providers).

## Mapping the WLS Beans to REST

Learn how WLS beans are mapped to the REST interfaces.

### General REST Patterns

Almost all of the WLS beans (a homogeneous collection of children, a mandatory singleton child, and an optional homogenous singleton child) use the following REST patterns:
<table>
<thead>
<tr>
<th>WLS Beans/REST Resource</th>
<th>REST Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collections: collection resource</td>
<td>GET</td>
<td>Returns the collection.</td>
</tr>
<tr>
<td></td>
<td>POST</td>
<td>Creates a new item in the collection.</td>
</tr>
<tr>
<td>Collections: create form resource</td>
<td>GET</td>
<td>Returns a pre-populated entity.</td>
</tr>
<tr>
<td>Collections: child resource</td>
<td>GET</td>
<td>Returns an item in the collection.</td>
</tr>
<tr>
<td></td>
<td>POST</td>
<td>Updates an item in the collection.</td>
</tr>
<tr>
<td></td>
<td>DELETE</td>
<td>Removes an item from the collection.</td>
</tr>
<tr>
<td>Singletons: singleton resource</td>
<td>GET</td>
<td>Returns the singleton.</td>
</tr>
<tr>
<td></td>
<td>POST</td>
<td>Updates the singleton if it exists; creates it if it doesn't.</td>
</tr>
<tr>
<td></td>
<td>DELETE</td>
<td>Removes the singleton.</td>
</tr>
<tr>
<td>Operations: action resource</td>
<td>POST</td>
<td>Invokes the operation.</td>
</tr>
</tbody>
</table>

**About the Root Resources**

The Administration Server and each running Managed Server hosts a REST web application that runs on each server's administrative port. The context root for each is `management`. The root REST resources mimic the bean trees in WLST.

Table 2-1 describes the root resources on the Administration Server and lists the corresponding bean tree.

**Table 2-1 Administration Server Root Resources**

<table>
<thead>
<tr>
<th>URL</th>
<th>Description</th>
<th>Corresponding Bean Tree</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>management/weblogic/&lt;version&gt;/edit</code></td>
<td>Edits the WLS configuration.</td>
<td>Administration Server's edit tree domain bean</td>
</tr>
<tr>
<td><code>management/weblogic/&lt;version&gt;/serverConfig</code></td>
<td>Views the WLS configuration that the Administration Server is currently running against.</td>
<td>Administration Server's server runtime tree domain bean</td>
</tr>
<tr>
<td><code>management/weblogic/&lt;version&gt;/serverRuntime</code></td>
<td>Monitors the Administration Server.</td>
<td>Administration Server's server runtime tree server runtime bean</td>
</tr>
<tr>
<td><code>management/weblogic/&lt;version&gt;/domainConfig</code></td>
<td>Views the last activated WLS configuration.</td>
<td>Administration Server's domain runtime tree domain bean</td>
</tr>
<tr>
<td><code>management/weblogic/&lt;version&gt;/domainRuntime</code></td>
<td>Monitors the entire WLS domain.</td>
<td>Administration Server's domain runtime tree domain runtime bean</td>
</tr>
<tr>
<td><code>management/weblogic/&lt;version&gt;/domainRuntime/serverRuntimes</code></td>
<td>Monitors all the running servers in the WLS domain via the Administration Server.</td>
<td>Each running server's server runtime tree server runtime bean</td>
</tr>
</tbody>
</table>
Table 2-1  (Cont.) Administration Server Root Resources

<table>
<thead>
<tr>
<th>URL</th>
<th>Description</th>
<th>Corresponding Bean Tree</th>
</tr>
</thead>
<tbody>
<tr>
<td>management/weblogic/</td>
<td>Monitors a specific running server in the WLS domain via the</td>
<td>The specified server's server runtime tree server runtime bean</td>
</tr>
<tr>
<td>&lt;version&gt;/domainRuntime/</td>
<td>Administration Server.</td>
<td></td>
</tr>
<tr>
<td>serverRuntimes/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;servername&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>management/lifecycle</td>
<td>Life cycle management (LCM) REST resources.</td>
<td>n/a</td>
</tr>
<tr>
<td>management/wls</td>
<td>12.1.3 (legacy) WLS REST resources.</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Table 2-2 describes the root resources on Managed Servers.

Table 2-2 Managed Server Root Resources

<table>
<thead>
<tr>
<th>URL</th>
<th>Description</th>
<th>Corresponding Bean Tree</th>
</tr>
</thead>
<tbody>
<tr>
<td>management/weblogic/</td>
<td>Views the WLS configuration that a Managed Server is currently running</td>
<td>Managed Server's server runtime tree domain bean</td>
</tr>
<tr>
<td>&lt;version&gt;/serverConfig</td>
<td>against.</td>
<td></td>
</tr>
<tr>
<td>management/weblogic/</td>
<td>Monitors that Managed Server.</td>
<td>Managed Server's server runtime tree server runtime bean</td>
</tr>
<tr>
<td>&lt;version&gt;/serverRuntime</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The URLs on Managed Servers are exactly like the ones on the Administration Server, except that the host and port are different.

For example, to view the Administration Server's server runtime:

```bash
curl ... -X GET http://adminHost:7001/management/weblogic/latest/serverRuntime
```

To view a Managed Server's server runtime:

```bash
curl ... -X GET http://managed1Host:7002/management/weblogic/latest/serverRuntime
```

Naming Conventions

WLS bean property names are mapped to names in the REST URLs and JSON object properties. WLS property names usually start with an upper case letter (for example, Domain, JDBCDataSource, ServerRuntime) whereas the REST naming conventions use camel case, lower then upper case letters (for example, domain, JDBCDataSource, serverRuntime).

Mapping the REST URLs

Each WLS bean is mapped to a separate REST resource. Contained collections and operations are also mapped to separate resources. All WLS beans are either root
resources (for example, the domain), contained collection children (for example, servers) or contained singleton children (for example, a server's SSL configuration).

The URLs for the root resources are listed in Table 2-1 and Table 2-2.

Each contained collection bean property maps to a URL for the entire collection as well as a URL for each child. For example:

<table>
<thead>
<tr>
<th>URL</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;parent&gt;/&lt;collectionPropertyName&gt;</td>
<td>Manages the entire collection.</td>
<td>.../edit/servers</td>
</tr>
<tr>
<td>&lt;parent&gt;/&lt;collectionPropertyName&gt;/&lt;childName&gt;</td>
<td>Manages a child in the collection.</td>
<td>.../edit/servers/Server-0</td>
</tr>
</tbody>
</table>

Similarly, each contained singleton bean property maps to its own URL. For example, a server's SSL bean maps to .../edit/servers/<servername>/SSL.

If a contained bean property is creatable (for example, you can add a new server to the domain's servers collection, or you can create an RDBMSSecurityStore for the domain), then create form resources are also provided which return a template JSON object with default values to help you create the new resource. The general procedure is that you GET the create form, fill in the values, then POST it back to create the new resource. If any fields are not filled in, they retain their current values. The URLs of the create form resources are <parent>/<singlularCollectionPropertyName>CreateForm, for example:

- .../edit/serverCreateForm
- .../edit/securityConfiguration/realms/myrealm/RDBMSSecurityStoreCreateForm

Each bean operation maps to its own URL. For example, .../domainRuntime/serverRuntimes/<servername>/shutdown is used to shut down a specific server.

Most of the WLS bean operations are used to create, delete, list, and find contained beans. These operations are handled separately in REST (versus exposed as REST operation URLs). They are described in Using the WLS RESTful Management Interface.

### JSON Mappings

REST maps the various Java types that the WLS beans use (for example, their properties, operation arguments and return types) to JSON.

#### Strings and Scalars

Java strings and scalars are mapped to their JSON equivalent.

<table>
<thead>
<tr>
<th>Java</th>
<th>JSON</th>
<th>Example (Java to JSON)</th>
</tr>
</thead>
<tbody>
<tr>
<td>java.lang.String</td>
<td>string or null</td>
<td>&quot;Foo&quot; -&gt; &quot;Foo&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>null -&gt; null</td>
</tr>
</tbody>
</table>

Chapter 2

Mapping the WLS Beans to REST
### Arrays

Non-null Java arrays are mapped to JSON arrays. Null Java arrays are mapped to a JSON null.

### Identities

Each WLS bean is uniquely identified within its bean tree by the trailing part of its URL, after the version specifier. For example, `edit/machines/Machine-0`.

This identity is mapped to a JSON string array, with one string for each path segment past the root resource of the tree, for example:

```
[ "machines", "Machine-0" ]
```

### WLS Bean References

Some WLS bean properties contain references to other WLS beans (versus a containment relationship). The same is true for operation arguments and return types. For example, a Server bean has a reference to a Machine bean, and a Deployment bean has a reference to an array of Target beans.

Singleton references (for example, a server's machine) map to a property whose value is the identity of the referenced bean, as well as a link, for example:

```
{
  machine: [ "domain", "machines", "Machine-0" ],
  links: [
  ]
}
```

Collections of references (for example, a server's candidate machines) map to an array property where each element is an object containing the referenced bean's identity as well as a link to the bean, for example:

<table>
<thead>
<tr>
<th>Java</th>
<th>JSON</th>
<th>Example (Java to JSON)</th>
</tr>
</thead>
<tbody>
<tr>
<td>char, java.lang.Character</td>
<td>string</td>
<td>'a' -&gt; &quot;a&quot;</td>
</tr>
<tr>
<td>int</td>
<td>number</td>
<td>7001 -&gt; 7001</td>
</tr>
<tr>
<td>long</td>
<td>number</td>
<td>1.23 -&gt; 1.23</td>
</tr>
<tr>
<td>boolean</td>
<td>boolean</td>
<td>true -&gt; true</td>
</tr>
</tbody>
</table>

Arrays

Non-null Java arrays are mapped to JSON arrays. Null Java arrays are mapped to a JSON null.

Identities

Each WLS bean is uniquely identified within its bean tree by the trailing part of its URL, after the version specifier. For example, `edit/machines/Machine-0`.

This identity is mapped to a JSON string array, with one string for each path segment past the root resource of the tree, for example:

```
[ "machines", "Machine-0" ]
```

WLS Bean References

Some WLS bean properties contain references to other WLS beans (versus a containment relationship). The same is true for operation arguments and return types. For example, a Server bean has a reference to a Machine bean, and a Deployment bean has a reference to an array of Target beans.

Singleton references (for example, a server's machine) map to a property whose value is the identity of the referenced bean, as well as a link, for example:

```
{
  machine: [ "domain", "machines", "Machine-0" ],
  links: [
  ]
}
```

Collections of references (for example, a server's candidate machines) map to an array property where each element is an object containing the referenced bean's identity as well as a link to the bean, for example:
A null reference or null reference collection is mapped to a JSON null.

`java.util.Properties`

`java.util.Properties` holds lists of properties, for example, a `CommonLogMBeanLoggerSeverityProperties` property. It is mapped to a JSON object, with a matching string property for each property in the set of properties, for example:

```
{
    "property1": "value1",
    "property2": "value2"
}
```

Null `java.util.Properties` are mapped to a JSON null.

**Encrypted Properties**

Some WLS bean string properties are encrypted because they hold sensitive data like passwords. While clients must be able to set passwords (this is done by passing them in as cleartext strings), other users are not allowed to view them but they might want to know whether the password has a value (versus null, is not set).

The mapping is different for inbound versus outbound encrypted properties.

For outbound encrypted properties, if the password is null, it is mapped to a JSON null. If not, then it is mapped to the JSON string `@Oracle_Confidential_Property_Set_V1.1#`.

For inbound encrypted properties, you would typically perform a `GET` to get the current value of a resource, set the values for the properties that should be changed, leaving the others with their current values, then `POST` the new value back. Therefore, if the value in the `POST` is `@Oracle_Confidential_Property_Set_V1.1#`, then the property is not changed (it retains the old property value). Otherwise, the value is changed to the cleartext string value in the `POST`.

**Returning Error Messages**

Resources use the following formats for returning error messages.

**Error Messages with One Error String**

If a resource returns one error string, it uses this format:
HTTP/1.1 400 Bad Request
{
  type: "http://oracle/TBD/WlsRestMessageSchema",
  title: "FAILURE",
  detail: "Bean already exists: \\
  \"weblogic.management.configuration.ServerMBeanImpl@31fa1656([mydomain]/
  Servers[Server-1])\"",
  status: 400
}

**Error Messages with More Than One Error String**

If a resource returns more than one error string, it uses this format:

HTTP/1.1 400 Bad Request
{
  type: "http://oracle/TBD/WlsRestMessagesSchema",
  title: "ERRORS",
  status: 400,
  wls:errorsDetails: [ 
    {
      type: "http://oracle/TBD/WlsRestMessageSchema",
      title: "FAILURE",
      detail: "no-such-protocol is not a legal value for DefaultProtocol.\n      The value must be one of the following: [t3, t3s, http, https, iiop, iiops]",
      o:errorPath: "defaultProtocol"
    },
    {
      type: "http://oracle/TBD/WlsRestMessageSchema",
      title: "FAILURE",
      detail: "Type mismatch. Cannot convert abc to int",
      o:errorPath: "listenPort"
    }
  ]
}
Using the WLS RESTful Management Interface

Learn how to use the RESTful management services supported by WebLogic Server. For example scripts that show how to use the WLS REST APIs to perform common domain and partition management and monitoring tasks, see Domain Level REST API Examples and Partition Specific REST API Examples (Deprecated).

Note:
WebLogic Server Multitenant domain partitions, resource groups, resource group templates, virtual targets, and Resource Consumption Management are deprecated in WebLogic Server 12.2.1.4.0 and will be removed in the next release.

This chapter includes the following sections:

- Accessing REST Resources
- Viewing WLS Beans
- Viewing Collections of Contains Beans
- Retrieving Create Forms
- Filtering Results
- Modifying the WLS Configuration
- Using Multiple Edit Sessions
- Creating WLS Configuration Beans
- Managing Whether a Property Is Set
- Invoking Operations
- Using Queries
- About Synchronous and Asynchronous Operations
- Deploying Applications and Libraries

Accessing REST Resources

Each REST resource method documents which user roles can access it: Admin, Deployer, Operator, Monitor.

In general:

- You must be in the Admin, Deployer, Operator, or Monitor role to read resources (use the GET method).
• You must be in the Admin role to write resources (use the POST and DELETE methods) or to invoke operations (using POST).
• However, with certain resources, a Deployer can deploy and undeploy applications and libraries, and an Operator can start a server.

If the user is a domain user (for example, defined in the domain's default security realm), the URL to access REST resources starts with http://host:port/management. If the user is a partition user (for example, defined in that partition's security realm), the URL to access REST resources starts with http://host:port/partition_name/management.

For more information about user roles in WebLogic Server Multitenant, see Administrative Roles for Configuration and Management in Using Oracle WebLogic Server Multitenant.

Viewing WLS Beans

To view a WLS bean, invoke the HTTP GET method on its corresponding REST URL.

For example, to get the configuration for the server, Server-0:


GET returns a standard WLS REST response body. It returns a JSON object containing the bean’s properties and a links property, a JSON array containing links to related resources.

About WLS Bean Properties

The returned JSON object contains the WLS bean’s properties (for example, typical properties and references, but not children), using the standard Java to JSON mappings (see JSON Mappings). It also includes an identity property that specifies the bean’s identity. For example:

```json
{
    identity: [ "domain", "servers", "Server-0" ],
    name: 'Server-0',
    listenPort: 7001,
    machine: { identity: [ "domain", "machines", "Machine-0" ] }
}
```

Self and Canonical Links

All resources include a self and a canonical top level link that refer to the resource. For example, a server contains self and canonical links that refer to the specified server:

```json
{
    links: [
    ]
}
```
The cross-references of these links refer to that REST resource also, therefore, include the name of the tree in which the resource is a child, for example, edit, domainRuntime, serverConfiguration, and such.

Parent Links

All resources, except for root resources, include a top level link to their parent resource. The link's rel property is set to parent.

Collection children return links to the collection resource, for example, a server returns a link to the server's collection resource:

```json
{
  links: [
  ]
}
```

Similarly, singleton children return links to their parent resource, for example, an SSL bean returns a link to the server bean:

```json
{
  links: [
  ]
}
```

Self Create Form Links

If a bean is a creatable, optional singleton (for example, a realm's RDBMSSecurityStore), and the bean currently does not exist, then a link to its corresponding create form resource is also returned. The link's rel property is set to create. For example, calling GET on a security realm's adjudicator also returns:

```json
{
  links: [
    { rel: "create",
    }
  ]
}
```

Child Bean Links

Since a WLS bean's containment properties (for example, children) are mapped to separate REST resources, they are returned as top level links in the JSON response body.

Each link's rel property is mapped to the bean property's name. For example, calling GET on Server-0 returns:

```json
{
  links: [ // mandatory singleton child:
  ]
}
Child Create Form Links

Links to create form resources are returned for creatable containment properties (singletons and collections). The link's rel property is set to <singularPropertyName>CreateForm. For example, calling GET on Server-0 also returns:

```json
{
  links: [
    {
      rel: "networkAccessPointCreateForm",
    }
  ]
}
```

Singleton Bean Reference Links

WLS beans return top level links for each non-null singleton reference. The link's rel property is set to the name of the reference property. For example, if Server-0 refers to Machine-0:

```json
{
  machine: [ "machines", "Machine-0" ],
  links: [
    {
      rel: "machine",
    }
  ]
}
```

If Server-0 has no machine reference:

```json
{
  machine: null
}
```

Bean Reference Collection Links

WLS beans return nested links for each reference in a reference collection. The link's rel property is set to self.

For example, if Application-0 refers to the targets Server-0 and Cluster-0:
{  
  targets: [  
    
    identity: ["clusters", "Cluster-0" ],  
  ],  
  identity: ["servers", "Server-0" ],  
}  

Operation Links

Resources also return top level links to their operation resources. The links' rel properties are set to action and the links' titles are set to the name of the operation. For example, a ServerRuntimeMBean returns:

{  
  links: [  
    
    rel: "action",  
    title: "suspend",  
  ],  
  
  rel: "action",  
  title: "resume",  
  ],  
  
  rel: "action",  
  title: "shutdown",  
  ]  
}  

Viewing Collections of Contains Beans

To view a collection of WLS beans, invoke the HTTP GET method on its corresponding REST URL.

For example, to get the configuration of all the servers:


GET returns a standard WLS REST response body. items contains the children's properties. Each item has embedded self and canonical links to that child's resource.

Only the immediate children are returned. For example, if you get the servers collection, each server's properties will be returned, but the server's children (such as SSL) are not returned.
About Collection items

The resource returns a JSON object for each child in the collection. These objects contain the same data as the items returned from calling GET on the children's resources. For example, getting the domain bean's servers collection returns:

```javascript
{
  items: [
    { name: "Server-1", listenPort: 7001, ... },
    { name: "Server-2", listenPort: 7003, } ...
  ]
}
```

About Collection Links

A collection resource returns the following links:

- **self** and **canonical** links to itself.
- A link to its parent.
- A link to its corresponding create form resource if the collection is writable.
- Nested **self** and **canonical** links to each of its children.

For example, getting the domain bean's servers collection returns:

```javascript
{
  items: [
    {
      name: "Server-1",
      listenPort: 7001,
      links: [
      ]
    },
    {
      name: "Server-2",
      listenPort: 7005,
      links: [
      ]
    }
  ]
}
```
Retrieving Create Forms

To retrieve a create form for creating a new resource, invoke the HTTP GET method on its corresponding create form REST URL.

For example, to retrieve a create form for creating a new server:

```
GET http://localhost:7001/management/weblogic/latest/edit/serverCreateForm
```

GET returns a standard WLS REST response body. It returns a JSON object containing the create form's properties and a `links` property which is a JSON array containing links to related resources.

About Create Form Properties

The returned JSON object contains a property for each writable property (normal properties and references) that may be specified when creating a new resource of that type. The property's value will either be the default value from the type's bean info (if available), or the default value for the property's type (for example, 0 for an int). The values for reference properties are always null. For example, getting the domain's `serverCreateForm` returns:

```
{
    name: null, // identity - unique names are not generated
    idleConnectionTimeout: 65, // from the default value in the bean info
    replicationGroup: null, // default value for a String since the bean info does not provide a default value
    machine: null, // singleton reference
    candidateMachines: null, // reference collection
    ...
}
```

About Create Form Links

A create form returns the following links:

- **self** and canonical links to itself.
- A link to its parent.
- A **create** link to the corresponding resource that can be used to create a resource of this type.

For example, getting the domain bean's `serverCreateForm` returns:

```
{
    links: [
    ]
}
```
Filtering Results

Bean, collection, and create form resource GET methods support these query parameters to let you omit properties and links from the response.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fields</td>
<td>Only return these properties.</td>
</tr>
<tr>
<td>excludeFields</td>
<td>Return all properties except for these properties.</td>
</tr>
<tr>
<td>links</td>
<td>Only return links with these rel names.</td>
</tr>
<tr>
<td>excludeLinks</td>
<td>Return all links except for the ones with these rel names.</td>
</tr>
</tbody>
</table>

When using `fields` and `excludeFields` or `links` and `excludeLinks`, their values are comma-separated lists of names.

For example, to only retrieve a server’s self and parent links, and name and listenPort properties:

```bash
curl ... -X GET http://localhost:7001/management/weblogic/latest/edit/servers/myserver\n   ?fields=name,listenPort\&links=self,parent
```

```json
{
  links: [
  ],
  name: "myserver",
  listenPort: 7001
}
```

Modifying the WLS Configuration

You can create, modify and delete beans in the edit tree only (.../management/weblogic/<version>/edit/...). The other bean trees are read-only.

All WLS bean edits must be performed within a configuration transaction:

- If you already have started a transaction, the REST changes will be made in the same transaction. You will still be responsible for committing or rolling back the transaction.
- If you have not started a transaction, the REST resource will begin a transaction on your behalf, try to make the changes, and either commit or roll back the transaction depending on whether the changes could be made (auto-transactions).
- If someone else already has started a transaction, the REST resource will return an error (instead of modifying the configuration).

Sometimes a configuration transaction cannot be committed unless complementary changes to multiple beans are made in the same transaction. In these cases, you need to begin and end the transaction explicitly versus relying on auto-transactions.
Also, when the client manages the transaction, each REST call saves the changes (but does not activate them). There is some MBean validation that occurs during the save operation which might cause it to fail. For example, when you create a JDBC system resource, the changes cannot be saved until after its child JDBC resource name is set. For cases like this, use the saveChanges=false query parameter.

See the changeManager resources in RESTful Edit Reference for Oracle WebLogic Server.

Modifying WLS Configuration Beans

To modify a WLS bean, construct a JSON object containing the values you want to change then invoke the HTTP POST method on its corresponding REST URL, passing in that JSON object as the request body.

For example, to change a server's listen port and administration port:

curl ... -d "{
  listenPort: 7007,
  administrationPort: 9007

This is similar to an HTTP PATCH operation where you only modify part of the bean, versus needing to pass in all of the bean's properties every time.

About the JSON Object Request Body

You construct a JSON object containing the values you want to change. Some WLS bean properties are read-only (for example, a server's name). Read-only properties are ignored.

You don't have to pass in all of the bean's properties. Any properties not passed in will retain their current values. As was described in Encrypted Properties, GET returns the value of the encrypted string property that has a non-null value. If you POST back this value, then the property will retain its current value. If you want to change the encrypted property's value, then set the value to the cleartext string that you want it to be, for example:

{ defaultIIOPPassword: "admin123" }

To change a reference, pass in its identity. The same is true for reference collections. This replaces the reference collection versus adding references to the collection. For example, to set a server's machine to Machine-0 and candidate Machines to Machine-0 and Machine-1:

{  
  machine: [ 'machines', 'Machine-0' ] ,
  candidateMachines: [ 
    { identity: [ 'machines', 'Machine-0' ] },
    { identity: [ 'machines', 'Machine-1' ] }
  ]
}

Also, use null to remove references. For example, to remove a server's machine and candidate machines' references:

{  
  machine: null,
}
If you pass in a mixture of valid and invalid values, the valid ones are written and errors are returned for the invalid ones, and overall, the REST method returns an *OK* status code. For example:

```bash
curl ... -d "{
  listenPort: 7007,
  administrationPort: 'foo'
HTTP/1.1 200 OK
{
  messages: [
    {
      severity: "FAILURE",
      field: "administrationPort",
      message: "Something about the value needs to be an integer"
    }
  ]
}
```

In this example, the listen port is modified and the administration port is not. The method returned an *OK* status code.

### Using Multiple Edit Sessions

In a previous release, WLS introduced multiple edit sessions. These edit sessions are scoped. There is one scope for domain level edit sessions and one per partition. Each scope has a default edit session. Edit session names are unique within a scope, but not across scopes.

For more information about edit sessions, see Managing Named Concurrent Edit Sessions in *Using Oracle WebLogic Server Multitenant*.

For all the REST resources in the *edit* tree, you must specify which edit session to use—the name of the scope and the name of the edit session within that scope.

The edit session scope name is derived from the URL. If you use a non-partitioned REST URL, then REST uses the domain level scope. If you use a partitioned REST URL, then REST uses that partition’s scope.

Within that scope, REST must know which edit session to use. You can either specify a header which states exactly which edit session to use, or you can let REST use defaulting rules to pick one.

#### Client Specified Edit Session

You can select the edit session by including a `weblogic.edit.session` header in the request. The header’s value is used as the edit session name. For example:

```bash
curl ... -H weblogic.edit.session=MySession ...
```

Each edit session scope has a default edit session named `default`. To explicitly select the scope’s default edit session:

```bash
curl ... -H weblogic.edit.session=default ...
```
The Default Edit Session

If you did not include the `weblogic.edit.session` header, the REST resources use the following rules to select an edit session:

- If you currently have one edit session locked in the scope, REST will use it.
- Or, if you have created one edit session in the scope, REST will use it.
- Otherwise, REST will use the scope's default edit session.

Creating WLS Configuration Beans

You create a new WLS configuration bean by calling `POST` with a JSON structure containing the new bean's properties.

To make this easier, you can use the corresponding create form resource to retrieve a template JSON structure that is populated with default values for the various writeable properties.

URLs For Creating WLS Configuration Beans


To create an optional singleton child, call `POST` on the proposed child's URL, for example, `http://localhost:7001/management/weblogic/latest/edit/securityConfiguration/realms/myRealm/adjudicator`.

To retrieve a create form, call `GET` on the corresponding create form resource, for example:

`http://localhost:7001/management/weblogic/latest/edit/serverCreateForm`

And


Getting a JSON Template

The underlying WLS beans have default values for many properties. You typically want to display these default values and perhaps, customize them, then use them to create a new WLS bean. You can get these default values by calling `GET` on the corresponding create form resource. For example:

```
curl ... -X GET http://localhost:7001/management/weblogic/latest/edit/serverCreateForm
HTTP/1.1 200 OK
{
  listenPort: 7001,
  ...
}
```
Creating the Bean

To create the WLS configuration bean, call POST on a JSON object containing the new bean's properties.

The JSON object does not need to include all the possible properties. Unspecified properties are set to their default values. All collection children need to be assigned a unique identity within their collection, for example, a server needs a unique name. Therefore, the identity property is not optional.

The response contains a location header containing the resource's URL. For example:

curl ... -d \\
   "{ \n     name: "Server-1",  
     defaultProtocol: "t3s" 
HTTP/1.1 201 Created 
HTTP/1.1 200 OK 


If a bean with that name already exists, the resource returns a BAD_REQUEST status code along with a failure message. For example:

curl ... -d \\
   "{ \n     name: "Server-1" 
HTTP/1.1 400 Bad Request 


Similar to updating a WLS configuration bean, you can pass in a mixture of valid and invalid values. Read-only properties and properties that the bean does not support are ignored. If there is an exception setting a property, the resource adds a failure message to the response. After processing all of the properties, if there were any errors, the resource attempts to delete the new bean and returns a BAD_REQUEST status code.

Example 3-1  Mixture of valid and invalid properties

curl ... -d \\
   "{ \n     name: "Server-1",  
     listenPort: abc, 
   }"
defaultProtocol: "no-such-protocol",
administrationProtocol: "iiop"
HTTP/1.1 400 Bad Request
{
  type: "http://oracle/TBD/WlsRestMessagesSchema",
  title: "ERRORS",
  status: 400,
  wls:errorsDetails: [
    {
      type: "http://oracle/TBD/WlsRestMessageSchema",
      title: "FAILURE",
      detail: "no-such-protocol is not a legal value for DefaultProtocol. The value must be one of the following: [t3, t3s, http, https, iiop, iiops]",
      o:errorPat: "defaultProtocol"
    },
    {
      type: "http://oracle/TBD/WlsRestMessageSchema",
      title: "FAILURE",
      detail: "Type mismatch. Cannot convert abc to int",
      o:errorPath: "listenPort"
    }
  ]
}

Example 3-2  All valid properties

curl ... -d "{
  name: "Server-1",
  listenPort: 7003,
  defaultProtocol: "https",
  administrationProtocol: "iiop"
HTTP/1.1 201 Created

Deleting WLS Configuration Beans

To delete a WLS bean (both collection children and optional singleton children), invoke the HTTP DELETE operation on its corresponding REST URL. Any references to that bean will be removed also. For example, to delete a server:

curl ... -X DELETE http://localhost:7001/management/weblogic/latest/edit/servers/Server-0

Managing Whether a Property Is Set

An MBean property can either be set or unset. If it is set, its value is persisted (for example, to config.xml) and locked in. If it is unset, then a default value is used. The value can either be the default value for the property's type, a hard coded default value, or a computed default value that runs some custom Java code.

By default, when you call GET on a resource, it returns the property's current value. When you set the value of a String property to null or an empty string, it unsets the property (returns it to its default value).

REST lets you determine whether a property has been set, and explicitly set or unset a property.
If you set the `expandedValues` query parameter to `true` when getting a resource, each value is returned as a JSON object with a `set` Boolean property and a `value` property that holds the current value. For example, getting a server returns:

```
curl ... -X GET \n   http://localhost:7001/management/weblogic/latest/edit/servers/myserver? \n&expandedValues=true
{
  listenPortEnabled: { set: false, value: true }, // currently not set
  name: { set: true, value: "myserver" }, // currently set
  listenPort: { set: true, value: 7003 } // currently set
}
```

Similarly, you can use the `expandedValues` query parameter to explicitly set or unset values. For example, to unset the listen port and set the listen address to an empty string:

```
curl ... -d "{
  listenPort: { set: false }, // value will be ignored if specified
  listenAddress: { set: true, value: "" }
```

### Invoking Operations

Each WLS bean operation maps to its own REST URL. In the case of overloaded operations (for example, `shutdown()` versus `shutdown(int, boolean)`), all the overloaded operations map to the same URL and the resource looks at the incoming arguments to determine which operation to invoke.

If the operation requires input arguments, they are specified by passing in a JSON object request body with a property for each argument. The name of the property matches the name of the argument.

If the operation does not take input arguments, you must pass in a JSON object with no properties.

Similarly, if the operation returns a value, then it is returned in a standard REST response body's JSON object `return` property. If the operation is void, the response body does not include an `return` property.

If the underlying MBean operation throws an exception, the REST method returns a `BAD REQUEST (404)` response containing the exception's text.

**Example 3-3**  void operation with no arguments : void shutdown()

```
curl ... -d "{}" \n-X POST http://localhost:7001/management/weblogic/latest/domainRuntime/ \nserverRuntimes/Server-0/shutdown
{
  // response does not include a 'return' property since it's a void operation
}
```

**Example 3-4**  void operation with multiple arguments : void shutdown(int timeout, boolean ignoreSessions)

```
curl ... -d "{ timeout: 500, ignoreSessions: false }" \n-X POST http://localhost:7001/management/weblogic/latest/domainRuntime/ \nserverRuntimes/Server-0/shutdown
{
```
Example 3-5  non-void operation with an argument: String getURL(String protocol)

curl ... -d "\{ protocol: 'http'\}" \
serverRuntimes/Server-0/getURL 
  \{ \n    return: "http://localhost:7003" 
  \}

Using Queries

The REST API includes a powerful bulk access capability that lets you dynamically describe a tree of beans that can be returned in one call.

Each tree (for example, edit, domain runtime, and such), has a root search resource. You can POST a query to these search resources. The query indicates which beans (and properties and links) should be returned, and, as such, returns a portion ("slice") of the bean tree.

Bulk access can only be used for reading; it cannot be used for writing.

Search Resources

Each bean tree includes a search resource for bulk queries.

On the Administration Server:

<table>
<thead>
<tr>
<th>URL</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.../management/weblogic/latest/edit/search</td>
<td>Returns a slice of the edit bean tree (in progress edits that have not been saved to disk yet).</td>
</tr>
<tr>
<td>.../management/weblogic/latest/domainConfig/search</td>
<td>Returns a slice of the last configuration bean tree that was saved to disk (versus the configuration the servers are currently using).</td>
</tr>
<tr>
<td>.../management/weblogic/latest/domainRuntime/search</td>
<td>Returns a slice of the Administration Server's domain runtime bean tree (which covers all the servers' runtime bean trees).</td>
</tr>
<tr>
<td>.../management/weblogic/latest/serverConfig/search</td>
<td>Returns a slice of the Administration Server's configuration bean tree (the configuration the Administration Server is running against).</td>
</tr>
<tr>
<td>.../management/weblogic/latest/serverRuntime/search</td>
<td>Returns a slice of the Administration Server's runtime bean tree.</td>
</tr>
</tbody>
</table>

On Managed Servers:

<table>
<thead>
<tr>
<th>URL</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.../management/weblogic/latest/serverConfig/search</td>
<td>Returns a slice of Managed Server's configuration bean tree (the configuration the server is running against).</td>
</tr>
</tbody>
</table>
When you POST a query to a search resource, the query starts searching at the root bean of the tree. The resource returns a JSON response containing the results of the query, that "slice" of the bean tree.

### Object Queries

An object query describes what data should be returned for a WLS bean (or collection of beans), such as:

- Which of the bean's properties should be returned.
- Which of the bean's links should be returned.
- Which of the bean's children should be returned.
- For a collection, which of its children should be returned.

Note that all searches start at the root bean of the search resource's tree. For example, if you POST a query to `/management/weblogic/latest/domainRuntime/search`, it starts searching at the `DomainRuntimeMBean` in the domain runtime tree.

### Fields and ExcludeFields

*fields* specifies which bean properties (for example, scalars and references) are returned. It is a JSON string array of property names. For example, to return the domain's name and `configurationVersion`:

```bash
curl ... -d '{ fields: [ 'name', 'configurationVersion' ] }' \
```

If the query lists properties that the bean does not support, then that part of the query is ignored (instead of returning an error). If *fields* is not specified, then all of the properties are returned.

*excludeFields* specifies a list of fields that should not be returned; all other properties are returned. *fields* and *excludeFields* are mutually exclusive.

Note that a query's *fields* and *excludeFields* properties mirror the *fields* and *excludeFields* query parameters that you can specify when calling GET on a resource. The difference is that the query parameters use comma-separated names and queries use JSON arrays of names.

### Links and ExcludeLinks

*links* specifies which of the bean's links should be returned. It is a JSON string array of link rel names. For example, to return the domain's `self` and `servers` links:

```bash
curl ... -d '{ links: [ 'self', 'servers' ] }' \
```

If the query lists links that the bean does not support, then that part of the query is ignored (instead of returning an error).
If `links` is not specified, then all the links are returned (except for collection children, which only return their `self` and `canonical` links by default).

Similarly, `excludeLinks` specifies a list of links that should not be returned; all other links are returned. `links` and `excludeLinks` are mutually exclusive.

To return all of a collection's children's links, use `excludeLinks`: `[]`.

Note that a query's `links` and `excludeLinks` properties mirror the `links` and `excludeLinks` query parameters that you can specify when calling `GET` on a resource.

Children

`children` specifies which child bean properties are returned. It is a JSON object whose property names are the names of the children to return, and whose values are object queries. For example, to get the domain's name, along with the name and listen port of each server:

```
curl ...
  -d "{"fields: ['name'], // only return the domain's name
          children: {
              servers: [ // fetch the domain's 'servers' collection
                          fields: ['name', 'listenPort'] // only return each server's name and listen port
            }]
```

If `children` is not specified, then none of the bean's children are returned.

Identities

Sometimes you want to only return certain items in a collection (for example, `myserver` and `Server-0`). Each collection child has a property that specifies its identity. Typically this is the `name` property. The query uses this property name to specify which children of a collection are returned. It is a JSON string array of identities. `fields` and `links` can also be used to control which properties and links are returned for each of these children. For example, to return the name and listen port for the servers, `Server-0` and `Server-1`:

```
curl ...
  -d "{"fields: ['name'], // only return the domain's name
          children: {
              servers: [ // fetch the domain's 'servers' collection
                          names: ['Server-0', 'Server-1'], // only return the children whose 'name' is 'Server-0' or 'Server-1'
                          fields: ['name', 'listenPort'] // only return each server's name and listen port
            }]
```

Identities that do not exist are ignored (instead of returning an error). Similarly, if the context is not a collection, then this part of the query is ignored. By default, all collection children are returned.
Response Body

The response body follows the usual pattern (inline properties or items, depending on whether the URL is for a bean or a collection). The child beans are returned as nested properties. For example:

curl ... -d "{
  fields: [], // don't return any domain level properties
  links: [], // don't return any domain level links
  children: {
    servers: { // fetch the domain's 'servers' collection
      names: ['Server-0', 'Server-1'], // only return the children whose 'name' is
      'Server-0' or 'Server-1'
      fields: [ 'name' ], // only return each server's name
      links: [], // don't return any per-server links
      children: {
        SSL: { // only return each server's SSL listen port
          fields: [ 'listenPort' ], // only return each server's SSL listen port
          links: [] // don't return any SSL level links
        }
      }
    }
  }
}"
{code:JavaScript}
HTTP/1.1 200 OK
{
  servers: {
    items: [
      {
        name: "myserver",
        SSL: { listenPort: 7002}
      },
      {
        name: "AnotherServer",
        SSL: { listenPort: 7002}
      }
    ]
  }
}

Query Examples

This example gets the component runtimes of specific applications on all running servers. It only returns the name for the server runtimes and application runtime parents and returns all of the component runtimes' properties.

curl ... -d "{
  fields: [], links: [], // don't return any domain runtime level properties or links
  children: {
    serverRuntimes: {
      fields: [ 'name' ], links: [], // return each server's name. don't return any
      server level links
      children: {
        applicationRuntimes: {
          name: ['myapp', 'BasicApp'], // only return apps 'myapp' and 'BasicApp'
          fields: [ 'name' ], links: [], // return each app's name but no per-app
          links
```
This example gets all of the servlet runtime and EJB runtime information for a set of applications across all running servers.

curl ... -d "{
    links: [],
    fields: [],
    children: {
        serverRuntimes: {
            links: [],
            fields: [ 'name', 'state' ],
            children: {
                applicationRuntimes: {
                    name: [ 'myapp', 'BasicApp' ],
                    links: [],
                    fields: [ 'name', 'healthState' ],
                    children: {
                        componentRuntimes: {
                            links: [],
                            fields:
                                [ 'name',
                                  'healthState',
                                  'contextRoot',
                                  'openSessionsCurrentCount',
                                  'sessionsOpenedTotalCount'
                            ],
                            children: {
                                EJBRuntimes: {
                                    links: [],
                                    fields: [ 'EJBName',
                                              'type' ],
                                    children: {
                                        transactionRuntime: {
                                            links: [],
                                            fields: [ 'transactionsCommittedTotalCount',
                                                      'transactionsRolledBackTotalCount',
                                                      'transactionsTimedOutTotalCount'
                                            ]
                                        },
                                        poolRuntime: {
                                            links: [],
                                            fields: [ 'accessTotalCount',
                                                      'missTotalCount',
                                                      'destroyedTotalCount',
                                                      'pooledBeansCurrentCount',
                                                      'beansInUseCurrentCount',
                                                      'waiterCurrentCount',
                                                      'timeoutTotalCount']
                                    }
                                }
                            }
                        }
                    }
                }
            }
        }
    }
Limiting the Wait Time For a Delegated Request

When you make a GET request or a search POST call in the domainRuntime tree that gets delegated to one or more servers, you can specify the `requestMaxWaitMillis` query parameter which sets the maximum amount of time you are willing to wait for a response from each server. If not specified, it uses the
RestfulManagementServicesMBean's DelegatedRequestMaxWaitMillis value that the administrator configured for the domain.

For servers that do not respond fast enough, the response body includes bad per-server HTTP status codes.

Examine the following examples:

```bash
# GET all the server runtimes' names, give up on a server if it doesn't respond within 10 milliseconds:
```

HTTP/1.1 200 OK

```json
{  
  "items": [  
    {  
      "httpStatus": 504,  
      "name": "Cluster1Server1").
    },  
    {  
      "name": "AdminServer"),  
    
    {  
      "httpStatus": 504,  
      "name": "Cluster1Server2",  
      "identity": []  
    }  
  ]
}
```

# GET all the server runtimes' application's names, give up on a server if it doesn't respond within 50 milliseconds:

  links: [], fields: ['name'],
  children: {
    serverRuntimes: {
      links: [], fields: ['name'],
      children: {
        applicationRuntimes: { links: [], fields: ['name'] }  
      }  
    }  
  }  
}"

HTTP/1.1 200 OK

```json
{  
  "name": "bean-ex",  
  "serverRuntimes": {  
    "items": [  
      {  
        "httpStatus": 504,  
        "name": "Cluster1Server1",  
        "identity": []  
      }  
    ]  
  }  
}
Consolidating Search Results

You can consolidate the domainRuntime search results of REST resources that span multiple servers in a domain based on criteria you specify, for example, you can retrieve the maximum openSocketsCurrentCount of all the running servers.

Like any search, you use the request body to specify a slice of the bean tree to return. To enable this feature, you specify additional fields to indicate that the results should be consolidated across the servers and how each property should be consolidated.

Review the syntax for the following consolidated search examples:

----------------------------------------------------------------------
Get the total number of open sessions across each application’s component runtimes across all servers
----------------------------------------------------------------------

```
curl -v \
--user monitor:monitor123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \nd "
links: [], fields: [],
children: {
  serverRuntimes: {
    mergeCollection: true,
    children: {
      applicationRuntimes: {
        mergeOn: 'name',
        fields: [{ name: 'name', sameValue: true }],
        children: {
          componentRuntimes: {
            mergeCollection: true,
            fields: [{ name: 'openSessionsCurrentCount', total: true }]
          }
        }
      }
    }
  }
}
```
Chapter 3
Using Queries


HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": ["items": ["items": [
  
  "name": "JDBCDataSource1",
  "componentRuntimes": ["items": ["items": []]
  
],

  "name": "bea_wls_deployment_internal",
  "componentRuntimes": ["items": ["openSessionsCurrentCount": {
    "total": 0,
    "count": 3
  ]}]
  
],

  "name": "wls-management-services",
  "componentRuntimes": ["items": ["openSessionsCurrentCount": {
    "total": 202,
    "count": 3
  ]}]
  
],

  "name": "bea_wls_cluster_internal",
  "componentRuntimes": ["items": ["openSessionsCurrentCount": {
    "total": 0,
    "count": 2
  ]}]
  
],

  "name": "jms-internal-xa-adp",
  "componentRuntimes": ["items": []]
  
],

  "name": "fairShare",
  "componentRuntimes": ["items": ["openSessionsCurrentCount": {
    "total": 0,
    "count": 2
  ]}]
  
],

  "name": "bea_wls_internal",
  "componentRuntimes": ["items": ["openSessionsCurrentCount": {
    "total": 0,
    "count": 3
  ]}]
  
],

  "name": "JMSSystemResource1",
  "componentRuntimes": ["items": []]
  
],

  "name": "basicapp",
  "componentRuntimes": ["items": ["openSessionsCurrentCount": {
    "total": 0,
    "count": 3
  ]}]
  
]}


Get the total number of invocations of the servlets of each component runtime of the fairShare and wls-management-services applications across all servers

```
curl -v \
--user monitor:monitor123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \n-d "{
    links: [], fields: [],
    children: {
        serverRuntimes: {
            mergeCollection: true,
            children: {
                applicationRuntimes: {
                    name: ['fairShare', 'wls-management-services'],
                    mergeOn: 'name',
                    fields: [{ name: 'name', sameValue: true }],
                    children: {
                        componentRuntimes: {
                            mergeOn: 'moduleId',
                            fields: [{ name: 'contextRoot', sameValue: true }],
                            children: {
                                servlets: {
                                    mergeCollection: true,
                                    fields: [{ name: 'invocationTotalCount', total: true }]
                                }
                            }
                        }
                    }
                }
            }
        }
    }
}"
```

HTTP/1.1 200 OK
The first example, “Get the total number of open sessions across each application’s component runtimes across all servers,” keeps each application separate (based on the application’s name), merging each application’s components together across all the servers.

This is achieved by specifying:

```
serverRuntimes - mergeCollection: true
applicationRuntimes - mergeOn: 'name'
componentRuntimes - mergeCollection: true
```

For example, if the bean tree has:

```
server1
app1 : comp1, comp2
app2 : comp3, comp4
app3 : comp5, comp6

server2
app1 : comp1, comp2
app2 : comp3, comp4
app3 : comp5, comp6
```

The response will return:

```
app1
  comp
    merged values from server1.app1.comp1, server1.app1.comp2, server2.app1.comp1, server2.app1.comp2

app2
  comp
    merged values from server1.app2.comp3, server1.app2.comp4, server2.app2.comp3, server2.app2.comp4

app3
  comp
```
The second example, "Get the total number of invocations of the servlets of each component runtime of the fairShare and wls-management-services applications across all servers," keeps each application separate (based on the application's name), and keeps each application's components separate (based on the component's moduleId), merging each application's component's servlets together across all the servers. It also specifies to return results only for app1 and app2 (versus all the applications).

This is achieved by specifying:

```
serverRuntimes - mergeCollection: true
applicationRuntimes - mergeOn: 'name', name: [ 'app1', 'app2' ]
componentRuntimes - mergeOn: 'moduleId'
servlets - mergeCollection: true
```

For example, if the bean tree has:

```
server1
  app1
    comp1 : servlet1, servlet2
    comp2 : servlet3, servlet4
  app2
    comp3 : servlet5, servlet6
    comp4 : servlet7, servlet8
  app3
    comp5 : servlet9, servlet10
    comp6 : servlet11, servlet12

server2
  app1
    comp1 : servlet1, servlet2
    comp2 : servlet3, servlet4
  app2
    comp3 : servlet5, servlet6
    comp4 : servlet7, servlet8
  app3
    comp5 : servlet9, servlet10
    comp6 : servlet11, servlet12
```

The response will return (notice that app3 isn't returned):

```
app1
  comp1
    merged values from server1.app1.comp1.servlet1, server1.app1.comp1.servlet2, server2.app1.comp1.servlet1, server2.app1.comp1.servlet2
  comp2
    merged values from server1.app1.comp2.servlet3, server1.app1.comp2.servlet4, server2.app1.comp2.servlet3, server2.app1.comp2.servlet4
app2
  comp3
    merged values from server1.app2.comp3.servlet5, server1.app2.comp3.servlet6, server2.app2.comp3.servlet5, server2.app2.comp3.servlet6
  comp4
    merged values from server1.app2.comp4.servlet7, server1.app2.comp4.servlet8, server2.app2.comp4.servlet7, server2.app2.comp4.servlet8
```

For more examples of consolidating search results in domains and partitions, see Domain Level REST API Examples and Partition Specific REST API Examples (Deprecated).
**Request Body Merge-Related Fields**

The following table describes the request body merge-related search fields. If none are specified, then the search results will not be consolidated.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>mergeCollection</td>
<td>Indicates that a collection of MBeans (and their trees of sub-MBeans) should be merged together into a single consolidated MBean tree (and tree of sub-MBeans). Its value is a Boolean.</td>
</tr>
</tbody>
</table>
| mergeOn       | Indicates when child MBeans in a merged collection should be merged together (for example, that app1 in server1 should be merged with app1 in server2). Its value is a string, naming a property.  
mergeOn must be specified for all child collections of a merged collection (unless mergeCollection: true is specified for the child collection instead). Similarly, it must not be specified on collections that are not parented by a merged collection. Returns BAD REQUEST if either condition is violated. |
| fields        | Specifies which properties of an MBean should be returned. fields contains a list of per-property merge rules. If not specified, no properties are returned. Each entry in the list of fields is a JSON object containing the name of the property and its merge rules. For example:  
fields: [ { name: 'openSessionCurrentCount', total: true, min:true, max:true },  
{ name: 'type', sameValue: true } ]  
Multiple merge rules can be specified for the same property (for example, return the min, max, and total). Returns BAD REQUEST if no merge rules are specified for a property. See the Per-Property Merge Rules table below. |
| excludeFields | Specifies which properties should not be returned when doing a non-consolidated search (for example, a list of what not to return instead of what to return). It is not supported when doing consolidated searches. Returns BAD REQUEST if present. |
| links         | links and excludeLinks specify which links to related REST resources are returned when doing a non-consolidated search. They are not supported when doing a consolidated search. Returns BAD REQUEST if either is present. |

**Per-Property Merge Rules**

The following table describes the per-property merge rules.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Contains the name of the property to merge. It is a mandatory string field. Returns BAD REQUEST if it is not specified.</td>
</tr>
</tbody>
</table>
### Field Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>total</td>
<td>The total field indicates that the sum and number of the property values should be returned. Similarly, the min and max fields indicate that the minimum or maximum property value should be returned. These are optional Boolean fields which default to false. Returns BAD REQUEST if the REST API finds a value that is not a number (or a string that can be converted to a number).</td>
</tr>
<tr>
<td>min</td>
<td></td>
</tr>
<tr>
<td>max</td>
<td></td>
</tr>
<tr>
<td>sameValue</td>
<td>Some property values should be the same on each merged MBean, for example, a component's type and moduleId. The sameValue field indicates that the value should be the same for each merged MBean. It is an optional Boolean field which defaults to false. Returns BAD REQUEST if the REST API finds different values while merging. Similarly, returns BAD REQUEST if the property value is not a string.</td>
</tr>
<tr>
<td>values</td>
<td>Indicates that the list of property values should be returned. They are unordered. The field is an optional Boolean which defaults to false. It can be used for any type of MBean property.</td>
</tr>
</tbody>
</table>

## About Synchronous and Asynchronous Operations

Several MBean operations (for example, server lifecycle, deployment) are asynchronous. They return job MBeans that must be monitored to determine when the job has completed.

Asynchronous MBean operations return a 200 OK, 201 Created or 400 Bad Request if the operation completed or failed immediately. Otherwise, they return a 202 Accepted and you must poll the returned job resource to find out when the work is done. By default, REST makes a best effort attempt to wait for the work to complete, but returns after about 5 minutes. You can specify the Prefer header to control how long REST waits for the work to complete.

Table 3-1 describes using the Prefer header.

### Table 3-1 Using the Prefer Header

<table>
<thead>
<tr>
<th>Header</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-X Prefer:respond-async</td>
<td>The client polls a returned job resource. REST returns a 200 OK, 201 Created, or 400 Bad Request if the asynchronous MBean operation finishes immediately; otherwise it returns a 202 Accepted.</td>
</tr>
<tr>
<td>-X Prefer:wait=# For example, -X Prefer:wait=10</td>
<td>The REST resource internally polls the job for up to the specified number of seconds and returns a 200 OK, 201 Created, or 400 Bad Request if the asynchronous MBean operation finishes within that time; otherwise it returns a 202 Accepted, along with a Location header containing the URL of a REST task resource that the client can poll (via GET) to find out when the work is done.</td>
</tr>
</tbody>
</table>
If you don't specify the Prefer header, REST will return a 200 OK, 201 Created, or 400 Bad Request if the asynchronous MBean operation finishes within approximately 5 minutes, otherwise it returns a 202 Accepted.

If you specify both respond-async and wait, respond-async is ignored.

For examples of synchronous and asynchronous operations, see Domain Level REST API Examples and Partition Specific REST API Examples (Deprecated).

Deploying Applications and Libraries

You view deployed applications and libraries in the edit tree. You call POST on the collections to deploy them, and DELETE to undeploy them.

Similarly, the deployment MBeans take server relative pathnames. In addition, you can upload files from the client to the server then deploy them and use create form resources to inspect deployments (for example, to determine their preferred name and version numbers). For examples of deploying domain-scoped and partition-scoped applications, see Domain Level REST API Examples and Partition Specific REST API Examples (Deprecated).
Examine example scripts for users in domain level roles using WebLogic Server REST APIs to perform common domain and partition management and monitoring tasks.

**Note:**

WebLogic Server Multitenant domain partitions, resource groups, resource group templates, virtual targets, and Resource Consumption Management are deprecated in WebLogic Server 12.2.1.4.0 and will be removed in the next release.

For information on the user roles which can access a REST resource, see Accessing REST Resources.

This chapter includes the following sections:

- Adding Users
- Setting Up Servers
- Creating Partitions
- Configuring System Resources
- Deploying Domain-Scoped Applications
- Monitoring Domain Resources
- Starting and Stopping Domain-Scoped Applications
- Starting and Stopping Partitions
- Starting and Stopping Servers

### Adding Users

Review an example script that demonstrates how a System Administrator adds users such as Operators, Deployers, and Monitors.

**Note:**

To view long URLs, use the scroll bar located beneath the section.
Create a deployer

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{  
   userName: 'deployer',  
   password: 'deployer123',  
   description: 'A domain level deployer'
}" \
```

HTTP/1.1 200 OK

Response Body:
```json
{}
```

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{  
   groupName: 'Deployers',  
   memberUserOrGroupName: 'deployer'
}" \
```

HTTP/1.1 200 OK

Response Body:
```json
{}
```

Create an operator

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{  
   userName: 'operator',
```

Chapter 4
Adding Users

4-2
password: 'operator123',
description: 'A domain level operator'
]
securityConfiguration/realms/myrealm/authenticationProviders/DefaultAuthenticator/
createUser

HTTP/1.1 200 OK
Response Body:
{}

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
    groupName: 'Operators',
    memberUserOrGroupName: 'operator'
}"
securityConfiguration/realms/myrealm/authenticationProviders/DefaultAuthenticator/
addMemberToGroup

HTTP/1.1 200 OK
Response Body:
{}

Create a monitor

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
    userName: 'monitor',
    password: 'monitor123',
    description: 'A domain level monitor'
}"
securityConfiguration/realms/myrealm/authenticationProviders/DefaultAuthenticator/
createUser

HTTP/1.1 200 OK
Response Body:
{}``
Setting Up Servers

Review an example script that demonstrates how a System Administrator creates a cluster, machine, and dynamic server targeted to the cluster, including setting up resource management for the Managed Servers.

For more information about resource management, see Configuring Resource Consumption Management in Using Oracle WebLogic Server Multitenant.

Note:

To view long URLs, use the scroll bar located beneath the section.

Demonstrate a domain admin configuring dynamic servers

Start editing

```bash
curl -v \
--user admin:admin123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \n-d "{\n    groupName: 'Monitors',\n    memberUserOrGroupName: 'monitor'\n}" \
```

HTTP/1.1 200 OK

```json
Response Body:
{
}
```
Response Body:
()

----------------------------------------------------------------------
View the default values for a new cluster
----------------------------------------------------------------------

HTTP/1.1 200 OK
Response Body:
{
  "sessionStateQueryRequestTimeout": 30,
  "notes": null,
  "sessionFlushInterval": 180,
  "txnAffinityEnabled": false,
  "fencingGracePeriodMillis": 30000,
  "serviceActivationRequestResponseTimeout": 0,
  "databaseLeasingBasisConnectionRetryCount": 1,
  "millisToSleepBetweenAutoMigrationAttempts": 180000,
  "migrationBasis": "database",
  "oneWayRmiForReplicationEnabled": false,
  "secureReplicationEnabled": false,
  "WANSessionPersistenceTableName": "WLS_WAN_PERSISTENCE_TABLE",
  "asyncSessionQueueTimeout": 30,
  "clusterType": "none",
  "databaseLeasingBasisConnectionRetryDelay": 1000,
  "defaultLoadAlgorithm": "round-robin",
  "frontendHTTPPort": 0,
  "singletonServiceRequestTimeout": 30000,
  "sessionFlushThreshold": 10000,
  "httpTraceSupportEnabled": false,
  "tags": null,
  "replicationTimeoutEnabled": true,
  "serviceAgeThresholdSeconds": 180,
  "additionalAutoMigrationAttempts": 3,
  "multicastBufferSize": 64,
  "weblogicPluginEnabled": false,
  "healthCheckIntervalMillis": 10000,
  "jobSchedulerTableName": "WEBLOGIC_TIMERS",
  "concurrentSingletonActivationEnabled": false,
  "memberDeathDetectorEnabled": false,
  "multicastTTL": 1,
  "frontendHost": null,
  "clusterAddress": null,
  "interClusterCommLinkHealthCheckInterval": 30000,
  "remoteClusterAddress": null,
  "greedySessionFlushInterval": 3,
  "replicationChannel": "ReplicationChannel",
  "multicastAddress": "239.192.0.0", ...
"numberOfServersInClusterAddress": 3,
"persistSessionsOnShutdown": false,
"healthCheckPeriodsUntilFencing": 3,
"sessionStateQueryProtocolEnabled": false,
"clusterBroadcastChannel": null,
"multicastSendDelay": 3,
"multicastDataEncryption": false,
"messageOrderingEnabled": true,
"autoMigrationTableName": "ACTIVE",
"idlePeriodsUntilTimeout": 3,
"clientCertProxyEnabled": false,
"multicastPort": 7001,
"clusterMessagingMode": "unicast",
"unicastReadTimeout": 15000,
"frontendHTTPSPort": 0,
"dataSourceForSessionPersistence": null,
"dataSourceForJobScheduler": null,
"dataSourceForAutomaticMigration": null,
"coherenceClusterSystemResource": null,
"candidateMachinesForMigratableServers": []
"name": null

----------------------------------------------------------------------

Configure a new cluster
----------------------------------------------------------------------

curl -v \
--user admin:admin123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
-H Content-Type:application/json \ 
-d "{'name': 'Cluster1'}" \ 

HTTP/1.1 201 Created

Location: http://localhost:7001/management/weblogic/latest/edit/clusters/Cluster1

Response Body:
{}

----------------------------------------------------------------------

View the new cluster
----------------------------------------------------------------------

curl -v \
--user admin:admin123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
links=none
HTTP/1.1 200 OK

Response Body:
{
   "identity": [
      "clusters",
      "Cluster1"
   ],
   "sessionStateQueryRequestTimeout": 30,
   "notes": null,
   "sessionFlushInterval": 180,
   "txnAffinityEnabled": false,
   "fencingGracePeriodMillis": 30000,
   "serviceActivationRequestResponseTimeout": 0,
   "type": "Cluster",
   "databaseLeasingBasisConnectionRetryCount": 1,
   "millisToSleepBetweenAutoMigrationAttempts": 180000,
   "migrationBasis": "database",
   "oneWayRmiForReplicationEnabled": false,
   "id": 0,
   "secureReplicationEnabled": false,
   "WANSessionPersistenceTableName": "WLS_WAN_PERSISTENCE_TABLE",
   "asyncSessionQueueTimeout": 30,
   "clusterType": "none",
   "databaseLeasingBasisConnectionRetryDelay": 1000,
   "defaultLoadAlgorithm": "round-robin",
   "frontendHTTPPort": 0,
   "singletonServiceRequestTimeout": 30000,
   "sessionFlushThreshold": 10000,
   "httpTraceSupportEnabled": false,
   "tags": [],
   "replicationTimeoutEnabled": true,
   "serviceAgeThresholdSeconds": 180,
   "additionalAutoMigrationAttempts": 3,
   "name": "Cluster1",
   "sessionLazyDeserializationEnabled": false,
   "multicastBufferSize": 64,
   "weblogicPluginEnabled": false,
   "healthCheckIntervalMillis": 10000,
   "jobSchedulerTableName": "WEBLOGIC_TIMERS",
   "concurrentSingletonActivationEnabled": false,
   "memberDeathDetectorEnabled": false,
   "multicastTTL": 1,
   "siteName": null,
   "frontendHost": null,
   "clusterAddress": null,
   "interClusterCommLinkHealthCheckInterval": 30000,
   "remoteClusterAddress": null,
   "greedySessionFlushInterval": 3,
   "memberWarmupTimeoutSeconds": 0,
   "replicationChannel": "ReplicationChannel",
   "multicastAddress": "239.192.0.0",
   "dynamicallyCreated": false,
   "numberOfServersInClusterAddress": 3,
   "persistSessionsOnShutdown": false,
   "healthCheckPeriodsUntilFencing": 3,
   "sessionStateQueryProtocolEnabled": false,
   "clusterBroadcastChannel": null,
   "multicastBroadcastChannel": false,
   "multicastSendDelay": 3,
"multicastDataEncryption": false,
"messageOrderingEnabled": true,
"autoMigrationTableName": "ACTIVE",
"idlePeriodsUntilTimeout": 3,
"clientCertProxyEnabled": false,
"multicastPort": 7001,
"clusterMessagingMode": "unicast",
"unicastReadTimeout": 15000,
"frontendHTTPSPort": 0,
"dataSourceForSessionPersistence": null,
"dataSourceForJobScheduler": null,
"dataSourceForAutomaticMigration": null,
"coherenceClusterSystemResource": null,
"servers": [],
"migratableTargets": [],
"candidateMachinesForMigratableServers": []
}

----------------------------------------------------------------------
View the default values for a new machine
----------------------------------------------------------------------

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK
Response Body:
{
   "notes": null,
   "tags": null,
   "name": null
}

----------------------------------------------------------------------
Configure a new machine
----------------------------------------------------------------------

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 201 Created
Location: http://localhost:7001/management/weblogic/latest/edit/machines/Machine1

Response Body:
{}

---

View the new machine
---

```bash
curl -v
--user admin:admin123 
-H X-Requested-By:MyClient 
-H Accept:application/json 
```

HTTP/1.1 200 OK

Response Body:
{
   "identity": [
      "machines",
      "Machine1"
   ],
   "notes": null,
   "name": "Machine1",
   "id": 0,
   "dynamicallyCreated": false,
   "type": "Machine",
   "tags": []
}

---

View the default values for the machine’s node manager configuration
---

```bash
curl -v
--user admin:admin123 
-H X-Requested-By:MyClient 
-H Accept:application/json 
```

HTTP/1.1 200 OK

Response Body:
{
   "identity": [
      "machines",
      "Machine1",
      "nodeManager"
   ],
   "notes": null,
   "name": "Machine1",
   "id": 0,
   "dynamicallyCreated": false,
   "type": "NodeManager",
   "tags": []
}
"nodeManager",
"adapter": null,
"notes": null,
"NMType": "SSL",
"debugEnabled": false,
"userName": null,
"type": "NodeManager",
"tags": [],
"shellCommand": null,
"NMSocketCreateTimeoutInMillis": 180000,
"password": null,
"listenAddress": "localhost",
"name": "Machine1",
"nodeManagerHome": null,
"adapterVersion": null,
"adapterName": null,
"id": 0,
"dynamicallyCreated": false,
"listenPort": 5556
}

Customize the machine's node manager configuration

```bash
curl -v \
--user admin:admin123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
-H Content-Type:application/json \ 
-d "\
  NMType: 'Plain', 
  listenAddress: 'localhost' 
"

```

HTTP/1.1 200 OK

Response Body:

```json
{}
```

View the modified node manager configuration

```bash
curl -v \
--user admin:admin123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
```
nodeManager?links=none

HTTP/1.1 200 OK

Response Body:
{
    "identity": [
        "machines",
        "Machine1",
        "nodeManager"
    ],
    "adapter": null,
    "notes": null,
    "NMType": "Plain",
    "debugEnabled": false,
    "userName": null,
    "type": "NodeManager",
    "tags": [],
    "shellCommand": null,
    "NMSocketCreateTimeoutInMillis": 180000,
    "password": null,
    "listenAddress": "localhost",
    "name": "Machine1",
    "nodeManagerHome": null,
    "adapterVersion": null,
    "adapterName": null,
    "id": 0,
    "dynamicallyCreated": false,
    "listenPort": 5556
}

----------------------------------------------------------------------
View the default values for a new server template
----------------------------------------------------------------------

curl -v
--user admin:admin123
-H X-Requested-By:MyClient
-H Accept:application/json

HTTP/1.1 200 OK

Response Body:
{
    "maxOpenSockCount": -1,
    "interfaceAddress": null,
    "startupTimeout": 0,
    "IdleConnectionTimeout": 65,
    "resolveDNSName": false,
    "IgnoreSessionsDuringShutdown": false,
    "AdminReconnectIntervalSeconds": 10,
    "preferredSecondaryGroup": null,
    "defaultSecureProtocol": "t3s",}
Configure a new server template for the cluster
Turn on resource management for the managed servers

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{  
}" \
```

HTTP/1.1 200 OK

Response Body:
```
{}
```

View the new server template

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
```

Chapter 4
Setting Up Servers

4-14
"clientCertProxyEnabled": false,
"defaultInternalServletsDisabled": false,
"customIdentityKeyStoreType": null,
"sessionReplicationOnShutdownEnabled": false,
"restartIntervalSeconds": 3600,
"notes": null,
"serverLifeCycleTimeoutVal": 30,
"httpEnabled": true,
"javaCompilerPostClassPath": null,
"buzzPort": 0,
"keyStores": "DemoIdentityAndDemoTrust",
"sitConfigRequired": false,
"use81StyleExecuteQueues": false,
"uploadDirectoryName": ".\servers\ServerTemplate1\upload",
"tunnelingClientTimeoutSecs": 40,
"listenThreadStartDelaySecs": 60,
"tunnelingEnabled": false,
"listenAddress": "localhost",
"acceptBacklog": 300,
"listenPortEnabled": true,
"eagerThreadLocalCleanup": false,
"connectTimeout": 0,
"transactionSecureChannelName": null,
"printStackTraceInProduction": false,
"scatteredReadsEnabled": false,
"muxerClass": "weblogic.socket.NIOSocketMuxer",
"useFusionForLLR": false,
"clusterWeight": 100,
"customTrustKeyStorePassPhrase": null,
"restartDelaySeconds": 0,
"transactionLogFilePrefix": "\",
"maxConcurrentLongRunningRequests": 100,
"customTrustKeyStoreFileName": null,
"socketReaders": -1,
"threadPoolPercentSocketReaders": 33,
"JDBCLoginTimeoutSeconds": 0,
"customTrustKeyStoreType": null,
"loginTimeoutMillis": 5000,
"messageIdPrefixEnabled": false,
"healthCheckIntervalSeconds": 180,
"useEnhancedPriorityQueueForRequestManager": false,
"name": "ServerTemplate1",
"reverseDNSAllowed": false,
"periodLength": 60000,
"socketBufferSizeAsChunkSize": false,
"JDBCLLRTableName": null,
"transactionPublicSecureChannelName": null,
"buzzEnabled": false,
"weblogicPluginEnabled": false,
"useDetailedThreadName": false,
"stuckThreadTimerInterval": 60,
"TGIOPEnabled": true,
"listenersBindEarly": false,
"JNDITransportableObjectFactoryList": [],
"DGCIdlePeriodsUntilTimeout": 5,
"defaultIIOPUser": null,
"logRemoteExceptionsEnabled": false,
"transactionLogFileWritePolicy": "Direct-Write",
"gatheredWritesEnabled": false,
"defaultProtocol": "t3",
"replicationPorts": null,
View the default values for the cluster’s dynamic servers configuration

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:

{  
    "identity": [  
        "clusters",  
        "Cluster1",  
        "dynamicServers"  
    ],  
    "notes": null,  
    "dynamicClusterSize": 8,  
    "machineNameMatchExpression": null,  
    "coherenceClusterSystemResource": null,  
    "candidateMachines": []  
}
"serverNamePrefix" : "Cluster1-",
"ignoreSessionsDuringShutdown" : false,
"type" : "DynamicServers",
"calculatedMachineNames" : false,
"dynamicClusterShutdownTimeoutSeconds" : 0,
"tags" : [],
"waitForAllSessionsDuringShutdown" : false,
"machineMatchExpression" : null,
"dynamicServerNames" : [],
"calculatedListenPorts" : true,
"name" : "Cluster1",
"id" : 0,
"dynamicallyCreated" : false,
"machineMatchType" : "name",
"minDynamicClusterSize" : 1,
"dynamicClusterCooloffPeriodSeconds" : 900,
"serverTemplate" : null
}

------------------------------------------------------------------------------

Customize the cluster's dynamic servers configuration
------------------------------------------------------------------------------

curl -v \
--user admin:admin123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \n-d "{
  "serverTemplate": [ "serverTemplates", 'ServerTemplate1' ],
  "dynamicClusterSize": 2,
  "serverNamePrefix": 'Cluster1Server'
}"

HTTP/1.1 200 OK

Response Body:
{}

------------------------------------------------------------------------------

View the modified dynamic servers configuration
------------------------------------------------------------------------------

curl -v \
HTTP/1.1 200 OK

Response Body:
{
   "identity": [
      "clusters",
      "Cluster1",
      "dynamicServers"
   ],
   "notes": null,
   "dynamicClusterSize": 2,
   "machineNameMatchExpression": null,
   "maxDynamicClusterSize": 8,
   "serverNamePrefix": "Cluster1Server",
   "ignoreSessionsDuringShutdown": false,
   "type": "DynamicServers",
   "calculatedMachineNames": false,
   "dynamicClusterShutdownTimeoutSeconds": 0,
   "tags": [],
   "waitForAllSessionsDuringShutdown": false,
   "machineMatchExpression": null,
   "dynamicServerNames": [
      "Cluster1Server1",
      "Cluster1Server2"
   ],
   "calculatedListenPorts": true,
   "name": "Cluster1",
   "id": 0,
   "dynamicallyCreated": false,
   "machineMatchType": "name",
   "minDynamicClusterSize": 1,
   "dynamicClusterCooloffPeriodSeconds": 900,
   "serverTemplate": [
      "serverTemplates",
      "ServerTemplate1"
   ]
}

----------------------------------------------------------------------------
Activate the changes
----------------------------------------------------------------------------

curl -v \
   --user admin:admin123 \
   -H X-Requested-By:MyClient \
   -H Accept:application/json \
   -H Content-Type:application/json \
   -d "{}" \

HTTP/1.1 200 OK

Response Body:
{}
Synchronously start the managed servers

```
curl -v \
--user admin:admin123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
serverLifeCycleRuntimes/Cluster1Server1/start
```

HTTP/1.1 200 OK

Response Body:

```
{
  "links": [
    {
      "rel": "job",
serverLifeCycleRuntimes/Cluster1Server1/tasks/_0_start"
    }
  ],
  "identity": [
    "serverLifeCycleRuntimes",
    "Cluster1Server1",
    "tasks",
    "_0_start"
  ],
  "running": false,
  "systemTask": false,
  "endTimeAsLong": 1565294805092,
  "name": "_0_start",
  "progress": "success",
  "description": "Starting Cluster1Server1 server ...",
  "serverName": "Cluster1Server1",
  "taskError": null,
  "startTimeAsLong": 1565294784574,
  "type": "ServerLifeCycleTaskRuntime",
  "operation": "start",
  "taskStatus": "TASK COMPLETED",
  "parentTask": null,
  "completed": true,
  "intervalToPoll": 1000,
  "startTime": "2019-08-08T16:06:24.574-04:00",
  "endTime": "2019-08-08T16:06:45.092-04:00"
}
```

curl -v \
--user admin:admin123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
serverLifeCycleRuntimes/Cluster1Server2/start

HTTP/1.1 200 OK
Response Body:
{
    "links": [
        {
            "rel": "job",
            "href": "http://\localhost:7001\management\weblogic\latest\domainRuntime\serverLifeCycleRuntimes\Cluster1Server2\tasks\/_1_start"
        }
    ],
    "identity": [
        "serverLifeCycleRuntimes",
        "Cluster1Server2",
        "tasks",
        "/_1_start"
    ],
    "running": false,
    "systemTask": false,
    "endTimeAsLong": 1565294865526,
    "name": "/_1_start",
    "progress": "success",
    "description": "Starting Cluster1Server2 server ...",
    "serverName": "Cluster1Server2",
    "taskError": null,
    "startTimeAsLong": 1565294848746,
    "type": "ServerLifeCycleTaskRuntime",
    "operation": "start",
    "taskStatus": "TASK COMPLETED",
    "parentTask": null,
    "completed": true,
    "intervalToPoll": 1000,
    "startTime": "2019-08-08T16:07:28.746-04:00",
    "endTime": "2019-08-08T16:07:45.526-04:00"
}

Verify that the managed servers are running

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-X GET http://\localhost:7001\management\weblogic\latest\domainRuntime\serverLifeCycleRuntimes?links=none
```

HTTP/1.1 200 OK

Response Body:
{
    "items": [
        {
            "identity": [
                "serverLifeCycleRuntimes",
                "Cluster1Server1"
            ],
            "nodeManagerRestartCount": 0,
            "middlewareHome": "/Oracle_Home",
            "name": "Cluster1Server1",
            "weblogicHome": "/Oracle_Home/wlserver",
```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{"items": [
 |
 |
 |
 |
 |
 |
 ]}
Creating Partitions

Review an example script that demonstrates how a System Administrator creates a partition.

This includes:

- A new security realm for the partition, including security providers, the primary identity domain, and the management identity domain
- A virtual target for the cluster, on which the applications will run
- A virtual target for the Administration Server, so that the Deploier can create system resources and deploy applications
- A resource group for each virtual target
- Partition users in the Administrator, Deployer, Monitor, and Operator roles
- Creating a resource manager for the new partition to monitor and control system resource sharing by collocated partition users

Note:

WebLogic Server Multitenant domain partitions, resource groups, resource group templates, virtual targets, and Resource Consumption Management are deprecated in WebLogic Server 12.2.1.4.0 and will be removed in the next release.

To view long URLs, use the scroll bar located beneath the section.

Demonstrate a domain admin configuring a partition

Start editing

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}" \
```

HTTP/1.1 200 OK

Response Body:

{}
View the default values for a new security realm

```
curl -v \
```

HTTP/1.1 200 OK

Response Body:
```
{
  "managementIdentityDomain": null,
  "maxWebLogicPrincipalsInCache": 500,
  "enableWebLogicPrincipalValidatorCache": true,
  "authMethods": null,
  "validateDDSecurityData": false,
  "combinedRoleMappingEnabled": true,
  "delegateMBeanAuthorization": false,
  "deployableProviderSynchronizationTimeout": 60000,
  "deployableProviderSynchronizationEnabled": false,
  "identityAssertionHeaderNamePrecedence": null,
  "retireTimeoutSeconds": 60,
  "securityDDModel": "DDOnly",
  "certPathBuilder": null,
  "name": null
}
```

Create a security realm for the new partition

```
curl -v \
  --user admin:admin123 \n  -H X-Requested-By:MyClient \n  -H Accept:application/json \n  -H Content-Type:application/json \n  -d "{
    name: 'Partition1Realm',
    managementIdentityDomain: 'Partition1IdentityDomain'
  }" \
```

HTTP/1.1 201 Created

Location: http://localhost:7001/management/weblogic/latest/edit/securityConfiguration/realm/Partition1Realm
Response Body:
{
}

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
    name: 'DefaultAuthenticator',
    type: 'weblogic.security.providers.authentication.DefaultAuthenticator'
}"

HTTP/1.1 201 Created

Response Body:
{
}

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
    name: 'DefaultIdentityAsserter',
    type: 'weblogic.security.providers.authentication.DefaultIdentityAsserter',
    activeTypes: ['AuthenticatedUser','weblogic-jwt-token']
}"

HTTP/1.1 201 Created

Response Body:
{
}

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
    name: 'SystemPasswordValidator',
    type: 'com.bea.security.providers.authentication.passwordvalidator.SystemPasswordValidator'
}"

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Creating Partitions

4-25
minPasswordLength: 8,
minNumericOrSpecialCharacters: 1
)*
realms/Partition1Realm/passwordValidators

HTTP/1.1 201 Created
Location: http://localhost:7001/management/weblogic/latest/edit/
securityConfiguration/realms/Partition1Realm/passwordValidators/
SystemPasswordValidator

Response Body:
{}

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  name: 'XACMLRoleMapper',
  type: 'weblogic.security.providers.xacml.authorization.XACMLRoleMapper'
}" \
realms/Partition1Realm/roleMappers

HTTP/1.1 201 Created
Location: http://localhost:7001/management/weblogic/latest/edit/
securityConfiguration/realms/Partition1Realm/roleMappers/XACMLRoleMapper

Response Body:
{}

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  name: 'XACMLAuthorizer',
  type: 'weblogic.security.providers.xacml.authorization.XACMLAuthorizer'
}" \
realms/Partition1Realm/authorizers

HTTP/1.1 201 Created
Location: http://localhost:7001/management/weblogic/latest/edit/
securityConfiguration/realms/Partition1Realm/authorizers/XACMLAuthorizer

Response Body:
{}

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Creating Partitions
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
      name: 'DefaultAdjudicator',
      type: 'weblogic.security.providers.authorization.DefaultAdjudicator'
    }"

HTTP/1.1 201 Created
Location: http://localhost:7001/management/weblogic/latest/edit/securityConfiguration/realms/Partition1Realm/adjudicator

Response Body:
{}

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
      name: 'DefaultCredentialMapper',
      type: 'weblogic.security.providers.credentials.DefaultCredentialMapper'
    }"

HTTP/1.1 201 Created

Response Body:
{}

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
      name: 'WebLogicCertPathProvider',
      type: 'weblogic.security.providers.pk.WebLogicCertPathProvider'
    }"

HTTP/1.1 201 Created
Location: http://localhost:7001/management/weblogic/latest/edit/securityConfiguration/realms/Partition1Realm/certPathProviders

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Creating Partitions
securityConfiguration/realms/Partition1Realm/certPathProviders/
WebLogicCertPathProvider

Response Body:
{}

curl -v  
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "
certPathBuilder: [ 'securityConfiguration', 'realms', 'Partition1Realm', 
'certPathProviders', 'WebLogicCertPathProvider' ]
"
realms/Partition1Realm

HTTP/1.1 200 OK
Response Body:
{}

------------------------------------------------------------------
View the default values for a new virtual target
------------------------------------------------------------------

curl -v  
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-X GET http://localhost:7001/management/weblogic/latest/edit/virtualTargetCreateForm?
links=none

HTTP/1.1 200 OK
Response Body:
{
    "explicitPort": 0,
    "notes": null,
    "portOffset": 0,
    "hostNames": null,
    "uriPrefix": "/",
    "deploymentOrder": 1000,
    "partitionChannel": "PartitionChannel",
    "tags": null,
    "targets": [],
    "name": null
}
Create a virtual target for the new partition

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
   name: 'Partition1VirtualTarget',
   hostNames: [ 'localhost' ],
   uriPrefix: '/partition1',
   targets: [ { identity: [ 'clusters', 'Cluster1' ] } ]
}"
```

HTTP/1.1 201 Created
Location: http://localhost:7001/management/weblogic/latest/edit/virtualTargets/Partition1VirtualTarget
Response Body:
{}

Create a resource manager for the new partition

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
   name: 'Partition1ResourceManager'
}"
```

HTTP/1.1 201 Created
Response Body:
{}

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
   name: 'FileOpen'
}"
```
HTTP/1.1 201 Created
Response Body:
{
}

curl -v \
--user admin:admin123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
-H Content-Type:application/json \ 
-d "{"name": "CpuUtilization"}" \ 

HTTP/1.1 201 Created
Response Body:
{
}

curl -v \
--user admin:admin123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
-H Content-Type:application/json \ 
-d "{"name": "HeapRetained"}" \ 

HTTP/1.1 201 Created
Response Body:
{
}

Create a trigger that notifies the domain admin if the new partition has 4 or more files open

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

Create a trigger that notifies the domain admin if the new partition uses 50% of the CPU

Create a trigger that slows down traffic to the new partition if it uses 60% or more of the CPU
HTTP/1.1 201 Created


Response Body:

{}

Create a trigger that notifies the domain admin if the new partition uses more than 200 megabytes of the heap

HTTP/1.1 201 Created


Response Body:

{}

View the default values for a new partition
HTTP/1.1 200 OK

Response Body:
{
  "batchJobsExecutorServiceName": null,
  "jobSchedulerTableName": "WEBLOGIC_TIMERS",
  "notes": null,
  "parallelDeployApplications": true,
  "startupTimeout": 0,
  "maxConcurrentLongRunningRequests": 50,
  "ignoreSessionsDuringShutdown": false,
  "maxConcurrentNewThreads": 50,
  "tags": null,
  "gracefulShutdownTimeout": 0,
  "RCMHistoricalDataBufferLimit": 250,
  "uploadDirectoryName": null,
  "eagerTrackingOfResourceMetricsEnabled": false,
  "parallelDeployApplicationModules": false,
  "partitionLifeCycleTimeoutVal": 30,
  "resourceDeploymentPlanPath": null,
  "batchJobsDataSourceJndiName": null,
  "dataSourceForJobScheduler": null,
  "resourceManagerRef": null,
  "realm": null,
  "partitionWorkManagerRef": null,
  "defaultTargets": [],
  "availableTargets": [],
  "name": null
}

Create the new partition

```bash
curl -v \  
--user admin:admin123 \  
-H X-Requested-By:MyClient \  
-H Accept:application/json \  
-H Content-Type:application/json \  
-d "{"  
  name:               'Partition1',
  realm:      [ 'securityConfiguration', 'realms', 'Partition1Realm' ],
  resourceManagerRef: ['resourceManagement', 'resourceManagers', 'Partition1ResourceManager' ],
  availableTargets:  [ { identity: [ 'virtualTargets', 'Partition1VirtualTarget' ] } ],
  defaultTargets:    [ { identity: [ 'virtualTargets', 'Partition1VirtualTarget' ] } ],
  primaryIdentityDomain: 'Partition1IdentityDomain'
}"
```
HTTP/1.1 201 Created

Location: http://localhost:7001/management/weblogic/latest/edit/partitions/Partition1

Response Body:
{}

View the default values for a new resource group in this partition

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{
    "uploadDirectoryName": null,
    "notes": null,
    "useDefaultTarget": true,
    "administrative": false,
    "autoTargetAdminServer": false,
    "tags": null,
    "resourceGroupTemplate": null,
    "targets": [],
    "name": null
}

Create a resource group for the new partition

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{"name": 'Partition1ResourceGroup',
    "targets": [ { "identity": [ 'virtualTargets', 'Partition1VirtualTarget' ] } ] }
" \

HTTP/1.1 201 Created
Partition1/resourceGroups/Partition1ResourceGroup

Response Body:
{}

Activate the changes

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{}

Create an administrator for the new partition

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
   userName: 'Partition1Admin',
   password: 'Partition1Admin123',
   description: 'Partition1 administrator'
}"

HTTP/1.1 200 OK

Response Body:
{}

Chapter 4
Creating Partitions
-d "{
  groupName: 'Administrators',
  memberUserOrGroupName: 'Partition1Admin'
}"
securityConfiguration/realsms/Partition1Realm/authenticationProviders/
DefaultAuthenticator/addMemberToGroup

HTTP/1.1 200 OK
Response Body:
{}

-----------------------------------------------
Start the new partition
-----------------------------------------------

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}" \
domainPartitionRuntimes/Partition1/partitionLifeCycleRuntime/start

HTTP/1.1 200 OK
Response Body:
{}


"taskStatus": "TASK COMPLETED",
"parentTask": null,
"completed": true,
"intervalToPoll": 1000,
"startTime": "2019-08-08T16:08:36.335-04:00",
"endTime": "2019-08-08T16:08:38.064-04:00"
}

View the new security realm

curl -v \
--user admin:admin123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
realms/Partition1Realm?links=none

HTTP/1.1 200 OK

Response Body:
{
  "identity": {
    "securityConfiguration",
    "realms",
    "Partition1Realm"
  },
  "managementIdentityDomain": "Partition1IdentityDomain",
  "autoRestartOnNonDynamicChanges": true,
  "credentialMapperTypes": [
    "com.bea.security.saml2.providers.SAML2CredentialMapper",
    "weblogic.security.providers.credentials.DefaultCredentialMapper",
    "weblogic.security.providers.credentials.PKICredentialMapper",
    "weblogic.security.providers.saml.SAMLCredentialMapperV2"
  ],
  "maxWebLogicPrincipalsInCache": 500,
  "enableWebLogicPrincipalValidatorCache": true,
  "roleMapperTypes": [
    "weblogic.security.providers.authorization.DefaultRoleMapper",
    "weblogic.security.providers.xacml.authorization.XACMLRoleMapper"
  ],
  "adjudicatorTypes": ["weblogic.security.providers.authorization.DefaultAdjudicator"],
  "auditorTypes": ["weblogic.security.providersaudit.DefaultAuditor"],
  "authMethods": null,
  "authenticationProviderTypes": [
    "com.bea.security.saml2.providers.SAML2IdentityAsserter",
    "weblogic.security.providers.authentication.ActiveDirectoryAuthenticator",
    "weblogic.security.providers.authentication.CustomDBMSAuthenticator",
    "weblogic.security.providers.authentication.DefaultAuthenticator",
    "weblogic.security.providers.authentication.DefaultIdentityAsserter",
    "weblogic.security.providers.authentication.IPlanetIdentityAsserter",
    "weblogic.security.providers.authentication.LDAPAuthenticator",
    "weblogic.security.providers.authentication.LDAPX509IdentityAsserter",
    "weblogic.security.providers.authentication.NegotiateIdentityAsserter",
    "weblogic.security.providers.authentication.PKICredentialMapper"
  ]
}
"weblogic.security.providers.authentication.NovellAuthenticator",
"weblogic.security.providers.authentication.OpenLDAPAuthenticator",
"weblogic.security.providers.authentication.OracleIdentityCloudIntegrator",
"weblogic.security.providers.authentication.OracleInternetDirectoryAuthenticator",
"weblogic.security.providers.authentication.OracleUnifiedDirectoryAuthenticator",
"weblogic.security.providers.authentication.OracleVirtualDirectoryAuthenticator",
"weblogic.security.providers.authentication.ReadOnlySQLAuthenticator",
"weblogic.security.providers.authentication.SQLAuthenticator",
"weblogic.security.providers.authentication.VirtualUserAuthenticator",
"weblogic.security.providers.saml.SAMLAuthenticator",
"weblogic.security.providers.saml.SAMLIdentityAssertionerV2"
],
"validateDDSecurityData": false,
"combinedRoleMappingEnabled": true,
"delegateMBeanAuthorization": false,
"authorizerTypes": [
    "weblogic.security.providers.authorization.DefaultAuthorizer",
    "weblogic.security.providers.xacml.authorization.XACMLAuthorizer"
],
"deployableProviderSynchronizationTimeout": 60000,
"passwordValidatorTypes": [
    "com.bea.security.providers.authentication.passwordvalidator.SystemPasswordValidator"
],
"certPathProviderTypes": [
    "weblogic.security.providers.pk.CertificateRegistry",
    "weblogic.security.providers.pk.WebLogicCertPathProvider"
],
"deployableProviderSynchronizationEnabled": false,
"identityAssertionHeaderNamePrecedence": [],
"name": "Partition1Realm",
"retireTimeoutSeconds": 60,
"securityDDModel": "DDOnly",
"certPathBuilder": [
    "securityConfiguration",
    "realms",
    "Partition1Realm",
    "certPathProviders",
    "WebLogicCertPathProvider"
]
}

------------------------------------------------------------------------
View the new virtual targets
------------------------------------------------------------------------
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK
Response Body:
{"items": [{
  "identity": [
    "virtualTargets",
    "Partition1VirtualTarget"
  ],
  "explicitPort": 0,
  "notes": null,
  "portOffset": 0,
  "hostNames": ["localhost"],
  "name": "Partition1VirtualTarget",
  "uriPrefix": "/\partition1",
  "id": 0,
  "deploymentOrder": 1000,
  "dynamicallyCreated": false,
  "type": "VirtualTarget",
  "partitionChannel": "PartitionChannel",
  "tags": [],
  "targets": [{"identity": [
    "clusters",
    "Cluster1"
  ]}]
}]
}

----------------------------------------------------------------------
View the new partition's resource groups
----------------------------------------------------------------------
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{"items": [{
  "identity": [
    "partitions",
    "Partition1",
    "resourceGroups",
    "Partition1ResourceGroup"
  ],
  "uploadDirectoryName": "/domains\mydomain\partitions\Partition1\system\servers\AdminServer\upload\",
  "notes": null,
  "useDefaultTarget": false,
  "administrative": false,
  "name": "Partition1ResourceGroup",
  "autoTargetAdminServer": false,
  "id": 0,
  "dynamicallyCreated": false,
  "type": "ResourceGroup",
}]}
View all the resource manager configurations

---

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    resourceManagement: {
      links: [], fields: [],
      children: {
        resourceManagers: {
          links: [], fields: ['name'],
          children: {
            fileOpen: {
              links: [], fields: [],
              children: {
                triggers: { links: [], fields: ['name', 'action', 'value'] } }
            },
            heapRetained: {
              links: [], fields: [],
              children: {
                triggers: { links: [], fields: ['name', 'action', 'value'] } }
            },
            cpuUtilization: {
              links: [], fields: [],
              children: {
                triggers: { links: [], fields: ['name', 'action', 'value'] } }
            }
          }
        }
      }
    }
  }
}
```

---
HTTP/1.1 100 Continue HTTP/1.1 200 OK

Response Body:

```json
{
  "partitions": {
    "items": [
      {
        "name": "Partition1",
        "resourceManagerRef": [
          "resourceManagement",
          "resourceManagers",
          "Partition1ResourceManager"
        ],
        "resourceManager": null
      }
    ]
  },
  "resourceManagement": {
    "resourceManagers": {
      "items": [
        {
          "name": "Partition1ResourceManager",
          "fileOpen": {
            "triggers": {
              "items": [
                {
                  "name": "NotifyTrigger",
                  "action": "notify",
                  "value": 4
                }
              ]
            }
          }
        },
        {
          "name": "SlowTrigger",
          "action": "slow",
          "value": 60
        }
      ]
    }
  },
  "cpuUtilization": {
    "triggers": {
      "items": [
        {
          "name": "NotifyTrigger",
          "action": "notify",
          "value": 50
        },
        {
          "name": "SlowTrigger",
          "action": "slow",
          "value": 60
        }
      ]
    }
  },
  "heapRetained": {
    "triggers": {
      "items": [
        {
          "name": "NotifyTrigger",
          "action": "notify",
          "value": 200
        }
      ]
    }
  }
}
```
View the new partition

```
curl -v \
  --user admin:admin123 \
-X GET http://localhost:7001/management/weblogic/latest/edit/partitions/Partition1?
  links=none
```

HTTP/1.1 200 OK

Response Body:

```json
{
  "identity": [
    "partitions",
    "Partition1"
  ],
  "batchJobsExecutorServiceName": null,
  "jobSchedulerTableName": "WEBLOGIC_TIMERS",
  "notes": null,
  "parallelDeployApplications": true,
  "startupTimeout": 0,
  "partitionID": "8cc47e77-e543-4ab4-a963-c75c2cac051e",
  "maxConcurrentLongRunningRequests": 50,
  "ignoreSessionsDuringShutdown": false,
  "type": "Partition",
  "maxConcurrentNewThreads": 50,
  "tags": [],
  "gracefulShutdownTimeout": 0,
  "RCMHistoricalDataBufferLimit": 250,
  "uploadDirectoryName": "\domains\mydomain\partitions\Partition1\system\servers\AdminServer\upload\",
  "primaryIdentityDomain": "Partition1IdentityDomain",
  "eagerTrackingOfResourceMetricsEnabled": false,
  "parallelDeployApplicationModules": false,
  "partitionLifeCycleTimeoutVal": 30,
  "name": "Partition1",
  "resourceDeploymentPlanPath": null,
  "id": 0,
  "batchJobsDataSourceJndiName": null,
  "dynamicallyCreated": false,
  "dataSourceForJobScheduler": null,
  "resourceManagerRef": [
    "resourceManagement",
    "resourceManagers",
    "Partition1ResourceManager"
  ],
  "realm": [
    "securityConfiguration",
    "realms",
    "Partition1Realm"
  ]
}
```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
domainPartitionRuntimes/Partition1?links=none

HTTP/1.1 200 OK
Response Body:
{
    "identity": [
        "domainPartitionRuntimes",
        "Partition1"
    ],
    "partitionID": "8cc47e77-e543-4ab4-a963-c75c2cac051e",
    "name": "Partition1",
    "type": "DomainPartitionRuntime"
}

curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
domainPartitionRuntimes/Partition1/partitionLifeCycleRuntime?links=none

HTTP/1.1 200 OK
Response Body:
{
    "identity": [
        "domainPartitionRuntimes",
        "Partition1",
        "partitionLifeCycleRuntime"
    ],
    "subState": null,
    "name": "Partition1",
    "state": "RUNNING",
    "type": "PartitionLifeCycleRuntime"
}
Search for all of the new partition's partitionRuntimes

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      links: [], fields: [ 'name' ],
      children: {
        partitionRuntimes: {
          links: [], fields: [ 'name', 'state', 'restartRequired' ]
        }
      }
    }
  }
}"

```

HTTP/1.1 200 OK

Response Body:

```
{"serverRuntimes": [{"items": [{
  "name": "Cluster1Server1",
  "partitionRuntimes": [{"items": [{
    "restartRequired": false,
    "name": "Partition1",
    "state": "RUNNING"
  }]}},
},
{ "name": "AdminServer",
  "partitionRuntimes": [{"items": [{
    "restartRequired": false,
    "name": "Partition1",
    "state": "RUNNING"
  }]}},
},
{ "name": "Cluster1Server2",
  "partitionRuntimes": [{"items": [{
    "restartRequired": false,
    "name": "Partition1",
    "state": "RUNNING"
  }]}]
}]
```

Chapter 4
Creating Partitions

4-44
Configuring System Resources

Review an example script that demonstrates how a Deployer configures JDBC and JMS system resources.

Note:
To view long URLs, use the scroll bar located beneath the section.

Demonstrate a domain deployer configuring system resources

View the default values for a new global JDBC system resource

```
```

HTTP/1.1 200 OK

Response Body:
```
{
  "notes": null,  
  "moduleType": null,  
  "deploymentPrincipalName": null,  
  "compatibilityName": null,  
  "deploymentOrder": 100,  
  "tags": null,  
  "targets": [],  
  "name": null,  
  "descriptorFileName": null
}
```

Start editing

```
curl -v --user deployer:deployer123 -H X-Requested-By:MyClient -H Accept:application/json
```
Create a new global JDBC system resource and set its name

```
curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{"name": 'JDBCDataSource1', 
    "targets": [ { "identity": [ clusters, 'Cluster1' ] } ]}"
saveChanges=false
```

HTTP/1.1 201 Created

JDBCDataSource1

Response Body:
{}

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{"name": 'JDBCDataSource1'}"
JDBCDataSource1/JDBCResource

HTTP/1.1 200 OK

Response Body:
{}``
Configure the JDBC system resource's JNDI name

```
curl -v \
--user deployer:deployer123 \
-X Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
   JNDINames: ['JDBCDataSource1']
}"
JDBCDataSource1/JDBCResource/JDBCDriverParams
```

HTTP/1.1 200 OK

Response Body:


Configure the JDBC system resource's driver info

```
curl -v \
--user deployer:deployer123 \
-X Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
   driverName: 'org.apache.derby.jdbc.ClientXADataSource',
   url:      'jdbc:derby://localhost:1527/demo'
}"
JDBCDataSource1/JDBCResource/JDBCDriverParams
```

HTTP/1.1 200 OK

Response Body:


```
curl -v \
--user deployer:deployer123 \
-X Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
   name: 'portNumber',
   value: '1527'
}"
JDBCDataSource1/JDBCResource/JDBCDriverParams/properties/properties
```
HTTP/1.1 201 Created


Response Body:
{}

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{"name": 'databaseName', "value": 'demo;create=true'}" \

HTTP/1.1 201 Created


Response Body:
{}

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{"name": 'serverName', "value": 'localhost'}" \

HTTP/1.1 201 Created


Response Body:
{}

----------------------------------------------------------------------------------

Activate the changes
----------------------------------------------------------------------------------

curl -v \

--user deployer:deployer123 
-H X-Requested-By:MyClient 
-H Accept:application/json 
-H Content-Type:application/json 
-d "{}" 

HTTP/1.1 200 OK
Response Body:
{

-- -----------------------------------------------------------------------------
View the new JDBC system resource
-- -----------------------------------------------------------------------------
curl -v 
--user deployer:deployer123 
-H X-Requested-By:MyClient 
-H Accept:application/json 

HTTP/1.1 200 OK
Response Body:
{
  "identity": [ 
    "JDBCSystemResources", 
    "JDBCDataSource1" 
  ],
  "notes": null,
  "moduleType": null,
  "deploymentPrincipalName": null,
  "descriptorFileName": "jdbc/JDBCDataSource1-6865-jdbc.xml",
  "name": "JDBCDataSource1",
  "compatibilityName": null,
  "id": 0,
  "deploymentOrder": 100,
  "dynamicallyCreated": false,
  "type": "JDBCSystemResource",
  "sourcePath": "/config/jdbc/JDBCDataSource1-6865-jdbc.xml",
  "tags": [],
  "resource": [ 
    "JDBCSystemResources",
    "JDBCDataSource1",
    "JDBCResource" 
  ],
  "targets": [{"identity": [ 
    "clusters",
    "Cluster1"
  ]}]}

-- -----------------------------------------------------------------------------

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
JDBCDataSource1/JDBCResource?links=none

HTTP/1.1 200 OK
Response Body:
{
   "identity": [
      "JDBCSystemResources",
      "JDBCDataSource1",
      "JDBCResource"
   ],
   "dataSourceType": null,
   "name": "JDBCDataSource1",
   "id": 0,
   "version": null
}

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
JDBCDataSource1/JDBCResource/JDBCDataSourceParams?links=none

HTTP/1.1 200 OK
Response Body:
{
   "identity": [
      "JDBCSystemResources",
      "JDBCDataSource1",
      "JDBCResource",
      "JDBCDataSourceParams"
   ],
   "connectionPoolFailoverCallbackHandler": null,
   "globalTransactionsProtocol": "OnePhaseCommit",
   "algorithmType": "Failover",
   "scope": "Global",
   "failoverRequestIfBusy": false,
   "proxySwitchingCallback": null,
   "JNDINames": ["JDBCDataSource1"],
   "proxySwitchingProperties": null,
   "dataSourceList": null,
   "keepConnAfterGlobalTx": false
}

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
JDBCDataSource1/JDBCResource/JDBCDriverParams?links=none
HTTP/1.1 200 OK

Response Body:
{
    "identity": [
        "JDBCSystemResources",
        "JDBCDataSource1",
        "JDBCResource",
        "JDBCDriverParams"
    ],
    "password": null,
    "driverName": "org.apache.derby.jdbc.ClientXADataSource",
    "usePasswordIndirection": false,
    "url": "jdbc:derby:/\/localhost:1527\/demo",
    "useXaDataSourceInterface": true
}

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{"items": [
    {
        "identity": [
            "JDBCSystemResources",
            "JDBCDataSource1",
            "JDBCResource",
            "JDBCDriverParams",
            "properties",
            "properties",
            "portNumber"
        ],
        "encryptedValue": null,
        "name": "portNumber",
        "sysPropValue": null,
        "value": "1527"
    },
    {
        "identity": [
            "JDBCSystemResources",
            "JDBCDataSource1",
            "JDBCResource",
            "JDBCDriverParams",
            "properties",
            "properties",
            "databaseName"
        ],
        "encryptedValue": null,
        "name": "databaseName",
        "sysPropValue": null,
        "value": "demo;create=true"
    }
]
Search for all of the new JDBC data source's runtimes

```
curl -v \
  --user deployer:deployer123 \
  -H X-Requested-By:MyClient \
  -H Accept:application/json \
  -H Content-Type:application/json \
  -d "{ 
    links: [], fields: [], 
    children: { 
      serverRuntimes: { 
        links: [], fields: [ 'name' ], 
        children: { 
          JDBCServiceRuntime: { 
            links: [], fields: [ 'name’ ], 
            children: { 
              JDBCDataSourceRuntimeMBeans: { 
                links: [], fields: [ 'name', 'state' ], 
                name: [ 'JDBCDataSource1' ] 
              } 
            } 
          } 
        } 
      } 
    } 
  }" \
```

HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": {"items": [ 
  { 
    "name": "Cluster1Server1",
    "JDBCServiceRuntime": { 
      "name": "Cluster1Server1",
      "JDBCSystemResources", 
      "JDBCDataSources1", 
      "JDBCResource", 
      "JDBCDriverParams", 
      "properties", 
      "properties", 
      "serverName" 
    },
    "encryptedValue": null,
    "name": "serverName",
    "sysPropValue": null,
    "value": "localhost"
  }
]}

Chapter 4
Configuring System Resources

4-52
"JDBCDatasourceRuntimeMBeans": {"items": [{
  "state": "Running",
  "name": "JDBCDatasource1"
}]
}]
}
{
  "name": "AdminServer",
  "JDBCServiceRuntime": {
    "name": "AdminServer",
    "JDBCDatasourceRuntimeMBeans": {"items": []}
  }
}
{
  "name": "Cluster1Server2",
  "JDBCServiceRuntime": {
    "name": "Cluster1Server2",
    "JDBCDatasourceRuntimeMBeans": {"items": [{
      "state": "Running",
      "name": "JDBCDatasource1"
    }]
  }
}
}]]

Start editing

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}" \

HTTP/1.1 200 OK

Response Body:
{}

View the default values for a new global JMS file store

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
HTTP/1.1 200 OK

Response Body:
{
  "notes": null,
  "fileLockingEnabled": true,
  "distributionPolicy": "Distributed",
  "partialClusterStabilityDelaySeconds": 240,
  "deploymentOrder": 1000,
  "directory": null,
  "initialBootDelaySeconds": 60,
  "ioBufferSize": -1,
  "minWindowBufferSize": -1,
  "failbackDelaySeconds": -1,
  "cacheDirectory": null,
  "numberOfRestartAttempts": 6,
  "initialSize": 0,
  "logicalName": null,
  "maxFileSize": 1342177280,
  "synchronousWritePolicy": "Direct-Write",
  "blockSize": -1,
  "tags": null,
  "maxWindowBufferSize": -1,
  "migrationPolicy": "Off",
  "secondsBetweenRestarts": 30,
  "failOverLimit": -1,
  "targets": [],
  "name": null
}

Create a new global file store

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "|
  name: 'FileStore1',
  targets: [ { identity: [ 'clusters', 'Cluster1' ] } ]
}" \

HTTP/1.1 201 Created

Location: http://localhost:7001/management/weblogic/latest/edit/fileStores/FileStore1

Response Body:
{}
View the default values for a new global JMS server

```
curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

HTTP/1.1 200 OK

Response Body:

```
{
  "messagesThresholdHigh": -1,
  "hostingTemporaryDestinations": true,
  "temporaryTemplateName": null,
  "notes": null,
  "maximumMessageSize": 2147483647,
  "allowsPersistentDowngrade": false,
  "storeMessageCompressionEnabled": false,
  "deploymentOrder": 1000,
  "pagingMessageCompressionEnabled": false,
  "messageBufferSize": -1,
  "expirationScanInterval": 30,
  "bytesThresholdLow": -1,
  "messagesThresholdLow": -1,
  "blockingSendPolicy": "FIFO",
  "pagingBlockSize": -1,
  "insertionPausedAtStartup": "default",
  "pagingMaxWindowBufferSize": -1,
  "bytesThresholdHigh": -1,
  "pagingMaxFileSize": 1342177280,
  "productionPausedAtStartup": "default",
  "pagingFileLockingEnabled": true,
  "tags": null,
  "bytesMaximum": -1,
  "temporaryTemplateResource": null,
  "messageCompressionOptions": "GZIP_DEFAULT_COMPRESSION",
  "pagingMinWindowBufferSize": -1,
  "pagingIoBufferSize": -1,
  "messagesMaximum": -1,
  "consumptionPausedAtStartup": "default",
  "pagingDirectory": null,
  "storeEnabled": true,
  "persistentStore": null,
  "targets": [],
  "name": null
}
```

Create a new global JMS server and hook it up to the cluster and file store

---

Chapter 4
Configuring System Resources

---

4-55
curl -v \
  --user deployer:deployer123 \
  -H X-Requested-By:MyClient \
  -H Accept:application/json \
  -H Content-Type:application/json \
  -d "{
    name: 'JMSServer1',
    messagesMaximum: 10000,
    bytesMaximum: 10000000,
    targets: [ { identity: [ 'clusters', 'Cluster1' ] } ],
    persistentStore: [ 'fileStores', 'FileStore1' ]
  }" \

HTTP/1.1 201 Created

Location: http://localhost:7001/management/weblogic/latest/edit/JMSServers/JMSServer1

Response Body:
{}

__________________________________________________________________________

View the default values for a new global JMS system resource
__________________________________________________________________________

curl -v \
  --user deployer:deployer123 \
  -H X-Requested-By:MyClient \
  -H Accept:application/json \
  -H Content-Type:application/json \
JMSSystemResourceCreateForm?links=none

HTTP/1.1 200 OK

Response Body:
{
  "notes": null,
  "moduleType": null,
  "deploymentPrincipalName": null,
  "compatibilityName": null,
  "deploymentOrder": 100,
  "tags": null,
  "targets": [],
  "name": null,
  "descriptorFileName": null
}
__________________________________________________________________________

Create a new global JMS system resource and hook it up to the cluster
__________________________________________________________________________
curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{  
  name: 'JMSSystemResource1',  
  targets: [ { identity: [ 'clusters', 'Cluster1' ] } ]  
}"  

HTTP/1.1 201 Created

Location: http://localhost:7001/management/weblogic/latest/edit/JMSSystemResources/JMSSystemResource1

Response Body:
{}

----------------------------------------------------------------------
View the default values for a new JMS subdeployment
----------------------------------------------------------------------

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{
  "notes": null,
  "moduleType": null,
  "compatibilityName": null,
  "untargeted": false,
  "tags": null,
  "targets": [],
  "name": null
}

----------------------------------------------------------------------
Create a new JMS subdeployment and hook it up to the JMS server
----------------------------------------------------------------------

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \

4-57
-H Accept:application/json
-H Content-Type:application/json
-d "{
    name: 'JMSSubDeployment1',
    targets: [ { identity: [ 'JMSServers', 'JMSServer1' ] } ]
}"
JMSSystemResource1/subDeployments

HTTP/1.1 201 Created

Location: http://localhost:7001/management/weblogic/latest/edit/JMSSystemResources/
JMSSystemResource1/subDeployments/JMSSubDeployment1

Response Body:
{}

----------------------------------------------------------------------
View the default values for a new JMS connection factory
----------------------------------------------------------------------

curl -v
--user deployer:deployer123
-H X-Requested-By:MyClient
-H Accept:application/json
JMSSystemResource1/JMSResource/connectionFactoryCreateForm?links=none

HTTP/1.1 200 OK

Response Body:
{
    "notes": null,
    "JNDIName": null,
    "defaultTargetingEnabled": false,
    "localJNDIName": null,
    "name": null
}

----------------------------------------------------------------------
Create a new JMS connection factory and hook it up to the JMS subdeployment
----------------------------------------------------------------------

curl -v
--user deployer:deployer123
-H X-Requested-By:MyClient
-H Accept:application/json
-H Content-Type:application/json
-d "{
    name: 'ConnectionFactory1',
    subDeploymentName: 'JMSSubDeployment1'
}"

HTTP/1.1 201 Created


Response Body:
{}

-------------------------------
View the default values for a new JMS distributed queue
-------------------------------

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{}

-------------------------------
Create a new JMS uniform distributed queue and hook it up to the JMS subdeployment
-------------------------------

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
HTTP/1.1 201 Created

Response Body:
{}

Activate the changes

curl -v
--user deployer:deployer123
-H X-Requested-By:MyClient
-H Accept:application/json
-H Content-Type:application/json
-d "{}"

HTTP/1.1 200 OK
Response Body:
{}

View the file stores

curl -v
--user deployer:deployer123
-H X-Requested-By:MyClient
-H Accept:application/json

HTTP/1.1 200 OK
Response Body:
{"items": [{"identity": [{"fileStores": "FileStore1"}]}]"}
View the JMS servers

```
curl -v \
```

HTTP/1.1 200 OK

Response Body:

```
{"items": [{
 "identity": [
 "JMSServers",
 "JMSServer1"
 ],
 "messagesThresholdHigh": -1,
 "hostingTemporaryDestinations": true,
 "temporaryTemplateName": null,
 ]}

```

"notes": null,
"maximumMessageSize": 2147483647,
"allowsPersistentDowngrade": false,
"storeMessageCompressionEnabled": false,
"deploymentOrder": 1000,
"type": "JMSServer",
"pagingMessageCompressionEnabled": false,
"messageBufferSize": -1,
"expirationScanInterval": 30,
"bytesThresholdLow": -1,
"messagesThresholdLow": -1,
"blockingSendPolicy": "FIFO",
"id": 0,
"dynamicallyCreated": false,
"pagingBlockSize": -1,
"insertionPausedAtStartup": "default",
"pagingMaxWindowBufferSize": -1,
"bytesThresholdHigh": -1,
"pagingMaxFileSize": 1342177280,
"productionPausedAtStartup": "default",
"pagingFileLockingEnabled": true,
"tags": [],
"bytesMaximum": 10000000,
"temporaryTemplateResource": null,
"messageCompressionOptions": "GZIP_DEFAULT_COMPRESSION",
"pagingMinWindowBufferSize": -1,
"pagingIoBufferSize": -1,
"messagesMaximum": 10000,
"name": "JMSServer1",
"consumptionPausedAtStartup": "default",
"pagingDirectory": null,
"storeEnabled": true,
"persistentStore": [FileStore1],
"targets": [{"identity": [clusters, Cluster1]}
}}}

View the JMS system resources and their children

```
curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    JMSSystemResources: {
      links: [],
      children: |
```
Chapter 4
Configuring System Resources

```
JMSResource: {
    links: [], fields: [],
    children: {
        connectionFactories: {
            links: []
        },
        distributedQueues: {
            links: []
        },
    },
    subDeployments: {
        links: []
    }
}
```


HTTP/1.1 200 OK

Response Body:

```
{"JMSSystemResources": {"items": [{
    "identity": [
        "JMSSystemResources",
        "JMSSystemResource1"
    ],
    "notes": null,
    "moduleType": null,
    "deploymentPrincipalName": null,
    "descriptorFileName": "jms/jmssystemresource1-jms.xml",
    "name": "JMSSystemResource1",
    "compatibilityName": null,
    "id": 0,
    "deploymentOrder": 100,
    "dynamicallyCreated": false,
    "type": "JMSSystemResource",
    "sourcePath": ".\config\jms/jmssystemresource1-jms.xml",
    "tags": [],
    "resource": [
        "JMSSystemResources",
        "JMSSystemResource1",
        "JMSResource"
    ],
    "targets": [{"identity": [
        "clusters",
        "Cluster1"
    ]},
    "subDeployments": {"items": [{
        "identity": [
            "JMSSystemResources",
            "JMSSystemResource1",
            "JMSSubDeployment1"
        ],
        "notes": null,
        "moduleType": null,
        "name": "JMSSubDeployment1",
        "compatibilityName": null,
    ]}
```
Search for all of the JMS related runtimes

perl -v
--user deployer:deployer123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \n-d "| links: [], fields: [],
children: {
serverRuntimes: {
  links: [], fields: [ 'name' ],
  children: {
    JMSRuntime: {
      links: [], fields: [ 'name', 'healthState' ],
      children: {
        JMServers: {
          links: [], fields: [ 'name', 'healthState' ],
          children: {
            destinations: {
              links: [], fields: [ 'name', 'state' ]
            }
          }
        }
      }
    }
  }
}
HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": [{"items": [
{
  "name": "Cluster1Server1",
  "JMSRuntime": {
    "healthState": {
      "state": "ok",
      "subsystemName": null,
      "partitionName": null,
      "symptoms": []
    },
    "name": "Cluster1Server1.jms",
    "JMSServers": {
      "items": [{
        "healthState": {
          "state": "ok",
          "subsystemName": "JMSServer1@Cluster1Server1",
          "partitionName": null,
          "symptoms": []
        },
        "name": "JMSServer1@Cluster1Server1",
        "destinations": {
          "items": [{
            "state": "started",
            "name": "JMSSystemResource1@JMSServer1@UniformDistributedQueue1"
          }]
        }
      }]
    }
  }
},
{
  "name": "AdminServer",
  "JMSRuntime": {
    "healthState": {
      "state": "ok",
      "subsystemName": null,
      "partitionName": null,
      "symptoms": []
    },
    "name": "AdminServer.jms",
    "JMSServers": {
      "items": []
    }
  }
},
{
  "name": "Cluster1Server2",
  "JMSRuntime": {
    "healthState": {
      "state": "ok",
      "subsystemName": null,
      "partitionName": null,
      "symptoms": []
    },
    "name": "Cluster1Server2.jms",
    "JMSServers": {
      "items": []
    }
  }
}]}
Deploying Domain-Scoped Applications

Review an example script that demonstrates how a Deployer deploys domainScoped applications.

Note:

To view long URLs, use the scroll bar located beneath the section.

Demonstrate a domain deployer deploying apps

Synchronously deploy a domain-scoped server-side application to the cluster

```
curl -v 
  --user deployer:deployer123 
  -H X-Requested-By:MyClient 
  -H Accept:application/json 
  -H Content-Type:application/json 
  -d "{
    name: 'fairShare',
    sourcePath: '/deployments/fairShare.war',
    targets: [ { identity: [ 'clusters', 'Cluster1' ] } ]
  }"
```

HTTP/1.1 201 Created

Location: http://localhost:7001/management/weblogic/latest/edit/appDeployments/fairShare

Response Body:
Asynchronously upload a domain-scoped application from the client and deploy it to the cluster

```
curl -v \
  --user deployer:deployer123 \
  -H X-Requested-By:MyClient \
  -H Accept:application/json \
  -H Content-Type:multipart/form-data \
  http://\localhost:7001\management\weblogic\latest\domainRuntime\deploymentManager\deploymentProgressObjects\fairShare
```
Deploying Domain-Scoped Applications

Get status for job domainRuntime/deploymentManager/deploymentProgressObjects/basicapp

```bash
curl -v
--user deployer:deployer123
-H X-Requested-By:MyClient
-H Accept:application/json
```

HTTP/1.1 200 OK
Response Body:
{
    "identity": [
        "deploymentManager",
        "deploymentProgressObjects",
        "basicapp"
    ],
    "rootExceptions": [],
    "deploymentMessages": [],
    "name": "basicapp",
    "operationType": 3,
    "startTimeAsLong": 1565294940841,
    "state": "STATE_RUNNING",
    "id": "1",
    "type": "DeploymentProgressObject",
    "targets": ["Cluster1"],
    "applicationName": "basicapp",
    "failedTargets": [],
    "progress": "processing",
    "completed": false,
    "intervalToPoll": 1000,
    "startTime": "2019-08-08T16:09:00.841-04:00"
}

Get status for job domainRuntime/deploymentManager/deploymentProgressObjects/basicapp

```
curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
    deploymentManager/deploymentProgressObjects/basicapp?links=none
```

HTTP/1.1 200 OK

Response Body:
{
    "identity": [
        "deploymentManager",
        "deploymentProgressObjects",
        "basicapp"
    ],
    "rootExceptions": [],
    "endTimeAsLong": 1565294943487,
    "deploymentMessages": [
        "[Deployer:149191] Operation "deploy" on application "basicapp" is initializing on "Cluster1Server1".",
        "[Deployer:149191] Operation "deploy" on application "basicapp" is initializing on "Cluster1Server2".",
        "[Deployer:149192] Operation "deploy" on application "basicapp" is in
```
progress on "Cluster1Server1".

[Deployer:149192] Operation "deploy" on application "basicapp" is in progress on "Cluster1Server2".

[Deployer:149194] Operation "deploy" on application "basicapp" has succeeded on "Cluster1Server1".

[Deployer:149194] Operation "deploy" on application "basicapp" has succeeded on "Cluster1Server2".

],

"name": "basicapp",
"operationType": 3,
"startTimeAsLong": 1565294940841,
"state": "STATE_COMPLETED",
"id": "1",
"type": "DeploymentProgressObject",
"targets": ["Cluster1"],
"applicationName": "basicapp",
"failedTargets": [],
"progress": "success",
"completed": true,
"intervalToPoll": 1000,
"startTime": "2019-08-08T16:09:00.841-04:00",
"endTime": "2019-08-08T16:09:03.487-04:00"
}

View the new applications' configurations

```
curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

HTTP/1.1 200 OK

Response Body:

```
{
  "identity": [
    "appDeployments",
    "fairShare"
  ],
  "stagingMode": null,
  "absoluteSourcePath": "\deployments\fairShare.war",
  "notes": null,
  "absoluteAltDescriptorPath": null,
  "deploymentOrder": 100,
  "type": "AppDeployment",
  "installDir": null,
  "id": 0,
  "altDescriptorDir": null,
  "dynamicallyCreated": false,
  "sourcePath": "\deployments\fairShare.war",
  "applicationName": "fairShare",
```
curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{
  "identity": [
    "appDeployments",
    "basicapp"
  ],
  "stagingMode": null,
  "absoluteSourcePath": "\domains\mydomain\servers\AdminServer\upload\basicapp\app\BasicApp.ear",
  "notes": null,
  "absoluteAltDescriptorPath": null,
  "deploymentOrder": 100,
  "type": "AppDeployment",
  "installDir": null,
  "id": 0,
  "altDescriptorDir": null,
  "dynamicallyCreated": false,
  "sourcePath": "servers\AdminServer\upload\basicapp\app\BasicApp.ear",
  "applicationName": "basicapp",
  "absoluteAltDescriptorDir": null,
  "moduleType": "ear",
  "planStagingMode": null,
  "cacheInAppDirectory": false,
  "absoluteInstallDir": null,
  "compatibilityName": null,
  "applicationIdentifier": "fairShare",
  "parallelDeployModules": false,
  "securityDDModel": "DDOnly",
  "untargeted": false,
  "planDir": null,
  "validateDDSecurityData": false,
  "applicationIdentifier": "fairShare",
  "tags": [],
  "planPath": null,
  "versionIdentifier": null,
  "deploymentPrincipalName": null,
  "absolutePlanDir": null,
  "name": "fairShare",
  "targets": [{"identity": [
    "clusters",
    "Cluster1"
  ]}]
}
"absolutePlanPath": "/domains/mydomain/servers/AdminServer/upload/basicapp/plan/Plan.xml",
"untargeted": false,
"planDir": null,
"validateDDSecurityData": false,
"applicationIdentifier": "basicapp",
"tags": [],
"planPath": "servers/AdminServer/upload/basicapp/plan/Plan.xml",
"versionIdentifier": null,
"deploymentPrincipalName": null,
"absolutePlanDir": null,
"name": "basicapp",
"parallelDeployModules": false,
"securityDDModel": "DDOnly",
"targets": [{"identity": [
"clusters",
"Cluster1"
]}]
}

-------------------------------
View the new applications' appDeploymentRuntimes
-------------------------------

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:

|
"identity": [
"deploymentManager",
appDeploymentRuntimes",
"fairShare"
],
"applicationVersion": null,
"partitionName": null,
"name": "fairShare",
"type": "AppDeploymentRuntime",
"applicationName": "fairShare",
"modules": ["fairShare"]
)

curl -v \
--user deployer:deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
Search for all of the new applications' applicationRuntimes

curl -v \ 
--user deployer:deployer123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
-H Content-Type:application/json \ 
-d "{ \ 
  links: [], fields: [], \ 
  children: { \ 
    serverRuntimes: { \ 
      links: [], fields: ['name'], \ 
      children: { \ 
        applicationRuntimes: { \ 
          links: [], \ 
          name: ['fairShare', 'basicapp'] \ 
        } \ 
      } \ 
    } \ 
  } \ 
}" \ 

HTTP/1.1 200 OK
Response Body:
{"serverRuntimes": {"items": [ \ 
  { \ 
    "name": "Cluster1Server1", \ 
    "applicationRuntimes": {"items": [ \ 
    { \ 
      "identity": [ \ 
        "applicationRuntimes", \ 
        "basicapp" \ 
      ], \ 
      "applicationVersion": null, \ 
      "partitionName": null, \ 
      "name": "basicapp", \ 
      "type": "AppDeploymentRuntime", \ 
      "applicationName": "basicapp", \ 
      "modules": [ \ 
        "BasicEJB.jar", \ 
        "BasicAuth" \ 
      ] \ 
    } \ 
  ] \ 
} \ 
] \ 
[168x686]Chapter 4
Deploying Domain-Scoped Applications
[520x768]Chapter 4
Deploying Domain-Scoped Applications

"fairShare"
],
"applicationVersion": null,
"internal": false,
"partitionName": null,
"overallHealthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"healthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "fairShare",
"type": "ApplicationRuntime",
"activeVersionState": 2,
"applicationName": "fairShare"
},
{
  "identity": [
    "applicationRuntimes",
    "basicapp"
  ],
  "applicationVersion": null,
  "internal": false,
  "partitionName": null,
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "basicapp",
  "type": "ApplicationRuntime",
  "activeVersionState": 2,
  "applicationName": "basicapp"
},
{
  "name": "AdminServer",
  "applicationRuntimes": {"items": []}
},
{
  "name": "Cluster1Server2",
  "applicationRuntimes": {"items": [
    {"identity": [
      "applicationRuntimes",
      "fairShare" ]},
    {"identity": [
      "applicationRuntimes",
      "basicapp" ]}
  ]
}
Monitoring Domain Resources

Review an example script that demonstrates how an Operator monitors the entire domain, including its partitions and resource managers.

Resource managers monitor and control system resource sharing by collocated partition users. For more information about resource management, see Configuring Resource Consumption Management in Using Oracle WebLogic Server Multitenant.
Note:

WebLogic Server Multitenant domain partitions, resource groups, resource group templates, virtual targets, and Resource Consumption Management are deprecated in WebLogic Server 12.2.1.4.0 and will be removed in the next release.

The example script also shows how to monitor data sources and JMS, capture and download diagnostic images, search logs, and return consolidated search results.

Note:

To view long URLs, use the scroll bar located beneath the section.

Demonstrate a domain monitor monitoring the domain

Monitor the servers

```
curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

HTTP/1.1 200 OK

Response Body:

```
{"items": [{
    "overallHealthState": {
        "state": "ok",
        "subsystemName": "ServerRuntime",
        "partitionName": null,
        "symptoms": []
    },
    "state": "RUNNING",
    "activationTime": 1565294805882,
    "openSocketsCurrentCount": 6,
    "healthState": {
        "state": "ok",
        "subsystemName": "ServerRuntime",
        "partitionName": null,
        "symptoms": []
    }
}
```
Get the number of open sockets of the server that has the highest number of open sockets

```bash
curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      mergeCollection: true,
      fields: [{ name: 'openSocketsCurrentCount', max: true }]
    }
  }
}"
```
Get the total number of open sockets of the running servers

```
curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
   links: [], fields: [],
   children: {
      serverRuntimes: {
         mergeCollection: true,
         fields: [ { name: 'openSocketsCurrentCount', total:true } ]
      }
   }
}" \
```

HTTP/1.1 200 OK

Response Body:
```
{"serverRuntimes": {"items": [{"openSocketsCurrentCount": {"max": 16}}]}}
```

Get a list of the running servers' overall health states

```
curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
   links: [], fields: [],
   children: {
      serverRuntimes: {
```

HTTP/1.1 200 OK

Response Body:
```
{"serverRuntimes": {"items": [{"openSocketsCurrentCount": {"total": 28, "count": 3}}]}}
```

Oracle

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mergeCollection: true,
fields: [ { name: 'overallHealthState', values: true } ]
}
}
}"

HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": ["items": ["overallHealthState": ["values": [
  { "state": "ok",
    "subsystemName": "ServerRuntime",
    "partitionName": null,
    "symptoms": []
  },
  { "state": "ok",
    "subsystemName": "ServerRuntime",
    "partitionName": null,
    "symptoms": []
  },
  { "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  }
]]
}]

Get a list of the running servers' JVM statistics and links except for the threadStackDump and processCpuLoad fields and the parent and canonical links

curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
'links': [], 'fields': [],
'children': {
'serverRuntimes': {
'links': [], 'fields': [ 'name' ],
'children': {
'JVMRuntime': {
'excludeFields': [ 'threadStackDump', 'processCpuLoad' ],
'excludeLinks': [ 'parent', 'canonical' ]
}
}
}"
HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": {"items": [  
  {  
    "name": "Cluster1Server1",  
    "JVMRuntime": {  
      "links": [{  
        "rel": "self",  
        "href": "http:\/\localhost:7001\management\weblogic\latest\domainRuntime\serverRuntimes\Cluster1Server1\JVMRuntime"  
      }},  
      "identity": ["JVMRuntime"],  
      "javaVersion": "1.8.0_211",  
      "javaVMVendor": "Oracle Corporation",  
      "OSName": "Mac OS X",  
      "javaVendor": "Oracle Corporation",  
      "type": "JVMRuntime",  
      "uptime": 192687,  
      "heapSizeCurrent": 268435456,  
      "heapFreeCurrent": 62703664,  
      "name": "Cluster1Server1",  
      "OSVersion": "10.13.6",  
      "heapSizeMax": 536870912,  
      "heapFreePercent": 61  
    }  
  },  
  {  
    "name": "AdminServer",  
    "JVMRuntime": {  
      "links": [{  
        "rel": "self",  
        "href": "http:\/\localhost:7001\management\weblogic\latest\domainRuntime\serverRuntimes\AdminServer\JVMRuntime"  
      }},  
      "identity": ["JVMRuntime"],  
      "javaVersion": "1.8.0_211",  
      "javaVMVendor": "Oracle Corporation",  
      "OSName": "Mac OS X",  
      "javaVendor": "Oracle Corporation",  
      "type": "JVMRuntime",  
      "uptime": 252187,  
      "heapSizeCurrent": 268435456,  
      "heapFreeCurrent": 83529368,  
      "name": "AdminServer",  
      "OSVersion": "10.13.6",  
      "heapSizeMax": 536870912,  
      "heapFreePercent": 65  
    }  
  },  
  {  
    "name": "Cluster1Server2",  
    "JVMRuntime": {  
      "links": [{  
        "rel": "self",  
        "href": "http:\/\localhost:7001\management\weblogic\latest\domainRuntime\serverRuntimes\Cluster1Server2\JVMRuntime"  
      }},  
      "identity": ["JVMRuntime"],
    
  }
]}

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Monitoring Domain Resources

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Get the admin server's JVM statistics and links except for the threadStackDump and processCpuLoad fields and the parent and canonical links

```bash
```

HTTP/1.1 200 OK

Response Body:
```
{
  "links": [{
    "rel": "self",
  }],
  "identity": [{"JVMRuntime"},
    "javaVersion": "1.8.0_211",
    "javaVMVendor": "Oracle Corporation",
    "OSName": "Mac OS X",
    "javaVendor": "Oracle Corporation",
    "type": "JVMRuntime",
    "uptime": 252352,
    "heapSizeCurrent": 268435456,
    "heapFreeCurrent": 73395304,
    "name": "AdminServer",
    "OSVersion": "10.13.6",
    "heapSizeMax": 536870912,
    "heapFreePercent": 63
  }
}
```
Monitor the partitions

```bash
curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{  
  links: [], fields: [],  
  children: {  
    serverRuntimes: {  
      links: [], fields: ['name'],  
      children: {  
        partitionRuntimes: {  
          links: [], fields: ['name', 'state', 'overallHealthState', 'subsystemHealthStates']  
        }  
      }  
    }  
  }  
}"

HTTP/1.1 200 OK
Response Body:
{"serverRuntimes": {"items": [  
  {  
    "name": "Cluster1Server1",  
    "partitionRuntimes": {"items": [{  
      "subsystemHealthStates": [  
        {  
          "state": "ok",  
          "subsystemName": "jms-internal-notran-adp-Partition1VirtualTarget_jms-internal-notran-adp(Adapter)",  
          "partitionName": "Partition1",  
          "symptoms": []  
        },  
        {  
          "state": "ok",  
          "subsystemName": "bea_wls_internal-Partition1VirtualTarget$Partition1(Application)",  
          "partitionName": "Partition1",  
          "symptoms": []  
        },  
        {  
          "state": "ok",  
          "subsystemName": "eis\jms\internal\WLSConnectionFactoryJNDINoTX(Adapter Outbound Pool)",  
          "partitionName": "Partition1",  
          "symptoms": []  
        },  
        {  
          "state": "ok",  
          "subsystemName": "Cluster1Server1.jms",  
          "partitionName": "Partition1",  
          "symptoms": []  
        }  
      ]  
    }  
  }  
}  
```
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{ "state": "ok",
  "subsystemName": "Cluster1Server1.saf",
  "partitionName": "Partition1",
  "symptoms": []
},
{ "state": "ok",
  "subsystemName": "jms-internal-xa-adp-Partition1VirtualTarget$Partition1(Application)",
  "partitionName": "Partition1",
  "symptoms": []
},
{ "state": "ok",
  "subsystemName": "basicapp$Partition1(Application)",
  "partitionName": "Partition1",
  "symptoms": []
},
{ "state": "ok",
  "subsystemName": "wls-management-services-Partition1VirtualTarget$Partition1(Application)",
  "partitionName": "Partition1",
  "symptoms": []
},
{ "state": "ok",
  "subsystemName": "JMServer.Partition1JMServer1@Cluster1Server1$Partition1",
  "partitionName": "Partition1",
  "symptoms": []
},
{ "state": "ok",
  "subsystemName": "PersistentStore._WLS_EJBTIMER_Cluster1Server1",
  "partitionName": "Partition1",
  "symptoms": []
}
"subsystemName": "eis/jms/internal/WLSConnectionFactoryJNDIXA(Adapter Outbound Pool)",
"partitionName": "Partition1",
"symptoms": []
},
{
"state": "ok",
"subsystemName": "PersistentStore.Partition1FileStore1@Cluster1Server1$Partition1",
"partitionName": "Partition1",
"symptoms": []
}
],
"overallHealthState": {
"state": "ok",
"subsystemName": "PartitionRuntime.Partition1",
"partitionName": "Partition1",
"symptoms": []
},
"name": "Partition1",
"state": "RUNNING"
}]
},
{
"name": "AdminServer",
"partitionRuntimes": {
"items": [{
"subsystemHealthStates": [
{
"state": "ok",
"subsystemName": "PersistentStore._WLS_EJBTIMER_AdminServer",
"partitionName": "Partition1",
"symptoms": []
},
{
"state": "ok",
"subsystemName": "wls-management-services-Partition1-adminVT$Partition1(Application)",
"partitionName": "Partition1",
"symptoms": []
},
{
"state": "ok",
"subsystemName": "eis/jms/internal/WLSConnectionFactoryJNDINoTX(Adapter Outbound Pool)",
"partitionName": "Partition1",
"symptoms": []
},
{
"state": "ok",
"subsystemName": "jms-internal-notran-adp-Partition1-adminVT$Partition1(Application)",
"partitionName": "Partition1",
"symptoms": []
}]
}]}
},
{
    "state": "ok",
    "subsystemName": "Cluster1Server2.jms",
    "partitionName": "Partition1",
    "symptoms": []
},
{
    "state": "ok",
    "subsystemName": "JMSServer.Partition1JMSServer1@Cluster1Server2$Partition1",
    "partitionName": "Partition1",
    "symptoms": []
},
{
    "state": "ok",
    "subsystemName": "Cluster1Server2.saf",
    "partitionName": "Partition1",
    "symptoms": []
},
{
    "state": "ok",
    "subsystemName": "bea_wls_internal-Partition1VirtualTarget$Partition1(Application)",
    "partitionName": "Partition1",
    "symptoms": []
},
{
    "state": "ok",
    "subsystemName": "eis/jms\internal\WLSConnectionFactory:JNDINoTX(Adapter Outbound Pool)",
    "partitionName": "Partition1",
    "symptoms": []
},
{
    "state": "ok",
    "subsystemName": "jms-internal-xa-adp-Partition1VirtualTarget$Partition1(Application)",
    "partitionName": "Partition1",
    "symptoms": []
},
{
    "state": "ok",
    "subsystemName": "basicapp$Partition1(Application)",
    "partitionName": "Partition1",
    "symptoms": []
},
{
    "state": "ok",
    "subsystemName": "wls-management-services-Partition1VirtualTarget$Partition1(Application)",
    "partitionName": "Partition1",
    "symptoms": []
},
{
    "state": "ok",
    "subsystemName": "PersistentStore.Partition1FileStore1@Cluster1Server2$Partition1",
    "partitionName": "Partition1",
    "symptoms": []
}
Monitor the JDBC system resources

```bash
curl -v \
--user monitor:monitor123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \
-d "{
    links: [], fields: [],
    "overallHealthState": {
        "state": "ok",
        "subsystemName": "PartitionRuntime.Partition1",
        "partitionName": "Partition1",
        "symptoms": []
    },
    "name": "Partition1",
    "state": "RUNNING"
}"
```
children: {
  serverRuntimes: {
    links: [], fields: [ 'name' ],
    children: {
      JDBCServiceRuntime: {
        links: [], fields: [ 'name' ],
        children: {
          JDBCDataSourceRuntimeMBeans : { links: [], excludeFields:
            [ 'properties' ] }
        }
      },
      partitionRuntimes: {
        links: [], fields: [ 'name' ],
        children: {
          JDBCPartitionRuntime: {
            links: [], fields: [ 'name' ],
            children: {
              JDBCDataSourceRuntimeMBeans : { links: [], excludeFields:
                [ 'properties' ] }
            }
          }
        }
      }
    }
  }
}


HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": {"items": [{
  "name": "Cluster1Server1",
  "partitionRuntimes": {"items": [{
    "name": "Partition1",
    "JDBCPartitionRuntime": {
      "name": "Partition1",
      "JDBCDataSourceRuntimeMBeans": {"items": [{
        "identity": [
          "partitionRuntimes",
          "Partition1",
          "JDBCPartitionRuntime",
          "JDBCDataSourceRuntimeMBeans",
          "Partition1JDBCDataSource1"
        ],
        "connectionsTotalCount": 1,
        "waitingForConnectionSuccessTotal": 0,
        "highestNumUnavailable": 0,
        "reserveRequestCount": 0,
        "type": "JDBCDataSourceRuntime",
        "waitingForConnectionTotal": 0,
        "enabled": true,
        "currCapacityHighCount": 1,
        "resolvedAsNotCommittedTotalCount": 0,
        "prepStmtCacheHitCount": 0,
        "prepStmtCacheMissCount": 0,
        "databaseProductName": "Apache Derby",
        "commitOutcomeRetryTotalCount": 0,
      }]
    }
  }]
}]
}
"failedRepurposeCount": 0,
"state": "Running",
"moduleId": "Partition1JDBCDataSource1",
"prepStmtCacheAddCount": 0,
"failuresToReconnectCount": 0,
"repurposeCount": 0,
"databaseProductVersion": "10.14.2.0 - (1828579)",
"leakedConnectionCount": 0,
"waitingForConnectionFailureTotal": 0,
"activeConnectionsHighCount": 1,
"connectionDelayTime": 6,
"waitingForConnectionHighCount": 0,
"waitSecondsHighCount": 0,
"versionJDBCDriver": "org.apache.derby.jdbc.ClientXADataSource",
"failedReserveRequestCount": 0,
"prepStmtCacheDeleteCount": 0,
"numAvailable": 1,
"deploymentState": 2,
"unresolvedTotalCount": 0,
"prepStmtCacheAccessCount": 0,
"driverVersion": "10.14.2.0 - (1828579)",
"resolvedAsCommittedTotalCount": 0,
"prepStmtCacheCurrentSize": 0,
"name": "Partition1JDBCDataSource1",
"activeConnectionsCurrentCount": 0,
"currCapacity": 1,
"driverName": "Apache Derby Network Client JDBC Driver",
"activeConnectionsAverageCount": 0,
"numUnavailable": 0,
"waitingForConnectionCurrentCount": 0,
"highestNumAvailable": 1,
"lastTask": null
}]}]
}
"JDBCServiceRuntime": {
"name": "Cluster1Server1",
"JDBCDataSourceRuntimeMBeans": {"items": []
"identity": {
"JDBCServiceRuntime",
"JDBCDataSourceRuntimeMBeans",
"JDBCDataSource1"
},
"connectionsTotalCount": 1,
"waitingForConnectionSuccessTotal": 0,
"highestNumUnavailable": 0,
"reserveRequestCount": 0,
"type": "JDBCDataSourceRuntime",
"waitingForConnectionTotal": 0,
"enabled": true,
"currCapacityHighCount": 1,
"resolvedAsNotCommittedTotalCount": 0,
"prepStmtCacheHitCount": 0,
"prepStmtCacheMissCount": 0,
"databaseProductName": "Apache Derby",
"commitOutcomeRetryTotalCount": 0,
"failedRepurposeCount": 0,
"state": "Running",
"moduleId": "JDBCDataSource1",
"prepStmtCacheAddCount": 0,
"failuresToReconnectCount": 0,
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"repurposeCount": 0,
"databaseProductVersion": "10.14.2.0 - (1828579)",
"leakedConnectionCount": 0,
"waitingForConnectionFailureTotal": 0,
"activeConnectionsHighCount": 1,
"connectionDelayTime": 1707,
"waitingForConnectionHighCount": 0,
"waitSecondsHighCount": 0,
"versionJDBCClient": "org.apache.derby.jdbc.ClientXADataSource",
"failedReserveRequestCount": 0,
"prepStmtCacheDeleteCount": 0,
"numAvailable": 1,
"deploymentState": 2,
"unresolvedTotalCount": 0,
"prepStmtCacheAccessCount": 0,
"driverVersion": "10.14.2.0 - (1828579)",
"resolvedAsCommittedTotalCount": 0,
"prepStmtCacheCurrentSize": 0,
"name": "JDBCDataSource1",
"activeConnectionsCurrentCount": 0,
"currCapacity": 1,
"versionJDBCDriver": "Apache Derby Network Client JDBC Driver",
"activeConnectionsAverageCount": 0,
"numUnavailable": 0,
"waitingForConnectionCurrentCount": 0,
"highestNumAvailable": 1,
"lastTask": null

"name": "AdminServer",
"partitionRuntimes": {{
  "name": "Partition1",
  "JDBCPartitionRuntime": null
}]],
"JDBCServiceRuntime": {
  "name": "AdminServer",
  "JDBCDataSourceRuntimeMBeans": {"items": []}
}

"name": "Cluster1Server2",
"partitionRuntimes": {{
  "name": "Partition1",
  "JDBCPartitionRuntime": {
    "name": "Partition1",
    "JDBCDataSourceRuntimeMBeans": {"items": [{
      "identity": [
        "partitionRuntimes",
        "Partition1",
        "JDBCPartitionRuntime",
        "Partition1JDBCDataSource1"
      ],
      "connectionsTotalCount": 1,
      "waitingForConnectionSuccessTotal": 0,
      "highestNumUnavailable": 0,
      "reserveRequestCount": 0,
      "type": "JDBCDataSourceRuntime",
      "waitingForConnectionAverage": 0
    }],
    "lastTask": null
  }
}]]
}
"enabled": true,
"currCapacityHighCount": 1,
"resolvedAsNotCommittedTotalCount": 0,
"prepStmtCacheHitCount": 0,
"prepStmtCacheMissCount": 0,
"databaseProductName": "Apache Derby",
"commitOutcomeRetryTotalCount": 0,
"failedRepurposeCount": 0,
"state": "Running",
"moduleId": "Partition1JDBCDataSource1",
"prepStmtCacheAddCount": 0,
"failuresToReconnectCount": 0,
"repurposeCount": 0,
"databaseProductVersion": "10.14.2.0 - (1828579)",
"leakedConnectionCount": 0,
"waitingForConnectionFailureTotal": 0,
"activeConnectionsHighCount": 1,
"connectionDelayTime": 28,
"waitingForConnectionHighCount": 0,
"waitSecondsHighCount": 0,
"versionJDBCDriver": "org.apache.derby.jdbc.ClientXADataSource",
"failedReserveRequestCount": 0,
"prepStmtCacheDeleteCount": 0,
"numAvailable": 1,
"deploymentState": 2,
"unresolvedTotalCount": 0,
"prepStmtCacheAccessCount": 0,
"driverVersion": "10.14.2.0 - (1828579)",
"resolvedAsCommittedTotalCount": 0,
"prepStmtCacheCurrentSize": 0,
"name": "Partition1JDBCDataSource1",
"activeConnectionsCurrentCount": 0,
"currCapacity": 1,
"driverName": "Apache Derby Network Client JDBC Driver",
"activeConnectionsAverageCount": 0,
"numUnavailable": 0,
"waitingForConnectionCurrentCount": 0,
"highestNumAvailable": 1,
"lastTask": null
}}
",
"
"JDBCServiceRuntime": [
"name": "Cluster1Server2",
"JDBCDataSourceRuntimeMBeans": {"items": [{
"identity": {
"JDBCServiceRuntime",
"JDBCDataSourceRuntimeMBeans",
"JDBCDataSource1"
}

"connectionsTotalCount": 1,
"waitingForConnectionSuccessTotal": 0,
"highestNumUnavailable": 0,
"reserveRequestCount": 0,
"type": "JDBCSourceRuntime",
"waitingForConnectionTotal": 0,
"enabled": true,
"currCapacityHighCount": 1,
"resolvedAsNotCommittedTotalCount": 0,
"prepStmtCacheHitCount": 0,
"prepStmtCacheMissCount": 0,
}}
]},
"JDBCServiceRuntime": [
"name": "Cluster1Server2",
"JDBCDataSourceRuntimeMBeans": {"items": [{
"identity": {
"JDBCServiceRuntime",
"JDBCDataSourceRuntimeMBeans",
"JDBCDataSource1"
}

"connectionsTotalCount": 1,
"waitingForConnectionSuccessTotal": 0,
"highestNumUnavailable": 0,
"reserveRequestCount": 0,
"type": "JDBCSourceRuntime",
"waitingForConnectionTotal": 0,
"enabled": true,
"currCapacityHighCount": 1,
"resolvedAsNotCommittedTotalCount": 0,
"prepStmtCacheHitCount": 0,
"prepStmtCacheMissCount": 0,
}}
]},
...
"databaseProductName": "Apache Derby",
"commitOutcomeRetryTotalCount": 0,
"failedRepurposeCount": 0,
"state": "Running",
"moduleId": "JDBCDataSource1",
"prepStmtCacheAddCount": 0,
"failuresToReconnectCount": 0,
"repurposeCount": 0,
"databaseProductVersion": "10.14.2.0 - (1828579)",
"leakedConnectionCount": 0,
"waitForConnectionFailureTotal": 0,
"activeConnectionsHighCount": 1,
"connectionDelayTime": 1707,
"waitForConnectionHighCount": 0,
"waitSecondsHighCount": 0,
"versionJDBCDriver": "org.apache.derby.jdbc.ClientXADataSource",
"failedReserveRequestCount": 0,
"prepStmtCacheDeleteCount": 0,
"numAvailable": 1,
"deploymentState": 2,
"unresolvedTotalCount": 0,
"prepStmtCacheAccessCount": 0,
"driverVersion": "10.14.2.0 - (1828579)",
"resolvedAsCommittedTotalCount": 0,
"prepStmtCacheCurrentSize": 0,
"name": "JDBCDataSource1",
"activeConnectionsCurrentCount": 0,
"currCapacity": 1,
"driverName": "Apache Derby Network Client JDBC Driver",
"activeConnectionsAverageCount": 0,
"numUnavailable": 0,
"waitForConnectionCurrentCount": 0,
"highestNumAvailable": 1,
"lastTask": null
}}
]

Test a domain level data source
-----------------------------------

curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{"return": null}
Test a partition level data source

curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}" \
serverRuntimes/Cluster1Server2/partitionRuntimes/Partition1/JDBCPartitionRuntime/ 
JDBCDataSourceRuntimeMBeans/Partition1JDBCDataSource1/testPool

HTTP/1.1 200 OK

Response Body:
{"return":null}

Monitor the JMS system resources

curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d '{}" \\
links: [], fields: [], 
children: { 
serverRuntimes: { 
links: [], fields: ['name'], 
children: { 
JMSServer: { 
links: [], 
children: { 
JMSServers: { 
links: [], 
children: { 
destinations: { 
links: [], 
} 
} 
} 
} 
} 
} 
partitionRuntimes: { 
links: [], fields: ['name'], 
children: { 
JMSServer: { 
links: [], 
}}
children: {
  JMSServers: {
    links: [],
    children: {
      destinations: {
        links: [],
      }
    }
  }
}


HTTP/1.1 200 OK
Response Body:

{"serverRuntimes": {"items": [
  {
    "name": "Cluster1Server1",
    "partitionRuntimes": {"items": [{
      "name": "Partition1",
      "JMSRuntime": {
        "identity": [
          "partitionRuntimes",
          "Partition1",
          "JMSRuntime"
        ],
        "JMSServersHighCount": 1,
        "connectionsHighCount": 0,
        "connectionsTotalCount": 0,
        "healthState": {
          "state": "ok",
          "subsystemName": null,
          "partitionName": null,
          "symptoms": []
        },
        "name": "Cluster1Server1.jms",
        "JMSServersCurrentCount": 1,
        "type": "JMSRuntime",
        "JMSServersTotalCount": 1,
        "connectionsCurrentCount": 0,
        "JMSServers": {"items": [{
          "identity": [
            "partitionRuntimes",
            "Partition1",
            "JMSRuntime",
            "JMSServers",
            "Partition1JMSServer1@Cluster1Server1"
          ],
          "messagesReceivedCount": 0,
          "bytesThresholdTime": 0,
          "bytesHighCount": 0,
          "insertionPausedState": "Insertion-Enabled",
          "destinationsCurrentCount": 1,
        
        
        }],
        "messagesReceived": 0,
        "bytesThreshold": 0,
        "bytesHigh": 0,
        "insertionPaused": "Insertion-Enabled",
        "destinationsCurrent": 1,
      }
    }],
  }
]}}
"pagingAllocatedIoBufferBytes": 0,
"type": "JMSServerRuntime",
"messagesPagedInTotalCount": 0,
"consumptionPaused": false,
"bytesPagedInTotalCount": 0,
"pagingPhysicalWriteCount": 0,
"pendingTransactions": null,
"bytesPagedOutTotalCount": 0,
"consumptionPausedState": "Consumption-Enabled",
"sessionPoolsHighCount": 0,
"bytesReceivedCount": 0,
"messagesHighCount": 0,
"productionPausedState": "Production-Enabled",
"pagingAllocatedWindowBufferBytes": 0,
"destinationsTotalCount": 1,
"sessionPoolsTotalCount": 0,
"messagesThresholdTime": 0,
"bytesCurrentCount": 0,
"transactions": null,
"messagesPagedOutTotalCount": 0,
"messagesCurrentCount": 0,
"destinationsHighCount": 1,
"insertionPaused": false,
"healthState": {
  "state": "ok",
  "subsystemName": "JMSServer.Partition1JMSServer1@Cluster1Server1@Partition1",
  "partitionName": null,
  "symptoms": []
},
"messagesPageableCurrentCount": 0,
"sessionPoolsCurrentCount": 0,
"name": "Partition1JMSServer1@Cluster1Server1",
"bytesPendingCount": 0,
"productionPaused": false,
"bytesPageableCurrentCount": 0,
"messagesPendingCount": 0,
"destinations": {"items": []
  "identity": {
    "partitionRuntimes": "Partition1",
    "JMSRuntime": "JMSServers",
    "Partition1JMSServer1@Cluster1Server1",
    "destinations": "Partition1JMSSystemResource1!
Partition1JMSServer1@Cluster1Server1@Partition1UniformDistributedQueue1"
  }
},
"messagesReceivedCount": 0,
"bytesThresholdTime": 0,
"bytesHighCount": 0,
"insertionPausedState": "Insertion-Enabled",
"type": "JMSDestinationRuntime",
"consumptionPaused": false,
"messagesDeletedCurrentCount": 0,
"destinationType": "Queue",
"consumptionPausedState": "Consumption-Enabled",
"state": "started",
"bytesReceivedCount": 0,
"messagesHighCount": 0,
"productionPausedState": "Production-Enabled"
"subscriptionMessagesLimit": -1,
"consumersTotalCount": 0,
"consumersHighCount": 0,
"messagesThresholdTime": 0,
"bytesCurrentCount": 0,
"messagesMovedCurrentCount": 0,
"messagesCurrentCount": 0,
"insertionPaused": false,
"name": "Partition1JMSSystemResource1!
Partition1JMSServer1@Cluster1Server1@Partition1UniformDistributedQueue1",
"bytesPendingCount": 0,
"productionPaused": false,
"messagesPendingCount": 0,
"consumersCurrentCount": 0
}
}
}
}
}

"JMSRuntime": {
  "identity": ["JMSRuntime"],
  "JMSServersHighCount": 1,
  "connectionsHighCount": 0,
  "connectionsTotalCount": 0,
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "Cluster1Server1.jms",
  "JMSServersCurrentCount": 1,
  "type": "JMSRuntime",
  "JMSServersTotalCount": 1,
  "connectionsCurrentCount": 0,
  "JMSServers": {"items": [{
    "identity": [
      "JMSRuntime",
      "JMSServers",
      "JMSServer1@Cluster1Server1"
    ],
    "messagesReceivedCount": 0,
    "bytesThresholdTime": 0,
    "bytesHighCount": 0,
    "insertionPausedState": "Insertion-Enabled",
    "destinationsCurrentCount": 1,
    "pagingAllocatedIoBufferBytes": 0,
    "type": "JMSServerRuntime",
    "messagesPagedInTotalCount": 0,
    "consumptionPaused": false,
    "bytesPagedInTotalCount": 0,
    "pagingPhysicalWriteCount": 0,
    "pendingTransactions": null,
    "bytesPagedOutTotalCount": 0,
    "consumptionPausedState": "Consumption-Enabled",
    "sessionPoolsHighCount": 0,
    "bytesReceivedCount": 0,
    "messagesHighCount": 0,
    "productionPausedState": "Production-Enabled",
    "pagingAllocatedWindowBufferBytes": 0,
    "destinationsTotalCount": 1,
    "sessionPoolsTotalCount": 0,
}}
]}},
"messagesThresholdTime": 0,
"bytesCurrentCount": 0,
"transactions": null,
"messagesPagedOutTotalCount": 0,
"messagesCurrentCount": 0,
"destinationsHighCount": 1,
"insertionPaused": false,
"healthState": {
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  "subsystemName": "JMSServer.JMSServer1@Cluster1Server1",
  "partitionName": null,
  "symptoms": []
},
"messagesPageableCurrentCount": 0,
"sessionPoolsCurrentCount": 0,
"name": "JMSServer1@Cluster1Server1",
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"productionPaused": false,
"bytesPageableCurrentCount": 0,
"messagesPendingCount": 0,
"destinations": [{"items": [{
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    "JMSServers",
    "JMSServer1@Cluster1Server1",
    "destinations",
    "JMSSystemResource1!
    JMSServer1@Cluster1Server1@UniformDistributedQueue1"],
  "messagesReceivedCount": 0,
  "bytesThresholdTime": 0,
  "bytesHighCount": 0,
  "insertionPausedState": "Insertion-Enabled",
  "type": "JMSDestinationRuntime",
  "consumptionPaused": false,
  "messagesDeletedCurrentCount": 0,
  "destinationType": "Queue",
  "consumptionPausedState": "Consumption-Enabled",
  "state": "started",
  "bytesReceivedCount": 0,
  "messagesHighCount": 0,
  "productionPausedState": "Production-Enabled",
  "subscriptionMessagesLimit": -1,
  "consumersTotalCount": 0,
  "consumersHighCount": 0,
  "messagesThresholdTime": 0,
  "bytesCurrentCount": 0,
  "messagesMovedCurrentCount": 0,
  "messagesCurrentCount": 0,
  "insertionPaused": false,
  "name": "JMSSystemResource1!
  JMSServer1@Cluster1Server1@UniformDistributedQueue1",
  "bytesPendingCount": 0,
  "productionPaused": false,
  "messagesPendingCount": 0,
  "consumersCurrentCount": 0
}]}
}]}
}
"name": "AdminServer",
"partitionRuntimes": {"items": [{
  "name": "Partition1",
  "JMSRuntime": {
    "identity": [
      "partitionRuntimes",
      "Partition1",
      "JMSRuntime"
    ],
    "JMSServersHighCount": 0,
    "connectionsHighCount": 0,
    "connectionsTotalCount": 0,
    "healthState": {
      "state": "ok",
      "subsystemName": null,
      "partitionName": null,
      "symptoms": []
    },
    "name": "AdminServer.jms",
    "JMSServersCurrentCount": 0,
    "type": "JMSRuntime",
    "JMSServersTotalCount": 0,
    "connectionsCurrentCount": 0,
    "JMSServers": {"items": []}
  }
}],
"JMSRuntime": {
  "identity": [{"JMSRuntime"},
  "JMSServersHighCount": 0,
  "connectionsHighCount": 0,
  "connectionsTotalCount": 0,
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "AdminServer.jms",
  "JMSServersCurrentCount": 0,
  "type": "JMSRuntime",
  "JMSServersTotalCount": 0,
  "connectionsCurrentCount": 0,
  "JMSServers": {"items": []}
},
"name": "Cluster1Server2",
"partitionRuntimes": {"items": [{
  "name": "Partition1",
  "JMSRuntime": {
    "identity": [
      "partitionRuntimes",
      "Partition1",
      "JMSRuntime"
    ],
    "JMSServersHighCount": 1,
    "connectionsHighCount": 0,
    "connectionsTotalCount": 0,
    "healthState": {
      "state": "ok",
      "subsystemName": null,
Chapter 4
Monitoring Domain Resources

"Partition1",
"JMSRuntime",
"JMSServers",
"Partition1JMSServer1@Cluster1Server2",
"Partition1JMSServer1@Cluster1Server2",
"Partition1JMSSystemResource1!
Partition1JMSServer1@Cluster1Server2@Partition1UniformDistributedQueue1",
"messagesReceivedCount": 0,
"bytesThresholdTime": 0,
"bytesHighCount": 0,
"insertionPausedState": "Insertion-Enabled",
"type": "JMSDestinationRuntime",
"consumptionPaused": false,
"messagesDeletedCurrentCount": 0,
"destinationType": "Queue",
"consumptionPausedState": "Consumption-Enabled",
"state": "started",
"bytesReceivedCount": 0,
"messagesHighCount": 0,
"productionPausedState": "Production-Enabled",
"subscriptionMessagesLimit": -1,
"consumersTotalCount": 0,
"consumersHighCount": 0,
"messagesThresholdTime": 0,
"bytesCurrentCount": 0,
"messagesMovedCurrentCount": 0,
"messagesCurrentCount": 0,
"insertionPaused": false,
"name": "Partition1JMSSystemResource1!
Partition1JMSServer1@Cluster1Server2@Partition1UniformDistributedQueue1",
"bytesPendingCount": 0,
"productionPaused": false,
"messagesPendingCount": 0,
"consumersCurrentCount": 0

"JMSRuntime": {
  "identity": ["JMSRuntime"],
  "JMSServersHighCount": 1,
  "connectionsHighCount": 0,
  "connectionsTotalCount": 0,
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "Cluster1Server2.jms",
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  "type": "JMSRuntime",
  "JMSServersTotalCount": 1,
  "connectionsCurrentCount": 0,
  "JMSServers": {"items": [ ]
  }
}
"messagesReceivedCount": 0,
"bytesThresholdTime": 0,
"bytesHighCount": 0,
"insertionPausedState": "Insertion-Enabled",
"destinationsCurrentCount": 1,
"pagingAllocatedIoBufferBytes": 0,
"type": "JMSServerRuntime",
"messagesPagedInTotalCount": 0,
"consumptionPaused": false,
"bytesPagedInTotalCount": 0,
"pagingPhysicalWriteCount": 0,
"pendingTransactions": null,
"bytesPagedOutTotalCount": 0,
"consumptionPausedState": "Consumption-Enabled",
"sessionPoolsHighCount": 0,
"bytesReceivedCount": 0,
"messagesHighCount": 0,
"productionPausedState": "Production-Enabled",
"pagingAllocatedWindowBufferBytes": 0,
"destinationsTotalCount": 1,
"sessionPoolsTotalCount": 0,
"messagesThresholdTime": 0,
"bytesCurrentCount": 0,
"transactions": null,
"messagesPagedOutTotalCount": 0,
"messagesCurrentCount": 0,
"insertionPaused": false,
"healthState": {
  "state": "ok",
  "subsystemName": "JMSServer.JMSServer1@Cluster1Server2",
  "partitionName": null,
  "symptoms": []
},
"messagesPageableCurrentCount": 0,
"sessionPoolsCurrentCount": 0,
"name": "JMSServer1@Cluster1Server2",
"bytesPendingCount": 0,
"productionPaused": false,
"bytesPageableCurrentCount": 0,
"messagesPendingCount": 0,
"destinations": {"items": [{
  "identity": {
    "JMSRuntime",
    "JMSServers",
    "JMSServer1@Cluster1Server2",
    "destinations",
    "JMSSystemResource1!JMSServer1@Cluster1Server2@UniformDistributedQueue1"
  },
  "messagesReceivedCount": 0,
  "bytesThresholdTime": 0,
  "bytesHighCount": 0,
  "insertionPausedState": "Insertion-Enabled",
  "type": "JMSSystemResource1!
  JMSServer1@Cluster1Server2@UniformDistributedQueue1",
  "messagesHighCount": 0,
  "consumptionPausedState": "Consumption-Enabled",
  "state": "started",
  "bytesReceivedCount": 0,
}]}
Monitor the applications

curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "|
  links: [], fields: [],
  children: {
    serverRuntimes: {
      links: [], fields: [ 'name' ],
      children: {
        applicationRuntimes: {
          links: [], fields: [ 'name', 'healthState', 'overallHealthState' ]
        },
        partitionRuntimes: {
          links: [], fields: [ 'name' ],
          children: {
            applicationRuntimes: {
              links: [], fields: [ 'name', 'healthState', 'overallHealthState' ]
            }
          }
        }
      }
    }
  }
"

HTTP/1.1 200 OK
Response Body:
{"serverRuntimes": ["items": [  
  
  "name": "Cluster1Server1",  
  "partitionRuntimes": ["items": [  
  "name": "Partition1",  
  "applicationRuntimes": ["items": [  
  
  "overallHealthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []},  
  "healthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []},  
  
  "name": "Partition1JDBCDataSource1"  
  
  },  
  
  "overallHealthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []},  
  "healthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []},  
  "name": "jms-internal-xa-adp-Partition1VirtualTarget"  
  
  },  
  
  "overallHealthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []},  
  "healthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []},  
  "name": "wls-management-services-Partition1VirtualTarget"  
  
  },  
  
  "overallHealthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []},  
  "healthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []},  
  "name": "wls-management-services-Partition1VirtualTarget"  
  
  }
]}

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4-103
"healthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "jms-internal-notran-adp-Partition1VirtualTarget"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "fairShare"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "basicapp"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "bea_wls_internal-Partition1VirtualTarget"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
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  "name": "bea_wls_internal-Partition1VirtualTarget"
}

"symptoms": [],
},
"healthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "Partition1JMSSystemResource1"
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]
"overallHealthState": { 
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  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
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  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "JMSSystemResource1"
},
,
{"overallHealthState": { 
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"healthState": { 
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "bea_wls_deployment_internal"
},
,
{"overallHealthState": { 
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"healthState": { 
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "wls-management-services"
},
,
{"overallHealthState": { 
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"healthState": { 
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "basicapp"
"overallHealthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"healthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "jms-internal-xa-adp"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "fairShare"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "JDBCDataSource1"
},
"name": "AdminServer",
"partitionRuntimes": {
  "items": [
    {
      "overallHealthState": {
        "state": "ok",
        "subsystemName": null,
        "partitionName": null,
        "symptoms": []
      },
      "healthState": {
        "state": "ok",
        "subsystemName": null,
        "partitionName": null,
        "symptoms": []
      },
      "name": "Partition1",
      "applicationRuntimes": {
        "items": [
          {
            "overallHealthState": {
              "state": "ok",
              "subsystemName": null,
              "partitionName": null,
              "symptoms": []
            },
            "healthState": {
              "state": "ok",
              "subsystemName": null,
              "partitionName": null,
              "symptoms": []
            },
            "name": "Application1"
          }
        ]
      }
    }
  ]
}
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"partitionName": null,
"symptoms": []
},
"healthState": {
 "state": "ok",
 "subsystemName": null,
 "partitionName": null,
 "symptoms": []
 },
"name": "bea_wls_internal-Partition1-adminVT"
},

{"overallHealthState": {
 "state": "ok",
 "subsystemName": null,
 "partitionName": null,
 "symptoms": []
 },
"healthState": {
 "state": "ok",
 "subsystemName": null,
 "partitionName": null,
 "symptoms": []
 },
"name": "wls-management-services-Partition1-adminVT"
},

{"overallHealthState": {
 "state": "ok",
 "subsystemName": null,
 "partitionName": null,
 "symptoms": []
 },
"healthState": {
 "state": "ok",
 "subsystemName": null,
 "partitionName": null,
 "symptoms": []
 },
"name": "jms-internal-notran-adp-Partition1-adminVT"
},

{"overallHealthState": {
 "state": "ok",
 "subsystemName": null,
 "partitionName": null,
 "symptoms": []
 },
"healthState": {
 "state": "ok",
 "subsystemName": null,
 "partitionName": null,
 "symptoms": []
 },
"name": "jms-internal-xa-adp-Partition1-adminVT"
}


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4-109
"symptoms": []
},
"name": "bea_wls_internal"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "jms-internal-xa-adp"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "jms-internal-notran-adp"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "bea_wls_management_internal2"
}
})
},
{
  "name": "Cluster1Server2",
  "partitionRuntimes": {
    "items": []
  }
}
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"state": "ok",
"subsystemName": null,
"partitionName": null,
"symptoms": []
}
,"healthState": {
"state": "ok",
"subsystemName": null,
"partitionName": null,
"symptoms": []
},
"name": "Partition1JMSSystemResource1"
},
{ "overallHealthState": {
"state": "ok",
"subsystemName": null,
"partitionName": null,
"symptoms": []
},
"healthState": {
"state": "ok",
"subsystemName": null,
"partitionName": null,
"symptoms": []
},
"name": "basicapp"
},
{ "overallHealthState": {
"state": "ok",
"subsystemName": null,
"partitionName": null,
"symptoms": []
},
"healthState": {
"state": "ok",
"subsystemName": null,
"partitionName": null,
"symptoms": []
},
"name": "Partition1JDBCDataSource1"
},
{ "overallHealthState": {
"state": "ok",
"subsystemName": null,
"partitionName": null,
"symptoms": []
},
"healthState": {
"state": "ok",
"subsystemName": null,
"partitionName": null,
"symptoms": []
},
"name": "jms-internal-notran-adr-Partition1VirtualTarget"
[  
  "overallHealthState": {   
    "state": "ok",   
    "subsystemName": null,   
    "partitionName": null,   
    "symptoms": []  
  },  
  "healthState": {   
    "state": "ok",   
    "subsystemName": null,   
    "partitionName": null,   
    "symptoms": []  
  },  
  "name": "fairShare"  
},  
  
},  
  
{"overallHealthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []  
},  
  "healthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []  
},  
  "name": "bea_wls_internal-Partition1VirtualTarget"  
},  
  
{"overallHealthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []  
},  
  "healthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []  
},  
  "name": "jms-internal-xa-adp-Partition1VirtualTarget"  
},  
  
{"overallHealthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []  
},  
  "healthState": {  
  "state": "ok",  
  "subsystemName": null,  
  "partitionName": null,  
  "symptoms": []  
},  
  "name": "wls-management-services-Partition1VirtualTarget"  
}
"applicationRuntimes": {"items": [
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "fairShare"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "basicapp"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "bea_wls_cluster_internal"
}]}
Monitor the applications’ servlets

```
curl -v \
   --user monitor:monitor123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \n-d "{
   links: [], fields: [],
```
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Monitoring Domain Resources

```
children: {
  serverRuntimes: {
    links: [], fields: [ 'name' ],
    children: {
      applicationRuntimes: {
        links: [], fields: [ 'name' ],
        name: [ 'fairShare', 'basicapp' ],
        children: {
          componentRuntimes: {
            links: [], fields: [ 'name', 'type' ],
            children: {
              servlets: {
                links: [], fields: [ 'name',
                'executionTimeHigh',
                'executionTimeLow',
                'executionTimeAverage',
                'invocationTotalCount'
              ]
            }
          }
        }
      }
    }
  }
}

partitionRuntimes: {
  links: [], fields: [ 'name' ],
  children: {
    applicationRuntimes: {
      links: [], fields: [ 'name' ],
      name: [ 'fairShare', 'basicapp' ],
      children: {
        componentRuntimes: {
          links: [], fields: [ 'name', 'type' ],
          children: {
            servlets: {
              links: [], fields: [ 'name',
              'executionTimeHigh',
              'executionTimeLow',
              'executionTimeAverage',
              'invocationTotalCount'
            ]
          }
        }
      }
    }
  }
}

*" \

HTTP/1.1 100 Continue HTTP/1.1 200 OK

Response Body:
```
{"serverRuntimes": ["items": [
    {"name": "Cluster1Server1", 
      "partitionRuntimes": ["items": [
        {"name": "Partition1", 
          "applicationRuntimes": ["items": [
            {"name": "fairShare", 
              "componentRuntimes": ["items": [
                {"type": "WebAppComponentRuntime", 
                 "name": "Partition1VirtualTarget_/partition1/fairShare", 
                 "servlets": ["items": [
                    { "executionTimeHigh": 0, 
                      "invocationTotalCount": 0, 
                      "executionTimeLow": 0, 
                      "name": "JspServlet", 
                      "executionTimeAverage": 0 
                  },
                    { "executionTimeHigh": 0, 
                      "invocationTotalCount": 0, 
                      "executionTimeLow": 0, 
                      "name": "FileServlet", 
                      "executionTimeAverage": 0 
                  },
                    { "executionTimeHigh": 0, 
                      "invocationTotalCount": 0, 
                      "executionTimeLow": 0, 
                      "name": "SimpleFastServlet", 
                      "executionTimeAverage": 0 
                  },
                    { "executionTimeHigh": 0, 
                      "invocationTotalCount": 0, 
                      "executionTimeLow": 0, 
                      "name": "SimpleSlowServlet", 
                      "executionTimeAverage": 0 
                  }
                ]
              }]
            ),
            {"name": "basicapp", 
              "componentRuntimes": ["items": [
                {"type": "WebAppComponentRuntime", 
                 "name": "Partition1VirtualTarget_/partition1/BasicAuth", 
                 "servlets": ["items": [
                    { "executionTimeHigh": 0, 
                      "invocationTotalCount": 0, 
                      "executionTimeLow": 0, 
                      "name": "JspServlet", 
                      "executionTimeAverage": 0 
                  },
                    { "executionTimeHigh": 0, 
                      "invocationTotalCount": 0, 
                      "executionTimeLow": 0, 
                      "name": "BasicAuth", 
                      "executionTimeAverage": 0 
                  }
                ]
              ]}]
            }
          ]
        }
      ]}
    }
]}
}
"executionTimeLow": 0,
"name": "Servlet3",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "Servlet2",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "Servlet1",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "FileServlet",
"executionTimeAverage": 0
}
}
},
{
"name": "BasicEJB.jar",
"type": "EJBComponentRuntime"
}
}
]
}
}
}
",
"applicationRuntimes": {"items": [
{
"name": "fairShare",
"componentRuntimes": {"items": [
{
"type": "WebAppComponentRuntime",
"name": "Cluster1Server1\fairShare",
"servlets": {"items": [
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "JspServlet",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "FileServlet",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "SimpleFastServlet",
"executionTimeAverage": 0
}]
}]
}]}},
"name": "BasicEJB.jar",
"type": "EJBComponentRuntime"
}
}]}},

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Monitoring Domain Resources
4-118
"executionTimeAverage": 0
},
{
  "executionTimeHigh": 0,
  "executionTimeLow": 0,
  "name": "SimpleSlowServlet",
  "executionTimeAverage": 0
}
]}
],
{
  "name": "basicapp",
  "componentRuntimes": {
    "items": [
      {
        "type": "WebAppComponentRuntime",
        "name": "Cluster1Server1 BasicAuth",
        "servlets": {
          "items": [
            {
              "executionTimeHigh": 0,
              "executionTimeLow": 0,
              "name": "JspServlet",
              "executionTimeAverage": 0
            },
            {
              "executionTimeHigh": 0,
              "executionTimeLow": 0,
              "name": "Servlet3",
              "executionTimeAverage": 0
            },
            {
              "executionTimeHigh": 0,
              "executionTimeLow": 0,
              "name": "Servlet2",
              "executionTimeAverage": 0
            },
            {
              "executionTimeHigh": 0,
              "executionTimeLow": 0,
              "name": "Servlet1",
              "executionTimeAverage": 0
            },
            {
              "executionTimeHigh": 0,
              "executionTimeLow": 0,
              "name": "FileServlet",
              "executionTimeAverage": 0
            }
          ]
        }
      }
    ]
  }
},
{
  "name": "BasicEJB.jar",
  "type": "EJBComponentRuntime"
}
"name": "AdminServer",
"partitionRuntimes": {"items": [{
  "name": "Partition1",
  "applicationRuntimes": {"items": []}
}],
"applicationRuntimes": {"items": []}
},

"name": "Cluster1Server2",
"partitionRuntimes": {"items": [{
  "name": "Partition1",
  "applicationRuntimes": {"items": [{
    "name": "fairShare",
    "componentRuntimes": {"items": [{
      "type": "WebAppComponentRuntime",
      "name": "Partition1VirtualTarget_\partition1\fairShare",
      "servlets": {"items": [
        {
          "executionTimeHigh": 0,
          "invocationTotalCount": 0,
          "executionTimeLow": 0,
          "name": "JspServlet",
          "executionTimeAverage": 0
        },
        {
          "executionTimeHigh": 0,
          "invocationTotalCount": 0,
          "executionTimeLow": 0,
          "name": "FileServlet",
          "executionTimeAverage": 0
        },
        {
          "executionTimeHigh": 0,
          "invocationTotalCount": 0,
          "executionTimeLow": 0,
          "name": "SimpleFastServlet",
          "executionTimeAverage": 0
        },
        {
          "executionTimeHigh": 0,
          "invocationTotalCount": 0,
          "executionTimeLow": 0,
          "name": "SimpleSlowServlet",
          "executionTimeAverage": 0
        }
      ]}
    },
    {
      "name": "basicapp",
      "componentRuntimes": {"items": [{
        "type": "WebAppComponentRuntime",
        "name": "Partition1VirtualTarget_\partition1\BasicAuth",
        "servlets": {"items": []
      },
    },
  },
}]]}}
}]}
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Monitoring Domain Resources

```json
{
    "executionTimeHigh": 0,
    "invocationTotalCount": 0,
    "executionTimeLow": 0,
    "name": "JspServlet",
    "executionTimeAverage": 0
},
{
    "executionTimeHigh": 0,
    "invocationTotalCount": 0,
    "executionTimeLow": 0,
    "name": "Servlet3",
    "executionTimeAverage": 0
},
{
    "executionTimeHigh": 0,
    "invocationTotalCount": 0,
    "executionTimeLow": 0,
    "name": "Servlet2",
    "executionTimeAverage": 0
},
{
    "executionTimeHigh": 0,
    "invocationTotalCount": 0,
    "executionTimeLow": 0,
    "name": "Servlet1",
    "executionTimeAverage": 0
},
{
    "executionTimeHigh": 0,
    "invocationTotalCount": 0,
    "executionTimeLow": 0,
    "name": "FileServlet",
    "executionTimeAverage": 0
}
```
```json
}
```
```json
```
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "FileServlet",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "SimpleFastServlet",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "SimpleSlowServlet",
"executionTimeAverage": 0
}
]}
],

"name": "basicapp",
"componentRuntimes": 
"items": [
{
"type": "WebAppComponentRuntime",
"name": "Cluster1Server2\BasicAuth",
"servlets": 
"items": [
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "JspServlet",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "Servlet3",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "Servlet2",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
"name": "Servlet1",
"executionTimeAverage": 0
},
{
"executionTimeHigh": 0,
"invocationTotalCount": 0,
"executionTimeLow": 0,
Get the total number of open sessions across each application's component runtimes across all servers

```
curl -v \
   --user monitor:monitor123 \
   -H X-Requested-By:MyClient \
   -H Accept:application/json \
   -H Content-Type:application/json \
   -d "{
       links: [], fields: [],
       children: {
         serverRuntimes: {
           mergeCollection: true,
           children: {
             applicationRuntimes: {
               mergeOn: 'name',
               fields: [{ name: 'name', sameValue: true }],
               children: {
                 componentRuntimes: {
                   mergeCollection: true,
                   fields: [{ name: 'openSessionsCurrentCount', total: true }]
                 }
               }
            }
          }
        }
    }"
```

HTTP/1.1 200 OK

Response Body:

```
"serverRuntimes": "{"items": [{"applicationRuntimes": {"items": [

  "name": "bea_wls_cluster_internal",

total: true }]
             }
           }
```


"componentRuntimes": {
  "items": [
    {
      "name": "jms-internal-notran-adp",
      "componentRuntimes": {
        "items": []
      }
    },
    {
      "name": "bea_wls_internal",
      "componentRuntimes": {
        "items": [
          {
            "openSessionsCurrentCount": {
              "total": 0,
              "count": 3
            }
          }
        ]
      }
    },
    {
      "name": "JMSSystemResource1",
      "componentRuntimes": {
        "items": []
      }
    },
    {
      "name": "bea_wls_deployment_internal",
      "componentRuntimes": {
        "items": [
          {
            "openSessionsCurrentCount": {
              "total": 0,
              "count": 3
            }
          }
        ]
      }
    },
    {
      "name": "wls-management-services",
      "componentRuntimes": {
        "items": [
          {
            "openSessionsCurrentCount": {
              "total": 213,
              "count": 3
            }
          }
        ]
      }
    },
    {
      "name": "basicapp",
      "componentRuntimes": {
        "items": []
      }
    },
    {
      "name": "jms-internal-xa-adp",
      "componentRuntimes": {
        "items": []
      }
    },
    {
      "name": "fairShare",
      "componentRuntimes": {
        "items": []
      }
    },
    {
      "name": "JDBCDataSource1",
      "componentRuntimes": {
        "items": []
      }
    }
  ]
}
}
Get the total number of invocations of the servlets of each component runtime of the fairShare and wls-management-services applications across all servers

```
curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
```
HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": ["items": [{"applicationRuntimes": ["items": [
"name": "fairShare",
"componentRuntimes": ["items": [
"contextRoot": "/fairShare",
"servlets": ["items": [{"invocationTotalCount": {
"total": 0,
"count": 8
}}]]}
]}
],
"name": "wls-management-services",
"componentRuntimes": ["items": [
"contextRoot": "/management",
"servlets": ["items": [{"invocationTotalCount": {
"total": 213,
"count": 9
}}]]}
]}
])}

Get the information displayed by the console's webapp monitoring page

```
curl -v
--user monitor:monitor123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \n-d '{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      mergeCollection: true,
      children: {
        applicationRuntimes: {
          mergeOn: 'name',
          fields: [
            { name: 'name', sameValue: true },
            { name: 'internal', sameValue: true }
          ],
          children: {
            componentRuntimes: {
              mergeOn: 'moduleId',
              fields: [
                { name: 'contextRoot', sameValue: true },
                { name: 'type', sameValue: true },
                { name: 'sourceInfo', sameValue: true },
                { name: 'deploymentState', values: true }
              ],
            }
          }
        }
      }
    }
  }
}'}
```
HTTP/1.1 100 Continue HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": {"items": [["applicationRuntimes": {"items": [
{"internal": true,
"name": "bea_wls_cluster_internal",
"componentRuntimes": {"items": [
{"type": "WebAppComponentRuntime",
"sourceInfo": "bea_wls_cluster_internal.war",
"contextRoot": "/bea_wls_cluster_internal",
"openSessionsCurrentCount": {
"total": 0,
"count": 2
},

"deploymentState": {"values": [
2,
2
]},
"sessionsOpenedTotalCount": {
"total": 0,
"count": 2
},
"openSessionsHighCount": {"max": 0},
"servlets": {"items": [{"invocationTotalCount": {
"total": 3,
"count": 10
}}]}}

]}}
]}}
"internal": true,
"name": "jms-internal-notran-adp",
"componentRuntimes": {"items": [{
  "type": "ConnectorComponentRuntime",
  "deploymentState": {"values": [
    2,
    2,
    2
  ]}
}]
},
{
  "internal": true,
  "name": "bea_wls_internal",
  "componentRuntimes": {"items": [{
    "type": "WebAppComponentRuntime",
    "sourceInfo": "bea_wls_internal.war",
    "contextRoot": "/bea_wls_internal",
    "openSessionsCurrentCount": {
      "total": 0,
      "count": 3
    },
    "deploymentState": {"values": [
      2,
      2,
      2
    ]},
    "sessionsOpenedTotalCount": {
      "total": 0,
      "count": 3
    }
  }]
}
"openSessionsHighCount": {"max": 0},
"servlets": {"items": [{"invocationTotalCount": {
"total": 0,
"count": 33
}]]
}]
},
{
"internal": false,
"name": "JMSSystemResource1",
"componentRuntimes": {"items": [{
"deploymentState": {"values": [
2,
2
]},
"type": "JMSComponentRuntime"
}]
},
{
"internal": true,
"name": "bea_wls_deployment_internal",
"componentRuntimes": {"items": [{
"type": "WebAppComponentRuntime",
"sourceInfo": "bea_wls_deployment_internal.war",
"contextRoot": "/bea_wls_deployment_internal",
"openSessionsCurrentCount": {
"total": 0,
"count": 3
},
"deploymentState": {"values": [
2,
2,
2
]},
"sessionsOpenedTotalCount": {
"total": 0,
"count": 3
},
"openSessionsHighCount": {"max": 0},
"servlets": {"items": [{"invocationTotalCount": {
"total": 169,
"count": 33
}]]
}]
}
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"count": 9

}}}
]]
]
{
"internal": true,
"name": "wls-management-services",
"componentRuntimes": [{
"type": "WebAppComponentRuntime",
"sourceInfo": "wls-management-services.war",
"contextRoot": "/management",
"openSessionsCurrentCount": {
"total": 219,
"count": 3
},
"deploymentState": {"values": [
2,
2,
2
]},
"sessionsOpenedTotalCount": {
"total": 219,
"count": 3
},
"openSessionsHighCount": {"max": 179},
"servlets": [{"invocationTotalCount": {
"total": 216,
"count": 9
}}]
}]]
},
{
"internal": false,
"name": "basicapp",
"componentRuntimes": [{
"type": "WebAppComponentRuntime",
"sourceInfo": "BasicAuth.war",
"contextRoot": "/BasicAuth",
"openSessionsCurrentCount": {
"total": 0,
"count": 2
},
"deploymentState": {"values": [
2,
2
]},
"sessionsOpenedTotalCount": {
"total": 0,
"count": 2
},
"openSessionsHighCount": {"max": 0},
"servlets": [{"invocationTotalCount": {
"total": 0,
"count": 10
}}]
}]}
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"deploymentState": {"values": [2, 2]},
"internal": true,
"name": "mejb",
"componentRuntimes": {"items": [{
  "deploymentState": {"values": [2]},
  "type": "EJBComponentRuntime"
}],
"internal": true,
"name": "bea_wls_management_internal2",
"componentRuntimes": {"items": [{
  "type": "WebAppComponentRuntime",
  "sourceInfo": "bea_wls_management_internal2.war",
  "contextRoot": "/bea_wls_management_internal2",
  "openSessionsCurrentCount": {
    "total": 0,
    "count": 1
  },
  "deploymentState": {"values": [2]},
  "sessionsOpenedTotalCount": {
    "total": 0,
    "count": 1
  },
  "openSessionsHighCount": {"max": 0},
  "servlets": {"items": [{"invocationTotalCount": {
      "total": 4,
      "count": 4
    }}]}}]}}
Monitor the resource managers

```
curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      links: [], fields: ['name'],
      children: {
        partitionRuntimes: {
          links: [], fields: ['name'],
          children: {
            resourceManagerRuntime: {
              links: [],
              children: {
                resourceRuntimes: {
                  links: [],
                  children: {
                    triggerRuntimes: { links: [] },
                    fairShareConstraintRuntime: { links: [] }
                  }
                }
              }
            }
          }
        }
      }
    }
  }
}"
```

HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": {"items": [
{
  "name": "Cluster1Server1",
  "partitionRuntimes": {"items": [
    "name": "Partition1",
    "resourceManagerRuntime": {
      "identity": [
      "partitionRuntimes",
      "Partition1",
      "resourceManagerRuntime"
      ]
    }
  ]}
}]}
"name": "Partition1ResourceManager",
"type": "ResourceManagerRuntime",
"resourceRuntimes": {"items": [
{
    "identity": [
        "partitionRuntimes",
        "Partition1",
        "resourceManagerRuntime",
        "resourceRuntimes",
        "FileOpen"
    ],
    "usage": 2,
    "name": "FileOpen",
    "type": "ResourceRuntime",
    "resourceType": "file-open",
    "triggerRuntimes": {"items": [
        "identity": [
            "partitionRuntimes",
            "Partition1",
            "resourceManagerRuntime",
            "resourceRuntimes",
            "FileOpen",
            "triggerRuntimes",
            "NotifyTrigger"
        ],
        "initiated": false,
        "recourseActionEventsHistory": [],
        "name": "NotifyTrigger",
        "lastTimeExecuted": null,
        "type": "TriggerRuntime",
        "activated": false
    ]}
],
"fairShareConstraintRuntime": null
},
{
    "identity": [
        "partitionRuntimes",
        "Partition1",
        "resourceManagerRuntime",
        "resourceRuntimes",
        "CpuUtilization"
    ],
    "usage": 1,
    "name": "CpuUtilization",
    "type": "ResourceRuntime",
    "resourceType": "cpu-utilization",
    "triggerRuntimes": {"items": [
        "identity": [
            "partitionRuntimes",
            "Partition1",
            "resourceManagerRuntime",
            "resourceRuntimes",
            "CpuUtilization",
            "triggerRuntimes",
            "NotifyTrigger"
        ],
        "initiated": false,
        "recourseActionEventsHistory": [],
        "name": "NotifyTrigger",
        "lastTimeExecuted": null,
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Monitoring Domain Resources

"type": "TriggerRuntime",
"activated": false
},
{
"identity": [
  "partitionRuntimes",
  "Partition1",
  "resourceManagerRuntime",
  "resourceRuntimes",
  "CpuUtilization",
  "triggerRuntimes",
  "SlowTrigger"
],
"initiated": false,
"recourseActionEventsHistory": [],
"name": "SlowTrigger",
"lastTimeExecuted": null,
"type": "TriggerRuntime",
"activated": false
}]
"fairShareConstraintRuntime": null
},
{
"identity": [
  "partitionRuntimes",
  "Partition1",
  "resourceManagerRuntime",
  "resourceRuntimes",
  "HeapRetained"
],
"usage": 7,
"name": "HeapRetained",
"type": "ResourceRuntime",
"resourceType": "heap-retained",
"triggerRuntimes": {"items": [
  
  "identity": [
    "partitionRuntimes",
    "Partition1",
    "resourceManagerRuntime",
    "resourceRuntimes",
    "HeapRetained",
    "triggerRuntimes",
    "NotifyTrigger"
  ],
  "initiated": false,
  "recourseActionEventsHistory": [],
  "name": "NotifyTrigger",
  "lastTimeExecuted": null,
  "type": "TriggerRuntime",
  "activated": false
]}}
"fairShareConstraintRuntime": null
}]
"name": "AdminServer"
"partitionRuntimes": {{"items": [
    "name": "Partition1",
    "resourceManagerRuntime": {
        "identity": [
            "partitionRuntimes",
            "Partition1",
            "resourceManagerRuntime"
        ],
        "name": "Partition1ResourceManager",
        "type": "ResourceManagerRuntime",
        "resourceRuntimes": {"items": [
            "identity": [
                "partitionRuntimes",
                "Partition1",
                "resourceManagerRuntime",
                "resourceRuntimes",
                "FileOpen"
            ],
            "usage": 5,
            "name": "FileOpen",
            "type": "ResourceRuntime",
            "resourceType": "file-open",
            "triggerRuntimes": {"items": [
                "identity": [
                    "partitionRuntimes",
                    "Partition1",
                    "resourceManagerRuntime",
                    "resourceRuntimes",
                    "FileOpen",
                    "triggerRuntimes",
                    "NotifyTrigger"
                ],
                "initiated": false,
                "resourceActionEventsHistory": [
                    "initiated": true,
                    "usage": 5,
                    "executionDate": "2019-08-08T16:09:21.959-04:00",
                    "action": "notify",
                    "active": true,
                    "actionSuccessful": false
                ],
                {"initiated": false,
                 "usage": 5,
                 "executionDate": "2019-08-08T16:09:21.962-04:00",
                 "action": "notify",
                 "active": true,
                 "actionSuccessful": true
                },
                {"initiated": true,
                 "usage": 3,
                 "executionDate": "2019-08-08T16:09:21.966-04:00",
                 "action": "notify",
                 "active": false,
                 "actionSuccessful": false
                },
                {"initiated": false,
                 "usage": 0,
                 "executionDate": "2019-08-08T16:09:21.968-04:00",
                 "action": "notify",
                 "active": true,
                 "actionSuccessful": true
                }
            ]
        ]
    }
]}}
},
{
  "initiated": false,
  "usage": 3,
  "executionDate": "2019-08-08T16:09:28.985-04:00",
  "action": "notify",
  "active": false,
  "actionSuccessful": true
},
{
  "initiated": true,
  "usage": 5,
  "executionDate": "2019-08-08T16:09:31.044-04:00",
  "action": "notify",
  "active": true,
  "actionSuccessful": false
},
{
  "initiated": false,
  "usage": 5,
  "executionDate": "2019-08-08T16:09:31.045-04:00",
  "action": "notify",
  "active": true,
  "actionSuccessful": true
},
{
  "initiated": true,
  "usage": 3,
  "executionDate": "2019-08-08T16:09:31.140-04:00",
  "action": "notify",
  "active": false,
  "actionSuccessful": true
},
{
  "initiated": false,
  "usage": 3,
  "executionDate": "2019-08-08T16:09:31.141-04:00",
  "action": "notify",
  "active": false,
  "actionSuccessful": true
},
{
  "initiated": true,
  "usage": 5,
  "executionDate": "2019-08-08T16:09:49.833-04:00",
  "action": "notify",
  "active": true,
  "actionSuccessful": false
},
{
  "initiated": false,
  "usage": 5,
  "executionDate": "2019-08-08T16:09:49.833-04:00",
  "action": "notify",
  "active": true,
  "actionSuccessful": true
},
{
  "initiated": false,
  "usage": 3,
  "executionDate": "2019-08-08T16:09:49.833-04:00",
  "action": "notify",
  "active": false,
  "actionSuccessful": true
},
{
  "initiated": true,
  "usage": 5,
  "executionDate": "2019-08-08T16:09:49.833-04:00",
  "action": "notify",
  "active": true,
  "actionSuccessful": false
},
{
  "initiated": false,
  "usage": 5,
  "executionDate": "2019-08-08T16:09:49.833-04:00",
  "action": "notify",
  "active": true,
  "actionSuccessful": true
}
],
"name": "NotifyTrigger",
"lastTimeExecuted": "2019-08-08T16:09:49.833-04:00",
"type": "TriggerRuntime",
"activated": true,
]})
,"fairShareConstraintRuntime": null
},

"identity": [
  "partitionRuntimes",
  "Partition1",
  "resourceManagerRuntime",
  "resourceRuntimes",
  "CpuUtilization"
],
"usage": 6,

"name": "CpuUtilization",
"type": "ResourceRuntime",
"resourceType": "cpu-utilization",
"triggerRuntimes": {
  "items": [
    {
      "identity": [
        "partitionRuntimes",
        "Partition1",
        "resourceManagerRuntime",
        "resourceRuntimes",
        "CpuUtilization",
        "triggerRuntimes",
        "NotifyTrigger"
      ],
      "initiated": false,
      "recourseActionEventsHistory": [],
      "name": "NotifyTrigger",
      "lastTimeExecuted": null,
      "type": "TriggerRuntime",
      "activated": false
    },
    {
      "identity": [
        "partitionRuntimes",
        "Partition1",
        "resourceManagerRuntime",
        "resourceRuntimes",
        "CpuUtilization",
        "triggerRuntimes",
        "SlowTrigger"
      ],
      "initiated": false,
      "recourseActionEventsHistory": [],
      "name": "SlowTrigger",
      "lastTimeExecuted": null,
      "type": "TriggerRuntime",
      "activated": false
    }
  ]
},
"fairShareConstraintRuntime": null
},

"identity": [
  "partitionRuntimes",
  "Partition1",
  "resourceManagerRuntime",
  "resourceRuntimes",
  "CpuUtilization"
]
"HeapRetained",
"usage": 9,
"name": "HeapRetained",
"type": "ResourceRuntime",
"resourceType": "heap-retained",
"triggerRuntimes": [{
  "identity": [
    "partitionRuntimes",
    "Partition1",
    "resourceManagerRuntime",
    "resourceRuntimes",
    "HeapRetained",
    "triggerRuntimes",
    "NotifyTrigger"
  ],
  "initiated": false,
  "recourceActionEventsHistory": [],
  "name": "NotifyTrigger",
  "lastTimeExecuted": null,
  "type": "TriggerRuntime",
  "activated": false
}],
"fairShareConstraintRuntime": null
}]
}]
}]
"name": "Cluster1Server2",
"partitionRuntimes": [{
  "name": "Partition1",
  "resourceManagerRuntime": {
    "identity": [
      "partitionRuntimes",
      "Partition1",
      "resourceManagerRuntime"
    ],
    "name": "Partition1ResourceManager",
    "type": "ResourceManagerRuntime",
    "resourceRuntimes": [{
      "identity": [
        "partitionRuntimes",
        "Partition1",
        "resourceManagerRuntime",
        "resourceRuntimes",
        "FileOpen"
      ],
      "usage": 2,
      "name": "FileOpen",
      "type": "ResourceRuntime",
      "resourceType": "file-open",
      "triggerRuntimes": [{
        "identity": [
          "partitionRuntimes",
          "Partition1",
          "resourceManagerRuntime",
          "resourceRuntimes",
          "FileOpen"
        ]
      }]
    }]
  }
}]
}]
}]

"triggerRuntimes",
  "NotifyTrigger"
],
  "initiated": false,
  "recourseActionEventsHistory": [],
  "name": "NotifyTrigger",
  "lastTimeExecuted": null,
  "type": "TriggerRuntime",
  "activated": false
}],
  "fairShareConstraintRuntime": null
},
  "identity": [
    "partitionRuntimes",
    "Partition1",
    "resourceManagerRuntime",
    "resourceRuntimes",
    "CpuUtilization"
],
  "usage": 2,
  "name": "CpuUtilization",
  "type": "ResourceRuntime",
  "resourceType": "cpu-utilization",
  "triggerRuntimes": ["items": [
    {"identity": [
      "partitionRuntimes",
      "Partition1",
      "resourceManagerRuntime",
      "resourceRuntimes",
      "CpuUtilization",
      "triggerRuntimes",
      "NotifyTrigger"
    ],
    "initiated": false,
    "recourseActionEventsHistory": [],
    "name": "NotifyTrigger",
    "lastTimeExecuted": null,
    "type": "TriggerRuntime",
    "activated": false
  },
  {"identity": [
    "partitionRuntimes",
    "Partition1",
    "resourceManagerRuntime",
    "resourceRuntimes",
    "CpuUtilization",
    "triggerRuntimes",
    "SlowTrigger"
  ],
  "initiated": false,
  "recourseActionEventsHistory": [],
  "name": "SlowTrigger",
  "lastTimeExecuted": null,
  "type": "TriggerRuntime",
  "activated": false
}]},
Search the admin server log as the domain monitor, returning the matching records as json

---------------
curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{"limit": 2, \n  query: 'SEVERITY = \"Info\"' \n}" \
WLDFAccessRuntime/WLDFDataAccessRuntimes/ServerLog/search
HTTP/1.1 200 OK

Response Body:
{
  "records": [
    {
      "RECORDID": 1,
      "DATE": "Aug 8, 2019 4:05:12,494 PM EDT",
      "SEVERITY": "Info",
      "SUBSYSTEM": "Security",
      "MACHINE": "machine1",
      "SERVER": "",
      "THREAD": "main",
      "USERID": "",
      "TXID": "",
      "CONTEXTID": "",
      "TIMESTAMP": "1565294712494",
      "MSGID": "BEA-090905",
      "MESSAGE": "Disabling the CryptoJ JCE Provider self-integrity check for better startup performance. To enable this check, specify -Dweblogic.security.allowCryptoJDefaultJCEVerification=true.",
      "SUPP_ATTRS": "[severity-value: 64] [partition-id: 0] [partition-name: DOMAIN] ",
      "SEVERITY_VALUE": 64,
      "PARTITION_ID": "0",
      "PARTITION_NAME": "DOMAIN",
      "RID": ""
    },
    {
      "RECORDID": 2,
      "DATE": "Aug 8, 2019 4:05:12,596 PM EDT",
      "SEVERITY": "Info",
      "SUBSYSTEM": "Security",
      "MACHINE": "machine1",
      "SERVER": "",
      "THREAD": "main",
      "USERID": "",
      "TXID": "",
      "CONTEXTID": "",
      "TIMESTAMP": "1565294712596",
      "MSGID": "BEA-090906",
      "MESSAGE": "Changing the default Random Number Generator in RSA CryptoJ from ECDRBG128 to HMACDRBG. To disable this change, specify -Dweblogic.security.allowCryptoJDefaultPRNG=true.",
      "SUPP_ATTRS": "[severity-value: 64] [partition-id: 0] [partition-name: DOMAIN] ",
      "SEVERITY_VALUE": 64,
      "PARTITION_ID": "0",
      "PARTITION_NAME": "DOMAIN",
      "RID": ""
    }
  ],
  "nextRecordId": 3
}

Continue searching a log. This example uses the POST method to continue searching for records in the admin server log as the domain monitor.
Chapter 4
Monitoring Domain Resources

```
curl -v \
  -u monitor:monitor123 \
  -H X-Requested-By:MyClient \
  -H Accept:application/json \
  -H Content-Type:application/json \
  -d "{ 
    limit: 2, 
    fromId: 3, 
    query: 'SEVERITY = "Info"' 
  }" \
  WLDFAccessRuntime/WLDFDataAccessRuntimes/ServerLog/search

HTTP/1.1 200 OK

Response Body:
{
  "records": [
    {
      "RECORDID": 3,
      "DATE": "Aug 8, 2019 4:05:15,019 PM EDT",
      "SEVERITY": "Info",
      "SUBSYSTEM": "WebLogicServer",
      "MACHINE": "machine1",
      "SERVER": "",
      "THREAD": "Thread-7",
      "USERID": "",
      "TXID": "",
      "CONTEXTID": "",
      "TIMESTAMP": "1565294715019",
      "MSGID": "BEA-000377",
      "MESSAGE": "Starting WebLogic Server with Java HotSpot(TM) 64-Bit Server VM 
      Version 25.211-b12 from Oracle Corporation.",
      "SUPP_ATTRS": "[severity-value: 64] [partition-id: 0] [partition-name: DOMAIN] ",
      "SEVERITY_VALUE": 64,
      "PARTITION_ID": "0",
      "PARTITION_NAME": "DOMAIN",
      "RID": ""
    },
    {
      "RECORDID": 4,
      "DATE": "Aug 8, 2019 4:05:16,081 PM EDT",
      "SEVERITY": "Info",
      "SUBSYSTEM": "Management",
      "MACHINE": "machine1",
      "SERVER": "",
      "THREAD": "Thread-7",
      "USERID": "",
      "TXID": "",
      "CONTEXTID": "",
      "TIMESTAMP": "1565294716081",
      "MSGID": "BEA-141107",
      "MESSAGE": "Version: WebLogic Server 12.2.1.4.0 Thu Aug  8 03:32:46 PDT 2019 
      1970985",
      "SUPP_ATTRS": "[severity-value: 64] [partition-id: 0] [partition-name: DOMAIN] ",
      "SEVERITY_VALUE": 64,
      "PARTITION_ID": "0",
      "PARTITION_NAME": "DOMAIN",
      "RID": ""
    }
  ]
}``
"nextRecordId": 6
}

Search the admin server log as the domain monitor, returning the matching records as plain text

```
curl -v \\n--user monitor:monitor123 \\n-H X-Requested-By:MyClient \\n-H Accept:text/plain \\n-H Content-Type:application/json \\n-d "{ \\
  limit: 2, \\
  query: 'SEVERITY = 'Info' AND USERID = 'admin', \\
  lastMinutes: 60 \\
}"
```

HTTP/1.1 200 OK

Response Body:

```
####<Aug 8, 2019 4:06:15,664 PM EDT> <Info> <Security> <machine1> <AdminServer>
  [ACTIVE] ExecuteThread: '0' for queue: 'weblogic.kernel.Default (self-tuning)'
  <admin> <> <5223de7d-6982-40f3-b528-c59d47995565-0000000f> <1565294775664>
  <[severity-value: 64] [rid: 0] [partition-id: 0] [partition-name: DOMAIN] >
  <BEA-090516> <The Authenticator provider has pre-existing LDAP data.>
####<Aug 8, 2019 4:08:35,773 PM EDT> <Info> <Security> <machine1> <AdminServer>
  <admin> <> <5223de7d-6982-40f3-b528-c59d47995565-00000063> <1565294915773>
  <[severity-value: 64] [rid: 0] [partition-id: 0] [partition-name: DOMAIN] >
  <BEA-090516> <The Authenticator provider has pre-existing LDAP data.>
```

Continue searching a log. This example uses the POST method to continue searching for records in the admin server log as the domain monitor.

```
curl -v \\n--user monitor:monitor123 \\n-H X-Requested-By:MyClient \\n-H Accept:text/plain \\n-H Content-Type:application/json \\n-d "{ \\
  limit: 2, \\
  fromId: 1204, \\
  query: 'SEVERITY = 'Info' AND USERID = 'admin', \\
}"
Capture a diagnostics image. Prevents capturing further images for the configured default lockout period. Note: only an admin is allowed to capture an image.

```
curl -v \
  -u admin:admin123 \
  -H X-Requested-By:MyClient \
  -H Accept:application/json \
  -H Content-Type:application/json \
  -d "{}" \
```

HTTP/1.1 201 Created


Response Body:

```
{
  "links": [{
    "rel": "job",
    "href": "http://\localhost:7001/management/\weblogic/\latest/\serverRuntime/\WLDFRuntime/\WLDFImageRuntime/\imageCaptureTasks/\DiagnosticImageCaptureTaskRuntime_1"
  }],
  "identity": {
    "WLDFRuntime",
    "WLDFImageRuntime",
    "imageCaptureTasks",
    "DiagnosticImageCaptureTaskRuntime_1"
  }
}
```
List the captured diagnostics images.

```
curl -v \
--user admin:admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
WLDFImageRuntime/capturedImages?links=none

HTTP/1.1 200 OK

Response Body:
{"items": [{"name": "diagnostic_image_AdminServer_2019_08_08_16_10_04.zip"}]}
```

Download a captured diagnostics image

```
curl -v \
--user monitor:monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/octet-stream \
-o diagnostic_image_AdminServer_2019_08_08_16_10_04.zip \
WLDFImageRuntime/capturedImages/diagnostic_image_AdminServer_2019_08_08_16_10_04.zip/
contents

HTTP/1.1 200 OK
Starting and Stopping Domain-Scoped Applications

Review an example script that demonstrates how an Operator starts and stops domain-scoped applications.

Note:
To view long URLs, use the scroll bar located beneath the section.

Demonstrate a domain operator starting and stopping a domain scoped app

Get the app's state on one of the servers in the cluster
--H Accept:application/json \
--H Content-Type:application/json \
-d "{ target='Cluster1Server1' }" \
deploymentManager/appDeploymentRuntimes/fairShare/getState

HTTP/1.1 200 OK

Response Body:
{"return": "STATE_ACTIVE"}

Synchronously stop the app

curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}" \
deploymentManager/appDeploymentRuntimes/fairShare/stop

HTTP/1.1 200 OK

Response Body:
{
"links": [{
  "rel": "job",
deploymentManager/deploymentProgressObjects/fairShare"
}],
"identity": [
  "deploymentManager",
  "deploymentProgressObjects",
  "fairShare"
],
"rootExceptions": [],
"endTimeAsLong": 1565295022229,
"deploymentMessages": [
  "[Deployer:149192] Operation "stop" on application "fairShare" is in progress on "Cluster1Server1".",
  "[Deployer:149192] Operation "stop" on application "fairShare" is in progress on "Cluster1Server2".",
  "[Deployer:149194] Operation "stop" on application "fairShare" has succeeded on "Cluster1Server1".",
  "[Deployer:149194] Operation "stop" on application "fairShare" has succeeded on "Cluster1Server2".
],
"name": "fairShare",
"operationType": 2,
"startTimeAsLong": 1565295022075,
"state": "STATE_COMPLETED",
"id": "4",}
Get the app's state on one of the servers in the cluster

```
curl -v \
   --user operator:operator123 \
   -H X-Requested-By:MyClient \
   -H Accept:application/json \
   -H Content-Type:application/json \
   -d "{}" \
   deploymentManager/appDeploymentRuntimes/fairShare/getState
```

HTTP/1.1 200 OK

Response Body:
{"return": "STATE_PREPARED"}

Synchronously start the app

```
curl -v \
   --user operator:operator123 \
   -H X-Requested-By:MyClient \
   -H Accept:application/json \
   -H Content-Type:application/json \
   -d "{}" \
   deploymentManager/appDeploymentRuntimes/fairShare/start
```

HTTP/1.1 200 OK

Response Body:
{
   "links": [{
      "rel": "job",
      deploymentManager/deploymentProgressObjects/fairShare"
   }],
Get the app's state on one of the servers in the cluster

```
curl -v \
   --user operator:operator123 \
   -H X-Requested-By:MyClient \
   -H Accept:application/json \n   -H Content-Type:application/json \n   -d "{ target='Cluster1Server1' }" \
   deploymentManager/appDeploymentRuntimes/fairShare/getState
```

HTTP/1.1 200 OK

Response Body:

{"return": "STATE_ACTIVE"}
Starting and Stopping Partitions

Review an example script that demonstrates how an Operator starts and stops partitions.

Note:

WebLogic Server Multitenant domain partitions, resource groups, resource group templates, virtual targets, and Resource Consumption Management are deprecated in WebLogic Server 12.2.1.4.0 and will be removed in the next release.

To view long URLs, use the scroll bar located beneath the section.

Demonstrate a domain operator starting and stopping a partition

View the partition’s state

```
curl -v
--user operator:operator123
-H X-Requested-By:MyClient
-H Accept:application/json
-H Content-Type:application/json

HTTP/1.1 200 OK

Response Body:
{
   "name": "Partition1",
   "state": "RUNNING"
}
```

Synchronously gracefully shut down the partition

```
curl -v
--user operator:operator123
-H X-Requested-By:MyClient
-H Accept:application/json
-H Content-Type:application/json
```

---
-d "{
  "timeout": 10,
  "ignoreSessions": true
}"
domainPartitionRuntimes/Partition1/partitionLifeCycleRuntime/shutdown

HTTP/1.1 200 OK

Response Body:
{
  "links": [
    {"rel": "job",
domainPartitionRuntimes/Partition1/partitionLifeCycleRuntime/tasks/_8_SHUTDOWN"}
  ],
  "identity": [
    "domainPartitionRuntimes",
    "Partition1",
    "partitionLifeCycleRuntime",
    "tasks",
    "_8_SHUTDOWN"
  ],
  "systemTask": false,
  "description": "Shutting down Partition1 on servers Cluster1Server1,AdminServer,Cluster1Server2 ...",
  "serverName": "Cluster1Server1,AdminServer,Cluster1Server2",
  "startTimeAsLong": 1565295024735,
  "type": "PartitionLifeCycleTaskRuntime",
  "running": false,
  "partitionName": "Partition1",
  "endTimeAsLong": 1565295030478,
  "name": "_8_SHUTDOWN",
  "progress": "success",
  "taskError": null,
  "operation": "SHUTDOWN",
  "taskStatus": "TASK COMPLETED",
  "parentTask": null,
  "completed": true,
  "intervalToPoll": 1000,
  "startTime": "2019-08-08T16:10:24.735-04:00",
  "endTime": "2019-08-08T16:10:30.478-04:00"
}

------------------------------------------------------------------
View the partition’s state
------------------------------------------------------------------

curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
domainPartitionRuntimes/Partition1/partitionLifeCycleRuntime?
links=none&fields=name,state
HTTP/1.1 200 OK
Response Body:
{
   "name": "Partition1",
   "state": "SHUTDOWN"
}

Synchronously start the partition

```
curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}" \
```

HTTP/1.1 200 OK
Response Body:
{
   "links": [{{
      "rel": "job",
   }},
   "identity": ["domainPartitionRuntimes", "Partition1", "partitionLifeCycleRuntime", "tasks", 
   "_12_START"
   ],
   "systemTask": false,
   "description": "Starting Partition1 on servers Cluster1Server1,AdminServer,Cluster1Server2 ...",
   "startTimeAsLong": 1565295031254,
   "type": "PartitionLifeCycleTaskRuntime",
   "running": false,
   "partitionName": "Partition1",
   "endTimeAsLong": 1565295037799,
   "name": "_12_START",
   "progress": "success",
   "taskError": null,
   "operation": "START",
   "taskStatus": "TASK COMPLETED",
   "parentTask": null,
   "completed": true,
   "intervalToPoll": 1000,
   "startTime": "2019-08-08T16:10:31.254-04:00",
   "endTime": "2019-08-08T16:10:37.799-04:00"
}
View the partition's state

```bash
curl -v
--user operator:operator123
-H X-Requested-By:MyClient
-H Accept:application/json
links=none&fields=name,state
```

HTTP/1.1 200 OK

Response Body:

```json
{
    "name": "Partition1",
    "state": "RUNNING"
}
```

Asynchronously force shutdown the partition

```bash
curl -v
--user operator:operator123
-H X-Requested-By:MyClient
-H Accept:application/json
-H Content-Type:application/json
-d "{}"
-H "Prefer:respond-async"
```

HTTP/1.1 202 Accepted


Response Body:

```json
{
    "links": [{
        "rel": "job",
    }],
    "identity": {
        "domainPartitionRuntimes",
```
"Partition1",
"partitionLifeCycleRuntime",
"tasks",
"_16_FORCE_SHUTDOWN"
],
"systemTask": false,
"description": "Force Shutting down Partition1 on servers Cluster1Server1,AdminServer,Cluster1Server2 ... ",
"serverName": "Cluster1Server1,AdminServer,Cluster1Server2",
"startTimeAsLong": 1565295039024,
"type": "PartitionLifeCycleTaskRuntime",
"running": true,
"partitionName": "Partition1",
"name": "_16_FORCE_SHUTDOWN",
"progress": "processing",
"taskError": null,
"operation": "FORCE_SHUTDOWN",
"taskStatus": "TASK IN PROGRESS",
"parentTask": null,
"completed": false,
"intervalToPoll": 1000,
"startTime": "2019-08-08T16:10:39.024-04:00"
}

Get status for job domainRuntime/domainPartitionRuntimes/Partition1/partitionLifeCycleRuntime/tasks/_16_FORCE_SHUTDOWN

```
curl -v
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

HTTP/1.1 200 OK

Response Body:

```
|
"identity": [
  "domainPartitionRuntimes",
  "Partition1",
  "partitionLifeCycleRuntime",
  "tasks",
  "_16_FORCE_SHUTDOWN"
],
"systemTask": false,
"description": "Force Shutting down Partition1 on servers Cluster1Server1,AdminServer,Cluster1Server2 ... ",
"serverName": "Cluster1Server1,AdminServer,Cluster1Server2",
"startTimeAsLong": 1565295039024,
"type": "PartitionLifeCycleTaskRuntime",
"running": true,
"partitionName": "Partition1",
```
"name": "_16_FORCE_SHUTDOWN",
"progress": "processing",
"taskError": null,
"operation": "FORCE_SHUTDOWN",
"taskStatus": "TASK IN PROGRESS",
"parentTask": null,
"completed": false,
"intervalToPoll": 1000,
"startTime": "2019-08-08T16:10:39.024-04:00"
}

Get status for job domainRuntime/domainPartitionRuntimes/Partition1/partitionLifeCycleRuntime/tasks/_16_FORCE_SHUTDOWN

 curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:

    
    "identity": [ 
        "domainPartitionRuntimes",
        "Partition1",
        "partitionLifeCycleRuntime",
        "tasks",
        "_16_FORCE_SHUTDOWN"
    ],
    "systemTask": false,
    "description": "Force Shutting down Partition1 on servers Cluster1Server1,AdminServer,Cluster1Server2 ... ",
    "serverName": "Cluster1Server1,AdminServer,Cluster1Server2",
    "startTimeAsLong": 1565295039024,
    "type": "PartitionLifeCycleTaskRuntime",
    "running": false,
    "partitionName": "Partition1",
    "endTimeAsLong": 1565295044922,
    "name": "_16_FORCE_SHUTDOWN",
    "progress": "success",
    "taskError": null,
    "operation": "FORCE_SHUTDOWN",
    "taskStatus": "TASK COMPLETED",
    "parentTask": null,
    "completed": true,
    "intervalToPoll": 1000,
    "startTime": "2019-08-08T16:10:39.024-04:00",
    "endTime": "2019-08-08T16:10:44.922-04:00"
}
View the partition’s state

```
curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

HTTP/1.1 200 OK

Response Body:

```
{
  "name": "Partition1",
  "state": "SHUTDOWN"
}
```

Asynchronously start the partition

```
curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}" \
-H "Prefer:respond-async" \
```

HTTP/1.1 202 Accepted


Response Body:

```
{
  "links": [{
    "rel": "job",
  }],
  "identity": [
    "domainPartitionRuntimes",
    "Partition1",
    "partitionLifeCycleRuntime",
```
Get status for job domainRuntime/domainPartitionRuntimes/Partition1/partitionLifeCycleRuntime/tasks/_20_START


Response Body:

```json
{
   "identity": [
      "domainPartitionRuntimes",
      "Partition1",
      "partitionLifeCycleRuntime",
      "tasks",
      "_20_START"
   ],
   "systemTask": false,
   "description": "Starting Partition1 on servers Cluster1Server1,AdminServer,Cluster1Server2 ... ",
   "serverName": "Cluster1Server1,AdminServer,Cluster1Server2",
   "startTimeAsLong": 1565295058281,
   "type": "PartitionLifeCycleTaskRuntime",
   "running": true,
   "partitionName": "Partition1",
   "name": "_20_START",
   "progress": "processing",
   "taskError": null,
   "operation": "START",
   "taskStatus": "TASK IN PROGRESS",
   "parentTask":null,
   "completed": false,
   "intervalToPoll": 1000,
   "startTime": "2019-08-08T16:10:58.281-04:00"
}
```
"taskError": null,
"operation": "START",
"taskStatus": "TASK IN PROGRESS",
"parentTask": null,
"completed": false,
"intervalToPoll": 1000,
"startTime": "2019-08-08T16:10:58.281-04:00"
}

Get status for job domainRuntime/domainPartitionRuntimes/Partition1/partitionLifeCycleRuntime/tasks/_20_START

```bash
curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

Response Body:

```json
{
  "identity": [
    "domainPartitionRuntimes",
    "Partition1",
    "partitionLifeCycleRuntime",
    "tasks",
    "_20_START"
  ],
  "systemTask": false,
  "description": "Starting Partition1 on servers Cluster1Server1,AdminServer,Cluster1Server2 ... ",
  "serverName": "Cluster1Server1,AdminServer,Cluster1Server2",
  "startTimeAsLong": 1565295058281,
  "type": "PartitionLifeCycleTaskRuntime",
  "running": false,
  "partitionName": "Partition1",
  "endTimeAsLong": 1565295063904,
  "name": "_20_START",
  "progress": "success",
  "taskError": null,
  "operation": "START",
  "taskStatus": "TASK COMPLETED",
  "parentTask": null,
  "completed": true,
  "intervalToPoll": 1000,
  "startTime": "2019-08-08T16:10:58.281-04:00",
  "endTime": "2019-08-08T16:11:03.904-04:00"
}
```
Starting and Stopping Servers

Review an example script that demonstrates how an Operator starts and stops servers.

Note:
To view long URLs, use the scroll bar located beneath the section.

Demonstrate a domain operator starting and stopping servers

View the servers' states

curl -v \

HTTP/1.1 200 OK
Response Body:

```json

{
  "name": "Partition1",
  "state": "RUNNING"
}

```
Synchronously shutdown a server

```bash
```

HTTP/1.1 200 OK

Response Body:
```
{"links": [{
  "rel": "job",
}]
,"identity": {
  "serverLifeCycleRuntimes",
  "Cluster1Server1",
  "tasks",
  "_2_shutdown"
},
"running": false,
"systemTask": false,
"endTimeAsLong": 1565295086297,
"name": "_2_shutdown",
"progress": "success",
"description": "Shutting down Cluster1Server1 server ...",
"servername": "Cluster1Server1",
"taskError": null,
"startTimeAsLong": 1565295077458,
"type": "ServerLifeCycleTaskRuntime",
"operation": "shutdown",
```
Asynchronously force shutdown a server

```bash
curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}" \
-H "Prefer:respond-async" \
```

HTTP/1.1 202 Accepted


Response Body:

```json
{
  "links": [
    {
      "rel": "job",
    }
  ],
  "identity": {
    "serverLifeCycleRuntimes",
    "Cluster1Server2",
    "tasks",
    "_3_forceShutdown"
  },
  "running": true,
  "systemTask": false,
  "name": "_3_forceShutdown",
  "progress": "processing",
  "description": "Forcefully shutting down Cluster1Server2 server ...",
  "serverName": "Cluster1Server2",
  "taskError": null,
  "startTimeAsLong": 1565295129219,
  "type": "ServerLifeCycleTaskRuntime",
  "operation": "forceShutdown",
  "taskStatus": "TASK IN PROGRESS",
  "parentTask": null,
  "completed": false,
  "intervalToPoll": 1000,
  "startTime": "2019-08-08T16:12:09.219-04:00"
}
```
Get status for job domainRuntime/serverLifeCycleRuntimes/Cluster1Server2/tasks/_3_forceShutdown

curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK
Response Body:
{
    "identity": [
        "serverLifeCycleRuntimes",
        "Cluster1Server2",
        "tasks",
        "_3_forceShutdown"
    ],
    "running": true,
    "systemTask": false,
    "name": "_3_forceShutdown",
    "progress": "processing",
    "description": "Forcefully shutting down Cluster1Server2 server ...",
    "servername": "Cluster1Server2",
    "taskError": null,
    "startTimeAsLong": 1565295129219,
    "type": "ServerLifeCycleTaskRuntime",
    "operation": "forceShutdown",
    "taskStatus": "TASK IN PROGRESS",
    "parentTask": null,
    "completed": false,
    "intervalToPoll": 1000,
    "startTime": "2019-08-08T16:12:09.219-04:00"
}

Get status for job domainRuntime/serverLifeCycleRuntimes/Cluster1Server2/tasks/_3_forceShutdown

curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
HTTP/1.1 200 OK

Response Body:
{
    "identity": [
        "serverLifeCycleRuntimes",
        "Cluster1Server2",
        "tasks",
        "_3_forceShutdown"
    ],
    "running": false,
    "systemTask": false,
    "endTimeAsLong": 1565295138110,
    "name": "_3_forceShutdown",
    "progress": "success",
    "description": "Forcefully shutting down Cluster1Server2 server ...",
    "servername": "Cluster1Server2",
    "taskError": null,
    "startTimeAsLong": 1565295129219,
    "type": "ServerLifeCycleTaskRuntime",
    "operation": "forceShutdown",
    "taskStatus": "TASK COMPLETED",
    "parentTask": null,
    "completed": true,
    "intervalToPoll": 1000,
    "startTime": "2019-08-08T16:12:09.219-04:00",
    "endTime": "2019-08-08T16:12:18.110-04:00"
}

View the servers' states
---------------------------------------------------------------------------------------------------------

curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{"items": [
    {
        "name": "Cluster1Server1",
        "state": "SHUTDOWN"
    },
    {
        "name": "AdminServer",
        "state": "RUNNING"
    },
    {
        "name": "Cluster1Server2",
        "state": "STOPPED"
    }
]}
Synchronously start a server

```bash
curl -v \
    --user operator:operator123 \
    -H X-Requested-By:MyClient \
    -H Accept:application/json \
    -H Content-Type:application/json \
    -d "{}" \
```

HTTP/1.1 200 OK

Response Body:

```json
{
    "links": [{
        "rel": "job",
    }],
    "identity": [
        "serverLifeCycleRuntimes",
        "Cluster1Server1",
        "tasks",
        "_4_start"
    ],
    "running": false,
    "systemTask": false,
    "endTimeAsLong": 1565295180717,
    "name": "_4_start",
    "progress": "success",
    "description": "Starting Cluster1Server1 server ...",
    "serverName": "Cluster1Server1",
    "taskError": null,
    "startTimeAsLong": 1565295148241,
    "type": "ServerLifeCycleTaskRuntime",
    "operation": "start",
    "taskStatus": "TASK COMPLETED",
    "parentTask": null,
    "completed": true,
    "intervalToPoll": 1000,
    "startTime": "2019-08-08T16:12:28.241-04:00",
    "endTime": "2019-08-08T16:13:00.717-04:00"
}
```
Asynchronously start a server
---------------------------------------------------------------------------
curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}" \
-H "Prefer:respond-async" \

HTTP/1.1 202 Accepted


Response Body:
{
   "links": [{
       "rel": "job",
       "href": "http:\/\localhost:7001\management\weblogic\latest\domainRuntime\ serverLifeCycleRuntimes\Cluster1Server2\tasks\_5_start"
   }],
   "identity": {
       "serverLifeCycleRuntimes",
       "Cluster1Server2",
       "tasks",
       "_5_start"
   },
   "running": true,
   "systemTask": false,
   "name": "_5_start",
   "progress": "processing",
   "description": "Starting Cluster1Server2 server ...",
   "serverName": "Cluster1Server2",
   "taskError": null,
   "startTimeAsLong": 1565295224176,
   "type": "ServerLifeCycleTaskRuntime",
   "operation": "start",
   "taskStatus": "TASK IN PROGRESS",
   "parentTask": null,
   "completed": false,
   "intervalToPoll": 1000,
   "startTime": "2019-08-08T16:13:44.176-04:00"
}

----------------------------------------------------------------------
Get status for job domainRuntime/serverLifeCycleRuntimes/Cluster1Server2/tasks/_5_start
----------------------------------------------------------------------
curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \

-H Accept:application/json \
serverLifeCycleRuntimes/Cluster1Server2/tasks/_5_start?links=none

HTTP/1.1 200 OK
Response Body:
{
"identity": [
    "serverLifeCycleRuntimes",
    "Cluster1Server2",
    "tasks",
    "_5_start"
],
"running": true,
"systemTask": false,
"name": "_5_start",
"progress": "processing",
"description": "Starting Cluster1Server2 server ...",
"startTimeAsLong": 1565295224176,
"type": "ServerLifeCycleTaskRuntime",
"operation": "start",
"taskStatus": "TASK IN PROGRESS",
"parentTask": null,
"completed": false,
"intervalToPoll": 1000,
"startTime": "2019-08-08T16:13:44.176-04:00"
}

Get status for job domainRuntime/serverLifeCycleRuntimes/Cluster1Server2/tasks/_5_start

curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
serverLifeCycleRuntimes/Cluster1Server2/tasks/_5_start?links=none

HTTP/1.1 200 OK
Response Body:
{
"identity": [
    "serverLifeCycleRuntimes",
    "Cluster1Server2",
    "tasks",
    "_5_start"
],
"running": true,
"systemTask": false,
Get status for job domainRuntime/serverLifeCycleRuntimes/Cluster1Server2/tasks/_5_start

```
curl -v \
--user operator:operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

HTTP/1.1 200 OK

Response Body:
```
{
    "identity": [
        "serverLifeCycleRuntimes",
        "Cluster1Server2",
        "tasks",
        "_5_start"
    ],
    "running": false,
    "systemTask": false,
    "endTimeAsLong": 1565295254790,
    "name": "_5_start",
    "progress": "success",
    "description": "Starting Cluster1Server2 server ...",
    "serverName": "Cluster1Server2",
    "taskError": null,
    "startTimeAsLong": 1565295224176,
    "type": "ServerLifeCycleTaskRuntime",
    "operation": "start",
    "taskStatus": "TASK COMPLETED",
    "parentTask": null,
    "completed": true,
    "intervalToPoll": 1000,
    "endTime": "2019-08-08T16:14:14.790-04:00",
    "startTime": "2019-08-08T16:13:44.176-04:00"
}
```
View the servers' states

```
curl -v  
--user operator:operator123 
-H X-Requested-By:MyClient 
-H Accept:application/json 
serverLifeCycleRuntimes?links=none&fields=name,state
```

HTTP/1.1 200 OK

Response Body:
```
{"items": [ 
  
  {
    "name": "Cluster1Server1",
    "state": "RUNNING"
  },
  
  {
    "name": "AdminServer",
    "state": "RUNNING"
  },
  
  {
    "name": "Cluster1Server2",
    "state": "RUNNING"
  }
]}
```
5

Partition Specific REST API Examples (Deprecated)

Examine example scripts for users in partition level roles using WebLogic Server REST APIs to perform common partition management and monitoring tasks.

Note:

WebLogic Server Multitenant domain partitions, resource groups, resource group templates, virtual targets, and Resource Consumption Management are deprecated in WebLogic Server 12.2.1.4.0 and will be removed in the next release.

For information on the user roles which can access a REST resource, see Accessing REST Resources.

This chapter includes the following sections:

- Configuring Users
- Creating Partition-Scoped System Resources
- Deploying Partition-Scoped Applications
- Monitoring Partition Resources
- Starting and Stopping Partition-Scoped Applications

Configuring Users

Review an example script that demonstrates how a Partition Administrator configures users such as Operators, Deployers, and Monitors, for a new partition.

Note:

To view long URLs, use the scroll bar located beneath the section.
curl -v \
--user Partition1Admin:Partition1Admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "
  userName: 'Partition1Deployer',
  password: 'Partition1Deployer123',
  description: 'Partition1 deployer'."
serverConfig/securityConfiguration/realms/Partition1Realm/authenticationProviders/ 
DefaultAuthenticator/createUser

HTTP/1.1 200 OK
Response Body:
{}

curl -v \
--user Partition1Admin:Partition1Admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "
  groupName: 'Deployers',
  memberUserOrGroupName: 'Partition1Deployer'."
serverConfig/securityConfiguration/realms/Partition1Realm/authenticationProviders/ 
DefaultAuthenticator/addMemberToGroup

HTTP/1.1 200 OK
Response Body:
{}

curl -v \
--user Partition1Admin:Partition1Admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "
  userName: 'Partition1Operator',
  password: 'Partition1Operator123',
  description: 'Partition1 operator'."
serverConfig/securityConfiguration/realms/Partition1Realm/authenticationProviders/ 
DefaultAuthenticator/createUser

HTTP/1.1 200 OK
Response Body:
{}}
curl -v \
--user Partition1Admin:Partition1Admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "\n  "\n  groupName: 'Operators', \n  memberUserOrGroupName: 'Partition1Operator' \n  "\n-X POST http://localhost:7001/partitions/Partition1/management/weblogic/latest/\nserverConfig/securityConfiguration/realms/Partition1Realm/authenticationProviders/\nDefaultAuthenticator/addMemberToGroup

HTTP/1.1 200 OK
Response Body:
{}

curl -v \
--user Partition1Admin:Partition1Admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "\n  userName: 'Partition1Monitor', \n  password: 'Partition1Monitor123', \n  description: 'Partition1 monitor' \n  "\n-X POST http://localhost:7001/partitions/Partition1/management/weblogic/latest/\nserverConfig/securityConfiguration/realms/Partition1Realm/authenticationProviders/\nDefaultAuthenticator/createUser

HTTP/1.1 200 OK
Response Body:
{}

curl -v \
--user Partition1Admin:Partition1Admin123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "\n  groupName: 'Monitors', \n  memberUserOrGroupName: 'Partition1Monitor' \n  "\n-X POST http://localhost:7001/partitions/Partition1/management/weblogic/latest/\nserverConfig/securityConfiguration/realms/Partition1Realm/authenticationProviders/\nDefaultAuthenticator/addMemberToGroup

HTTP/1.1 200 OK
Response Body:
Creating Partition-Scoped System Resources

Review an example script that demonstrates how a Deployer creates a partition-scoped data source and a JMS system resource.

Note:
To view long URLs, use the scroll bar located beneath the section.

Demonstrate a partition deployer configuring system resources

View the default values for a new partition-scoped JDBC system resource

```
curl -v
--user Partition1Deployer:Partition1Deployer123
-H X-Requested-By:MyClient
-H Accept:application/json
```

HTTP/1.1 200 OK

Response Body:
```
{
   "notes": null,
   "moduleType": null,
   "deploymentPrincipalName": null,
   "compatibilityName": null,
   "deploymentOrder": 100,
   "tags": null,
   "targets": [],
   "name": null,
   "descriptorFileName": null
}
```

Start editing

```
curl -v
```
Create a new partition-scoped JDBC system resource and set its name

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \n-d "{}" \n-X POST http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/JDBCSystemResources?saveChanges=false
```

HTTP/1.1 201 Created

Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/JDBCSystemResources/Partition1JDBCDataSource1

Response Body:
```
{}
```

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \n-d "{" \n  name: 'Partition1JDBCDataSource1', \n"}"
```

HTTP/1.1 200 OK

Response Body:
Configure the JDBC system resource's JNDI name

```
curl -v \\
--user Partition1Deployer:Partition1Deployer123 \\
-H X-Requested-By:MyClient \\
-H Accept:application/json \\
-H Content-Type:application/json \\
-d "
  JNDINames: [ 'Partition1JDBCDataSource1' ]
"
partitions/Partition1/resourceGroups/Partition1ResourceGroup/JDBCSystemResources/ 
Partition1JDBCDataSource1/JDBCResource/JDBCDataSourceParams
```

HTTP/1.1 200 OK

Response Body:

```
{}
```

Configure the JDBC system resource's driver info

```
curl -v \\
--user Partition1Deployer:Partition1Deployer123 \\
-H X-Requested-By:MyClient \\
-H Accept:application/json \\
-H Content-Type:application/json \\
-d "
  driverName: 'org.apache.derby.jdbc.ClientXADataSource', 
  url: 'jdbc:derby://localhost:1527/demo'
"
partitions/Partition1/resourceGroups/Partition1ResourceGroup/JDBCSystemResources/ 
Partition1JDBCDataSource1/JDBCResource/JDBCDriverParams
```

HTTP/1.1 200 OK

Response Body:

```
{}
```
-d "{
    name: 'portNumber',
    value: '1527'
}" \
partitions/Partition1/resourceGroups/Partition1ResourceGroup/JDBCSystemResources/
Partition1JDBCDataSource1/JDBCResource/JDBCDriverParams/properties/properties

HTTP/1.1 201 Created
Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/
edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/
JDBCSystemResources/Partition1JDBCDataSource1/JDBCResource/JDBCDriverParams/
properties/properties/portNumber

Response Body:

curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
    name: 'databaseName',
    value: 'demo;create=true'
}" \
partitions/Partition1/resourceGroups/Partition1ResourceGroup/JDBCSystemResources/
Partition1JDBCDataSource1/JDBCResource/JDBCDriverParams/properties/properties

HTTP/1.1 201 Created
Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/
edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/
JDBCSystemResources/Partition1JDBCDataSource1/JDBCResource/JDBCDriverParams/
properties/properties/databaseName

Response Body:

curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
    name: 'serverName',
    value: 'localhost'
}" \
partitions/Partition1/resourceGroups/Partition1ResourceGroup/JDBCSystemResources/
Partition1JDBCDataSource1/JDBCResource/JDBCDriverParams/properties/properties

HTTP/1.1 201 Created
Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/JDBCSystemResources/Partition1JDBCDataSource1/JDBCResource/JDBCDriverParams/properties/properties/serverName

Response Body:
{}

Proceed to activate the changes.

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-X POST http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/changeManager/activate
```

HTTP/1.1 200 OK

Response Body:
{}

View the new JDBC system resource.

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
```

HTTP/1.1 200 OK

Response Body:
{}

"identity": [  "partitions",  "Partition1",  "resourceGroups",  "Partition1ResourceGroup",  "JDBCSystemResources",  "Partition1JDBCDataSource1" ],  "notes": null,
"moduleType": null,
"deploymentPrincipalName": null,
"descriptorFileName": "partitions\Partition1\jdbc\Partition1JDBCDataSource1-3274-jdbc.xml",
"name": "Partition1JDBCDataSource1",
"compatibilityName": null,
"id": 0,
"deploymentOrder": 100,
"dynamicallyCreated": false,
"type": "JDBCSystemResource",
"sourcePath": "\\config\partitions\Partition1\jdbc\Partition1JDBCDataSource1-3274-jdbc.xml",
"tags": [],
"resource": [
  "partitions",
  "Partition1",
  "resourceGroups",
  "Partition1ResourceGroup",
  "JDBCSystemResources",
  "Partition1JDBCDataSource1",
  "JDBCResource"
],
"targets": []
}

curl -v \\ --user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{
  "identity": [
    "partitions",
    "Partition1",
    "resourceGroups",
    "Partition1ResourceGroup",
    "JDBCSystemResources",
    "Partition1JDBCDataSource1",
    "JDBCResource"
  ],
  "datasourceType": null,
  "name": "Partition1JDBCDataSource1",
  "id": 0,
  "version": null
}

curl -v \\ --user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

Chapter 5
Creating Partition-Scoped System Resources

5-9
Partitions/JDBCDataSource1/JDBCResource/JDBCDataSourceParams?links=none

HTTP/1.1 200 OK

Response Body:
{
  "identity": [
    "partitions",
    "Partition1",
    "resourceGroups",
    "Partition1ResourceGroup",
    "JDBCSystemResources",
    "Partition1JDBCDataResource1",
    "JDBCResource",
    "JDBCDataSourceParams"
  ],
  "connectionPoolFailoverCallbackHandler": null,
  "globalTransactionsProtocol": "OnePhaseCommit",
  "algorithmType": "Failover",
  "scope": "Global",
  "failoverRequestIfBusy": false,
  "proxySwitchingCallback": null,
  "JNDINames": ["Partition1JDBCDataResource1"],
  "proxySwitchingProperties": null,
  "dataSourceList": null,
  "keepConnAfterGlobalTx": false
}

curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \

HTTP/1.1 200 OK

Response Body:
{
  "identity": [
    "partitions",
    "Partition1",
    "resourceGroups",
    "Partition1ResourceGroup",
    "JDBCSystemResources",
    "Partition1JDBCDataResource1",
    "JDBCResource",
    "JDBCDriverParams"
  ],
  "password": null,
  "driverName": "org.apache.derby.jdbc.ClientXADataSource",
  "usePasswordIndirection": false,
  "url": "jdbc:derby://localhost:1527/demo",
  "useXADataSourceInterface": true
}
curl -v \

HTTP/1.1 200 OK

Response Body:
{"items": [
  {
    "identity": {
      "partitions",
      "Partition1",
      "resourceGroups",
      "Partition1ResourceGroup",
      "JDBCSystemResources",
      "Partition1JDBCDataSource1",
      "JDBCResource",
      "JDBCDriverParams",
      "properties",
      "properties",
      "portNumber"
    },
    "encryptedValue": null,
    "name": "portNumber",
    "sysPropValue": null,
    "value": "1527"
  },
  {
    "identity": {
      "partitions",
      "Partition1",
      "resourceGroups",
      "Partition1ResourceGroup",
      "JDBCSystemResources",
      "Partition1JDBCDataSource1",
      "JDBCResource",
      "JDBCDriverParams",
      "properties",
      "properties",
      "databaseName"
    },
    "encryptedValue": null,
    "name": "databaseName",
    "sysPropValue": null,
    "value": "demo;create=true"
  }
]}

Chapter 5
Creating Partition-Scoped System Resources
Search for all of the JDBC data sources runtimes

```bash
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      links: [], fields: ['name'],
      children: {
        partitionRuntimes: {
          links: [], fields: ['name'],
          children: {
            JDBCPartitionRuntime: {
              links: [], fields: ['name'],
              children: {
                JDBCDataSourceRuntimeMBeans: {
                  links: [], fields: ['name', 'state']
                }
              }
            }
          }
        }
      }
    }
  }
}"
domainRuntime/search
```

HTTP/1.1 200 OK
Response Body:

```json
{"serverRuntimes": [{
  "name": "Cluster1Server1",
  "partitionRuntimes": [{
    "name": "Partition1",
    "JDBCPartitionRuntime": {
      "JDBCDriverParams": {
        "properties": {
          "serverName": 
        },
        "encryptedValue": null,
        "name": "serverName",
        "sysPropValue": null,
        "value": "localhost"
      }
    }
  }
}
```

"name": "Partition1",
"JDBCDataSourceRuntimeMBeans": [{"items": [{
  "state": "Running",
  "name": "Partition1JDBCDataSource1"
}]}
],
}
},
{
  "name": "AdminServer",
  "partitionRuntimes": [{"items": [{
    "name": "Partition1",
    "JDBCPartitionRuntime": null
  }]}
],
},
{
  "name": "Cluster1Server2",
  "partitionRuntimes": [{"items": [{
    "name": "Partition1",
    "JDBCPartitionRuntime": {
      "name": "Partition1",
      "JDBCDataSourceRuntimeMBeans": [{"items": [{
        "state": "Running",
        "name": "Partition1JDBCDataSource1"
      }]}
    }
  }]
},
]}
]}}

Start editing

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
-H Content-Type:application/json \ 
-d "{}" \
-X POST http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/changeManager/startEdit
```

HTTP/1.1 200 OK

Response Body:

`{}`

View the default values for a new partition-scoped JMS file store
Create a new partition-scoped file store

```bash
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{"name": "Partition1FileStore1"}"
```

HTTP/1.1 201 Created
Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/fileStores/Partition1FileStore1

Response Body:
{}

---
View the default values for a new partition-scoped JMS server---

```
curl -v \
   --user Partition1Deployer:Partition1Deployer123 \
   -H X-Requested-By:MyClient \n   -H Accept:application/json \
```

HTTP/1.1 200 OK

Response Body:
{}

"messagesThresholdHigh": -1,
"hostingTemporaryDestinations": true,
"temporaryTemplateName": null,
"notes": null,
"maximumMessageSize": 2147483647,
"allowsPersistentDowngrade": false,
"storeMessageCompressionEnabled": false,
"deploymentOrder": 1000,
"pagingMessageCompressionEnabled": false,
"messageBufferSize": -1,
"expirationScanInterval": 30,
"bytesThresholdLow": -1,
"messagesThresholdLow": -1,
"blockingSendPolicy": "FIFO",
"pagingBlockSize": -1,
"insertionPausedAtStartup": "default",
"pagingMaxWindowBufferSize": -1,
"bytesThresholdHigh": -1,
"pagingMaxFileSize": 1342177280,
"productionPausedAtStartup": "default",
"pagingFilelockingEnabled": true,
"tags": null,
"bytesMaximum": -1,
"temporaryTemplateResource": null,
"messageCompressionOptions": "GZIP_DEFAULT_COMPRESSION",
"pagingMinWindowBufferSize": -1,
"pagingIoBufferSize": -1,
"messagesMaximum": -1,
"consumptionPausedAtStartup": "default",
"pagingDirectory": null,
"storeEnabled": true,
"persistentStore": true,
"targets": [],
Create a new partition-scoped JMS server and hook it up to the file store

```
    "name": "Partition1JMSServer1",
    "messagesMaximum": 10000,
    "bytesMaximum": 10000000,
    "persistentStore": [
        "partitions",
        "Partition1",
        "resourceGroups",
        "Partition1ResourceGroup",
        "fileStores",
        "Partition1FileStore1"
    ]
```

HTTP/1.1 201 Created

Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/JMSServers/Partition1JMSServer1

Response Body:

```json
{}
```

View the default values for a new partition-scoped JMS system resource

```
```

HTTP/1.1 200 OK

Response Body:

```json
{
    "notes": null,
    "moduleType": null,
    "deploymentPrincipalName": null,
    "compatibilityPrincipalName": null,
    "name": null
}
```
Create a new partition-scoped JMS system resource

```
   "name": 'Partition1JMSSystemResource1',
}"
```

HTTP/1.1 201 Created

Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/JMSSystemResources/Partition1JMSSystemResource1

Response Body:
{}

View the default values for a new JMS subdeployment

```
```

HTTP/1.1 200 OK

Response Body:
{}

"deploymentOrder": 100,
"tags": null,
"targets": [],
"name": null,
"descriptorFileName": null}
Create a new JMS subdeployment and hook it up to the JMS server

```
curl -v 
--user Partition1Deployer:Partition1Deployer123 
-H X-Requested-By:MyClient 
-H Accept:application/json 
-H Content-Type:application/json 
-d "{
   name:    ©Partition1JMSSubDeployment1©,
   targets: [ { identity: [ ©partitions©, ©Partition1©, ©resourceGroups©, ©Partition1ResourceGroup©,©JMSServers©, ©Partition1JMSServer1© ] } ]
}" 
partitions/Partition1/resourceGroups/Partition1ResourceGroup/JMSSystemResources/
Partition1JMSSystemResource1/subDeployments

HTTP/1.1 201 Created
Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/
edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/JMSSystemResources/
Partition1JMSSystemResource1/subDeployments/Partition1JMSSubDeployment1

Response Body:
"{}"
```

View the default values for a new JMS connection factory

```
curl -v 
--user Partition1Deployer:Partition1Deployer123 
-H X-Requested-By:MyClient 
-H Accept:application/json 
partitions/Partition1/resourceGroups/Partition1ResourceGroup/JMSSystemResources/
Partition1JMSSystemResource1/JMSResource/connectionFactoryCreateForm?links=none

HTTP/1.1 200 OK

Response Body:
{  "notes": null,
   "JNDIName": null,
   "defaultTargetingEnabled": false,
   "defaultTargetingValue": null
}"
Create a new JMS connection factory and hook it up to the JMS subdeployment

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
    name: 'Partition1ConnectionFactory1',
    subDeploymentName: 'Partition1JMSSubDeployment1'
}"
```

HTTP/1.1 201 Created

Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/JMSSystemResources/Partition1JMSSystemResource1/JMSResource/connectionFactories/Partition1ConnectionFactory1

Response Body:


View the default values for a new JMS distributed queue

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
```

HTTP/1.1 200 OK

Response Body:


Create a new JMS uniform distributed queue and hook it up to the JMS subdeployment

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{"name": 'Partition1UniformDistributedQueue1', 
      "subDeploymentName": 'Partition1JMSSubDeployment1'}" \
partitions/Partition1/resourceGroups/Partition1ResourceGroup/JMSSystemResources/
Partition1JMSSystemResource1/JMSResource/uniformDistributedQueues
```

HTTP/1.1 201 Created

Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/
partitions/Partition1/resourceGroups/Partition1ResourceGroup/JMSSystemResources/
Partition1JMSSystemResource1/JMSResource/uniformDistributedQueues

Response Body:

```
{}
```

Activate the changes

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}"
```

```bash
HTTP/1.1 201 Created

Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/edit/
partitions/Partition1/resourceGroups/Partition1ResourceGroup/JMSSystemResources/
Partition1JMSSystemResource1/JMSResource/uniformDistributedQueues
```

Response Body:

```
{}
```
HTTP/1.1 200 OK

Response Body:
{}

View the file stores

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

HTTP/1.1 200 OK

Response Body:
{"items": [{
   "identity": [
      "partitions",
      "Partition1",
      "resourceGroups",
      "Partition1ResourceGroup",
      "fileStores",
      "Partition1FileStore1"
   ],
   "notes": null,
   "fileLockingEnabled": true,
   "distributionPolicy": "Distributed",
   "partialClusterStabilityDelaySeconds": 240,
   "deploymentOrder": 1000,
   "type": "FileStore",
   "directory": null,
   "initialBootDelaySeconds": 60,
   "ioBufferSize": -1,
   "minWindowBufferSize": -1,
   "failbackDelaySeconds": -1,
   "cacheDirectory": null,
   "id": 0,
   "dynamicallyCreated": false,
   "XAResourceName": null,
   "numberOfRestartAttempts": 6,
   "initialSize": 0,
   "logicalName": null,
   "maxFileSize": 1342177280,
   "synchronousWritePolicy": "Direct-Write",
   "blockSize": -1,
   "tags": [],
   "maxWindowBufferSize": -1,
   "name": "Partition1FileStore1",
   "migrationPolicy": "Off",
   "secondsBetweenRestarts": 30,
   "restartInPlace": false}]}
View the JMS servers

```
curl -v
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

HTTP/1.1 200 OK
Response Body:
```
{"items": [{
  "identity": [
    "partitions",
    "Partition1",
    "resourceGroups",
    "Partition1ResourceGroup",
    "JMSServers",
    "Partition1JMSServer1"
  ],
  "messagesThresholdHigh": -1,
  "hostingTemporaryDestinations": true,
  "temporaryTemplateName": null,
  "notes": null,
  "maximumMessageSize": 2147483647,
  "allowsPersistentDowngrade": false,
  "storeMessageCompressionEnabled": false,
  "deploymentOrder": 1000,
  "type": "JMSServer",
  "pagingMessageCompressionEnabled": false,
  "messageBufferSize": -1,
  "expirationScanInterval": 30,
  "bytesThresholdLow": -1,
  "messagesThresholdLow": -1,
  "blockingSendPolicy": "FIFO",
  "id": 0,
  "dynamicallyCreated": false,
  "pagingBlockSize": -1,
  "insertionPausedAtStartup": "default",
  "pagingMaxWindowBufferSize": -1,
  "bytesThresholdHigh": -1,
  "pagingMaxFileSize": 1342177280,
  "productionPausedAtStartup": "default",
  "pagingFileLockingEnabled": true,
  "tags": [],
  "bytesMaximum": 10000000,
  "temporaryTemplateResource": null,
  "messageCompressionOptions": "GZIP_DEFAULT_COMPRESSION",
  "pagingMinWindowBufferSize": -1,
}}}
```
"pagingIoBufferSize": -1,
"messagesMaximum": 10000,
"name": "Partition1JMSServer1",
"consumptionPausedAtStartup": "default",
"pagingDirectory": null,
"storeEnabled": true,
"persistentStore": [
  "partitions",
  "Partition1",
  "resourceGroups",
  "Partition1ResourceGroup",
  "fileStores",
  "Partition1FileStore1"
],
"targets": []
]}

View the JMS system resources and their children

curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d 
{
  links: [], fields: [],
  children: {
    partitions: {
      links: [], fields: ['name'],
      children: {
        resourceGroups: {
          links: [], fields: ['name'],
          children: {
            JMSSystemResources: {
              links: [],
              children: {
                JMSResource: {
                  links: [], fields: [],
                  children: {
                    connectionFactories: {
                      links: []
                    },
                    distributedQueues: {
                      links: []
                    }
                  }
                }
              }
            }
          }
        }
      }
    }
  }
}
HTTP/1.1 200 OK

Response Body:

```json
{
    "partitions": [{
        "name": "Partition1",
        "resourceGroups": [{
            "name": "Partition1ResourceGroup",
            "JMSSystemResources": [{
                "identity": [
                    "partitions",
                    "Partition1",
                    "resourceGroups",
                    "Partition1ResourceGroup",
                    "JMSSystemResources",
                    "Partition1JMSSystemResource1"
                ],
                "notes": null,
                "moduleType": null,
                "deploymentPrincipalName": null,
                "descriptorFileName": "partitions/Partition1/jms/
partition1jmssystemresource1-jms.xml",
                "name": "Partition1JMSSystemResource1",
                "compatibilityName": null,
                "id": 0,
                "deploymentOrder": 100,
                "dynamicallyCreated": false,
                "type": "JMSSystemResource",
                "sourcePath": ".\config\partitions\Partition1\jms/
partition1jmssystemresource1-jms.xml",
                "tags": [],
                "resource": [
                    "partitions",
                    "Partition1",
                    "resourceGroups",
                    "Partition1ResourceGroup",
                    "JMSSystemResources",
                    "Partition1JMSSystemResource1",
                    "JMSSystemResource"
                ],
                "targets": [],
                "subDeployments": [{
                    "identity": [
                        "partitions",
                        "Partition1",
                        "resourceGroups",
                        "Partition1ResourceGroup",
                        "JMSSystemResources",
                        "Partition1JMSSystemResource1",
                        "subDeployments",
                        "Partition1JMSSubDeployment1"
                    ],
                    "notes": null,
                    "moduleType": null,
                    "name": "Partition1JMSSubDeployment1",
```
Search for all of the JMS related runtimes

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      links: [], fields: ['name'],
      children: {
        partitionRuntimes: {
          links: [], fields: ['name'],
          children: {
            partitionRuntimes: {
              links: [], fields: ['name'],
              children: {
                partitionRuntimes: {
                  links: [], fields: ['name'],
                  children: {
```
JMSRuntime: {
  links: [], fields: [ 'name', 'healthState' ],
  children: {
    JMSServers: {
      links: [], fields: [ 'name', 'healthState' ],
      children: {
        destinations: {
          links: [], fields: [ 'name', 'state' ],
        }
      }
    }
  }
}

domainRuntime/search

HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": {"items": [
  {
    "name": "Cluster1Server1",
    "partitionRuntimes": {"items": [
      {
        "name": "Partition1",
        "JMSRuntime": {
          "healthState": {
            "state": "ok",
            "subsystemName": null,
            "partitionName": null,
            "symptoms": []
          },
          "name": "Cluster1Server1.jms",
          "JMSServers": {"items": [
            {
              "healthState": {
                "state": "ok",
                "subsystemName": "JMSServer.Partition1JMSServer1@Cluster1Server1$Partition1",
                "partitionName": null,
                "symptoms": []
              },
              "name": "Partition1JMSServer1@Cluster1Server1$Partition1",
              "destinations": {"items": [
                {
                  "state": "started",
                  "name": "Partition1JMSSystemResource1!
Partition1JMSServer1@Cluster1Server1@Partition1UniformDistributedQueue1"
                }
              ]}
            }
          ]}
        }
      }
    ]}
  },
  {
    "name": "AdminServer",
    "partitionRuntimes": {"items": [
      {
        "name": "Partition1",
        "JMSServers": {"items": [
          {
            "healthState": {
              "state": "ok",
              "subsystemName": "JMSServer.Partition1JMSServer1@Cluster1Server1$Partition1",
              "partitionName": null,
              "symptoms": []
            },
            "name": "Partition1JMSServer1@Cluster1Server1$Partition1",
            "destinations": {"items": [
              {
                "state": "started",
                "name": "Partition1JMSSystemResource1!
Partition1JMSServer1@Cluster1Server1@Partition1UniformDistributedQueue1"
              }
            ]}
          }
        ]}
      }
    ]}
  }
]"}
Deploying Partition-Scoped Applications

Review an example script that demonstrates how a Deployer deploys partition-scoped applications.

Note:
To view long URLs, use the scroll bar located beneath the section.

Demonstrate a partition deployer deploying apps
Asynchronously deploy a partition-scoped server-side application to the cluster

curl -v \
--user Partition1Deployer:Partition1Deployer123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
-H Content-Type:application/json \ 
-d "{" 
    name: 'basicapp', 
    sourcePath: '/deployments/BasicApp/app/BasicApp.ear', 
    planPath: '/deployments/BasicApp/plan/Plan.xml' 
}" \
-H "Prefer:respond-async" \ 
partitions/Partition1/resourceGroups/Partition1ResourceGroup/appDeployments

HTTP/1.1 202 Accepted

Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/ 
domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/ 
deploymentProgressObjects/basicapp

Response Body:
{
    "links": [{
        "rel": "job",
        "href": "http://localhost:7001/partitions/Partition1/management/weblogic/latest/ 
domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/ 
deploymentProgressObjects/basicapp" 
    }],
    "identity": [
        "domainPartitionRuntimes",
        "Partition1",
        "deploymentManager",
        "deploymentProgressObjects",
        "basicapp"
    ],
    "rootExceptions": [],
    "deploymentMessages": [],
    "name": "basicapp",
    "operationType": 3,
    "startTimeAsLong": 1565294971042,
    "state": "STATE_RUNNING",
    "id": "weblogic.deploy.configChangeTask.4",
    "type": "DeploymentProgressObject",
    "targets": [{"Partition1VirtualTarget"},
        "applicationName": "basicapp",
        "failedTargets": [],
        "progress": "processing",
        "completed": false,
        "intervalToPoll": 1000,
        "startTime": "2019-08-08T16:09:31.04Z-04:00" 
    ]
}
Get status for job domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/deploymentProgressObjects/basicapp

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

HTTP/1.1 200 OK

Response Body:
```
{
  "identity": [
    "domainPartitionRuntimes",
    "Partition1",
    "deploymentManager",
    "deploymentProgressObjects",
    "basicapp"
  ],
  "rootExceptions": [],
  "deploymentMessages": [],
  "name": "basicapp",
  "operationType": 3,
  "startTimeAsLong": 1565294971042,
  "state": "STATE_RUNNING",
  "id": "weblogic.deploy.configChangeTask.4",
  "type": "DeploymentProgressObject",
  "targets": ["Partition1VirtualTarget"],
  "applicationName": "basicapp",
  "failedTargets": [],
  "progress": "processing",
  "completed": false,
  "intervalToPoll": 1000,
  "startTime": "2019-08-08T16:09:31.042-04:00"
}
```
HTTP/1.1 200 OK
Response Body:
{
    "identity": 
        [ 
            "domainPartitionRuntimes",
            "Partition1",
            "deploymentManager",
            "deploymentProgressObjects",
            "basicapp"
        ],
    "rootExceptions": [],
    "endTimeAsLong": 1565294972800,
    "deploymentMessages": [
        "[Deployer:149191] Operation \"deploy\" on application \"basicapp\" is initializing on \"Cluster1Server2\".",
        "[Deployer:149191] Operation \"deploy\" on application \"basicapp\" is initializing on \"Cluster1Server1\".",
        "[Deployer:149194] Operation \"deploy\" on application \"basicapp\" has succeeded on \"Cluster1Server1\".",
        "[Deployer:149194] Operation \"deploy\" on application \"basicapp\" has succeeded on \"Cluster1Server2\".",
    ],
    "name": "basicapp",
    "operationType": 3,
    "startTimeAsLong": 1565294971042,
    "state": "STATE_COMPLETED",
    "id": "weblogic.deploy.configChangeTask.4",
    "type": "DeploymentProgressObject",
    "targets": ["Partition1VirtualTarget"],
    "applicationName": "basicapp",
    "failedTargets": [],
    "progress": "success",
    "completed": true,
    "intervalToPoll": 1000,
    "startTime": "2019-08-08T16:09:31.042-04:00",
    "endTime": "2019-08-08T16:09:32.800-04:00"
}

Synchronously upload a partition-scoped application from the client and deploy it to the cluster

```
curl -v \
  --user Partition1Deployer:Partition1Deployer123 \
  -H X-Requested-By:MyClient \
  -H Accept:application/json \
  -H Content-Type:multipart/form-data \
  -F "model={" 
      name: 'fairShare'
  }
```
-F "sourcePath=~/deployments/fairShare.war" \
partitions/Partition1/resourceGroups/Partition1ResourceGroup/appDeployments 

HTTP/1.1 100 Continue HTTP/1.1 201 Created 
Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/ 
edit/partitions/Partition1/resourceGroups/Partition1ResourceGroup/appDeployments/ 
fairShare 

Response Body: 
{
"links": [
{"rel": "job", 
"href": "http://localhost:7001/partitions/Partition1/management/weblogic/latest/domainRuntime/domainPartitionRuntimes/Partition1/ 
deploymentManager/deploymentProgressObjects/fairShare"
}],
"identity": [
"domainPartitionRuntimes",
"Partition1",
"deploymentManager",
"deploymentProgressObjects",
"fairShare"
],
"rootExceptions": [],
"endTimeAsLong": 1565294995463,
"deploymentMessages": [
"[Deployer:149191]Operation "deploy" on application "fairShare" is initializing on "Cluster1Server1",
"[Deployer:149191]Operation "deploy" on application "fairShare" is initializing on "Cluster1Server2",
"[Deployer:149191]Operation "deploy" on application "fairShare" is initializing on "Cluster1Server1",
"[Deployer:149191]Operation "deploy" on application "fairShare" is initializing on "Cluster1Server2",
"[Deployer:149194]Operation "deploy" on application "fairShare" has succeeded on "Cluster1Server1",
"[Deployer:149194]Operation "deploy" on application "fairShare" has succeeded on "Cluster1Server2",
"]",
"name": "fairShare",
"operationType": 3,
"startTimeAsLong": 1565294990169,
"state": "STATE_COMPLETED",
"id": "weblogic.deploy.configChangeTask.5",
"type": "DeploymentProgressObject",
"targets": ["Partition1VirtualTarget"],
"applicationName": "fairShare",
"failedTargets": [],
"progress": "success",
"completed": true,
"intervalToPoll": 1000,
"startTime": "2019-08-08T16:09:50.169-04:00",
"endTime": "2019-08-08T16:09:55.463-04:00"
}
View the new applications' configurations

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
```

HTTP/1.1 200 OK

Response Body:

```
{
  "identity": [
    "partitions",
    "Partition1",
    "resourceGroups",
    "Partition1ResourceGroup",
    "appDeployments",
    "fairShare"
  ],
  "stagingMode": null,
  "absoluteSourcePath": "/domains/mydomain/partitions/Partition1/system/servers/AdminServer/upload/fairShare/app/fairShare.war",
  "notes": null,
  "absoluteAltDescriptorPath": null,
  "deploymentOrder": 100,
  "type": "AppDeployment",
  "installDir": null,
  "id": 0,
  "altDescriptorDir": null,
  "dynamicallyCreated": false,
  "sourcePath": "partitions/Partition1/system/servers/AdminServer/upload/fairShare/app/fairShare.war",
  "applicationName": "fairShare",
  "absoluteAltDescriptorDir": null,
  "moduleType": "war",
  "planStagingMode": null,
  "cacheInAppDirectory": false,
  "absoluteInstallDir": null,
  "compatibilityName": null,
  "absolutePlanPath": "\domains\mydomain\partitions\Partition1\system\servers\AdminServer\upload\fairShare\plan\Plan.xml",
  "untargeted": false,
  "planDir": "partitions/Partition1/system/servers/AdminServer/upload/fairShare/plan",
  "validateDDSecurityData": false,
  "applicationIdentifier": "fairShare",
  "tags": [],
  "planPath": "Plan.xml",
  "versionIdentifier": null,
  "deploymentPrincipalName": null,
  "absolutePlanDir": "\domains\mydomain\partitions\Partition1\system\servers\AdminServer\upload\fairShare/plan",
  "name": "fairShare",
```
"parallelDeployModules": false,
"securityDDModel": "DDOnly",
"targets": []
}

curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
partitions/Partition1/resourceGroups/Partition1ResourceGroup/appDeployments/basicapp?
links=none

HTTP/1.1 200 OK

Response Body:
{
    "identity": [
        "partitions",
        "Partition1",
        "resourceGroups",
        "Partition1ResourceGroup",
        "appDeployments",
        "basicapp"
    ],
    "stagingMode": null,
    "absoluteSourcePath": "/deployments/BasicApp/app/BasicApp.ear",
    "notes": null,
    "absoluteAltDescriptorPath": null,
    "deploymentOrder": 100,
    "type": "AppDeployment",
    "installDir": null,
    "id": 0,
    "altDescriptorDir": null,
    "dynamicallyCreated": false,
    "sourcePath": "/deployments/BasicApp/app/BasicApp.ear",
    "applicationName": "basicapp",
    "absoluteAltDescriptorDir": null,
    "moduleType": "ear",
    "planStagingMode": null,
    "cacheInAppDirectory": false,
    "absoluteInstallDir": null,
    "compatibilityName": null,
    "absolutePlanPath": "/deployments/BasicApp/plan/Plan.xml",
    "untargeted": false,
    "planDir": null,
    "validateDDSecurityData": false,
    "applicationIdentifier": "basicapp",
    "tags": [],
    "planPath": "/deployments/BasicApp/plan/Plan.xml",
    "versionIdentifier": null,
    "deploymentPrincipalName": null,
    "absolutePlanDir": null,
    "name": "basicapp",
    "parallelDeployModules": false,
    "securityDDModel": "DDOnly",
    "targets": []
}
View the new applications' appDeploymentRuntimes

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/ 
appDeploymentRuntimes/fairShare?links=none
```

HTTP/1.1 200 OK

Response Body:
```
{
  "identity": [
    "domainPartitionRuntimes",
    "Partition1",
    "deploymentManager",
    "appDeploymentRuntimes",
    "fairShare"
  ],
  "applicationVersion": null,
  "partitionName": "Partition1",
  "name": "fairShare",
  "type": "AppDeploymentRuntime",
  "applicationName": "fairShare",
  "modules": ["fairShare"]
}
```

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/ 
appDeploymentRuntimes/basicapp?links=none
```

HTTP/1.1 200 OK

Response Body:
```
{
  "identity": [
    "domainPartitionRuntimes",
    "Partition1",
    "deploymentManager",
    "appDeploymentRuntimes",
    "basicapp"
  ],
  "applicationVersion": null,
  "partitionName": "Partition1",
  "name": "basicapp",
  "type": "AppDeploymentRuntime",
```

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Deploying Partition-Scoped Applications

5-34
"applicationName": "basicapp",
"modules": [
    "BasicAuth",
    "BasicEJB.jar"
]}

Search for all of the new applications' applicationRuntimes

```
curl -v \
--user Partition1Deployer:Partition1Deployer123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      links: [], fields: ['name'],
      children: {
        partitionRuntimes: {
          links: [], fields: ['name'],
          children: {
            applicationRuntimes: {
              links: [],
              name: ['fairShare', 'basicapp']
            }
          }
        }
      }
    }
  }
}"
```

HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": {"items": [
  {
    "name": "Cluster1Server1",
    "partitionRuntimes": {"items": [
      {
        "name": "Partition1",
        "applicationRuntimes": {"items": [
          {
            "identity": [
              "partitionRuntimes",
              "Partition1",
              "applicationRuntimes",
              "fairShare"
            ]
          }
        ]
      }
    ]
  }
]}
```

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Deploying Partition-Scoped Applications
5-35
"applicationVersion": null,
"internal": false,
"partitionName": "Partition1",
"overallHealthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"healthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "fairShare",
"type": "ApplicationRuntime",
"activeVersionState": 2,
"applicationName": "fairShare"
},
{
  "identity": {
    "partitionRuntimes": "Partition1",
    "applicationRuntimes": "basicapp"
  },
  "applicationVersion": null,
  "internal": false,
  "partitionName": "Partition1",
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "basicapp",
  "type": "ApplicationRuntime",
  "activeVersionState": 2,
  "applicationName": "basicapp"
}
"name": "AdminServer",
"partitionRuntimes": {"items": [{
  "name": "Partition1",
  "applicationRuntimes": {"items": []}
}]
},
"name": "Cluster1Server2",
"partitionRuntimes": {"items": [{
  "name": "Partition1",
  "applicationRuntimes": {"items": []} 
}]
}
"applicationRuntimes": {"items": [
{
    "identity": [
        "partitionRuntimes",
        "Partition1",
        "applicationRuntimes",
        "fairShare"
    ],
    "applicationVersion": null,
    "internal": false,
    "partitionName": "Partition1",
    "overallHealthState": {
        "state": "ok",
        "subsystemName": null,
        "partitionName": null,
        "symptoms": []
    },
    "healthState": {
        "state": "ok",
        "subsystemName": null,
        "partitionName": null,
        "symptoms": []
    },
    "name": "fairShare",
    "type": "ApplicationRuntime",
    "activeVersionState": 2,
    "applicationName": "fairShare"
},
{
    "identity": [
        "partitionRuntimes",
        "Partition1",
        "applicationRuntimes",
        "basicapp"
    ],
    "applicationVersion": null,
    "internal": false,
    "partitionName": "Partition1",
    "overallHealthState": {
        "state": "ok",
        "subsystemName": null,
        "partitionName": null,
        "symptoms": []
    },
    "healthState": {
        "state": "ok",
        "subsystemName": null,
        "partitionName": null,
        "symptoms": []
    },
    "name": "basicapp",
    "type": "ApplicationRuntime",
    "activeVersionState": 2,
    "applicationName": "basicapp"
}
]}]}}}
Monitoring Partition Resources

Review an example script that demonstrates how a Monitor monitors the servers, partitions, applications, JMS, and data sources in a partition, including monitoring the resource manager.

For more information about resource management, see Configuring Resource Consumption Management in Using Oracle WebLogic Server Multitenant.

The example script also shows how the partition Monitor searches logs and returns consolidated search results.

---

**Note:**

To view long URLs, use the scroll bar located beneath the section.

---

Demonstrate a partition monitor monitoring the partition

---

Monitor the servers this partition runs on

---

```
```

HTTP/1.1 200 OK

Response Body:

```
{"items": [  
  {  
    "identity": [],  
    "stateVal": 2,  
    "type": "ServerRuntime",  
    "weblogicVersion": "WebLogic Server 12.2.1.4.0 Thu Aug 8 03:32:46 PDT 2019 1970985",  
    "adminServerHost": "localhost",  
    "restartRequired": false,  
    "overallHealthState": {  
      "state": "ok",  
      "subsystemName": "ServerRuntime",  
      "partitionName": null,  
      "symptoms": []  
    },  
    "state": "RUNNING",  
    "defaultURL": "t3://localhost:7101", 
  }
]  
}```
"adminServerListenPort": 7001,
"adminServerListenPortSecure": false,
"healthState": {
  "state": "ok",
  "subsystemName": "ServerRuntime",
  "partitionName": null,
  "symptoms": []
},
"name": "Cluster1Server1"
},

{"identity": [],
"stateVal": 2,
"type": "ServerRuntime",
"weblogicVersion": "WebLogic Server 12.2.1.4.0 Thu Aug 8 03:32:46 PDT 2019 1970985",
"adminServerHost": "localhost",
"restartRequired": false,
"overallHealthState": {
  "state": "ok",
  "subsystemName": "ServerRuntime",
  "partitionName": null,
  "symptoms": []
},
"state": "RUNNING",
"defaultURL": "t3:\\localhost:7001",
"adminServerListenPort": 7001,
"adminServerListenPortSecure": false,
"healthState": {
  "state": "ok",
  "subsystemName": "ServerRuntime",
  "partitionName": null,
  "symptoms": []
},
"name": "AdminServer"
},

{"identity": [],
"stateVal": 2,
"type": "ServerRuntime",
"weblogicVersion": "WebLogic Server 12.2.1.4.0 Thu Aug 8 03:32:46 PDT 2019 1970985",
"adminServerHost": "localhost",
"restartRequired": false,
"overallHealthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"state": "RUNNING",
"defaultURL": "t3:\\localhost:7102",
"adminServerListenPort": 7001,
"adminServerListenPortSecure": false,
"healthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "Cluster1Server2"
Get a list of the running servers' overall health states

---

curl -v \
--user Partition1Monitor:Partition1Monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{\n  links: [], fields: [],
  children: {
    serverRuntimes: {
      mergeCollection: true,
      fields: [ { name: 'overallHealthState', values: true } ]
    }
  }
}" \
domainRuntime/search

HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": ["items": [{"overallHealthState": {"values": [ {"state": "ok",
  "subsystemName": "ServerRuntime",
  "partitionName": null,
  "symptoms": []}
   },
   {"state": "ok",
  "subsystemName": "ServerRuntime",
  "partitionName": null,
  "symptoms": []}
   },
   {"state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []}
}]]}
curl -v \
--user Partition1Monitor:Partition1Monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d '{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      links: [], fields: [ 'name' ],
      children: {
        partitionRuntimes: {
          links: [], fields: [ 'name', 'state', 'overallHealthState', 'subsystemHealthStates' ]
        }
      }
    }
  }
}' \

HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": ["items": [ {
  "name": "Cluster1Server1",
  "partitionRuntimes": ["items": [ {
    "subsystemHealthStates": [ {
      "state": "ok",
      "subsystemName": "jms-internal-notran-adp-Partition1VirtualTarget_jms-internal-notran-adp(Adapter)",
      "partitionName": "Partition1",
      "symptoms": []
    }, {
      "state": "ok",
      "subsystemName": "bea_wls_internal-
Partition1VirtualTarget$Partition1(Application)",
      "partitionName": "Partition1",
      "symptoms": []
    }, {
      "state": "ok",
      "subsystemName": "eis\jms\internal\WLSConnectionFactoryJNDINoTX(Adapter Outbound Pool)",
      "partitionName": "Partition1",
      "symptoms": []
    }, {
      "state": "ok",
      "subsystemName": "Cluster1Server1.jms",
      "partitionName": "Partition1",
      "symptoms": []
    }, {
      "state": "ok",
      "subsystemName": "Cluster1Server1.saf",
      "partitionName": "Partition1",
      "symptoms": []
    }]
  }
}]
}
Chapter 5
Monitoring Partition Resources

"name": "AdminServer",
"partitionRuntimes": {"items": [{
    "subsystemHealthStates": ["state": "ok",
    "subsystemName": "PersistentStore._WLS_EJBTIMER_AdminServer",
    "partitionName": "Partition1",
    "symptoms": []
    },
    "state": "ok",
    "subsystemName": "wls-management-services-Partition1-adminVT$Partition1(Application)",
    ".partitionName": "Partition1",
    "symptoms": []
    },
    "state": "ok",
    "subsystemName": "eis/\jms/\internal\WLSConnectionFactoryJNDINOTX(Adapter Outbound Pool)",
    "partitionName": "Partition1",
    "symptoms": []
    },
    "state": "ok",
    "subsystemName": "jms-internal-notran-adp-Partition1-adminVT_jms-internal-notran-adp(Adapter)",
    "partitionName": "Partition1",
    "symptoms": []
    },
    "state": "ok",
    "subsystemName": "jms-internal-notran-adp-Partition1-adminVT$Partition1(Application)",
    "partitionName": "Partition1",
    "symptoms": []
    },
    "state": "ok",
    "subsystemName": "bea_wls_internal-Partition1-

"name": "Partition1",
"state": "RUNNING"
}]}
adminVT$Partition1(Application),
  "partitionName": "Partition1",
  "symptoms": []
},
  {
    "state": "ok",
    "subsystemName": "AdminServer.saf",
    "partitionName": "Partition1",
    "symptoms": []
  },
  {
    "state": "ok",
    "subsystemName": "AdminServer.jms",
    "partitionName": "Partition1",
    "symptoms": []
  },
  {
    "state": "ok",
    "subsystemName": "jms-internal-xa-adp-Partition1-
adminVT$Partition1(Application)",
    "partitionName": "Partition1",
    "symptoms": []
  },
  {
    "state": "ok",
    "subsystemName": "jms-internal-xa-adp-Partition1-adminVT_jms-
internal-xa-adp(Adapter)",
    "partitionName": "Partition1",
    "symptoms": []
  },
  {
    "state": "ok",
    "subsystemName": "eis\jms\internal\WLSConnectionFactoryJNDIXA(Adapter Outbound Pool)",
    "partitionName": "Partition1",
    "symptoms": []
  }
],
"overallHealthState": {
  "state": "ok",
  "subsystemName": "PartitionRuntime.Partition1",
  "partitionName": "Partition1",
  "symptoms": []
},
  {
    "name": "Partition1",
    "state": "RUNNING"
})
},
{ "name": "Cluster1Server2",
"partitionRuntimes": {"items": []
  "subsystemHealthStates": [
  {
    "state": "ok",
    "subsystemName": "jms-internal-notran-adp-
Partition1VirtualTarget_jms-internal-notran-adp(Adapter)",
    "partitionName": "Partition1",
    "symptoms": []
  },
  {
    "state": "ok",

"subsystemName": "Cluster1Server2.jms",
  "partitionName": "Partition1",
  "symptoms": []
},
{
  "state": "ok",
  "subsystemName": "JMSServer.Partition1JMSServer1@Cluster1Server2&Partition1",
  "partitionName": "Partition1",
  "symptoms": []
},
{
  "state": "ok",
  "subsystemName": "Cluster1Server2.saf",
  "partitionName": "Partition1",
  "symptoms": []
},
{
  "state": "ok",
  "subsystemName": "bea_wls_internal-Partition1VirtualTarget$Partition1(Application)",
  "partitionName": "Partition1",
  "symptoms": []
},
{
  "state": "ok",
  "subsystemName": "eis/jms/internal/WLSConnectionFactoryJNDINoTX(Adapter Outbound Pool)",
  "partitionName": "Partition1",
  "symptoms": []
},
{
  "state": "ok",
  "subsystemName": "jms-internal-xa-adp-Partition1VirtualTarget$Partition1(Application)",
  "partitionName": "Partition1",
  "symptoms": []
},
{
  "state": "ok",
  "subsystemName": "basicapp$Partition1(Application)",
  "partitionName": "Partition1",
  "symptoms": []
},
{
  "state": "ok",
  "subsystemName": "wls-management-services-Partition1VirtualTarget$Partition1(Application)",
  "partitionName": "Partition1",
  "symptoms": []
},
{
  "state": "ok",
  "subsystemName": "PersistentStore.Partition1FileStore1@Cluster1Server2&Partition1",
  "partitionName": "Partition1",
  "symptoms": []
},
{
  "state": "ok",
  "subsystemName": "jms-internal-xa-adp-
Monitor the JDBC system resources

-----------------------------

Monitor the JDBC system resources

curl -v \
--user Partition1Monitor:Partition1Monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "
    links: [], fields: [],
    children: {
        serverRuntimes: {
            links: [], fields: [ 'name' ],
children: {
    JDBCServiceRuntime: {
        links: [], fields: [ 'name' ],
        children: {
            JDBCDataSourceRuntimeMBeans: {
                links: [], excludeFields: [
                    'properties'
                ]
            }
        }
    },
    partitionRuntimes: {
        links: [], fields: [ 'name' ],
        children: {
            JDBCPartitionRuntime: {
                links: [], fields: [ 'name' ],
                children: {
                    JDBCDataSourceRuntimeMBeans: {
                        links: [], excludeFields: [
                            'properties'
                        ]
                    }
                }
            }
        }
    }
}

"serverRuntimes": {
    "items": [
        {
            "name": "Cluster1Server1",
            "partitionRuntimes": {
                "items": [
                    {
                        "name": "Partition1",
                        "JDBCPartitionRuntime": {
                            "name": "Partition1",
                            "JDBCDataSourceRuntimeMBeans": {
                                "items": [
                                    {
                                        "identity": [
                                            "partitionRuntimes",
                                            "Partition1",
                                            "JDBCPartitionRuntime",
                                            "JDBCDataSourceRuntimeMBeans",
                                            "Partition1JDBCDataSource1"
                                        ],
                                        "connectionsTotalCount": 1,
                                        "waitingForConnectionSuccessTotal": 0,
                                        "highestNumUnavailable": 1,
                                        "reserveRequestCount": 1,
                                        "type": "JDBCDataSourceRuntime",
                                        "waitingForConnectionTotal": 0,
                                        "enabled": true,
                                        "currCapacityHighCount": 1,
                                        "resolvedAsNotCommittedTotalCount": 0,
                                        "prepStmtCacheHitCount": 0,
                                        "prepStmtCacheMissCount": 0,
                                        "databaseProductName": "Apache Derby",
                                        "commitOutcomeRetryTotalCount": 0,
                                        "failedRepurposeCount": 0,
                                        "state": "Running"
                                    }
                                ]
                            }
                        }
                    }
                ]
            }
        }
    ]
}
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Monitoring Partition Resources

"moduleId": "Partition1JDBCDataSource1",
"prepStmtCacheAddCount": 0,
"failuresToReconnectCount": 0,
"repurposeCount": 0,
"databaseProductVersion": "10.14.2.0 - (1828579)",
"leakedConnectionCount": 0,
"waitingForConnectionFailureTotal": 0,
"activeConnectionsHighCount": 1,
"connectionDelayTime": 6,
"waitingForConnectionHighCount": 0,
"waitSecondsHighCount": 0,
"versionJDBCDriver": "org.apache.derby.jdbc.ClientXADatasource",
"failedReserveRequestCount": 0,
"prepStmtCacheDeleteCount": 0,
"numAvailable": 1,
"deploymentState": 2,
"unresolvedTotalCount": 0,
"prepStmtCacheAccessCount": 0,
"driverVersion": "10.14.2.0 - (1828579)",
"resolvedAsCommittedTotalCount": 0,
"prepStmtCacheCurrentSize": 0,
"name": "Partition1JDBCDataSource1",
"activeConnectionsCurrentCount": 0,
"currCapacity": 1,
"driverName": "Apache Derby Network Client JDBC Driver",
"activeConnectionsAverageCount": 0,
"numUnavailable": 0,
"waitingForConnectionCurrentCount": 0,
"highestNumAvailable": 1,
"lastTask": null
}]
]
}
)
,
"name": "AdminServer",
"partitionRuntimes": {"items": [{
  "name": "Partition1",
  "JDBCPartitionRuntime": null
}]}
],
"name": "Cluster1Server2",
"partitionRuntimes": {"items": [{
  "name": "Partition1",
  "JDBCPartitionRuntime": {
    "name": "Partition1",
    "JDBCDataSourceRuntimeMBeans": {"items": [{
      "identity": {
        "partitionRuntimes",
        "Partition1",
        "JDBCPartitionRuntime",
        "JDBCDataSourceRuntimeMBeans",
        "Partition1JDBCDataSource1"
      },
      "connectionsTotalCount": 1,
      "waitingForConnectionSuccessTotal": 0,
      "highestNumUnavailable": 1,
      "reserveRequestCount": 2,
      "type": "JDBCDataSourceRuntime",
      "waitingForConnectionTotal": 0,
      "lastTask": null
    }]
  }
}]}
Test a partition level JDBC data source

```
curl -v \
  --user Partition1Monitor:Partition1Monitor123 \n  -H X-Requested-By:MyClient \n  -H Accept:application/json \n  -H Content-Type:application/json \n  -d "{}" \n  -X POST http://localhost:7001/partitions/Partition1/management/weblogic/latest/\n  domainRuntime/serverRuntimes/Cluster1Server2/partitionRuntimes/Partition1/
```
Chapter 5
Monitoring Partition Resources

JDBCPartitionRuntime/JDBCDataSourceRuntimeMBeans/Partition1JDBCDataSource1/testPool

HTTP/1.1 200 OK
Response Body:
{"return": null}

Monitor the JMS system resources

curl -v
--user Partition1Monitor:Partition1Monitor123
-H X-Requested-By:MyClient
-H Accept:application/json
-H Content-Type:application/json
-d "{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      links: [], fields: ['name'],
      children: {
        partitionRuntimes: {
          links: [], fields: ['name'],
          children: {
            JMSServer: {
              links: [], children: {
                JMSServers: {
                  links: [], children: {
                    destinations: {
                      links: []
                    }
                  }
                }
              }
            }
          }
        }
      }
    }
  }
}"

HTTP/1.1 200 OK
Response Body:
{"serverRuntimes": [{"items": [
  {
    "name": "Cluster1Server1",
    "partitionRuntimes": [{"items": []
      {
        "name": "Partition1",
        "partitionRuntimes": {}"}}}]]}]}
"JMSRuntime": {
  "identity": [
    "partitionRuntimes",
    "Partition1",
    "JMSRuntime"
  ],
  "JMSServersHighCount": 1,
  "connectionsHighCount": 0,
  "connectionsTotalCount": 0,
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "Cluster1Server1.jms",
  "JMSServersCurrentCount": 1,
  "type": "JMSRuntime",
  "JMSServersTotalCount": 1,
  "connectionsCurrentCount": 0,
  "JMSServers": {"items": [
    "identity": [
      "partitionRuntimes",
      "Partition1",
      "JMSRuntime",
      "JMSServers",
      "Partition1JMSServer1@Cluster1Server1"
    ],
    "messagesReceivedCount": 0,
    "bytesThresholdTime": 0,
    "bytesHighCount": 0,
    "insertionPausedState": "Insertion-Enabled",
    "destinationsCurrentCount": 1,
    "pagingAllocatedIoBufferBytes": 0,
    "type": "JMSServerRuntime",
    "messagesPagedInTotalCount": 0,
    "consumptionPaused": false,
    "bytesPagedInTotalCount": 0,
    "pagingPhysicalWriteCount": 0,
    "pendingTransactions": null,
    "bytesPagedOutTotalCount": 0,
    "consumptionPausedState": "Consumption-Enabled",
    "sessionPoolsHighCount": 0,
    "bytesReceivedCount": 0,
    "messagesHighCount": 0,
    "productionPausedState": "Production-Enabled",
    "pagingAllocatedWindowBufferBytes": 0,
    "destinationsTotalCount": 1,
    "sessionPoolsTotalCount": 0,
    "messagesThresholdTime": 0,
    "bytesCurrentCount": 0,
    "transactions": null,
    "messagesPagedOutTotalCount": 0,
    "messagesCurrentCount": 0,
    "destinationsHighCount": 1,
    "insertionPaused": false,
    "healthState": {
      "state": "ok",
      "subsystemName": "JMSServer.Partition1JMSServer1@Cluster1Server1$Partition1",
      "partitionName": null,
      "symptoms": []
    }
  ]
}
"symptoms": [],
"messagesPageableCurrentCount": 0,
"sessionPoolsCurrentCount": 0,
"name": "Partition1JMSServer1@Cluster1Server1",
"bytesPendingCount": 0,
"productionPaused": false,
"bytesPageableCurrentCount": 0,
"messagesPendingCount": 0,
"destinations": [{"items": [{
  "identity": ["partitionRuntimes", "Partition1", "JMSRuntime", "JMSServers", "Partition1JMSServer1@Cluster1Server1", "destinations", "Partition1JMSSystemResource1!Partition1JMSServer1@Cluster1Server1@Partition1UniformDistributedQueue1"],
  "messagesReceivedCount": 0,
  "bytesThresholdTime": 0,
  "bytesHighCount": 0,
  "insertionPausedState": "Insertion-Enabled",
  "type": "JMSDestinationRuntime",
  "consumptionPaused": false,
  "messagesDeletedCurrentCount": 0,
  "destinationType": "Queue",
  "consumptionPausedState": "Consumption-Enabled",
  "state": "started",
  "bytesReceivedCount": 0,
  "messagesHighCount": 0,
  "productionPausedState": "Production-Enabled",
  "subscriptionMessagesLimit": -1,
  "consumersTotalCount": 0,
  "consumersHighCount": 0,
  "messagesThresholdTime": 0,
  "bytesCurrentCount": 0,
  "messagesMovedCurrentCount": 0,
  "messagesCurrentCount": 0,
  "insertionPaused": false,
  "name": "Partition1JMSSystemResource1!Partition1JMSServer1@Cluster1Server1@Partition1UniformDistributedQueue1",
  "bytesPendingCount": 0,
  "productionPaused": false,
  "messagesPendingCount": 0,
  "consumersCurrentCount": 0
}]
}]}},
},
"name": "AdminServer",
"partitionRuntimes": {"items": [{
  "name": "Partition1",
  "JMSRuntime": {"identity": ["partitionRuntimes", "Partition1", "JMSRuntime"]}]
}]}
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Monitoring Partition Resources

...
"pagingPhysicalWriteCount": 0,
"pendingTransactions": null,
"bytesPagedOutTotalCount": 0,
"consumptionPausedState": "Consumption-Enabled",
"sessionPoolsHighCount": 0,
"bytesReceivedCount": 0,
"messagesHighCount": 0,
"productionPausedState": "Production-Enabled",
"pagingAllocatedWindowBufferBytes": 0,
"destinationsTotalCount": 1,
"sessionPoolsTotalCount": 0,
"messagesThresholdTime": 0,
"bytesCurrentCount": 0,
"transactions": null,
"messagesPagedOutTotalCount": 0,
"messagesCurrentCount": 0,
"transactions": null,
"messagesPageableCurrentCount": 0,
"sessionPoolsCurrentCount": 0,
"name": "Partition1JMSServer1@Cluster1Server2",
"bytesPendingCount": 0,
"productionPaused": false,
"bytesPageableCurrentCount": 0,
"messagesPendingCount": 0,
"destinations": {"items": [
  "identity": [
    "partitionRuntimes",
    "Partition1",
    "JMSRuntime",
    "JMSServers",
    "Partition1JMSServer1@Cluster1Server2",
    "destinations",
    "Partition1JMSSystemResource1!
  ]
],
"messagesReceivedCount": 0,
"bytesThresholdTime": 0,
"bytesHighCount": 0,
"insertionPausedState": "Insertion-Enabled",
"type": "JMSSystemResource!
  Partition1JMSServer1@Cluster1Server2@Partition1UniformDistributedQueue" ]
},
"subscriptions": []}
Monitor the applications

```
curl -v \
  --user Partition1Monitor:Partition1Monitor123 \n  -H X-Requested-By:MyClient \n  -H Accept:application/json \n  -H Content-Type:application/json \n  -d '{
    links: [], fields: [],
    children: {
      serverRuntimes: {
        links: [], fields: ['name'],
        children: {
          partitionRuntimes: {
            links: [], fields: ['name'],
            children: {
              applicationRuntimes: {
                links: [], fields: ['name', 'healthState', 'overallHealthState']
              }
            }
          }
        }
      }
    }
  }' \
```

HTTP/1.1 200 OK

Response Body:

```
{"serverRuntimes": {"items": [
    {"name": "Cluster1Server1",
     "partitionRuntimes": {"items": [
        {"name": "Partition1",
         "applicationRuntimes": {"items": []
        }
      ]
    }
  ]
}
```
"overallHealthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"healthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "Partition1JDBCDataSource1"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "jms-internal-xa-adp-Partition1VirtualTarget"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "wls-management-services-Partition1VirtualTarget"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "jms-internal-notran-adp-Partition1VirtualTarget"
}
)
,{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "fairShare"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "basicapp"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "bea_wls_internal-Partition1VirtualTarget"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "bea_wls_internal-Partition1VirtualTarget"
}
"name": "Partition1JMSSystemResource1"
<table>
<thead>
<tr>
<th>Name</th>
<th>Partition Resources</th>
<th>Overall Health State</th>
<th>Health State</th>
</tr>
</thead>
<tbody>
<tr>
<td>jms-internal-xa-adp-Partition1-adminVT</td>
<td></td>
<td>ok</td>
<td>ok</td>
</tr>
<tr>
<td>Cluster1Server2</td>
<td>Partition1</td>
<td>ok</td>
<td>ok</td>
</tr>
<tr>
<td></td>
<td>Partition1JMSSystemResource1</td>
<td>ok</td>
<td>ok</td>
</tr>
<tr>
<td>basicapp</td>
<td></td>
<td>ok</td>
<td>ok</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ok</td>
<td>ok</td>
</tr>
</tbody>
</table>
"healthState": {
  "state": "ok",
  "subsystemName": null,
  "partitionName": null,
  "symptoms": []
},
"name": "Partition1JDBCDataSource1"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "jms-internal-notran-adp-Partition1VirtualTarget"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "fairShare"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "bea_wls_internal-Partition1VirtualTarget"
},
{
  "overallHealthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "healthState": {
    "state": "ok",
    "subsystemName": null,
    "partitionName": null,
    "symptoms": []
  },
  "name": "bea_wls_internal-Partition1VirtualTarget"
}
Monitor the applications’ servlets

```
curl -v \
--user Partition1Monitor:Partition1Monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      links: [], fields: [ 'name' ],
      children: {
        partitionRuntimes: {
          links: [], fields: [ 'name' ],
          children: {
            applicationRuntimes: {
              links: [], fields: [ 'name' ],
              name: [ 'fairShare', 'basicapp' ],
              children: {
                componentRuntimes: {
                  links: [], fields: [ 'name', 'type' ],
                  children: {
                    servlets: |
```
HTTP/1.1 200 OK
Response Body:
{"serverRuntimes": [{"name": "Cluster1Server1", "partitionRuntimes": [{"name": "Partition1", "applicationRuntimes": [{"name": "fairShare", "componentRuntimes": [{"type": "WebAppComponentRuntime", "name": "Partition1VirtualTarget_/partition1/fairShare", "servlets": [{"name": "JspServlet", "executionTimeHigh": 0, "invocationTotalCount": 0, "executionTimeLow": 0, "executionTimeAverage": 0 }, {"name": "FileServlet", "executionTimeHigh": 0, "invocationTotalCount": 0, "executionTimeLow": 0, "executionTimeAverage": 0 }, {"name": "SimpleFastServlet", "executionTimeHigh": 0, "invocationTotalCount": 0, "executionTimeLow": 0, "executionTimeAverage": 0 }]
}]
}]
}]
}
null


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```json
{
  "name": "AdminServer",
  "partitionRuntimes": {
    "items": [
      {
        "name": "Partition1",
        "applicationRuntimes": {
          "items": []
        }
      }
    ]
  }
},
{
  "name": "Cluster1Server2",
  "partitionRuntimes": {
    "items": [
      {
        "name": "Partition1",
        "applicationRuntimes": {
          "items": []
        }
      }
    ]
  }
},
{
  "name": "basicapp",
  "componentRuntimes": {
    "items": [
      {
        "type": "WebAppComponentRuntime",
        "name": "Partition1VirtualTarget_\partition1\BasicAuth",
        "servlets": {
          "items": [
            {
              "executionTimeHigh": 0,
              "invocationTotalCount": 0,
              "executionTimeLow": 0,
              "name": "JspServlet",
              "executionTimeAverage": 0
            },
            {
              "executionTimeHigh": 0,
              "invocationTotalCount": 0,
              "executionTimeLow": 0,
              "name": "FileServlet",
              "executionTimeAverage": 0
            },
            {
              "executionTimeHigh": 0,
              "invocationTotalCount": 0,
              "executionTimeLow": 0,
              "name": "SimpleFastServlet",
              "executionTimeAverage": 0
            },
            {
              "executionTimeHigh": 0,
              "invocationTotalCount": 0,
              "executionTimeLow": 0,
              "name": "SimpleSlowServlet",
              "executionTimeAverage": 0
            }
          ]
        }
      }
    ]
  }
}
```
Get the total number of open sessions across each application's component runtimes across all servers

```
curl -v \
--user Partition1Monitor:Partition1Monitor123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \
-d "{"links": [], "fields": []}
```
children: {
  serverRuntimes: {
    mergeCollection: true,
    children: {
      partitionRuntimes: {
        mergeOn: 'name',
        fields: [{ name: 'name', sameValue: true }],
        children: {
          applicationRuntimes: {
            mergeOn: 'name',
            fields: [{ name: 'name', sameValue: true }],
            children: {
              componentRuntimes: {
                mergeCollection: true,
                fields: [{ name: 'openSessionsCurrentCount', total: true }]
              }
            }
          }
        }
      }
    }
  }
}


HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": {"items": [{"partitionRuntimes": {"items": [{
  "name": "Partition1",
  "applicationRuntimes": {"items": [
    {
      "name": "Partition1JDBCDataSource1",
      "componentRuntimes": {"items": []}
    },
    {
      "name": "jms-internal-xa-adp-Partition1VirtualTarget",
      "componentRuntimes": {"items": []}
    },
    {
      "name": "wls-management-services-Partition1VirtualTarget",
      "componentRuntimes": {"items": []}
    }
  ]
}}
],
  "name": "Partition1JDBCDataSource1",
  "componentRuntimes": {"items": []}
},
  {
    "name": "jms-internal-notran-adp-Partition1VirtualTarget",
    "componentRuntimes": {"items": []}
},
  {
    "name": "fairShare",
    "componentRuntimes": {"items": []}
  }
}]}
Get the total number of invocations of the servlets of each component runtime of the fairShare and wls-management-services application across all servers

```curl
curl -v \
--user Partition1Monitor:Partition1Monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      mergeCollection: true,
      children: {
        partitionRuntimes: {
          mergeOn: 'name',
          fields: [{ name: 'name', sameValue: true }],
          children: {
            applicationRuntimes: {
              name: ['fairShare', 'wls-management-services-Partition1-adminVT', 'wls-management-services-Partition1VirtualTarget'],
              mergeOn: 'name',
              fields: [{ name: 'name', sameValue: true }],
              children: {
                componentRuntimes: {
                  mergeOn: 'moduleId',
                  fields: [{ name: 'contextRoot', sameValue: true }],
                  children: {
                    servlets: {
                      mergeCollection: true,
                      fields: [{ name: 'invocationTotalCount', total: true }]
                    }
                  }
                }
              }
            }
          }
        }
      }
    }
  }
}"

HTTP/1.1 200 OK

Response Body:
{"serverRuntimes": {"items": [{"partitionRuntimes": {"items": [{"name": "Partition1",
  "applicationRuntimes": [{"items": [{"name": "fairShare",
```
Get the information displayed by the console’s webapp monitoring page

```
curl -v \
--user Partition1Monitor:Partition1Monitor123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \
-d "{}"
```

---

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componentRuntimes: {
  mergeOn: 'moduleId',
  fields: [
    { name: 'contextRoot', sameValue: true },
    { name: 'type', sameValue: true },
    { name: 'sourceInfo', sameValue: true },
    { name: 'deploymentState', values: true },
    { name: 'openSessionsHighCount', max: true },
    { name: 'openSessionsCurrentCount', total: true },
    { name: 'sessionsOpenedTotalCount', total: true }
  ],
  children: {
    servlets: {
      mergeCollection: true,
      fields: [{ name: 'invocationTotalCount', total: true }]
    }
  }
}

"X" POST http://localhost:7001/partitions/Partition1/management/weblogic/latest/
domainRuntime/search

HTTP/1.1 100 Continue HTTP/1.1 200 OK

Response Body:
"serverRuntimes": {"items": [{"partitionRuntimes": {"items": [{"applicationRuntimes": {"items": [{"internal": false,
"name": "Partition1JDBCDataSource1",
"componentRuntimes": {"items": [{
  "type": "JDBCDataSourceRuntime",
  "deploymentState": {"values": [2, 2]}
}]]}
},
{"internal": true,
"name": "jms-internal-xa-adp-Partition1VirtualTarget",
"componentRuntimes": {"items": [{
  "type": "ConnectorComponentRuntime",
  "deploymentState": {"values": [2, 2]}
}]]}
},
{"internal": true,
"name": "jms-internal-xa-adp-Partition1VirtualTarget",
"componentRuntimes": {"items": [{
  "type": "ConnectorComponentRuntime",
  "deploymentState": {"values": [2, 2]}
}]]}
}
}
}
2
}
]
}
{
  "internal": true,
  "name": "wls-management-services-Partition1VirtualTarget",
  "componentRuntimes": {"items": [{
    "type": "WebAppComponentRuntime",
    "sourceInfo": "wls-management-services.war",
    "contextRoot": "/partition1/management",
    "openSessionsCurrentCount": {
      "total": 27,
      "count": 2
    },
    "deploymentState": {"values": [2, 2]},
    "sessionsOpenedTotalCount": {
      "total": 27,
      "count": 2
    },
    "openSessionsHighCount": {"max": 14},
    "servlets": {"items": [{"invocationTotalCount": {
      "total": 25,
      "count": 6
    }]}]
  }}],
  "name": "jms-internal-notran-adp-Partition1VirtualTarget",
  "componentRuntimes": {"items": [{
    "type": "ConnectorComponentRuntime",
    "deploymentState": {"values": [2, 2]}
  }]
}
}
,
"internal": false,
"name": "fairShare",
"componentRuntimes": {"items": [{
  "type": "WebAppComponentRuntime",
  "sourceInfo": "fairShare.war",
  "contextRoot": "/partition1/fairShare",
  "openSessionsCurrentCount": {
    "total": 0,
    "count": 0
  }},
  "name": "jms-internal-notran-adp-Partition1VirtualTarget",
  "componentRuntimes": {"items": [{
    "type": "ConnectorComponentRuntime",
    "deploymentState": {"values": [2, 2]}
  }]
}
}
,
"internal": true,
"name": "wls-management-services-Partition1VirtualTarget",
"componentRuntimes": {"items": [{
  "type": "WebAppComponentRuntime",
  "sourceInfo": "wls-management-services.war",
  "contextRoot": "/partition1/management",
  "openSessionsCurrentCount": {
    "total": 27,
    "count": 2
  },
  "deploymentState": {"values": [2, 2]},
  "sessionsOpenedTotalCount": {
    "total": 27,
    "count": 2
  },
  "openSessionsHighCount": {"max": 14},
  "servlets": {"items": [{"invocationTotalCount": {
    "total": 25,
    "count": 6
  }]}]
}]}
"count": 2
}
"deploymentState": {"values": [
2,
2
]},
"sessionsOpenedTotalCount": {
 "total": 0,
 "count": 2
},
"openSessionsHighCount": {"max": 0},
"servlets": {"items": [{"invocationTotalCount": {
 "total": 0,
 "count": 8
 }]}]
]}
]
{
 "internal": false,
 "name": "basicapp",
 "componentRuntimes": {"items": [
 {  
 "type": "WebAppComponentRuntime",
 "sourceInfo": "BasicAuth.war",
 "contextRoot": "/partition1/BasicAuth",
 "openSessionsCurrentCount": {
  "total": 0,
  "count": 2
 },
 "deploymentState": {"values": [
2,
2
 ]},
 "sessionsOpenedTotalCount": {
  "total": 0,
  "count": 2
 },
 "openSessionsHighCount": {"max": 0},
 "servlets": {"items": [{"invocationTotalCount": {
  "total": 0,
  "count": 10
 }]}]
 }]
 },
 {  
 "deploymentState": {"values": [
2,
2
 ]},
 "type": "EJBComponentRuntime" 
 ]
 }},
{
 "internal": true,
"name": "bea_wls_internal-Partition1VirtualTarget",
"componentRuntimes": [{"items": [{
  "type": "WebAppComponentRuntime",
  "sourceInfo": "bea_wls_internal.war",
  "contextRoot": "/partition1/bea_wls_internal",
  "openSessionsCurrentCount": {
    "total": 0,
    "count": 2
  },
  "deploymentState": {"values": [2, 2]},
  "sessionsOpenedTotalCount": {
    "total": 0,
    "count": 2
  },
  "openSessionsHighCount": {"max": 0},
  "servlets": {"items": [{"invocationTotalCount": {
    "total": 0,
    "count": 22
  }}]}
}]
}],
{
  "internal": false,
  "name": "Partition1JMSSystemResource1",
  "componentRuntimes": [{
    "type": "JMSComponentRuntime"
  }]
},
{
  "internal": true,
  "name": "bea_wls_internal-Partition1-adminVT",
  "componentRuntimes": [{
    "type": "WebAppComponentRuntime",
    "sourceInfo": "bea_wls_internal.war",
    "contextRoot": "/partition1/bea_wls_internal",
    "openSessionsCurrentCount": {
      "total": 0,
      "count": 2
    },
    "deploymentState": {"values": [2, 2]},
    "sessionsOpenedTotalCount": {
      "total": 0,
      "count": 2
    },
    "openSessionsHighCount": {"max": 0},
    "servlets": {"items": [{"invocationTotalCount": {
      "total": 0,
      "count": 22
    }}]}
  }]
}
Monitor the resource manager

```bash
curl -v \
--user Partition1Monitor:Partition1Monitor123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{
  links: [], fields: [],
  children: {
    serverRuntimes: {
      links: [], fields: ['name'],
      children: {
        partitionRuntimes: {
          links: [], fields: ['name'],
          children: {
            resourceManagerRuntime: {
              links: [],
              children: {
                resourceRuntimes: {
                  links: [],
                  children: {
                    triggerRuntimes: { links: [] },
                    fairShareConstraintRuntime: { links: [] }
                  }
                },
              }
            }
          }
        }
      }
    }
  }
}"
```

HTTP/1.1 200 OK

Response Body:

{"serverRuntimes": ["items": [}]}
Chapter 5

Monitoring Partition Resources
Chapter 5
Monitoring Partition Resources

"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"CpuUtilization",
"triggerRuntimes",
"NotifyTrigger"
],
"initiated": false,
"recourseActionEventsHistory": [],
"name": "NotifyTrigger",
"lastTimeExecuted": null,
"type": "TriggerRuntime",
"activated": false
},
{
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"CpuUtilization",
"triggerRuntimes",
"SlowTrigger"
],
"initiated": false,
"recourseActionEventsHistory": [],
"name": "SlowTrigger",
"lastTimeExecuted": null,
"type": "TriggerRuntime",
"activated": false
}
],
"fairShareConstraintRuntime": null
},
{
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"HeapRetained"
],
"usage": 7,
"name": "HeapRetained",
"type": "ResourceRuntime",
"resourceType": "heap-retained",
"triggerRuntimes": [{"items": []
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"HeapRetained",
"triggerRuntimes",
"NotifyTrigger"
],
"initiated": false,
"recourseActionEventsHistory": [],
"name": "NotifyTrigger",
"lastTimeExecuted": null,
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Monitoring Partition Resources

"type": "TriggerRuntime",
"activated": false
})],
"fairShareConstraintRuntime": null
}
]
}
},
{
"name": "AdminServer",
"partitionRuntimes": {
"items": [
"name": "Partition1",
"resourceManagerRuntime": {
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime"
],
"name": "Partition1ResourceManager",
"type": "ResourceManagerRuntime",
"resourceRuntimes": {"items": [
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"FileOpen"
],
"usage": 5,
"name": "FileOpen",
"type": "ResourceRuntime",
"resourceType": "file-open",
"triggerRuntimes": {"items": [
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"FileOpen",
"triggerRuntimes",
"NotifyTrigger"
],
"initiated": false,
"recourseActionEventsHistory": [
{"initiated": true,
"usage": 5,
"executionDate": "2019-08-08T16:09:21.959-04:00",
"action": "notify",
"active": true,
"actionSuccessful": false
},{
"initiated": false,
"usage": 5,
"executionDate": "2019-08-08T16:09:21.962-04:00",
"action": "notify",
"active": true,
"actionSuccessful": true
}]}}}
"initiated": false,
"usage": 5,
"executionDate": "2019-08-08T16:09:49.833-04:00",
"action": "notify",
"active": true,
"actionSuccessful": true
}
],
"name": "NotifyTrigger",
"lastTimeExecuted": "2019-08-08T16:09:49.833-04:00",
"type": "TriggerRuntime",
"activated": true
}],
"fairShareConstraintRuntime": null
},
{
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"CpuUtilization"
],
"usage": 3,
"name": "CpuUtilization",
"type": "ResourceRuntime",
"resourceType": "cpu-utilization",
"triggerRuntimes": {
"items": [
{
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"CpuUtilization",
"triggerRuntimes",
"NotifyTrigger"
],
"initiated": false,
"recourseActionEventsHistory": [],
"name": "NotifyTrigger",
"lastTimeExecuted": null,
"type": "TriggerRuntime",
"activated": false
},
{
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"CpuUtilization",
"triggerRuntimes",
"SlowTrigger"
],
"initiated": false,
"recourseActionEventsHistory": [],
"name": "SlowTrigger",
"lastTimeExecuted": null,
"type": "TriggerRuntime"}
"activated": false
],
"fairShareConstraintRuntime": null
],
{
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"HeapRetained"
],
"usage": 24,

"name": "HeapRetained",
"type": "ResourceRuntime",
"resourceType": "heap-retained",
"triggerRuntimes": [{"items": [{
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"HeapRetained",
"triggerRuntimes",
"NotifyTrigger"
],
"initiated": false,
"recourseActionEventsHistory": [],
"name": "NotifyTrigger",
"lastTimeExecuted": null,
"type": "TriggerRuntime",
"activated": false
}]
},
"fairShareConstraintRuntime": null
]}
}
]),
{
"name": "Cluster1Server2",
"partitionRuntimes": {"items": [{
"name": "Partition1",
"resourceManagerRuntime": {
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime"
],
"name": "Partition1ResourceManager",
"type": "ResourceManagerRuntime",
"resourceRuntimes": {"items": [{
"identity": [
"partitionRuntimes",
"Partition1",
"resourceManagerRuntime",
"resourceRuntimes",
"FileOpen"
]]
},
"fairShareConstraintRuntime": null
]}
]
})
}
},
  "usage": 2,
  "name": "FileOpen",
  "type": "ResourceRuntime",
  "resourceType": "file-open",
  "triggerRuntimes": {
    "items": [
      { "identity": [
        "partitionRuntimes",
        "Partition1",
        "resourceManagerRuntime",
        "resourceRuntimes",
        "FileOpen",
        "triggerRuntimes",
        "NotifyTrigger"
      ],
      "initiated": false,
      "recourseActionEventsHistory": [],
      "name": "NotifyTrigger",
      "lastTimeExecuted": null,
      "type": "TriggerRuntime",
      "activated": false
    ]
  },
  "fairShareConstraintRuntime": null
},
{
  "identity": [
    "partitionRuntimes",
    "Partition1",
    "resourceManagerRuntime",
    "resourceRuntimes",
    "CpuUtilization"
  ],
  "usage": 1,
  "name": "CpuUtilization",
  "type": "ResourceRuntime",
  "resourceType": "cpu-utilization",
  "triggerRuntimes": {
    "items": [
      { "identity": [
        "partitionRuntimes",
        "Partition1",
        "resourceManagerRuntime",
        "resourceRuntimes",
        "CpuUtilization",
        "triggerRuntimes",
        "NotifyTrigger"
      ],
      "initiated": false,
      "recourseActionEventsHistory": [],
      "name": "NotifyTrigger",
      "lastTimeExecuted": null,
      "type": "TriggerRuntime",
      "activated": false
    ]
  },
  "fairShareConstraintRuntime": null
}
Search the admin server log as the partition monitor, returning the matching records as json

```
curl -v \
```

Chapter 5
Monitoring Partition Resources
--user Partition1Monitor:Partition1Monitor123 \ 
-H X-Requested-By:MyClient \ 
-H Accept:application/json \ 
-H Content-Type:application/json \ 
-d "{ 
  limit: 2, 
  query: 'SEVERITY = 'Info'' 
}" \ 
  serverRuntime/partitionRuntimes/Partition1/WLDFPartitionRuntime/ 
  WLDFPartitionAccessRuntime/WLDFDataAccessRuntimes/ServerLog/search 

HTTP/1.1 200 OK

Response Body:
{
  "records": [
    
    "RECORDID": 1204,
    "DATE": "Aug 8, 2019 4:08:36,669 PM EDT",
    "SEVERITY": "Info",
    "SUBSYSTEM": "Store",
    "MACHINE": "machine1",
    "SERVER": "AdminServer",
    "USERID": "admin",
    "TXID": "",
    "CONTEXTID": "5223de7d-6982-40f3-b528-c59d47985565-00000066",
    "TIMESTAMP": "1565294916669",
    "MSGID": "BEA-280008",
    "MESSAGE": "Opening the persistent file store "/_WLS_EJBTIMER_AdminServer" for recovery: directory="/domains/mydomain/partitions/Partition1/system/store/_WLS_EJBTIMER_AdminServer requestedWritePolicy="Direct-Write" fileLockingEnabled=true driver="NIO".",
    "SUPP_ATTRS": "[severity-value: 64] [rid: 0] [partition-id: 8cc47e77-e543-4ab4-a963-c75c2cac051e] [partition-name: Partition1]",
    "SEVERITY_VALUE": 64,
    "PARTITION_ID": "8cc47e77-e543-4ab4-a963-c75c2cac051e",
    "PARTITION_NAME": "Partition1",
    "RID": "0"
  },

    "RECORDID": 1206,
    "DATE": "Aug 8, 2019 4:08:36,702 PM EDT",
    "SEVERITY": "Info",
    "SUBSYSTEM": "Store",
    "MACHINE": "machine1",
    "SERVER": "AdminServer",
    "USERID": "admin",
    "TXID": "",
    "CONTEXTID": "5223de7d-6982-40f3-b528-c59d47985565-00000066",
    "TIMESTAMP": "1565294916702",
    "MSGID": "BEA-280009",
    "MESSAGE": "The persistent file store "/_WLS_EJBTIMER_AdminServer" (35565724-bfc3-4d48-96be-c1cbe4242a14) has been opened: blockSize=512 actualWritePolicy="Direct-Write" fileLockingEnabled=true driver="NIO".",
    "SUPP_ATTRS": "[severity-value: 64] [rid: 0] [partition-id: 8cc47e77-e543-4ab4-a963-c75c2cac051e] [partition-name: Partition1]",
    "SEVERITY_VALUE": 64,
    "PARTITION_ID": "8cc47e77-e543-4ab4-a963-c75c2cac051e",
    "PARTITION_NAME": "Partition1",
    "RID": "0"
  ],
...
"Direct-Write(single-handle-buffered)" explicitIOEnforced=false records=0.
"SUPP_ATTRS": "[severity-value: 64] [rid: 0] [partition-id: 8cc47e77-e543-4ab4-a963-c75c2cac051e] [partition-name: Partition1]",
 "SEVERITY_VALUE": 64,
 "PARTITION_ID": "8cc47e77-e543-4ab4-a963-c75c2cac051e",
 "PARTITION_NAME": "Partition1",
 "RID": "0"
]}

"nextRecordId": 1207
//

Continue searching a log. This example uses the POST method to continue searching for records in the admin server log as the partition monitor.

curl -v
--user Partition1Monitor:Partition1Monitor123
-H X-Requested-By:MyClient
-H Accept:application/json
-H Content-Type:application/json
-d "{"limit": 2,
 "fromId": 1207,
 "query": 'SEVERITY = 'Info''}

HTTP/1.1 200 OK

Response Body:
{
 "records": [
 {
 "RECORDID": 1207,
 "DATE": "Aug 8, 2019 4:08:36,801 PM EDT",
 "SEVERITY": "Info",
 "SUBSYSTEM": "JMS",
 "MACHINE": "machine1",
 "SERVER": "AdminServer",
 "USERID": "admin",
 "TXID": "",
 "CONTEXTID": "5223de7d-6982-40f3-b528-c59d47985565-00000066",
 "TIMESTAMP": "1565294916801",
 "MSGID": "BEA-040528",
 "MESSAGE": "Start JMS service for partition [Partition1]",
 "SUPP_ATTRS": "[severity-value: 64] [rid: 0] [partition-id: 8cc47e77-e543-4ab4-a963-c75c2cac051e] [partition-name: Partition1]",
 "SEVERITY_VALUE": 64,
 "PARTITION_ID": "8cc47e77-e543-4ab4-a963-c75c2cac051e",
 "PARTITION_NAME": "Partition1",
}
Search the admin server log as the partition monitor, returning the matching records as text

```bash
```

HTTP/1.1 200 OK

Response Body:

```bash
###<Aug 8, 2019 4:08:36,669 PM EDT> <Info> <Store> <machine1> <AdminServer> <[STANDBY] ExecuteThread: '7' for queue: 'weblogic.kernel.Default (self-tuning)'> <admin> <5223de7d-6982-40f3-b528-c59d47985565-00000066> <1565294916669> </SEVERITY_VALUE: 64> </partition-id: 8cc47e77-e543-4ab4-a963-c75c2cac051e> </partition-name: Partition1> <RID: "0"> ```

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Monitoring Partition Resources

5-87
Partition1/system/store/_WLS_EJBTIMER_AdminServer requestedWritePolicy="Direct-Write" fileLockingEnabled=true driver="NIO">

###<Aug 8, 2019 4:08:36,702 PM EDT> <Info> <Store> <machine1> <AdminServer>

<admin> <> <5223de7d-6982-40f3-b528-c59d47985565-00000066> <1565294916702>
<>[severity-value: 64] [rid: 0] [partition-id: 8cc47e77-e543-4ab4-a963-c75c2cac051e]
[partition-name: Partition1] > <BEA-280009> <The persistent file store 
"_WLS_EJBTIMER_AdminServer" (35565724-bfc3-4d48-96be-clcb4242a14) has been opened: 
blockSize=512 actualWritePolicy="Direct-Write(single-handle-buffered)"
explicitIOEnforced=false records=0.>

nextRecordId=1207

---

Continue searching a log. This example uses the POST method to continue searching for records in the admin server log as the partition monitor.

---

curl -v 
--user Partition1Monitor:Partition1Monitor123 
-H X-Requested-By:MyClient 
-H Accept:text/plain 
-H Content-Type:application/json 
-d "{
  limit: 2,
  fromId: 1207,
  query: 'SEVERITY = 'Info' AND USERID = 'admin",
}"
serverRuntime/partitionRuntimes/Partition1/WLDFPartitionRuntime/
WLDFPartitionAccessRuntime/WLDFDataAccessRuntimes/ServerLog/search

HTTP/1.1 200 OK

Response Body:
###<Aug 8, 2019 4:08:36,801 PM EDT> <Info> <JMS> <machine1> <AdminServer>

<admin> <> <5223de7d-6982-40f3-b528-c59d47985565-00000066> <1565294916801>
<>[severity-value: 64] [rid: 0] [partition-id: 8cc47e77-e543-4ab4-a963-c75c2cac051e]
[partition-name: Partition1] > <BEA-040528> <Start JMS service for partition
[Partition1]>

###<Aug 8, 2019 4:08:36,820 PM EDT> <Info> <JMS> <machine1> <AdminServer>

<admin> <> <5223de7d-6982-40f3-b528-c59d47985565-00000066> <1565294916820>
<>[severity-value: 64] [rid: 0] [partition-id: 8cc47e77-e543-4ab4-a963-c75c2cac051e]
[partition-name: Partition1] > <BEA-040305> <JMS service is initialized and in
standby mode.> 

nextRecordId=1209

---

Capture a diagnostics image. Prevents capturing further images for the configured default lockout period. Note: only an admin is allowed to capture an image.

---
curl -v
--user Partition1Admin:Partition1Admin123
-H X-Requested-By:MyClient
-H Accept:application/json
-H Content-Type:application/json
-d "{}"
serverRuntime/partitionRuntimes/Partition1/WLDFPartitionRuntime/
WLDFPartitionImageRuntime/capturedImages

HTTP/1.1 201 Created

Location: http://localhost:7001/partitions/Partition1/management/weblogic/latest/
serverRuntime/partitionRuntimes/Partition1/WLDFPartitionRuntime/
WLDFPartitionImageRuntime/capturedImages/diagnostic_image__Partition1_8cc47e77-
e543-4ab4-a963-c75c2cac051e_AdminServer_2019_08_08_16_10_19.zip

Response Body:
{
    "links": [{
        "rel": "job",
        "href": "http://localhost:7001/partitions/Partition1/management/weblogic/latest/
serverRuntime/partitionRuntimes/Partition1/WLDFPartitionRuntime/
WLDFPartitionImageRuntime/imageCaptureTasks/DiagnosticImageCaptureTaskRuntime_2"
    }],
    "identity": {
        "partitionRuntimes": "Partition1",
        "WLDFPartitionRuntime": "WLDFPartitionRuntime",
        "WLDFPartitionImageRuntime": "WLDFPartitionImageRuntime",
        "imageCaptureTasks": "DiagnosticImageCaptureTaskRuntime_2"
    },
    "running": false,
    "systemTask": false,
    "endTimeAsLong": 1565295020169,
    "imageFileName": "diagnostic_image__Partition1_8cc47e77-e543-4ab4-a963-
c75c2cac051e_AdminServer_2019_08_08_16_10_19.zip",
    "name": "DiagnosticImageCaptureTaskRuntime_2",
    "progress": "success",
    "description": "diagnostic_image__Partition1_8cc47e77-e543-4ab4-a963-
c75c2cac051e_AdminServer_2019_08_08_16_10_19.zip",
    "taskError": null,
    "startTimeAsLong": 1565295019995,
    "type": "WLDFImageCreationTaskRuntime",
    "taskStatus": "Completed",
    "parentTask": null,
    "completed": true,
    "intervalToPoll": 1000,
    "startTime": "2019-08-08T16:10:19.995-04:00",
    "endTime": "2019-08-08T16:20.169-04:00"
}

List the captured diagnostics images.
Download a captured diagnostics image.

curl -v \
--user Partition1Monitor:Partition1Monitor123 \n-H X-Requested-By:MyClient \n-H Accept:application/octet-stream \n-o diagnostic_image__Partition1_8cc47e77-e543-4ab4-a963-c75c2cac051e_AdminServer_2019_08_08_16_10_19.zip \n-X GET http://localhost:7001/partitions/Partition1/management/weblogic/latest/serverRuntime/partitionRuntimes/Partition1/WLDFPartitionRuntime/WLDFPartitionImageRuntime/capturedImages/diagnostic_image__Partition1_8cc47e77-e543-4ab4-a963-c75c2cac051e_AdminServer_2019_08_08_16_10_19.zip/contents

HTTP/1.1 200 OK
Response Body:
wc -c diagnostic_image__Partition1_8cc47e77-e543-4ab4-a963-c75c2cac051e_AdminServer_2019_08_08_16_10_19.zip
18808 diagnostic_image__Partition1_8cc47e77-e543-4ab4-a963-c75c2cac051e_AdminServer_2019_08_08_16_10_19.zip

Remove all of the captured images. Note: only an admin is allowed to remove captured images.

curl -v \
--user Partition1Admin:Partition1Admin123 \n-H X-Requested-By:MyClient \n-H Accept:application/json \n-H Content-Type:application/json \
Starting and Stopping Partition-Scoped Applications

Review an example script that demonstrates how an Operator starts and stops partition-scoped applications.

----------

**Note:**

To view long URLs, use the scroll bar located beneath the section.

----------

Synchronously stop the app

---

Chapter 5
Starting and Stopping Partition-Scoped Applications
curl -v \
--user Partition1Operator:Partition1Operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
d "{}" \
domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/ 
appDeploymentRuntimes/fairShare/stop

HTTP/1.1 200 OK

Response Body: 
{
  "links": [{
    "rel": "job",
    "href": "http://localhost:7001/partitions/Partition1/management/weblogic/latest/domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/deploymentProgressObjects/fairShare"
  }],
  "identity": [
    "domainPartitionRuntimes",
    "Partition1",
    "deploymentManager",
    "deploymentProgressObjects",
    "fairShare"
  ],
  "rootExceptions": [],
  "endTimeAsLong": 1565295023264,
  "deploymentMessages": [
    "[Deployer:149192] Operation \"stop\" on application \"fairShare\" is in progress on \"Cluster1Server1\".",
    "[Deployer:149192] Operation \"stop\" on application \"fairShare\" is in progress on \"Cluster1Server2\".",
    "[Deployer:149194] Operation \"stop\" on application \"fairShare\" has succeeded on \"Cluster1Server1\".",
    "[Deployer:149194] Operation \"stop\" on application \"fairShare\" has succeeded on \"Cluster1Server2\"."
  ],
  "name": "fairShare",
  "operationType": 2,
  "startTimeAsLong": 1565295023208,
  "state": "STATE_COMPLETED",
  "id": "6",
  "type": "DeploymentProgressObject",
  "targets": ["Partition1VirtualTarget"],
  "applicationName": "fairShare",
  "failedTargets": [],
  "progress": "success",
  "completed": true,
  "intervalToPoll": 1000,
  "startTime": "2019-08-08T16:10:23.208-04:00",
  "endTime": "2019-08-08T16:10:23.264-04:00"
}
Get the app’s state on one of the servers in the cluster

```bash
curl -v \
--user Partition1Operator:Partition1Operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{ target='Cluster1Server1' }" \
domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/ 
appDeploymentRuntimes/fairShare/getState
```

HTTP/1.1 200 OK
Response Body:
{"return": "STATE_PREPARED"}

Synchronously start the app

```bash
curl -v \
--user Partition1Operator:Partition1Operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{}" \
domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/ 
appDeploymentRuntimes/fairShare/start
```

HTTP/1.1 200 OK
Response Body:
{
  "links": [{
    "rel": "job",
    "href": "http://localhost:7001/partitions/Partition1/management/weblogic/latest/ 
domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/ 
appDeploymentRuntimes/fairShare"
  }],
  "identity": {
    "domainPartitionRuntimes",
    "Partition1",
    "deploymentManager",
    "deploymentProgressObjects",
    "fairShare"
  },
  "rootExceptions": [],
  "endTimeAsLong": 1565295023922,
  "deploymentMessages": [
    "[Deployer:149192]Operation \"start\" on application \"fairShare\" is in
progress on "Cluster1Server1".

"[Deployer:149192]Operation "start" on application "fairShare" is in progress on "Cluster1Server2".

"[Deployer:149194]Operation "start" on application "fairShare" has succeeded on "Cluster1Server1".

"[Deployer:149194]Operation "start" on application "fairShare" has succeeded on "Cluster1Server2".

"},
"name": "fairShare",
"operationType": 1,
"startTimeAsLong": 1565295023727,
"state": "STATE_COMPLETED",
"id": "7",
"type": "DeploymentProgressObject",
"targets": ["Partition1VirtualTarget"],
"applicationName": "fairShare",
"failedTargets": [],
"progress": "success",
"completed": true,
"intervalToPoll": 1000,
"startTime": "2019-08-08T16:10:23.727-04:00",
"endTime": "2019-08-08T16:10:23.922-04:00"
}

----------------------------------------------------------------------
Get the app's state on one of the servers in the cluster
----------------------------------------------------------------------

curl -v \
--user Partition1Operator:Partition1Operator123 \
-H X-Requested-By:MyClient \
-H Accept:application/json \
-H Content-Type:application/json \
-d "{ target="Cluster1Server1" }" \
domainRuntime/domainPartitionRuntimes/Partition1/deploymentManager/ 
appDeploymentRuntimes/fairShare/getState

HTTP/1.1 200 OK

Response Body:
{"return": "STATE_ACTIVE"}