



# 300

## Oracle Public Cloud Workshop

### Fusion Middleware Cloud Services

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## Introduction

In this lab you will learn how to backup your Java Cloud service using the Java Cloud Administration console. You will also learn how to restore your Cloud Service using that backup. You will also learn how to use the Java Cloud Service integrated Cloud UI to scale-up the Java Cloud Service by adding an additional node. You'll remove that node (scale-down) programmatically using the administration REST APIs.

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## Objectives

- ☐ Backup the Java Cloud Service to a Storage Service
- ☐ Scale-up the Java Cloud Service's WebLogic Server by requesting additional Node
- ☐ Scale-down the WebLogic Server by removing a Node.
- ☐ Restore the Java Cloud Service from a Backup

## Required Artifacts

- ☐ The following labs assume that the steps outlined in lab guide 200 have been completed.

## Outline

<b>Introduction .....</b>	<b>2</b>
Objectives .....	2
Required Artifacts .....	2
Outline .....	2
<b>Operation Tasks .....</b>	<b>3</b>
Backup the Java Cloud Service .....	3
Restore from Backup .....	5
Request Additional Nodes .....	8
Remove nodes .....	12

## Operation Tasks

### Backup the Java Cloud Service

#### STEP 1: Create Backup of JCS

- ☐ From the main Dashboard, click on **Open Service Console** for the **Oracle Java Cloud Service**

**Oracle Java Cloud Service**

Subscription: Trial (Expires: 2-Feb-2016 1:59 AM SAST)

Data Center: US Commercial 2

Identity Domain: usoracle16033

Cloud Services Account: usoracle16033

Category: Oracle Java Public Cloud Services

[Details](#) | [Service Console](#) | 

- ☐ Click on **Alpha01A-JCS** to go to the instance dashboard.

**Alpha01A-JCS****Version:** 12.1.3.0.2**Edition:** Enterprise Edition**JDK:** 1.7.0\_76

- ☐ Click on the **ADMINISTRATION** Group


**Administration**


**0**  
Patches available

**N/A**  
Last successful backup

- ☐ Click on the **Back Up Now** Button


**BACKUP** PATCHING LOAD BALANCER

Incremental backup daily at 8:45 AM UTC (Full backup every Fri at 8:45 AM UTC) As of 14-Nov-2014 3:06:52 PM UTC 




Last Successful Backup  14-Nov-2014 8:45 AM UTC

[Configure Backups](#) **Back Up Now**

**Available Backups**




**14-Nov-2014 8:45 AM UTC**  
Type: Full, scheduled  
Available Until: 20-Dec-2014 8:45 AM UTC  
Location: Disk

Contains:   

Notes:

► **Restoration History**

- ☐ Use the defaults, but enter a note **Post application deployment backup** and click on the **Back Up** Button

**Back Up Now** 

Select backup options.


\* Backup Type ☐ Full (includes both binaries and configuration)  
☒ Incremental (includes only configuration)

\* Include Database ☐ Yes  
☒ No

Keep Forever ☐ Yes  
☒ No

Notes

**Back Up** **Cancel**

- ☐ The backup is now running. You can click the refresh  icon to monitor the progress.



**May 11, 2015 7:16:09 PM UTC**

Type: Incremental, gse\_cloud-admin@oracleleads.com

Available Until: Jun 10, 2015 7:16:09 PM UTC

Location: Disk

Contains: 

Notes: [Post application deployment...](#)

**Backing up...**


- ☐ Wait for the backup to complete - the hourglass icon will no longer appear when the backup is complete.

## Restore from Backup

### STEP 2: Delete Application AlphaProductCatalog

- ☐ Prior to doing the restore, we are going to go into WebLogic console and remove the application that we have deployed. When we do the restore, we will see that the Application is once again available.
- ☐ Open WebLogic Console, click **Lock & Edit**, and then go to **Deployments**. Select **AlphaProductCatalog** and click **Stop -> Force Stop Now**

**Deployments**

	Install	Update	Delete	Start ▾	Stop ▾
<input type="checkbox"/> <b>Name</b> 					When work completes Force Stop Now Stop, but continue servicing administration requests
<input type="checkbox"/>  adf.oracle.businesseditor(1.0,12.1.2.0.0)					
<input type="checkbox"/>  adf.oracle.domain(1.0,12.1.2.0.0)					
<input type="checkbox"/>  adf.oracle.domain.webapp(1.0,12.1.2.0.0)					
<input checked="" type="checkbox"/>  <b>AlphaProductCatalog</b>					
<input type="checkbox"/>  coherence-transaction-rar					

- ☐ Click **Yes**

**Force Stop Application Assistant**

Yes No

---

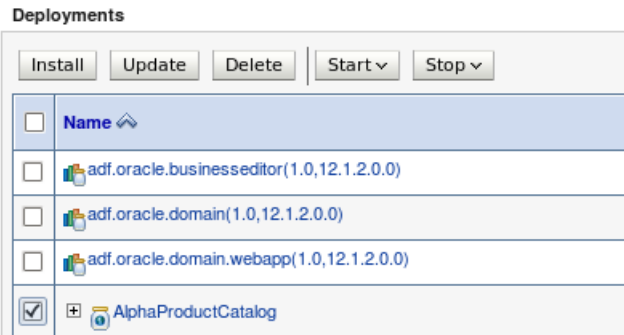
**Stop Deployments**

You have selected the following deployments to be immediately stopped. Press 'Yes' to continue, or 'No' to cancel.

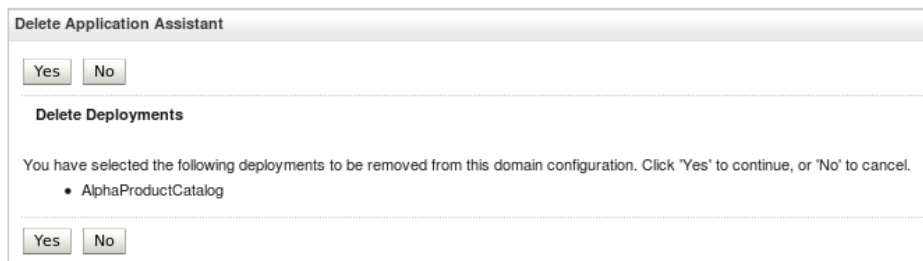
- AlphaProductCatalog

Yes No

- ☐ Now select **AlphaProductCatalog** and click **Delete**.



- ☐ Click **Yes**



- ☐ Now click **Activate Changes**.
- ☐ Verify that the **AlphaProductCatalog** application is NOT working by entering the URL used previously in the lab. This is the URL that was copied as a bookmark.

## Error 404--Not Found

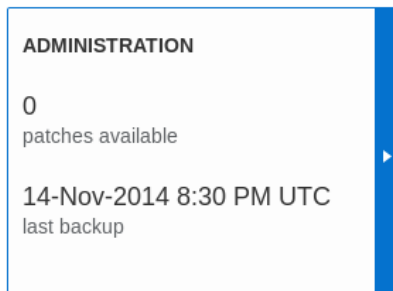
**From RFC 2068 *Hypertext Transfer Protocol -- HTTP/1.1*:**


### 10.4.5 404 Not Found

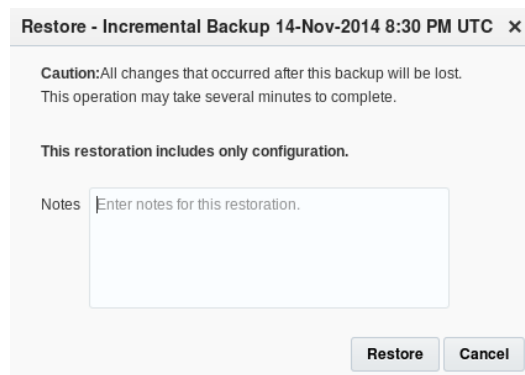
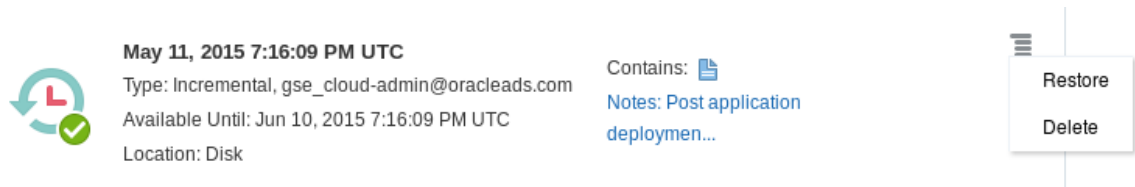
The server has not found anything matching the Request-URI.

**STEP 3: Restore Java Cloud Service from Backup**

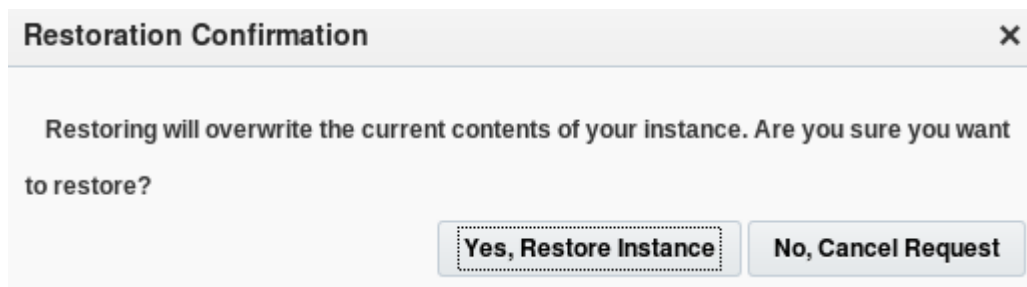
- ☐ Back on the JCS instance dashboard. Click on **ADMINISTRATION**





- ☐ On your most recent backup, click  and select **Restore**.



- ☐ On final confirmation screen click **Yes, Restore Instance**



- ☐ Click refresh  to monitor the progress. Restore may take more than **20** minutes.




**May 11, 2015 7:16:09 PM UTC**  
 Type: Incremental, gse\_cloud-admin@oracleads.com  
 Available Until: Jun 10, 2015 7:16:09 PM UTC  
 Location: Disk

Contains: 

[Notes: Post application deployment...](#)

[Status: Restore In Progress](#)



- ☐ Once the restore is completed, verify that the **AlphaProductCatalog** application is working by entering the URL used previously in the lab to access the Product Catalog REST APIs. This is the URL that was copied as a bookmark.

## Request Additional Nodes

### STEP 4: Request Additional WebLogic Managed Server

- ☐ Click on **TOPOLOGY** Group to initiate the Scale-up activity. **Make note** that there are **2 nodes** in the Topology and the Load Balancer is enabled.

**Topology**





**2**  
Nodes

**Enabled**  
Load balancer status

- ☐ Click **Add Node** to add another managed server to the **Alpha01A\_cluster**

**Cluster: Alpha01A\_cluster**

Add Node.

	<p><b>Administration Server Domain:</b> Alpha01A_domain</p> <p><b>Managed Server(s):</b> Alpha01A_server_1</p> <p><b>Public IP:</b> 129.152.133.133</p>	<p><b>OCPUs:</b> 1</p> <p><b>Memory:</b> 7.5 GB</p> <p><b>Storage:</b> 52 GB</p>	
	<p><b>Load Balancer</b></p> <p><b>Public IP:</b> 129.152.133.24</p> <p><b>Host:</b> alpha01a-jcs-lb-1</p> <p><b>Content endpoint:</b> <a href="https://129.152.133.24">https://129.152.133.24</a></p>	<p><b>OCPUs:</b> 1.0</p> <p><b>Memory:</b> 7.5 GB</p> <p><b>Storage:</b> 20 GB</p>	



- ☐ Click on the **Add Node** button to start the process.

**Add Node**
✕

Add a node to your instance.

Add Node
Cancel

- ☐ Expand the **Activity** list, and you will now see that the status has changed to **In Progress**



**Activity**




**Service Name:** Alpha01A-JCS

**Operation:** Scale Out

**Start Time:** May 15, 2015 2:03:03 AM UTC

**Status:** In Progress


• Scale out submitted for cluster [Alpha01A\_cluster]

- ☐ Click refresh  to monitor the progress.

#### Cluster: Alpha01A\_cluster

[Add Node.](#)

	<p><b>Administration Server Domain:</b> Alpha01A_domain</p> <p><b>Managed Server(s):</b> Alpha01A_server_1</p> <p><b>Public IP:</b> 129.152.133.133</p>	<p><b>OCPUs:</b> 1</p> <p><b>Memory:</b> 7.5 GB</p> <p><b>Storage:</b> 52 GB</p>	
	<p><b>Managed Server(s):</b> Alpha01A_server_2</p> <p><b>Host:</b> alpha01a-jcs-wls-2</p>	<p><b>OCPUs:</b> 1</p> <p><b>Memory:</b> 7.5 GB</p> <p><b>Storage:</b> 32 GB</p> <p><b>Status:</b> Preparing_VM</p>	

- ☐ Continue to monitor the progress and wait until the Topology indicates that there are 3 Nodes, the Load Balancer is once again enabled, and the Alpha01A-JCS instances no longer contains the warning indicator  in its icon. This process can take about **20** minutes.



- ☐ Once the additional node has been added, the Alpha01A-JCS icon will return to normal.

[Instances](#) > Alpha01A-JCS

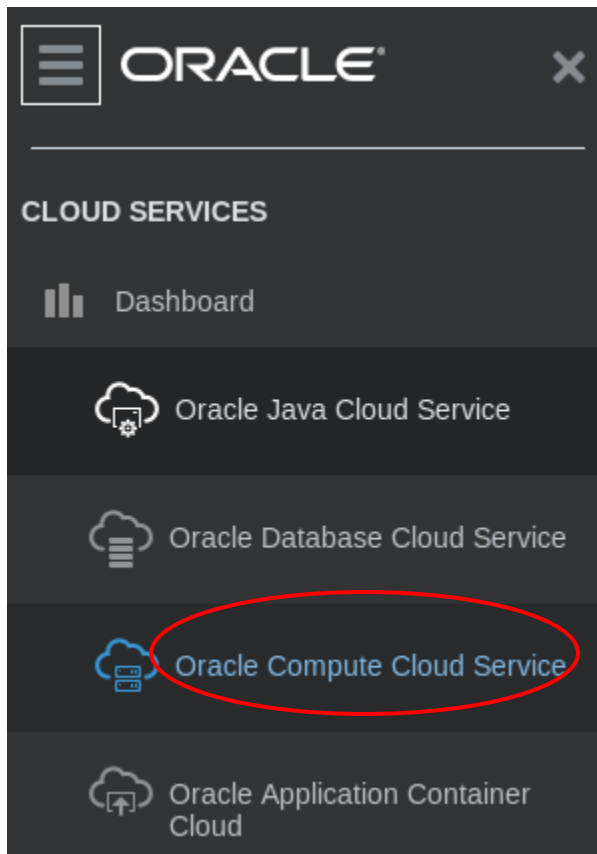


### Cluster: Alpha01A\_cluster

[Add Node.](#)












	<b>Administration Server Domain:</b> Alpha01A_domain <b>Managed Server(s):</b> Alpha01A_server_1 <b>Public IP:</b> 129.152.133.133	<b>OCPUs:</b> 1 <b>Memory:</b> 7.5 GB <b>Storage:</b> 52 GB	
	<b>Managed Server(s):</b> Alpha01A_server_2 <b>Host:</b> alpha01a-jcs-wls-2	<b>OCPUs:</b> 1 <b>Memory:</b> 7.5 GB <b>Storage:</b> 32 GB	

- ☐ Now let's navigate to the Compute Cloud Service. From the **Consoles** dropdown select **Compute Cloud Service**.




- ☐ You will now see an addition virtual machine with the name **Alpha01A-JCS wls 2**

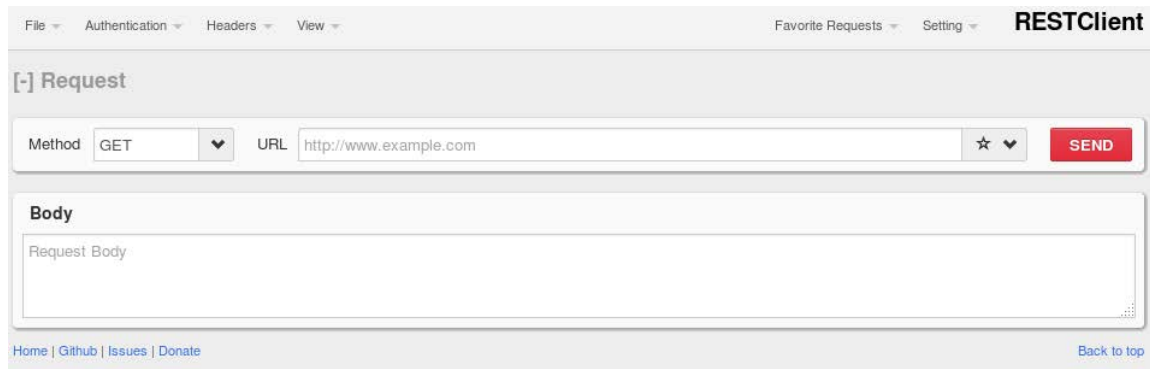
#### Instances

Enter text 				Show: All 	
	<b>Alpha01A-DBCS db 1</b> Status: Running (Since 1 day ago.) Tags: ORA.DCS, ORA.DB, ORA.DCS.PAAS.EE.HOURLY...	OCPUs: 1 Memory: 7.5 GB Storage: 90 GB			
	<b>Alpha01A-JCS lb 1</b> Status: Running (Since 1 day ago.) Tags: ORA.JCS, ORA.LB, ORA.JCS.PAAS.EE.HOURLY...	OCPUs: 1 Memory: 7.5 GB Storage: 20 GB			
	<b>Alpha01A-JCS wls 1</b> Status: Running (Since 1 day ago.) Tags: ORA.JCS, ORA.WLS, ORA.JCS.PAAS.EE.HOURLY...	OCPUs: 1 Memory: 7.5 GB Storage: 52 GB			
	<b>Alpha01A-JCS wls 2</b> Status: Running (Since 34 minutes ago.) Tags: ORA.JCS, ORA.WLS, ORA.JCS.PAAS.EE.HOURLY...	OCPUs: 1 Memory: 7.5 GB Storage: 32 GB			

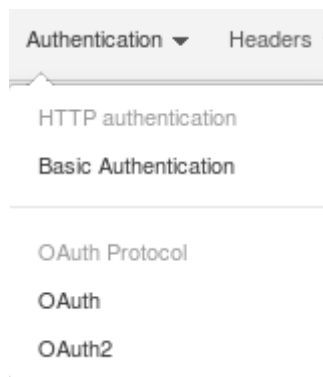
## Remove nodes

### STEP 5: Remove newly create WebLogic Managed Server

- ☐ Removing a node can also be done via the Cloud UI. However, we are going to remove the node using REST APIs, so that you can get an understanding of how to access the operational features programmatically.
- ☐ In Firefox open the REST Client. Click on  in the far left to open REST Client application.

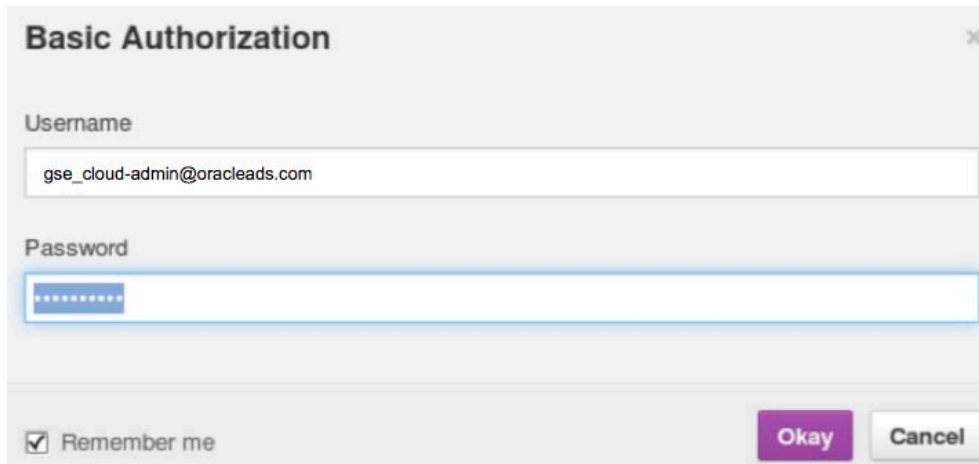


- ☐ First we will send a GET request to view all the server details. Click **Authentication** and select **Basic Authentication**



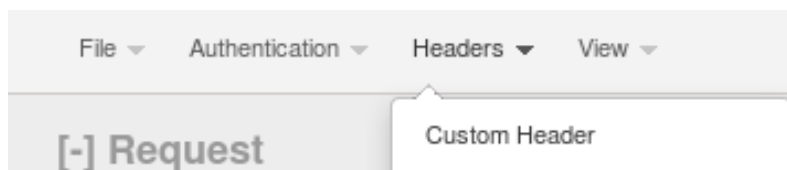
- ☐ Enter the following information and click **Okay**

Username = <your Account user name >  
Password = <your password>



A dialog box titled "Basic Authorization" with a close button (X) in the top right corner. It contains two input fields: "Username" with the text "gse\_cloud-admin@oracleads.com" and "Password" with masked characters "\*\*\*\*\*". At the bottom, there is a checkbox labeled "Remember me" which is checked, and two buttons: "Okay" (purple) and "Cancel" (gray).

- ☐ Next we will add a custom header property. Click **Headers** in drop down, and select **Custom Header**. Enter the following information and click **Okay**



A screenshot of a software interface showing a menu bar with "File", "Authentication", "Headers", and "View". The "Headers" dropdown is open, showing a list with a minus sign icon and the text "Request", and a single item "Custom Header".

Name = X-ID-TENANT-NAME  
Value = <your domain Id>



A dialog box titled "Request Header" with a close button (X) in the top right corner. It contains two input fields: "Name" with the text "X-ID-TENANT-NAME" and "Value" with the text "usoracle####". At the bottom, there is a checkbox labeled "Save to favorite" which is unchecked, and two buttons: "Okay" (purple) and "Cancel" (gray).

- ☐ Now enter the following URL and click **Send**.

<https://jaas.oraclecloud.com/jaas/api/v1.1/instances/<your domain Id>/Alpha01A-JCS/servers>

**[ - ] Request**

Method **GET** ▼ URL  ★ ▼ **SEND**

**Headers** Remove All

Authorization: Basic Z3NIX2Nsb3V... x X-ID-TENANT-NAME: usoracle16033 x

- ☐ Click on **Response Body (highlight)** to see the results.

**[ - ] Response**

**Response Headers** **Response Body (Raw)** **Response Body (Highlight)** **Response Body (Preview)**

```
1. {
2.   "servers":
3.   [
4.     {
5.       "clusterName": "Alpha01A_cluster",
6.       "name": "Alpha01A_server_1",
7.       "shape": "oc3",
8.       "nodeType": "WLS",
9.       "isAdmin": true,
10.      "hostname": "129.152.133.133",
11.      "status": "Ready",
12.      "reservedIp": "",
13.      "storageAllocated": 53248,
14.      "creationDate": "May 14, 2015 10:18:31 PM"
15.    },
16.    {
17.      "clusterName": "Alpha01A_cluster",
18.      "name": "Alpha01A_server_2",
19.      "shape": "oc3",
20.      "nodeType": "WLS",
21.      "isAdmin": false,
22.      "hostname": "alpha01a-jcs-wls-2",
23.      "status": "Ready",
```

- Now change the Operation from **GET** to **DELETE** and add the specific server to remove at the end of the URL. Click **SEND**

[https://jaas.oraclecloud.com/jaas/api/v1.1/instances/<your domain Id>/Alpha01A-JCS/servers/Alpha01A\\_server\\_2](https://jaas.oraclecloud.com/jaas/api/v1.1/instances/<your domain Id>/Alpha01A-JCS/servers/Alpha01A_server_2)

**[ - ] Request**

Method: **DELETE** URL: `cloud.com/jaas/api/v1.1/instances/usoracle16033/Alpha01A-JCS/servers/Alpha01A_server_2` **SEND**

**Headers** Remove All

Authorization: Basic Z3NIX2Nsb3V... X X-ID-TENANT-NAME: usoracle16033 X

- Click on **Response Body (highlight)** to see the results.

**[ - ] Response**

**Response Headers** **Response Body (Raw)** **Response Body (Highlight)** **Response Body (Preview)**


```
1. {
2.   "status": "New",
3.   "details":
4.     {
5.       "message": "JAAS-SCALING-044: Scaling in Job (ID: 75417) server name
[Alpha01A_server_2] submitted for service [Alpha01A-JCS]",
6.       "jobId": "75417"
7.     }
8. }
```

- Return to the Java Cloud Service dashboard, and you will see that the service is in Maintenance mode as the node is being removed.

 **Alpha01A-JCS**  
**Status:** Maintenance  
**Version:** 12.1.3.0.2  
**Edition:** Enterprise Edition  
**JDK:** 1.7.0\_76

- ☐ After several minutes, the Alpha01A-JCS will no longer be in Maintenance mode, and the node will be removed from the instance dashboard.

### Virtual Machines

Click the icon to retrieve monitoring information. 

	<b>Administration Server Domain:</b> Alpha01A_domain <b>Managed Server:</b> Alpha01A_server_1 <b>Public IP:</b> 129.152.133.133	<b>OCPUs:</b> 1 <b>Memory:</b> 7.5 GB <b>Storage:</b> 52 GB
	<b>Load Balancer</b> <b>Public IP:</b> 129.152.133.24 <b>Host:</b> alpha01a-jcs-lb-1 <b>Content endpoint:</b> <a href="https://129.152.133.24">https://129.152.133.24</a>	<b>OCPUs:</b> 1.0 <b>Memory:</b> 7.5 GB <b>Storage:</b> 20 GB

- ☐ This Lab is completed