

Cluster Creation on Websphere Application Server  
Oracle Banking Corporate Lending  
Release 14.5.3.0.0  
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## 1. Purpose

This document explains steps to create Cluster on Websphere Application Server 8.5 and also setup the proxy.

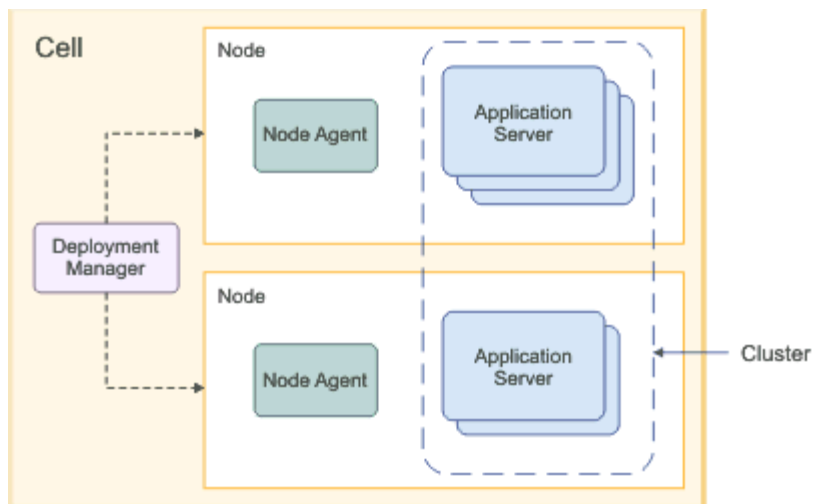
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## 2. Introduction to Websphere

IBM websphere application server cluster deployment contains the below key elements

- Cell
- Nodes
  - Deployment Manager Node- “DMGR”
  - Node- “NodeXX”
  - Node Agent- “NAXX”
- Profiles
- Cluster
- Cluster Members
- Data Sources

Profile



- **Cell:** A cell is a grouping of nodes into a single administrative domain. In a Network Deployment environment, a cell can consist of multiple nodes (and node groups), which are all administered from a single point, the deployment manager.
- **Node:** A node is an administrative grouping of application servers for configuration and operational management within one operating system instance
- **Node Agent:** In distributed server configurations, each node has a node agent that works with the deployment manager to manage administration processes. A node agent is created automatically when you add (federate) a stand-alone node to a cell.
- **Cluster:** A cluster is a logical collection of application server processes that provides workload balancing and high availability. Application servers that belong to a cluster are members of that cluster and must all have identical application components deployed on them.
- **A profile** is a Websphere runtime environment formed by collection of User data and Product files. Product Files are shared application binaries for Websphere. User data is set of user customizations for a specific runtime environment.

Prominent profile types are:

- **Stand-alone Application Server:** An application server environment runs Enterprise Application. Application server is managed from its own administrative console and functions independently from other application server.
- **Deployment Manager:** A Deployment Manager manages operations for a logical group or cell of other servers. It is the central administration point of a cell that consists of multiple nodes and node groups in a distributed server configuration. The deployment manager uses the node agent to manage the application servers within one node. A deployment manager provides management capability for multiple federated nodes and can manage nodes that span multiple systems and platforms. A node can only be managed by a single deployment manager and must be federated to the cell of that deployment manager.

Note \*\* Deployment Manager is part of Network Deployment Edition of Websphere.

---

## 3. Pre-requisites:

Before proceeding with the cluster setup ensure that the below resources are created

- JDBC Provider
- Datasource
- Queue Connection Factory
- JMS Queue

The instructions for resource creation are available in document

<installer>\Docs\WEBSPPHERE\Resource\_Creation\_WAS.doc

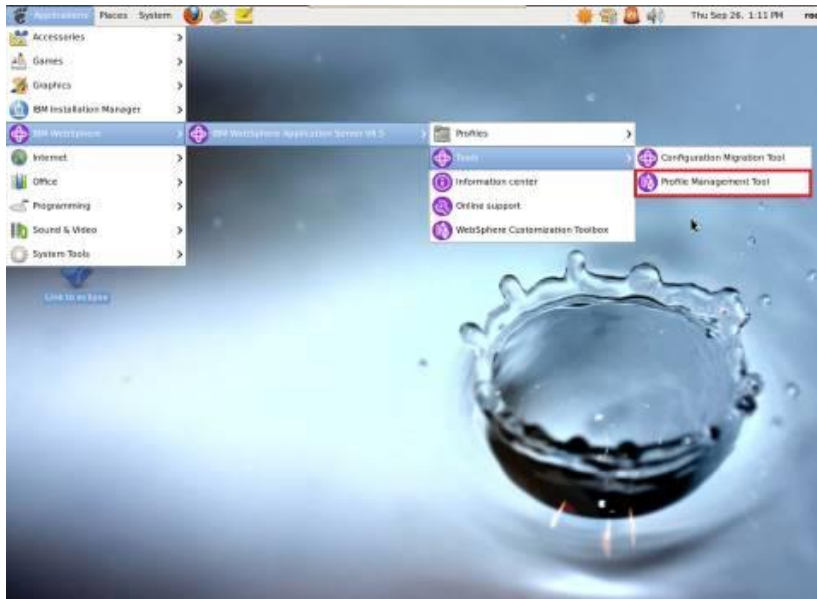
- For SSL configuration in Websphere, refer to the document SSL\_Configuration\_WAS.doc
- For application deployment, refer to document FCUBS\_Application\_WAS.doc
- For deployment of Gateway applications, refer to document GATEWAY\_Applications\_WAS.doc

## 4. Steps involved for Clustering

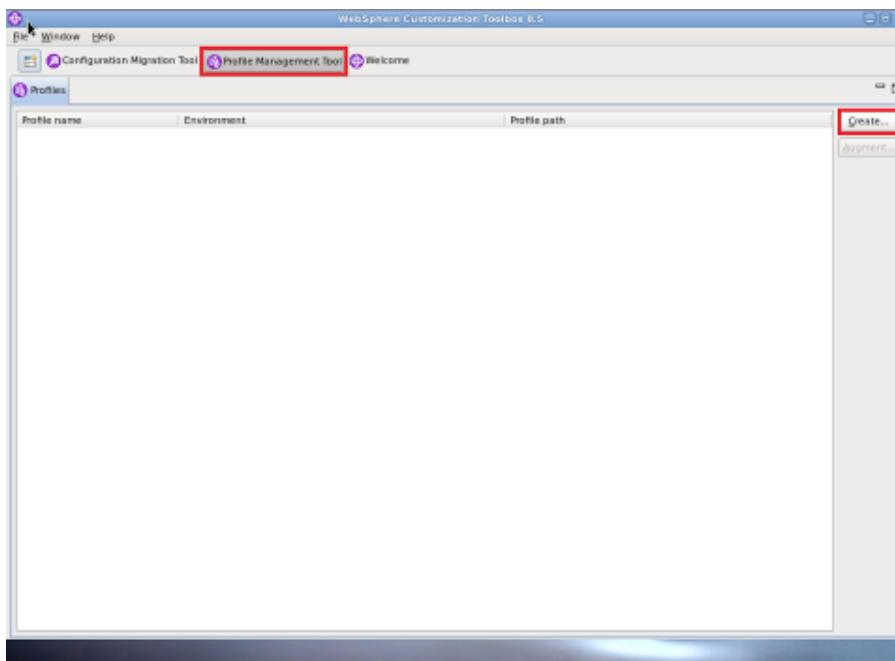
### 4.1 Create Profile

Go to Profile Management Tool

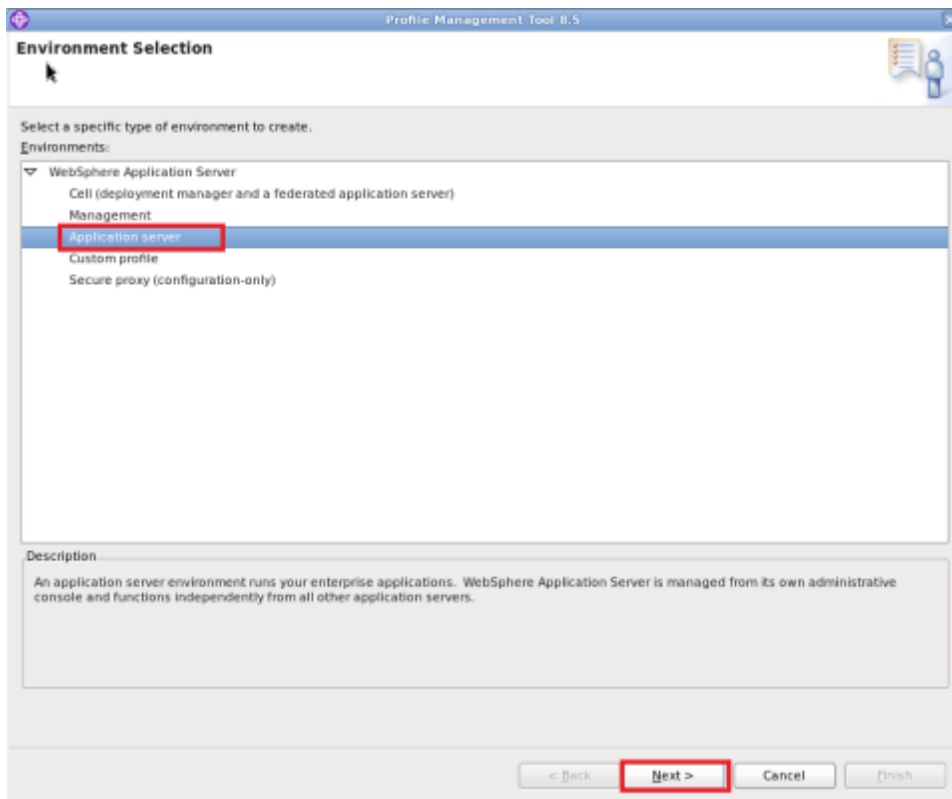
Navigation: IBM WebSphere > *IBM WebSphere Application Server V8.5* > *Tools* > *Profile Management Tool*



Navigation : *Profile Management Tool* > *Create*



**Navigation :** *Application Server > Next*



**Navigation :** *Typical profile creation > Next*

**Profile Creation Options**

Choose the profile creation process that meets your needs. Pick the Typical option to allow the Profile Management Tool to assign a set of default configuration values to the profile. Pick the Advanced option to specify your own configuration values for the profile.

☒ **Typical profile creation**

Create an application server profile that uses default configuration settings. The Profile Management Tool assigns unique names to the profile, node, and host. The tool also assigns unique port values. The administrative console and the default application will be installed. You can optionally select whether to enable administrative security. The tool might create a system service to run the application server depending on the operating system of your machine and the privileges assigned to your user account.

**Note:** Default personal certificates expire in one year. Select Advanced profile creation to create a personal certificate with a different expiration.

☐ **Advanced profile creation**

Create an application server using default configuration settings or specify your own values for settings such as the location of the profile and names of the profile, node, and host. You can assign your own port values. You can optionally choose whether to deploy the administrative console and Sample applications, and create a Web server definition. You might have the option to run the application server as a system service depending on the operating system of your machine and the privileges assigned to your user account.

< Back   **Next >**   Cancel   Finish

**Navigation:** *Enable administrative security > Next*

**Administrative Security**

Choose whether to enable administrative security. To enable security, supply a user name and password for logging into administrative tools. This administrative user is created in a repository within the application server. After profile creation finishes, you can add more users, groups, or external repositories.

☒ **Enable administrative security**

User name:  
websphere

Password:  
\*\*\*\*\*

Confirm password:  
\*\*\*\*\*

See the information center for more information about administrative security.  
[View the online information center](#)

< Back   **Next >**   Cancel   Finish

**Navigation :** *Create Summary*

Profile Management Tool 8.5

## Profile Creation Summary

Review the information in the summary for correctness. If the information is correct, click **Create** to start creating a new profile. Click **Back** to change values on the previous panels.

Application server environment to create: Application server  
 Location: /opt/IBM/WebSphere/AppServer/profiles/AppSrv06  
 Disk space required: 200 MB

Profile name: AppSrv06  
 Make this profile the default: True  
 Performance tuning setting: Standard

Node name: ofss220367Node01  
 Server name: server1  
 Host name: ofss220367.in.oracle.com

Deploy the administrative console (recommended): True  
 Deploy the default application: True

Enable administrative security (recommended): True

Administrative console port: 9060  
 Administrative console secure port: 9043  
 HTTP transport port: 9080  
 HTTPS transport port: 9443  
 Bootstrap port: 2809  
 SOAP connector port: 8880

Run application server as a service: False

< Back Create Cancel Finish

Navigation : *Finish*

Profile Management Tool 8.5

## Profile Creation Complete

The Profile Management Tool created the profile successfully.

The next step is to decide whether to federate the application server into a deployment manager cell.

To federate the application server, use either the **addNode** command or the administrative console of the deployment manager. Using the administrative console requires the application server to be running.

You can start and stop the application server from the command line or the First steps console. The First steps console also has links to an installation verification test and other information and features that relate to the application server.

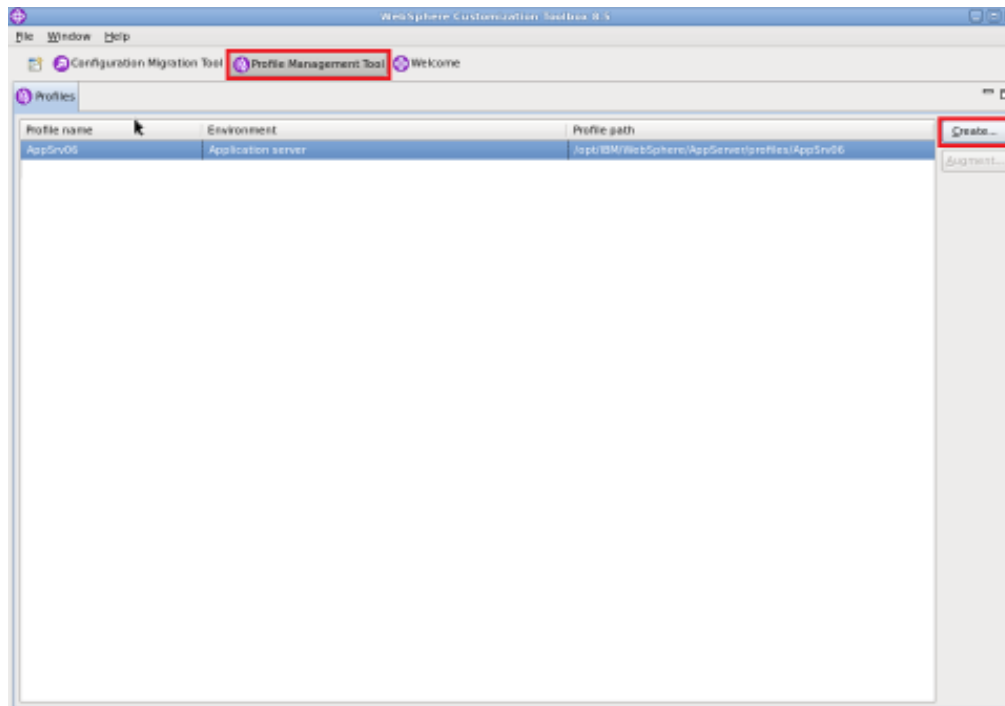
☒ Launch the First steps console.

To start the Profile Management Tool later, use the **PMT** command in the `app_server_root/bin/ProfileManagement` directory or the option in the First steps console.

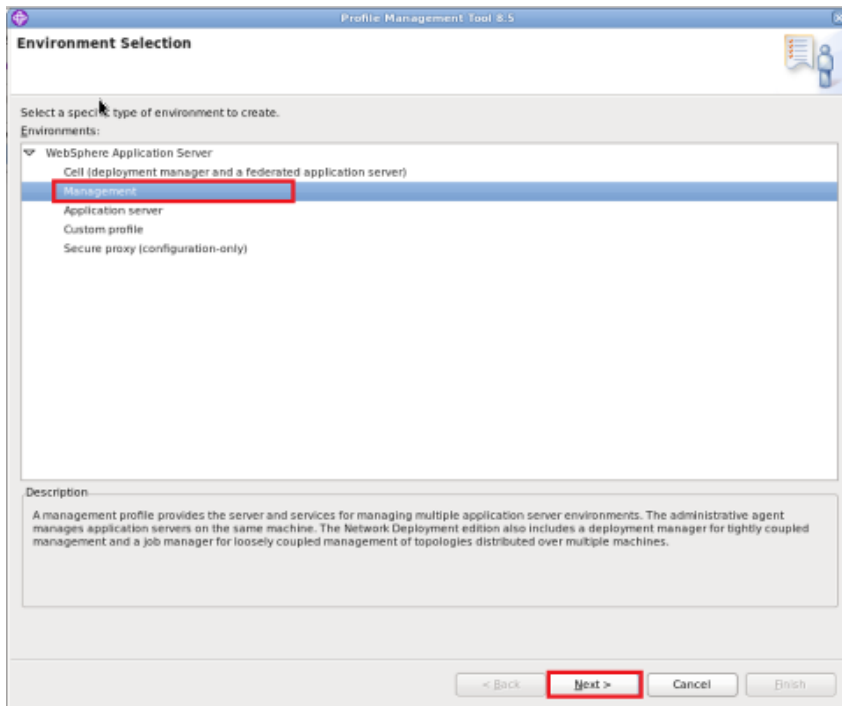
< Back Next > Cancel Finish

### 4.1.1 Create Deployment Manager Profile

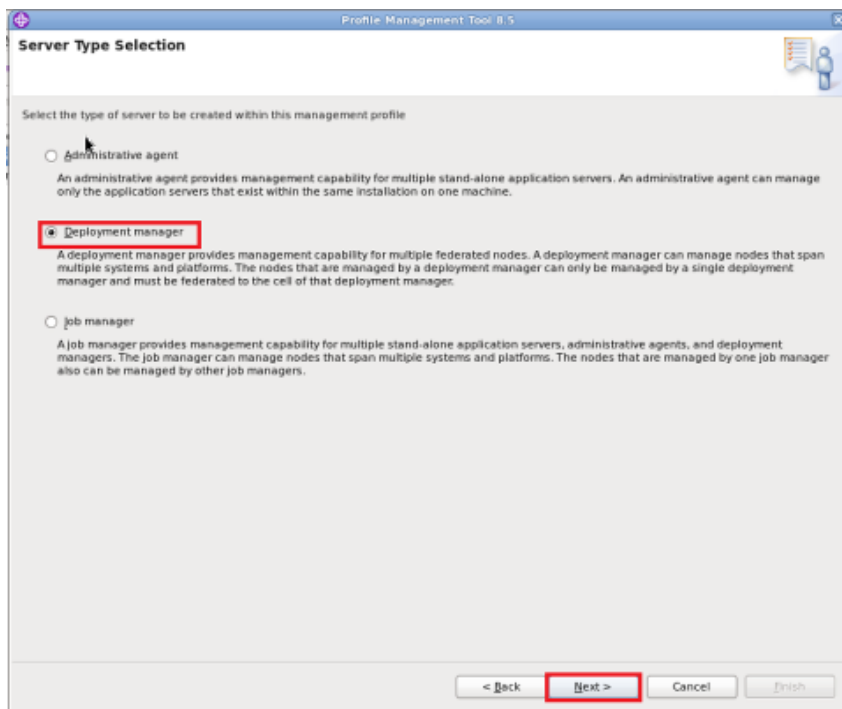
**Navigation :** *Profile Management Tool > Create*



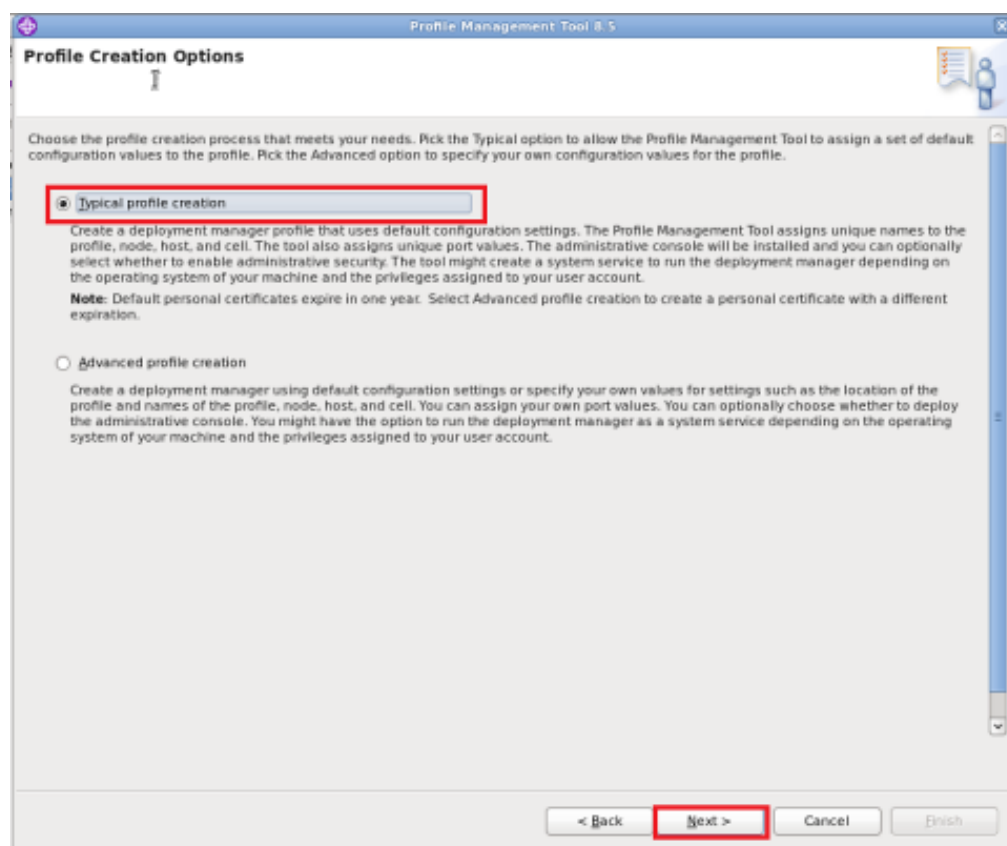
**Navigation :** *Management >Next*



**Navigation :** *Deployment Manager > Next*



**Navigation:** *Typical profile creation > Next*



**Navigation:** *Enable administrative security > Next*

Profile Management Tool 8.5

### Administrative Security

Choose whether to enable administrative security. To enable security, supply a user name and password for logging into administrative tools. This administrative user is created in a repository within the application server. After profile creation finishes, you can add more users, groups, or external repositories.

☒ Enable administrative security

User name:  
admin

Password:  
\*\*\*\*\*

Confirm password:  
\*\*\*\*\*

See the information center for more information about administrative security.  
[View the online information center](#)

< Back   **Next >**   Cancel   Finish

## Navigation : Create

Profile Management Tool 8.5

### Profile Creation Summary

Review the information in the summary for correctness. If the information is correct, click **Create** to start creating a new profile. Click **Back** to change values on the previous panels.

Application server environment to create: Management  
Server type: Deployment manager  
Location: /opt/IBM/WebSphere/AppServer/profiles/Dmgr04  
Disk space required: 30 MB

Profile name: Dmgr04  
Make this profile the default: False

Cell name: ofss220367Cell01  
Node name: ofss220367CellManager01  
Host name: ofss220367.in.oracle.com

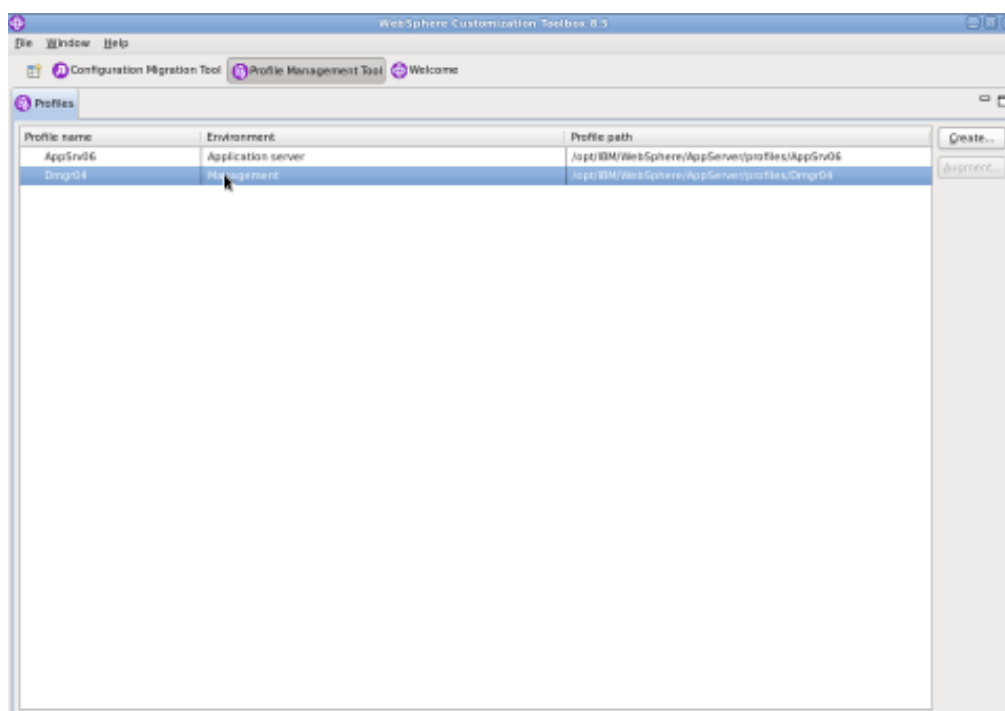
Deploy the administrative console (recommended): True

Enable administrative security (recommended): True

Administrative console port: 9061  
Administrative console secure port: 9044  
Deployment manager bootstrap port: 9809  
Deployment manager SOAP connector port: 8879

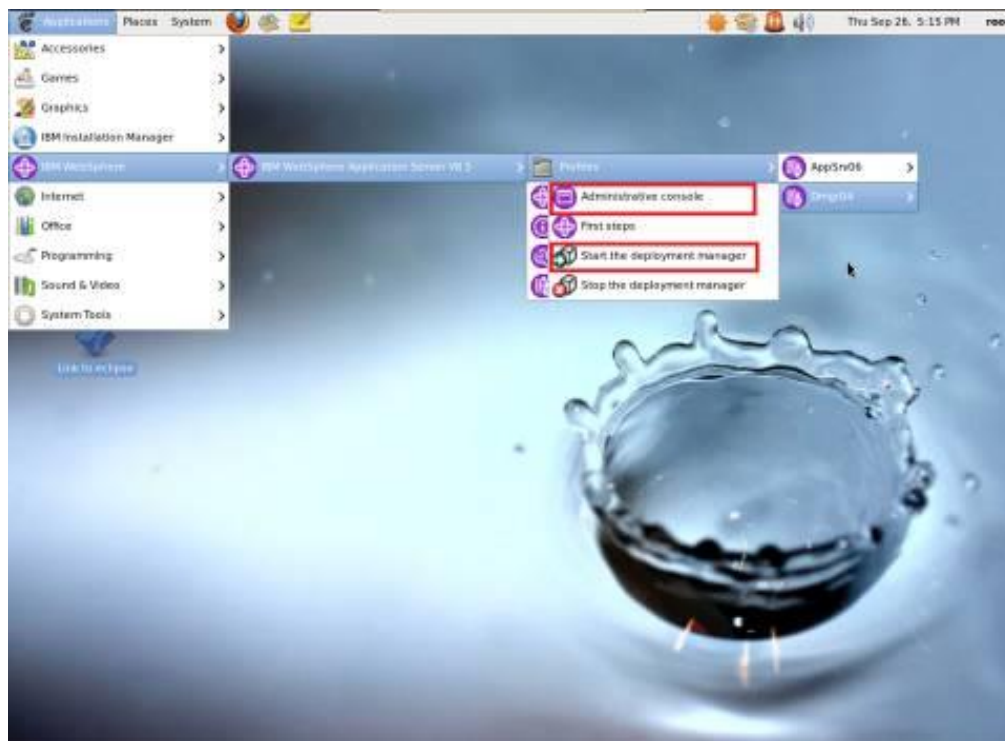
Run deployment manager as a service: False

< Back Create Cancel Finish



Start Deployment Manager & Open Administrative Console

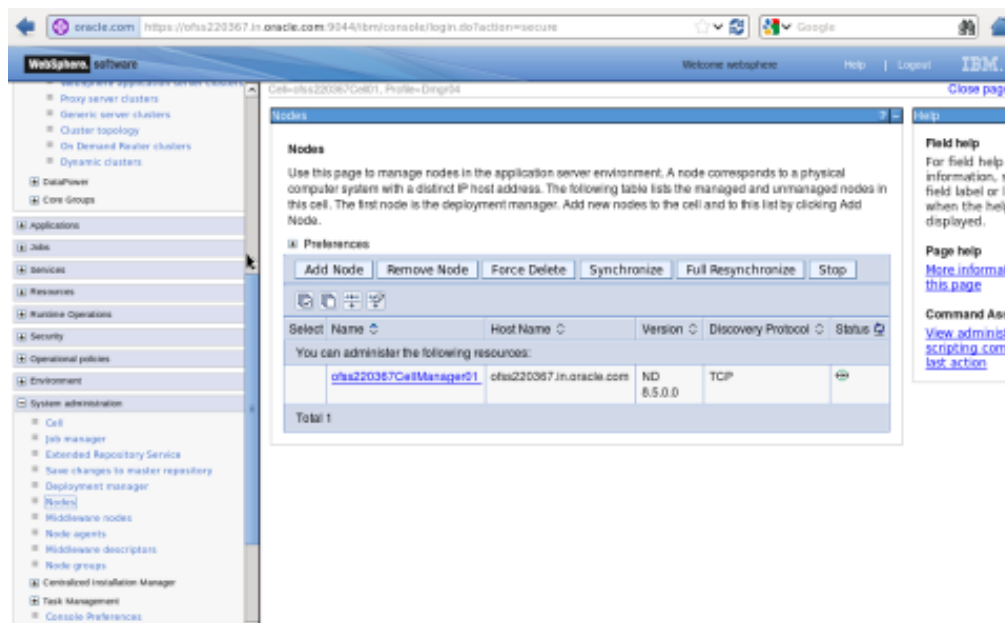
**Navigation** : IBM WebSphere > IBM WebSphere Application Server V8.5 > Profiles > Dmgr[i]>Start the deployment *manager* > *Administrative console*



## Log into Deployment Manager Console

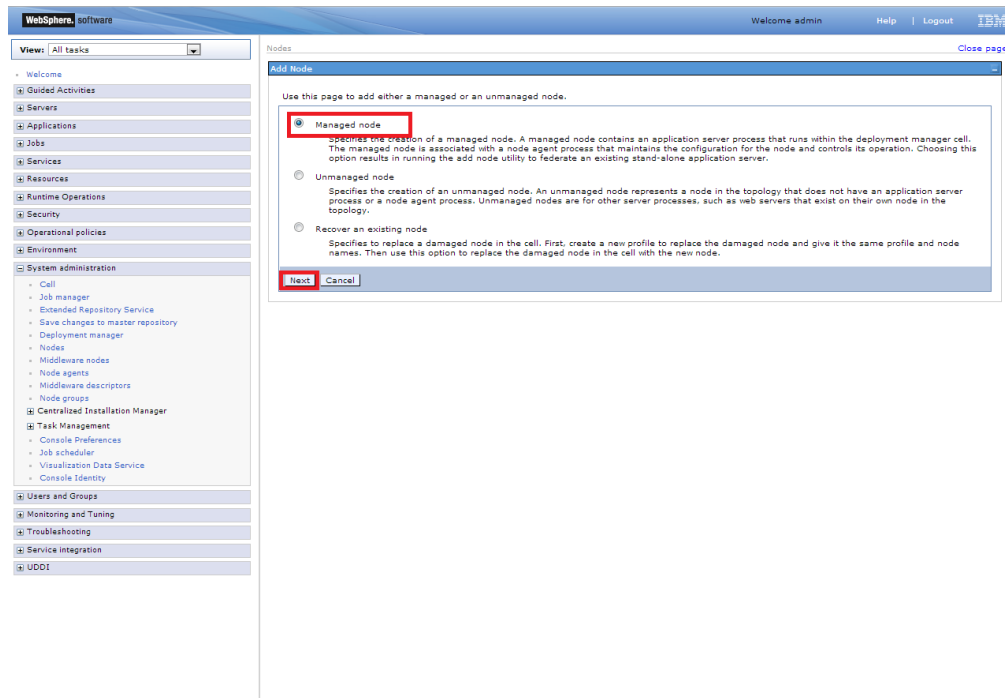


## Navigation : System administration > Nodes > Add Node



## 4.2 Create Node

**Navigation :** *System administration > Nodes > Add Node*



Provide the following field information and Click 'OK'

|                              |                                                |
|------------------------------|------------------------------------------------|
| Host                         | : Host Machine with running Application Server |
| JMX Connector type           | : SOAP                                         |
| JMX Connector Port           | : SOAP_CONNECTOR_ADDRESS of Application Server |
| Application server user name | : Application server user id                   |
| Application server password  | : Application server password                  |
| Deployment manager user name | : Deployment manager user id                   |
| Deployment manager password  | : Deployment manager password                  |

WebSphere software Welcome admin Help | Logout IBM

Views: All tasks

- Welcome
- Guided Activities
- Servers
- Applications
- Jobs
- Services
- Resources
- Runtime Operations
- Security
- Operational policies
- Environment
- System administration
  - Cell
  - Job manager
  - Extended Repository Service
  - Save changes to master repository
  - Deployment manager
  - Nodes
  - Middleware nodes
  - Node agents
  - Middleware descriptors
  - Node groups
- Centralized Installation Manager
- Task Management
  - Console Preferences
  - Job scheduler
  - Visualization Data Service
  - Console Identity
- Users and Groups
- Monitoring and Tuning
- Troubleshooting
- Service integration
- UDDI

Nodes

Add Managed Node

Use this page to identify a stand-alone application server process that is running. Start the application server, if necessary, or add the node from the command line by running the addnode command from the bin directory of the stopped application server profile.

Node connection

Host: ofss220367

JMX connector type: SOAP

JMX connector port: 8880

Application server user name: webosphere

Application server password: \*\*\*\*\*

Deployment manager user name: admin

Deployment manager password: \*\*\*\*\*

Config URL: file:\${USER\_INSTALL\_ROOT}/properties/sas.dll

Options

☐ Include applications

☐ Include buses

Starting port

☒ Use default

☐ Specify

Port number:

OK Cancel

Field help: For field help information, select a field label or list marker when the help cursor is displayed.

Page help: [More information about this page](#)

Oracle.com https://ofss220367.in.oracle.com:9544/evm/console/login.do?act&en=secure

WebSphere software Welcome admin Help | Logout IBM

Generic server clusters

Cluster topology

On Demand Router clusters

Dynamic clusters

DataPower

Core Group

Applications

Jobs

Services

Resources

Runtime Operations

Security

Operational policies

Environment

System administration
 

- Cell
- Job manager
- Extended Repository Service
- Save changes to master repository
- Deployment manager
- Nodes
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- Node agents
- Middleware descriptors
- Node groups

Centralized Installation Manager

Task Management
 

- Console Preferences
- Job scheduler
- Visualization Data Service

Adding node

ADMU0001: Begin federation of node ofss220367Node01 with Deployment Manager at ofss220367.in.oracle.com:8879.

ADMU0006: Successfully connected to Deployment Manager Server: ofss220367.in.oracle.com:8879

ADMU0505: Servers found in configuration:

ADMU0506: Server name: server1

ADMU0104: Stopping all server processes for node ofss220367Node01

ADMU0510: Server server1 is now STOPPED

ADMU0024: Deleting the old backup directory.

ADMU0015: Backing up the original cell. Please Wait...

ADMU0012: Creating Node Agent config. Node01

ADMU0014: Adding node ofss220367Node01 configuration to cell: ofss220367Cell01

ADMU0016: Synchronizing configuration between node and cell.

Transferring data from ofss220367.in.oracle.com...

**Nodes**

Use this page to manage nodes in the application server environment. A node corresponds to a physical computer system with a distinct IP host address. The following table lists the managed and unmanaged nodes in this cell. The first node is the deployment manager. Add new nodes to the cell and to this list by clicking Add Node.

**Preferences**

Add Node Remove Node Force Delete Synchronize Full Resynchronize Stop

| Select                              | Name                    | Host Name                | Version    | Discovery Protocol | Status |
|-------------------------------------|-------------------------|--------------------------|------------|--------------------|--------|
| <input checked="" type="checkbox"/> | ofss220367CellManager01 | ofss220367.in.oracle.com | ND 8.5.0.0 | TCP                | +      |
| <input type="checkbox"/>            | ofss220367Node01        | ofss220367.in.oracle.com | ND 8.5.0.0 | TCP                | +      |

Total 2

Create necessary number of nodes following same instructions above:

**Nodes**

Use this page to manage nodes in the application server environment. A node corresponds to a physical computer system with a distinct IP host address. The following table lists the managed and unmanaged nodes in this cell. The first node is the deployment manager. Add new nodes to the cell and to this list by clicking Add Node.

**Preferences**

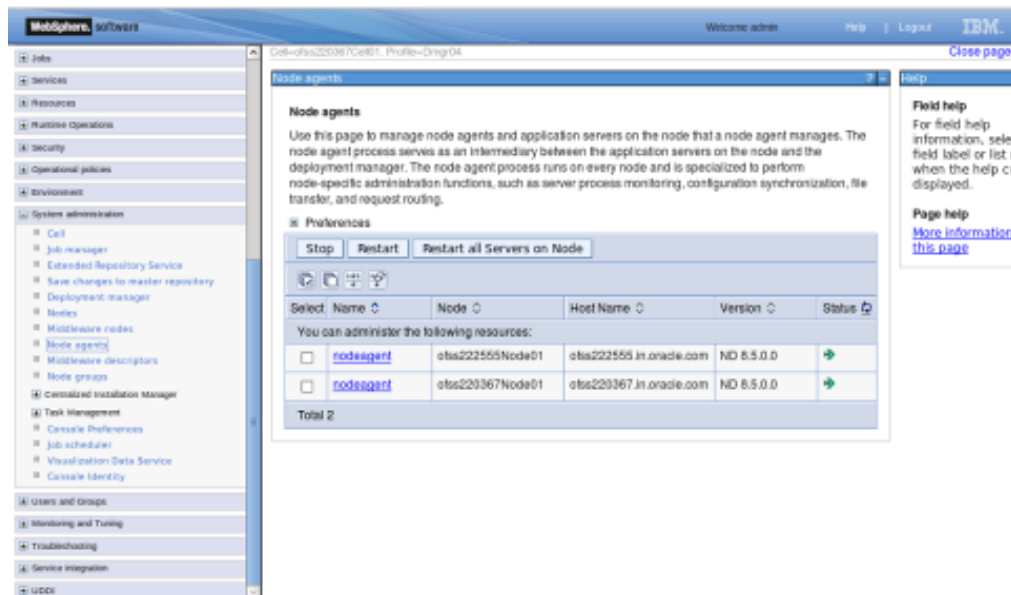
Add Node Remove Node Force Delete Synchronize Full Resynchronize Stop

| Select                              | Name                    | Host Name                | Version    | Discovery Protocol | Status |
|-------------------------------------|-------------------------|--------------------------|------------|--------------------|--------|
| <input checked="" type="checkbox"/> | ofss225367CellManager01 | ofss220367.in.oracle.com | ND 8.5.0.0 | TCP                | +      |
| <input type="checkbox"/>            | ofss225367Node01        | ofss220367.in.oracle.com | ND 8.5.0.0 | TCP                | +      |
| <input type="checkbox"/>            | ofss22555Node01         | ofss22555.in.oracle.com  | ND 8.5.0.0 | TCP                | +      |

Total 3

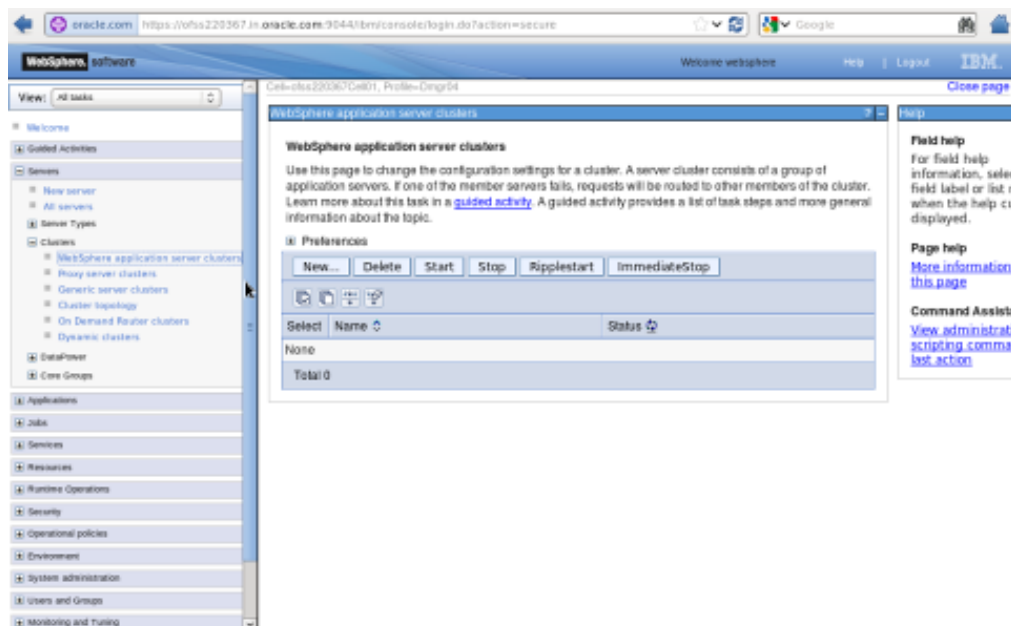
## 4.2.1 Start Node Agents

Navigation : *System administration> Node agents>Restart*

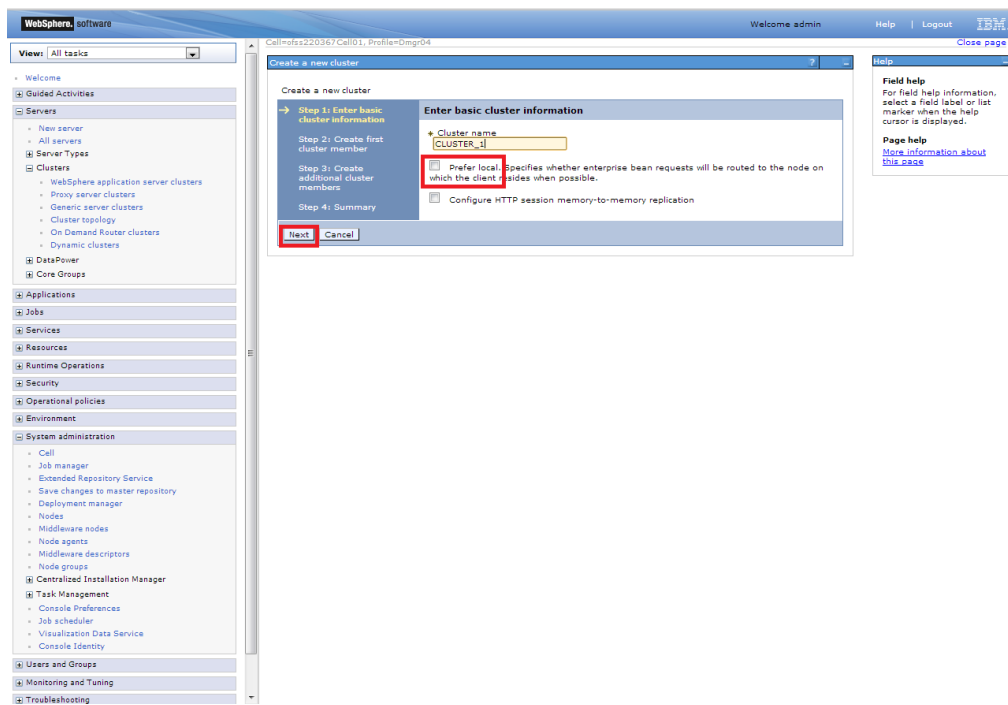


## 4.3 Create Cluster

Navigation: *Servers>Clusters> WebSphere application server clusters > New*



Navigation : *Uncheck [Prefer Local] > Next*



## 4.3.1 Add Cluster Members

WebSphere software

Welcome admin Help Logout IBM

Cell=ofas220367/Cell01, Profile=Omgr04

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

Step 3: Create additional cluster members

Step 4: Summary

Create first cluster member

The first cluster member determines the server settings for the cluster members. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

Member name: MS\_1

Select node: ofas220367Node01 (ND 8.5.0.0)

Weight: 2 (0..100)

☒ Generate unique HTTP ports

Select how the server resources are promoted in the cluster: Cluster

Select basis for first cluster member:

- ☒ Create the member using an application server template.  
default
- ☐ Create the member using an existing application server as a template.  
ofas220367Cell01/ofas220367Node01 (ND 8.5.0.0)/MS\_1
- ☐ Create the member by converting an existing application server.  
ofas220367Cell01/ofas220367Node01 (ND 8.5.0.0)/MS\_1
- ☐ None. Create an empty cluster.

Previous Next Cancel

Field help: For field help information, select a field label or list marker when the help cursor is displayed. Page help: More information about this page

Add required number of cluster members

Navigation : Add Member > Next

WebSphere software

Welcome admin Help Logout IBM

Cell=ofas220367/Cell01, Profile=Omgr04

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

Step 3: Create additional cluster members

Step 4: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member, and stored as part of the cluster data. Additional cluster members are copied from this template.

Member name: MS\_2

Select node: ofas220367Node01 (ND 8.5.0.0)

Weight: 2 (0..100)

☒ Generate unique HTTP ports

Add Member

Use the Edit function to modify the properties of a cluster member in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member.

Edit Delete

| Select | Member name | Nodes            | Version    | Weight |
|--------|-------------|------------------|------------|--------|
|        | MS_1        | ofas220367Node01 | ND 8.5.0.0 | 2      |
| Total  |             |                  |            | 1      |

Previous Next Cancel

Field help: For field help information, select a field label or list marker when the help cursor is displayed. Page help: More information about this page

## Navigation : Next

**Create a new cluster**

Step 1: Enter basic cluster information  
Step 2: Create first cluster member  
→ **Step 3: Create additional cluster members**  
Step 4: Summary

**Create additional cluster members**

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member, and stored as part of the cluster data. Additional cluster members are copied from this template.

Member name:

Select node:

Weight:  (0..100)

☒ Generate unique HTTP ports

**Add Member**

Use the Edit function to modify the properties of a cluster member in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member.

**Edit Delete**

| Select                   | Member name | Nodes            | Version    | Weight |
|--------------------------|-------------|------------------|------------|--------|
| <input type="checkbox"/> | MS_1        | ofss220367Node01 | ND 8.5.0.0 | 2      |
| <input type="checkbox"/> | MS_2        | ofss22555Node01  | ND 8.5.0.0 | 2      |

Total 2

**Previous Next Cancel**

**Field help**  
For field help information, select a field label or list marker when the help cursor is displayed.

**Page help**  
[More information about this page](#)

## Navigation : Finish

**Create a new cluster**

Step 1: Enter basic cluster information  
Step 2: Create first cluster member  
Step 3: Create additional cluster members  
→ **Step 4: Summary**

**Summary**

Summary of actions:

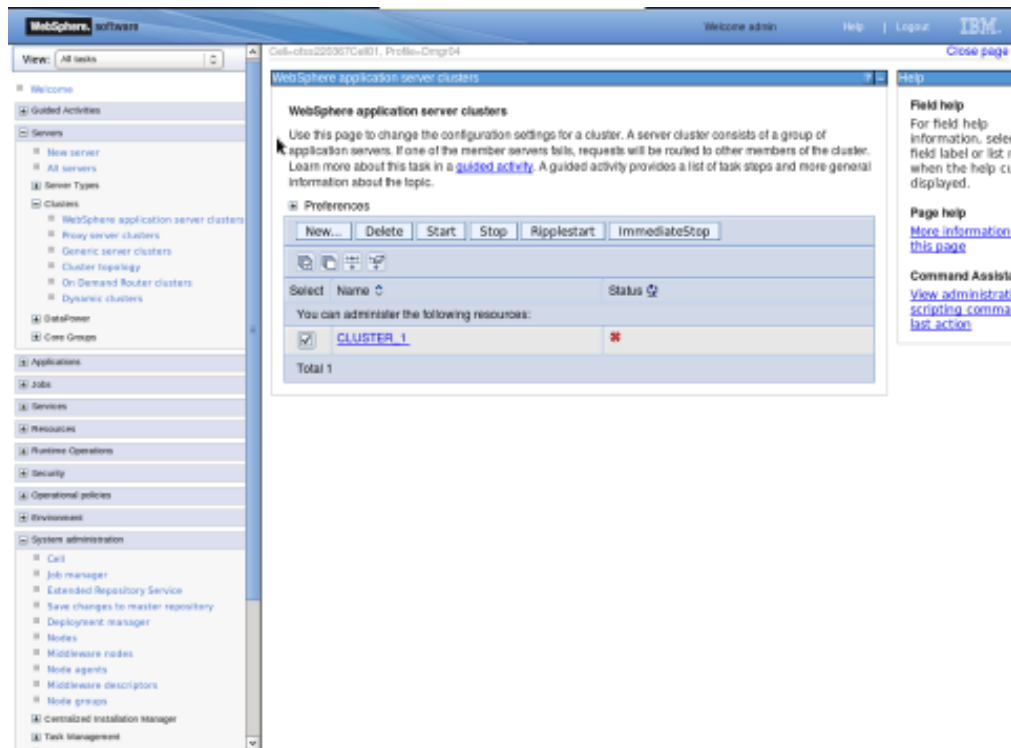
| Options                                                      | Values                                                  |
|--------------------------------------------------------------|---------------------------------------------------------|
| Cluster Name                                                 | CLUSTER_1                                               |
| Core Group                                                   | DefaultCoreGroup                                        |
| Node group                                                   | DefaultNodeGroup                                        |
| Prefer local                                                 | false                                                   |
| Configure HTTP session memory-to-memory replication          | false                                                   |
| Server name                                                  | MS_1                                                    |
| Node                                                         | ofss220367Node01(ND 8.5.0.0)                            |
| Weight                                                       | 2                                                       |
| Clone Template                                               | default                                                 |
| Clone Basis                                                  | Create the member using an application server template. |
| Select how the server resources are promoted in the cluster. | cluster                                                 |
| Generate unique HTTP ports                                   | true                                                    |
| Server name                                                  | MS_2                                                    |
| Node                                                         | ofss220367Node01(ND 8.5.0.0)                            |
| Weight                                                       | 2                                                       |
| Clone Template                                               | Version 8.5 member template                             |
| Generate unique HTTP ports                                   | true                                                    |

**Previous Finish Cancel**

**Field help**  
For field help information, select a field label or list marker when the help cursor is displayed.

**Page help**  
[More information about this page](#)

## 4.3.2 Start Cluster



WebSphere software

Welcome admin Help | Logout IBM

Cell: cell0200307Cell01, Profile: Dmgr04

View: All tasks

Guided Activities

Servers

- New server
- All servers
- Server Types
- Clusters
  - WebSphere application server clusters
  - Proxy server clusters
  - Generic server clusters
  - Cluster topology
  - On Demand Router clusters
  - Dynamic clusters
- DataPower
- Core Groups

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System administration

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- Job manager
- Extended Repository Service
- Save changes to master repository
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- Nodes
- Middleware nodes
- Node agents
- Middleware descriptors
- Node groups
- Centralized Installation Manager

Task Management

WebSphere application server clusters

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

Preferences

New... Delete Start Stop Ripplestart ImmediateStop

| Select                              | Name      | Status |
|-------------------------------------|-----------|--------|
| <input checked="" type="checkbox"/> | CLUSTER_1 |        |

You can administer the following resources:

Total 1

Field help

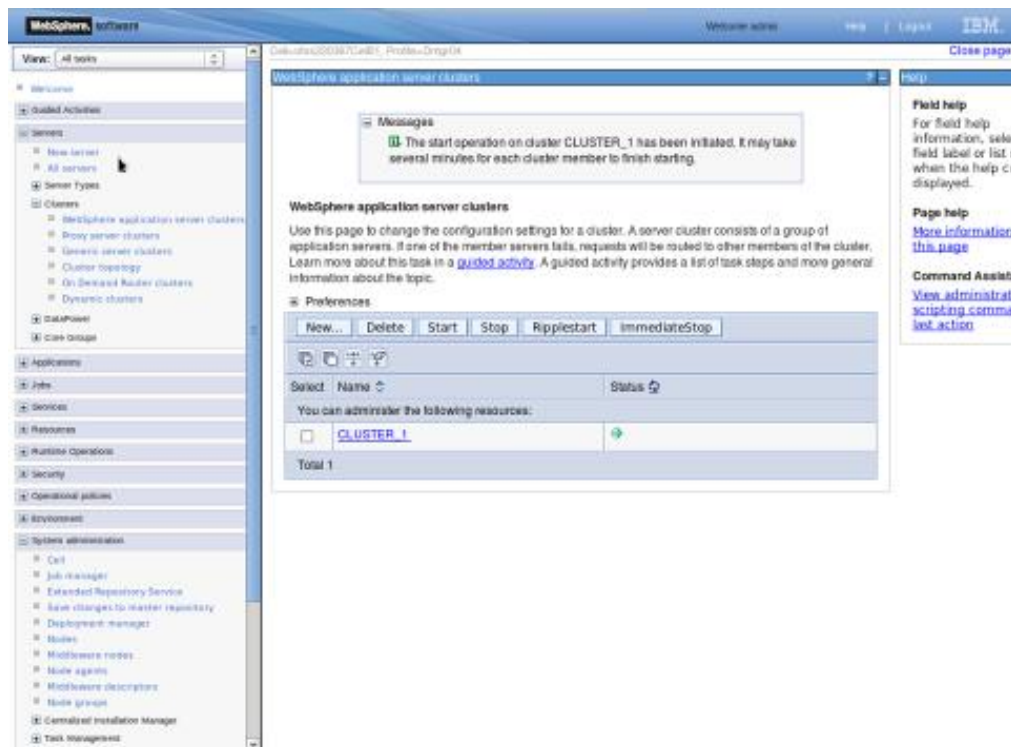
For field help information, select field label or list item when the help is displayed.

Page help

[More information, this page](#)

Command Assistant

[View administrative scripting command list action](#)



WebSphere software

Welcome admin Help | Logout IBM

Cell: cell0200307Cell01, Profile: Dmgr04

View: All tasks

Guided Activities

Servers

- New server
- All servers
- Server Types
- Clusters
  - WebSphere application server clusters
  - Proxy server clusters
  - Generic server clusters
  - Cluster topology
  - On Demand Router clusters
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- Nodes
- Middleware nodes
- Node agents
- Middleware descriptors
- Node groups
- Centralized Installation Manager

Task Management

WebSphere application server clusters

Messages

The start operation on cluster CLUSTER\_1 has been initiated. It may take several minutes for each cluster member to finish starting.

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the member servers fails, requests will be routed to other members of the cluster. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

Preferences

New... Delete Start Stop Ripplestart ImmediateStop

| Select                   | Name      | Status |
|--------------------------|-----------|--------|
| <input type="checkbox"/> | CLUSTER_1 |        |

You can administer the following resources:

Total 1

Field help

For field help information, select field label or list item when the help is displayed.

Page help

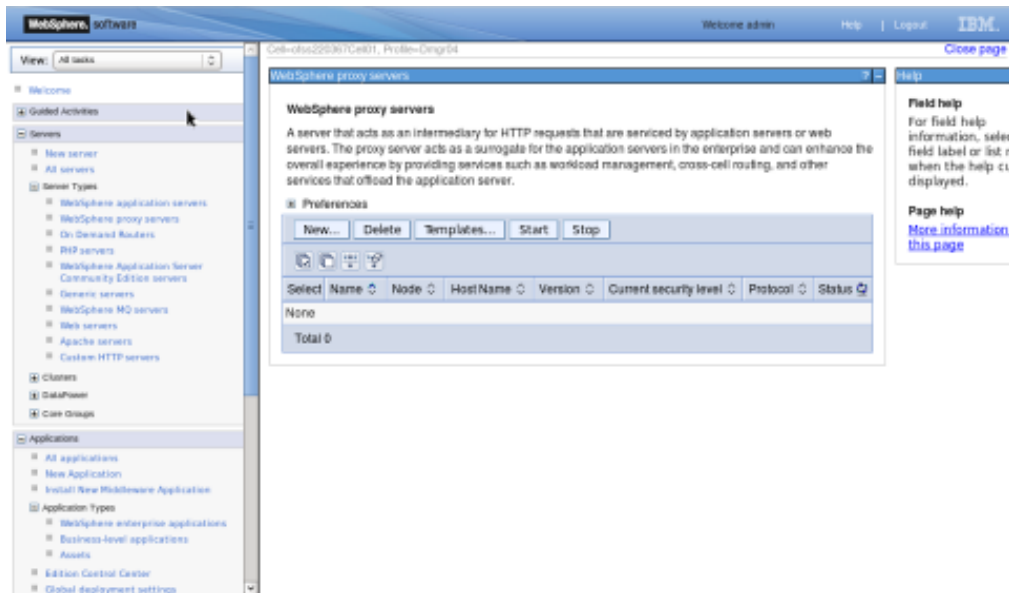
[More information, this page](#)

Command Assistant

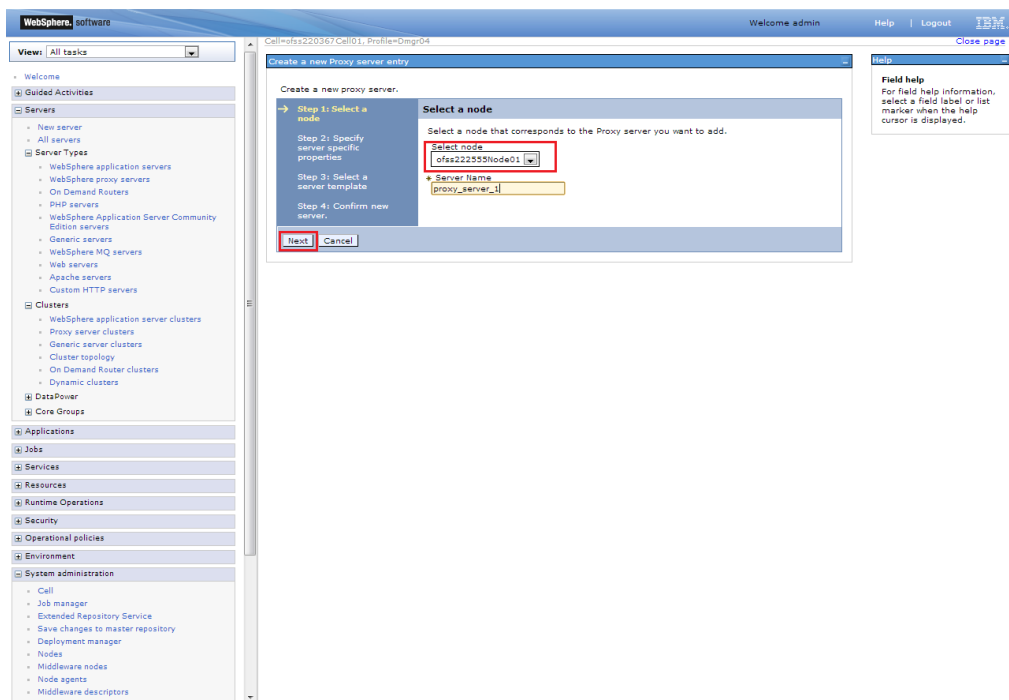
[View administrative scripting command list action](#)

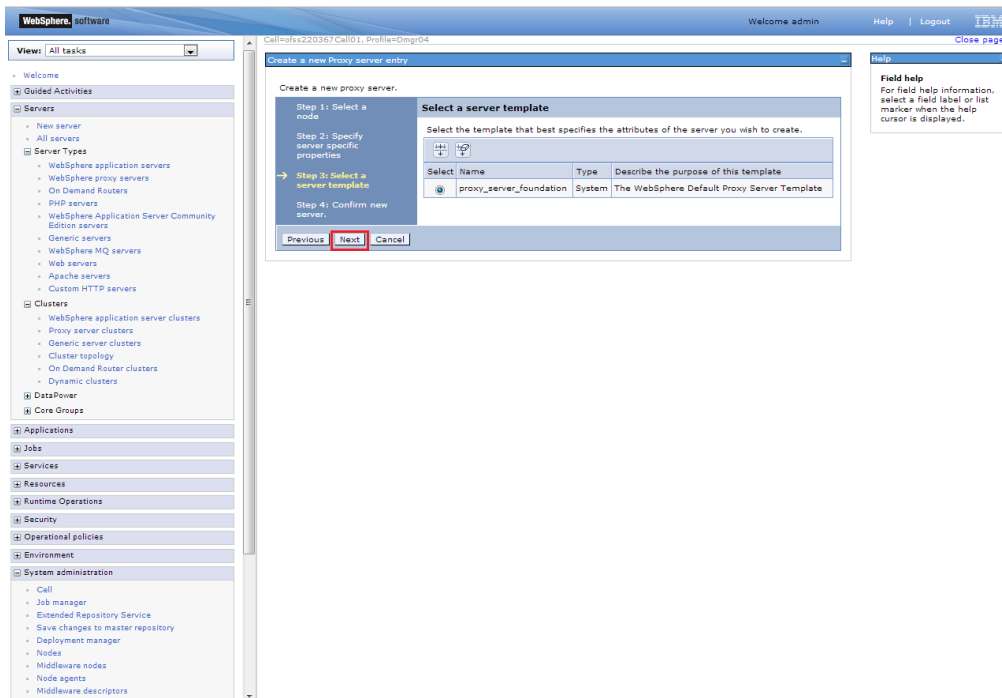
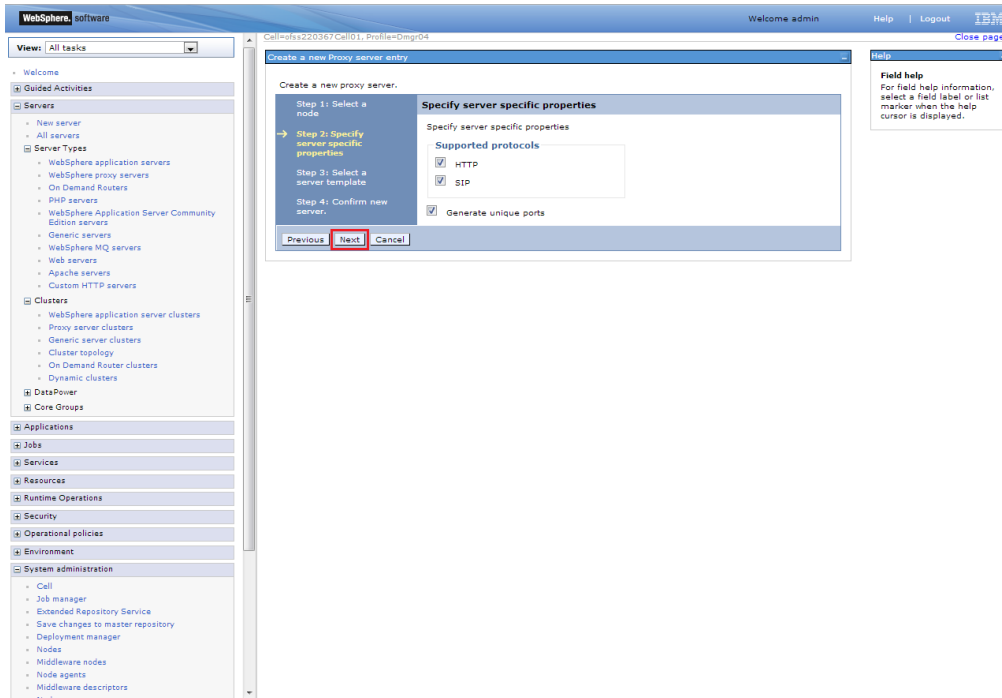
## 4.4 Create Proxy Server

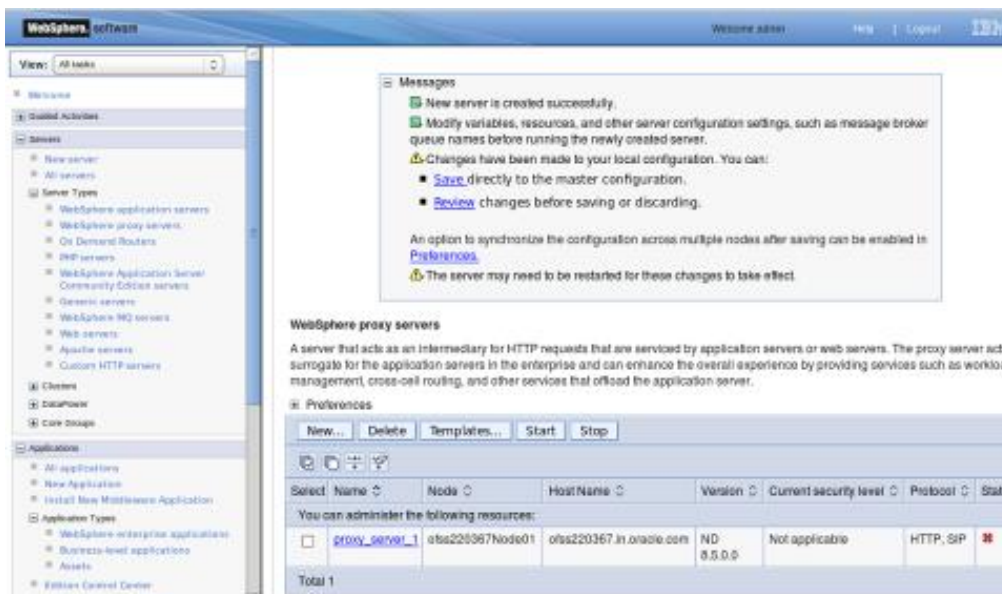
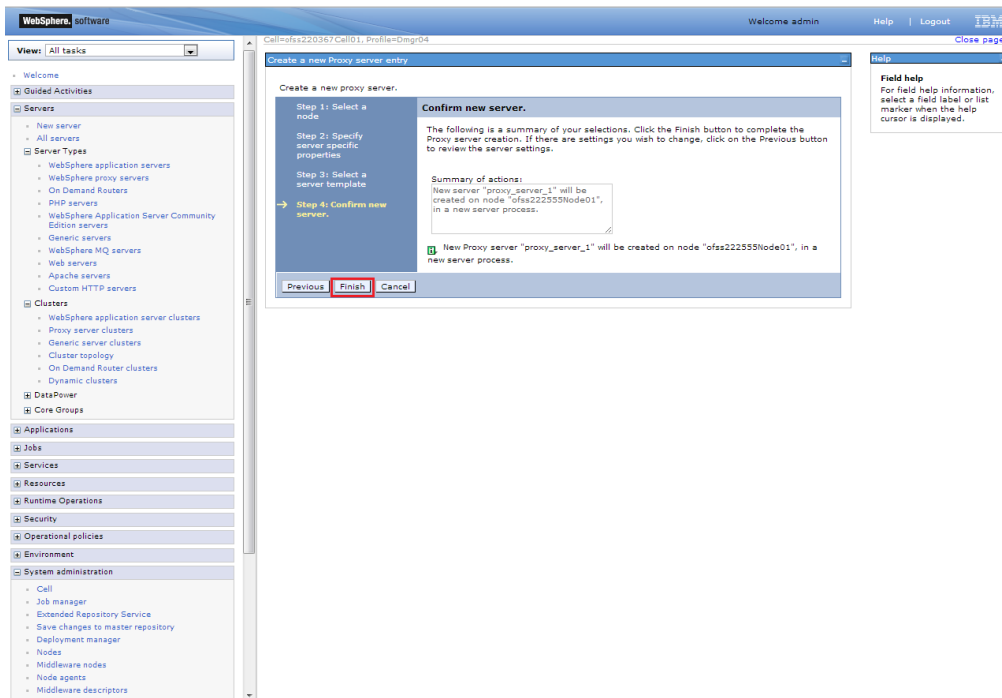
**Navigation :** Servers > Server Types > WebSphere proxy servers > New



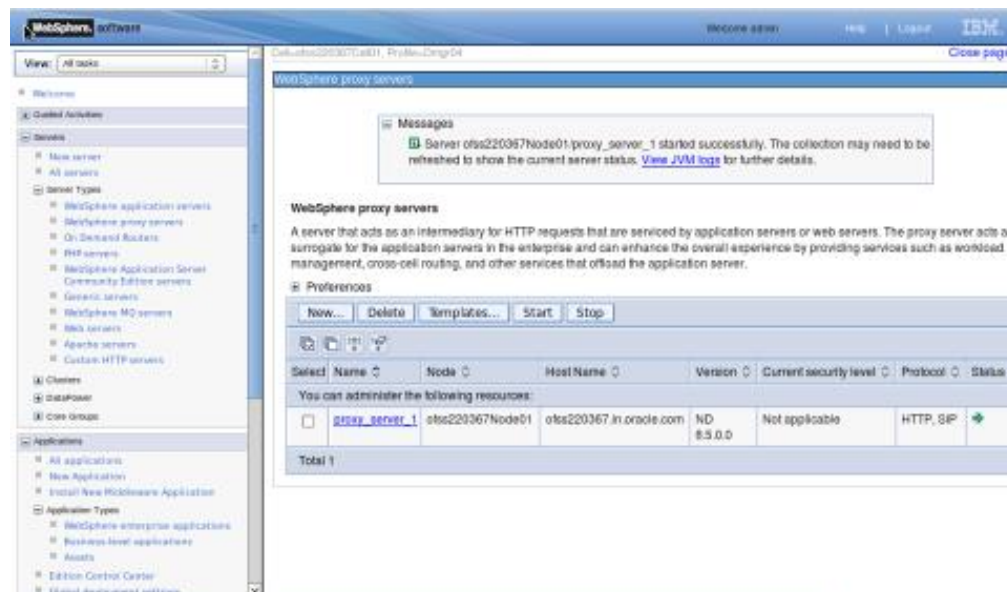
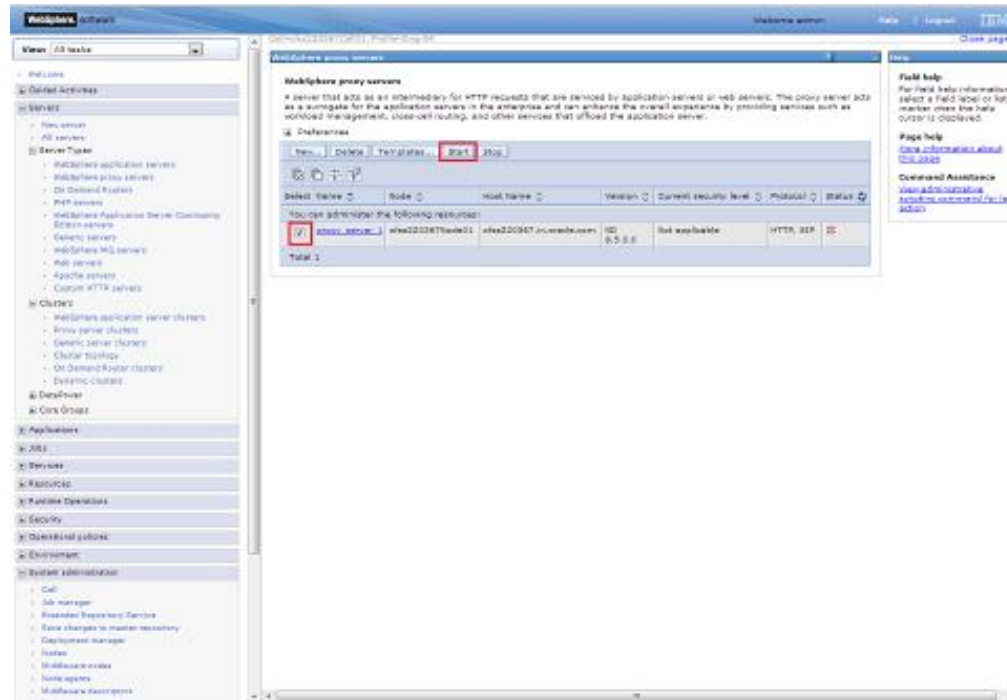
**Navigation :** [Select appropriate Node] > Next





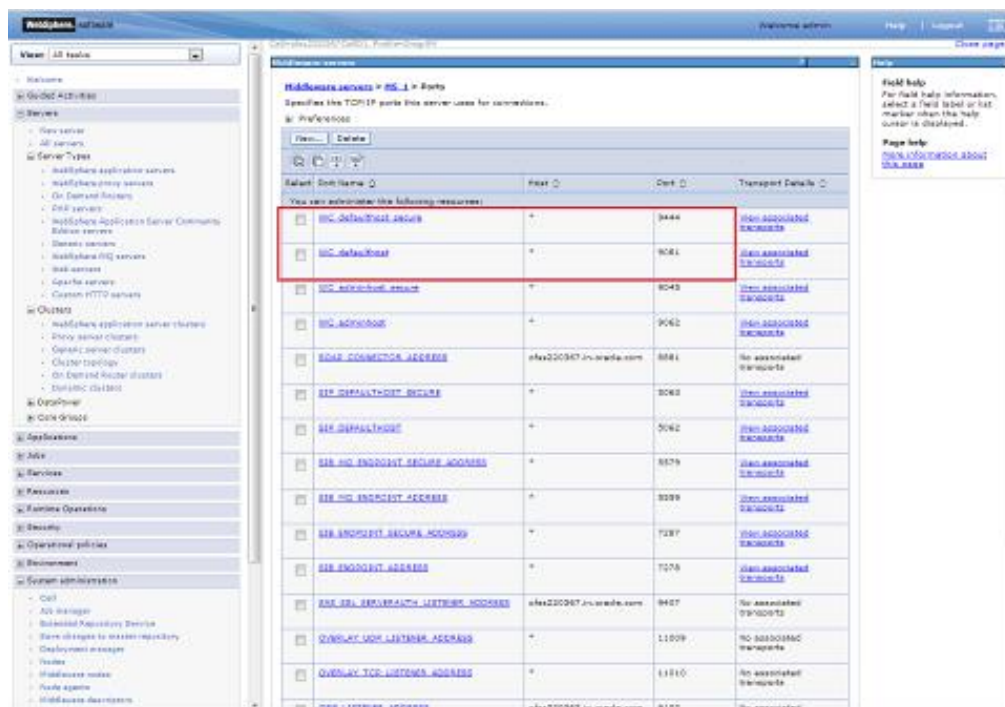


## 4.4.1 Start Proxy Server



## 4.5 Configure Virtual Host

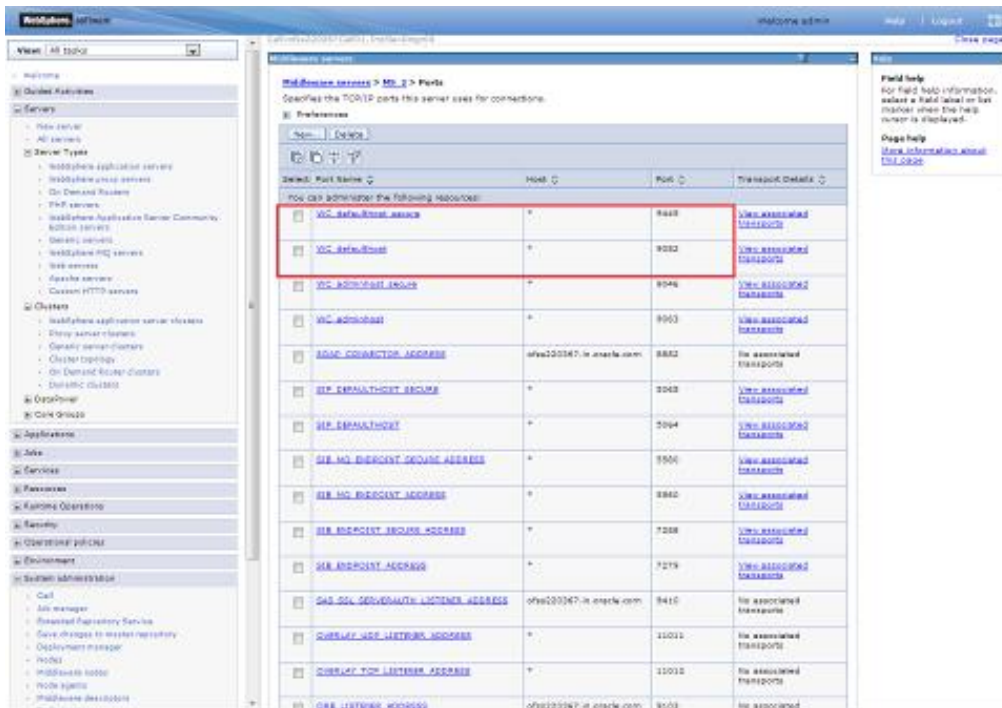
Make a note of “WC\_defaulthost”/“WS\_defaulthost\_secure” port for server MS1 : 9081/9444



The screenshot displays the Oracle WebLogic Server Administration Console. The left sidebar shows the navigation tree with 'Servers' selected. The main panel shows the 'Virtual Hosts' configuration for 'MS1'. A table lists the virtual hosts and their associated ports. The 'WC\_defaulthost\_secure' and 'WC\_defaulthost' entries are highlighted with a red box.

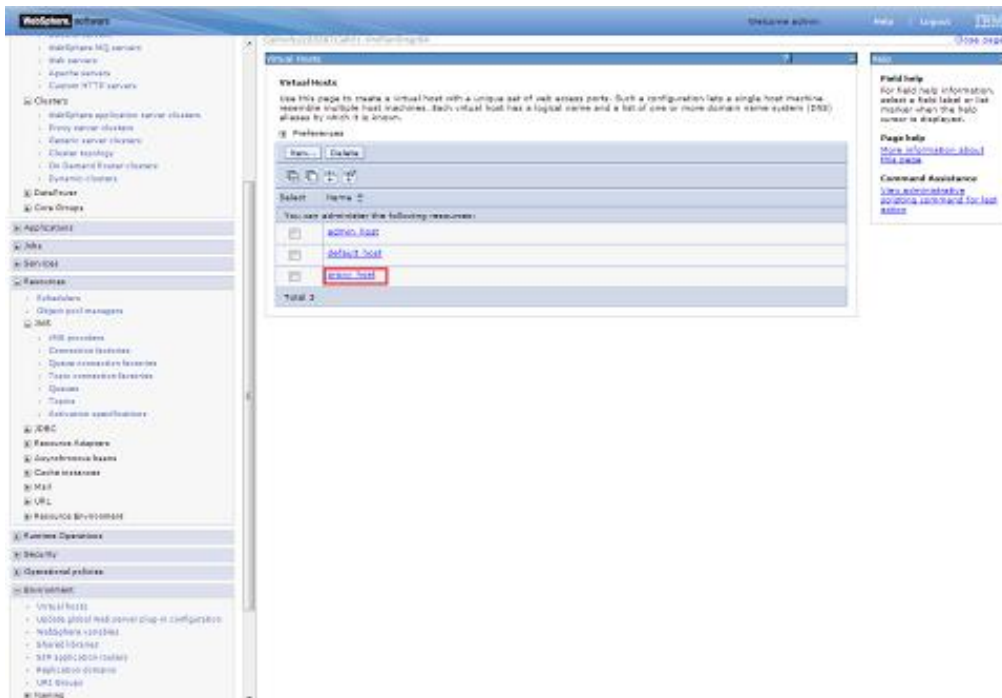
| Virtual Host Name             | Port | Transport Details                 |
|-------------------------------|------|-----------------------------------|
| WC_defaulthost_secure         | 9444 | Not associated with any protocols |
| WC_defaulthost                | 9081 | Not associated with any protocols |
| WC_defaulthost_secure         | 9043 | Not associated with any protocols |
| WC_defaulthost                | 9042 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE         | 9081 | Not associated with any protocols |
| WC_DEFAULTHOST                | 9082 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9079 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9080 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9081 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9082 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9083 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9084 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9085 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9086 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9087 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9088 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9089 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9090 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9091 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9092 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9093 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9094 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9095 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9096 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9097 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9098 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9099 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9100 | Not associated with any protocols |
| WC_DEFAULTHOST_SECURE_ADDRESS | 9101 | Not associated with any protocols |
| WC_DEFAULTHOST_ADDRESS        | 9102 | Not associated with any protocols |

Make a note of “WC\_defaulthost”/“WS\_defaulthost\_secure” for MS2 : 9082/9445

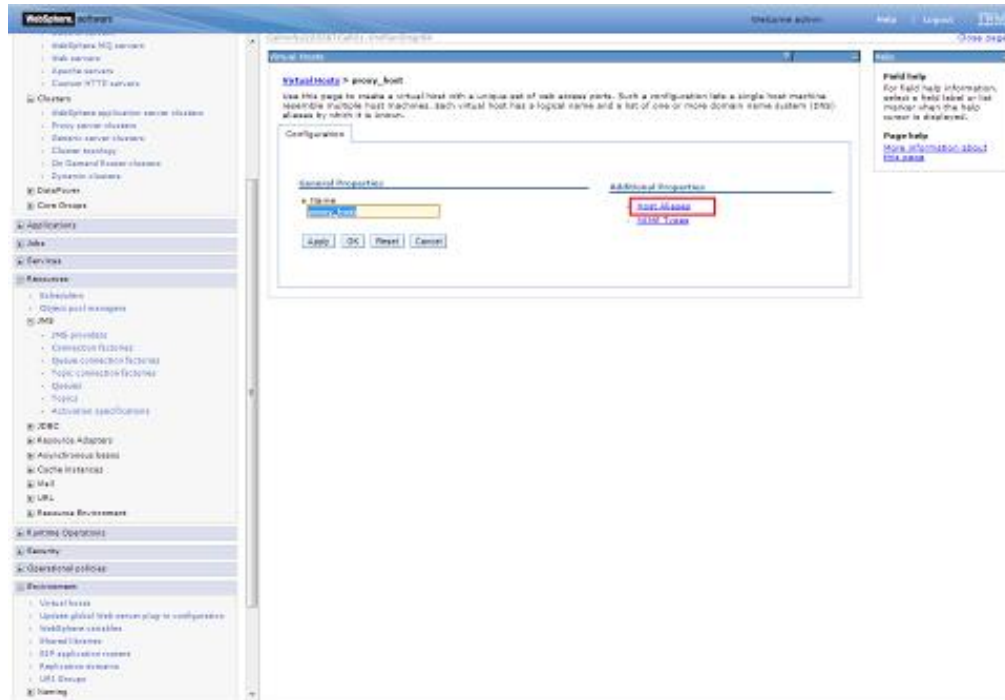


## 4.5.1 Virtual Host Setup

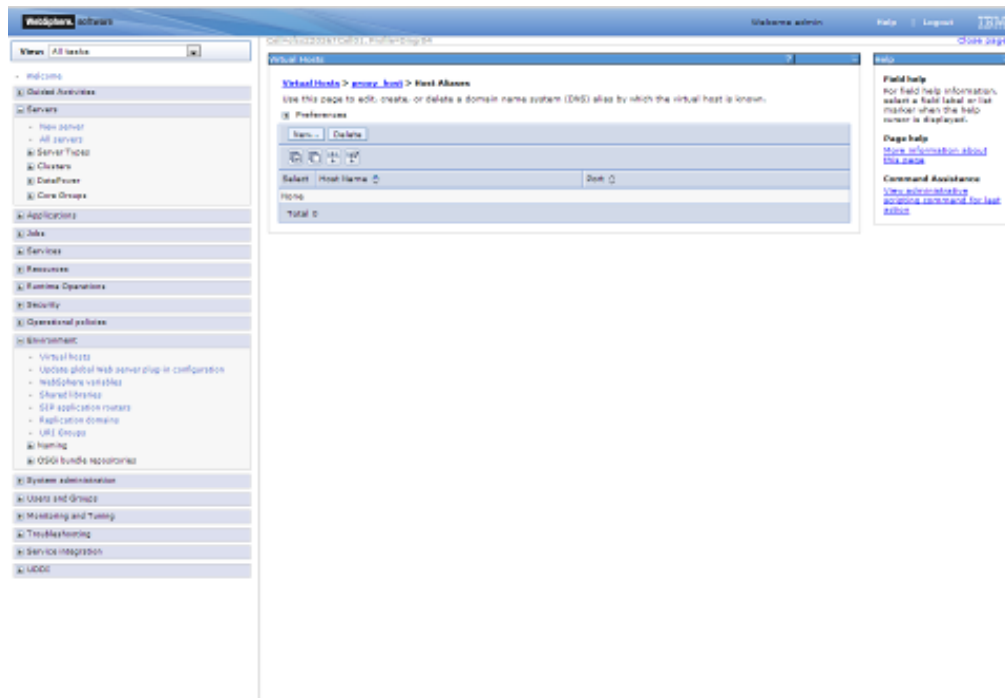
Navigation : *Environment>Virtual hosts>proxy\_host*



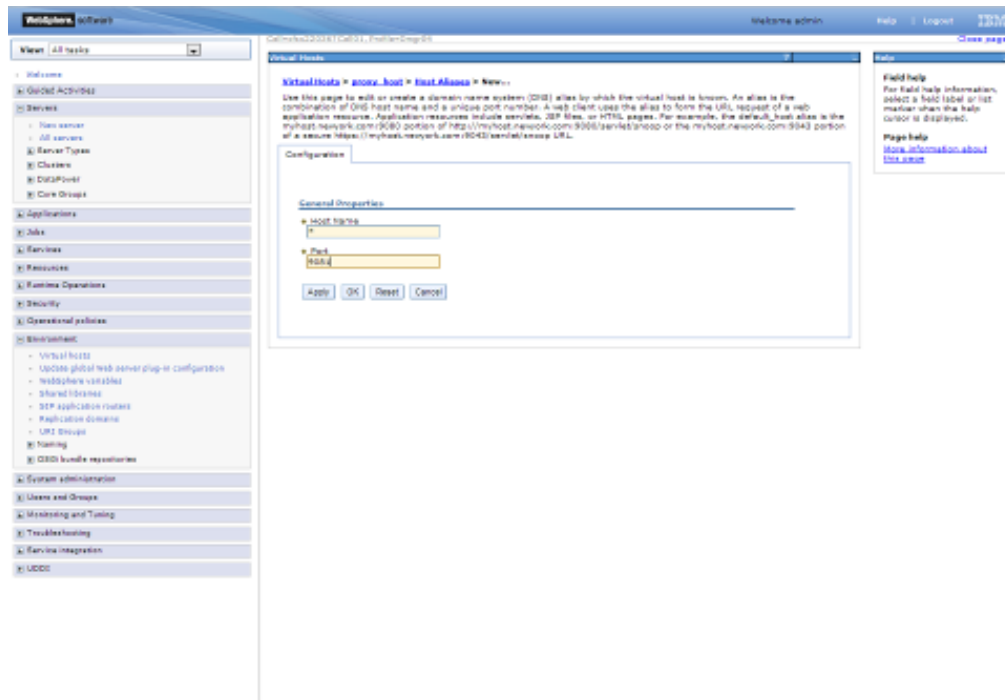
## Navigation : Host Aliases



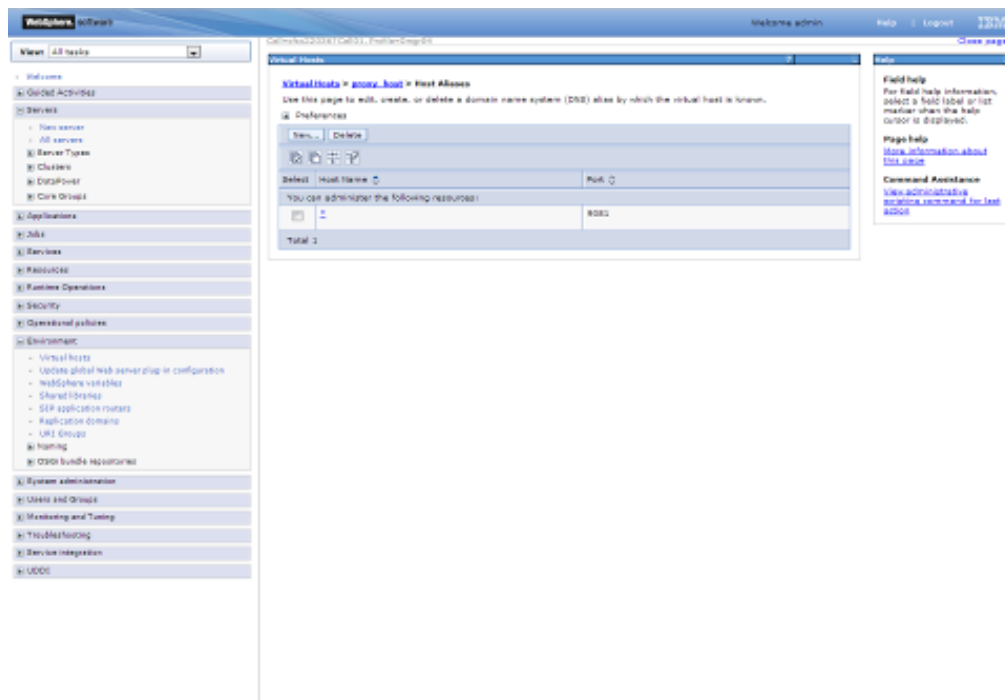
## Navigation : Environment>Virtual hosts>proxy\_host>Host Aliases > New



Create New Alias for default port in managed server <<9081>>:



The screenshot shows the Oracle WebLogic Administration Console interface. On the left is a navigation tree with categories like Welcome, Global Activities, Servers, Applications, and System administration. The main content area is titled 'Virtual Hosts' and shows a configuration form for a new alias. The 'Host Name' field contains 'myhost' and the 'Port' field contains '9081'. Below these fields are buttons for 'Apply', 'OK', 'Reset', and 'Cancel'. A 'Field help' section on the right provides additional information about the fields.



This screenshot shows the 'Virtual Hosts' configuration page after the alias has been created. The 'Host Name' field is set to 'myhost' and the 'Port' field is set to '9081'. Below the fields, there is a table showing the list of virtual hosts. The table has columns for 'Host Name' and 'Port'. The first row shows 'myhost' and '9081'. The total count is 1.

| Host Name | Port |
|-----------|------|
| myhost    | 9081 |

Total: 1

Similarly create proxy alias for all cluster related server default ports

**Virtual Hosts > proxy\_host > Host Aliases**

Use this page to edit, create, or delete a domain name system (DNS) alias by which the virtual host is known.

Help

Dependencies

Items... Delete

| Select                   | Host Name | Port           |
|--------------------------|-----------|----------------|
| <input type="checkbox"/> |           | 8080           |
| <input type="checkbox"/> |           | 8888           |
| <input type="checkbox"/> |           | 9082           |
| <input type="checkbox"/> |           | 9448           |
|                          |           | <b>Total 4</b> |

You can administer the following resources:

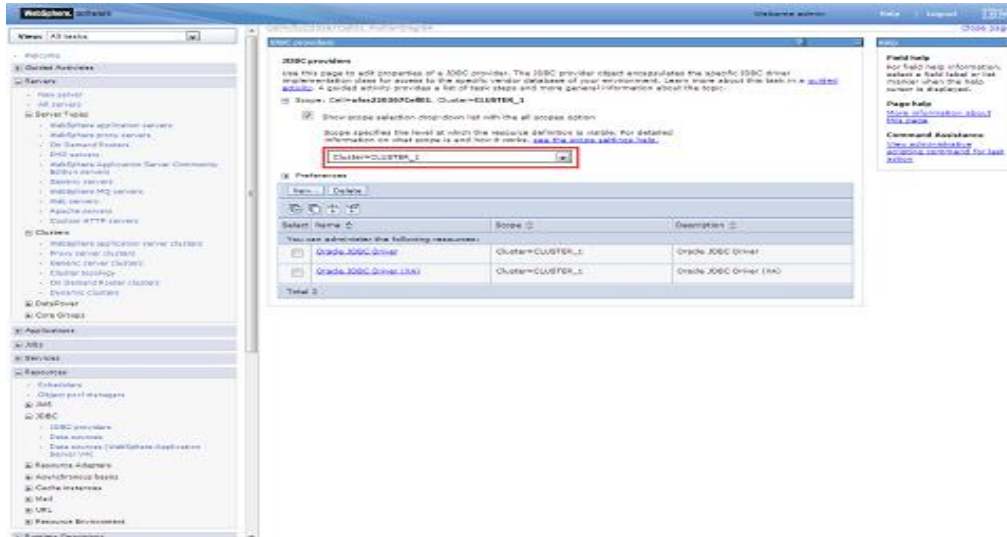
Field Help  
For field help information, select a field label or list marker when the help cursor is displayed.

Page Help  
[More information about this page](#)

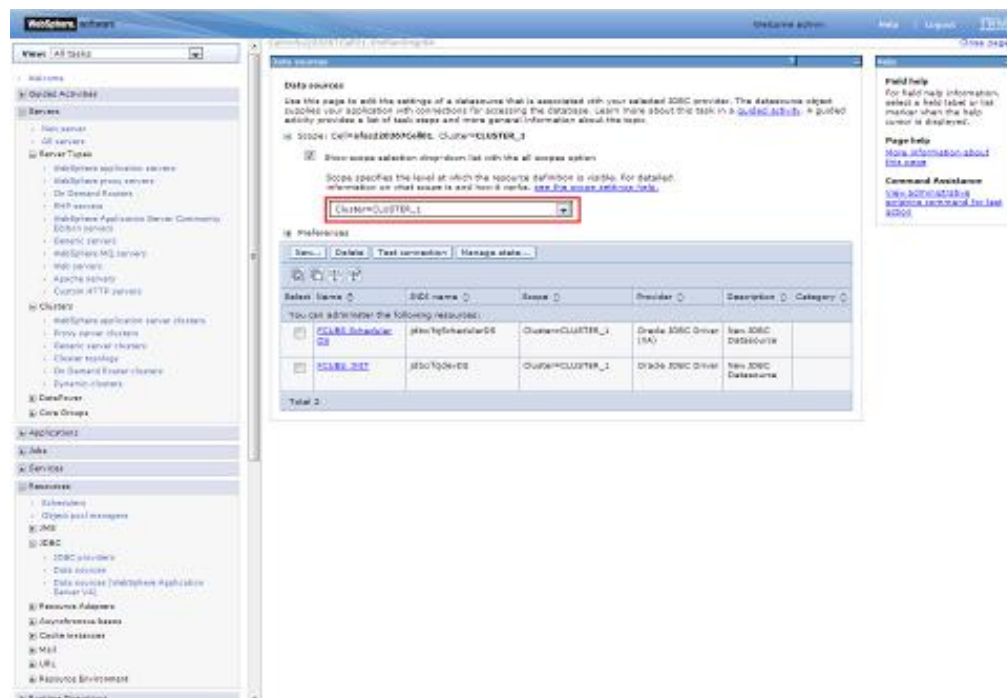
Command Reference  
[View command reference](#)  
[View command reference for test](#)  
[View command reference](#)

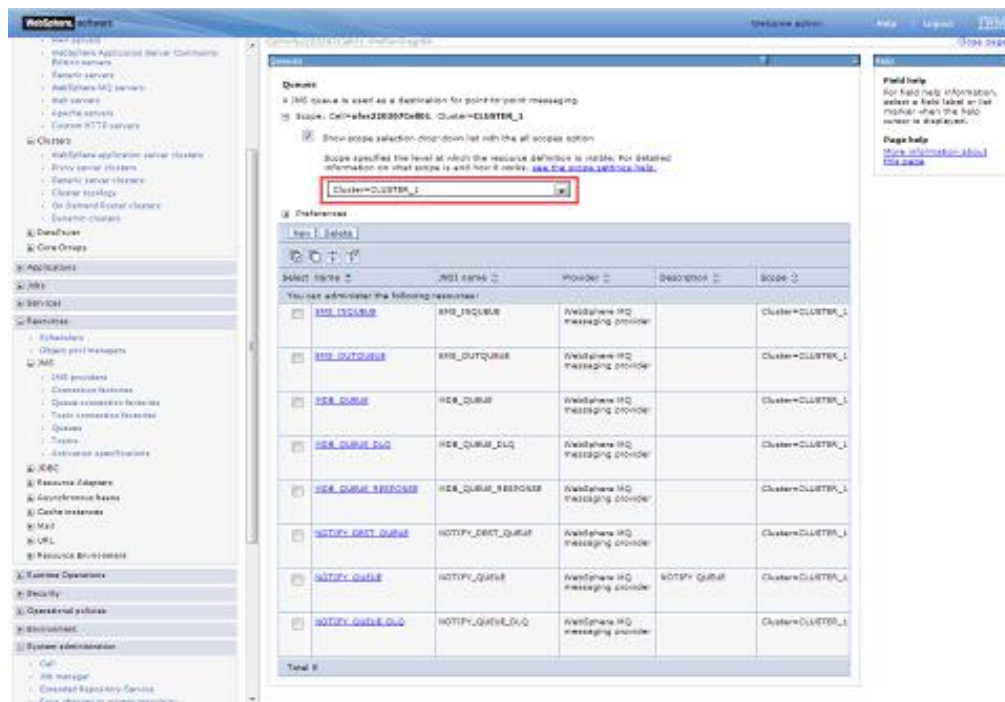
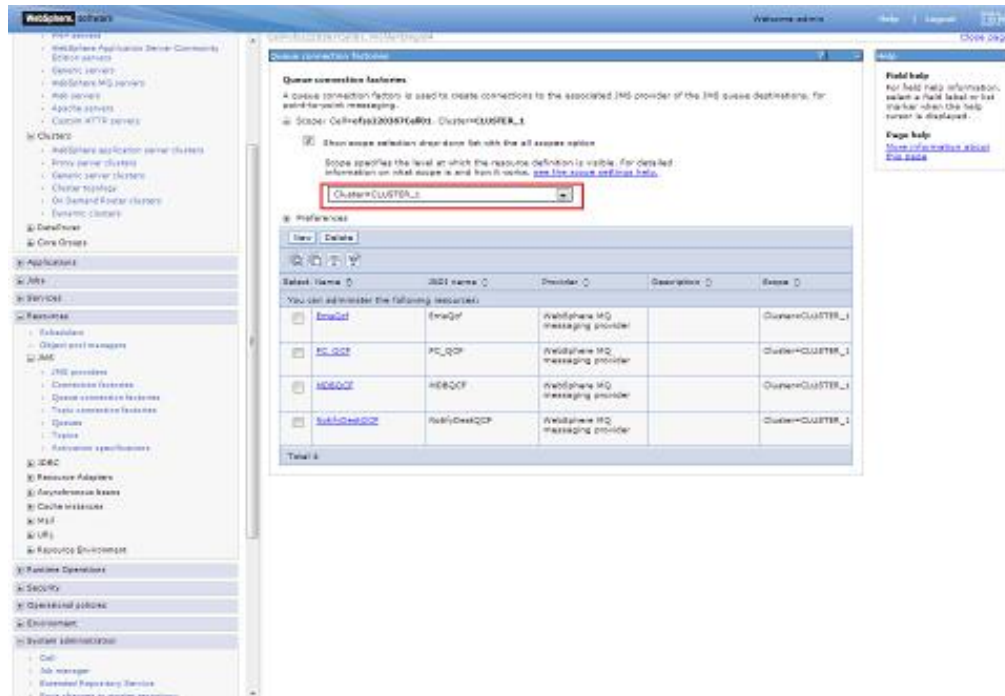
## 5. Create Resources in Cluster Scope

JDBC Provider :



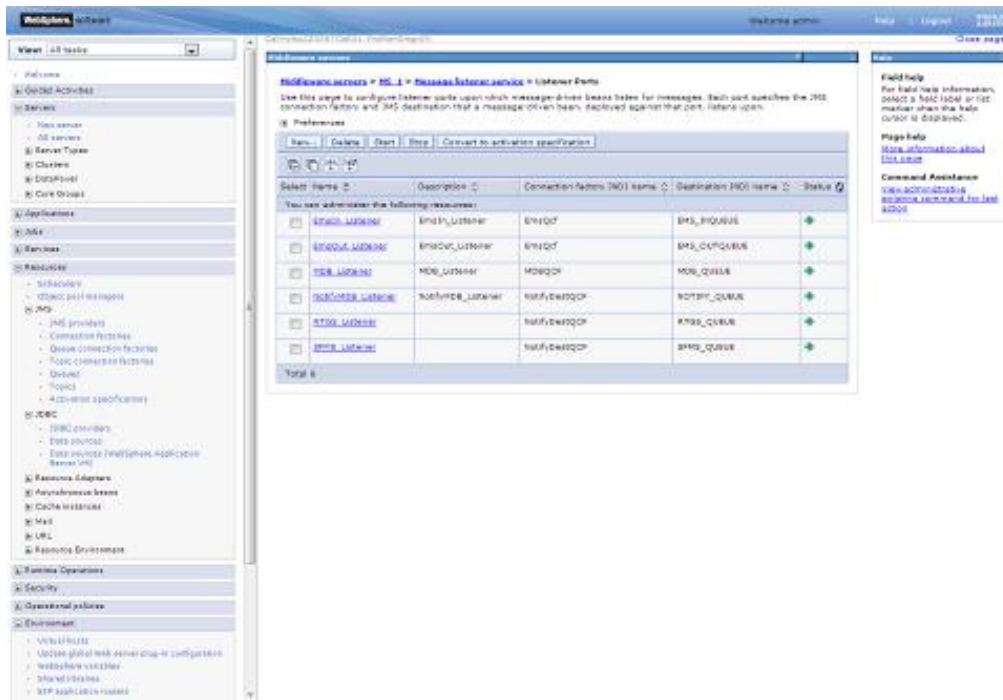
Datasource :





Create Message Listeners for individual Servers in Cluster

**Navigation :** *Middleware servers > MS\_1 > Message listener service > Listener Ports*

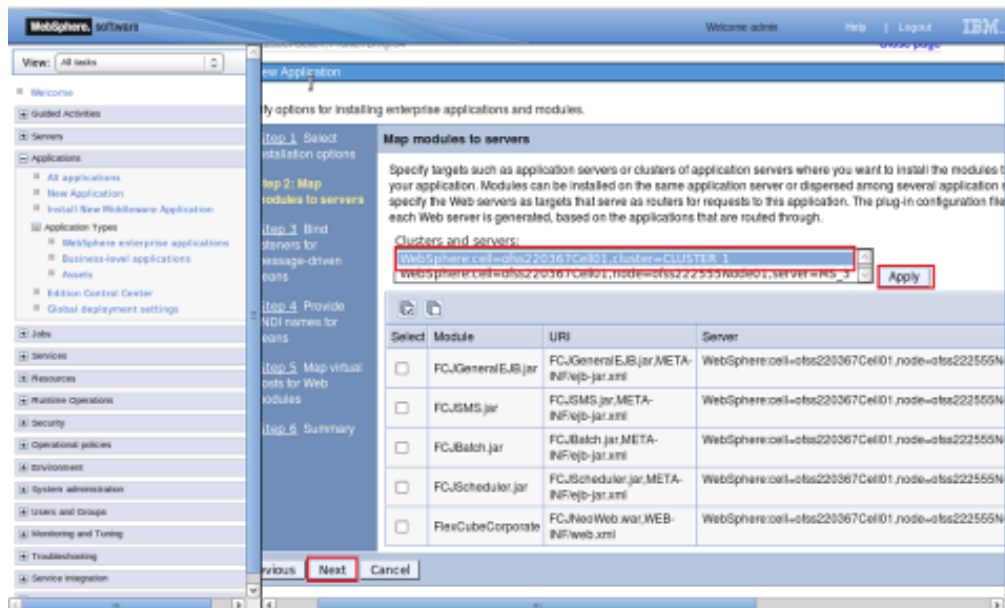


**Navigation :** *Middleware servers > MS\_2 > Message listener service > Listener Ports*

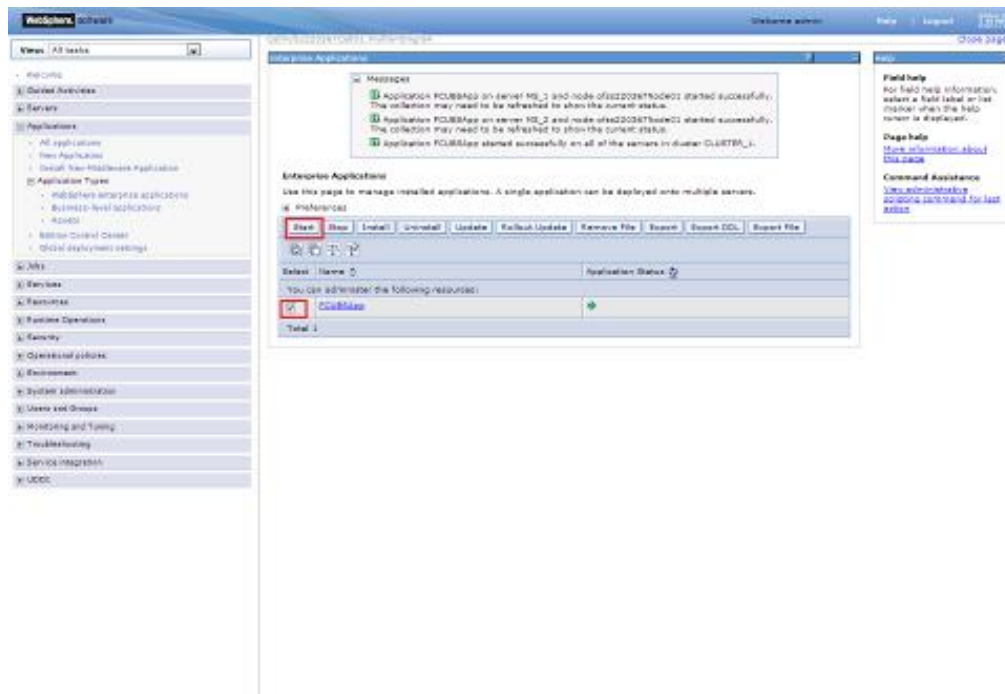


## 6. Deploy Application to Cluster

While deploying ensure the application is installed to Cluster



Start FCUBS application



### 6.1.1 Test the application

Make a note of the ports `PROXY_HTTPS_ADDRESS/PROXY_HTTP_ADDRESS` to access the application.

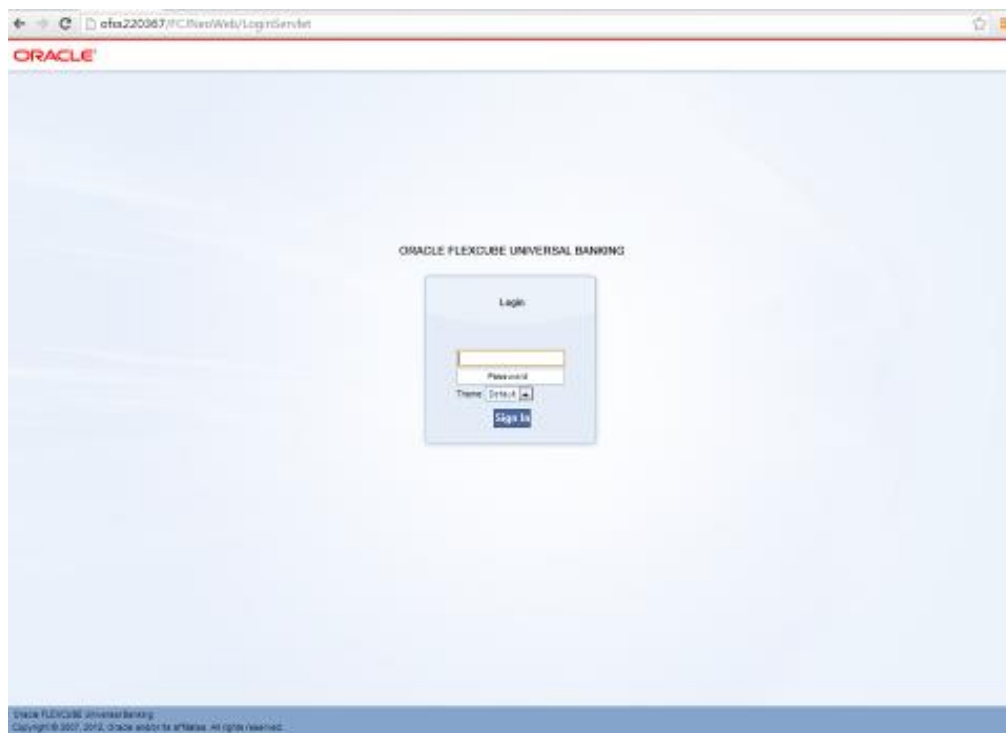
**Navigation :** Servers > Server Types > WebSphere proxy servers > [proxy\_server\_1] > Ports

The screenshot shows the WebSphere Administration Console interface. On the left is a navigation tree with categories like Servers, Clusters, Applications, and more. The main panel displays the 'Ports' configuration for a selected proxy server. A table lists the following ports:

| Select                   | Port Name                            | Host                     | Port  | Transport Details        |
|--------------------------|--------------------------------------|--------------------------|-------|--------------------------|
| <input type="checkbox"/> | ROOTKAP_ADDRESS                      | afhx223567.in.oracle.com | 8813  | No associated transports |
| <input type="checkbox"/> | CERT SSL MUTUALAUTH LISTENER ADDRESS | afhx223567.in.oracle.com | 0     | No associated transports |
| <input type="checkbox"/> | CERT SSL STRONGAUTH LISTENER ADDRESS | afhx223567.in.oracle.com | 0     | No associated transports |
| <input type="checkbox"/> | RPC LISTENER ADDRESS                 | *                        | 8837  | No associated transports |
| <input type="checkbox"/> | RPC CLIENT ADDRESS                   | *                        | 7874  | No associated transports |
| <input type="checkbox"/> | RPC CONNECTOR ADDRESS                | localhost                | 9836  | No associated transports |
| <input type="checkbox"/> | SOAP LISTENER ADDRESS                | afhx223567.in.oracle.com | 0     | No associated transports |
| <input type="checkbox"/> | SOAP V1.2 LISTENER ADDRESS           | *                        | 10014 | No associated transports |
| <input type="checkbox"/> | SOAP V1.2 LISTENER ADDRESS           | *                        | 10013 | No associated transports |
| <input type="checkbox"/> | PROXY_HTTPS_ADDRESS                  | *                        | 443   | No associated transports |
| <input type="checkbox"/> | PROXY_HTTP_ADDRESS                   | *                        | 80    | No associated transports |
| <input type="checkbox"/> | PROXY_SIP_ADDRESS                    | *                        | 5061  | No associated transports |
| <input type="checkbox"/> | PROXY_SIP_ADDRESS                    | *                        | 5060  | No associated transports |
| <input type="checkbox"/> | SOAP SSL STRONGAUTH LISTENER ADDRESS | afhx223567.in.oracle.com | 0     | No associated transports |
| <input type="checkbox"/> | RPC CONNECTOR ADDRESS                | afhx223567.in.oracle.com | 8833  | No associated transports |

Launch Application:

URL : `http://<host>:<PROXY_HTTP_ADDRESS>/FCJNeoWeb` or  
`https://<host>:<PROXY_HTTPS_ADDRESS>/FCJNeoWeb`



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Cluster Creation on Websphere  
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