

Cluster Creation on Websphere Application Server  
Oracle FLEXCUBE Universal Banking

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# 1. Purpose

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

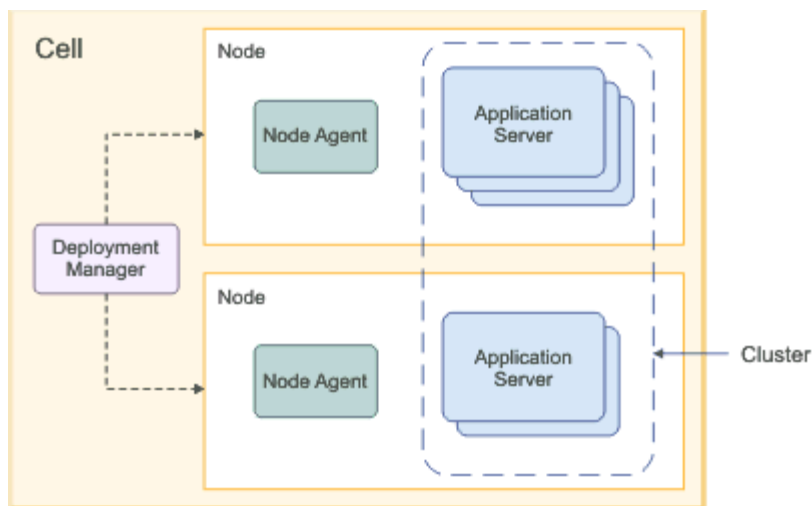
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## 2. Introduction to Websphere

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.

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## 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

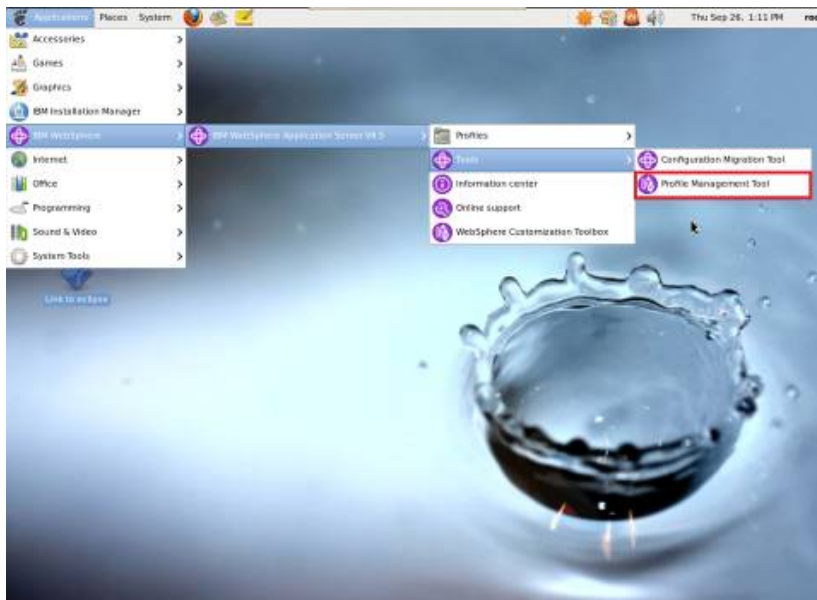
- For SSL configuration in Websphere, refer to the document SSL\_Configuration\_WAS.doc
- For application deployment, refer to document FCUBS\_Application\_WAS.doc
- For deployment of Gateway applications, refer to document GATEWAY\_Applications\_WAS.doc

## 4. Steps involved for Clustering

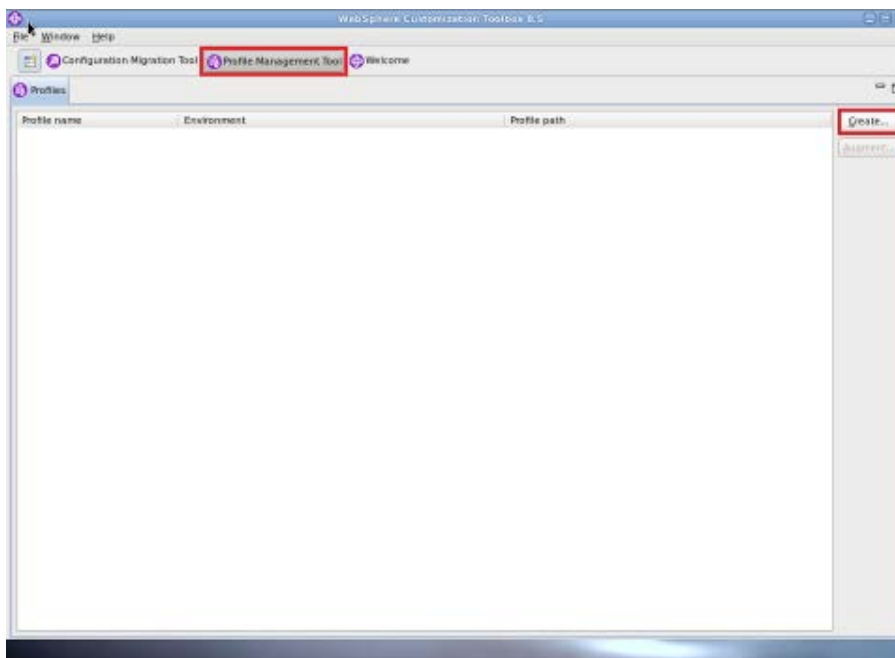
### 4.1 Create Profile

Go to Profile Management Tool

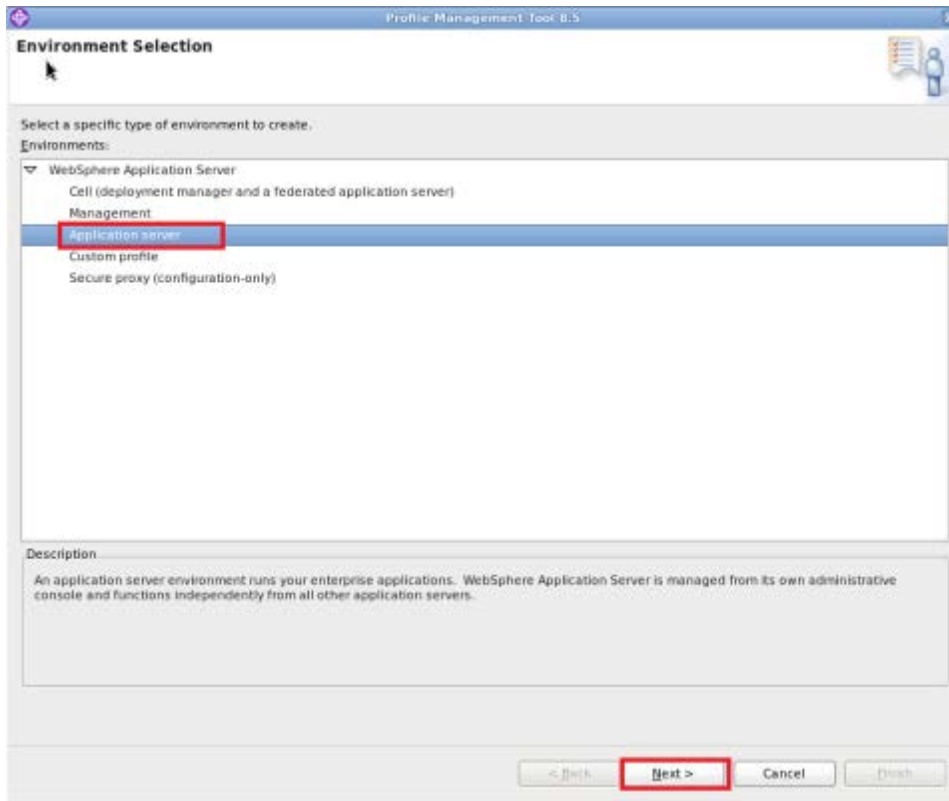
Navigation: IBM WebSphere > IBM WebSphere Application Server V8.5 > Tools > Profile Management Tool



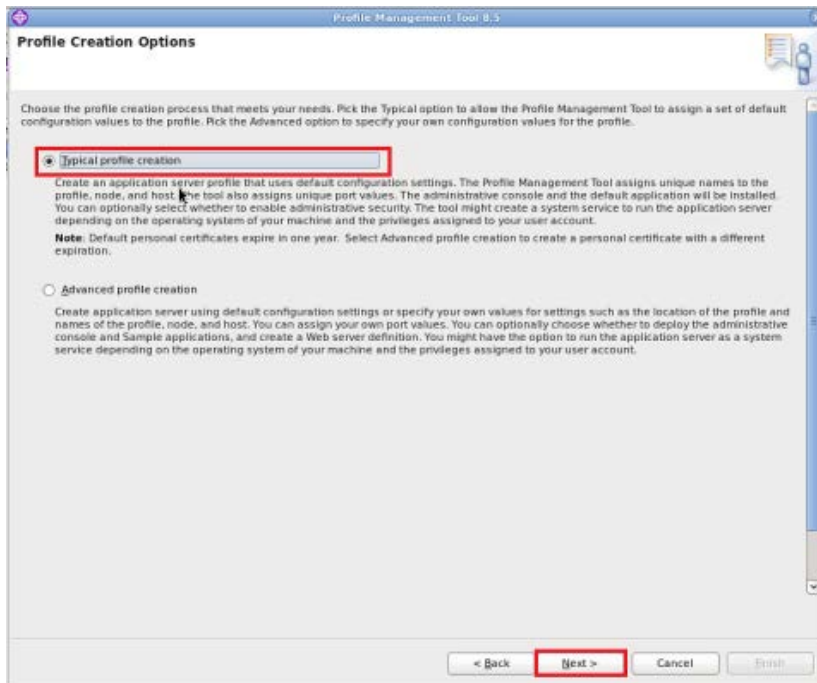
Navigation : Profile Management Tool > Create



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



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



**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 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

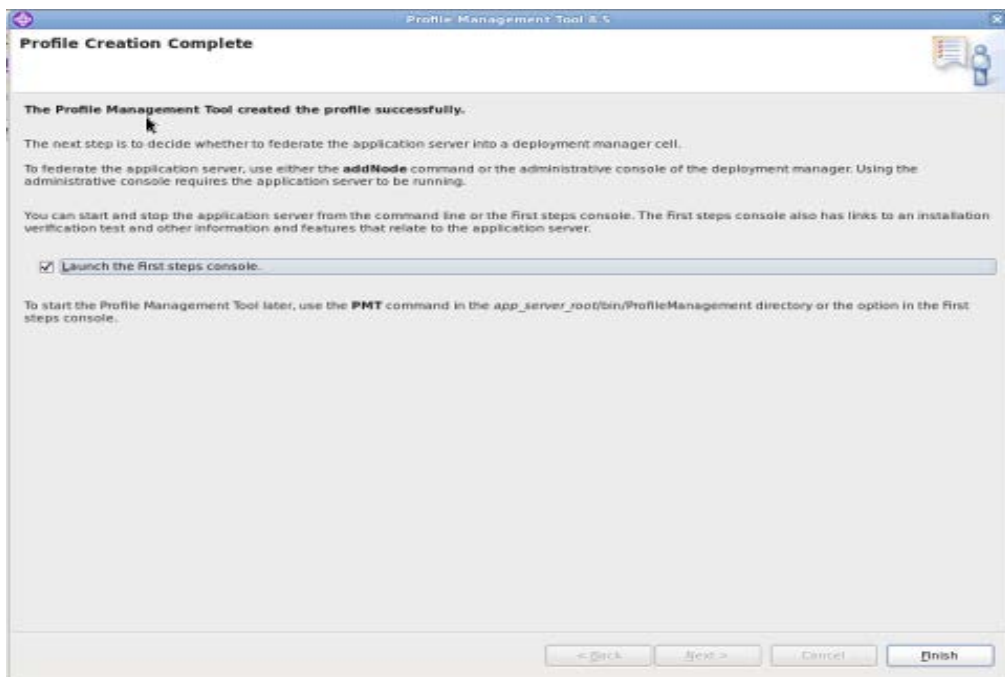
Enable administrative security (recommended): True

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

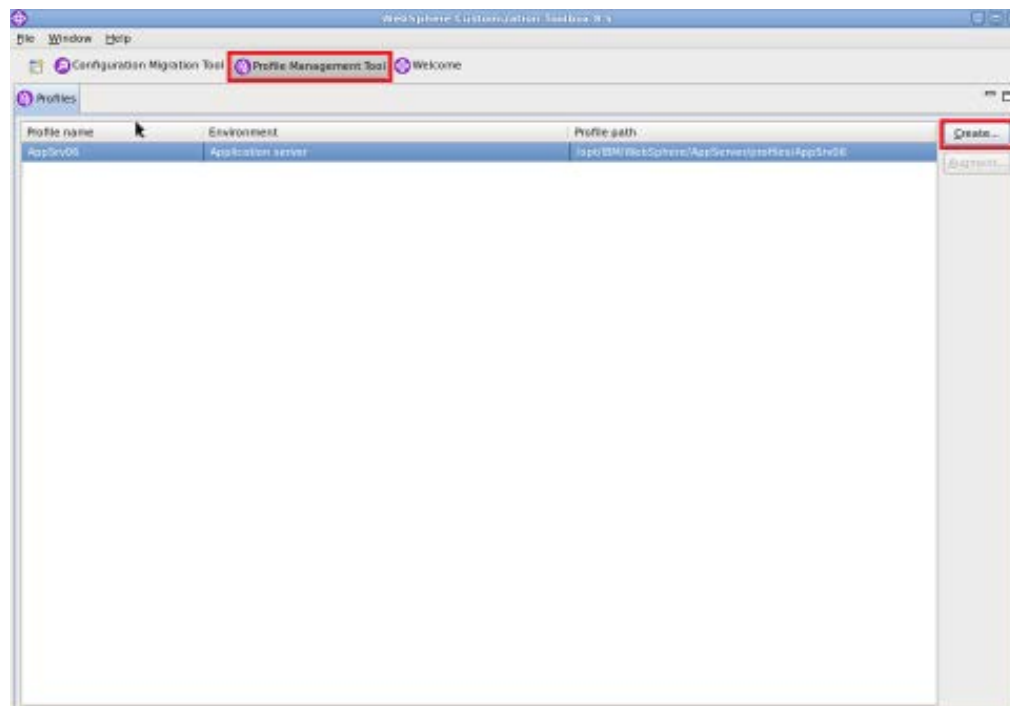
< Back Create Cancel Finish

**Navigation :** *Finish*

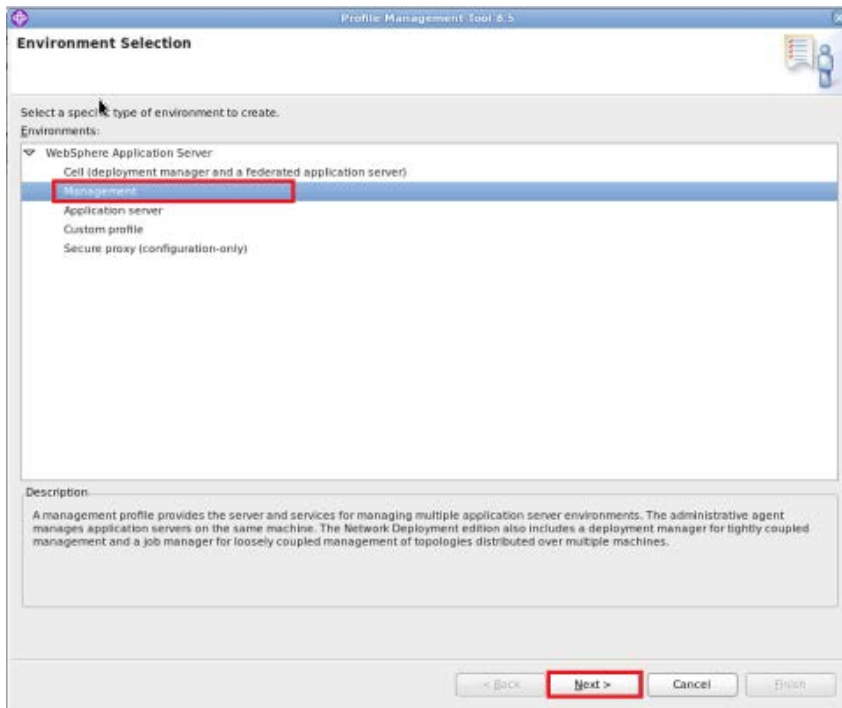


#### 4.1.1 Create Deployment Manager Profile

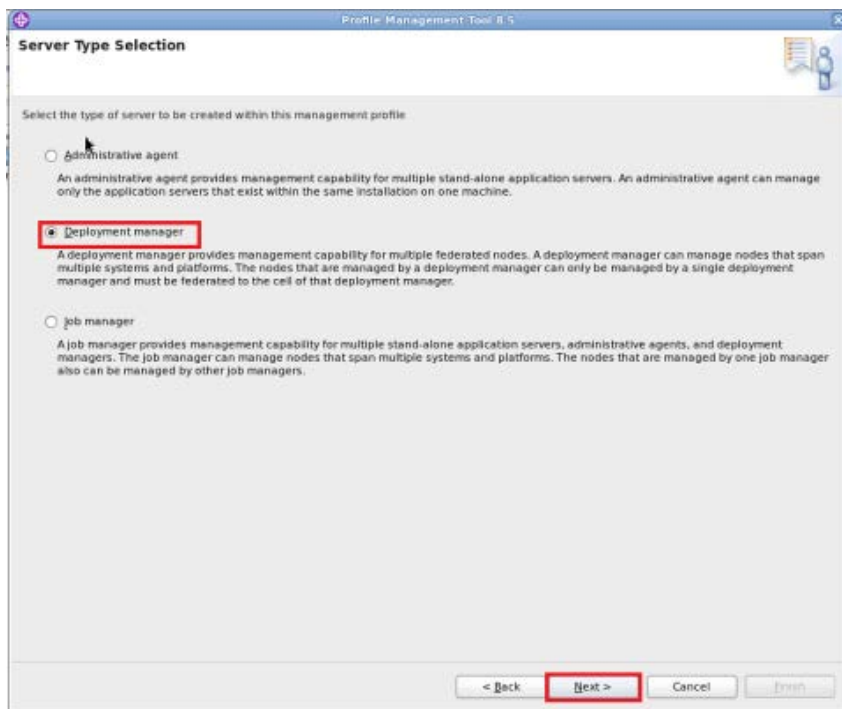
Navigation : *Profile Management Tool > Create*



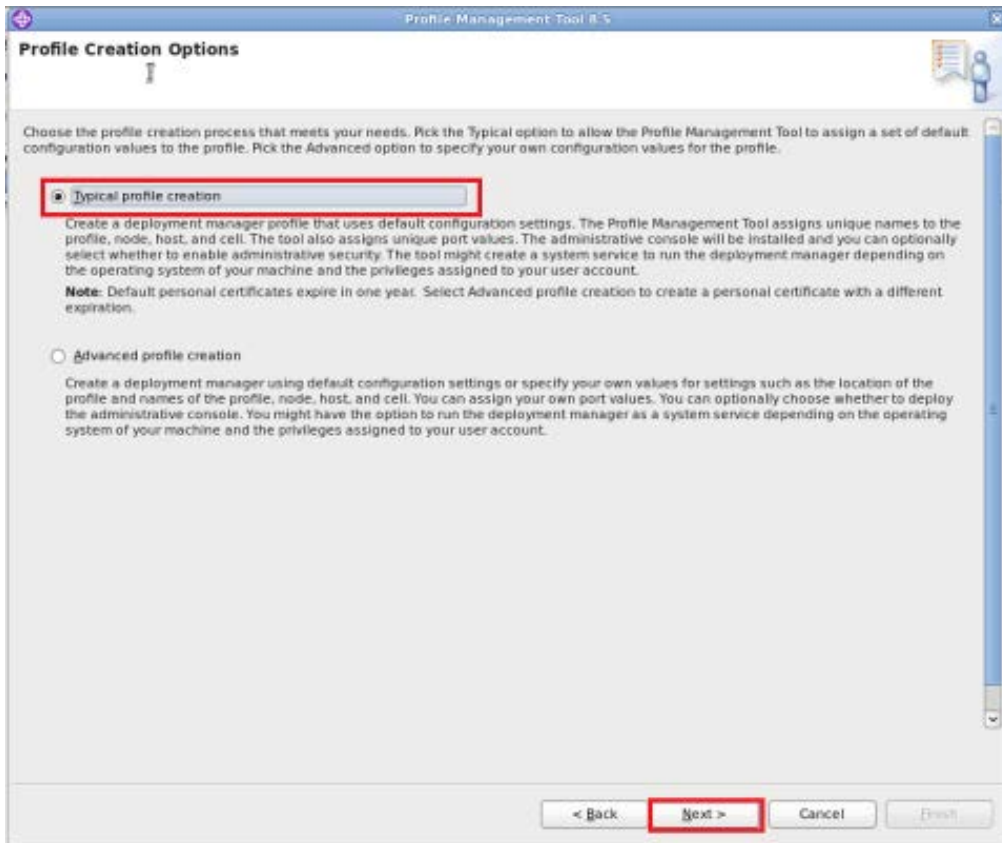
Navigation : *Management >Next*



**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

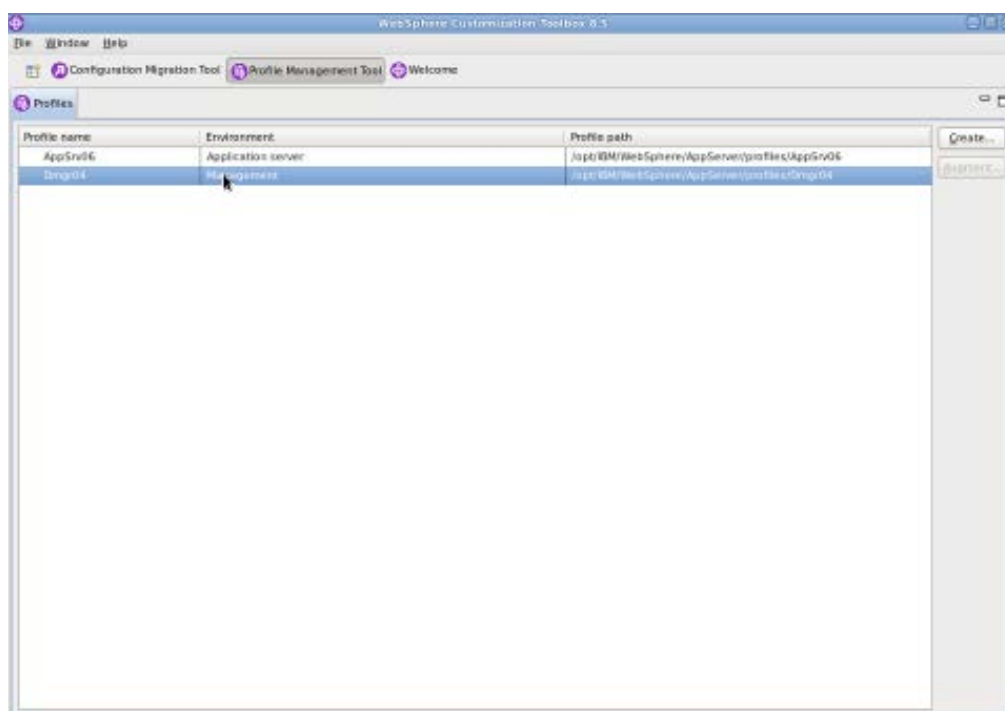
Deploy the administrative console (recommended): True

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

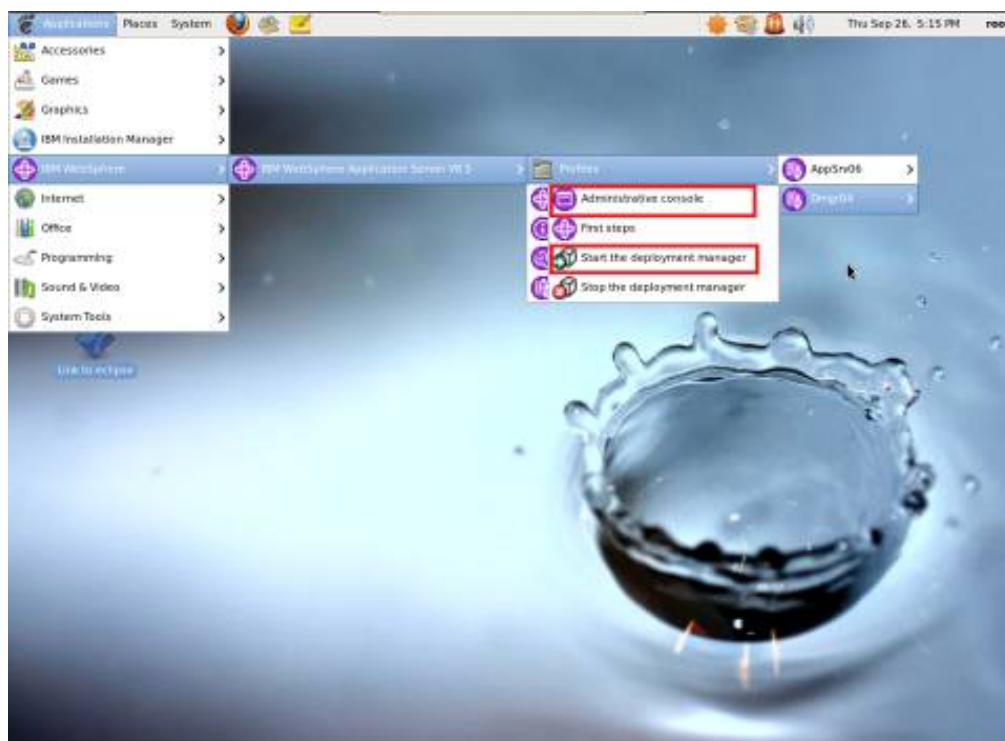
Run deployment manager as a service: False

< Back Create Cancel Finish



Start Deployment Manager & Open Administrative Console

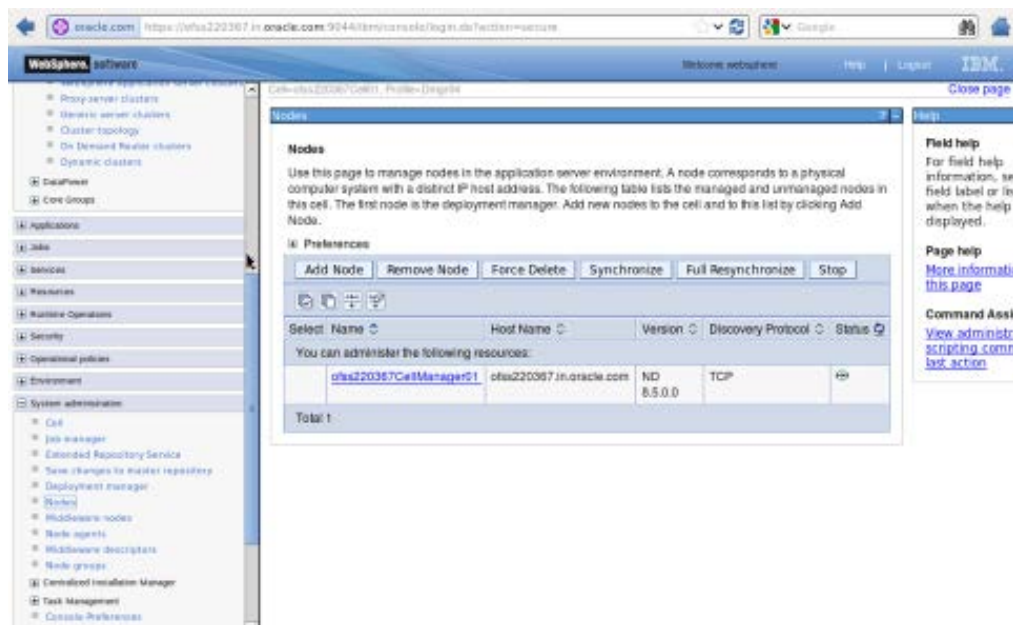
**Navigation** : IBM WebSphere > IBM WebSphere Application Server V8.5 > Profiles > Dmgr[i]>Start the deployment *manager* > *Administrative console*



## Log into Deployment Manger Console

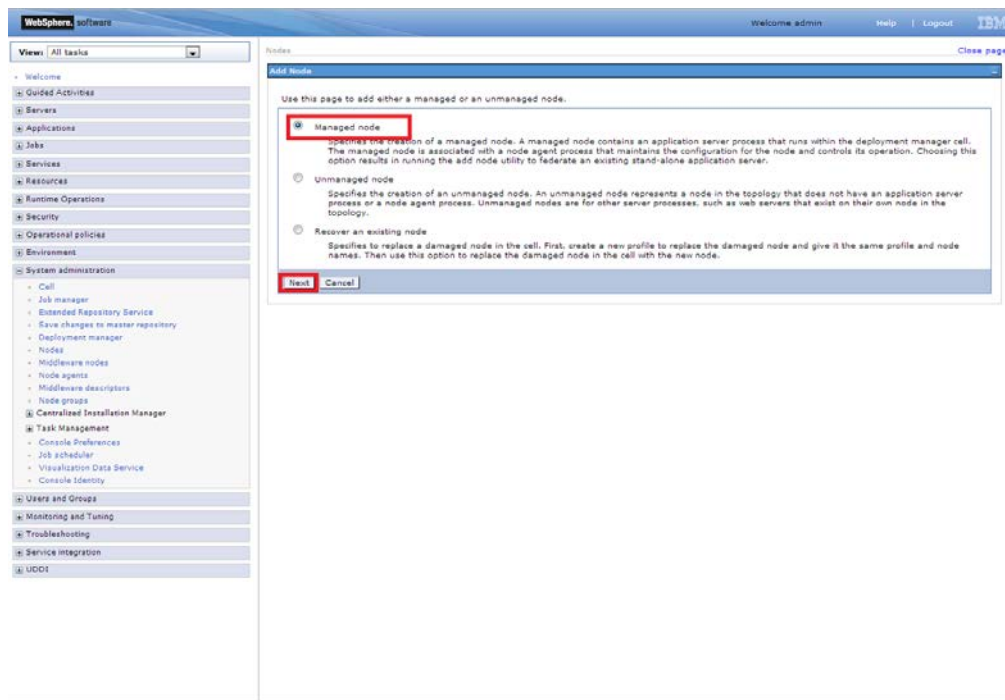


## Navigation : System administration > Nodes > Add Node



## 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

View: All tasks

- Guided Activities
- Servers
- Applications
- Jobs
- Services
- Resources
- Runtime Operations
- Security
- Operational policies
- Environments
- 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
- UCDI

Node

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  
ofas220367

JMX connector type  
SOAP

JMX connector port  
8880

Application server user name  
webSphere

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

WebSphere software

Welcome admin Help | Logout IBM

Generic server clusters

Cluster topology

On Demand Router clusters

Dynamic clusters

DataPower

Core Objects

Applications

Jobs

Services

Resources

Runtime Operations

Security

Operational policies

Environments

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

Adding node

ADMU0001: Begin federation of node ofas220367Node01 with Deployment Manager at ofas220367.in.oracle.com:8870.

ADMU0009: Successfully connected to Deployment Manager Server: ofas220367.in.oracle.com:8879

ADMU0054: Servers found in configuration:

ADMU0056: Server name: server1

ADMU0104: Stopping all server processes for node ofas220367Node01

ADMU0106: 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 ofas220367Node01 configuration to cell: ofas220367Cell01

ADMU0016: Synchronizing configuration between node and cell.

Transferring data from ofas220367.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 Pull Resynchronize Stop

Select	Name	Host Name	Version	Discovery Protocol	Status
<input checked="" type="checkbox"/>	otss220367CellManager01	otss220367.in.oracle.com	ND 8.5.0.0	TCP	+
<input type="checkbox"/>	otss220367Node01	otss220367.in.oracle.com	ND 8.5.0.0	TCP	+

Total: 2

Create necessary number of nodes following same instructions above:

**Messages**

Your workspace has been auto-refreshed from the master configuration. You can disable auto-refresh in your user preferences.

**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**

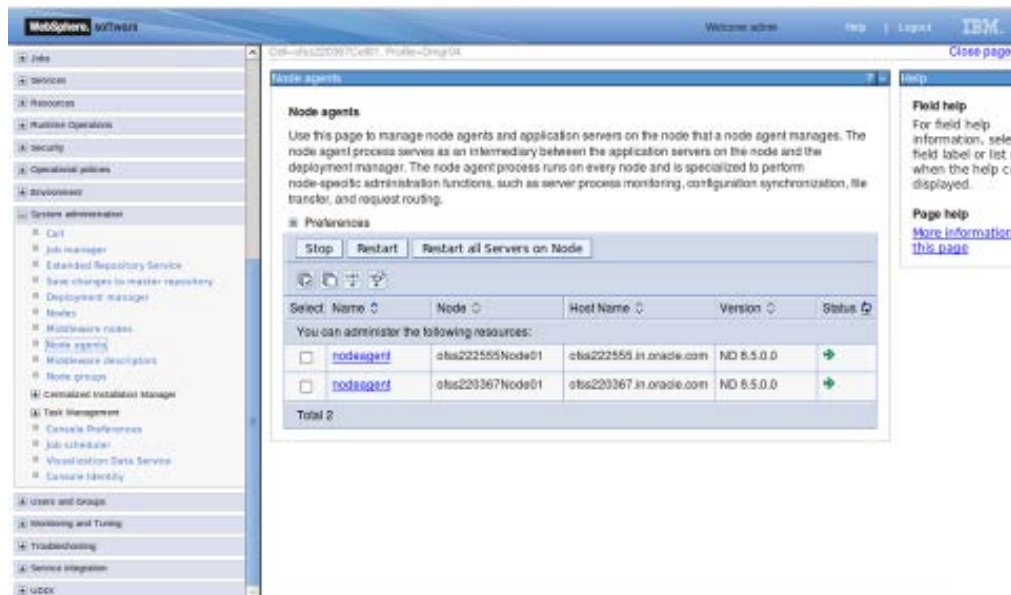
Add Node Remove Node Force Delete Synchronize Pull Resynchronize Stop

Select	Name	Host Name	Version	Discovery Protocol	Status
<input checked="" type="checkbox"/>	otss220367CellManager01	otss220367.in.oracle.com	ND 8.5.0.0	TCP	+
<input type="checkbox"/>	otss220367Node01	otss220367.in.oracle.com	ND 8.5.0.0	TCP	+
<input type="checkbox"/>	otss220367Node02	otss220367.in.oracle.com	ND 8.5.0.0	TCP	+

Total: 3

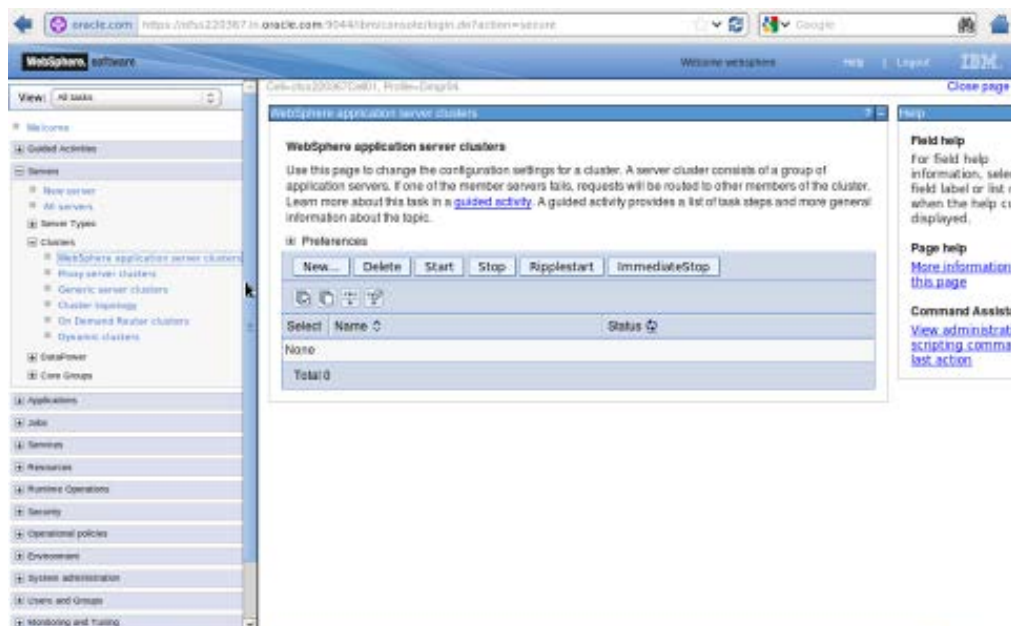
## 4.2.1 Start Node Agents

Navigation : *System administration> Node agents>Restart*

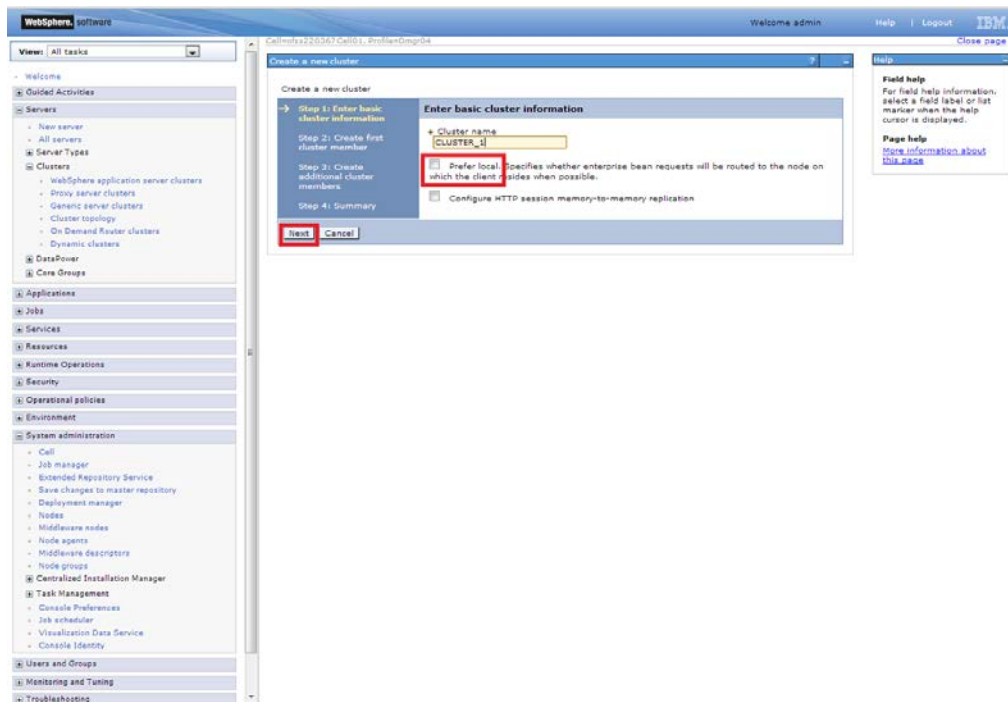


## 4.3 Create Cluster

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

Views: 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
- 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

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\_3
- ☐ 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

Views: 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
- Applications
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- Operational policies
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- System administration
  - Cell
  - 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
    - Console Preferences
    - Job scheduler
    - Visualization Data Service
    - Console Identity
- Users and Groups
- Monitoring and Tuning
- Troubleshooting

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	ofss22255Node01	ND 8.5.0.0	2

Total: 2

**Previous** **Next** **Cancel**

**Help**

**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**

**Help**

**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 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	

Total 1

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

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

**Command Assistant**  
[View administrative command list action](#)

**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.

**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 type="checkbox"/>	CLUSTER_1	

Total 1

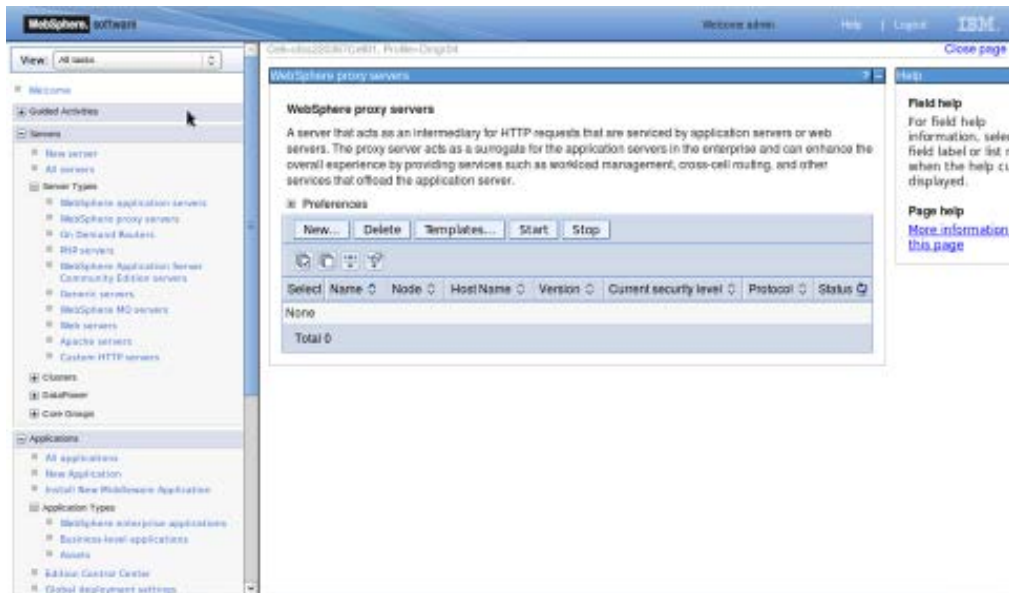
**Field help**  
For field help information, select field label or list item when the help icon is displayed.

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

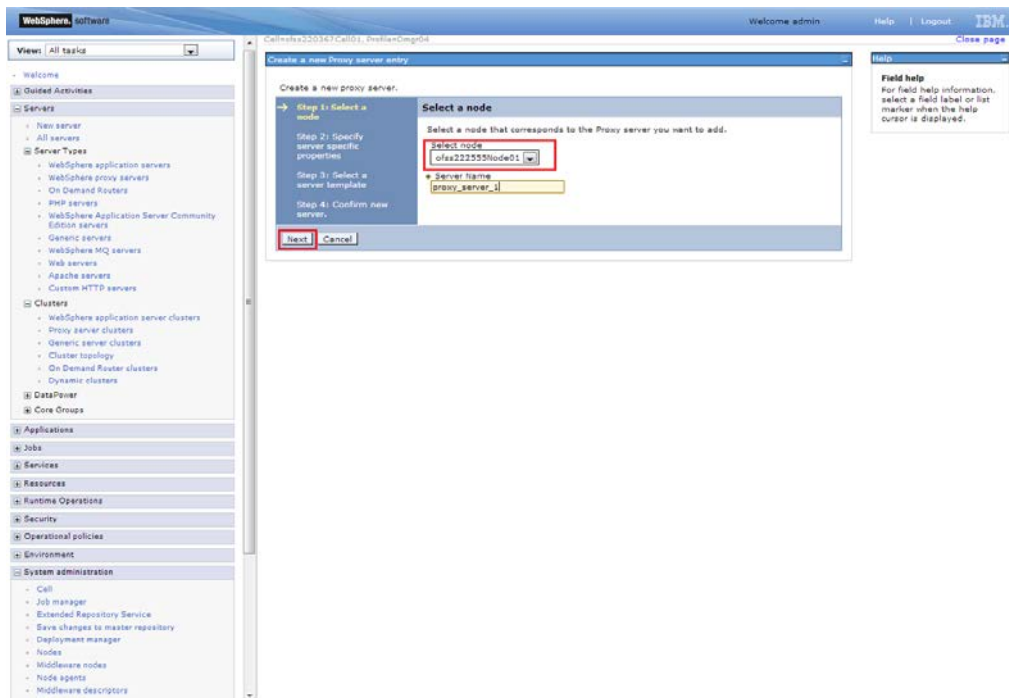
**Command Assistant**  
[View administrative command list action](#)

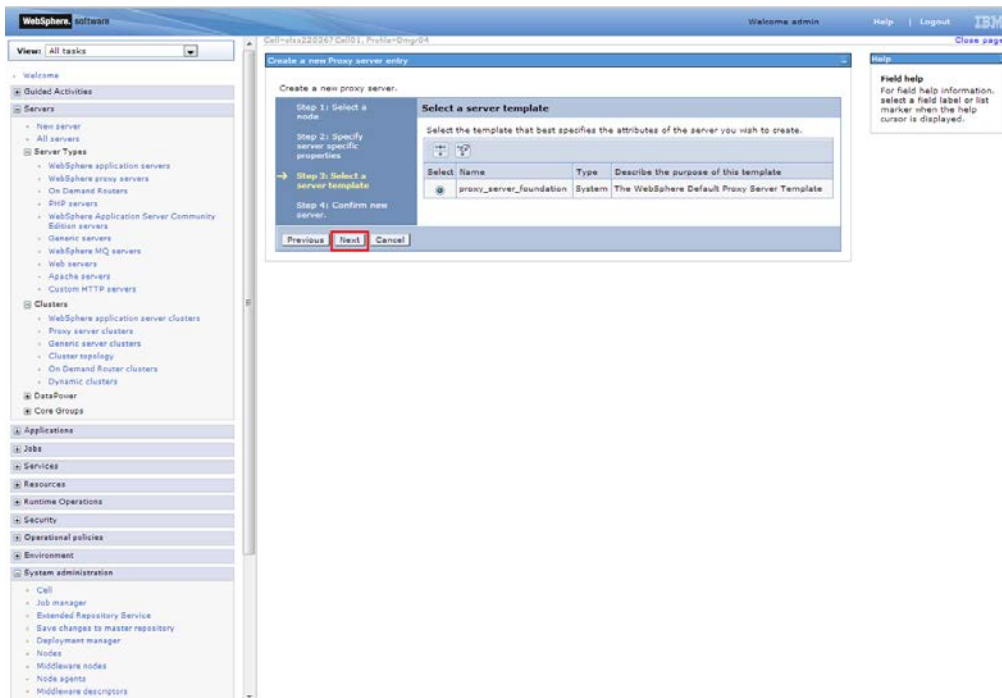
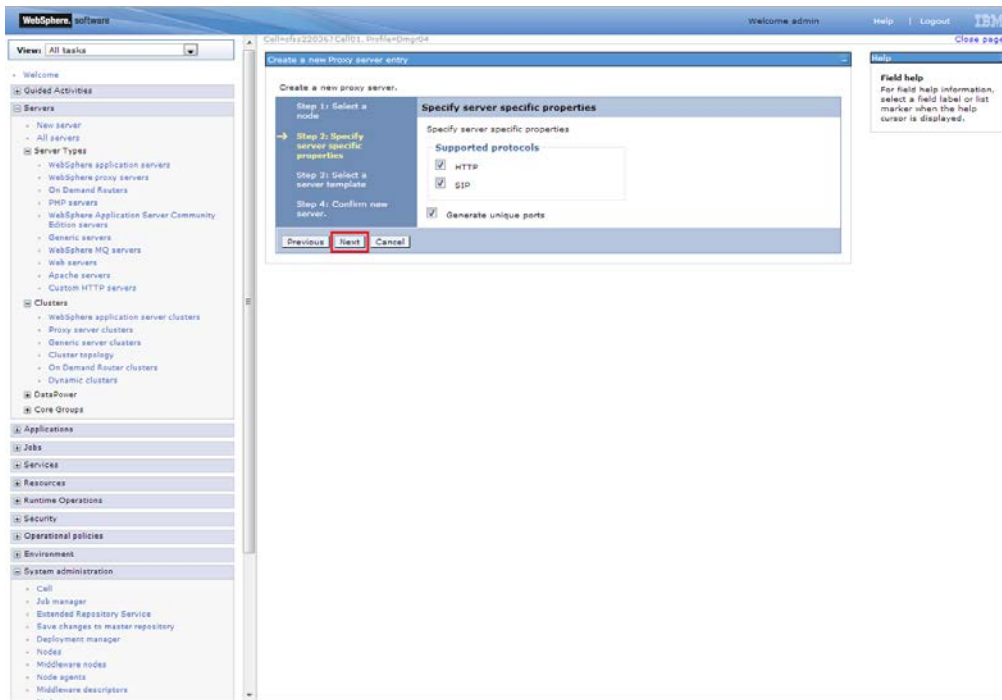
## 4.4 Create Proxy Server

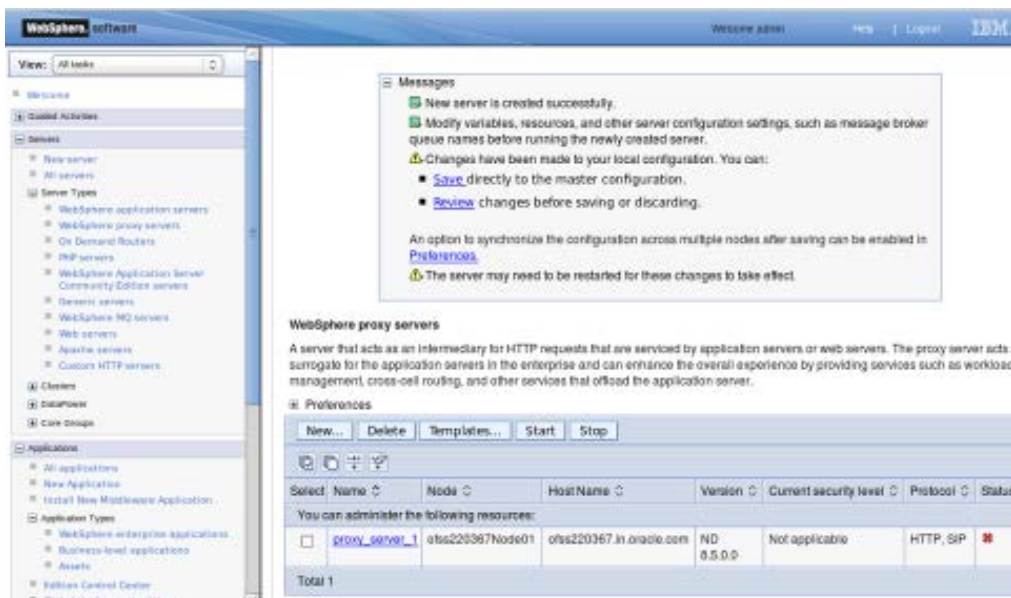
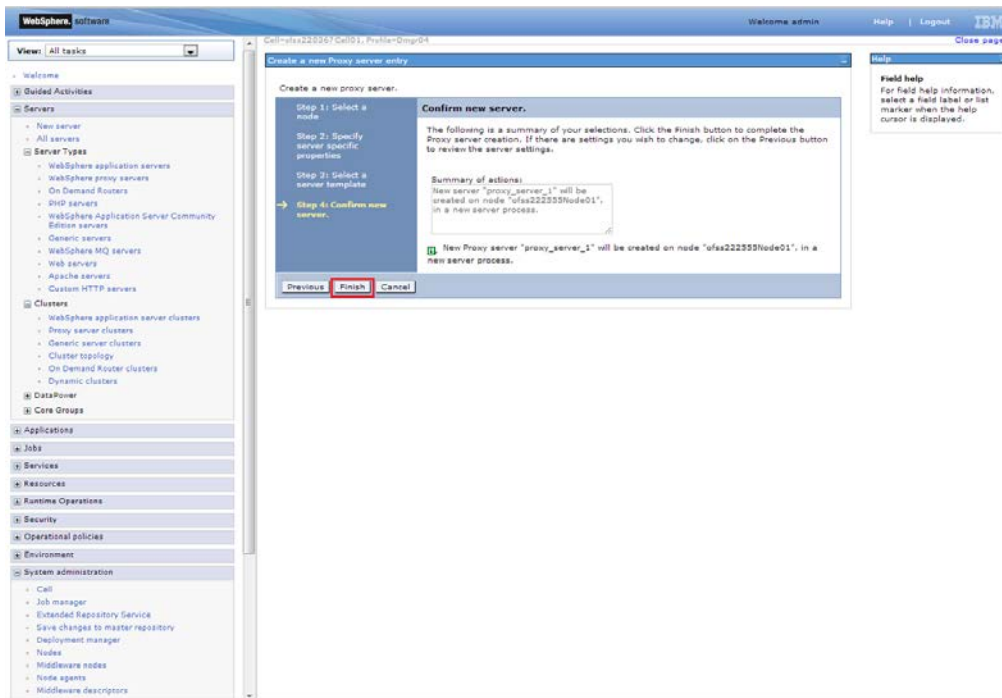
Navigation : Servers > Server Types > WebSphere proxy servers > New



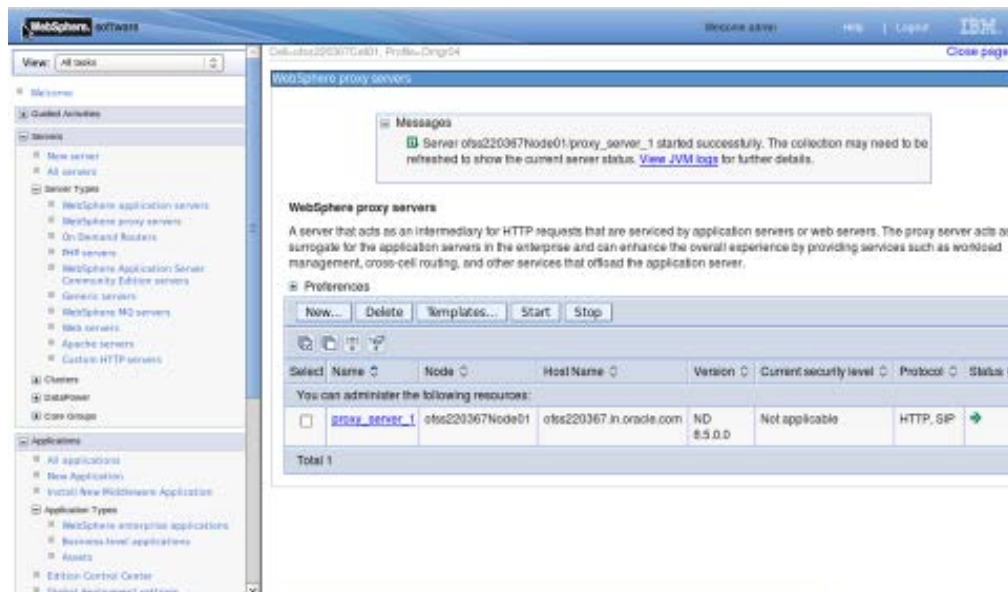
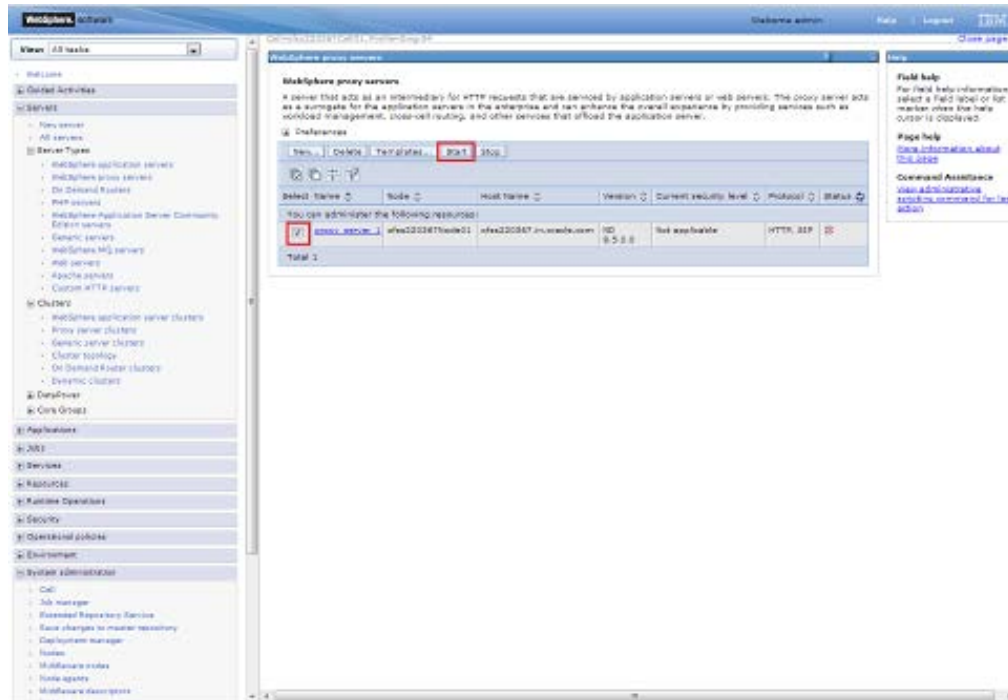
Navigation : [Select appropriate Node] > Next







## 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

**WebLogicServer > MS\_1 > Ports**

Specify the TCP/IP ports this server uses for connections.

**Ports**

You can administer the following resources:

Port Name	Host	Port	Transport Details
<a href="#">WC_defaulthost_secure</a>	*	9445	No associated transports
<a href="#">WC_defaulthost</a>	*	9082	No associated transports
<a href="#">WC_adminhost_secure</a>	*	9043	No associated transports
<a href="#">WC_adminhost</a>	*	9042	No associated transports
<a href="#">ASDC_CONNECTION_ADDRESS</a>	ofee200367.in.oracle.com	8881	No associated transports
<a href="#">AIP_DEFAULTHOST_SECURE</a>	*	8043	No associated transports
<a href="#">AIP_DEFAULTHOST</a>	*	8042	No associated transports
<a href="#">AIP_HQ_ENDPOINT_SECURE_ADDRESS</a>	*	8079	No associated transports
<a href="#">AIP_HQ_ENDPOINT_ADDRESS</a>	*	8089	No associated transports
<a href="#">AIP_ENDPOINT_SECURE_ADDRESS</a>	*	7287	No associated transports
<a href="#">AIP_ENDPOINT_ADDRESS</a>	*	7279	No associated transports
<a href="#">ASDC_SOL_GATEWAY_LISTENER_ADDRESS</a>	ofee200367.in.oracle.com	8457	No associated transports
<a href="#">OVERLAY_WSP_LISTENER_ADDRESS</a>	*	11009	No associated transports
<a href="#">OVERLAY_TCP_LISTENER_ADDRESS</a>	*	11010	No associated transports
<a href="#">DWS_LISTENER_ADDRESS</a>	ofee200367.in.oracle.com	9102	No associated transports

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

**WebLogicServer > MS\_2 > Ports**

Specify the TCP/IP ports this server uses for connections.

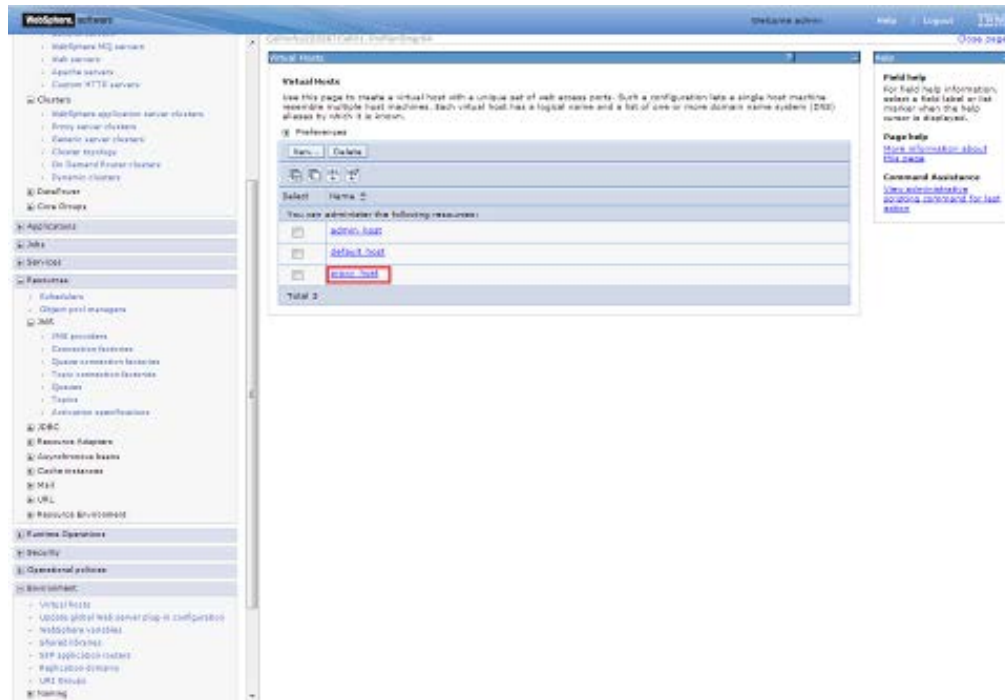
**Ports**

You can administer the following resources:

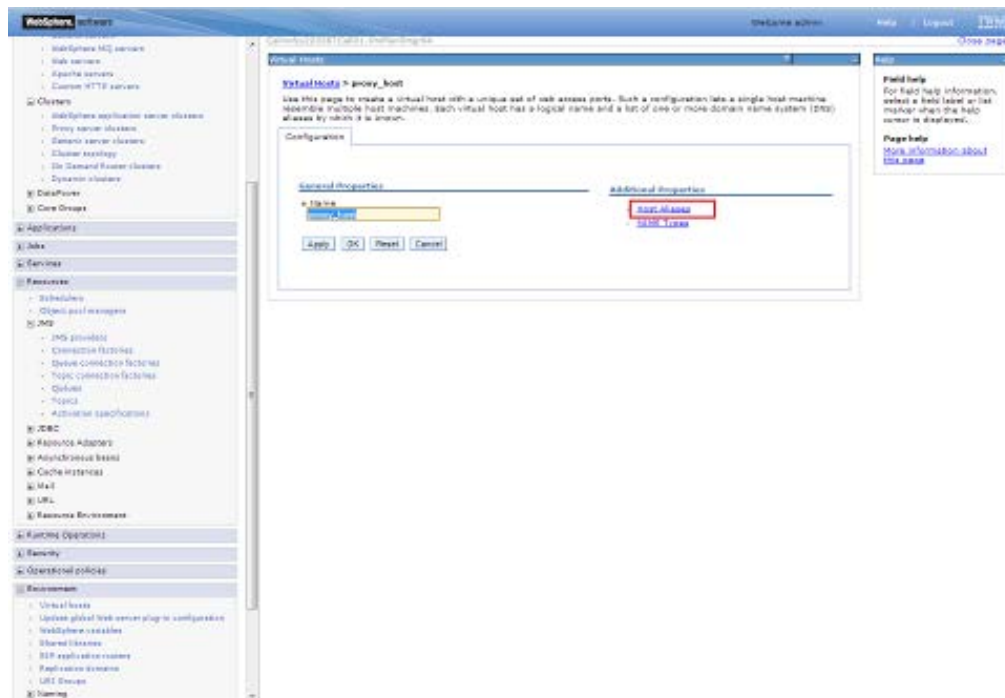
Port Name	Host	Port	Transport Details
<a href="#">WC_defaulthost_secure</a>	*	9445	No associated transports
<a href="#">WC_defaulthost</a>	*	9082	No associated transports
<a href="#">WC_adminhost_secure</a>	*	9043	No associated transports
<a href="#">WC_adminhost</a>	*	9042	No associated transports
<a href="#">ASDC_CONNECTION_ADDRESS</a>	ofee200367.in.oracle.com	8882	No associated transports
<a href="#">AIP_DEFAULTHOST_SECURE</a>	*	8043	No associated transports
<a href="#">AIP_DEFAULTHOST</a>	*	8044	No associated transports
<a href="#">AIP_HQ_ENDPOINT_SECURE_ADDRESS</a>	*	8066	No associated transports
<a href="#">AIP_HQ_ENDPOINT_ADDRESS</a>	*	8860	No associated transports
<a href="#">AIP_ENDPOINT_SECURE_ADDRESS</a>	*	7288	No associated transports
<a href="#">AIP_ENDPOINT_ADDRESS</a>	*	7279	No associated transports
<a href="#">ASDC_SOL_GATEWAY_LISTENER_ADDRESS</a>	ofee200367.in.oracle.com	8410	No associated transports
<a href="#">OVERLAY_WSP_LISTENER_ADDRESS</a>	*	11001	No associated transports
<a href="#">OVERLAY_TCP_LISTENER_ADDRESS</a>	*	11002	No associated transports
<a href="#">DWS_LISTENER_ADDRESS</a>	ofee200367.in.oracle.com	9103	No associated transports

## 4.5.1 Virtual Host Setup

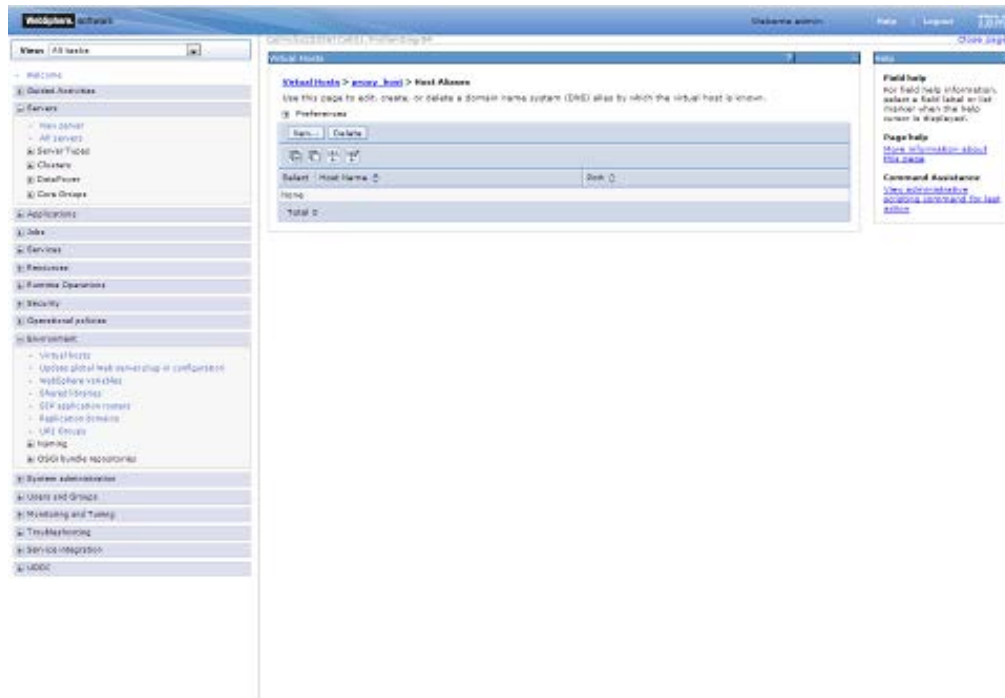
Navigation : *Environment>Virtual hosts>proxy\_host*



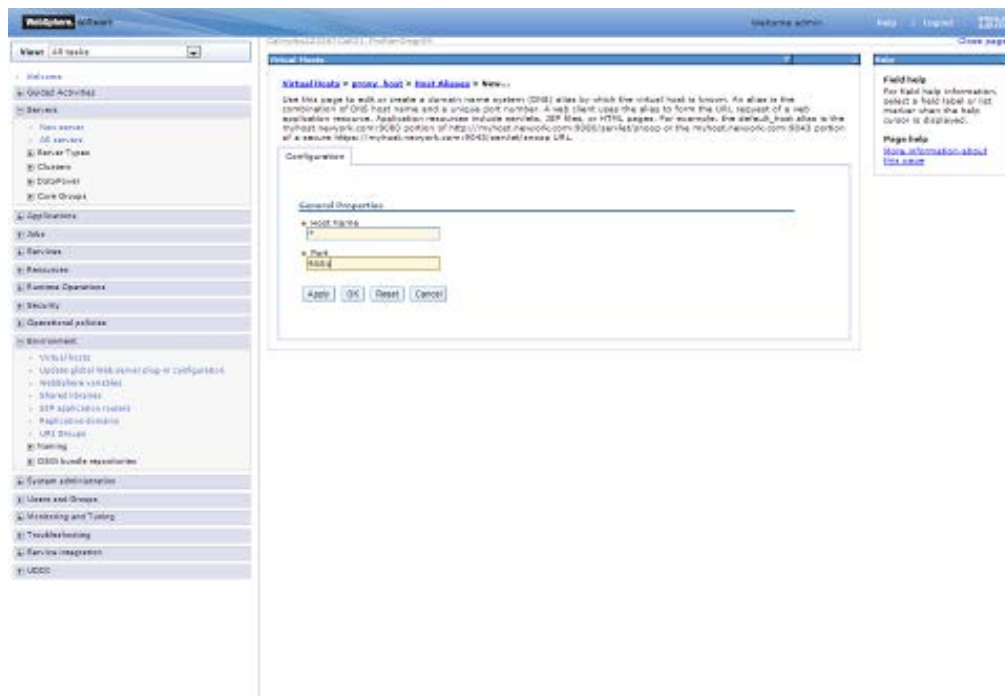
Navigation : *Host Aliases*

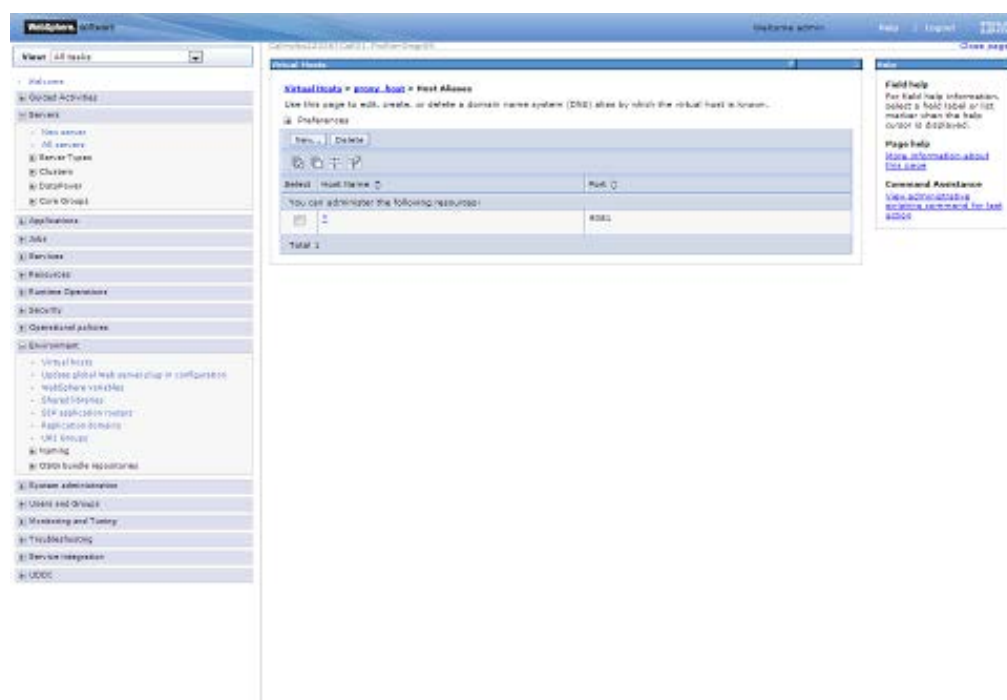


**Navigation :** *Environment>Virtual hosts>proxy\_host>Host Aliases > New*

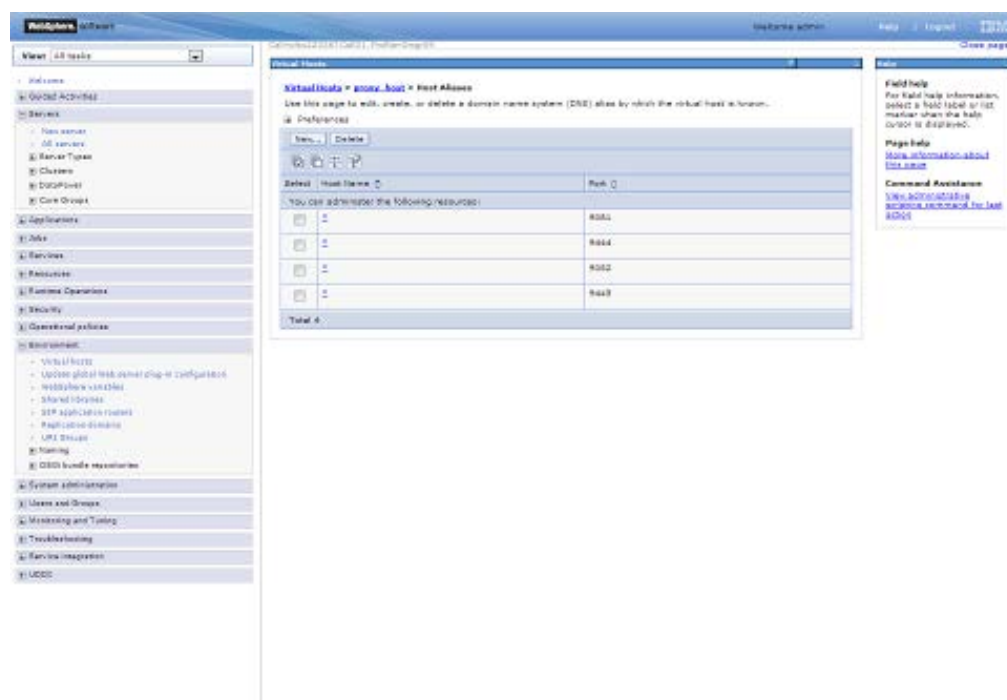


Create New Alias for default port in managed server <<9081>>:





Similarly create proxy alias for all cluster related server default ports



## 5. Create Resources in Cluster Scope

JDBC Provider :

**JDBC providers**

Use this page to edit properties of a JDBC provider. The JDBC provider object encapsulates the specific JDBC driver implementation class for access to the remote vendor database of your environment. 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.

Example: `Cluster=CLUSTER_1`, `Cluster=CLUSTER_1`

☒ Show scope selection drop-down list with the all scopes option

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, see [the scope and scope table](#).

**Preferences**

Items | Delete

Select Name	Scope	Description
You can administer the following resources:		
<input type="checkbox"/> <code>Oracle JDBC Driver</code>	<code>Cluster=CLUSTER_1</code>	Oracle JDBC Driver
<input type="checkbox"/> <code>Oracle JDBC Driver (XA)</code>	<code>Cluster=CLUSTER_1</code>	Oracle JDBC Driver (XA)
Total 2		

Datasource :

**Datasources**

Use this page to edit the settings of a datasource that is associated with your selected JDBC provider. The datasource object associates your application with connections for accessing the database. 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.

Example: `Cluster=CLUSTER_1`, `Cluster=CLUSTER_1`

☒ Show scope selection drop-down list with the all scopes option

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, see [the scope and scope table](#).

**Preferences**

Items | Delete | Test connection | Manage state...

Select Name	JDBC name	Scope	Provider	Description	Category
You can administer the following resources:					
<input type="checkbox"/> <code>CLUSTER_1</code>	<code>jdbc/Cluster_1</code>	<code>Cluster=CLUSTER_1</code>	Oracle JDBC Driver (XA)	New JDBC Datasource	
<input type="checkbox"/> <code>CLUSTER_1</code>	<code>jdbc/Cluster_1</code>	<code>Cluster=CLUSTER_1</code>	Oracle JDBC Driver	New JDBC Datasource	
Total 2					

## Queue Connection Factory

**Queue connection factories**

A queue connection factory is used to create connections to the associated JMS provider of the JMS queue destinations. For point-to-point messaging.

Scope: **Cluster=CLUSTER\_1**

Show scope selection drop-down list with the all scopes option

Scope specified the level at which the resource definition is visible. For detailed information on what scope is and how it works, see the scope definition help.

**Preferences**

Name	JMS name	Provider	Description	Scope
<a href="#">EmailQCF</a>	EmailQCF	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<a href="#">PC_QCF</a>	PC_QCF	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<a href="#">WEBQCF</a>	WEBQCF	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<a href="#">WebSphereQCF</a>	WebSphereQCF	WebSphere MQ messaging provider		Cluster=CLUSTER_1

Total: 4

## JMS Queue:

**Queues**

A JMS queue is used as a destination for point-to-point messaging.

Scope: **Cluster=CLUSTER\_1**

Show scope selection drop-down list with the all scopes option

Scope specified the level at which the resource definition is visible. For detailed information on what scope is and how it works, see the scope definition help.

**Preferences**

Name	JMS name	Provider	Description	Scope
<a href="#">EMail_QUEUE</a>	EMail_QUEUE	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<a href="#">PC_OUT_QUEUE</a>	PC_OUT_QUEUE	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<a href="#">WEB_QUEUE</a>	WEB_QUEUE	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<a href="#">WEB_QUEUE_1_Q</a>	WEB_QUEUE_1_Q	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<a href="#">WEB_QUEUE_RESPONSE</a>	WEB_QUEUE_RESPONSE	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<a href="#">NOTIFY_DEST_QUEUE</a>	NOTIFY_DEST_QUEUE	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<a href="#">NOTIFY_QUEUE</a>	NOTIFY_QUEUE	WebSphere MQ messaging provider	NOTIFY_QUEUE	Cluster=CLUSTER_1
<a href="#">NOTIFY_QUEUE_1_Q</a>	NOTIFY_QUEUE_1_Q	WebSphere MQ messaging provider		Cluster=CLUSTER_1

Total: 8

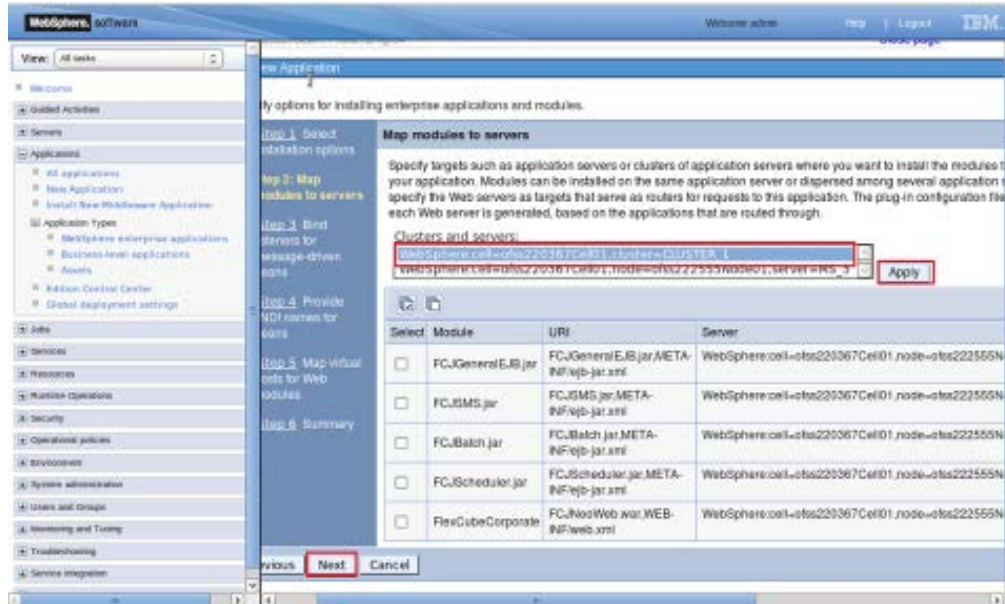
Create Message Listeners for individual Servers in Cluster

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

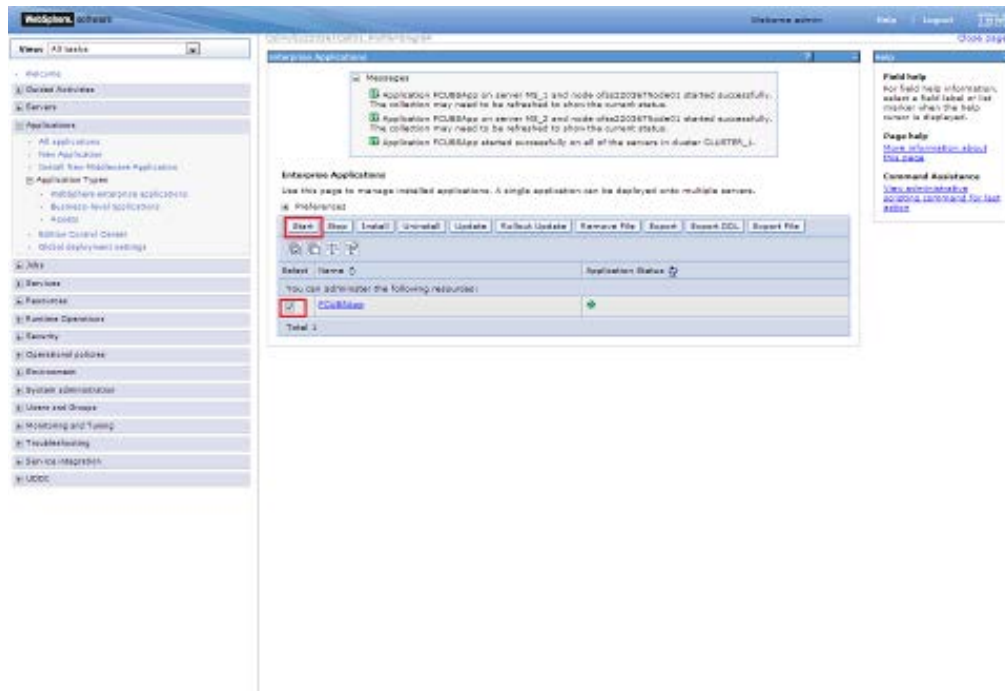


## 6. Deploy Application to Cluster

While deploying ensure the application is installed to Cluster



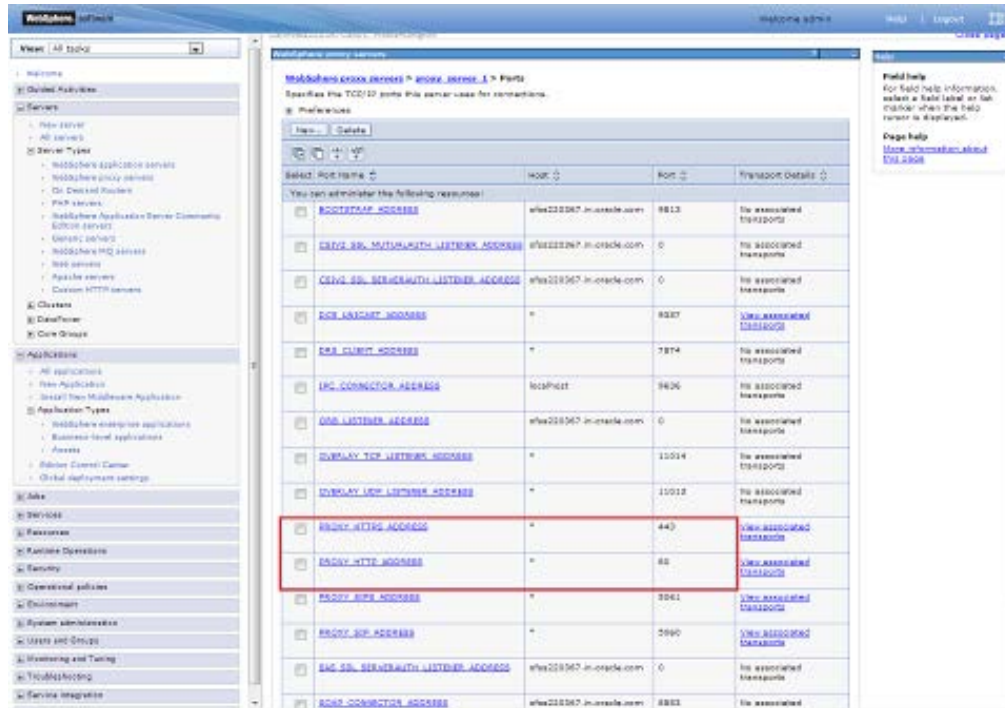
Start FCUBS application



## 6.1.1 Test the application

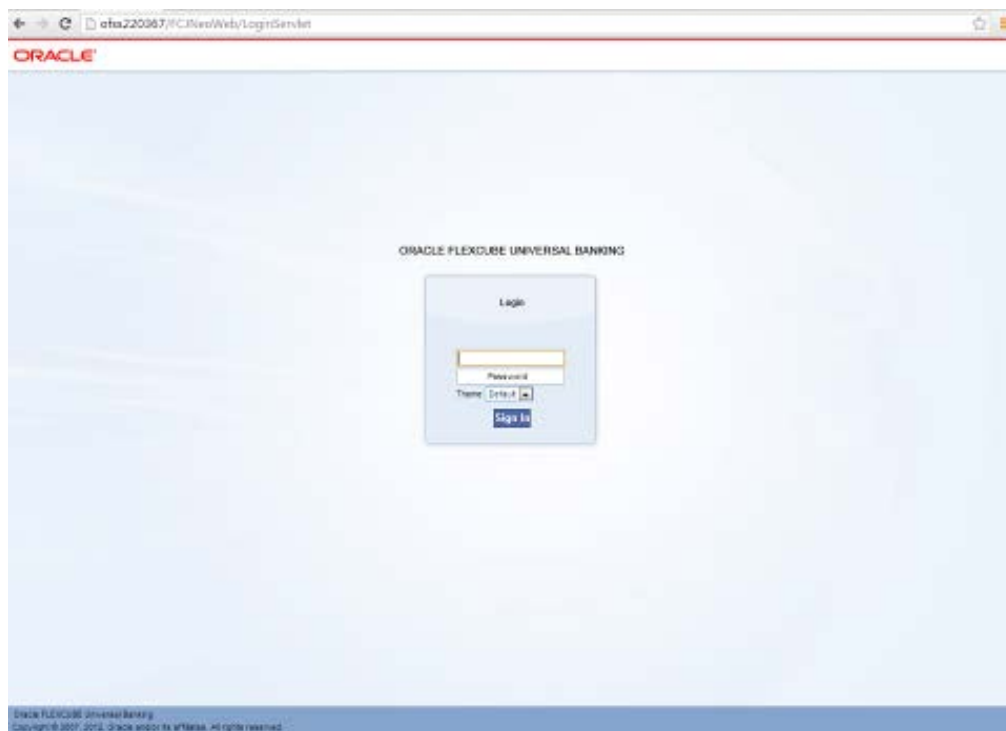
Make a note of the ports `PROXY_HTTPS_ADDRESS/PROXY_HTTP_ADDRESS` to access the application.

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



Launch Application:

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



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Cluster Creation on Websphere Application Server  
[May] [2021]  
Version 14.5.0.0.0

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