

Cluster Creation on Websphere Application Server
Oracle Banking Enterprise Limits and Collateral
Management

Release 14.5.0.0.0

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1. Purpose

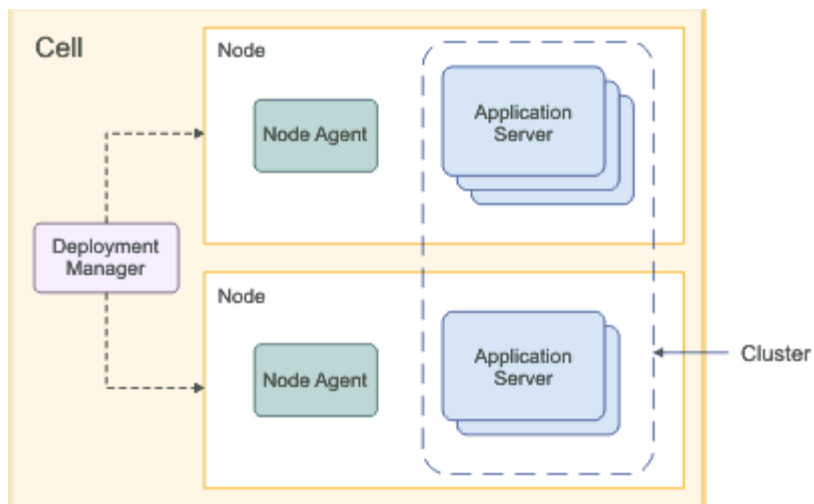
This document explains steps to create Cluster on Websphere Application Server 8.5 and also setup the proxy.

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\WEBSHERE\Resource_Creation_WAS.doc

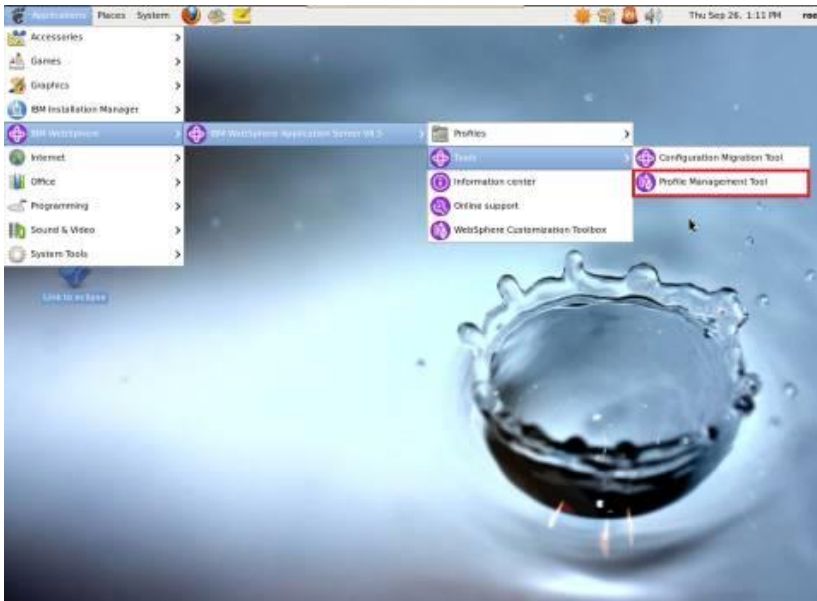
- For SSL configuration in Websphere, refer to the document SSL_Configuration_WAS.doc
- For application deployment, refer to document FCUBS_Application_WAS.doc
- For deployment of Gateway applications, refer to document GATEWAY_Applications_WAS.doc

4. Steps involved for Clustering

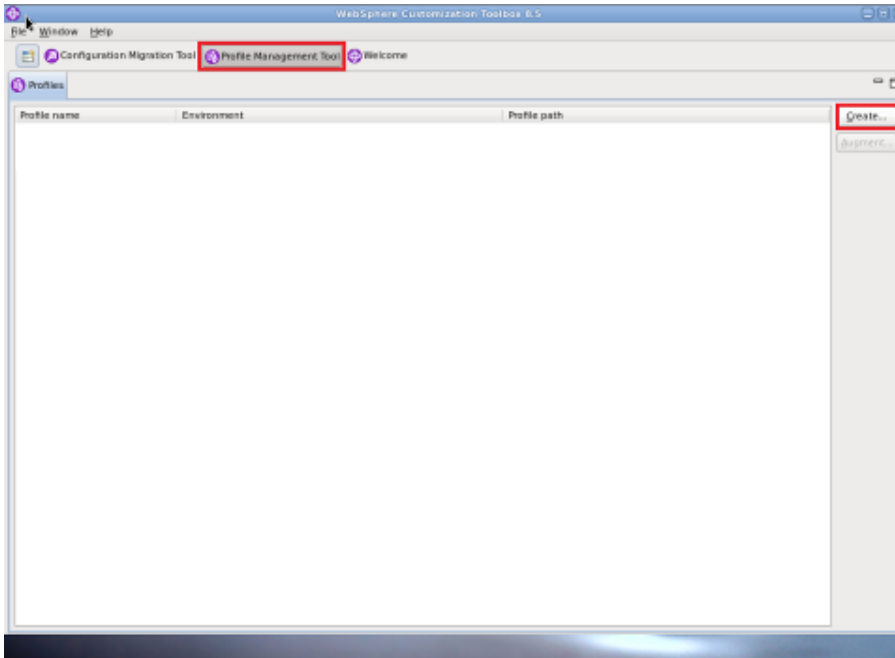
4.1 Create Profile

Go to Profile Management Tool

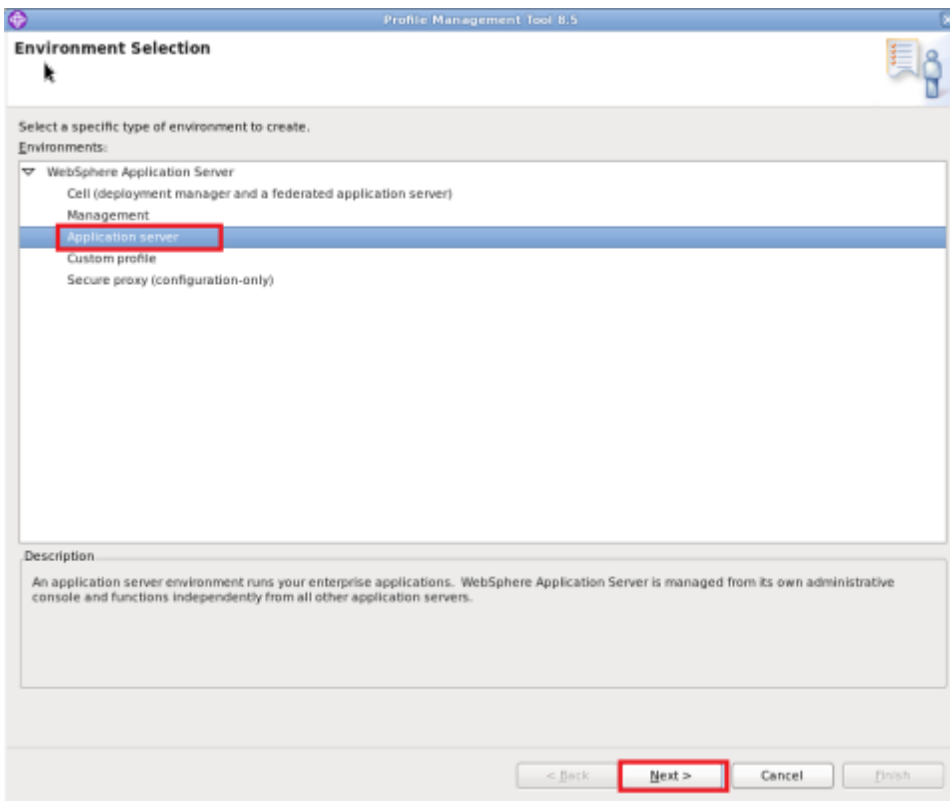
Navigation: IBM WebSphere > *IBM WebSphere Application Server V8.5* > *Tools* > *Profile Management Tool*



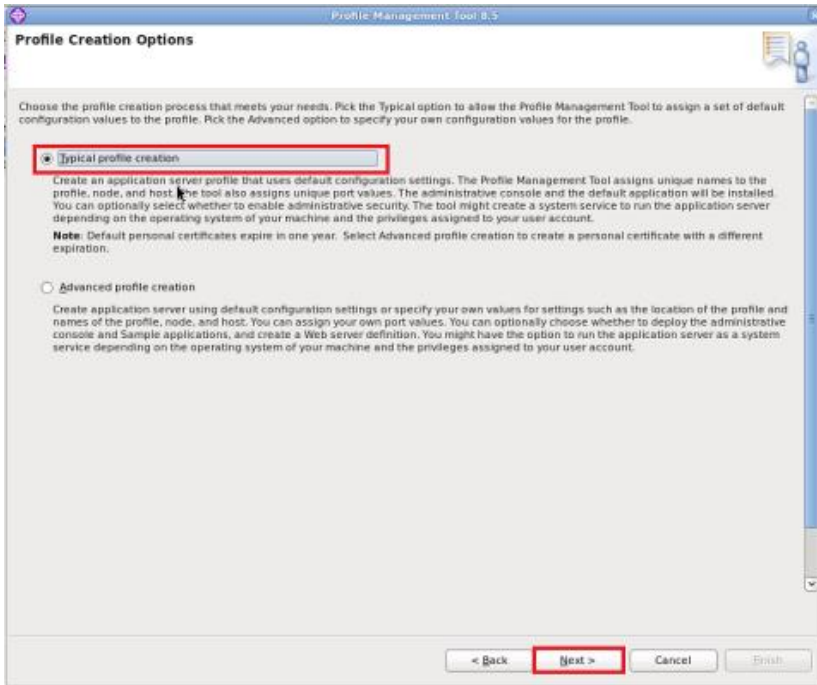
Navigation : *Profile Management Tool* > *Create*



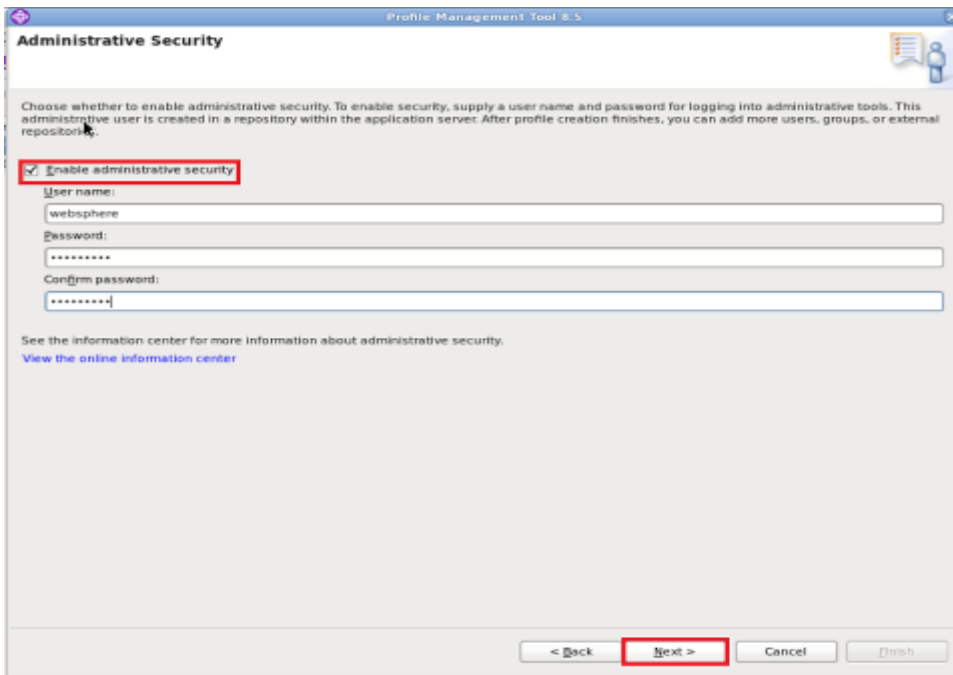
Navigation : *Application Server > Next*



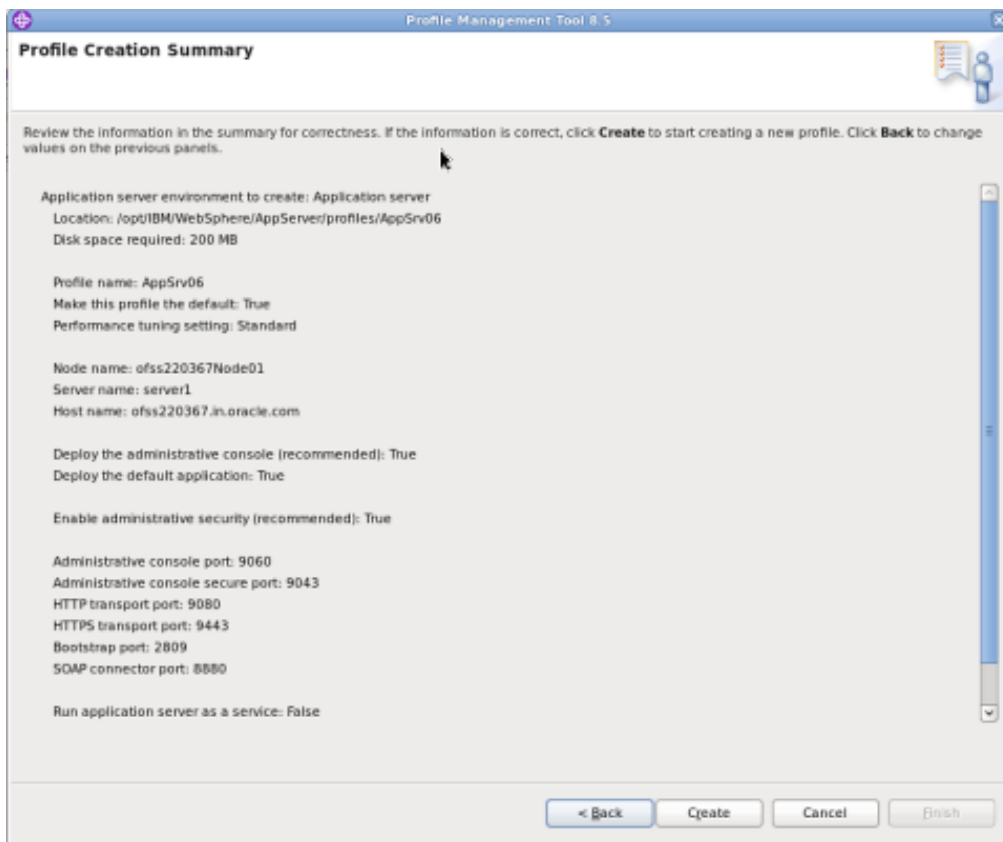
Navigation : *Typical profile creation > Next*



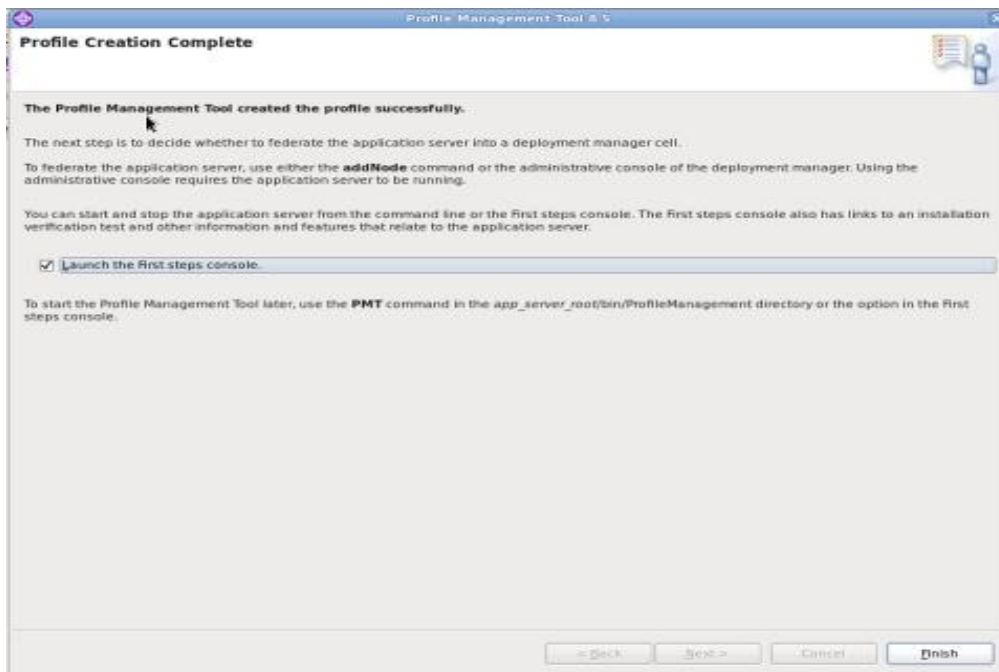
Navigation: *Enable administrative security > Next*



Navigation : *Create Summary*

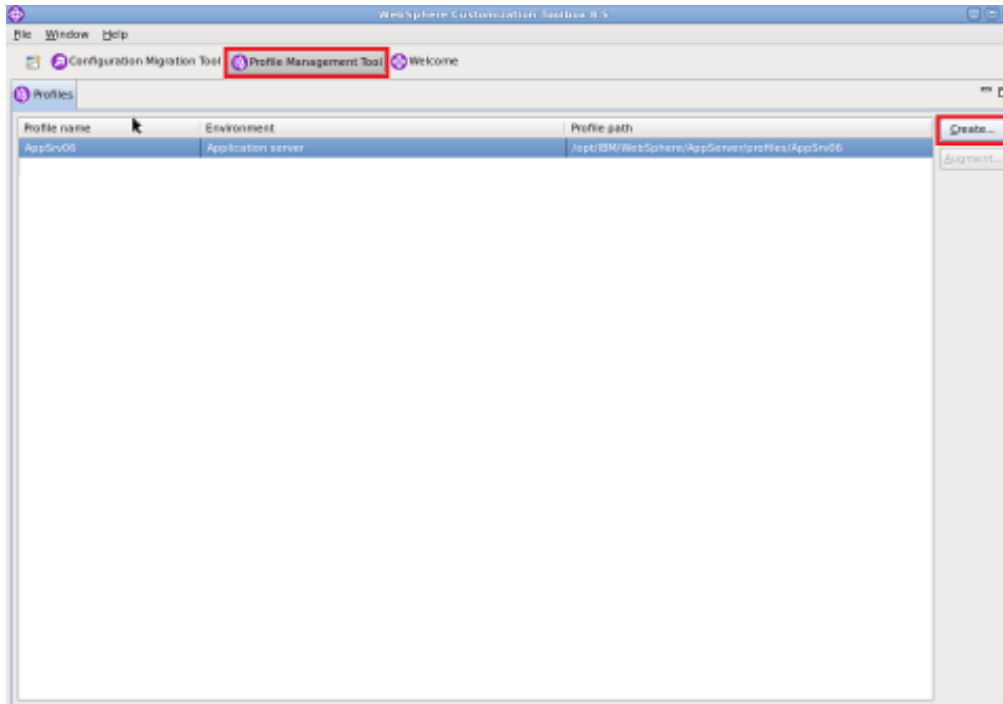


Navigation : *Finish*

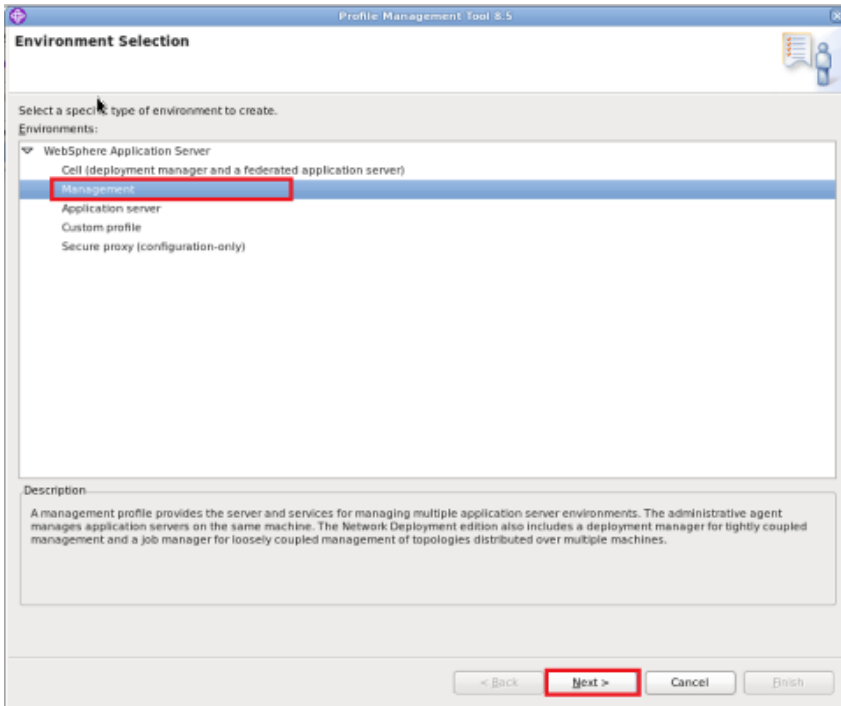


4.1.1 Create Deployment Manager Profile

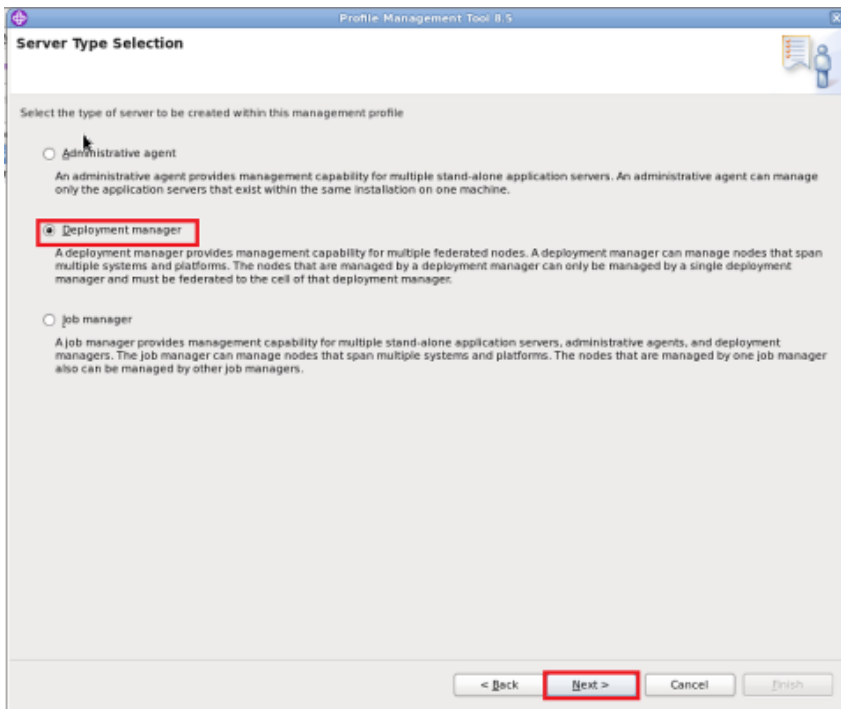
Navigation : *Profile Management Tool > Create*



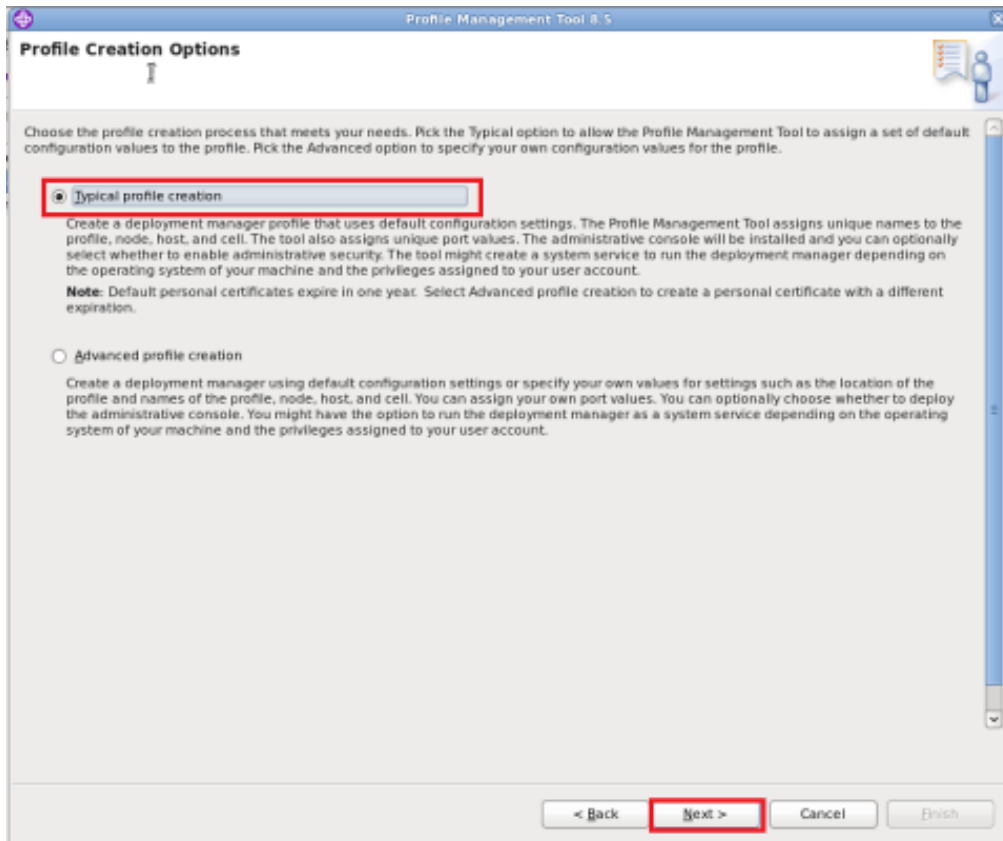
Navigation : *Management >Next*



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

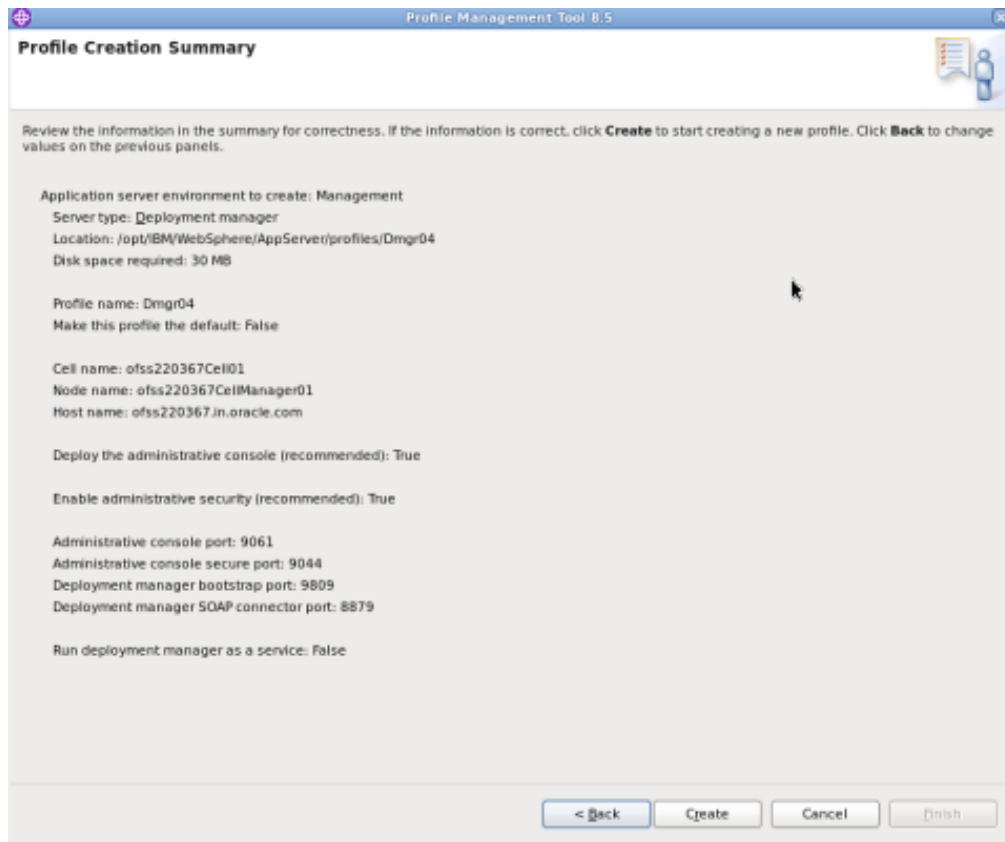
Password:

Confirm password:

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

< Back **Next >** Cancel Finish

Navigation : Create



The screenshot shows a window titled "Profile Management Tool 8.5" with a sub-header "Profile Creation Summary". The window contains a summary of profile creation settings. At the bottom, there are four buttons: "< Back", "Create", "Cancel", and "Finish".

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

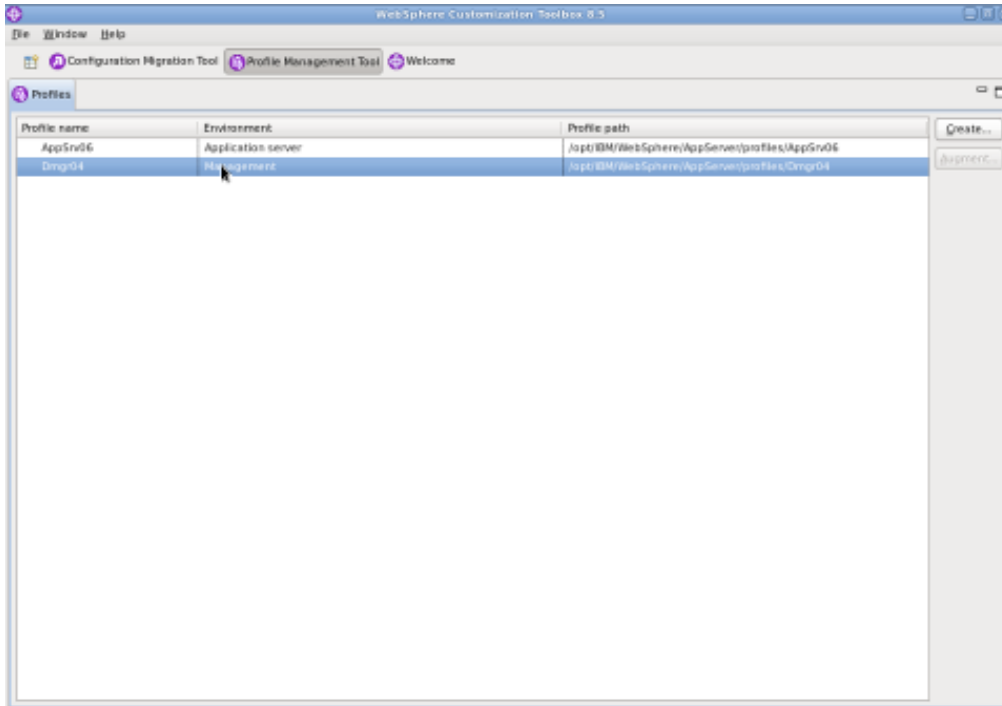
Deploy the administrative console (recommended): True

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

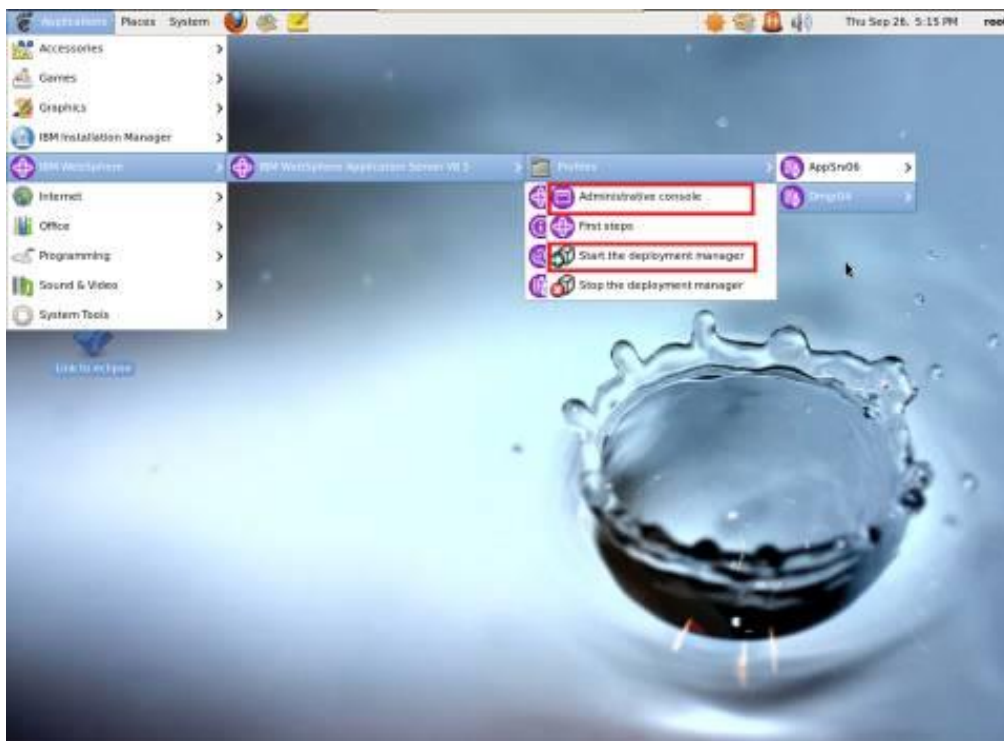
Run deployment manager as a service: False

< Back Create Cancel Finish



Start Deployment Manager & Open Administrative Console

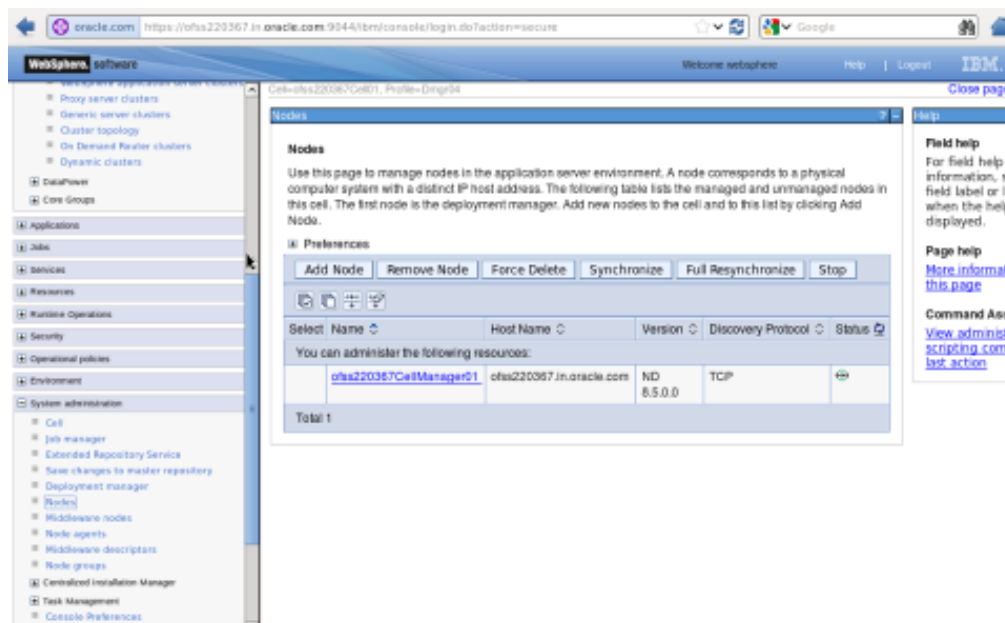
Navigation : IBM WebSphere > IBM WebSphere Application Server V8.5 > Profiles > Dmgr[i]>Start the deployment *manager* > *Administrative console*



Log into Deployment Manger Console

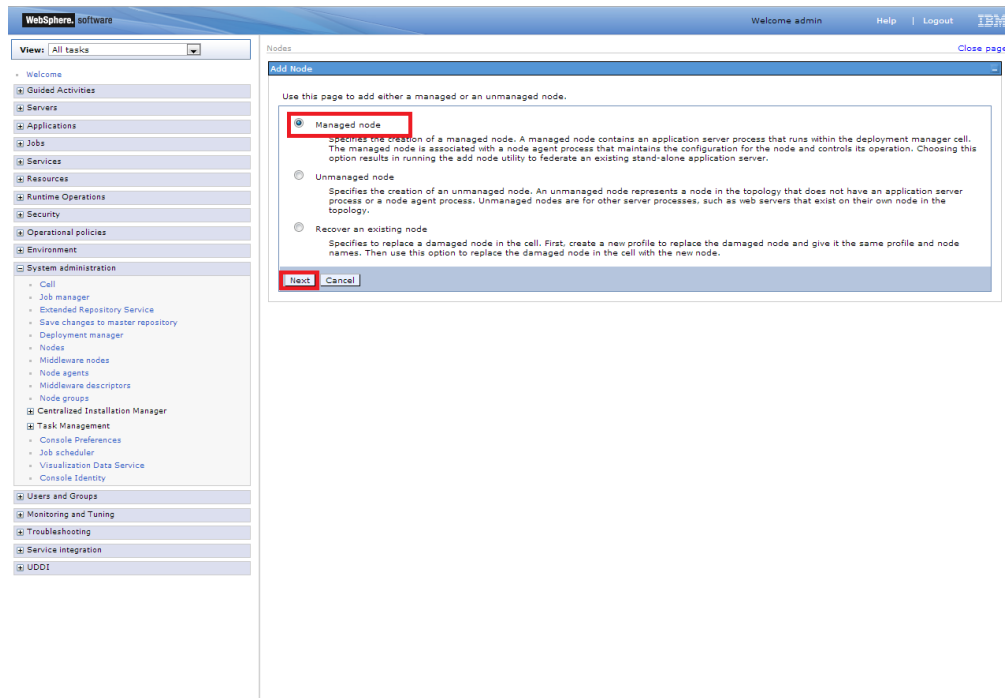


Navigation : System administration > Nodes > Add Node



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

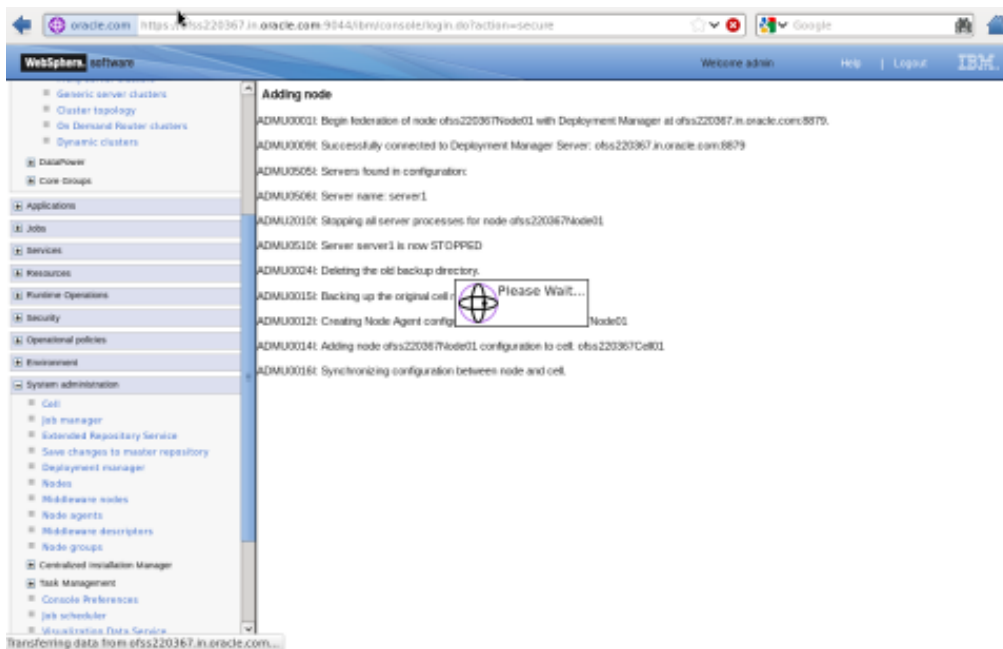
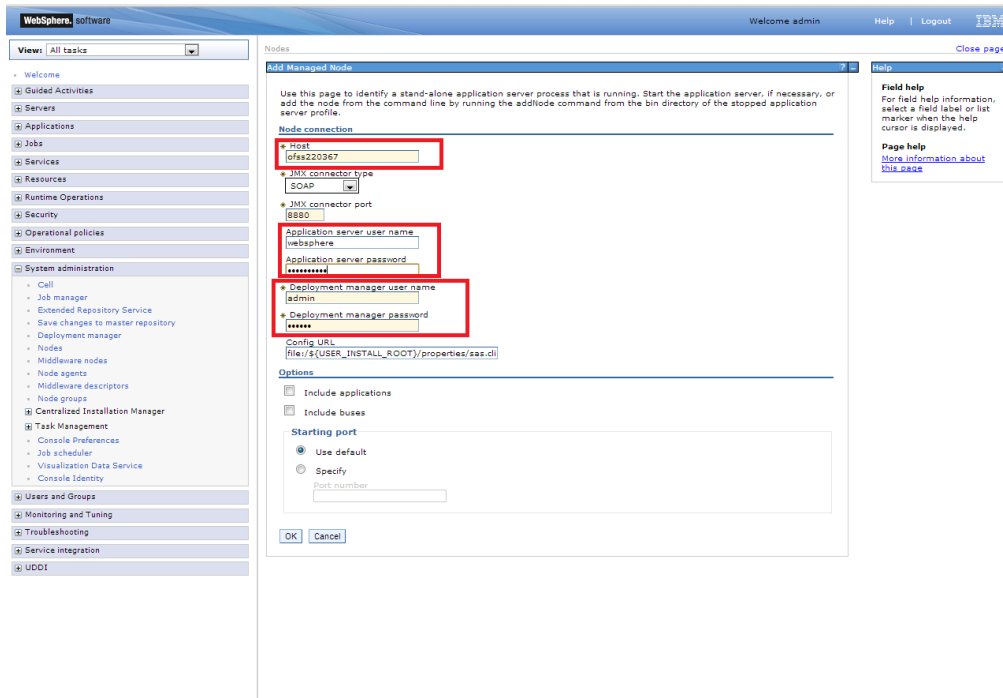
JMX Connector Port : SOAP_CONNECTOR_ADDRESS of Application Server

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



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"/>	ofsa220367CellManager01	ofsa220367.in.oracle.com	ND 8.5.0.0	TCP	⊕
<input type="checkbox"/>	ofsa220367Node01	ofsa220367.in.oracle.com	ND 8.5.0.0	TCP	⊕
Total 2					

You can administer the following resources:

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

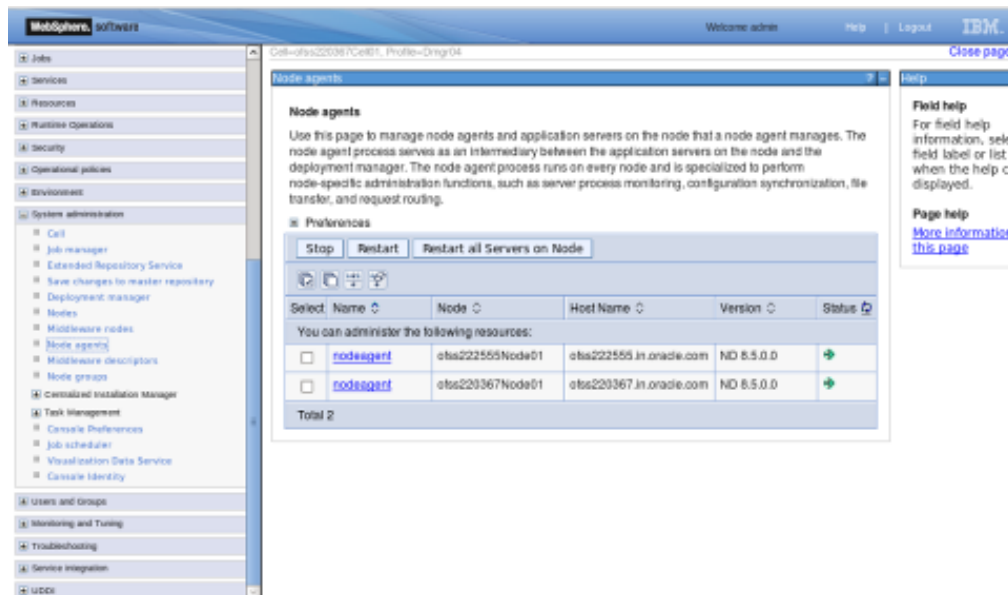
Add Node Remove Node Force Delete Synchronize Full Resynchronize Stop

Select	Name	Host Name	Version	Discovery Protocol	Status
<input checked="" type="checkbox"/>	ofsa220367CellManager01	ofsa220367.in.oracle.com	ND 8.5.0.0	TCP	⊕
<input type="checkbox"/>	ofsa220367Node01	ofsa220367.in.oracle.com	ND 8.5.0.0	TCP	⊕
<input type="checkbox"/>	ofsa220367Node01	ofsa220367.in.oracle.com	ND 8.5.0.0	TCP	⊕
Total 3					

You can administer the following resources:

4.2.1 Start Node Agents

Navigation : *System administration> Node agents>Restart*



Node agents

Use this page to manage node agents and application servers on the node that a node agent manages. The node agent process serves as an intermediary between the application servers on the node and the deployment manager. The node agent process runs on every node and is specialized to perform node-specific administration functions, such as server process monitoring, configuration synchronization, file transfer, and request routing.

Preferences

Stop Restart Restart all Servers on Node

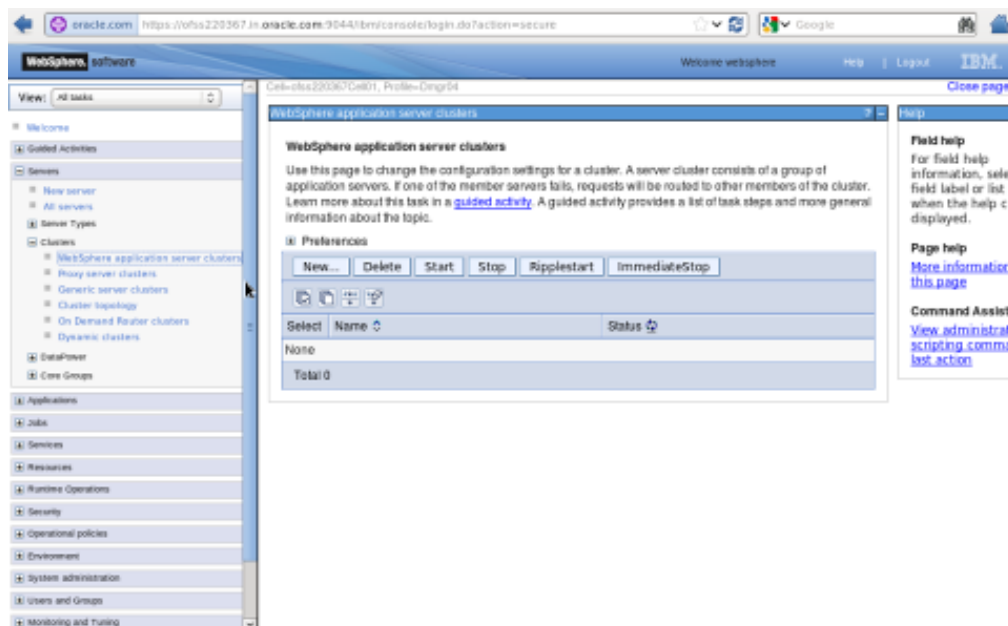
You can administer the following resources:

Select	Name	Node	Host Name	Version	Status
<input type="checkbox"/>	nodeagent	ots222555Node01	ots222555.jn.oracle.com	ND 8.5.0.0	➔
<input type="checkbox"/>	nodeagent	ots220367Node01	ots220367.jn.oracle.com	ND 8.5.0.0	➔

Total 2

4.3 Create Cluster

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



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

You can administer the following resources:

Select	Name	Status
None		

Total 0

Navigation : *Uncheck [Prefer Local] > Next*

WebSphere, software | Welcome admin | Help | Logout | Close page

CallInfo:2202167Call01, Profile:0mgp04

Views: All tasks

- Welcome
- 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

Enter basic cluster information

Cluster name: [CLUSTER_1]

Prefer local: Specifies whether enterprise bean requests will be routed to the node on which the client resides when possible.

Configure HTTP session memory-to-memory replication

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

4.3.1 Add Cluster Members

The screenshot shows the 'Create a new cluster' wizard in the WebSphere software console. The 'Create first cluster member' step is active. The 'Member name' field contains 'MS_1' and the 'Select node' dropdown is set to 'ofsa220367Node01 (ND 8.5.0.0)'. The 'Weight' is set to 2. The 'Generate unique HTTP ports' checkbox is checked. The 'Select how the server resources are promoted in the cluster' dropdown is set to 'Cluster'. The 'Select basis for first cluster member' section has three radio buttons: 'Create the member using an application server template.' (selected), 'Create the member using an existing application server as a template.', and 'Create the member by converting an existing application server.'

Add required number of cluster members

Navigation : Add Member > Next

The screenshot shows the 'Create a new cluster' wizard in the WebSphere software console. The 'Create additional cluster members' step is active. The 'Member name' field contains 'MS_2' and the 'Select node' dropdown is set to 'ofsa222555Node01 (ND 8.5.0.0)'. The 'Weight' is set to 2. The 'Add Member' button is highlighted. Below the form, there is a table with columns: Select, Member name, Nodes, Version, Weight. The table contains one row: MS_1, ofsa220367Node01, ND 8.5.0.0, 2. The 'Total' row shows 1.

Select	Member name	Nodes	Version	Weight
<input type="checkbox"/>	MS_1	ofsa220367Node01	ND 8.5.0.0	2
Total				1

Navigation : Next

The screenshot shows the 'Create a new cluster' wizard in the Oracle WebSphere Administration Console. The left sidebar contains a navigation tree with categories like Servers, Clusters, and Applications. The main content area is titled 'Create a new cluster' and shows the progress through four steps: Step 1 (basic cluster information), Step 2 (first cluster member), Step 3 (additional cluster members), and Step 4 (summary). Step 3 is currently active.

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

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.

Select	Member name	Nodes	Version	Weight
<input type="checkbox"/>	MS_1	otss220367Node01	ND 8.5.0.0	2
<input type="checkbox"/>	MS_2	otss222555Node01	ND 8.5.0.0	2
Total 2				

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

The screenshot shows the 'Create a new cluster' wizard in the Oracle WebSphere Administration Console, now at Step 4: Summary. The left sidebar is the same as in the previous screenshot. The main content area shows the 'Summary' step, which provides a 'Summary of actions' table.

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	otss220367Node01(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	otss220367Node01(ND 8.5.0.0)
Weight	2
Clone Template	Version 8.5 member template
Generate unique HTTP ports	true

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](#)

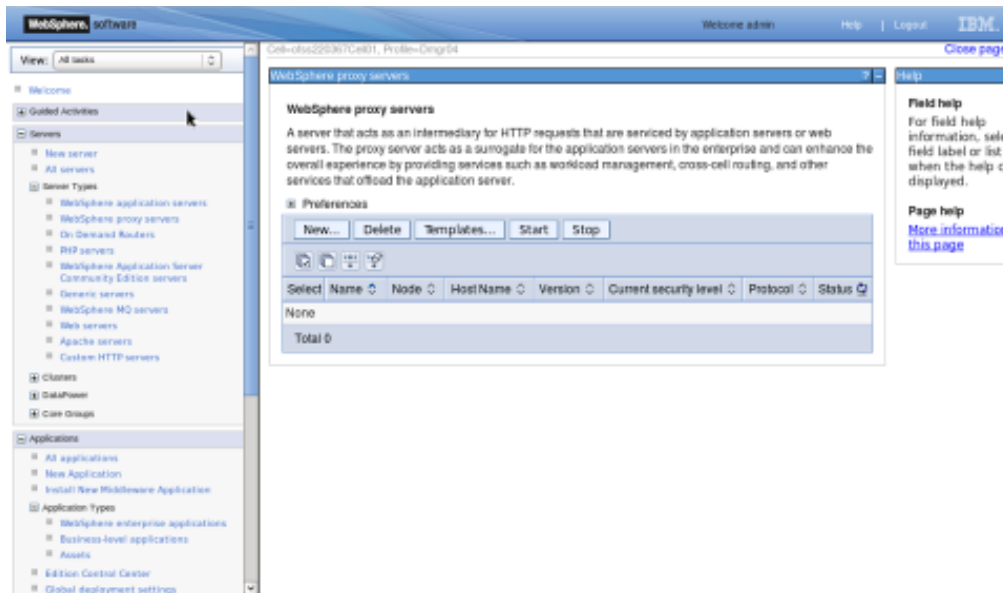
4.3.2 Start Cluster

The screenshot shows the IBM WebSphere software administration console. The left-hand navigation pane is expanded to 'Clusters' > 'WebSphere application server clusters'. The main content area displays the 'WebSphere application server clusters' page. At the top, there are buttons for 'New...', 'Delete', 'Start', 'Stop', 'Ripplstart', and 'ImmediateStop'. Below these is a table with columns for 'Select', 'Name', and 'Status'. One row is visible with 'CLUSTER_1' selected (checked) and a red 'X' in the status column. A message box above the table states: 'You can administer the following resources:'. The total count at the bottom is 'Total 1'. On the right side, there are links for 'Field help', 'Page help', and 'Command Assistant'.

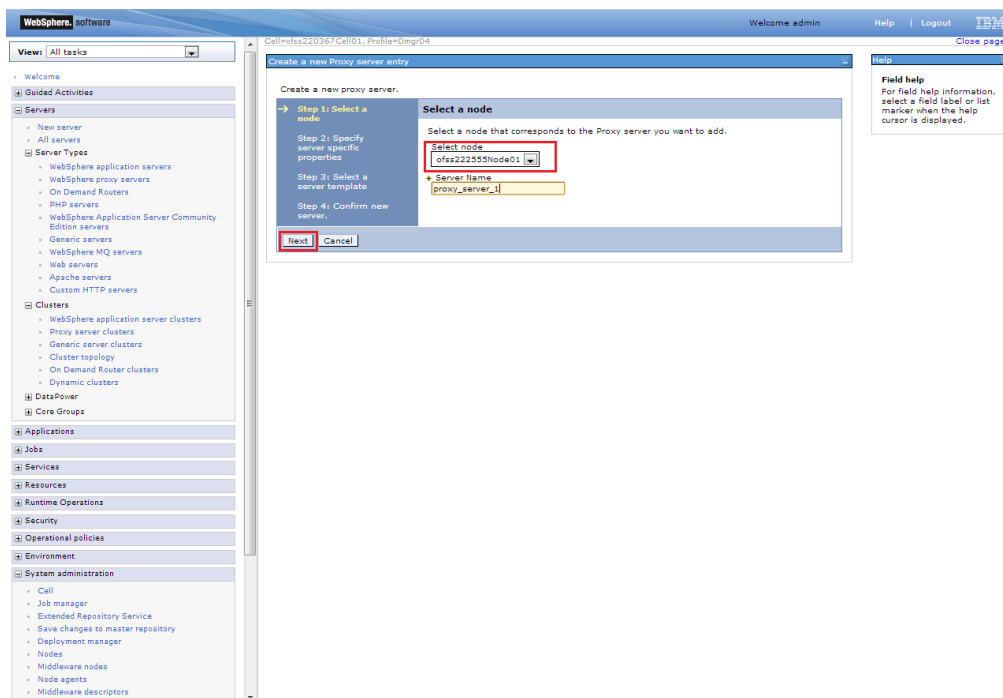
This screenshot shows the same WebSphere administration console after the start operation. A message box at the top center reads: 'The start operation on cluster CLUSTER_1 has been initiated. It may take several minutes for each cluster member to finish starting.' The table below now shows 'CLUSTER_1' with a green arrow in the status column, indicating that the start process is in progress. The rest of the interface, including the navigation pane and right-hand help links, remains the same.

4.4 Create Proxy Server

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



Navigation : [Select appropriate Node] > Next



WebSphere, software

Welcome admin Help | Logout

Cell:cells220367/Cell01, Profile:Dmgr04

Views: All tasks

Close page

Help

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

Create a new proxy server.

Step 1: Select a node

Step 2: Specify server specific properties

Step 3: Select a server template

Step 4: Confirm new server.

Specify server specific properties

Supported protocols

HTTP

SIP

Generate unique ports

Previous Next Cancel

WebSphere, software

Welcome admin Help | Logout

Cell:cells220367/Cell01, Profile:Dmgr04

Views: All tasks

Close page

Help

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

Create a new proxy server.

Step 1: Select a node

Step 2: Specify server specific properties

Step 3: Select a server template

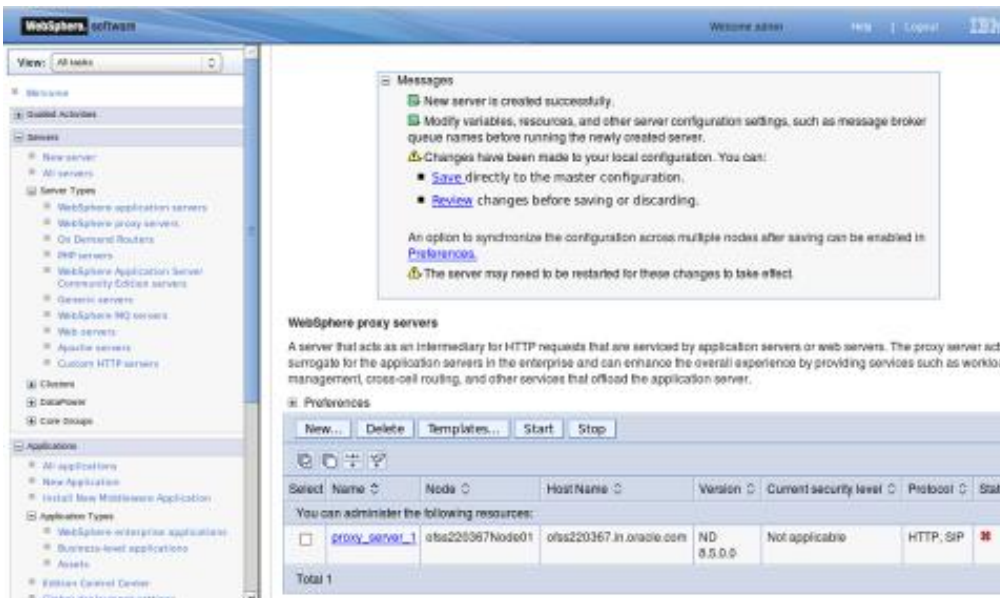
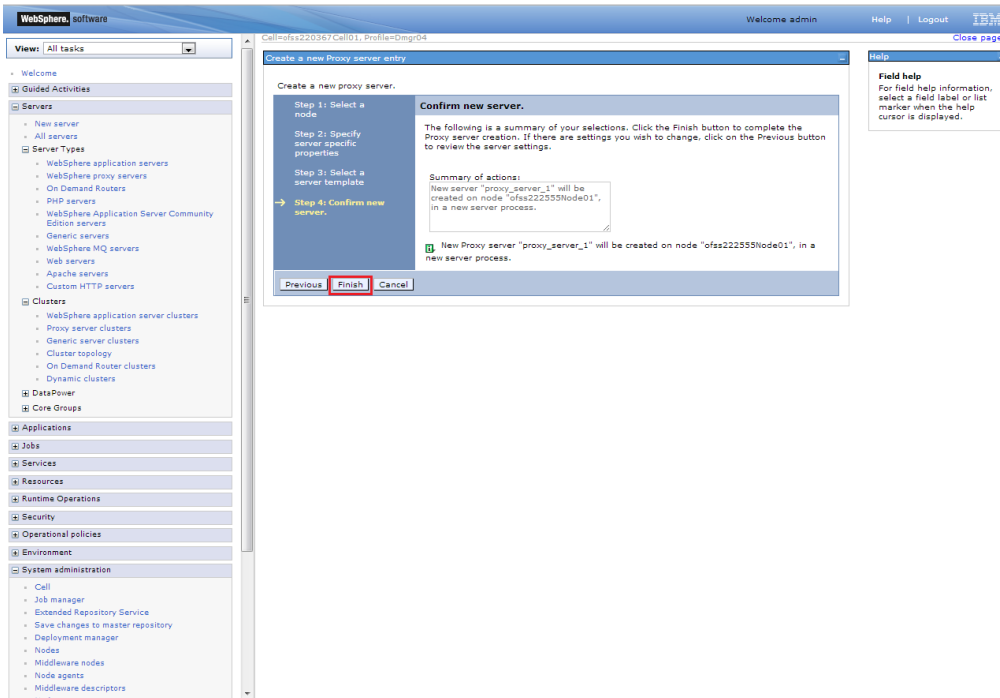
Step 4: Confirm new server.

Select a server template

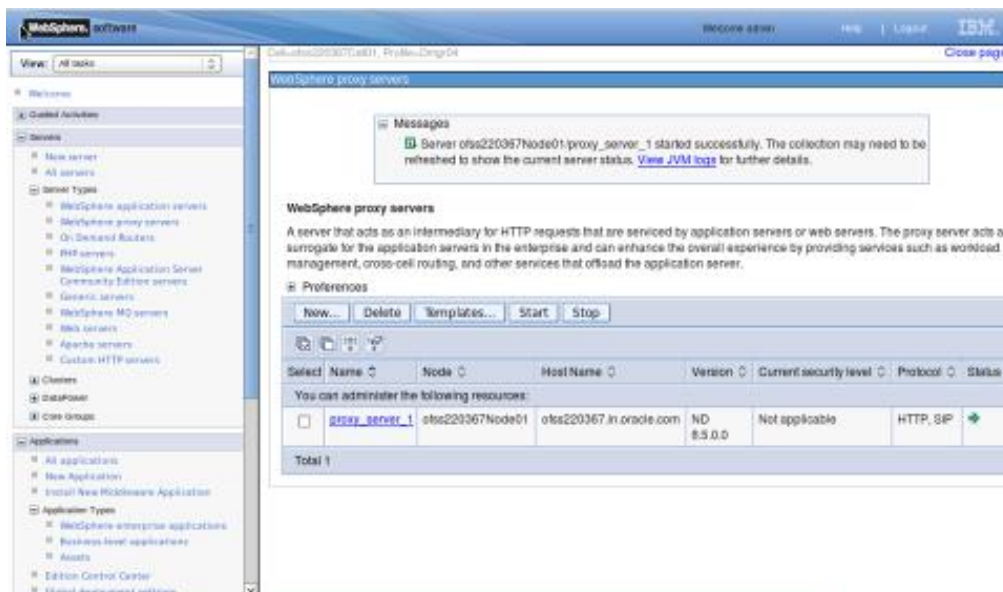
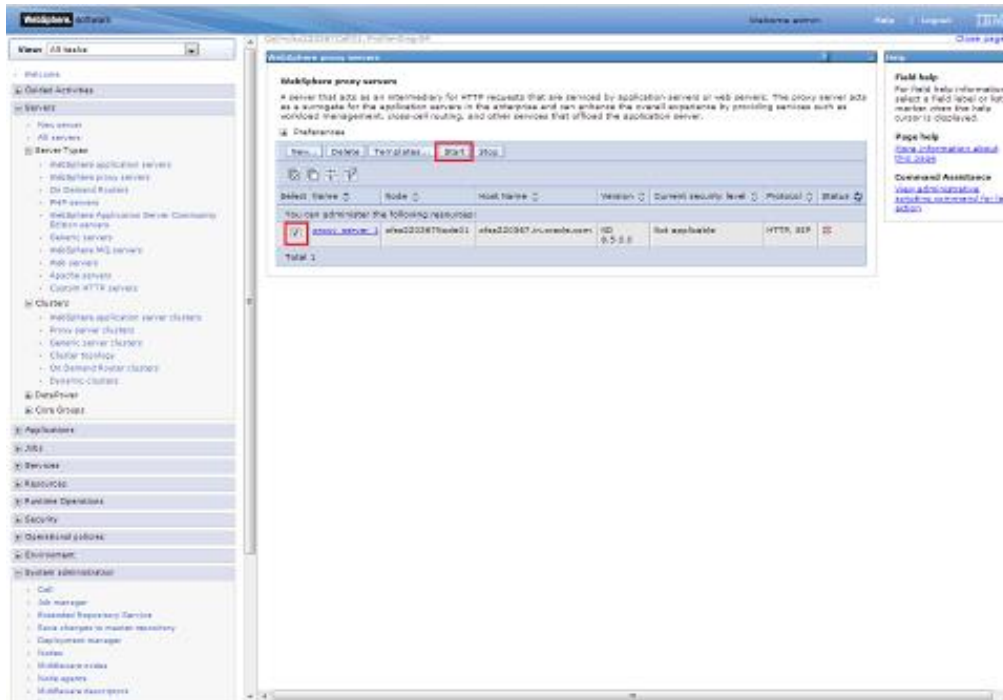
Select the template that best specifies the attributes of the server you wish to create.

Select	Name	Type	Describe the purpose of this template
<input checked="" type="radio"/>	proxy_server_foundation	System	The WebSphere Default Proxy Server Template

Previous Next Cancel



4.4.1 Start Proxy Server



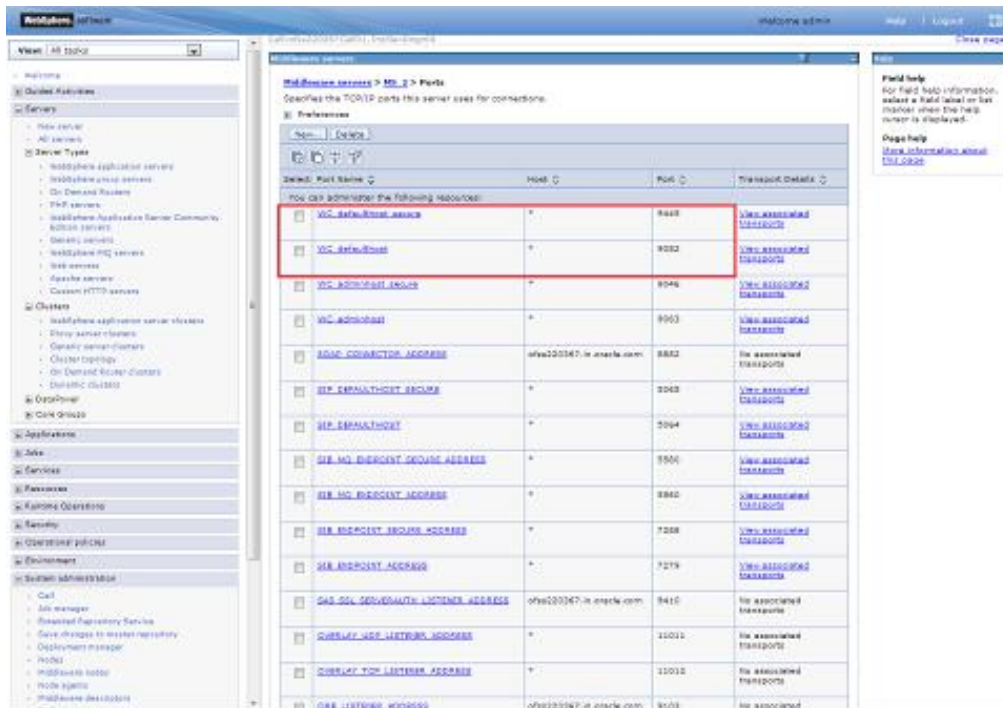
4.5 Configure Virtual Host

Make a note of “WC_defaulthost”/“WS_defaulthost_secure” port for server MS1 : 9081/9444

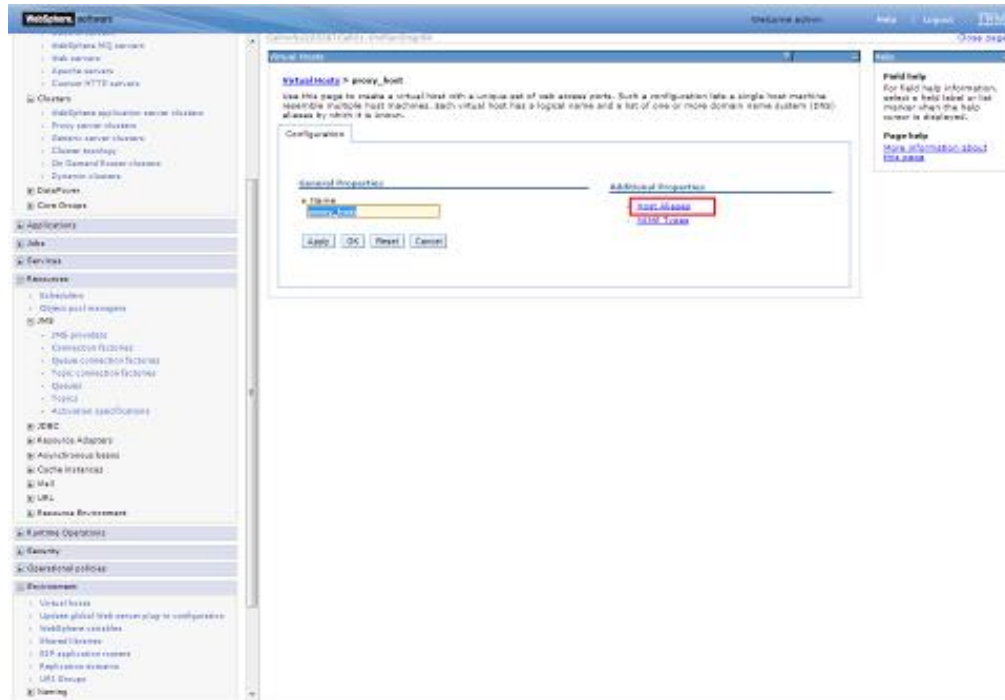
The screenshot shows the Oracle WebLogic Server Administration Console. The main window displays the 'Virtual Hosts' configuration for 'Middleware Services > MS_1 > Ports'. The page title is 'Specify the TCP/IP ports this server uses for connections.' and the breadcrumb is 'Home > MS_1 > Ports'. Below the title, there are 'New...' and 'Delete' buttons. A table lists the configured ports, with two rows highlighted in red: 'WC_defaulthost_secure' on port 9444 and 'WC_defaulthost' on port 9081. The table has columns for 'Name', 'Port', and 'Transport Details'. The 'Name' column contains the port name, the 'Port' column contains the port number, and the 'Transport Details' column contains the status, such as 'No associated transports' or 'No associated protocols'.

Name	Port	Transport Details
<input type="checkbox"/> WC_defaulthost_secure	9444	No associated transports
<input type="checkbox"/> WC_defaulthost	9081	No associated protocols
<input type="checkbox"/> WC_defaulthost_secure	9043	No associated protocols
<input type="checkbox"/> WC_ADMINCON	9042	No associated transports
<input type="checkbox"/> SOAP_CONNECTOR_ADDRESS	8881	No associated transports
<input type="checkbox"/> J2EE_DEFAULTHOST_SECURE	3063	No associated protocols
<input type="checkbox"/> J2EE_DEFAULTHOST	9042	No associated transports
<input type="checkbox"/> J2EE_HTTP_ENDPOINT_SECURE_ADDRESS	8579	No associated protocols
<input type="checkbox"/> J2EE_HTTP_ENDPOINT_ADDRESS	8339	No associated protocols
<input type="checkbox"/> J2EE_ENDPOINT_SECURE_ADDRESS	7287	No associated transports
<input type="checkbox"/> J2EE_ENDPOINT_ADDRESS	7076	No associated protocols
<input type="checkbox"/> J2EE_JSP_SERVLETCH_LISTENER_ADDRESS	8407	No associated transports
<input type="checkbox"/> QWSOAP_VQPC_LISTENER_ADDRESS	11009	No associated transports
<input type="checkbox"/> QWSOAP_TCP_LISTENER_ADDRESS	11810	No associated transports
<input type="checkbox"/> J2EE_LISTENER_ADDRESS	9102	No associated

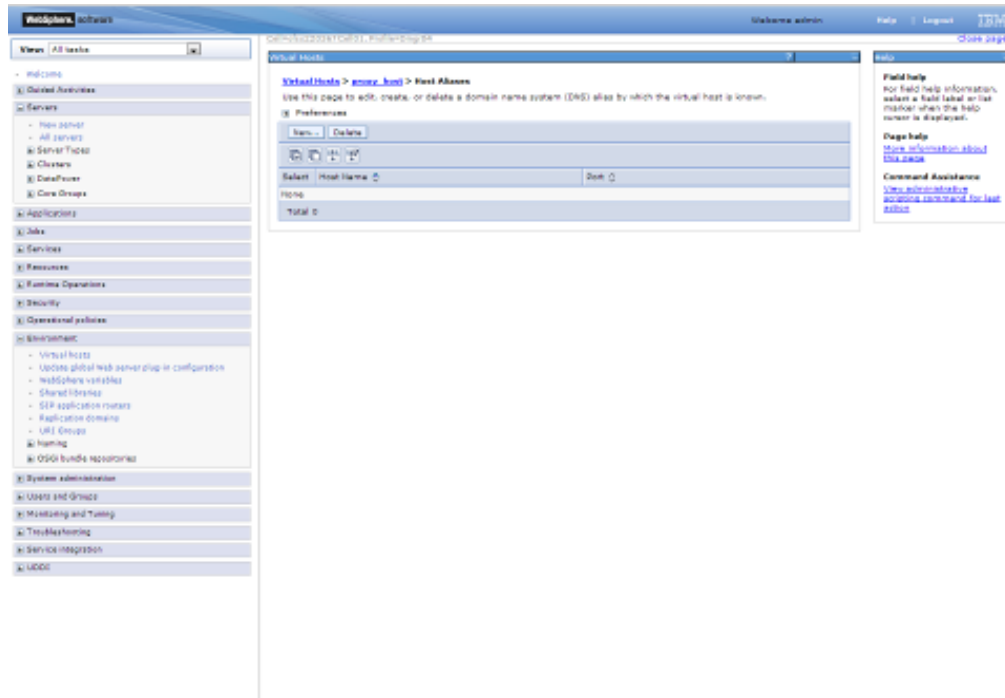
Make a note of “WC_defaulthost”/“WS_defaulthost_secure” for MS2 : 9082/9445



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. The left-hand navigation pane is expanded to 'Operational policies' > 'Virtual Hosts'. The main content area displays the 'Virtual Hosts' configuration page for a new alias. The breadcrumb trail is 'Virtual Hosts > proxy_host > Host Aliases > New...'. Below the breadcrumb, there is a 'Configuration' section with a 'General Properties' sub-section. The 'Host Name' field contains '1' and the 'Port' field contains '9081'. At the bottom of the configuration area are buttons for 'Apply', 'OK', 'Reset', and 'Cancel'. On the right side, there is a 'Field help' section and a 'Page help' section with a link to 'More information about this asset'.

The screenshot shows the Oracle WebLogic Administration Console interface. The left-hand navigation pane is expanded to 'Operational policies' > 'Virtual Hosts'. The main content area displays the 'Virtual Hosts' configuration page for an existing alias. The breadcrumb trail is 'Virtual Hosts > proxy_host > Host Aliases'. Below the breadcrumb, there is a 'References' section with a table listing the alias. The table has columns for 'Default', 'Host Name', and 'Port'. The row shows 'Default' as checked, 'Host Name' as '1', and 'Port' as '9081'. Below the table, it says 'You can administer the following resources:' followed by a table with one row: '1' and '9081'. At the bottom, it says 'Total 1'. On the right side, there is a 'Field help' section and a 'Page help' section with a link to 'More information about this asset'.

Similarly create proxy alias for all cluster related server default ports

The screenshot shows the Oracle WebCenter console interface. The main content area is titled "Virtual Hosts > proxy_host > Host Aliases". Below the title, there is a description: "Use this page to edit, create, or delete a domain name system (DNS) alias by which the virtual host is known." There is a "Preferences" section with a "Items" button and a "Delete" button. Below this is a table with the following data:

Select	Host Name	Port
<input type="checkbox"/>		8080
<input type="checkbox"/>		8084
<input type="checkbox"/>		8082
<input type="checkbox"/>		8448
Total 4		

The left sidebar shows the navigation menu with "Operational policies" expanded to "Virtual Hosts". The right sidebar contains "Field help" and "Command Assistance" sections.

5. Create Resources in Cluster Scope

JDBC Provider :

The screenshot shows the 'JDBC providers' configuration page in the WebSphere Admin console. The 'Scope' dropdown menu is highlighted with a red box and set to 'Cluster=CLUSTER_1'. Below the configuration, a table lists the resources created:

Resource Name	Scope	Description
<input type="checkbox"/> Oracle JDBC Driver	Cluster=CLUSTER_1	Oracle JDBC Driver
<input type="checkbox"/> Oracle JDBC Driver (XA)	Cluster=CLUSTER_1	Oracle JDBC Driver (XA)

Datasource :

The screenshot shows the 'Data sources' configuration page in the WebSphere Admin console. The 'Scope' dropdown menu is highlighted with a red box and set to 'Cluster=CLUSTER_1'. Below the configuration, a table lists the resources created:

Resource Name	JDBC name	Scope	Provider	Description	Category
<input type="checkbox"/> CLUSTER_1@db	jdbc/cluster@db	Cluster=CLUSTER_1	Oracle JDBC Driver (XA)	Non-JDBC DataSource	
<input type="checkbox"/> CLUSTER_1@ds	jdbc/cluster@ds	Cluster=CLUSTER_1	Oracle JDBC Driver	Non-JDBC DataSource	

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: `Cell=fes22830fcd85, 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 selection help](#).

Cluster=CLUSTER_1

References

Select	Name	JMS name	Provider	Description	Scope
<input type="checkbox"/>	EmailCF	EmailCF	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<input type="checkbox"/>	FC_QCF	FC_QCF	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<input type="checkbox"/>	JMSQCF	JMSQCF	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<input type="checkbox"/>	WebSphereQCF	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: `Cell=fes22830fcd85, 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 selection help](#).

Cluster=CLUSTER_1

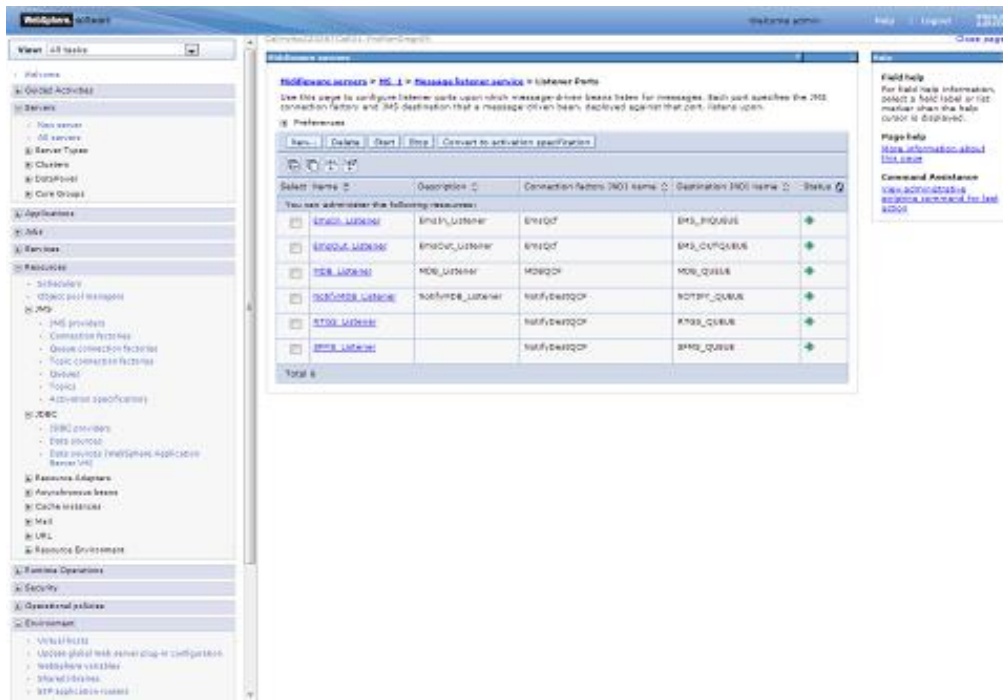
References

Select	Name	JMS name	Provider	Description	Scope
<input type="checkbox"/>	JMS_IN_QUEUE	JMS_IN_QUEUE	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<input type="checkbox"/>	JMS_OUT_QUEUE	JMS_OUT_QUEUE	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<input type="checkbox"/>	JMS_QUEUE	JMS_QUEUE	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<input type="checkbox"/>	JMS_QUEUE_DLO	JMS_QUEUE_DLO	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<input type="checkbox"/>	JMS_QUEUE_RECEIVER	JMS_QUEUE_RECEIVER	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<input type="checkbox"/>	NOTIFY_DEST_QUEUE	NOTIFY_DEST_QUEUE	WebSphere MQ messaging provider		Cluster=CLUSTER_1
<input type="checkbox"/>	NOTIFY_QUEUE	NOTIFY_QUEUE	WebSphere MQ messaging provider	NOTIFY_QUEUE	Cluster=CLUSTER_1
<input type="checkbox"/>	NOTIFY_QUEUE_DLO	NOTIFY_QUEUE_DLO	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*



Navigation : *Middleware servers > MS_2 > Message listener service > Listener Ports*

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area is titled "MessageListenerService" and shows the "Listener Ports" configuration page. The page includes a breadcrumb trail: "Home > WebLogic Server > MS_2 > MessageListenerService > Listener Ports". Below the breadcrumb, there are tabs for "Name", "Delete", "Start", "Stop", and "Convert to activation specification".

The main configuration area contains a table with the following columns: "Select Items", "Destination", "Connection factory JNDI name", "Destination JNDI name", and "Status". The table lists six listener ports, each with a checkbox in the "Select Items" column and a green arrow in the "Status" column.

Select Items	Destination	Connection factory JNDI name	Destination JNDI name	Status
<input type="checkbox"/>	EMail_MESSAGE	email	EMail_QUEUE	→
<input type="checkbox"/>	EMailOUT_MESSAGE	emailOut_listener	EMail_OUT_QUEUE	→
<input type="checkbox"/>	FILE_MESSAGE	file	FILE_QUEUE	→
<input type="checkbox"/>	HTTPOUT_LISTENER	httpOut	HTTP_OUT_QUEUE	→
<input type="checkbox"/>	JMS_MESSAGE	weblogic	JMS_QUEUE	→
<input type="checkbox"/>	JMS_LISTENER	weblogic	JMS_QUEUE	→

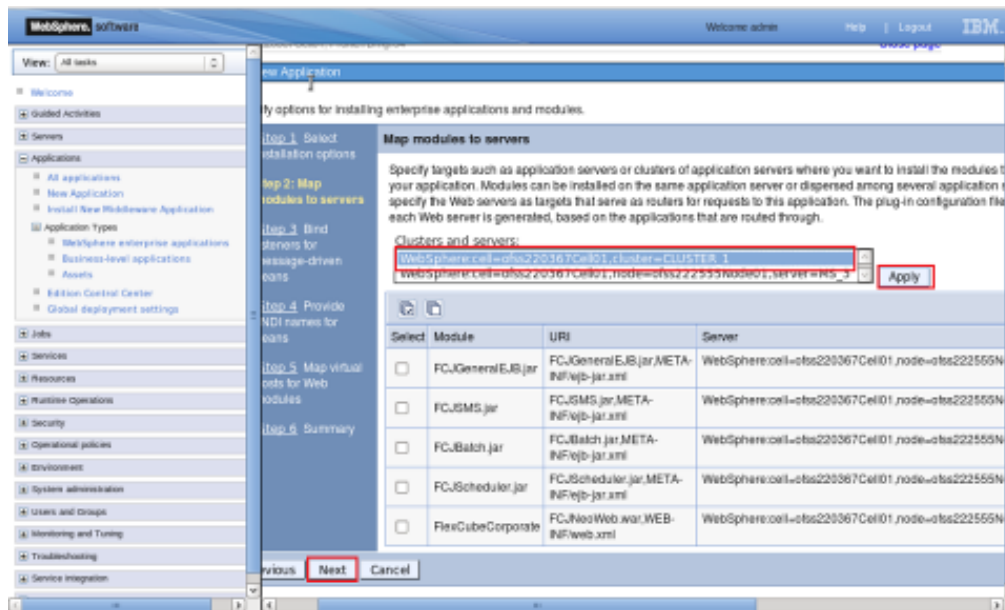
At the bottom of the table, it says "Total 6".

On the left side of the console, there is a navigation tree with categories such as "Home", "Overview", "Applications", "MBean", "Services", "Resources", "JMS", "JDBC", "Resource Adapters", "Cache Instances", "MBean", "URL", "Resource Environment", "Resource Operations", "Security", "Operational Policies", and "Environment".

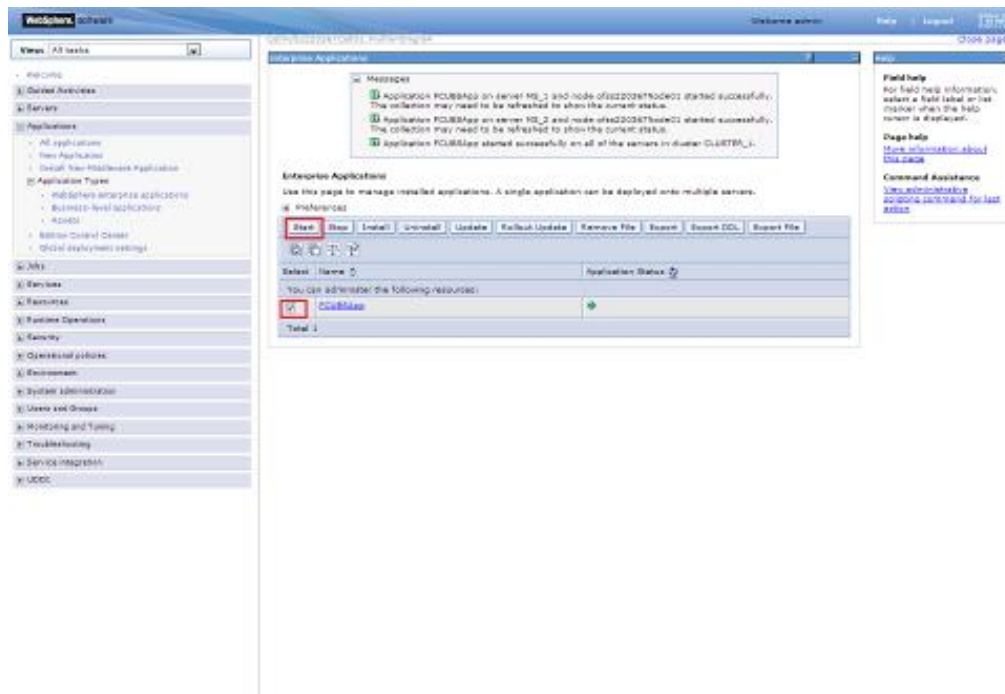
On the right side, there is a "Help" section with links for "Field help", "Page help", and "Command Assistance".

6. Deploy Application to Cluster

While deploying ensure the application is installed to Cluster



Start FCUBS application



6.1.1 Test the application

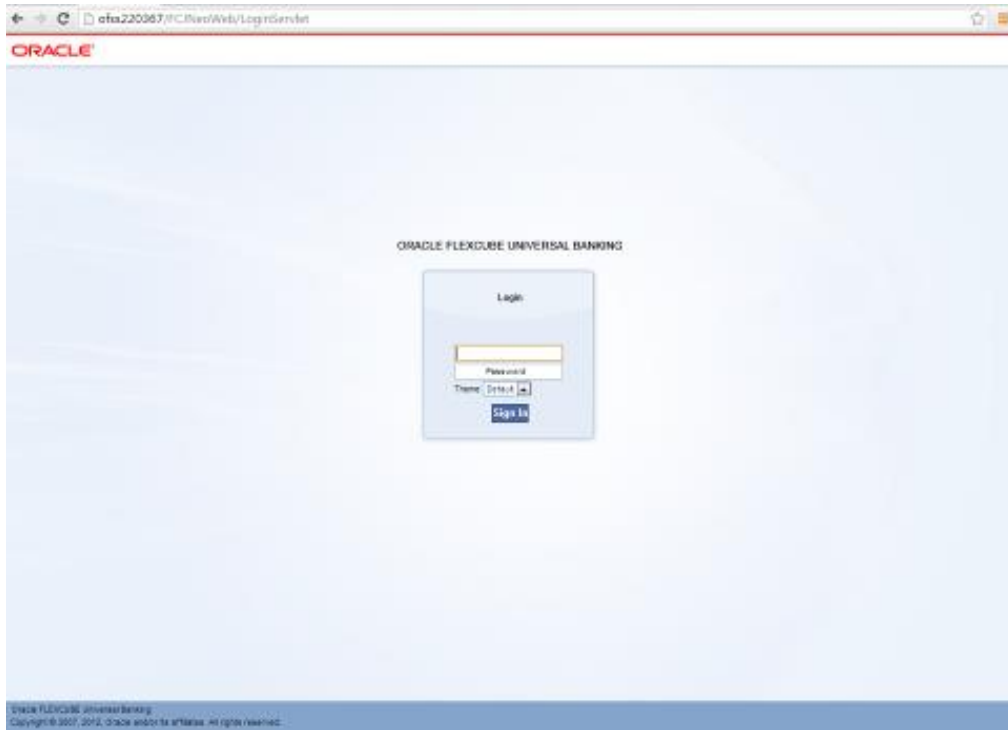
Make a note of the ports `PROXY_HTTPS_ADDRESS/PROXY_HTTP_ADDRESS` to access the application.

Navigation : *Servers > Server Types > WebSphere proxy servers > [proxy_server_1] > Ports*

Port Name	Host	Port	Transport Details
BOOTSTRAP_ADDRESS	afba222867.in.oracle.com	8813	No associated transports
CERT_30_SUNJAVATH_LISTENER_ADDRESS	afba222867.in.oracle.com	0	No associated transports
CERT_30_SECUREAUTH_LISTENER_ADDRESS	afba222867.in.oracle.com	0	No associated transports
ICE_ADAPTER_ADDRESS	*	9387	No associated transports
ICE_CLIENT_ADDRESS	*	7874	No associated transports
IPC_CONNECTOR_ADDRESS	tcpPort	9626	No associated transports
ORCL_LISTENER_ADDRESS	afba222867.in.oracle.com	0	No associated transports
ORCL_TSP_LISTENER_ADDRESS	*	10014	No associated transports
ORCL_VIP_LISTENER_ADDRESS	*	10013	No associated transports
PROXY_HTTPS_ADDRESS	*	443	No associated transports
PROXY_HTTP_ADDRESS	*	80	No associated transports
PROXY_IPC_ADDRESS	*	3061	No associated transports
PROXY_IPC_ADDRESS	*	5690	No associated transports
SEC_30_SECUREAUTH_LISTENER_ADDRESS	afba222867.in.oracle.com	0	No associated transports
SOA1_CONNECTOR_ADDRESS	afba222867.in.oracle.com	8883	No associated transports

Launch Application:

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



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