Configuring JMS on Weblogic Server 12c Oracle Banking Treasury Management Release 14.5.2.0.0 [August] [2021]

FINANCIAL SERVICES

# **Table of Contents**

1. INT	TRODUCTION	1-2
1.1	INTRODUCTION	
1.2	Purpose	
1.3	WEBLOGIC 12C NEW FEATURES	1-3
1.4	COMPONENTS DIAGRAM & DATA FLOW	1-4
2. PR	E-REQUISITES	2-1
2.1	Machines	
2.2	DYNAMIC CLUSTERS AND MANAGED SERVERS	
2.3	DATASOURCE	
2.4	Shared Folder	2-2
3. JM	IS CONFIGURATION	3-1
3.1	Persistence Store Creation	
3.2	JMS SERVER CREATION	
3.3	CLUSTER CONFIGURATION FOR SERVICE MIGRATION	3-5
4. JM	IS MODULE CREATION	4-6
4.1	Module Creation	
4.2	SUB DEPLOYMENT CREATION	
4.3	RESOURCE CREATION	
4.3		
4.3	3.2 Connection Factory Creation	4-13
5. SEI	RVER RESTART	5-17
6. FO	REIGN SERVER CREATION	6-1
6.1	MODULE CREATION	6-1
6.2	FOREIGN SERVER CREATION	6-3
6.3	FOREIGN SERVER CONFIGURATION	6-7
7. AP	PLICATION DEPLOYMENT	7-1
8. FR	EQUENTLY ASKED QUESTIONS	8-2
8.1	APPLICATION AND JMS CLUSTER DEPLOYED ON SAME CLUSTER	
8.2	APPLICATION SHOWS WARNING UPON RESTART OF MANAGED SERVERS	
8.3	SECURING FILE STORE DATA	8-3
8.4	T3s Protocol	8-3
8.5	HOW TO TEST THE DEPLOYMENT	
8.6	INCREASE MAXIMUM NUMBER OF MESSAGE-DRIVEN BEAN THREADS	
8.6	, , ,	
8.6		
8.7	How High Availability is achieved	
8.8	How to setup for Scheduler/Notifications	
8.9	WHAT OTHER MODULES USES JMS QUEUE'S	
8.10	REFERENCES	



# 1. Introduction

## 1.1 Introduction

Below is brief description on major components in Weblogic JMS Server architecture.

## 1.2 Purpose

The purpose of this document is to explain the steps required for JMS Configuration for

- 1) OBTR 14.5.2.0.0
- 2) WebLogic Server 12.1.4.0.0

### JMS Server

JMS server acts as management container for JMS queue and topic resources defined within JMS modules that are targeted to specific that JMS server. A JMS server's main responsibility is to maintain persistent storage for these resources, maintain the state of durable subscriber and etc. JMS servers can host a defined set of modules and any associated persistent storage that reside on a WebLogic Server instance

### JMS Module

JMS modules are application-related definitions that are independent of the domain environment. JMS modules group JMS configuration resources (such as queues, topics, and connections factories). These are outside domain configuration. JMS modules are globally available for targeting to servers and clusters configured in the domain and therefore are available to all the applications deployed on the same targeted. JMS modules contain configuration resources, such as standalone queue and topic destinations, distributed destinations, and connection factories.

### Subdeployment

Subdeployment is also known as Advanced Targeting. Subdeployment resource is a bridge between the group of JMS resources and JMS Servers. When you create a JMS resource you need to choose one Subdeployment.

### **JMS Resources**

- 1) **Queue** defines a point-to-point destination type, which are used for asynchronous peer communications. A message delivered to queue is distributed to only one customer.
- 2) **Topic** defines a publish/subscribe destination type, which are used for asynchronous peer communication. A message delivered to topic is distributed to all topic consumers
- 3) **Distributed queue** defines a set of queues that are distributed on multiple JMS servers, but are accessible as a single, logical queue to JMS clients
- 4) **Distributed topic** defines a set of topics that are distributed on multiple JMS servers, but which as accessible as a single, logical topic to JMS clients.



5) **Uniform Distributed Queue**: queue members are created uniformly from a common configuration.

### Persistence store

A persistent store provides a built-in, high-performance storage solution for weblogic server subsystems and services that required persistence. There are two type of mechanism to store the message

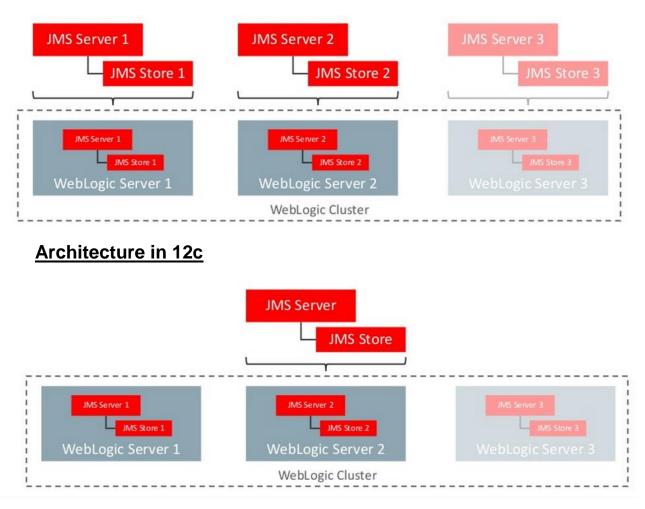
- 1) File based persistence store -> Message is stored in a file
- 2) DB based persistence store -> Message is stored in Database.

## 1.3 Weblogic 12c New Features

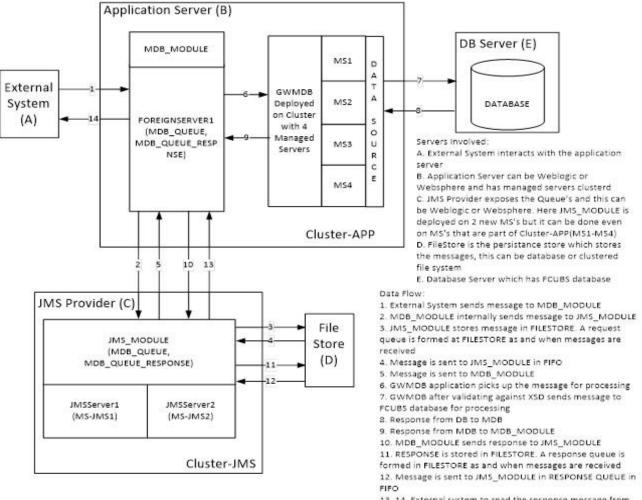
Before weblogic 12c JMS Servers and stores are targeted to individual WLS Servers. Scaling up requires configure the JMS server, the store and target it to new WLS Server

In 12c JMS Servers and stores are targeted to WLS cluster. Scaling up requires to add a WLS server to the cluster.

## Architecture previous to 12c







## 1.4 Components Diagram & Data Flow

Below is the flow diagram which indicates various components that are used and the document explain steps to create.

13, 14. External system to read the response message from Response Queue



# 2. Pre-Requisites

The document assumes that the below are created before proceeding JMS creation.

# 2.1 <u>Machines</u>

### MAC-1 & MAC-2

ORACLE WebLogic Server Administration Console 12c						
Change Center	Home Log Out Preferences 🔤 Record Help	Welcome, weblogic Connected to: pegjms				
View changes and restarts Home >Summary of Servers >Summary of Machines						
Configuration editing is enabled. Future	Summary of Machines					
changes will automatically be activated as you modify, add or delete items in this domain. Domain Structure A machine is the logical representation of the computer that hosts one or more WebLogic Server instances (servers). WebLogic Server uses configured machine optimum server in a cluster to which certain tasks, such as HTTP session replication, are delegated. The Administration Server uses the machine definition in con Manager to start remote servers.						
E→Environment Servers B→Clusters Coherence Clusters	This page displays key information about each machine that has been configured in the current WebLogic Service Customize this table	rer domain.				
Machines Virtual Hosts	Machines					
Work Managers Startup and Shutdown Classes	New Clone Delete	Showing 1 to 2 of 2 Previous   Next				
Deployments Services	🖸 Name 🗞 Typ	e				
Security Realms     Thereoperability	MAC-1 Mach	ine				
C nite up tawny T Machine Machine						
How do L						
Create and configure machines						
<ul> <li>Assign server instances to machines</li> </ul>						

# 2.2 Dynamic Clusters and Managed Servers

Ensure Dynamic cluster for OBTR (4 Managed Servers) and Dynamic cluster for JMS Deployment (2 Managed Servers)

	Administration Console 12c						Q
Change Center	Home Log Out Prefere	ences 🔤 Record Help	٩			Welcome, weblogic Co	onnected to: FCUBSDomai
View changes and restarts		s >Summary of Clusters >Summary of Serv ers > <b>Summary of Clusters</b>	er Templates >Summary o	f Clusters >Summary of Servers	>Summary of Clusters >	Summary of Server Templates >Su	mmary of
Click the Lock & Edit button to modify, add or delete items in this domain. Lock & Edit Release Configuration	Clusters >Summary of Servers >Summary of Clusters Messages						
Domain Structure	This page summarizes the	e clusters that have been configured in t	ne current WebLogic Serv	ver domain.			
Environment     Servers     Clusters     Clusters     Migratable Targets     Coherence Clusters     Machines     Work Managers     Startual Hosts     Work Managers	Customize this table Clusters (Filtered - Mor Click the <i>Lock &amp; Edit</i> but	of WebLogic Server servers that work to rec Columns Exist) ton in the Change Center to activate all blete	-			Showing 1 to	2 of 2 Previous   Next
Deployments     Services	🗌 Name 🐟 🛛 Cluste	ter Address Cluster Messaging M	ode Migration Basis	Default Load Algorithm	Replication Type	Cluster Broadcast Channel	Servers
How do I	Cluster-App	Unicast	Database	Round Robin	(None)		DC_FCUBS_1, DC_FCUBS_2, DC_FCUBS_3, DC_FCUBS_4
Assign server instances to dusters	Cluster-JMS	Unicast	Database	Round Robin	(None)		DC_JMS_1, DC_JMS_2
Configure server migration in a duster     Configure cross-duster replication     Create dynamic dusters	server migration in a duster pross-duster replication Come Delete Showing 1 to 2 of 2 Previous   N						2 of 2 Previous   Next



hange Center		Home Log Out Preferences 🔼	Record Help	Q			Welcome, we	blogic Connected to: FCUBSDor		
liew changes and restarts		ome >Summary of Server Templates lusters > <b>Summary of Servers</b>	s >Summary of Clusters >Sur	nmary of Servers >Summary	of Clusters >Summary o	of Servers >Summary of C	usters >Cluster-JMS >Summary	of Servers >Summary of		
lick the Lock & Edit button to modify, add or lelete items in this domain.		nmary of Servers								
Lock & Edit	Co	onfiguration Control								
Release Configuration										
omain Structure		A server is an instance of WebLog				iguration.				
	× T	This page summarizes each server	that has been configured i	n the current WebLogic Ser	ver domain.					
	6	2								
E-Clusters										
		Customize this table								
Server Templates		Customize this table								
Migratable Targets	=		mns Evist)							
	=	Servers (Filtered - More Colu								
LMigratable Targets Coherence Clusters Machines Virtual Hosts	=			te all the buttons on this pa	ıge.					
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	= •	Servers (Filtered - More Colu Click the <i>Lock &amp; Edit</i> button in th		te all the buttons on this pa	ige. Machine	State	Sh	owing 1 to 7 of 7 Previous   Next		
Migratable Targets    Coherence Clusters    Working Sources	=	Servers (Filtered - More Colu Click the <i>Lock &amp; Edit</i> button in the New Clone Delete Name A	Type		-	State RUNNING		- ,		
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Higratable Targets     Coherence Clusters     Machines     Work Managers     Startup and Shutdown Classes     Deployments     Services     contribut Bealms     work Managed Servers		Servers (Filtered - More Colu Click the Lock & Editbutton in th New Cone Delete Name & AdminServer(admin) DC_FCUBS_1 DC_FCUBS_2	e Change Center to activa Type Configured Dynamic Dynamic	Cluster Cluster-App Cluster-App	Machine MAC-1 MAC-2	RUNNING SHUTDOWN SHUTDOWN	Health VOK Not reachable Not reachable	Listen Port           7001           7101           7102		
Hightable Targets     Coherence Clusters     Machines     Wruhal Hosts     Work Managers     Startup and Shutdown Classes     Deployments     Services     Sen sitv Realms      work of L  Create Managed Servers Clone servers		Servers (Filtered - More Colu Clok the Lock & Editbutton in th New Clone Delete Name & AdminServer(admin) DC_FCU85_1 DC_FCU85_2 DC_FCU85_3	e Change Center to activa Type Configured Dynamic Dynamic Dynamic	Cluster Cluster-App Cluster-App Cluster-App	Machine MAC-1 MAC-2 MAC-1	RUNNING SHUTDOWN SHUTDOWN SHUTDOWN	Health       Image: Work of the exchable       Not reachable       Not reachable	Listen Port 7001 7101 7102 7103		
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Hightable Targets     Coherence Clusters     Hightable Targets     Coherence Clusters     Hightable Targets     Work Managers     Work Managers     Startup and Shutdown Classes     Deployments     Services     Services     Services     Services     Services     Dete the Administration Server     Start and stop servers		Servers (Filtered - More Colu Clok the Lock & Editbutton in th New Clone Delete AdminServer(admin) DC_FCUBS_1 DC_FCUBS_2 DC_FCUBS_3 DC_FCUBS_4	e Change Center to active Type Configured Dynamic Dynamic Dynamic Dynamic	Cluster App Cluster App Cluster App Cluster App Cluster App Cluster App	Machine MAC-1 MAC-2 MAC-1 MAC-2	RUNNING SHUTDOWN SHUTDOWN SHUTDOWN SHUTDOWN	Health CK Not reachable Not reachable Not reachable Not reachable	Listen Port 7001 7101 7102 7103 7104		
Gone servers     Delete the Administration Server		Servers (Filtered - More Colu Clok the Lock & Editbutton In th New Cone Delete AdminServer(admin) DC_FCUBS_1 DC_FCUBS_2 DC_FCUBS_3 DC_FCUBS_4 DC_FCUBS_4 DC_FCUBS_1	e Change Center to active Type Configured Dynamic Dynamic Dynamic Dynamic Dynamic	Cluster App Cluster App Cluster App Cluster App Cluster App Cluster App Cluster JMS	Machine           MAC-1           MAC-2           MAC-1           MAC-2           MAC-1	RUNNING SHUTDOWN SHUTDOWN SHUTDOWN SHUTDOWN SHUTDOWN	Health  ✓ OK  Not reachable  Not reachable	Listen Port 7001 7101 7102 7103 7104 7106		

# 2.3 DataSource

Ensure that DataSource required for the MDB ear is created with Target as Cluster-App

ORACLE WebLogic Server® Administration Console					
Change Center	🏦 Home Log Out Preferences 🖾 Record Help				
View changes and restarts	Home >JMS Modules >JMS_MODULE >MDB_QUEUE >Summary of JMS Messages >JMS Modules >JMS_MODULE > Sources	MDB_QUEUE >Summary of JMS Messages >Summary of Deployments >Summary of JDBC Data			
Configuration editing is enabled. Future changes will automatically be activated as you					
modify, add or delete items in this domain.	Configuration Monitoring				
Bornessgiing     Servers     Store-and-Forward Agents     Modules     Path Services     B-Bridges     Data Sources     Persistent Stores	A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections. Applications can look up a data source on the JNDI tree and then borrow a database connection from a data source. This page summarizes the JDBC data source objects that have been created in this domain. Customize this table Data Sources (Filtered - More Columns Exist)				
Foreign JNDI Providers Work Contexts	New > Delete Showing 1 to 3 of 3 Previous   Next				
XML Registries XML Entity Caches	🗌 Name 🔅 Type JNDI Na	ame Targets			
ŢCOM  ▼	FLEXTEST.WORLD Generic FLEXTEST	T.WORLD Cluster-App			
n	idhe/feidauDC Conorie idhe/feida	AdminEnsur			

# 2.4 Shared Folder

A shared folder for File Store Creation is required and this folder should be accessible across both the servers (eg, NFS mount).



# 3. JMS Configuration

# 3.1 Persistence Store Creation

1) Navigate to Services → Persistent Stores→New → Create FileStore

DRACLE WebLogic Server Administration Console 12c					
Change Center	🔒 Home Log Out Preferences 🔤 Record H		Welcome, weblogic Connected to: pegjms		
View changes and restarts	Home >Summary of Servers >Summary of Persi Messages	istent Stores			
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Create operation cancelled - no file store created.				
	Summary of Persistent Stores				
Domain Structure		storing subsystem data, such as persistent JMS summarizes the persistent stores that have bee	messages. It can be a JDBC-accessible database, disk-based in created for this domain.		
Data Sources	New ~ Delete		Showing 0 to 0 of 0 Previous   Next		
Foreign JN/Providers	🔲 Name 🏟	Туре	Target		
Work Contexts XML Registries	There are no items to display				
How do I	New   Delete Showing 0 to 0 of 0 Previous   Next				
Create File Stores					

ORACLE WebLogic Server Administration Console 12c						
Change Center	🚹 Home Log Out Preferences 🔤 R	ecord Help	Welcome, weblogic Connected to: pegjms			
View changes and restarts Home >Summary of Servers >Summary of Persistent Stores						
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.						
	Summary of Persistent Stores					
Domain Structure  Converses  Coherence Clusters  Machines  Work Managers  Startup and Shutdown Classes  Deployments  G-Services		ory for storing subsystem data, such as persistent JM is page summarizes the persistent stores that have be	S messages. It can be a JDBC-accessible database, disk-based en created for this domain.			
	New v Delete		Showing 0 to 0 of 0 Previous   Next			
<b>Persistent Stores</b> Foreign JNDI Providers Work Contexts	Create FileStore	Туре	Target			
	Create ReplicatedStore (Exalogic)     There are no items to display					
How do I						
Create File Stores						



### 2) Select **Cluster-JMS** under target dropdown and Click on OK

	Iministration Console 1	?c			Q
Change Center	Home Log Out Pre	ferences 💽 Record Help	٩		Welcome, weblogic Connected to: FCUBSDomain
View changes and restarts	Home >Summary of Cl of Persistent Stores	isters >Summary of Servers >Su	ummary of Clusters >Summary of	Servers >Summary of Clusters >C	luster-JMS >Summary of Servers >Summary of Clusters >Summary of Servers > <b>Summary</b>
No pending changes exist. Click the Release Configuration button to allow others to edit the	Create a New File Sto	re			
domain. Lock & Edit Release Configuration	OK Cancel File Store Property				
Domain Structure	The following propert * Indicates required fie	ies will be used to identify your ds	r new file store.		
	What would you like to * Name:	name your new file store? FileStore-1			
Coherence Clusters	Select a server instance	e for this file store.			
Virtual Hosts Work Managers	Target:	Cluster-JMS -			
	The pathname to the o	irectory on the file system wh	ere the file store is kept. This dir	ectory must exist on your syste	em, so be sure to create it before completing this tab.
-Messaning	Directory:	/scratch/work_area/	JMS_FILESTORE		
How do I 🗉	OK Cancel				
Create File Stores     Monitor persistent stores					

### 3) FileStore-1 is created

	dministration Console 12c			õ
Change Center	🏠 Home Log Out Preferences 🔤 Record H	telp	Welcome, weblogic	Connected to: FCUBSDomain
View changes and restarts	Home >Summary of Clusters >Summary of Server of Persistent Stores	rs >Summary of Clusters >Summary of Servers >Summary of	of Clusters >Cluster-JMS >Summary of Servers >Summary of Clusters >Summary	ary of Servers > <b>Summary</b>
Click the Lock & Edit button to modify, add or delete items in this domain. Lock & Edit	Messages All changes have been activated. No restar Summary of Persistent Stores	ts are necessary.		
Pelesse Configuration       Domain Structure       - Servers       - Ousters       - Migratable Targets       - Coherene Clusters       - Workines       - Workines		en created for this domain.	s. It can be a JDBC-accessible database, disk-based file, or replicated me	mory storage. This page
Work Managers Startup and Shutdown Classes Deployments	New v Delete		Showing 1 t	to 1 of 1 Previous   Next
Services     Hessaging	🗌 Name 🗞	Туре	Target	
Data Sources Persistent Stores	FileStore-1	FileStore	Cluster-JMS	
How do I	New v Delete		Showing 1 t	to 1 of 1 Previous   Next
Create File Stores				



## 3.2 JMS Server Creation

1) Navigate to Services  $\rightarrow$  Messaging  $\rightarrow$  JMS Servers  $\rightarrow$  Click on New



### 2) Select FileStore-1 , Click Next

	dministration Console 12c	Q				
Change Center	🔒 Home Log Out Preferences 🔤 Record Help	Welcome, weblogic Connected to: FCUBSDoma				
View changes and restarts	Home >Summary of Servers >Summary of Clusters >Summary of Servers >Summary of Clusters >Cluster-JMS >Summary of Servers >Summary of Clusters >Summary of Servers >Summary of Persistent					
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Create a New JHS Server					
Lock & Edit	Back Next Finish Cancel					
Release Configuration	JHS Server Properties The following properties will be used to identify your new JMS Server.					
Domain Structure	* Indicates required fields					
EnvironmentServers	What would you like to name your new JMS Server?					
ClustersServer TemplatesMigratable Targets	a∰ * Name: JMSServer-1					
Coherence Clusters Machines	Specify persistent store for the new JMS Server.					
Virtual Hosts Work Managers	Persistent Store: FileStore-1  Create a New Store					
LStartup and Shutdown Classes	(none) Back Next Finish Cancel FileStore-1					

#### 3) Select Target as Cluster-JMS and click on Finish

	dministration Console 12c	Q
Change Center	🔒 Home Log Out Preferences 🖾 Record Help	Welcome, weblogic Connected to: FCUBSDomai
View changes and restarts	Home >Summary of Servers >Summary of Clusters >Summary of Servers >Summary of Clusters >Cluster-JMS >Summary of Servers Stores >Summary of JMS Servers	s >Summary of Clusters >Summary of Servers >Summary of Persistent
No pending changes exist. Click the Release Configuration button to allow others to edit the	Create a New JMS Server	
domain.	Back Next Fnish Cancel	
Release Configuration	Select targets Select the server instance or migratable target on which you would like to deploy this JMS Server.	
Domain Structure		
Environment     Servers     Clusters     Server Templates	Target:     (none)       (none)     (none)       Back     Next       Finish     Cancel       Cluster-App       Cluster-JMS	
Migratable Targets		



	dministration Console 12c		Q
Change Center	Home Log Out Preferences [	Record Help	Welcome, weblogic Connected to: FCUBSDomain
View changes and restarts	Home >Summary of Servers >Sum Stores >Summary of JMS Servers		ter-JMS >Summary of Servers >Summary of Clusters >Summary of Servers >Summary of Persistent
No pending changes exist. Click the Release Configuration button to allow others to edit the	Create a New JMS Server		
domain.	Back Next Finish C	Cancel	
Release Configuration	Select targets		
	Select the server instance or mig	ratable target on which you would like to deploy this JMS Server	r.
Domain Structure	Target:	Cluster-JMS 💌	
Environment     Servers     Clusters     Server Templates     Mingatable Targets	Back Next Finish C	Cancel	

### 4) JMS-Server-1 is created

-										
	Administration Console 12c				õ					
Change Center	🔒 Home Log Out Preferences 🔤 R	Record Help		Welcon	ne, weblogic Connected to: FCUBSDomain					
View changes and restarts	Home >Summary of Servers >Summary Stores >Summary of JMS Servers	Home > Summary of Servers > Summary of Clusters > Summary of Servers > Summary of Clusters > Summary of Servers > Summary of Servers > Summary of Peristent Stores > Summary of JHS Servers > Summary of Peristent								
Click the Lock & Edit button to modify, add or delete items in this domain.	Messages									
Lock & Edit	All changes have been activated. I	No restarts are necessary.								
Release Configuration	Summary of JMS Servers									
Domain Structure	JMS servers act as management cont	tainers for the queues and topics in JMS modules	that are targeted to them.							
-Environment -Servers -Clusters	This page summarizes the JMS server	rs that have been created in the current WebLogi	c Server domain.							
Server Templates	Customize this table									
Machines	JMS Servers (Filtered - More Col	umns Exist)								
Virtual Hosts Work Managers	Click the Lock & Edit button in the C	hange Center to activate all the buttons on this p	age.							
Startup and Shutdown Classes	New Delete				Showing 1 to 1 of 1 Previous   Next					
Services     B-Messaging	🔲 Name 🗞	Persistent Store	Target	Current Target	Health					
JMS Servers 🔻	JMSServer-1	FileStore-1	Cluster-JMS	Cluster-JMS						
How do I	New Delete				Showing 1 to 1 of 1 Previous   Next					
Configure JMS servers										
<ul> <li>Configure JMS system modules</li> </ul>										

### 5) In NFS below filestores can be seen

```
[root@ JMS_FILESTORE]# 11
total 2056
-rw-r----- 1 wl12c oinstall 1049088 Jun 16 14:10 FILESTORE-1@DC_JMS_1000000.DAT
-rw-r----- 1 wl12c oinstall 1049088 Jun 16 14:10 FILESTORE-1@DC_JMS_2000000.DAT
[root@ JMS_FILESTORE]# pwd
/scratch/work_area/JMS_FILESTORE
[root@ JMS_FILESTORE]#
```



# 3.3 Cluster Configuration for Service Migration

Change Center	Home Log Out	Preferences	Record Help		Q	Welcon	ne, weblogic Connec	ted to: pegjme			
View changes and restarts	Home >Summary of Outlers >Outler-36					y of Ousters >Summary of Mg	ratable Targets >Summa	y of			
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Summary of Clust	Summary of Clusters									
Domain Structure		This page summarizes the clusters that have been configured in the current WebCogic Server domain. A cluster defines groups of WebCogic Server servers that work together to increase scalability and reliability.									
- Environment	A duster defines	proups of WebLo	ogic Server server	that work togeth	er to increase scalab	ity and reliability.					
Coher Conters	© Customize this table										
Wachi Chusters, Level 2, Collapsed, 2 of 7 Wirtuamono Work Managers	7, Selected rs (Filtere	d - More Colu o Delete	mns Exist)			9	nowing 1 to 2 of 2 Pre	ious   Next			
Startup and Shutdown Casses     Opployments     Services	📰 Name 🏟	Cluster Addr	ress Cluster H	essaging Hode	Higration Basis	Default Load Algorithm	Replication Type	Cluster Bri			
-Security Realms 9-Interoperability 9-Disconstruct	Custer-App		Unicast		Database	Round Robin	(None)				
tow do L. B	Custer-345		Unicast		Database	Round Robin	(None)				
2) Click on Mig ORACLE WebLogic Server A Change Center			Necord Help		٩	Welcom	ne, weblogic Connec	ed to: pegjms			
View changes and restarts			nary of Persistent St f Migratable Targets			y of Clusters >Summary of Mig	ratable Targets >Summar	y of			
Configuration editing is enabled. Future changes will automatically be activated as you	Settings for Clust	er-JMS									
modify, add or delete items in this domain.	Configuration	Monitoring C	Control Deploym	ents Services	Notes						
Domain Structure	General JTA	Messaging S	Servers Replica	on Migration	Singleton Services	Scheduling Overload	Health Monitoring	нттр			
E-Environment	Coherence										
Servers ClustersCoherence Clusters	Save										
<ol> <li>Change Migr</li> </ol>	ation Basis	to Cons	ensus an	d Click o	n <b>Save</b>						

1) Click on Environment  $\rightarrow$  Clusters  $\rightarrow$  Cluster-JMS



# 4. JMS Module Creation

# 4.1 Module Creation

1) Navigate to Services  $\rightarrow$  Messaging  $\rightarrow$  JMS Modules and Click on **New**.

	dministration Console 12c	Q									
Change Center	🟦 Home Log Out Preferences 🔤 Record Help	ed to: <b>pegjms</b>									
View changes and restarts		Home >Summary of Migratable Targets >MS-JMS1 (migratable) >Summary of Migratable Targets >MS-JMS2 (migratable) >Summary of Clusters >Summary of Migratable Targets >MS-JMS1 (migratable) >Summary of Clusters >Summary of Migratable Targets >Summary of JMS Modules									
Configuration editing is enabled. Future changes will automatically be activated as you	Messages										
modify, add or delete items in this domain.	⊘ The JMS module configuration was canceled.										
Domain Structure	Summary of JMS Modules										
B-Environment    Deployments     B-Services    MS Servers    MS Servers    MS Servers	JMS system resources are configured and stored as modules similar to standard J2EE modules. Such resources include queues, topics, connection far templates, destination keys, quota, distributed queues, distributed topics, foreign servers, and JMS store-and-forward (SAF) parameters. You can administratively configure and manage JMS system modules as global system resources. This page summarizes the JMS system modules that have been created for this domain. Customize this table JHS Modules	ictories,									
Persistent Stores Foreign JNDI Providers	New Delete Showing 0 to 0 of 0 Previo	ous   Next									
How do L	☐ Name ŵ Type										
Configure JMS system modules	There are no items to display										
Configure resources for JMS system modules	New Delete Showing 0 to 0 of 0 Previous	ous   Next									
System Status 🖂											

### 2) Enter name as JMS\_MODULE and Click on Next

	ministration Console 12c	Q
Change Center	🔒 Home Log Out Preferences 🖂 Record Help	Welcome, weblogic Connected to: pegjms
View changes and restarts	Home >Summary of Migratable Targets >MS-JMS1 (migratable) >Summary of Migratable Targets > Targets >MS-JMS1 (migratable) >Summary of Clusters >Summary of Migratable Targets > <b>Summa</b>	
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Create JMS System Module Back Nrth Cancel	
	The following properties will be used to identify your new module.	
B Environment →Deployments Services Messaging → JMS Servers → JMS Modules	JMS system resources are configured and stored as modules similar to standard J2EE modul templates, destination keys, quota, distributed queues, distributed topics, foreign servers, administratively configure and manage JMS system modules as global system resources. * Indicates required fields	
Path Services Path Services Data Sources Persistent Stores Foreign JNDI Providers	What would you like to name your System Module? *Name: JMS_Module	
Work Contexts	What would you like to name the descriptor file name? If you do not provide a name, a defau	ult will be assigned.
How do I   • Configure JMS system modules	Descriptor File Name:	
Configure JMS servers	Where would like to place the descriptor for this System Module, relative to the jms configura	ation sub-directory of your domain?
System Status	Location In Domain:	
Health of Running Servers	Back Next Finish Cancel	
Failed (0)		

3) Select Target as Cluster-JMS and Click on Next



ORACLE WebLogic Server A	dministration Console 12c		Q
Change Center	🙆 Home Log Out Preferences 📈 Record Help	Q.	Welcome, weblogic Connected to: FCU8SDomai
View changes and restarts	Home >Summery of Server Templates >DC_3HS_Template-0 >So Mignitude Targets >Summary of 3HS Hodules	mmary of Servers xSummary of Highstable	Targals >Summary of 3HS Servers >3HSServer3 >Summary of 3HS Servers >3HSServer3 >Summary of
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Create JHS System Hodale		
Release Configuration	The following properties will be used to target your	new JHS system module.	
Domain Structure	Use this page to select the server or duster on which you w	ould like to deploy this JMS system module	e. You can reconfigure targets later if you wish.
Environment     Servers     Ousters	Targets :		
Server Templates Migratable Targets	Servers		
- Coherence Clusters - Machines - What Hosts	AdminServer		
Work Managers Startup and Shutdown Classes	Clusters		
Deployments Diservices Differences	Clester-App O All servers in the cluster		
How do I 🛛	Cluster-JHS		
Configure 345 system modules     Configure 345 servers	All servers in the cluster		

### 4) Select the checkbox and Click on Finish

	dministration Console 12c
Change Center	🟦 Home Log Out Preferences 🔤 Record Help
View changes and restarts	Home >Summary of Migratable Targets >MS-JMS1 (migratable) >Summary of Migratable Targets >MS-JMS2 (migratable) >Summary of Olusters >Summary of Migratable Targets >MS-JMS1 (migratable) >Summary of Olusters >Summary of Migratable Targets > <b>Summary of JMS Modules</b>
Configuration editing is enabled. Future changes will automatically be activated as you	Create JMS System Module
modify, add or delete items in this domain.	Back Next Finish Cancel
Domain Structure	Add resources to this JMS system module
⊕-Environment     →Deployments     ⊖-Services     ☐-Messaging	Use this page to indicate whether you want to immediately add resources to this JMS system module after it is created. JMS resources include queues, topics, connection factories, etc.
JMS Servers Store-and-Forward Agents	Would you like to add resources to this JMS system module?
JMS Modules Path Services EBridges	Back Next Finip Cancel
Data Sources Persistent Stores	
Foreign JNDI Providers	

### 5) JMS\_MODULE is created

	r Administration Console 12c		Q							
Change Center	Home Log Out Preferences 🔤 Record Hel	P	Welcome, weblogic Connected to: pegjn							
View changes and restarts	Home >MS-JMS1 (migratable) >Summary of Migratal (migratable) >Summary of Clusters >Summary of Mi		v of Clusters >Summary of Migratable Targets >MS-JMS1 JMS Module							
Configuration editing is enabled. Future changes will automatically be activated as yo	Messages									
modify, add or delete items in this domain.		<ul> <li>✓ All changes have been activated. However 1 items must be restarted for the changes to take effect.</li> <li>✓ The JMS module was created successfully.</li> </ul>								
Jomain Structure	Settings for JMS_Module									
-Environment Deployments	Configuration Subdeployments Targets	Security Notes								
È-Services È-Messaging →-JMS Servers →-Store-and-Forward Agents →-JMS Modules	E This page displays general information about a J resources.	MS system module and its resources. It also	allows you to configure new resources and access existing							
Path Services Path Services	Name:	JMS_Module	The name of this JMS system module. More Info							
Data Sources Persistent Stores	Descriptor File Name:	jms/jms_module-jms.xml	The name of the JMS module descriptor file. More Info							
Foreign JNDI Providers Work Contexts	<ul> <li>This page summarizes the JMS resources that ha</li> <li>JMS templates, destination sort keys, destination</li> </ul>		e, including queue and topic destinations, connection factories, ervers, and store-and-forward parameters.							



# 4.2 Sub Deployment Creation

### 1) In JMS\_MODULE, Click on Sub Deployment tab , Click on New

		<b>— — — — — — — — — —</b>								
hange Center	Home Log Out Preferences		Q	_		gic Connected to: pegj				
iew changes and restarts		Home >M5-JM51 (migratable) >Summary of Migratable Targets >M5-JM52 (migratable) >Summary of Clusters >Summary of Migratable Targets >M5-JM51 (migratable) >Summary of Clusters >Summary of Migratable Targets >Summary of JM5 Modules > <b>JM5_Modul</b> e								
onfiguration editing is enabled. Future nanges will automatically be activated as you odify, add or delete items in this domain.		4essages ✓ All changes have been activated. However 1 items must be restarted for the changes to take effect. ✓ The JMS module was created successfully.								
omain Structure	The JMS module was created	d successfully.								
·	Settings for JMS_Module									
Deployments	Configuration Subdeployme	<u>nts</u> Targets S	ecurity Notes							
-)-Services ⊟-Messaging JMS Servers Store-and-Forward Agents JMS Modules		deployments- Tab mation about a JM		ources. It also allows you to configur	e new resources an	d access existing				
Path Services ⊕-Bridges	Name:	MC	IS_Module	The name of this J	The name of this JMS system module. More Info					
Data Sources Persistent Stores Foreign JNDI Providers	Descriptor File Name:	jm	s/jms_module-jms.xml	The name of the JI	MS module descripto	r file. More Info				
w do I	This page summarizes the JMS			system module, including queue and ns, foreign servers, and store-and-f						
No task help found.	Customize this table									
ystem Status	Summary of Resources									
ealth of Running Servers	New Delete				Showing 0 to	0 of 0 Previous   Next				
Failed (0) Critical (0)	🔲 Name 🗞	Туре	JNDI Name	Subdeployment	١	argets				
Overloaded (0)	Į,		There are no	items to display						
Warning (0) OK (1)	New Delete	New Delete Showing 0 to 0 of 0 Previous   Next								
	-									

### 2) Enter name as JMS\_SUB and click on Next

	dministration Console 12c Q
Change Center	Home Log Out Preferences 🗠 Record Help     Welcome, weblogic     Connected to: pegjm
View changes and restarts	Home >MS-JMS1 (migratable) >Summary of Migratable Targets >MS-JMS2 (migratable) >Summary of Clusters >Summary of Migratable Targets >MS-JMS1 (migratable) >Summary of Clusters >Summary of Migratable Targets >Summary of JMS Modules >JMS_Module
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Create a New Subdeployment           Back         Inish         Cancel           Subdeployment Properties         Subdeployment Properties
Deployments    Services    Messaging	The following properties will be used to identify your new subdeployment. * Indicates required fields
JMS Servers Store-and-Forward Agents JMS Modules Path Services B-Bridges Data Sources Persistent Stores	* Subdeployment Name: JMS_SUB Back Next Finish Cancel



### 3) Select Target as Cluster-JMS and Click on Finish

	Iministration Console 12c	Q
Change Center	🔒 Home Log Out Preferences 🔝 Record Help	Welcome, weblogic Connected to: FCUBSDomain
View changes and restarts	Home >DC_JMS_Template-0 >Summary of Servers >Summary of Migratable Targe JMS Modules >JMS_MODULE	ts >Summary of JMS Servers >JMSServer-1 >Summary of JMS Servers >JMSServer-1 >Summary of Migratable Targets >Summary of
No pending changes exist. Click the Release Configuration button to allow others to edit the	Create a New Subdeployment	
domain.	Back Next Finish Cancel	
Release Configuration	Targets	
Domain Structure	Please select targets for the Subdeployment	
Environment     Servers     E-Clusters	Servers AdminServer	
Server Templates	Clusters	
Coherence Clusters Machines Virtual Hosts Work Managers	Cluster-JMS All servers in the cluster	
LStartup and Shutdown Classes	JMS Servers	
-Services	JMSServer-1	
How do I    Configure subdeployments in JMS system modules	Back Next Finish Cancel	

### 4) Sub-Deployment is created

ORACLE WebLogic Server Ad	Iministration Conso	le 12c				Q				
Change Center	Home Log Out	t Preferences 📐 Re	ecord Help		Q	Welcome, weblogic Connected to: pegjms				
View changes and restarts		a >M5-JM51 (migratable) >Summary of Migratable Targets >M5-JM52 (migratable) >Summary of Clusters >Summary of Migratable Targets >M5-JM51 atable) >Summary of Clusters >Summary of Migratable Targets >Summary of JMS Modules > <b>JM5_Module</b>								
Configuration editing is enabled. Future	Messages									
changes will automatically be activated as you modify, add or delete items in this domain.	All changes ha	All changes have been activated. However 1 items must be restarted for the changes to take effect.								
	Subdeploymer	Subdeployment created successfully.								
Domain Structure										
	Settings for JMS	_Module								
-Environment    Deployments	Configuration 5	5ubdeployments	Targets S	ecurity Not	es					
Services     Messaging    Messaging    Missaging    Missaging    Missaging    Store-and-Forward Agents    Store-and-Forward Agents		ection factories) are g s table				ent is a mechanism by which JMS module resources (such as queues, ch as JMS servers, server instances, or duster).				
Foreign JNDI Providers	New Delet	e				Showing 1 to 1 of 1 Previous   Next				
How do I 🗆	🔲 Name 🗞			Resources		Targets				
Configure subdeployments in JMS system	JMS_SUB					Cluster-JMS				
modules <ul> <li>Configure JMS system modules</li> </ul>	New Delet	e V				Showing 1 to 1 of 1 Previous   Next				
System Status										



# 4.3 **Resource Creation**

### 4.3.1 Queue Creation

1) In JMS\_MODULE Click on New

ORACLE WebLogic Server Ad	ministration Conso	le 12c							Q
Change Center	🔒 Home Log Out	t Preferences 📐	Record Hel	p		Q	Welcome, w	eblogic	Connected to: pegjms
View changes and restarts		vme >MS-JMS1 (migratable) >Summary of Migratable Targets >MS-JMS2 (migratable) >Summary of Clusters >Summary of Migratable Targets >MS-JMS1 igratable) >Summary of Clusters >Summary of Migratable Targets >Summary of JMS Modules > <b>JMS_Module</b>							
Configuration editing is enabled. Future changes will automatically be activated as you	Settings for JMS_Module								
modify, add or delete items in this domain.	Configuration	Subdeployments	Targets	Security	Notes				
Domain Structure	This page display resources.	ys general informat	ion about a J	MS system	module an	d its resources.	It also allows you to configure new resourc	es and ac	cess existing
E-Services	Name:			JMS_Module	e		The name of this JMS system module. More Info		
JMS Servers Store-and-Forward Agents JMS Modules Path Services	Descriptor File Name:			jms/jms_ma	dule-jms.x	ml	The name of the JMS module descriptor file. More		
Yath Services B-FidgesData SourcesPersistent StoresForeign JND2 ProvidersWork Contexts		lestination sort key					module, including queue and topic destinati eign servers, and store-and-forward param		ection factories,
How do I	Summary of R	esources							
No task help found.	New Delet	e					Showin	g 0 to 0 o	f 0 Previous   Next
System Status	🔲 Name 🐟	Ту	/pe	JNDI N	ame		Subdeployment	Tar	jets
Health of Running Servers		There are no items to display							
Failed (0) Critical (0) Overloaded (0)	Nev Delet	е					Showin	g 0 to 0 o	f0 Previous   Next

### 2) Select Distributed Queue and Click on Next

	Administration Console 12c	Q
Change Center	🟦 Home Log Out Preferences 🖂 Record Help	Q Welcome, weblogic Connected to: pegjm
View changes and restarts	Home >MS-JMS1 (migratable) >Summary of Migratable Targets >MS-JMS2 (mi (migratable) >Summary of Clusters >Summary of Migratable Targets >Summar	
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain. Domain Structure	Create a New JMS System Module Resource           Back         Next           Finish         Cancel           Choose the type of resource you want to create.	
— Deployments     — Services     ☐ ····Messaging     i ····JMS Servers     ····Store-and-Forward Agents     ····JMS Modules     i··JMS Modules	stand-alone queues and topics, connection factories, distributed queues	r basic information for creating the resource. For targetable resources, like and topics, foreign servers, and JMS SAF destinations, you can also proceed to sociate targetable resources with subdeployments, which is an advanced
Bridges     Total Sources     Persistent Stores	Connection Factory	Defines a set of connection configuration parameters that are used to create connections for JMS dients. More Info
How do I	O Queue	Defines a point-to-point destination type, which are used for asynchronous peer communications. A message delivered to a queue is distributed to only one consumer. <b>More Info</b>
Configure quotas for destinations     Configure JMS templates     Configure destination keys     Configure topics     Configure queues	© Торіс	Defines a publish/subscribe destination type, which are used for asynchronous peer communications. A message delivered to a topic is distributed to all topic consumers. More Info
Configure queues     Configure connection factories     Configure uniform distributed topics     Configure uniform distributed queues	O Distributed Queue	Defines a set of queues that are distributed on multiple JMS servers, but which are accessible as a single, logical queue to JMS clients. More Info



3) Enter the queue name and Click on Next.

Thange Center	A Home Log Out Pre	eferences 🔝 Record Help	Q	Welcome, weblogic Connected to: pegin
View changes and restarts			argets >MS+JMS2 (migratable) >Sv able Targets >Summary of JMS Mo	ummary of Clusters >Summary of Migratable Targets >MS-JMS1 cluies >JMS_Module
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Create a New JHS Sy Back Next J JHS Distributed D	stem Module Resource inish Cancel estination Properties les will be used to identify your	new Distributed Queue. The cur	
Messaging	What would you like to * Name:	mame your new destination? MDB_QUEUE		
Bridges     Data Sources     Persistent Stores	What JNDI Name would	d you like to use to look up your	new destination?	
Foreign JNDI Providers	JNDI Name:	MDB_QUEUE		$\neg$

### 4) Click on Advance Targeting.

Change Center	Home Log Out Preferences      Record Help     Q	Welcome, weblogic Connected to: FCU8SDomain
View changes and restarts	Home >DC_PRG_Template=0 >Summary of Servers >Summary of Migratable Targets >Summar Targets >Summary of 2HS Modeles >3HS_MODULE	y of IMS Servers x IMSServer 1 x Summary of IMS Servers x IMSServer 1 x Summary of Highstable
No pending changes exist. Click the Release Configuration button to allow others to edit the	Create a New 3115 System Hodule Resource	
domain.	Back Net Frish Advanced Targeting Cancel	
Release Configuration	The following properties will be used to target your new JHS system modul	le resource
Domain Structure	Use this page to view and accept the default targets where this JHG resource will be tan accept the default targets, then dick <b>Advanced Targeting</b> to use the subdeployment	geted. The default targets are based on the parent JMS system module targets. If you do not want to mechanism for targeting this resource.
Environment     Serviers     Clusters     Servier Templates     High stable Targets     -Coherene Clusters	The following JMS module targets will be used as the default targets for your new JMS syn appropriately. Targets :	sten module resource. If the module's targets are changed, this resource will also be retargeted
Machines     Virtual Hosts     Work Managers	Clusters	
Startup and Shutdown Classes Deployments Bismices Ri Messacion	Cluster-JHS M All servers in the cluster	

### 5) Select Subdeployement as JMS\_SUB and Click on Finish.

ORACLE WebLogic Server A	menistration Console 12c	0
Change Center	R Hane Log Cut Preferences 🕢 Record Help	Welcome, weblogic Connected to: PCUBSDomail
View changes and restarts	Huma + OC_2HS_Tamplate-B + Summary of Servers + Summary of Highlabia Tampite + Summary of 2HS Servers Tampite + Summary of 2HS Molulus + 2HK_HODOLE	s Millerver 1 sSummery of IMS Servers s Millerver 1 sSummery of Highlable
to pending thanges exist. Ock the Release Configuration button to allow others to edit the domain.	Create a New JPIS System Hodale Resource	
Release Configuration	The following properties will be used to target your new 2HS system module resource	
Domain Structure	Use this page to select a subdeployment to assign this system module resource. A subdeployment is a m SAF agent. If necessary, you can create a new subdeployment by choing the <b>Create a New Subdepl</b> module's subdeployment management page.	
Churannent     Servers     Ousters     Server Templates     Monatable Targets	Select the subdeployment you want to use. If you select (none), no targeting will occur. Subdeployments:           Bit         Still         Create a New Subdeployment	
- Coherence Clusters - Madrines - White Heats - Work Managers	Subdeployments: JMS_SUB	
Startup and Shutdown Classes Deployments Services	Tangets :	
R Messaren *	Servers	
ton de L. E	C AdminServer	
Configure 345 templates	Oasters	
Configure destination keys     Configure topics	Claster 3HS     Rail servers is the cluster	
Conformations		



### 6) MDB\_QUEUE is created

Change Center	🔒 Home Log Out Preferences 🔤 Re	cord Help	2	Welcome, weblogi	Connected to: pegjm					
View changes and restarts	Home >MS-JMS1 (migratable) >Summary (migratable) >Summary of Clusters >Sumr				IS-JMS1					
Configuration editing is enabled. Future	Messages									
changes will automatically be activated as you modify, add or delete items in this domain.	All changes have been activated. He	wever 1 items must be restarted for	the changes to take effe	ct.						
	The JMS distributed queue was created and the state of									
Oomain Structure										
-Environment	Settings for JMS_Module									
Deployments	Configuration Subdeployments T	argets Security Notes								
B-Bridges    Data Sources    Persistent Stores    Foreign JNDI Providers	Name: Descriptor File Name:	JMS_Module jms/jms_module-jms.xml	The i	The name of the JMS module descriptor file. More Info						
tForeign JNDI Providers		This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.								
	Customize this table									
No task help found.	-									
No task help found. iystem Status	Summary of Resources									
ystem Status 🛛	Summary of Resources New Delete			Showing 1 to 1	of 1 Previous   Next					
· ·	New Delete	istributed Queue	JNDI Name	Showing 1 to 1 Subdeployment	of 1 Previous   Next Targets					

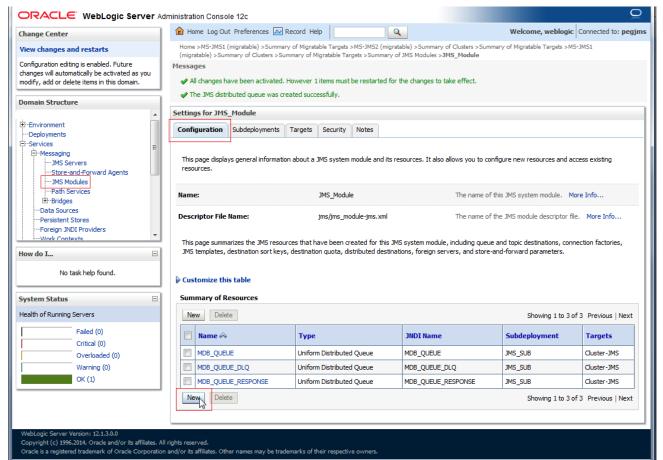
### 7) Similarly Create MDB\_QUEUE\_RESPONSE and MDB\_QUEUE\_DLQ

	ministration Conso	le 12c							õ
Change Center	🟦 Home Log Ou	t Preferences 🔤	Record Help	, 🗌	Q			Welcome, weblogic	Connected to: FCUBSDomain
View changes and restarts	Home >DC_JMS_ JMS Modules >JM		of Servers >	Summary of Mi	gratable Targets >Sumr	nary of JMS Servers >JMS	Server-1 >Summary of JMS Ser	vers >JMSServer-1 >Summary of M	igratable Targets >Summary of
Click the Lock & Edit button to modify, add or delete items in this domain.	e items in this domain. A strategie with the strategie of								
Lock & Edit Release Configuration	Settings for JHS_MODULE								
Domain Structure	Configuration Subdeployments Targets Security Notes								
-Environment -Servers	This page displa	ys general informatio	on about a JN	MS system moo	lule and its resources.	It also allows you to cor	nfigure new resources and acc	ess existing resources.	
E-Clusters	Name:			MC			The name of this	IMS system module. More Info	
Migratable TargetsCoherence ClustersMachinesVirtual HostsVirtual HostsVork ManagersStartup and Shutdown ClassesDeployments	Descriptor File Name:         jms/jms_module-jms.xml         The name of the JMS module descriptor file.         More Info           This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.								
-Services	Customize th	is table							
How do I	Summary of R	esources							
No task help found.			Change Cent	er to activate	all the buttons on this	page.			
System Status	New Dele	te						Showing	1 to 3 of 3 Previous   Next
Health of Running Servers	🗌 Name 🗇			Туре		JNDI Nam	ie	Subdeployment	Targets
	MDB_QUE	JE		Uniform Distr	ibuted Queue	MDB_QUEU	E	JMS_SUB	Cluster-JMS
Failed (0) Critical (0)	MDB_QUEUE_DLQ Uniform Dis				ibuted Queue	MDB_QUEU	IE_DLQ	JMS_SUB	Cluster-JMS
Overloaded (0)	MDB_QUE	JE_RESPONSE		Uniform Dist	ibuted Queue	MDB_QUEU	IE_RESPONSE	JMS_SUB	Cluster-JMS
Warning (0) OK (5)	New Dele	te						Showing	1 to 3 of 3 Previous   Next



### 4.3.2 Connection Factory Creation

1) In JMS\_MODULE, Click on New



### 2) Select Connection Factory and click on Next

ORACLE' WebLogic Server Administration Console 12c								
Change Center	Home Log Out Preferences      Record Help     Wele     We	come, weblogic Connected to: pegjms						
View changes and restarts	Home >MS-JMS1 (migratable) >Summary of Migratable Targets >MS-JMS2 (migratable) >Summary of Clusters >Summary of (migratable) >Summary of Clusters >Summary of Migratable Targets >Summary of JMS Modules > <b>JMS_Module</b>	Migratable Targets >MS-JMS1						
Configuration editing is enabled. Future changes will automatically be activated as you	Create a New JMS System Module Resource							
modify, add or delete items in this domain.  Domain Structure  B-Environment	Back Next Finish Cancel Choose the type of resource you want to create.							
	Use these pages to create resources in a JMS system module, such as queues, topics, templates, and connection fac Depending on the type of resource you select, you are prompted to enter basic information for creating the resource stand-alone queues and topics, connection factories, distributed queues and topics, foreign servers, and JMS SAF de targeting pages for selecting appropriate server targets. You can also associate targetable resources with subdeploy mechanism for grouping JMS module resources and the members to server resources.	e. For targetable resources, like estinations, you can also proceed to						
Defines a set of connection configuration parameters that     are used to create connections for JMS clients. More Info.								
Foreign JNDI Providers		nt destination type, which are used r communications. A message						



### 3) Enter the Name and Click on Next

	dministration Console 12c			Q
Change Center	Home Log Out Preference	es 📐 Record Help	٩	Welcome, weblogic Connected to: pegjms
View changes and restarts			Targets >MS-JMS2 (migratable) >Sui table Targets >Summary of JMS Mod	nmary of Clusters >Summary of Migratable Targets >MS-JMS1 ules > <b>JMS_Module</b>
Configuration editing is enabled. Future changes will automatically be activated as you	Create a New JMS System	Module Resource		-
modify, add or delete items in this domain.	Back Next Finish	Cancel		
	Connection Factory Pro	perties		
Environment     Deployments     Services	The following properties will * Indicates required fields	be used to identify you	r new connection factory. The curr	ent module is JMS_Module.
JMS ServersStore-and-Forward Agents	What would you like to name	your new connection fa	actory?	
JMS Modules Path Services	* Name:	MDBQCF		
⊕-Bridges Data Sources Persistent Stores	What JNDI Name would you l	ike to use to look up you	ur new connection factory?	
Foreign JNDI ProvidersWork Contexts	JNDI Name:	MDBQCF		

### 4) Click on Advance Targeting

	ministration Console 12c	ł
Change Center	🏠 Home Log Out Preferences 🖾 Record Help	in
View changes and restarts	Home >DC_JMS_Template-0 >Summary of Servers >Summary of Migratable Targets >Summary of JMS Servers >JMSServer-1 >Summary of JMSServer-1 >Summary of JMS Servers >JMSServer-1 >Summary of JMSServer-1 >Summary of JMSServ	
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Create a New JMS System Module Resource	
Lock & Edit	Back Next Finish Advanced Targeting Cancel	Ш
Release Configuration	The following properties will be used to target your new JMS system module resource	
Domain Structure	Use this page to view and accept the default targets where this JMS resource will be targeted. The default targets are based on the parent JMS system module targets. If you do not want to accept the default targets, then click <b>Advanced Targeting</b> to use the subdeployment mechanism for targeting this resource.	
Environment    Servers    Clusters    Server Templates	The following JMS module targets will be used as the default targets for your new JMS system module resource. If the module's targets are changed, this resource will also be retargeted appropriately.	
Migratable Targets Coherence Clusters Machines	Targets :	
Virtual Hosts Work Managers	Clusters	Ш
	Image: Cluster-JMS         Image: Image: All servers in the cluster	i.
How do I 🖂	Back Next Finish Advanced Targeting Cancel	
Configure quotas for destinations		



5) Select JMS\_SUB and Click on Finish

	ministration Console 12c
Change Center	Home Log Out Preferences 🔤 Record Help     Welcome, weblogic     Connected to: FCUBSDomain
View changes and restarts	Home >DC_JMS_Template-0 >Summary of Servers >Summary of Migratable Targets >Summary of JMS Servers >JMSServer-1 >Summary of JMS Servers >JMSServer-1 >Summary of Migratable Targets >Summary of JMS Modules >JMS_MODULE
No pending changes exist. Click the Release Configuration button to allow others to edit the domain. Lock & Edit Release Configuration	Create a New JMS System Module Resource           Back         Next         Frish         Cancel           The following properties will be used to target your new JMS system module resource         Image: Cancel         Cancel
Domain Structure	Use this page to select a subdeployment to assign this system module resource. A subdeployment is a mechanism by which JMS resources are grouped and targeted to a server instance, duster, or SAF agent. If necessary, you can create a new subdeployment by clicking the Create a New Subdeployment button. You can also reconfigure subdeployment targets later by using the parent module's subdeployment management page.
-Clusters -Server Templates -Migratable Targets -Coherence Clusters	Select the subdeployment you want to use. If you select (none), no targeting will occur. Subdeployments: JMS_SUB T Create a New Subdeployment
Machines Virtual Hosts Work Managers Startup and Shutdown Classes Deployments	What targets do you want to assign to this subdeployment? Targets :
-Services	Servers
How do I 😑	AdminServer
Configure quotas for destinations     Configure JMS templates	Clusters
Configure destination keys     Configure topics     Configure queues	Image: Cluster-JMS         Image: All servers in the cluster
Configure connection factories     Configure uniform distributed topics	JMS Servers
Configure uniform distributed topics     Configure uniform distributed queues	3MSServer-1
Configure foreign servers	
Configure JMS SAF System Status	Back Next Finish Cancel
System status	

6) Connection Factory is **Created**.



ORACLE WebLogic Server Administration Console 12c									
Change Center	🏠 Home Log Out Preferences 📐	Record Help	٩	Welcome, weblogic	Connected to: pegjm				
View changes and restarts		ary of Migratable Targets >MS-JMS2 (migr ummary of Migratable Targets >Summary		nary of Migratable Targets >M	5-JMS1				
Configuration editing is enabled. Future changes will automatically be activated as you	Messages								
modify, add or delete items in this domain.	<ul> <li>All changes have been activated</li> <li>Connection factory created succession</li> </ul>	. However 1 items must be restarted fo essfully.	or the changes to take effect.						
	Settings for JMS_Module								
Environment     Deployments	Configuration Subdeployments	Targets Security Notes							
MessagingJMS ServersJMS ServersJMS ModulesPath ServicesPath ServicesData Sources	Name:	ion about a JMS system module and its JMS_Module	The name of	this JMS system module. M	ore Info				
How do I	This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories,								
System Status	Summary of Resources								
Health of Running Servers	New Delete			Showing 1 to 4 c	of 4 Previous   Next				
Failed (0) Critical (0)	Name 🕎	Туре	JNDI Name	Subdeployment	Targets				
Overloaded (0)		Connection Factory	MDBQCF	JMS_SUB	Cluster-JMS				
Warning (0)	MDB_QUEUE	Uniform Distributed Queue	MDB_QUEUE	JMS_SUB	Cluster-JMS				
OK (1)	MDB_QUEUE_DLQ	Uniform Distributed Queue	MDB_QUEUE_DLQ	JMS_SUB	Cluster-JMS				
	MDB_QUEUE_RESPONSE	Uniform Distributed Queue	MDB_QUEUE_RESPONSE	JMS_SUB	Cluster-JMS				
	New Delete			Showing 1 to 4 c	of 4 Previous   Next				



# 5. Server Restart

### 1) Increase the heap size of both DC\_JMS\_1 and DC\_JMS\_2 cluster

ORACLE' WebLogic Server Administration Console 12c											
Change Center	Home Lo	og Out Preferences [	Record Help		Q			Welcome, webl	ogic Connected to: FCUBSDomain		
View changes and restarts	Home >Summary of JMS Servers >JMSServer-1 >Summary of JMS Servers >JMSServer-1 >Summary of Migratable Targets >Summary of JMS Modules >JMS_MODULE >ConnectionFactory-0 >placeholder >Summary of Servers										
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of	-	on actory or place		y or betters						
Lock & Edit	Configurat	Configuration Control									
Release Configuration A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration.											
Domain Structure	This page :	summarizes each serve	er that has been c	onfigured in the c	urrent WebLogic Se	rver domain.					
-Environment -Servers -Clusters -Server Templates -Migratable Targets	ent ers ers erver Templates $lem:lem:lem:lem:lem:lem:lem:lem:lem:lem:$										
Coherence Clusters	Servers	(Filtered - More Col	umns Exist)								
Wachines Virtual Hosts Work Managers Startup and Shutdown Classes	Click the L	Clone Delete	the Change Cente	r to activate all t	ne buttons on this p	age.		Show	ing 1 to 7 of 7 Previous   Next		
Deployments Services	🗆 Nar	ne 🔗	Ту	pe	Cluster	Machine	State	Health	Listen Port		
	Adm	iinServer(admin)	Con	figured			RUNNING	🖋 ОК	7001		
How do I	DC	FCUBS_1	Dyn	amic	Cluster-App	MAC-1	SHUTDOWN	Not reachable	7101		
Create Managed Servers	DC	FCUBS_2	Dyn	amic	Cluster-App	MAC-2	SHUTDOWN	Not reachable	7102		
Clone servers	DC	FCUBS_3	Dyn	amic	Cluster-App	MAC-1	SHUTDOWN	Not reachable	7103		
Delete Managed Servers     Delete the Administration Server	DC	FCUBS_4	Dyn	amic	Cluster-App	MAC-2	SHUTDOWN	Not reachable	7104		
Delete the Administration Server     Start and stop servers	DC	JMS_1	Dyn	amic	Cluster-JMS	MAC-1	SHUTDOWN	Not reachable	7106		
Start and stop servers		JMS_2	Dvn	amic	Cluster-JMS	MAC-2	SHUTDOWN	Not reachable	7107		
System Status	New	Clone Delete			1			Show	ing 1 to 7 of 7 Previous   Next		
Health of Running Servers											
Eailed (0)											

### 2) Select the cluster 'DC\_JMS\_Template-0' and

	dministration Console 12c				Ď
Change Center	🚹 Home Log Out Preferences 🔤 Record	Help Q			Welcome, weblogic Connected to: FCUBSDomain
View changes and restarts	Home >JMSServer1 >Summary of Migratable Targets >Summary of JMS Modules >JMS_MODULE >ConnectionFactory-0 >placeholder >Summary of Servers >Summary of Server Templates >DC_JMS_Template 0 > Summary of Server Templates				
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of Server Templates				
Lock & Edit Release Configuration Domain Structure	This page summarizes each server template A server template contains common, non-de manage configuration for a group of server	fault attributes that you can apply to a set	-	en inherit the template configu	ration. Server templates enable you to easily
Environment     Servers     Custers     Generation of the server templates     Generation of the server templates     Golden of the server templates     Golden of the server templates	Customize this table Server Templates Click the Lock & Editbutton in the Change New Clone Delete	Center to activate all the buttons on this pa	ge.		Showing 1 to 2 of 2 Previous   Next
Virtual Hosts Work Managers Startup and Shutdown Classes	□ Name ↔	Cluster	Machine	Listen Port	Listen Address
Deployments	DC_FCUBS_Template	Cluster-App		7100	
E-Services	DC_JMS_Template-0	Cluster-JMS		7105	
How do I	New Clone Delete				Showing 1 to 2 of 2 Previous   Next
Create server templates					



3) Click on Server Start Tab and in Arguments Section enter -XX:MaxPermSize=512m

		Ο
-		
Change Center	Home Log Out Preferences 🔤 Record Help	Welcome, weblogic Connected to: FCUBSDomain
View changes and restarts	Home >Summary of Migratable Targets >Summary of JMS Modules >JMS_MODULE >ConnectionFactory-0 >pi Server Templates >DC_JMS_Template-0	laceholder >Summary of Servers >Summary of Server Templates >DC_JMS_Template-0 >Summary of
No pending changes exist. Click the Release Configuration button to allow others to edit the	Settings for DC_JMS_Template-0	
domain.	Configuration Protocols Logging Debug Notes	
Lock & Edit		
Release Configuration	General Cluster Services Keystores SSL Federation Services Deployment Migration	Tuning         Overload         Health Monitoring         Server Start         Web Services         Coherence
3	Save	
Domain Structure		
⊖-Environment ├Servers ⊖-Clusters └Server Templates	Node Manager is a WebLogic Server utility that you can use to start, suspend, shut down, and restart is that Node Manager will use to start this server on a remote machine.           Java Home:	servers in normal or unexpected conditions. Use this page to configure the startup settings The Java home directory (path on the machine running Node Manager) to
Migratable Targets		use when starting this server. More Info
Machines Virtual Hosts Work Managers	Java Vendor:	The Java Vendor value to use when starting this server. More Info
	BEA Home:	The BEA home directory (path on the machine running Node Manager) to use when starting this server. More Info
E-Messaning	Root Directory:	The directory that this server uses as its root directory. This directory must
How do I	3	be on the computer that hosts Node Manager. If you do not specify a Root Directory value, the domain directory is used by default. More Info
Configure startup arguments for Managed Servers	Class Path:	The classpath (path on the machine running Node Manager) to use when starting this server. More Info
<ul> <li>Start Managed Servers from the Administration Console</li> </ul>		
Shut down a server instance		
System Status E	a	
Health of Running Servers		
Failed (0)	Arguments:	The arguments to use when starting this server. More Info
Critical (0)	-XX: <u>MaxPermSize</u> =512m	
Overloaded (0)		

4) **Restart** the AdminServer and DC\_JMS\_1 and DC\_JMS\_2 managed servers.



# 6. Foreign Server Creation

# 6.1 Module Creation

### 1) JMS\_Modules and Click on New

	ninistration Console 12		Õ
Change Center	🟦 Home Log Out Pref	erences 🔤 Record Help	Welcome, weblogic Connected to: pegjme
View changes and restarts	Home >Summary of Service Deployments >Summary	vers >MS-JMS2 >Summary of Virtual Hosts >Summary of Servers >Summary of Clusters >Summary of JMS Modules	y of Migratable Targets >Summary of Servers >Summary of
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Summary of JMS Mod		
Domain Structure Work ManagersStartup and Shutdown ClassesDeploymentsServicesServicesMessagingMessagingMessagingStore-and-Forward Agents E	quota, distributed que global system resource	the JMS system modules that have been created for this domain.	
	lected Delete		Showing 1 to 1 of 1 Previous   Next
Data Sources Persistent Stores	🔲 Name 🐟		Туре
Foreign JNDI Providers	JMS_Module		System
How do I	New Delete		Showing 1 to 1 of 1 Previous   Next
Configure JMS system modules	<u> </u>		
Configure resources for JMS system modules			

### 2) Enter name as MDB\_MODULE and click on Next

	ninistration Console 12c C	⊇
Change Center	🟦 Home Log Out Preferences 🔤 Record Help	jms
View changes and restarts Configuration editing is enabled. Future	Home >Summary of Migratable Tarnet < MC-IMC1 (minratable) <cummany (minratable)="" <="" <cummary="" mc-imc2="" migratable="" migratable<br="" of="" tarnet="">Targets &gt;MS-IMS1 (migratable) &gt;S Create JMS System Module</cummany>	_
changes will automatically be activated as you modify, add or delete items in this domain.	Back Rnish Cancel	
B Environment     Deployments     Services     B Messaging    JMS Servers    JMS Modules	The following properties will be used to identify your new module. JMS system resources are configured and stored as modules similar to standard JZEE modules. Such resources include queues, topics, connection factories, templates, destination keys, quota, distributed queues, distributed topics, foreign servers, and JMS store-and-forward (SAF) parameters. You can administratively configure and manage JMS system modules as global system resources. * Indicates required fields	
iPath Services ⊡-Bridges Data Sources Persistent Stores Foreign JNDI Providers Work Contexts	What would you like to name your System Module? * Name: MDB_MODULE	
How do I	What would you like to name the descriptor file name? If you do not provide a name, a default will be assigned. Descriptor File Name:	
Configure JMS servers	Where would like to place the descriptor for this System Module, relative to the jms configuration sub-directory of your domain?	
System Status	Location In Domain:	
Health of Running Servers	Back Next Finish Cancel	-
Failed (0)		



### 3) Select target as Cluster-App and click on Next

	dministration Console 12c		9	
Change Center	Home Log Out Preferences Record Help	Q	Welcome, weblogic Connected to: FCUBSDomain	
View changes and restarts	Home splaceholder sSummary of Servers sSummary of Server Ten Hodules s3HS_HODULE sSummary of 2HS Hodules	pietes >DC_3MS_Template-0 >Summary of Server	Templetes +OC_3HS_Templete-0 +Summary of Servers +Summary of 3HS	
No pending changes exist. Click the Release Configuration button to allow others to edit the	Create JHS System Hodule			
domain.	Back Ned Final Cancel			
Release Configuration	The following properties will be used to target your ne	w JHS system module.		
Domain Structure	Use this page to select the server or duster on which you would	d like to deploy this JMS system module. You car	n reconfigure targets later if you wish.	
B-Environment	Tarpets :			
Server Templates	Servers			
Coherence Ousters Machines Witual Hosts	AdmiaServer			
- Work Managers Startup and Stutidown Classes	Gusters			
Deployments     Services     R: Message	Cluster-App © All servers in the cluster			
How do L	Chuster-JHS			
Configure IMS system modules     Configure IMS servers	O All servers in the cluster			

### 4) Select CheckBox and Click on **Finish**

	dministration Console 12c	Q
Change Center	🏦 Home Log Out Preferences 🐼 Record Help	oegjms
View changes and restarts	Home >Summary of Servers >MS-IMS2 >Summary of Virtual Hosts >Summary of Servers >Summary of Clusters >Summary of Migratable Targets >Summary of Servers >Summary of Decloyments >Summary of JMS Modules	
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Create JMS System Madule Back Next Finish Cancel Add resources to this JMS system module	
Environment     Servers     Clusters     -Server Templates	Use this page to indicate whether you want to immediately add resources to this JMS system module after it is created. JMS resources include queues, topics, connection factories, etc.	:.
Wigratable TargetsCoherence ClustersWachinesWork ManagersWork ManagersStartu and Shutdown Classes	Back Next Finish Cancel	

### 5) MDB\_MODULE is created

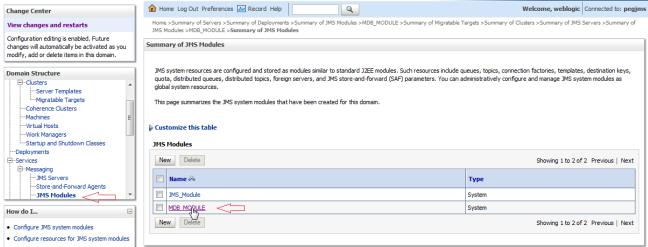
	ministration Console 12c	Q
Change Center	🏫 Home Log Out Preferences 🔤 Record Help	Welcome, weblogic Connected to: pegjms
View changes and restarts	Home >Summary of Clusters >Summary of Migratable Targets >Summary of Servers >Summary of Deployments >Summary of J Targets >Summary of Clusters >Summary of JMS Servers > <b>Summary of JMS Modules</b>	MS Modules >MDB_MODULE >Summary of Migratable
Configuration editing is enabled. Future changes will automatically be activated as you	Summary of JMS Modules	
modify, add or delete items in this domain.  Domain Structure  Colusters  Colver are a construction of the second	JMS system resources are configured and stored as modules similar to standard J2EE modules. Such resources include q quota, distributed queues, distributed topics, foreign servers, and JMS store-and-forward (SAF) parameters. You can a global system resources. This page summarizes the JMS system modules that have been created for this domain. Customize this table JMS Modules	
Deployments	New Delete	Showing 1 to 2 of 2 Previous   Next
	🖻 Name 🌣	Туре
JMS Modules	JMS_Module	System
How do I		System
Configure JMS system modules	New Delete	Showing 1 to 2 of 2 Previous   Next
Configure resources for JMS system modules		



## 6.2 Foreign Server Creation

#### In MDB\_MODULE, Click on New Resource, Select Foreign Server

ORACLE' WebLogic Server Administration Console 12c



#### 1) Click on Configuration → New

ORACLE WebLogic Server Ad	Iministration Consol	le 12c				Ģ	2
Change Center	Home Log Out	t Preferences 🔤 Record Hel	р	Q		Welcome, weblogic Connected to: peg	jms
View changes and restarts		Home >Summary of Deployments >Summary of JMS Modules >MDB_MODULE >Summary of Migratable Targets >Summary of Clusters >Summary of JMS Servers >Summary of JMS Modules >MDB_MODULE >Summary of JMS Modules >MDB_MODULE					
Configuration editing is enabled. Future changes will automatically be activated as you	Settings for MDB_MODULE						
modify, add or delete items in this domain.	Configuration	Subdeployments Targets	Security Notes				Ъ
Domain Structure							
Environment	This page display	ys general information about a J	IMS system module ar	d its resources. It also allow	s you to configure new resources and	d access existing resources.	
Servers ⊟Clusters Server Templates	Name:		MDB_MODULE		The name of this JMS	system module. More Info	
Migratable Targets Coherence Clusters	Descriptor File	Name:	jms/mdb_mod	ule-jms.xml	The name of the JMS i	module descriptor file. More Info	
Machines Virtual Hosts Work Managers Startup and Shutdown Classes	This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.						
Deployments	Customize thi	s table					
How do L	Summary of Re	esources					. U
No task help found.	New Delet	e				Showing 0 to 0 of 0 Previous   Next	
	🔲 Name 🗞	Туре	JNDI Na	ne	Subdeployment	Targets	
System Status				There are no items	to display	· · · · · · · · · · · · · · · · · · ·	
Health of Running Servers	New Delet	е				Showing 0 to 0 of 0 Previous   Next	11
Failed (1) Critical (0)	- 43 <sup>5</sup>						<u> </u>



 $\circ$ 

### 2) Select Foreign Server and Click on Next

	Administration Console 12c	Q		
Change Center	🔒 Home Log Out Preferences 🗁 Record Help	Welcome, weblogic         Connected to: pegjms		
View changes and restarts	Home >Summary of Deployments >Summary of JMS Modules >MDB_MOD Modules >MDB_MODULE >Summary of JMS Modules >MDB_MODULE	Home >Summary of Deployments >Summary of JMS Modules >MDB_MODULE >Summary of Migratable Targets >Summary of Clusters >Summary of JMS Servers >Summary of JMS Modules >MDB_MODULE >Summary of JMS Modules >MDB_MODULE		
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain. Domain Structure	Create a New JHS System Module Resource Back Next Finish Cancel Choose the type of resource you want to create.			
	Use these pages to create resources in a JMS system module, such as Depending on the type of resource you select, you are prompted to e connection factories, distributed queues and topics, foreign servers, i	s queues, topics, templates, and connection factories. Inter basic information for creating the resource. For targetable resources, like stand-alone queues and topics, and JMS SAF destinations, you can also proceed to targeting pages for selecting appropriate server targets. You s an advanced mechanism for grouping JMS module resources and the members to server resources.		
Virtual Hosts Work Managers Startup and Shutdown Classes	Connection Factory	Defines a set of connection configuration parameters that are used to create connections for JMS clients. <b>More Info</b>		
How do I	© Queue	Defines a point-to-point destination type, which are used for asynchronous peer communications. A message delivered to a queue is distributed to only one consumer. More Info		
<ul><li>Configure quotas for destinations</li><li>Configure JMS templates</li></ul>	а () Торіс	Defines a publish/subscribe destination type, which are used for asynchronous peer communications. A message delivered to a topic is distributed to all topic consumers. <b>More Info</b>		
Configure destination keys     Configure topics     Configure queues     Configure connection factories	O Distributed Queue	Defines a set of queues that are distributed on multiple JMS servers, but which are accessible as a single, logical queue to JMS clients. More Info		
Configure contection fact topics     Configure uniform distributed topics     Configure uniform distributed queues     Configure foreign servers				
Configure JMS SAF System Status	Foreign Server	Defines foreign messaging providers or remote WebLogic Server instances that are not part of the current domain. More Info		

### 3) Enter name and Click on Next

ORACLE' WebLogic Server Admi	nistration Console 12c		Q
Change Center	🔒 Home Log Out Preferences 🔤 Record Help 📃 🔍 Welco	ome, weblogic	Connected to: pegjms
View changes and restarts Home >Summary of Deployments >Summary of JMS Modules >MDB_MODULE >Summary of Migratable Targets >Summary of Clusters >Summary of JMS Servers >Summary of JMS Modules >MDB MODULE >Summary of Migratable Targets >Summary of Clusters >Summary of JMS Servers >Summary of JMS			IMS
Configuration editing is enabled. Future changes will automatically be activated as you	Create a New JMS System Module Resource		
modify, add or delete items in this domain.	Back Next Fnish Cancel		
A	Foreign Server Properties		
È-Environment ↓Servers È-Clusters	The following properties will be used to identify your new foreign server. The current module is MDB_MODULE.		
Server Templates	* Indicates required fields		
Coherence ClustersMachinesWritval HostsWritval HostsWitval ManagersStartup and Shutdown ClassesDeploymentsDeploymentsDeployments	* Name: ForeignServer-1		



4) Click on Advanced Targeting

	Iministration Console 12c Q
Change Center	🏦 Home Log Out Preferences 🗟 Record Help
View changes and restarts	Home >DC_JMS_Template-0 >Summary of Server Templates >DC_JMS_Template-0 >Summary of Servers >Summary of JMS Modules >JMS_MODULE >Summary of JMS Modules >MDB_MODULE >Summary of JMS Modules >JMS Modules >JMS_MODULE >Summary of JMS Modules >MDB_MODULE >Summary of JMS Modules >MDB_MODULE >Summary of JMS Modules >MDB_MODULE >Summary of JMS Modules >JMS_MODULE >Summary of JMS Modules >JMS_MODULE >Summary of JMS Modules >MDB_MODULE >Summary of JMS Modules >MDB_MODULE >Summary of JMS Modules >JMS_MODULE >SUMMARY MODULE >SUMMARY OF JMS_MODULE >SUMMARY OF JMS_
No pending changes exist. Click the Release Configuration button to allow others to edit the	Create a New JMS System Module Resource
domain.	Back Next Advanced Targeting Cancel
Release Configuration	The following properties will be used to target your new JMS system module resource
Domain Structure	Use this page to view and accept the default targets where this JMS resource will be targeted. The default targets are based on the parent JMS system module targets. If you do not want to accept the default targets, then click Advanced Targeting to use the subdeployment mechanism for targeting this resource.
Environment    Servers     Ousters    Server Templates	The following JMS module targets will be used as the default targets for your new JMS system module resource. If the module's targets are changed, this resource will also be retargeted appropriately.
LMigratable Targets Coherence Clusters Machines	Targets :
Virtual Hosts Work Managers	Clusters
LStartup and Shutdown Classes Deployments B-Services Messaging	<ul> <li>✓ Cluster-App</li> <li>● All servers in the cluster</li> </ul>
How do I 🖂	Back Next Finish Advanced Targeting Cancel
Configure quotas for destinations	

### 5) Click on Create New SudDeployment

	dministration Console 12c	Q
Change Center	🔒 Home Log Out Preferences 🖾 Record Help	Welcome, weblogic Connected to: pegjms
View changes and restarts	Home >Summary of Deployments >Summary of JMS Modules >MDB_MODULE >Summary of Migratable Targets >Summa Modules >MDB_MODULE >Summary of JMS Modules >MDB_MODULE	ary of Clusters >Summary of JMS Servers >Summary of JMS
Configuration editing is enabled. Future changes will automatically be activated as you	Create a New JMS System Module Resource	
modify, add or delete items in this domain.	Back Next Finish Cancel	
Domain Structure	The following properties will be used to target your new JMS system module resource	
Environment     Servers     Clusters     Server Templates     Migratable Targets	Use this page to select a subdeployment to assign this system module resource. A subdeployment is a mechanism cluster, or SAF agent. If necessary, you can create a new subdeployment by clicking the <b>Create a New Subdep</b> later by using the parent module's subdeployment management page.	
Coherence Clusters	Select the subdeployment you want to use. If you select (none), no targeting will occur.	
Virtual Hosts Work Managers Startup and Shutdown Classes	Subdeployments:	
Deployments	What targets do you want to assign to this subdeployment?	

### 6) Enter Name as MDB\_SUB and Click on OK

	dministration Console 12c		Q
Change Center	🔒 Home Log Out Preferences 🔤 Record	d Help	Welcome, weblogic Connected to: pegjms
View changes and restarts	Home >Summary of Deployments >Summary of Modules >MDB_MODULE >Summary of JMS M		table Targets >Summary of Clusters >Summary of JMS Servers >Summary of JMS
Configuration editing is enabled. Future changes will automatically be activated as you	Create a New Subdeployment	-	
modify, add or delete items in this domain.  Domain Structure	OK Cancel Subdeployment Properties		
Environment	The following properties will be used to iden	ntify your new subdeployment.	
Servers E ClustersServer Templates	Subdeployment Name:	MDB_SUB	
LMigratable Targets Coherence Clusters Machines	OK Cancel		
Virtual Hosts Work Managers Startup and Shutdown Classes			G



### 7) Select Target as Cluster-App and Click on Finish

	ministration Console 12c Q
Change Center	🔒 Home Log Out Preferences 🖾 Record Help
View changes and restarts	Home >DC_JMS_Template-0 >Summary of Server Templates >DC_JMS_Template-0 >Summary of Servers >Summary of JMS Modules >JMS_MODULE >Summary of JMS Modules >MDB_MODULE >Summary of JMS Modules >SUMMARY of JMS Modules >MDB_MODULE >Summary of JMS Modules >JMS Modules >MDB_MODULE >Summary of JMS Modules >SUMMARY
Pending changes exist. They must be activated to take effect.	Create a New JMS System Module Resource
Activate Changes	Back Next Finish Cancel
Undo All Changes	The following properties will be used to target your new JMS system module resource
Domain Structure	Use this page to select a subdeployment to assign this system module resource. A subdeployment is a mechanism by which JMS resources are grouped and targeted to a server instance, duster, or
⊟-Environment -Servers ⊟-Clusters	SAF agent. If necessary, you can create a new subdeployment by clicking the Create a New Subdeployment button. You can also reconfigure subdeployment targets later by using the parent module's subdeployment management page.
Server Templates	Select the subdeployment you want to use. If you select (none), no targeting will occur.
Coherence Clusters Machines	Subdeployments: MDB_SUB 💌 Create a New Subdeployment
Virtual Hosts Work Managers	What targets do you want to assign to this subdeployment?
LStartup and Shutdown Classes Deployments E-Services	Targets :
How do I	Servers
Configure quotas for destinations	AdminServer
Configure JMS templates     Configure destination keys	Clusters
Configure topics	Cluster-App
Configure queues     Configure connection factories	All servers in the cluster
Configure uniform distributed topics	
Configure uniform distributed queues	JMS Servers
Configure foreign servers	JHSServer-1
Configure JMS SAF	
System Status	Back Next Finish Cancel

### 8) Foreign Server is created

	ministration Console 12c				Q
Change Center	🟠 Home Log Out Preferences 🔤 Record	d Help		Welcome, w	eblogic Connected to: pegjms
View changes and restarts	Home >Summary of Deployments >Summary of Modules >MDB_MODULE >Summary of JMS M		nmary of Migratable Targets >Sum	mary of Clusters >Summary of JMS Servers >Su	mmary of JMS
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Messages All changes have been activated. No res The foreign server was created success				
Domain Structure	<u></u>	indiy.			
·	Settings for MDB_MODULE				
E-Environment	Configuration Subdeployments Target	ets Security Notes			
-Clusters -Server Templates -Migratable Targets -Coherence Clusters	This page displays general information abo	ut a JMS system module and its reso	urces. It also allows you to confi	gure new resources and access existing resou	urces.
Machines Virtual Hosts	Name:	MDB_MODULE		The name of this JMS system module. More	e Info
Work Managers Startup and Shutdown Classes Deployments	Descriptor File Name:	jms/mdb_module-jms.x	nl	The name of the JMS module descriptor file.	More Info
How do I	This page summarizes the JMS resources the sort keys, destination quota, distributed de			and topic destinations, connection factories, J	MS templates, destination
No task help found.	Customize this table				
	Summary of Resources				
System Status	New Delete			Showing	1 to 1 of 1 Previous   Next
Health of Running Servers					
Failed (1)	🔲 Name 🐟	Туре	JNDI Name	Subdeployment	Targets
Critical (0)	ForeignServer-1	Foreign Server	N/A	MDB_SUB	Cluster-App
Overloaded (0) Warning (0)	New Delete			Showing	g 1 to 1 of 1 Previous   Next
OK (3)					



## 6.3 Foreign Server Configuration

### 1) Click on ForeignServer-1

	Iministration Conso	le 12c					õ
Change Center	Home Log Ou	t Preferences 🔤 Rec	ord Help	٩		Welcome, w	eblogic Connected to: pegjm
View changes and restarts		of Deployments >Summa ODULE >Summary of JM!			mmary of Migratable Targets >Sum	mary of Clusters >Summary of JMS Servers >Su	mmary of JMS
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Messages	ave been activated. No	restarts are nece				
Domain Structure	The foreign set	erver was created succe	essfully.				
A	Settings for MDB	MODULE					
Environment     E-Servers	Configuration	Subdeployments Ta	argets Security	V Notes			
Clusters     Server Templates     Migratable Targets     Coherence Clusters     Machines     Machines     Writhal Hosts	This page display	ys general information a	•	m module and its reso	ources. It also allows you to confi	gure new resources and access existing reso The name of this JMS system module. Mor	
Work Managers Startup and Shutdown Classes Deployments	Descriptor File	Name:	jn	ns/mdb_module-jms.x	ml	The name of the JMS module descriptor file.	More Info
How do I					system module, including queue a re-and-forward parameters.	and topic destinations, connection factories, 1	IMS templates, destination
No task help found.	Customize thi	s table					
System Status	Summary of R	esources					
System Status	New Delet	e				Showin	g 1 to 1 of 1 Previous   Next
Failed (1)	🔲 Name 🗞	Л	Туре		JNDI Name	Subdeployment	Targets
Critical (0)	E Foreignfier	ver-1	Foreign Serve	er	N/A	MDB_SUB	Cluster-App
Overloaded (0) Warning (0)	New Delet	e				Showin	g 1 to 1 of 1 Previous   Next

### 2) Enter the JNDI URL as Cluster URL(JMS Managed Servers) and Click on Save

ORACLE WebLogic Server	Administration Console 12c			<u> </u>
Change Center	A Home Log Out Preferences 🐼 R	ecard Help	Q	Welcome, weblogic Connected to: FCUBSDomail
View changes and restarts	None >Summary of Dutters >Summary > Nodules >NDE MODULE >Foreignferve		y of Servers > Summary of IMS Modules > MOR	(MODULE shareprilement sturmary of tensors informary of IMS
lick the Lock & Edit button to modify, add or lefete items in this domain.	Messages Al changes have been activated. N	to restarts are necessary.		
Release Configuration	Settings for ForeignServer-1			
remains Consideration	Configuration Subdeployment N	Notes		
Domain Structure	General Destinations Connection	n Factories		
Griveonment     Soviets     Griveon     Griveon     Griveon     Monable Targets     Governee Clusters     Monable     Work Managers     Work Managers		ovider that resides outside a		hat allows WebLogic Server to reach the remote 3KDI provider. This way, a number of page to configure a foreign server.
-Startup and Shutdown Classes	de Name:	ForeignServer-1		The name of this foreign server. More Info
Services -	. JNDI Initial Context Factory:	weblogic indi WI	InitaK	The name of the class that must be instantiated to access the 3401 provider. This class name depends on the 3401 provider and the vendor that are being used. More Info
Oreate foreign connection factories     Oreate foreign destinations	JHDI Connection URL:	13,//10,184,145,18	15 7106 10 184 148 189 7107	The URL that WebLogic Server will use to contact the JPDI provider. The syntax of the URL depends on which JPDI provider is being used. For WebLogic JPDI, leave the field blank if you are referencing WebLogic JPDI objects within the same cluster. More JPDe
System Status II	3MDI Properties Credential:			Any Gredentals that must be set for the JHDI provider. These Gredentals



### 3) Click on Connection Factories

	dministration Cons	ole 12c						õ
Change Center	Home Log O	ut Preferences 📐	Record Help	Q			Welcome, weblogic	Connected to: pegjm
View changes and restarts		DULE >Summary of 10DULE >ForeignSe			nmary of JMS Servers >Summa	rry of JMS Modules >MDB_MODU	ILE >Summary of JMS	
Configuration editing is enabled. Future changes will automatically be activated as you	Settings for For	eignServer-1	-					
modify, add or delete items in this domain.	Configuration	Subdeployment	Notes					
Domain Structure	General Dest	inations Connec	tion Factories					
Environment     Servers     Colusters     Server Templates     Migratable Targets	another instand This page sumn Customize th	e of WebLogic Serv	er running in a di onnection factor	ifferent duster or server, c	a foreign provider, as long a	iccessible via 3NDI. A remote co as that provider supports 3NDI.		ised to refer to
Deployments	New Dele	ete					Showing 0 to 0 d	of 0 Previous   Next
	Name 🔗	\$	Local JN	IDI Name		Remote JNDI Name		
How do I					here are no items to display			
Configure foreign servers     Create foreign destinations	New Dele	ete					Showing 0 to 0 d	of 0 Previous   Next
System Status								

### 4) Create MDBQCF Connection Factory

ORACLE WebLogic Server A	dministration Console 12c			õ
Change Center	A Home Log Out Preferences	Record Help	Welcome, web	Aogic Connected to: pegjms
View changes and restarts	Home >MDB_HOOULE >Summary Modules >NDB_MOOULE >Foreig		of 3HS Servers >Summary of 3HS Modules >MD8_MODULE >Summary of 3HS	
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Create a New Foreign JHS Co	-		
Domain Structure	Foreign Connection Factor	y Properties used to identify your new foreign connection factory.		
Coherence Clusters Machines Wrtual Hosts	* Name:	MDBQCF		
	Local JNDI Name:	MDBQCF	<hr/>	
B-Services R-Messaring	Remote JNDI Name:	MDBQCF[	$\langle \neg$	
How do L.	OK Cancel			

### 5) Click on Destination

ORACLE WebLogic Server	dministration Console 12c	1.0		0
Change Center	1 Home Log Out Preferences 🔛 Record	1982	Q	Welcome, weblogic Connected to pegge
View changes and restarts	None sHDE,HODULE >Summery of Highelds Hostulas SHDE, HODULE >ForeignBerver-5 >D		i s Summery of 2MS Servers s Summary of 2MS H	tobules +HDB_MODULE +Summary of 3HS
Configuration editing is enabled. Puture changes will automatically be activisted as you modify, add or delete items in this domain.	Messages At dranges have been activated. However		for the changes to take effect.	
Domain Structure	Settings for ForeignServer-1			
Benament	Configuration Subdeployment Notes			
Servers	General Designations Connection Fac	tories		
Outers     Server Templates     Machines     Watal Noiss     With Noiss		prinection factory that reside g in a different duster or ser	ver, or a foreign provider, as long as that prov	a 2011. A remote cannection flactory can be used to refer to ader supports 3401.
- Startup and Shutdown Classes - Ceptoyments B: Services - Fit temporer •	© Customize this table Foreign Connection Factories (Filtered	- Hore Columns (xist)		
Haw do L. 🗄	New Datas			Showing 1 to 1 of 1 Previous   Next
Configure foreign servers	🔄 Name 🖧 🛛 🛛	ocal JNDE Name	Remote	JHDI Name
Oreale foreign destinations	MORQCY M	08007	HD6Q0 <sup>4</sup>	
System Status 8	New Drine		1000	Showing 1 to 1 of 1. Previous   Next



### 6) Create MDB\_QUEUE

and the second sec	Home >JMS Modules >	>MDB_MODULE >ForeignSe	rver-1 >MDB_MODULE >ForeignServer-1 >Summary of Servers >JMS Module	s >MDB_MODULE >ForeignServer-1 >Configuration
View changes and restarts			The second s	a crow and crow and crow a conservation of the second second second second second second second second second s
Configuration editing is enabled. Future changes will automatically be activated as you	Settings for Foreign	Server-1		
modify, add or delete items in this domain.	Configuration Su	ubdeployment Notes		
Domain Structure	General Destinat	tions Connection Factor	ories	
EnvironmentServersClustersVirtual HostsWigratable TargetsCoherence ClustersCoherence ClustersMachinesWork Managers	directory, and the o	object will be returned fro zes the foreign destination able		ocal server, a look-up will be performed automatically on the remote JNDI
Startup and Shutdown Classes	New Delete			Showing 0 to 0 of 0 Previous   Next
DeploymentsServicesMessaning	🔲 Name 🏟		Local JNDI Name	Remote JNDI Name
How do I			There are no items to display	
Configure foreign servers	New Delete			Showing 0 to 0 of 0 Previous   Next
Create foreign connection factories				
System Status 📼				
Health of Running Servers				

	ministration Console 12c		Ģ
Change Center	Home Log Out Preferences	Record Help	Welcome, weblogic Connected to: pegjn
View changes and restarts	Home >MDB_MODULE >Summary Modules >MDB_MODULE >Foreig		iervers >Summary of JMS Modules >MDB_MODULE >Summary of JMS
Configuration editing is enabled. Future changes will automatically be activated as you	Create a New Foreign JMS De	stination	
modify, add or delete items in this domain. Domain Structure	Cancel Foreign Destination Proper	ties	
-Environment     -Servers     -Ousters     -Migratable Targets     -Coherence Clusters		used to identify your new foreign destination.	
Conerence Clusters Machines Virtual Hosts	* Name:	MDB_QUEUE	
Work Managers Startup and Shutdown Classes Deployments	Local JNDI Name:	MDB_QUEUE	
E-Services	Remote JNDI Name:	MDB_QUEUE	
How do I 🖃	OK Cancel		
Configure foreign servers			
Create foreign connection factories			

### 7) Similarly Create MDB\_QUEUE\_RESPONSE, MDB\_QUEUE\_DLQ

	dministration Console 12c		Ŏ
Change Center	Home Log Out Preferences	s 🔊 Record Help	Welcome, weblogic Connected to: pegjms
View changes and restarts	Home >MDB_MODULE >Summar Modules >MDB_MODULE >Forei	ry of Migratable Targets >Summary of Clusters >Summary of JMS Servers >Summary onServer-1 > <b>Configuration</b>	y of JMS Modules >MDB_MODULE >Summary of JMS
Configuration editing is enabled. Future changes will automatically be activated as you	Create a New Foreign JMS De	estination	
modify, add or delete items in this domain.	OK Cancel		
Domain Structure	Foreign Destination Prope	erties	
-Environment     -Servers     -Ousters     -Server Templates     -Migratable Targets	The following properties will be * Indicates required fields	e used to identify your new foreign destination.	
Coherence Clusters Machines Virtual Hosts	* Name:	MDB_QUEUE_RESPC	
Work Managers Startup and Shutdown Classes Deployments	Local JNDI Name:	MDB_QUEUE_RESPONSE	
Services	Remote JNDI Name:	MDB_QUEUE_RESPONSE	
How do I 🖃	OK Cancel		
Configure foreign servers	72		
Create foreign connection factories			
Contra Cata			



Change Center	😭 Home Log Out Preferences 🔤 Record Help	Q	Welcome, weblogic Connected to: pegin
View changes and restarts	Home >MD8_MODULE >Summary of Migratable Targets >Summ Modules >MD8_MODULE >ForeignServer 1 > Coefficientities	nary of Oluters >Summary of JMS Servers >Summ	ry of 3HS Nodules >HOB_MODULE >Summary of 3HS
Configuration editing is enabled. Puture changes will automatically be activated as you modify, add or delete items in this domain.	Hessages # All changes have been activated. However 1 items must	be restarted for the changes to take effect.	
Domain Structure	Settings for ForeignServer-1		
	Configuration Subdeployment Notes		
B-Environment	General Destinations Connection Factories		
- Coherence Clusters - Machines	JPCI directory, and the object will be returned from that di This page summarizes the foreign destinations that have be		
Vistual Hosts - Work Managers - Startup and Shutdown Classes - Deployments - Services - Messanon	Customize this table	een created for the domain.	
-Work Managers - Startup and Shutdown Classes - Deployments - Services - St. Messacon	P Customize this table	een created for the domain.	Showing 1 to 2 of 2 Previous   Next
Work Managers Startup and Shutdown Classes P-Services B-Services How do 1 • Configure foreign servers	© Customize this table Foreign Destinations	Local JHDI Name	Showing 1 to 2 of 2 Previous   Next Remote 3HDI Name
Work Managers Startup and Shutdown Classes P-Services B-Services How do 1 • Configure foreign servers	Customize this table Foreign Destinations New Delete	Transferrer	and the convert
Work Managers     Startup and Shutdown Classes     Opployments     Greaters     Greater foreign servers     Creater foreign connection factories	© Customize this table Foreign Destinations	Local 3001 Name	Remote JNDI Name

 ORACLE
 WebLogic Server
 Administration Console 12c

 Change Center
 Image Center
 Median and restarts
 Median and B\_MODULE a Summary of Monthle Targets a Summary of Outles Summary of 2MS Servers a Summary of 2MS Modules and B\_MODULE a Summary of 2MS Servers a Summary of 2MS Modules and B\_MODULE a Summary of 2MS
 Connected for pegims

changes will automatically be activated as you	Create a New Foreign 3HS De	stination	
modify, add or delete items in this domain.	OK Cancel		
Domain Structure			
e Environment	Foreign Destination Prope	rues	
-Servers B-Ousters	The following properties will be	used to identify your new foreign destination.	
-Server Templates Migratable Targets -Coherence Clusters	* Indicates required fields		 1
- Machines Wrbuel Hosta Work Managers	* Name:	MDB_QUEUE_DLQ	
-Startup and Shutdown Classes -Deployments	Local JNDI Name:	MDB_QUEUE_DLQ	
B-Services	Remote JNDI Name:	MDB_QUEUE_DLQ	
How do L. S	OK Cancel		
Configure foreign servers	-12		

Change Center	A Home Log Out Preferences IN Record Help	Q	Welcome, weblogic Connected to: pegin
Construction of the second		in management	State and the state of the stat
View changes and restarts	Home >ND8_MODULE >Summary of Migratable Targets >Sum Modules >MD8_MODULE >ForeignServer-1 > Configuration	many of Clusters >Summary of 2MS Servers >Summa	ry of 245 Modules > MDE_MODULE > Summery of 245
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Messages All changes have been activated. However 1 items mus	t be restarted for the changes to take effect.	
Domain Structure	Settings for ForeignServer-1		
B-Environment	Configuration Subdeployment Notes		
Servers	General Destinations Connection Factories		
Virtual Hosts Viox Managers Startup and Shutdown Classes Deployments B-Services 	This page summarizes the foreign destinations that have t ir Customize this table Foreign Destinations	een created for this domain.	
-Work Managers Startup and Shutdown Classes Deployments Bi-Services Di-Messacon	¥ Customize this table	een created for this domain.	Showing I to 3 of 3 Previous   Next
Hork Managers     Startup and Shutdown Classes     Deployments     Senices     More do L.     B     Configure foreign servers	© Customize this table Foreign Destinations	een created for this domain.	Showing I to 3 of 3 Previous   Next Remote JHDI Name
Work Managers     Startup and Shutdown Classes     Deployments     Senices     Amessen	© Customize this table Foreign Destinations           New         Delete		Transmission and the second
Work Managers Startup and Shutdown Classes Popolynment B Services Ch. Messacros New do L_	Customize this table Foreign Destinations Them. Define Rame &	Local JNDI Name	Remote JNDI Name
Work Managers     Startup and Shutdown Classes     Deployments     Di Messanon  Now do L.      Configure foreign servers      Create foreign connection factories	Customize this table Foreign Destinations  New Delta Rame 4  Note Queue	Local JR03 Name MD0_QUEUE	Remote 3103 Name

8) After all the resources are created, **Restart** the Admin and Managed Servers.



# 7. Application Deployment

1) Deploy the EAR with Target as Cluster-App

Change Center	î Home Log Out Preferences 🖂 Record Help		Welcome, weblogic Connected to: base_domain
View changes and restarts	Home >JMS Modules >MDB_MODULE >ForeignServer-1 >JMS Modules >Summary of Deploym	ents >Summary of Servers >Summary of Deployments >	Summary of Servers >Summary of Deployments >GWMDB
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Settings for GWMDB Overview Deployment Plan Configuration Security Targets Control T	esting Monitoring Notes	
Domain Structure	Use this page to specify the WebLogic Server instances and clusters to which you wa startup time.		is determine where the application is deployed at server
ClustersVirtual HostsMigratable TargetsCoherence ServersCoherence Clusters	Change Targets Component  Type		Showing 1 to 1 of 1 Previous   Next
Machines Work Managers	GWMDB Enterprise	Application	Cluster-App
Startup and Shutdown Classes Deployments Services Messaning	GW_MDB_Bean.jar EJB Change Targets		(None specified) Showing 1 to 1 of 1 Previous   Next
How do I • Start and stop a deployed Enterprise application			

2) Health Should be OK if JMS is configured properly, otherwise Warning will be displayed



Change Center	🟦 Home Log Out Preferences 🔤 Record Help		Welcome, weble	ogic Connected to: base_do
View changes and restarts	Home >Summary of Environment >Summary of Servers >Summary of Deployments >JMS Modules >MDB_MODUL of Deployments	E >Summary of Environmen	t >Summary of Servers >Summary of De	ployments >GWMDB > <b>Summar</b>
Configuration editing is enabled. Future hanges will automatically be activated as you nodify, add or delete items in this domain.	Summary of Deployments Control Monitoring			
omain Structure				
Green and a services     Services     Services     Services     Services     Services     Store-and-Forward Agents     T-3MS Modules     HPath Services     B-Bridges     T-Data Sources	This page displays a list of Java EE applications and stand-alone application modules that have been ins (redeployed), or deleted from the domain by first selecting the application name and using the controls To install a new application or module for deployment to targets in this domain, click the Install button. Customize this table Deployments Install Update Delete Start Stop >	talled to this domain. Inst on this page.		e started, stopped, updated
Persistent Stores Foreign JNDI Providers	🗋 Name 🗇	State Health	Туре	Deployment Order
w do I	FCUBSApp	Active 🖋 OK	Enterprise Application 1	00
Install an Enterprise application	GWEJB	Active 🖋 OK	Enterprise Application 1	00
Configure an Enterprise application		Active 🖋 OK	Enterprise Application 1	00
Jpdate (redeploy) an Enterprise application	<b>a</b> sjax-rs(1.1,1.9)	Active	Library 1	00
pplication	E TR SWEIB	Active V OK		00
<ul> <li>Start and stop a deployed Enterprise application</li> <li>Monitor the modules of an Enterprise application</li> </ul>			Enterprise Application 1	

Showing 1 to 5 of 5 Previous Next



# 8. Frequently Asked Questions

## 8.1 Application and JMS Cluster Deployed on Same Cluster

Application and JMS Module can be deployed on the same cluster. In this document both are on different clusters, however it is possible to deploy on the one cluster. When it is deployed on same cluster then

- 1) Foreign Server Creation is not required
- 2) Targets should be given accordingly during Sub Deployment Creation

## 8.2 <u>Application Shows Warning upon Restart of Managed</u> <u>Servers</u>

Managed Servers Start Order

- 1) Stop all managed servers.
- 2) Start only the JMS Cluster managed servers.
- 3) After these are started then start the App Cluster managed servers.

Even after proper JMS setup when the managed servers are restarted Health of the Application is Warning

	Adm	ninist	tration Console					õ
Change Center	1	🔒 Ho	ome Log Out Preferences 🔤 Record Help	Q			Welcome, wel	ologic Connected to: base_domain
View changes and restarts	1.	Home	Summary of Deployments					
Configuration editing is enabled. Future changes will automatically be activated as you	5	umm	ary of Deployments					
modify, add or delete items in this domain.		Cont	rol Monitoring					
Domain Structure          ⊕ -Environment       ⊕ -Depoyments       ⊕ -Services       ⊕ -Services       ⊕ -Services       ⊕ -Toragnostics	I .	(red To i Cus	deployed), or deleted from the domain by first se	I stand-alone application modules that have been in electing the application name and using the control ent to targets in this domain, click the Install buttor	s on this pag	nis domain. Installe le.	ed applications and modules ca	n be started, stopped, updated
			stall Update Delete Start v Stop v				Sho	wing 1 to 5 of 5 Previous   Next
			Name 🐵		State	Health	Туре	Deployment Order
			E FCUBSApp (12.0.3.0)		Active	🖋 ок	Enterprise Application	100
How do I 😑			E GWEJB		Active	🖋 ок	Enterprise Application	100
Install an Enterprise application     Configure an Enterprise application			E GWMDB		Active	A Warning	Enterprise Application	100
Update (redeploy) an Enterprise application			1)dx-rs(1.1,1:9)		Active		Library	100
<ul> <li>Start and stop a deployed Enterprise application</li> </ul>			E SWEB		Active	🖋 ок	Enterprise Application	100
<ul> <li>Monitor the modules of an Enterprise application</li> </ul>		Ins	stall Update Delete Start v Stop v				Sho	wing 1 to 5 of 5 Previous   Next
Deploy EJB modules	11							
Install a Web application	<u> </u>							
System Status 🗉	1							

- 1) Force Stop the Application
- 2) Then Start the Application, this would resolve the Warning and the Health of Deployment is changed to OK.



# 8.3 Securing File Store Data

In order to properly secure file store data, set appropriate directory permissions on all file store directories. If data encryption is required, use appropriate third-party encryption software.

## 8.4 t3s Protocol

To secure the communication with the JMS Server use t3s protocol instead of t3. This is applicable when connecting to the connection factory to send or receive messages and also in the JNDI Connection URL provided in foreign server creation.

NOTE: when using the t3s protocol SSL Listen Port Enabled should be checked in server template and the port number used in the URL should be secure port.

## 8.5 How to Test the Deployment

1) Navigate to Services → JMS Modules → JMS\_MODULE → MDB\_QUEUE → MONITORING

View changes and restarts	Home >ForeignServer1 >Configuration >MDBQCF >JMS Modules >JMS_MODULE >MDB_QUEUE >Summary of JMS Messages >JMS Modules >JMS_MODULE >MDB_QUEUE					
Configuration editing is enabled. Future changes will automatically be activated as you	Settings for MDB_QUEU	E				
modify, add or delete items in this domain. Configuration Security Monitoring Subdeployment Notes						
Domain Structure	destination.			d queue. Click on the individual member de e check box next to its name, and then cli		manage the messages on that
Coherence Servers	Destinations (Filtered	- More Columns Exist)				
Machines	Show Messages					Showing 1 to 2 of 2 Previous   Next
	🔲 Name 🗇			Consumers Current	Consumers High	Consumers Total
-Services	JMS_MODULE!JMS	Server-1@MDB_QUEUE		64	64	64
How do I	JMS_MODULE!JMS	Server-2@MDB_QUEUE		64	64	64
	Show Messages					Showing 1 to 2 of 2 Previous   Next
Manage distributed queue messages     Configure uniform distributed queues						

#### 2) Select any one Server and Click on Show Messages

Configuration editing is enabled. Future	Summary of JMS Messages				
changes will automatically be activated as you modify, add or delete items in this domain. Domain Structure				subscriber. Use this page to view message detai file, import XML formatted message contents fro	
	Click on a message to view its contents				
Virtual Hosts     Migratable Targets     Coherence Servers     Coherence Clusters     Machines	Message Selector:			Apply	
Work Managers	Customize this table				
Startup and Shutdown Classes	JMS Messages (Filtered - More Colu	ımns Exist)			
-Services	New Delete v Move v Impo	ert Export v			Showing 1 to 0 of 0 Previous   Next
How do I 🖂	🔲 ID 🐟 🛛 CorrId	Time Stamp	State String	JMS Delivery Mode	Message Size
Manage queue messages			There are no items to disp	blay	
Manage distributed queue messages     Manage topic durable subscribers	New Delete v Move v Impo	rt Export v			Showing 1 to 0 of 0 Previous   Next
System Status					



### 3) Click on New and enter the Message in Body and Click on OK

Change Center			reccome, replogie connected to: base_domain
View changes and restarts	Home >Configuration >MDBQCF >JMS Modules >JMS_MOD	DULE >MDB_QUEUE >Summary of JMS Messages >JMS Mod	ules >JMS_MODULE >MDB_QUEUE >Summary of JMS Messages
Configuration editing is enabled. Future changes will automatically be activated as you	Produce JMS Message		
modify, add or delete items in this domain.	OK		
Domain Structure	JMS Message		
-Environment	The following properties will be used to produce a JM:	5 message.	
Servers Clusters	Туре:		
Virtual Hosts     Migratable Targets     Coherence Servers	Correlation ID:		
Coherence Clusters Machines Work Managers	Expiration:		
Startup and Shutdown Classes	Priority:	4 •	
È-Services È-Messaninn ▼	Delivery Mode:	Persistent •	
How do I	Delivery Time:	-1	
Manage queue messages			
Manage distributed queue messages	Redelivery Limit:	-1	
<ul> <li>Manage topic durable subscribers</li> </ul>			
System Status	Body:		
Health of Running Servers			
Failed (0)			
Critical (0)			
Overloaded (0)	I.		

### 4) Message is Sent

change center							
View changes and restarts	Home >Configuration >MDBQCF >JMS Modules >JMS_MC	DULE >MDB_C	QUEUE >Summary of JMS Messages >JMS Module	es >JMS_MODULE >MDB_QUEU	JE >Summary of JMS Messages		
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Messages JMS message sent successfully.	-					
	Summary of JMS messages						
Domain Structure							
	This page summarizes the available messages for a selected messages, move messages to another dest messages from a destination. Click on a message to view its contents. Message Selector: Customize this table	stand-alone q tination, expor	ueue, a distributed queue, or a topic durable t message contents in XML format to anothe	e subscriber. Use this page to r file, import XML formatted of Apply	view message details, create new nessage contents from another file	messages, delete ;, or drain all the	
- Messaning	JMS Messages (Filtered - More Columns Exist)						
How do I	New Delete V Move V Import Export	~			Showing 1 t	o 1 of 1 Previous   Next	
Manage queue messages		_					
Manage distributed queue messages	🗆 ID 🗞	CorrId	Time Stamp	State String	JMS Delivery Mode	Message Size	
Manage topic durable subscribers	ID:<257876.1411126889162.0>		Fri Sep 19 17:11:29 IST 2014	receive transaction	Persistent	472	
System Status	New Delete V Move V Import Export	~			Showing 1 to	o 1 of 1 Previous   Next	
Health of Running Servers							
Failed (0) Critical (0)							

5) Verify at backend or in the MDB log if the message is processed successfully.



## 8.6 <u>Increase maximum number of message-driven bean</u> threads

Default number of consumers for an MDB is 16. To increase or restrict this number create Custom Work Manager with a Max Threads Constraint in conjunction with MDBs.

The solution is to create a work manager with a max threads constraint and assign the proxy services dispatch policy to this work manager.

Steps to create custom work manager

- 1) Modify the MDB deployment descriptior and redploy the EAR
- 2) Create Custom Workmanager and add constraints to limit the number of the max MDB threads

### 8.6.1 Modify weblogic-ejb-jar.xml

1) Add below line to the weblogic-ejb-jar.xml of the MDB Ear </br/>



2) Remove if any of the below tags present in weblogic-ejb-jar.xml max-beans-in-free-pool and initial-beans-in-free-pool

3) Save the ear file and redeploy the EAR file.



### 8.6.2 Work Manager Creation

 Login into weblogic console, navigate to Domain → Environment → WorkManager Create new workmanager with the name GWMDBWM(as mentioned in property file) by following below steps

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Machines	Fair Share Request Class	
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Virtual Hosts			
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Interoperability			
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How do I 🖂	O All servers in the cluster		
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Security Realms     Interoperability	GWMDBWM	Work Manager	Cluster-App	
Diagnostics	New Clone Delete Showing 1 to 1 of 1 Previous Next			
How do I E				
Create application-scoped constraints				

### 2) Create new Max Thread Constraint and in the Count field give the desired thread count

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	Minimum Threads Constraint			
How do I	Capacity Constraint			
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Create application-scoped request classes				
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3) Modify the newly created workmanager and assign the Maximum Thread Constraint that is created in above step.

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4) Restart managed servers and notice the change in the number of consumers for the QUEUE's.

## 8.7 How High Availability is achieved

1) Application Server:

MDB\_MODULE and the GWEJB ear are deployed in a cluster. Cluster has 4 managed servers, if any server goes down then the messages are processed by other managed servers.

- JMS Provider: JMS is deployed on 2 managed servers, JMSServer1 and JMSServer2, if any one goes down other will handle the messages.
- FileStore: File store is a cluster file system or database where if one node goes down then other will handle the requests.
- DB Server: Database is installed in RAC mode where it has more than 1 node, if a node goes down then other nodes will handle messages.



## 8.8 How to setup for Scheduler/Notifications

The above document can be used for setting up JMS for scheduler/notifications but additional queues and connection factory needs to be created.

## 8.9 What other modules uses JMS Queue's

JMS is used by following modules, relevant queues and factories needs to be created additionally

- 1) EMS for swift messages
- 2) GI for upload
- 3) ELCM
- 4) BIP

## 8.10 References

- 1) FCUBS\_12.1\_Weblogic12c\_Middleware\_Practices.doc
- 2) GATEWAY\_Applications\_WL.doc
- 3) Resource\_Creation\_WL.doc





#### **OBTR JMS Cluster Configuration 12c**

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