Configuring Weblogic Server 12c Oracle FLEXCUBE Universal Banking Release 14.5.4.0.0 Part No. F52800-01 [February] [2022]

FINANCIAL SERVICES

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1. Introduction

1.1 Purpose of this Document

The purpose of this document is to explain the steps required for Configuration and applying best practices in cluster mode for

- FCUBS 14.5
- Weblogic Version 12.2.1.4.0
- JDK 1.8.0_241

1.2 WebLogic Server Overview

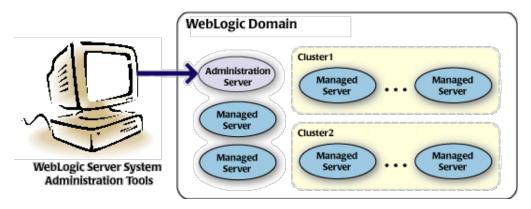
This section of the document provides brief explanation on the main components involved in WebLogic server.

<u>Domain</u>

A domain is the basic administration unit for WebLogic Server instances. A domain consists of one or more WebLogic Server instances (and their associated resources) that is managed with a single Administration Server. Multiple domains can be defined based on different system administrators' responsibilities, application boundaries, or geographical locations of servers. Conversely, a single domain can be used to centralize all WebLogic Server administration activities.

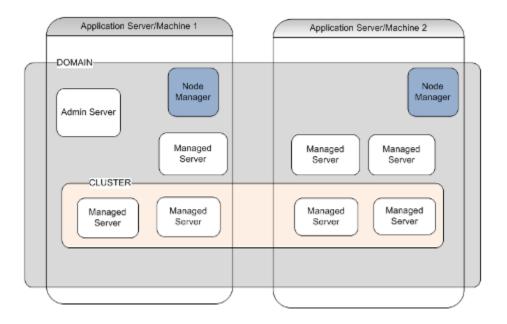
Each WebLogic Server domain must have one server instance that acts as the Administration Server. Administration Server can be used via the Administration Console or using the command line for configuring all other server instances and resources in the domain.

WebLogic Domain Structure





Weblogic 12c Domain Overview



Administration Server

A domain includes one WebLogic Server instance that is configured as an Administration Server. All changes to configuration and deployment of applications are done through the Administration Server. The Administration Server provides a central point for managing the domain and providing access to the WebLogic Server administration tools.

These tools include the following:

- WebLogic Server Administration Console: Graphical user interface to the Administration Server.
- WebLogic Server Node Manager: A Java program that lets you start and stop server instances - both Administration Servers and Managed Servers - remotely, and to monitor and automatically restart them after an unexpected failure.

Admin server start mode needs to be configured as Production Mode.

Managed Server

In a domain, server instances other than the Administration Server are referred to as Managed Servers. Managed servers host the components and associated resources that constitute your applications—for example, JSPs and EJBs.

When a Managed Server starts up, it connects to the domain's Administration Server to obtain configuration and deployment settings. In a domain with only a single WebLogic Server instance, that single server works as both the administration server and managed server.



Node Manager

The Managed Servers in a production WebLogic Server environment are often distributed across multiple machines and geographic locations.

Node Manager is a Java utility that runs as separate process from WebLogic Server and allows you to perform common operations tasks for a Managed Server, regardless of its location with respect to its Administration Server. While use of Node Manager is optional, it provides valuable benefits if your WebLogic Server environment hosts applications with high availability requirements.

If you run Node Manager on a machine that hosts Managed Servers, you can start and stop the Managed Servers remotely using the Administration Console or from the command line. Node Manager can also automatically restart a Managed Server after an unexpected failure.

<u>Machine</u>

A machine in the Weblogic Serve context is the logical representation of the computer that hosts one or more Weblogic Server instances(servers). The Admin Server uses the machine definitions to start remote servers through the Node Managers that run on those servers. A machine could be a physical or virtual server that hosts an Admin or Managed Server that belongs to a domain.

Managed Server Cluster

Two or more Managed Servers can be configured as a WebLogic Server cluster to increase application scalability and availability. In a WebLogic Server cluster, most resources and services are deployed to each Managed Server (as opposed to a single Managed Server,) enabling failover and load balancing.

The servers within a cluster can either run on the same machine or reside in different machines. To the client, a cluster appears as a single WebLogic Server instance.

Dynamic Cluster

A dynamic cluster is any cluster that contains one or more dynamic servers. Each server in the cluster will be based upon a single shared server template. The server template allows you to configure each server the same and ensures that servers do not need to be manually configured before being added to the cluster. This allows you to easily scale up or down the number of servers in your cluster without the need for setting up each server manually. Changes made to the server template are rolled out to all servers that use that template.

You cannot configure dynamic servers individually; there are no server instance definitions in the config.xml file when using a dynamic cluster. Therefore, you cannot override the server template with server-specific attributes or target applications to an individual dynamic server instance.

When configuring your cluster you specify the maximum number of servers you expect to need at peak times. The specified number of server instances is then created, each based upon your server template. You can then start up however many you need and scale up or down over time according to your needs. If you need additional server instances on top of the number you originally specified, you can increase the maximum number of servers instances (dynamic) in the dynamic cluster configuration.



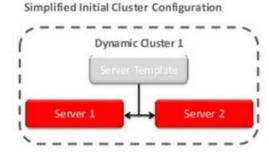
Server Templates

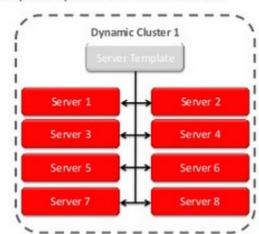
A single server template provides the basis for the creation of the dynamic servers. Using this single template provides the possibility of every member being created with exactly the same attributes. Where some of the server-specific attributes like Servername, listen-ports, machines, etc. can be calculated based upon tokens.

You can pre-create server templates and let Weblogic clone one when a Dynamic Cluster is created.

When none is available a server template is created with the Dynamic Cluster. The name and the listen ports are the only server template attributes that you provide during Dynamic Cluster creation.

Simplified Configuration with Scalability and Elasticity





Simplified Operations for Cluster Scale Out



1.3 **Pre-requisites**

In this document, we are going to create a domain with two managed servers. The managed servers are going to be created on two different physical servers (nodes). Note that, this document has been prepared based on a test conducted in Linux servers.

This requires Weblogic Server of same version to be installed on both the machines and services.

Environment

2 servers where linux is installed, 1 will be primary where admin console will be running along with managed servers and the other where only managed servers will be.

Softwares

- 1) Oracle Weblogic Server 12.2.1.4 installed on both the machines under same folder structure.
- 2) JDK 1.8 Latest available version installed on both the machines. In this document JDK1.8.0_241 version is used.

Clock Synchronization

The clocks of both the servers participating in the cluster must be synchronized to within one second difference to enable proper functioning of jobs otherwise it will lead to session timeouts.

Enable Graphical User Interface (GUI)

Establish a telnet or SSH connection to primary server. Start X-manager (or any similar tool) in windows desktop. Export DISPLAY environment variable to the machine IP where x-manager is running.

Syntax: export DISPLAY=<ip-address>:<port>

Test using xclock



2. Domain Configuration

2.1 **Domain Creation**

Weblogic domain creation and configuration will be done from primary server.

From primary server, launch the fusion Middleware configuration wizard using the command **config.sh** available under \$WLS_HOME/common/bin directory.

1) In the Welcome screen, select **Create a new domain** option. Enter the domain name and click on **Next**.

Configuration Type	
Create Domain Templates Administrator Account Domain Mode and JDK Advanced Configuration Configuration Summary Configuration Progress End Of Configuration	What do you want to do? • Create a new domain • Update an existing domain Domain Location: /scratch/app/w12c/user_projects/domains/FCUBSDomain • Create a new domain.
Help	< <u>Back</u> Einish Cancel

2) Select the required templates from **Available Templates** and click **Next**.



Templates					
Create Domain	● Create Domain Using <u>P</u> roduct Templates:				
Administrator Account	Template Categories: All Templates				
Advanced Configuration Configuration Summary	Basic WebLogic Server Domain - 12.1.3.0 [wlserver] * WebLogic Advanced Web Services for JAX-RPC Extension - 12.1.3.0 [oracle_common]				
Configuration Progress Configuration Progress	 WebLogic Advanced Web Services for JAX-WS Extension - 12.1.3.0 [oracle_common] WebLogic Coherence Cluster Extension - 12.1.3.0 [wserver] WebLogic JAX-WS SOAP/JMS Extension - 12.1.3.0 [oracle_common] 				
	Create Domain Using Custom Template: Template location: //scratch/app/wll2c Browse Browse				
Help	< Back Next > Einish Cancel				

3) Specify Administrator **User Name** and **Password**.



- The specified credentials are used to access Administration console.
- You can use this screen to define the default WebLogic Administrator account for the domain. This account is used to boot and connect to the domain's Administration Server. Click **Next**.

Administrator Account				
Create Domain	:			
Templates				
Administrator Account				
Domain Mode and JDK				
Advanced Configuration				
Configuration Summary				
Configuration Progress				
U End Of Configuration	Name	weblogic		
	Password	•••••		
	Confirm Password	•••••		
	Must be the same as one number or speci	the password. Password must conta ial character	ain at least 8 alphanumeric charact	ters with at least
	one number or speci	ai criaracter.		
Help			< Back Next > Finish	1 Cancel



4) Select Server Startup as **Production Mode** and the available **JDKs**. Click **Next**.

Domain Mode and JDK	
Create Domain Templates Administrator Account Domain Mode and JDK Advanced Configuration Administration Server	Domain Mode Development Utilize boot.properties for username and password, and poll for applications to deploy. Production Require the entry o a username and password, and do not poll for applications to deploy. JDK
Node Manager Configuration Summary Configuration Progress End Of Configuration	Oracle HotSpot 1.7.0_75 /usr/java/jdk1.7.0_75 Other JDK Location: Browse
Help	Einish Cancel



5) Select the check box adjacent to Administration Server and Node Manager. Click Next.





6) Specify the Administration Server Listen address and Listen port.

Administration Server				FL		
Administration Server	Listen Port Enable SSL SSL Listen Port	AdminServer All Local Addresses 7001 7101 t be between 1 and 655	335, and differ		JSION MIDDLEWAR	
Help				< <u>B</u> ack	Next > E	nish Cancel

Note: The default Listen port is 7001 and SSL port is 7101. This could be changed to any other available port. Ensure to make a note, of this port since the same is required for launching the Admin console, post domain creation.

Note: Check for the port availability using the command - netstat -anp |grep <Port no>

The next screen displays Node Manager Configuration.



7) Configure Node Manager.

Select **Per Domain Default Location** option from **Node Manager Type.** And in the **Node Manager Credentials**, provide the username and password of the node manager. Click **Next**.

Node Manager		
🐥 Create Domain		
Templates		
Administrator Account		
Domain Mode and JDK		
Advanced Configuration	Node Manager Type	
Administration Server	Pr <u>D</u> omain Default L	Location
Node Manager	○ Per Domain <u>C</u> ustom	Location
Configuration Summary	Node Manager Home	:: [pp/w12c/user_projects/domains/FCUBSDomain/nodemanager] Brows
Configuration Progress	🔿 <u>M</u> anual Node Manag	er Setup
O End Of Configuration	Node Manager Credentia	als
	Username:	weblogic
	Password:	•••••
	Confirm Password:	•••••
	Must be the same as the n	assword. Password must contain at least 8 alphanumeric characters with at leas
	one number or special ch	
Help		<back next=""> Finish Cance</back>
Пењ		< <u>Back</u> <u>Next</u> <u>Finish</u> Cance



8) Verify the details and click **Create**. The domain creation process is initiated and the progress of completion is indicated.

Configuration Summary			
Create Domain Templates Administrator Account Domain Mode and JDK Advanced Configuration Administration Server Node Manager Configuration Summary Configuration Progress End Of Configuration	View. Deployment FCUBSDomain (/scratch/app/wl12c/user_projects/ General AdminServer AdminServer Select Create to accept the above options and start creat above configuration before starting Domain Creation, gethe left pane, or by using the Back button.	Name Basic W Description Create Author Oracle Location /scrato	/ebLogic Server Domain a basic WebLogic Server domair Corporation :h/app/wl12c/wlserver/commo h/app/wl12c/wlserver/commo ev/app/wl12c/wlserver/commo
Help		< <u>B</u> ack Next >	<u>Create</u> Cancel



9) Click Next.





10) The **Configuration Success** message will be displayed as follows:

Configuration Success		
A Create Domain		
Templates	Oracle Weblogic Server Configuration Succeeded	
4 Administrator Account	New Domain FCUBSDomain Creation Successful	
of Domain Mode and JDK	Domain Location	
Advanced Configuration	/scratch/app/w12c/user_projects/domains/FCUBSDomain	
Administration Server	Admin Server URL	
↓ Node Manager	http://ofss222565:7001/console	
↓ Configuration Summary		
Configuration Progress		
Configuration Success		
Help	<u>Back</u> <u>Next</u> <u>Ein</u>	nish Cancel

The Admin Server console URL is as indicated below:

http://<IP address>:<admin console port>/console

- 1) <IP address >: Host on which domain was created.
- 2) <admin console port> : Port specified in Administration Server configuration page.

In this case the Admin Console URL is: <u>https://<server1hostname>:7101/console</u>



2.2 Pack and Unpack Domain

The domain structure is expected to be copied to the second server during domain creation. To copy the same, you can use pack and unpack utility provided under \$WLSHOME/common/bin.

Pack

Pack domain in primary server:

./pack.sh -managed=true -domain=/scratch/app/wl12c/user_projects/domains/FCUBSDomain - template=/tmp/FCUBSDomain.jar -template_name="FCUBSDomain"

<u>Unpack</u>

Unpack FTP FCBUSDomain.jar in binary mode to secondary server under /tmp area and unpack the domain using unpack utility provided under \$WLSHOME/common/bin

./unpack.sh -domain=/scratch/app/wl12c/user_projects/domains/FCUBSDomain - template=/tmp/FCUBSDomain.jar

2.3 Start Admin server

Admin server is started on the primary server. Login to primary server and navigate to folder *\$DOMAIN_HOME/bin* and execute **startWeblogic.sh**.

2.4 Start Node Manager

Node Manager needs to be started on both the servers. Before starting the node manager update ListenAddress to the Hostname/IP Address of the machine in nodemanager.properties located in folder \$DOMAIN_HOME/nodemanager

To start the node manager login to the servers and navigate to folder \$DOMAIN_HOME/bin and execute **NodeManager.sh**



3. Cluster Configuration

Dynamic Cluster configuration involves below steps

- 1) Machine Configuration
- 2) Dynamic Cluster Creation: In a normal WebLogic Cluster you define Managed Server and add them to Cluster. In Dynamic Cluster, you select number of Servers you want in Cluster and Server Template you wish to assign to Servers in this WebLogic Dynamic Cluster.
- Server template modification: Servers (or Managed Server) that are part of WebLogic Dynamic Cluster will have properties taken from Server Template.
 Modify server template for best practices parameters for Dynamic Servers (part of Dynamic Cluster), you modify Server Template that is applicable to Dynamic Cluster. These settings are applicable to all the managed servers.
- 4) Activate Changes which would automatically create the managed servers (as mentioned in the number of servers required parameter).

Calculate Number of Servers Required:

For every 50 logged in FLEXCUBE users require one managed server of size 8GB. i.e. for 300 logged in FLEXCUBE users, it is recommended to have 6 managed servers. Based on the logged in users that needs to be supported decide on the number of the managed servers required. This parameter is required later in the dynamic cluster creation.



3.1 Machines Configuration

 Login into Admin Console and navigate to FCUBSDomain → Environment → Machine and click New.

	dministration Console 12c	Q
Change Center	🖆 Home Log Out Preferences 🔤 Record Help	Welcome, weblogic Connected to: FCUBSDomain
View changes and restarts	Home >Summary of Machines	
Click the Lock & Edit button to modify, add or delete items in this domain. Lock & Edit Release Configuration	Summary of Machines A machine is the logical representation of the computer that hosts one or more WebLogic Server instances (servers servers in a duster to which certain tasks, such as HTTP session replication, are delegated. The Administration Serv servers.	
Domain Structure	This page displays key information about each machine that has been configured in the current WebLogic Server d	omain.
FCUS5Domain Environment Custers Custers Coherence Clusters Hachines Virtual Hosts Work Managers Starture and Shutdown Classes Deployments Security Realms Discurity Realms Dimenseries Tomaneseries Toma	Showing 0 to 0 of 0 Previous Next Type Showing 0 to 0 of 0 Previous Next	
How do I		
 Create and configure machines Assign server instances to machines Clone machines 		

2) Enter the Machine Name and click Next.

	Home Log Out Preferences Record Help	Welcome, weblogic Connected to: FCUBSDomain
Change Center		includine, including a product of PEODSOONAI
View changes and restarts	Hore -Summary of Machines	
No pending changes exist. Click the Refease Configuration button to allow others to edit the domain.	Create a New Machine Buck: Journal (Finish) (Cancel)	
Look & Erit		
Release Configuration	Machine Identity The following properties will be used to identify your new Machine.	
Domain Structure	* Indicates required fields	
PCUESCentain PCUEScentain PServes B-Clusters -Coherence Clusters -Coherence Clusters -Votation -Votation -Votation -Votation -Votation -Sectory and Stationen Classes -Deployments -Sectors -Sec	What would you like to name your new Machine? * Name: Specify the type of machine operating system. Machined OS: Data Data Data Data Data Data Data Dat	
How do I		



3) Enter the **Listen Address** and **Listen Port** (this is the port mentioned in nodemanager.properties file) and click **Finish**.

Change Center	A Home Lag Out Preferences A Record Help	Welcome, weblogic Connected to: FCUBSDomail
Wew changes and restarts	Hone -Summary of Machines	
No pending changes exist. Click the Release Configuration botton to allow others to edit the domain.	Greate a New Machine Back Painth Cancel	
Levik & Edit Release Configuration	Node Hanager Properties The following properties will be used to configure the Node Hanager on this machine.	
Domain Structure	What type of Node Planager is running on this server, and what protocol should be used to communicate with it?	
COEDensien → Servers H - Servers H - Coherens Coherense Clusters - Markines - Markines - Markines - Markines - Markines - Sando Alberton - Sando Alberton - Sando Alberton H - Sandon H	Type: Type: SSL For a 3xve based node manager, not at address and not in present address of data to communicate month? Listem Address: Listem Poet: For a script based node manager, bidd seal projection was be centighted. Roder Hamager Home:	
How do L	Shell Command:	
Create and configure machines Assign server instances to machines Delete machines	Debug Esabled Back Prof Final Cancel	
System Status		
Health of Running Servers		

4) Machine is created.

ORACLE WebLogic Server A	Administration Console 12c			ĕ
Change Center	🔒 Home Lag Out. Preferences 🔤 Itecord Help	9	Welcome, weblogic C	annected for FCUBSDomain
View changes and restarts Click the Lock & Edit button to modify, add or delete items in this domain.	Horns -Sammary of Machines Messages # All changes have been activated. No restarts are necessary.			
Lock & Edit Release Configuration	Summary of Hachines			
Domain Structure POUSDomain Structure Screes Br-Cuberss Br-Cuberss Br-Cuberss Heckbare Heckbare Heckbare -Valal Hosts -Vold Ho	A reachine is the logical representation of the competer that h server in a cluster to which certain tasks, such as HTTP session nervers. This page displays key information about each machine that he ip Customize this table Hachines Chick the Look & Lofe button in the Change Center to activate	replication, are delegated. The Administration Ser as been configured in the current WebLagic Server o	er uses the machine definition in conjunction with Node Ma	nager to start remote
B-Services	New Close Delete		Shoving 1 b	olofi Previous Next
P-Intemperability P-Ramontics	Name &	Ty	ie hine	
How do 1 • Create and configure machines • Assign server instances to machines • Oscer machines • Defete machines				o 1 of 1 Previous Next



5) Similarly create a new machine entry for the other server.

Change Center	A Home Log Out Preferences A Record Help	R Welcome, weblogic Connected to: PCUBSDon
view changes and restarts	Horre -Summary of Machines	
Click the Lock & Edit betten to modify, add or delete items in this domain.	Messages # All changes have been activated. No restarts are recessary.	
Look & Eol	Summary of Machines	
Release Configuration		
kemain Structure CDES Domain Frommerit Frommerit Consenses Consenses Consenses Consenses Consenses Consenses Consenses Consenses Consenses Consenses Consenses Consenses Consenses Consenses Consenses Co	A machine is the logical representation of the computer that basis are a sever in a duster to which certain tasks, such as HTTP session reglicate servers. This page displays key information about each machine that has been or in Customize this table Machines Click the <i>Lock & Edit</i> better in the Change Center to activate all the log	
-Deployments -Services	New Clone Deete	Showing 1 to 2 of 2 Previous Next
Security Realins Enteroperability	🖂 Name 🙃	Тире
Diamostics	Machinet	Machine
ow do I	P Madvine2	Machine
Create and configure machines Assign server instances to machines Clore machines Delete machines	New Clone Dente	Showing 1 to 2 of 2 Previous Next

Verifying machine status

Before starting the managed servers, ensure that the Node manager Status of all the machines are "Reachable".

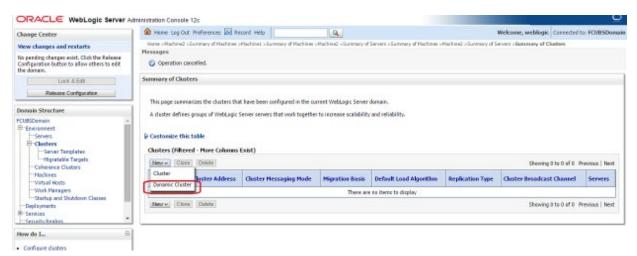
In the console, navigate through **Domain structure** \rightarrow **Machines** \rightarrow **machine1** \rightarrow **Monitoring** \rightarrow **Node Manager Status**. Status should be **Reachable**.

ORACLE WebLogic Server A	dministration Console 12c		Q
Change Center	🙆 Home Log Out Preferences 🔛 Re	card Help	Welcome, weblagic Connected to FCUBSDomain
Wew changes and restarts	Home >Summary of Plachines >Plachine1 >	Summary of Machines >Machine2 >Summary of Hachines >H	lachine1 >Summary of Hachines >Hachine2 >Summary of Hachines >Hachine1
Click the Lock & Edit batton to modify, add or	Settings for Machine1		
delete items in this domain.	Configuration Honitoring Notes		
Release Configuration	Node Manager Status Node Manager	ger Log	
Domain Structure	This make allows you to view current st	atus information for the Node Manager instance configu	and for this warding.
PCUESDornain ·		and the first of the first standard stands of the	
Servers	Status:	Reachable	Current status of this Wede Hanager. More Info
G-Clusters Server Templates 	Version:	12.1.3	Version string retained from the Node Homoger. Here \ensuremath{Infe}_{n+1}
Machines Wintual Hists Wask Nanagers Startug and Shatdown Classes			



3.2 **Dynamic Cluster Creation**

1) Login into Admin Console and Navigate to FCUBSDomain → Environment → Clusters → New → select Dynamic Cluster.



2) Enter the Cluster Name and click on Next.

ninistration Console 12c		Q
🔒 Home Log Out Preferences 🔤 Record Help	Q	Welcome, weblogic Connected to: FCUBSDomain
Home >Machine2 >Summary of Machines >Machine1 >Summ	nary of Machines >Machine2 >Summary of Servers >Summary of I	Machines >Machine2 >Summary of Servers >Summary of Clusters
Create a New Dynamic Cluster Back Next Finish Cancel Specify Cluster Identity and Properties The following properties will be used to identify your ne	ew dynamic cluster and specify how cluster members should	i communicate with each other to coordinate work.
* Indicates required fields		
simple broadcast technology that enables multiple applic	FCUBSCluster	
Multicast Address:	239.192.0.0	
Multicast Port: Back Next Finish Cancel	7001	
	Home Log Out Preferences Record Help Home >Machine3 >Summary of Machine3 >Machine3 >Mach	Home Log Out Preferences Record Help Ame >Machines >Machi



3) Enter the **number of dynamic servers** you want to configure, enter the **server name prefix** and click on **Next**.

ORACLE WebLogic Server Ad	Iministration Console 12c	9
Change Center	🏦 Home Log Out Preferences 🔤 Record Help	Welcome, weblogic Connected to: FCUBSDomain
View changes and restarts	Home >Machine2 >Summary of Machines >Machine1 >Summary of Machines >Machine2 >Summary of Servers >	Summary of Machines >Machine2 >Summary of Servers >Summary of Clusters
No pending changes exist. Click the Release Configuration button to allow others to edit	Create a New Dynamic Cluster	
the domain.	Back Next Finish Cancel	
Release Configuration	Specify Dynamic Server Properties	
	The following properties will be used to specify the size and characteristics of your new dynamic cluster	er.
Domain Structure	How many dynamic servers will you need at peak load?	
FCUBSDomain -Environment -Servers	Number of Dynamic Servers:	
	What naming convention would you like to use for new dynamic servers in this cluster? Server Name Prefix: FCUBSMS	
Machines Virtual Hosts Work Managers Startup and Shutdown Classes	Server templates are used to configure the characteristics that are common to all dynamic servers in th new server template will be created to support this new cluster.	is cluster. Server templates are unique to a cluster and cannot be shared across clusters, so a
	Back Next Finish Cancel	
How do I		

4) Select machines that participate in domain, in this case all machines will be part of the domain, select **Use any machine configured in this domain** option and click on **Next**.

ORACLE WebLogic Server			Q
Change Center	🙆 Home Log Out Preferences 🐼 Record Help	9	Welcome, weblogic Connected to: FCUBSDomail
View changes and restarts	Hore >Machine2 >Summary of Machines >Machine1 >Sum	wary of Nachines «Hachine) «Sarmary of Servers »Sorwary of	Plachenes «Plachine) «Summary of Servers »Summary of Charlers
No pending changes exist. Click the Release Configuration button to allow others to edit	Create a New Dynamic Cluster		
the domain.	Back Next Finish Cancel		
Lock & Edit			
Release Configuration	Specify Machine Bindings		
and a second second	Associating dynamic servers with machines is essenti	al If you intend to use Node Manager and the Administration	Console (or WLST) to start server instances.
Domain Structure	How do you want to distribute dynamic servers across	rachines?	
PCUBSDomain	0		
10 Environment	Use any machine configured in this domain		
Servers			
B-Clusters Server Templates	Use a single machine for all dynamic servers		
Coherence Clusters	Selected Machine:	Machine1 *	
Machines	sector control and concerns the		
Wittual Hests	Use a subset of machines in this domain		
Wark Nanagers	and the second se		
-Startup and Shatdown Classes	Machine Name Match Expression:		
Deployments BI-Services			
Security Realins	Back Next Finish Canoel		
How do I			
These day has			
 Create dynamic dusters 			
Configure chatters	1		



5) Select the **listen port for the first server** in the dynamic cluster and then the **SSL listener port** for the first server in the dynamic cluster. The subsequent servers will be assigned with an incremental port number. Click **Next**.

Change Center	🔒 Home Log Out: Preferences 🖂 Record Help	Welcome, weblogic Connected to: FCUBSDomail
View changes and restarts		mary of Servers >Summary of Nachines >Nachine2 >Summary of Servers >Summary of Clusters
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Create a New Dynamic Cluster Back Next Frenh Cancel	
Lock & Edit Release Configuration	Specify Linten Port Bindings Select how these dynamic servers should be bound to listen perts.	
Domain Structure	Listen ports for dynamic servers can be specified in a server template or can be dynami	cally generated to be unique.
PCUBSDemain + Entrement PClusters	Assign each dynamic server unique listen ports Linban Port for Pinst Server:	
Server Templates Highritable Torgets Caheners Clusters	SSL Listen Part for First Server: 7102	
- Virtual Hosts Work Planagers	Assign each dynamic server fixed listen ports	
L-Startup and Shutdown Classes	Listen Port: 7100	
-Services	SSL Listen Port: 8100	
How do I		
Create dynamic clusters Configure clusters	Each Meet Freith Cancel	

6) A summary of new Dynamic Cluster Configuration is presented. Click **Finish** to create Dynamic Cluster.

ORACLE WebLogic Server A	dministration Console 12c		Q
Change Center	🏟 Home Log Out Preferences 📈 Record Help	9	Welcome, weblogic Connected to: PCUBSDomain
View changes and restarts	Home «Machine2 »Summary of Machines «Machine1 »Summary of Pla	chines >Plechine2 >Summing of Servers >Summary of Plec	hives >Plachine2 >Summary of Servers >Baremany of Chasters
No pending changes exist. Click the Release Configuration button to allow others to adit the domain.	Create a New Dynamic Cluster Back Next Frenh Garcel		
Release Configuration	Review Your Dynamic Cluster Configuration You have elected to create a new dynamic cluster with the follo	wing coefiguration.	
Domain Structure	Configuration details for new dynamic cluster:		
FCUISDenain + B-Ensistement Servers	Name of New Dynamic Cluster:	rout	SCluster
B-Clusters Server Templates	Maximum Number of Dynamic Servers:	*	
Migratable Targets Coherence Clusters	Server Name Prefix:	FOUR	5H5
Plachines Virtual Hosts Work Nanagers	Enable Calculated Listen Portsi	true	
Startup and Shutdown Classes	Enable Calculated Machine Associations:	true	
B-Services	Configuration details for new server template:		
How do L.	Name of New Server Template:	FOUB	6M5Template
	Listen Port:	7002	
Create dynamic clusters Configure dusters	SSL Linten Port:	7162	
Configure server migration in a duster Configure cross-duster replication	Back Next Finish Cancel		
Create server templates			



7) The **Summary of Clusters** screens should show the recently created Dynamic Cluster.

Change Center	😰 Hume Log Out Preferences 🔛 Record	Help	Q		v	Velcome, weblogic Connected to	FCUBSDoew
tew changes and restarts ending changes exist. They must be activated take effect. Activate Changes	Hume -Hachina2 -Sormary of Hachines -Hachi Hessages A server template named PCU85PISTemp Cluster created successfully.					vers >Sommary of Chatters	
Undo All Changes	Summary of Clusters						
CUBSDomain CUBSDomain CuBSDomain	This page summarizes the clusters that have A cluster defines groups of WebLogic Server						
Charters Server Templates Highertable Targets Caberence Clusters	© Customize this table Clusters (Filtered - More Columns Exist)	0					
Server Templates Higratable Targets		0				Showing 1 to 1 of 1 Pr	nious Next
Server Templates Highstable Targets Coherence Clusters Hachines	Clusters (Filtered - More Columns Exist)) Cluster Messaging Hode	Migration Basis	Default Load Algorithm	Replication Type	Showing 1 to 1 of 1 Pro Cluster Broadcast Channel	vious Next
Server Tenglates Bigstable Targets Coherence Clusters Michaines Workal Hoots Work Managers Deployments Deployments	Clusters (Filtered - Hore Column Exist) Nex v Cone Dente		Migration Basis Database	Default Load Algorithm Round Robin	Replication Type (None)	Course of the second second	
Server Templates High stable Targets Coherence Clusters Hachiese Virtual Hoots Work Managers Startup and Shutdown Classes	Clusters (Filtered - Hore Column Exist) Nex v Cone Dente	Cluster Messaging Mode			1.000	Course of the second second	Servers

8) Upon Activate Changes would automatically create 4 managed servers.

ange Center	2 A H	tome Log Out Pr	references 🔛 Proc	rd twig	Q.			Welcome, weblogic Co	needed to: PCUBSDoes
ew changes and restarts	Harr	e >POUBSHSTerry	late i Surienary of Serv	er Tanglates «PCURSHSTanglab	-Summary of Chat	ters .			
ck the Lock & Edit buttor to modify, add or lete items in this domain.	Same	ary of Ousters							
Lock & Ealt		a name summarily	the clusters that h	ave been configured in the cu	nest Wahi onir Sana	o domain.			
Release Configuration				ver servers that work together					
ensis Structure									
	1.1.2								
EDonain Environment Servers ® Obsters	Chen	O POLICIA DE CONTROL O	More Columns Ex	ext) ge Center to activate all the b	uttons on this page.				
Econen	Our Old	sters (Filtered	• More Columns Ex Moutton in the Chan	1000	dtors on this pape.			Showing 1 to	1 of 1 Previous Next
EDonain	Our Old	sters (Filtered 5 the Lock & Ed	Hore Columns Ex Whatton in the Chan Dente	1000		Default Load Algorithm	Replication Type	Shewing 1 is Cluster Broadcast Channe	

9) Navigate to **FCUBSDomain \rightarrow Environment \rightarrow Servers** tab and 4 new servers are created.

Change Center	🎓 Hime Log Out Preferences 🐼	filecard. Help	9			Welcome, web	Rogic Connected to: PCUBSDoese
View changes and restarts	Home >ROURSHSTemplate >Summary	of Server Templetes +POURSH	STenglate >Summary of Ou	stars -Summary of Ser	ven		
Click the Lock & Edit buttor to modify, add or	Summary of Servers						
delete items in this domain. Lock & Edit	Coeffiguration Control						
Release Configuration	A server is an instance of WebLog	c Server that runs in its own	2ava Virtual Hachine (2v)	t) and has its own cord	figuration.		
Domain Structure	This page summarizes each server	that has been configured in	the current WebLogic Ser	ver domain.			
CuttiDonain .							
Servers	0						
-Server Templates Pligratable Targets Coherence Choters	Servers (Filtered - More Colum	uns Exist)					
Hachines	Cick the Lock & Edit button in th	e Change Center to activat	e all the buttons on this pa	ipe.			
- Hachines 	Click the Lock & Edit Sutton in th	e Change Center to activat	e all the buttons on this pa	ige.		She	ning 1 to 5 of 5 Previous Next
- Plachnes - Witail Hists - Timk Hanapers - Startige and Shutdown Classes - Deployments		e Change Center to activat	e all the buttons on this pa	nga. Machine	State	She	ning 1 to 5 of 5 Previous Next Linken Port
- Hachines - Virtual Hests - Titufi Managers - Startup and Shutdown Classes	[New] [Chine] [Delete]				State PUMPIG		
Plachnes Votal Heats Votal Heats Startup and Shutdown Classes Coglignments Sances Security, Engliss	Item: Chine (Delete)	Type				Health	Listen Port
Hacknes Widdines Widdines Widdines Satta and Stateon Cleases Coplements Satta and Stateon tendes tendes tendes	Nexe of AdverServer(adver)	Type Configured	Cluster	Machine	PUNNING	Health # QK	Listen Port 2001
Vidual Heads Vidual Heads Vidual Heads Track Nanopers Statup and Statdeen Classes Secure Statup and Statdeen tex de L_ Create Hanaped Servers	Terrer (Chine) (Delete)	Type Configured Dutamic	Chaster FCAESCuster	Hachine Histore1	PUNNING SHUTDOWN	Health III (K Nut reachable	Listen Port 2003 2003
Plachnes Vitral Hists Vitral Hists Vitral Hists Vitral Hists Vitral Hists Startup and Shutdewn Classes Startup Santus Securits Securits Securits Securits	Nerre Pr Adminiferent/Arrist FC285/851 FC285/852	Tase Configured Dynamic Dynamic	Charler FCUESCluster PCUESCluster	Hachine Hachine1 Hachine2	PUNIDS SHUTDOWN SHUTDOWN	Health I GK Not reachable Not reachable	Caten Port 2001 2003 2004



3.3 Managed Server Template configuration

The server template created is modified to apply the below parameters:

3.3.1 Logging

The process of log file writing in a Weblogic server can impact the performance. Hence, you need to keep the logging to minimum in a production environment.

Update below parameters by in Logging Screen

Minimum Severity to log	Warning
Log file Severity level	Warning
Standard Out Severity level	Critical
Domain broadcaster Severity level	Critical

1) Navigate to **FCUBSDomain** \rightarrow **Environment** \rightarrow **Clusters**.

	aministration Console 120					×.
Change Center	🏠 Home Log Out Preferences 🔤 Record Hel	p		We	Icome, weblogic	onnected to: FCUBSDomain
View changes and restarts	Home >Machine2 >Summary of Servers >Summary of Templates	Machines >Machine2 >Summary of Server	s >Summary of Clusters >Summ	ary of Servers >Summary of Server Ter	mplates >FCUBSMSTemp	plate >Summary of Server
Pending changes exist. They must be activated to take effect.	Summary of Server Templates					
Activate Changes Undo All Changes Domain Structure	This page summarizes each server template tha A server template contains common, non-defau manage configuration for a group of server inst	t attributes that you can apply to a set	-	en inherit the template configuration	n. Server templates er	nable you to easily
FCUBSDomain FCUBSDomain Custors Clusters Migratable Targets	Customize this table Server Templates New Clone Delete				Showing 1 to	o 1 of 1 Previous Next
Coherence Clusters Machines	🔲 Name 🗞	Cluster	Machine	Listen Port	Listen Address	
Virtual Hosts Work Managers	FCUBSMSTemplate	FCUBSCluster		7002		
	New Clone Delete				Showing 1 to	o 1 of 1 Previous Next
How do I • Create server templates						

2) Select **FCUBSTemplate** and navigate to **Logging → General**.

Home Log	Dut Preferen	ces 🛃 Re	cord Help		Q	Welcome, weblogic Connected to: FCUBSDoma
Home >PCUBSN	STemplate >5	ummary of Se	erver Templ	ates >FCUBSP		
ettings for FC	UBSMSTem	plate				
Configuration	Protocols	Logging	Debug	Notes		
General H	TP Data 5	iource Dia	agnostic In	ages		
Save						
Use this page	to define the	e general log	ging settin	gs for this se	srver.	
🛃 Log file na	ime:	10	gs/FCUE	SMSTemp	slate log	The name of the file that stores current log messages. Usually it is a computed value based on the name of the parent of this MBean. For example, for a server log, it isSERVER_NAME.log. More Info
- Rotation -		_				
- Contraction				-		Automotive and the second to a second data the state



— 🗢 Advanced —		
街 Date Format Pattern: 🕅	/IM d, yyyy h:mm:ss a z	The date format pattern used for rendering dates in the log. The DateFormatPattern string conforms to the specification of thejava.text.SimpleDateFormat class. More Info
Minimum severity to log:	arning 🔻	The minimum severity of log messages going to all log destinations. By default all messages are published. More Info
登 Logger severity properties:		The configuration of the different logger severities keyed by name. The values are one of the predefined Severity strings namely Emergency, Alert Critical, Error, Warning, Notice, Info, Debug, Trace. More Info
og file :	ing V	The minimum severity of log messages going to the server log file. By default
· ·		all messages go to the log file. More Info
ilter: None	9 ▼	The filter configuration for the server log file. More Info
Log File Buffer: 8		Gets the underlying log buffer size in kilobytes More Info
andard out :		
everity level:	al V	The minimum severity of log messages going to the standard out. Messages with a lower severity than the specified value will not be published to standard out. More Info
ilter: None	₹ ▼	The filter configuration for log events being sent to the standard out. More Info
omain log broadcaster :		
everity level:	al V	The minimum severity of log messages going to the domain log from this server's log broadcaster. Messages with a lower severity than the specified value will not be published to the domain log. More Info
ilter: None	3 1	The filter configuration for log events being sent to the domain log. More Info
uffer Size: 10		Broadcasts log messages to the domain log in batch mode. More Info
Stack Traces to stdout		Specifies whether to dump stack traces to the console when included in logged message. More Info

3) Under Advanced tab, update the below parameters and click on Save.



Determines the no of stacktrace frames to display on standard out. All frames are displayed in the log file. * -1 means all frames are displayed. More Info...

The output format to use when logging to the console. More Info...

stdout Stack Trace Depth:

🚯 stdout Format:

Save

5

standard

3.3.2 HTTP Logging

1) FCUBSDomain → Environment → Clusters → FCUBSTemplate → Logging → HTTP → Uncheck the Access Logs Flag.

Home Log Ou	A Preferences	Record He	lp Q	Welcome, weblogic Connected to: FCUBSDor
Home >FCUBSMST	Template >Summ	ary of Server Ten	plates >FCUBSMSTemplate	
ettings for FCUE	BSMSTemplat	e		
Configuration	Protocols Lo	gging Debug	Notes	
General HTTP	P Data Source	e Diagnostic	Images	
Save				
Use this page to	configure HTT	Plonging for the	server. By default, HTTP logging is enabled and th	a server saves HTTP requests in a separate log file; it does not store HTTP requests in the
server log file or	r the domain lo	g file.	server. By default, HTTP logging is enabled and t	te server saves HTTP requests in a separate log file; it does not store HTTP requests in the Indicates whether this server logs HTTP requests. (The remaining fields on
server log file or		g file.	server. By default, HTTP logging is enabled and t	
server log file or	r the domain lo s log file enab	g file.	server. By default, HTTP logging is enabled and the logs/access.log	Indicates whether this server logs HTTP requests. (The remaining fields on
server log file or	r the domain lo s log file enab	g file.		Indicates whether this server logs HTTP requests. (The remaining fields on this page are relevant only if you select this check box.) More Info
server log file or HTTP access	r the domain lo s log file enab ne:	g file.		Indicates whether this server logs HTTP requests. (The remaining fields on this page are relevant only if you select this check box.) More Info

3.3.3 Stuck Tread Max Time

1) FCUBSDomain → Environment → Clusters → FCUBSTemplate → Tuning, update the stuck thread max time to 18000 and Click on Save.



4. Tuning

4.1 **General Parameters**

PARAMETER	VALUE	Navigate To
JTA Time out seconds	18000	Login to Weblogic Server console.
		Click on the domain name (ex: FCUBSDomain) which is under 'Domain Structure'.
		Go to Configuration > JTA, parameter and values is found on the right side panel of console.
Session Timeout	900	Login to Weblogic Server console
		Click on Deployments which is under 'Domain Structure'.
		Click on the deployed FCJ application from right side panel.
		Click on FCJNeoWeb from 'Modules and components'
		Go to Configuration General, the parameter values can be found here.

4.2 JVM Tuning

This section of the document provides JVM optimization for Oracle FLEXCUBE Universal Banking Solution.

Basically the JAVA minimum and maximum heap size needs to be reset for 32 and 64 bit environments. Both the minimum and maximum heap size is set to 1.5GB and 4GB in case of 32 bit and 64 bit environments respectively.

How to find whether the JVM is 32bit or 64bit?

Go to \$JAVA_HOME/bin directory. Check java version using command ./java –d64 –version 64 bit JVM shows the version details where as 32bit throws an error.

How to modify the JVM heap parameters?



To change the JVM heap parameters create a file setUserOverrides.sh under domain FCUBSCL in both servers. This file should be created in ***\$WL_HOME/user_projects/domains/\$WLS_DOMAIN/bin**" in both the servers. Paste below contents of USER_MEM_ARGS variable accordingly to override the standard memory arguments passed to java for **SUN JDK**.

32 bit JDK

```
USER_MEM_ARGS="-
Dorg.apache.xml.dtm.DTMManager=org.apache.xml.dtm.ref.DTMManagerDefault
-
Dorg.apache.xerces.xni.parser.XMLParserConfiguration=org.apache.xerces.
parsers.XML11Configuration -Dweblogic.threadpool.MinPoolSize=100 -
Dweblogic.threadpool.MaxPoolSize=100 -Xms1536M -Xmx1536M -
XX:MaxPermSize=256m -server -XX:+UseParallelOldGC -
XX:ParallelGCThreads=4"
export USER_MEM_ARGS
```

64 bit JDK

```
USER_MEM_ARGS="-
Dorg.apache.xml.dtm.DTMManager=org.apache.xml.dtm.ref.DTMManagerDefault
-Dorg.a
pache.xerces.xni.parser.XMLParserConfiguration=org.apache.xerces.parser
s.XML11Configuration -Dweblogic.threadpool.MinPoolSize=100 -
Dweblogic.threadpool.MaxPoolSize=100 -Xms8g -Xmx8g -Xmn4g -server
-XX:+UseParallelOldGC -XX:ParallelGCThreads=4"
export USER_MEM_ARGS
```

Note: Take a backup of the files before modifying the same.



5. Start Managed Servers

Starting using scripts

Managed Servers can be started by executing startManagedWebLogic.sh script present in folder **\$DOMAIN_HOME/bin**

Usage: ./startManagedWebLogic.sh SERVER_NAME {ADMIN_URL}

Eg: ./startManagedWeblogic.sh FCUBSMS1 https://<hostname1>/console

Starting using console

Alternatively, login to admin console, navigate to **FCUBSDomain** \rightarrow **Environment** \rightarrow **Servers** \rightarrow **Control**, select the managed servers to be started and click on **Start**.

Change Center	🔒 Home Log Out Preferences 🔛 Record Help	Q.		Welcome, weblog	ic Connected to: FCUBSDoma
View changes and restarts	Hume >PCUBSMSTemplate >Summary of Server Temp	iales >FCUBSHSTemplate >Summary of	Clusters -Sammary of Servers		
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of Servers				
Lock & Edit	Configuration Control				
Release Configuration	Use this page to change the state of the servers mode requires the domain-uside administration p		ntrol operations on Managed Serv	ers require starting the Node Planager. Starting Pla	maged Servers in Standby
PCU85Domain - Creations Clusters Clusters 	100				
Servers Server Templates	C) © Costomize this table Servers (Filtered - Hore Columns Exist) Start Resume Suspendiv Stationer	Restart 55L		Shawin	s 1 to S of S. Previous Next
ServersServer Semplates	© Customere this table	Restart SSL	State	Status of Last Action	g 1 to 5 of 5 Previous Next
	Costomize this table Servers (Filtered - Hore Columns Exist) Statt Resume Suspend v Shuttown	and a second second	State RUNDING		g 1 to 5 of 5 Previous Next
	Costomize this table Servers (Filtered - Hore Columns Exist) Statt Resume Suspend Shuttown Server	and a second second		Status of Last Action	g 1 to 5 of 5 Previous Next
	Customize this table Servers (Filtered - Hore Columns Exist) Stati (Resume: Daspend v. (Shuttown v Server #v Actor/Server(admin) Result:	Machine	RUNING	Status of Last Action	g 1 to 5 of 5 Previous Next
Servers	Customize this table Servers (Vitered - Hore Columns Exist) Stati Resume: Suspend v: Shuttown v Server riv AcurServer(admin) R PG 85961 R PG 85962	Hachine Hachine1	RUNNENG SHUTDOWN	Status of Last Action None None	g 1 to 5 of 5 Previous Next

Upon successful startup, the status of Managed servers is changed to "RUNNING".



6. Data Source creation and JDBC Configuration

Following are the JNDI names of those data sources used by FLEXCUBE application.

jdbc/fcjdevDS - This datasource is used by FLEXCUBE online screen excluding branch screens.

- jdbc/fcjdevDSBranch This datasource is used by Branch screens.
- jdbc/fcjSchedulerDS This datasource is used by Quartz scheduler.

Note:

- jdbc/fcjdevDS should be NonXA.
- jdbc/fcjdevDSBranch and jdbc/fcjSchedulerDS should be XA

6.1 Data source creation: non XA

 Navigate to FCUBSDomain → Services → Data Sources → select New > Generic Data Source.

CIRACLE WebLogic Server A	Idministration Console 12c			
Change Center	Home Log Out Preference	es 🚾 Record Help	9	Welcome, weblogic Connected to: PCUBSDo
Wew changes and restarts	Home >FCUESMSTemplate >Sur	nemery of Server Templates >RCUIDSP	STemplate >Summary of Clusters >Summary of Serve	ers >Summary of JDBC Data Sources
No pending changes exist. Click the Release	Summary of JDBC Data Sour	roes		
Configuration button to allow others to edit the domain.	Configuration Honitoring			
Domain Structure	ir Customize this table Data Sources (Filtered - P	OBC data source objects that have	been mosted in this domain.	
8-Messaging	New w Delete			Showing 0 to 0 of 0 Previous Nex
Persistent Stores	Generic Data Source GridLink Data Source	Туре	JND1 Name	Targets
Foreign JNDI Providers Wark Contexts	Hulti Data Source		There are no items to disp	lay
XML Registries XML Entity Caches 	menor (comp			Showing 0 to 0 of 0 Previous Nex

2) Enter the Name and JNDI Name and Click on Next



ORACLE WebLogic Server	dministration Console 12c	<u> </u>
Change Center	🔞 Home Log Out Preferences 🖾 Record Help	Welcome, weblogic Connected to: FCUBSDonial
View changes and restarts	Wane >FCUBSHSTemplate >Summary of Server Templates >FCUBSHSTemplate >Summary of Clusters >	Summary of Servers >Summary of JDBC Data Sources
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Create a New JOBC Data Source	
Release Configuration	3DBC Data Source Properties The following properties will be used to identify your new JOBC data source.	
Domain Structure	* Indicates required fields	
FCUBSOuncien FCUBSOunce FCUBSOunce FCUBSOunce FCUBSOunce FSUBSOUNCE FSUBSOUNCE FSUBSOU	What would you like to name your new XOEC data source?]
How do L	1	
Oreate JDBC generic data sources Oreate LLR-enabled JDBC data sources	What database type would you like to select? Database Type: Oracle •	
System Status E Health of Running Servers	Bir Heat Filth Cancel	
Failed (0)	·	



3) Select the Driver as **Oracle's Driver(thin) for Instance connection: Versions: Any** and Click on **Next**.

ORACLE WebLogic Server	Administration Console 12c		Q
Change Center	🏫 Home Log Out Preferences 🐼 Record Help	9	Welcome, weblogic Connected to: PCUBSDomain
View changes and restarts	Home >PO/85MSTemplate >Summery of Server Templates >PO/85	PS7amplate >Summary of Clusters >Summary of Service	-Serverary of 30BC Data Searces
No pending changes exist. Click the Release Configuration botton to allow others to edit the domain.	Create a New JDBC Data Source		
Lock & Edit	annes anne freemen annes		
Release Configuration	JDBC Data Source Properties The following properties will be used to identify your new JDB	IC data source.	
Domain Structure			
PCUEStormen Destroitenenene Destroitenenene Clasters Destroitenenenenenen Destroitenenenen Destroitenen Destroitenen Destroitenen Destroitenenenenenenenenenenenenenenenenenenen	Database Type: Orade What database driver would you like to use to create database Database Driver Database Driver (Toracle's Driver (Thin) for Integration (Cancel)	connections? Note: * indicates that the driver is ex stance connections; Versions:Any	plicitly supported by Oracle WebLogic Server.
Startup and Shutdown Classes 			•
B-Services R-Marraylan			

4) Uncheck the Supports Global Transactions and click on Next.

ORACLE WebLogic Server Adr	ministration Console 12c		
Change Center	🚹 Home Log Out Preferences 🔤 Record Help	Q	Welcome, weblogic Connected to: FCUBSDomain
View changes and restarts	Home >FCUBSMSTemplate >Summary of Server Template	es >FCUBSMSTemplate >Summary of Clusters >Summa	ry of Servers >Summary of JDBC Data Sources
No pending changes exist. Click the Release Configuration button to allow others to edit the domain. Lock & Edit Release Configuration	Create a New JDBC Data Source Back Next Finish Cancel Transaction Options You have selected non-XA JDBC driver to create data	abase connection in your new data source.	
Domain Structure	Does this data source support global transactions? If	ves please choose the transaction protocol for th	ic data cource
FCUB5Domain	Supports Global Transactions	connections from the data source to participate i	n global transactions using the <i>Logging Last Resource</i> (LLR) transaction optimization.
Virtual Hosts Work Managers Startup and Shutdown Classes Deployments	Select this option if you want to enable non-XA JDBC heuristic conditions.	connections from the data source to emulate par	icipation in global transactions using JTA. Select this option only if your application can tolerate
How do I	Select this option if you want to enable non-XA JDBC other resources can participate in the global transact		global transactions using the one-phase commit transaction processing. With this option, no
Create JDBC generic data sources Create LLR-enabled JDBC data sources	One-Phase Commit Back Next Finish Cancel		
System Status	L		



5) Enter the **Database Name, Host Name, Port, Database User Name, Password, Confirm Password** and click on **Next**.

Change Center	😰 Home Log Out Preferences 🐼 Record Help	Q	Welcome, weblogic Connected to: PCUBSDomain
View changes and restarts	Hame >PCUBSHSTemplate >Summary of Server Templates >PCUBSHS	Template «Summary of Clusters »Summary of Servers »Sk	averwary of 3DBC Data Sources
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Create a New 3DBC Data Source Back (Next) Friend Cancel		
Lock & Edit Release Configuration	Connection Properties Define Connection Properties.		10
Domain Structure PCUBSDomain PErstronment	What is the name of the database you would like to connect to? Database Name:		
E-Custers E-Custers	What is the name or IP address of the database server?	1	<u>.</u>
Pagretable Targets Coherence Clusters Pladines	Host Name:		1
	What is the port on the database server used to connect to the d	1521	
P Services B-Hessacion	What database account user name do you want to use to create of	latabase connections?	
How do I	Database User Name:		1
Create IDBC generic data sources Create LLR-enabled IDBC data sources	What is the database account password to use to create database	e connections?	
System Status	Password:		
Health of Running Servers	Confirm Password:		1.1
Failed (0) Critical (0)	Additional Connection Properties:		
Overloaded (8) Warning (0) OK (5)	oracle_idbc.DRCPConnectionClass:		

6) Replace the JDBC URL in the below format and click on Next.

Default URL: jdbc:oracle:thin:@<IP_Adress>:<Port>:<INSTANCE_NAME>.

Change the default URL to:

jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOS T=xxxxx.com)(PORT=1521)))(CONNECT_DATA=(SERVICE_NAME=fcubs)))

Where,

Scan IP = xxxxxx.com

Service Name = fcubs

Port = 1521

Make sure that in URL, we make the necessary changes.

Then Click on Test Configuration. The connection test should be successful.



ORACLE WebLogic Server A	dministration Console 12c		9
Change Center	🙆 Home Lug Out Preferences 🔜 Recurd Help	a	Welcome, weblogic Connected to: FOUBSDomail
View changes and restarts	Home >FCLRSPIGTemplate >Summary of Server Template	et >FCUBSHSTeepplate >Summary of Clustere >Summary of Servert >Summa	ary of 309C Data Sources
No pending changes exist. Click the Refease Configuration button to allow others to edit the domain.	Create a New JDBC Data Source	Cancal	
Release Configuration	Test Database Connection Test the database availability and the connection p	roperties you provided.	
Domain Structure	What is the full package name of JOBC driver class a	sed to create database connections in the connection pool?	
FOUBSDomain * Environment ** Servers	(Note that this driver class must be in the classpath		
B-Clasters Server Templates Higratable Targets	Driver Class Name:	oracle.jdbc.OracleDriver	
····Coherence Clusters ·····Machines	What is the URL of the database to connect to? The	format of the URL varies by JDBC driver.	
Virtual Hosts Work Managers	URL:	jdb: oracle oci @(DESCRIP'	
Startup and Shutdown Classes Deployments B-Services	What database account user name do you want to us	e to cleate database connections?	
B-Messacion *	Database User Name:	FCUBS121DB	
How do L_	What is the database account password to use to cre	rate database connections?	
Create 3DBC generic data sources Create LIR-enabled 3DBC data sources	(Note: for secure password management, enter the p	assound in the Password field instead of the Propertie field below)	
System Status	Password:		
Health of Running Servers	Confirm Password:		
Patied (8) Critical (8) Overlaaded (8) Warring (8) OK (5)	What are the properties to pass to the XDBC driver or respectics: user=ECUBS121USER	fen medite dikabate (seentises)	

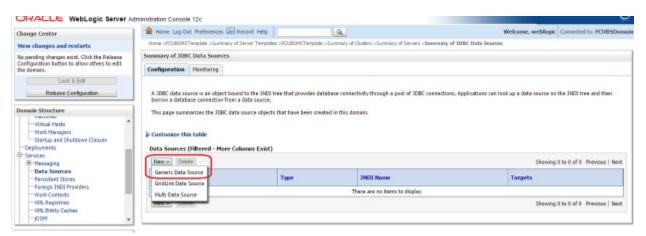
7) Select Target as **FCUBSCluster** and click on **Finish**.

ORACLE WebLogic Server A	dministration Console 12c	Q
Change Center	😰 Harne Log Out, Preferences 🖾 Record Help	Welcome, weblogic Connected to: FCUBSDomain
View changes and restarts	Home >PCUBSPISTemplate >Summary of Server Templates >PCUBSPISTemplate >Summary of Clusters >Su	mmary of Servers -Summary of 3DBC Data Sources
View changes and restarts Its pending changes exist. Click the Release Configuration button to allow others to edit the downers. Lock & Eni Release Configuration Domain Structure FCI05Consin - Eni Clusters - Servers - Server - Serv	Create a New JDBC Data Source Back Ned Finith Cancel Select Targets Select Targets Select Targets	pet, the data source will be created but not deployed. You will need to deploy the data source at a
Caherence Clusters Rachines Vatual Nots Vatual Nots Vatual Nots Vatual Nots Vatual Not Vatual Not Vatu	Roack Hot Frank Cancel	



6.2 XA Datasource

 Navigate to FCUBSDomain → Services → Data Sources → select New > Generic Data Source.



2) Enter the Name and JNDI Name and Click on Next.

ORACLE WebLogic Server A	Administration Console 12c	
Change Center	🕼 Harre Lag Out Preferences 🖾 Record Help 🔍 🔍 Welcome, weblogic Connecte	d to: FCUBSDoesa
View changes and restarts	Hane >FCL8DHSTemplate >Summary of Server Templates >FCL8DHSTemplate >Summary of Clusters >Summary of Server >Summary of SOBC Data Sources	
Pending changes exist. They must be activated to take effect.	Create a New JDBC Data Source	
Activate Changes	Back Meet (Philip Lonce)	
Undo All Changes	JOBC Data Source Properties	
Domain Structure	The following properties will be used to identify your new JDBC data source. * Indicates required fields	
FCUBSOnnain FCUBSOnnain FSterinses FSterinses FSterinses FSterinses Server Templates Migratable Targets Collections Clusters Work Managers Startup and Shutdevin Clustes "Deplayments Defferings Reflessation Y	What would you like to name your new JDDC data source? Image: *Norme: FCUBSBranchDS What JNDE name: jdbc/fcjdevOSBranch	
How do L. 🖂		
Create JDBC generic data sources Create LLR-enabled JDBC data sources	What database type would you like to select? Database Type: Oracle •	
System Status	Back Prest Prest	
Falled (0)		



3) Select the Driver as **Oracle's Driver(thin XA) for Instance connection: Versions: Any** and Click on **Next.**

ORACLE WebLogic Server Ad	he generation of the second			
Change Center	Home Log Out Preferences Ad Record Help	Q	Welcome, weblogic	Connected to: FCUBSDomain
Wew changes and restarts	Home >PCUESMSTemplate >Summary of Server Templates >PC	UBSPISTemplate >Summary of Clusters >Summary of Servers >S	iummary of JDBC Data Sources	
Pending changes exist. They must be activated to take effect.	Greate a New JDBC Data Source			
Activate Charges	Back Next Plainh Cancel			
Undo All Changeo	3DBC Data Source Properties			
Domain Structure	The following properties will be used to identify your new	JDBC data searce.		
COESConsin Constant Servicement Servicement Servicement Servicement Servicement Service Clusters Machines What Nets What Nets What Nets Services Services Services Services Services Yessevice Yessevice	Database Type: Oracle What dotabase driver woold you like to use to create dotal Database Driver: Oracle's Driver (Thin XA Back Inext: Print) Cancel	ase connections? Note: " indicates that the driver is explicitly of the driver is expl	itly supported by Orade WebLogic Server.	

4) Click on Next.

ORACLE WebLogic Server Ad	fministration Console 12c		Ū.
Change Center	1 Home Log Out Preferences 🔤 Record Help	Q	Welcome, weblogic Connected to: POUBSDomain
View changes and restarts	Home >PCUBSMSTemplate >Sommary of Server Templates >PCUBSMST	emplate >Summery of Clusters >Summery of	Servers >Summary of 300C Data Sources
Pending changes exist. They must be activated to take effect.	Create a New JDBC Data Source		
Activate Changes	Back Next Prink Cancel		
Undo All Changes	Transaction Options		
Domain Structure	You have selected an 3A JDBC driver to use to create database or transaction protocol. No other transaction configuration options :		ata source will support global transactions and use the "two-Phase Commit" global
PCUIDOmain PErstormant Security PCUADers PCUADE	Back Net Prints Cancel		



5) From this step to target setting step follow as mentioned in non-xa.

hange Center	🙆 Hume Log Out. Preferences 🖾 Record. Help	Q	Welcome, weblogic Connected to: FCUBSDoma
New changes and restarts	Home -PCUESHGTemplate -Summary of Server Templates -PCUESHSTemplate	The second se	mary of JDBC Data Sources
Vending changes exist. They must be activated to take effect.	Greate a New JDBC Data Source		
Activate Changes	Back Next Finish Carcel		
Undo All Changes	Connection Properties		
iomain Structure	Define Connection Properties.		
CUBSDomain ************************************	What is the name of the database you would like to connect to? Database Name:		
Server Templates Highrable Targets 	What is the name or 3P address of the database server? Heat Name:		
Virtual Hosts Verk Planagers Verk Planag	What is the port on the database server used to connect to the database? Port:	1621	
B-Nessacion *	What database account user name do you want to use to create database	cone tions?	
kow do L 🗟	Database User Name:		
Create 308C generic data sources			-
Create LLR-enabled 3DBC data sources	What is the database account password to use to create database connect	bam?	
ystem Status 🛛	Password:		
with of Running Servers	Confirm Password:	-	
Failed (0) Ontcal (0) Overfeeded (0) Warning (0) OK (5)	Additional Connection Properties: oracle.pdbc.dttCPConnectionClass:		

Change Center	Hume Log Out Preferences 🔤 Record Help	Q	Welcome, weblogic Connected to: FOU8SDomain
View changes and restarts	Harse >PCUESHSTemplate >Summary of Server Templates >	FCURSHSTemplate -Summary of Clusters -Summary of Servers -Sumar	sary of 309C Data Sources
Pending changes exist. They must be activated to take effect.	Create a New JDBC Data Source		
Activate Changes	Test Configuration Back Next Finish Can	cel	
Undo All Changes	Test Database Connection		
Domain Structure	Test the database availability and the connection prop	erties you provided.	
PCUBSDemain +	What is the full package name of JDBC driver class used	to create database connections in the connection pool?	
B-Environment Servers B-Clusters	(Note that this driver class must be in the classpath of a	in server to which it is deployed.)	
Server Templates Higratable Targets	Driver Class Name:	oracle jdbc xa.client.OracleX	
	What is the UPL of the database to connect to? The form	nat of the URL varies by 308C driver.	
Virtual Hists Work Nanagers Startup and Stutioum Classes	URL:	jdbc oracle oci @(DESCRIP)	
Deployments	What database account user name do you want to use to	a create database connections?	
B-Nessoire *	Database User Name:	FC121DB	
How do 1			
Create JOBC generic data sources	What is the database account password to use to create	t database connections?	2
Create LUR-enabled JDBC data sources	(Note: for secare password management, enter the pass	owerd in the Password field instead of the Properties field below)	5
System Status 🛛	Password:		
Health of Running Servers			
Pailed (0)	Confirm Password:		
Critical (0) Overloaded (0)	What are the properties to pass to the 3DBC driver when	Creating Sacassia connections?	
Warning (0)	Properties:		
OK (5)	user=FCUBS121User		



ORACLE WebLogic Server Ad	fministration Console 12c		
Change Center	1 Home Log Out Preferences 🐼 Record Help	Q	Welcome, weblogic Connected to: FCUBSDoma
View changes and restarts	Home >POUBSHSTemplate >Summary of Server Templates >POUBSE	tSTemplate >Summery of Clusters >Summery of Server	s - Summary of 3DBC Data Sources
Pending changes exist. They must be activated to take effect.	Create a New JDBC Data Source		
Activate Changes	(Back, Tent) Finish Cancel		
Undo Ad Changes	Select Targets		
Domain Structure	You can select one or more targets to deploy your new JOBC d later time.	lata source. If you don't select a target, the data s	surce will be created but not deployed. You will need to deploy the data source at a
FOUBSDomain Forvironment Servers	Servers		
R-Clusters Server Templates	AdminServer		
Coherence Clusters	Gusters		
Wachines Wirtual Hosts Work Managers	P routschuter		
Startup and Shutdown Classes			
B-Services *	Back Nent Fresh Cancel		

6) Upon Activate Changes would create the XA Datasource.

Change Center	A Home Log Out Preferences 🖂 Res	end Help	A.	Welcome, weblogic Con	rected to: FCUBSDoma
View changes and restarts	Home >PCUBSHSTemplate >Summary of Ser	ver Templates >PCUBSHSTemplate >5	ummary of Ousters >Summary of Servers >Summary of	DBC Data Sources >POUBSES >Sammary of 3DBC (Data Sources
Click the Lock & Edit button to modify, add or	Summary of JDBC Data Sources				
delete items in this domain. Lock & Edit	Configuration Monitoring				
Release Configuration	borrow a database connection from a da	ita source.		ns. Applications can look up a data source on the 31	NCI tree and then
	© Customize this table Data Sources (Piltered - More Colum Click the Lock & EdiPhotton in the Cha	the plant of the lowest end of the plant	ns on this page.		
Work Hanapers 	© Customize this table Data Sources (Filtered - More Colum	the plant of the lowest end of the plant	ns on this page.	Showing 1 to 2	of 2 Previous Next
- Work Nanagers - Startup and Shutdown Classes - Deployments - Services - Pressaging - Data Sources - Pressbert Stores - Pressbert Stores - Pressbert Stores - Pressbert Stores - Pressbert Stores - Pressbert Stores	P Customize this table Data Sources (Filtered - More Colum Click the Lack & Edit button in the Char	the plant of the lowest end of the plant	ns on this page.	Showing 1 to 2 Targets	of 2 Previous Next
	Customize this table Data Sources (Filtered - Hore Colum Click the Lock & Edit button in the Char [New v] [Delete]	nge Center to activate all the butto		Law Street	of 2 Previous Next

7) Similarly create all the other Data Source required for the FCUBS Application and Gateway Deployments.

Change Center	Home Log On	it Preferences and Record Help	Q		Welcome, weblogic	Connected to: FCUBSDoma
Wew changes and restarts		Template >Summary of Clusters >Summary ranchOS >Semimary of 3DBC Data See		DC Data Sources >POJIESDS >Summary of 3DBC Data	Sources >FOUESDomain >Summary of 3DBC	Data
Click the Lock & Edit buttee to modify, add or lefete items in this domain.	Messages	tave been activated. No restarts are ne				
Release Configuration	Summary of JDB	C Data Sources				
forevers coverage second	Configuration	Hophories				
	This case sures	narizes the JDBC data source objects th	at have been created in th	is domain.		
Dev jonverts Services B - Vissaging Data Sciences - Persistent Science - Persistent Science - Tarsing Julio Providen - Moli Centeds	Customize thi Data Sources Click the Lock & New 2 Date	n table (Filtered - More Columns Exist) & Editbutton in the Change Center to			Skewing	1 to 6 of 6 Previous Next
5 Services (F) Pressign 1044 Searces 1044 Searces 1040 Providen 1040 Provide	P Customize thi Data Sources Citch the Lock A New P Date	is table (Fibered - Hore Columns Exist) 8 Editbutton in the Change Center to dis			Sheving Targets	1 to 6 of 6 Previous Next
5 Sarvices 19 Messaging 1044 Sources 19 Ferrique 10 Providens 19 Messagintes 19 Messagint	P Customize thi Data Sources Citch the Lock A New P Date	is table (Filtered - Hore Columns Exist) & Editbutton in the Change Center to	activate all the buttons on	this page.		11s6of6 Previous Next
5 Sarvices IP Transport of the sources Persistent Stores Persistent Stores Presistent Stores Party Conference Proceeding	Customize the Data Sources Click the <i>book i</i> New V Date Rame #	is table (Filtered - Hore Columns Exist) & Editbutton in the Change Center to	activate all the buttons on	Utis page. 3NDI Nome	Targets	1 to 6 of 6 Previous Next
5 Sanctos 16 Messagreg Data Scorres Persistent Stores Famiga Nici Providers 	Customers the Data Sources Cid: the Lock of New 2 Data Annual Free 2 Fr	is table (Filtered - More Columns Exist) 8 Eddfbutton in the Change Center to 10 10	activate all the buttons on Type Generic	this page. JHDD Name jdbc/Rgled/SBrandh	Targets FOUBSCluster	1 to 6 of 6 Previous Next
5 Sanctos 16 Messagreg 1046 Sources 1940 Fassign 100 Providens 1940 Regulation 1940 Re	Cuctomize thi Data Sources Citic the Lock of New Y Date Rame ex Processor Focustors F	is table (Filtered - Hore Columns Exist) & Edifbutton in the Change Center to its and of Cos Astrone:	activate all the buttons on Type Generic Generic	this page. JMOI Name jdtx;RjdevOSkrandn jdtx;RjdevOS	Taepets FCUBSCluster FCUBSCluster	1 to 6 of 6 Previous Next
5 Sarvices 19 Messaging Data Sources Persistent Stores Max Centeds 	Customize thi Data Sources Cick the Lock of New Order New Order Foundation F	is table (Filtered - Hore Columns Exist) & Eddfbutton in the Charge Center to im ed OS ASTINC XA	Christe all the buttons on Type Generic Generic Generic	Utis page. 3NOI Name Jdc./ft/devOSBrandy Jdc./ft/devOS Jdc./ft/devOS	Targets FOUBSCluster FOUBSCluster FOUBSCluster	11ts 6 ef 6 Previous Hext
5 Sarvices 16 Messaging 10243 Sources 16 Messaging 10243 Sources 17 Energin NUD Providen 1000 Sarvices 1000 Sarvices 1000 1000 1000 1000 1000 1000 1000 10	Customize thi Data Sources I Click the Look a There is a second secon	is table (Filtered - Hore Columns Exist) & Editbutton in the Change Center to ini ed/05 ASTINC 3/4 ed/05	Constant all the buttons on Type Generic Generic Generic Generic	Utis page. JINDI Name Jubu; HigdevOSizrandh Jubu; HigdevOS Jubu; HigdevOS Jubu; HigdevOS	Targets FOUBSCluster FOUBSCluster PEUBSCluster FOUBSCluster	110 6 of 6 Previous Hod



6.3 JDBC Parameters Tuning

Below JDBC parameters needs to updated for all the Datasources.

	VALUE	Navigate To
PARAMETER		
Connection Reserve time out	30	Connection Pool->Advance
Test Frequency	60	Connection Pool->Advance
Inactive connection time out	30	Connection Pool->Advance
Initial Capacity	1	Connection Pool
Max capacity	Based on Site Requirement	Connection Pool
Capacity Increment	5	Connection Pool
Shrink Frequency	900	Connection Pool->Advance
Test Connection on Reserve	Checked	Connection Pool->Advance
Statement Cache Size	50	Connection Pool



7. JMS Resource Creation

JMS Resource Creation involves various steps:

- Persistence Store Creation
- JMS Server Creation
- JMS Module Creation
- Resource Creation: Connection Factory and Queue's

Refer to the Configuring JMS on Weblogic Server for further details on JMS setup.



8. Oracle WebLogic Load Balancing

For Weblogic Load balancing, use

- 1) Oracle HTTP Server: Refer to Configuration for Oracle HTTP Server for setup.
- 2) Apache: Refer to Configuration for Apache for setup.



9. Frequently Asked Questions

9.1 Machine status is Unreachable

If the machine status is unreachable, means that machine is not reachable and from console you cannot start/stop the managed servers.

In the console, navigate through Domain structure \rightarrow Machines \rightarrow machine1 \rightarrow Monitoring \rightarrow Node Manager Status will be **Unreachable.**

To change the status, you need to start the node manager on that server. Refer to start node manager section on steps to start the node manager.

9.2 How to restart node manager?

- 1) Locate node manager pid using ps -ef|grep weblogic.nodemanager.javaHome
- 2) Change directory to \$DOMAIN_HOME/bin
- 3) Kill the unix process using kill -9 <pid>
- 4) Verify that the node manager is killed by *tail –f nohup.out*
- 5) Start node manager using nohup ./startNodeManager.sh &
- 6) Verify nodemanager is started using tail -f nohup.out

9.3 Scaling Up Dynamic Cluster

When the capacity is insufficient and you need to scale-up, you can add dynamic servers on demand. It requires only a few clicks.

1) Navigate to **FCUBSDomain** → **Environment** → **Clusters**.

WebLogic Server A	dministratio	n Console 12	¢						<u> </u>
Change Center	B Hu	me Log Out P	eferences 🔛 Reco	rd Help	a			Welcome, weblogic Con	nected to: FCUBSDomain
View changes and restarts	Harte	+PCURSHSTwn	late >Summary of Ser	ver Templates >PCUBSHSTemplat	e >Summary of Clus	berns -			
Click the Lock & Edit button to modify, add or delete items in this domain.	Summa	ry of Cluster							
Lock & Edit	This	sale summaris	es the clusters that I	have been configured in the cu	ment WebLook Serve	e domain.			
Release Configuration				rver servers that work together					
Domain Structure									
B Environment Servers B Chasters Higratable Targets	Click			sist) spe Center to activate all the b	uttors on this page.			Showing 1 to	L of 1 Previous Next
Coherence Clusters Machines		Name 🖧	Cluster Address	Cluster Messaging Hode	Migration Basis	Default Load Algorithm	Replication Type	Cluster Broadcast Channel	Servers
Virtual Hosta Work Managers Startup and Shutdown Classes 		PCUBSCluster		Unicest	Detabase	Round Robin	(None)		PCUBSHS1, PCUBSHS2, PCUBSHS3, PCUBSHS4
B Services	New	ew] (Cione)	Deinte		la		8	Shewing 1 to :	of 1 Previous Next
How do L.	_								



2) Click FCUBSCluster → Configuration → Servers tab.

TEPLOSIC SEIVELA	anninau auvir C	viisvie	120											-	
Change Center	🙆 Home	🏦 Home Log Out Preferences 🔤 Record Help									ic Connected to: FCUBSDomain				
View changes and restarts	Home >Su Clusters >I			ources >Sum	mary of Clusters :	Summary of N	lachines >MAC-	>Sum	mary of Machine	s >Summary (of Servers >Summary of	Server Te	emplates >Sumn	nary of Machines >Summary of	
No pending changes exist. Click the Release Configuration button to allow others to edit	Settings for FCUBSCluster														
he domain.	Configuration		Monitoring Control		Deployments	Services	Notes								
Release Configuration	General	JTA	Messaging	Servers	Replication	Migration	Singleton S	rvices	Scheduling	Overload	Health Monitoring	нттр	Coherence		
Domain Structure	Save														
CUBSDomain -Environment -Servers -Clusters		This page is used to configure the servers that are assigned to this cluster. Clusters can contain both explictly configured and dynamically created servers. The following settings are used to determine the number and characteristics for these dynamic servers.											se dynamic servers.		
Server TemplatesMigratable TargetsCoherence ClustersMachinesMachines	Server Template:				FC	FCUBSMSTemplate •					Specifies the server template that is to be used to configure the dynamic servers in this cluster. Only templates that specify this cluster are valid choices. More Info				
Virtual Hosts Work Managers Startup and Shutdown Classes	Maximum Number of Dynamic Servers:				s: 4	4					Specifies the maximum number of dynamic servers in this cluster. More Info				
Deployments Services	🏀 Server Name Prefix:				FC	FCUBSMS					Specifies the prefix to be used when naming new dynamic servers in this cluster. More Info				

3) Change the Maximum Number of Dynamic Servers to 8. Click Save.

ORACLE WebLogic Server Administration Console 12c														
Change Center 🔐 Home Log Out Preferences 🖉 Record Help									Welcome, weblogic Connected to: FCUBSDomai					
View changes and restarts Hone > Summary of JDBC Data Sources > Summary of Clusters > Summary of Machines > MAC-1 > Summary of Machines > Summary of Servers > Summary of Server Templates > Summary of Machines > Summary of Clusters > Summary of Machines > Summary o														
No pending changes exist. Click the Release Configuration button to allow others to edit	Settings for FCUBSCluster													
the domain.	Configuration Monitoring Control Deployments Services Notes													
Release Configuration	General JTA	Messaging	Servers	Replication	Migration	Singleton Services	Scheduling	Overload	Health Monitoring	HTTP	Coherence			
Domain Structure Save														
FCUBSDomain	This page is used to configure the servers that are assigned to this cluster. Clusters can contain both explicitly configured and dynamically created servers. The following settings are used to determine the number and characteristics for these dynamic servers.													
Server Templates Migratable Targets Coherence Clusters Machines	Server Templa	te:		FC	UBSMSTe	mplate	se	Specifies the server template that is to be used to configure the dynamic servers in this cluster. Only templates that specify this cluster are valid choices. More Info						
Virtual Hosts Work Managers Startup and Shutdown Classes	Maximum Num	ber of Dynan	ic Servers	s: 8]			pecifies the maximum fo	number	of dynamic sei	rvers in this cluster. More		
	👍 Server Nan	e Prefix:		FC	UBSMS				pecifies the prefix to b uster. More Info	oe used v	vhen naming n	ew dynamic servers in this		

4) Activate changes in the **Change Center** of the Weblogic Console. After activation, 4 new Dynamic Servers are added to the Dynamic Cluster.

Name 🚳	Туре	Machine	Listen Port
FCUBSMS1	Dynamic	MAC-1	7101
FCUBSMS2	Dynamic	MAC-2	7102
FCUBSMS3	Dynamic	MAC-1	7103
FCUBSM54	Dynamic	MAC-2	7104
FCUBSMS5	Dynamic	MAC-1	7105
FCUBSMS6	Dynamic	MAC-2	7106
FCUBSMS7	Dynamic	MAC-1	7107
FCUBSMS8	Dynamic	MAC-2	7108

5) Start the 4 new Dynamic Servers and you have doubled you capacity.



9.4 Session Timeout

Session timeouts occur intermittently during load condition. Verify the following:

- 1. Clock Synchronization: Time across the nodes/machines is same.
- 2. Session Stickiness in load balancer: Persistence Type in load balancer should be set to SOURCE IP and should not be cookie.





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