Oracle HTTP Server 11g R1 Configuration Oracle FLEXCUBE Investor Servicing Release 14.0.0.00 [May] [2018]



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## 1. Purpose

The objective of this document is to explain the installation and configuration of Oracle HTTP Server 11g R1 (11.1.1.9.0). This includes setting up of server details, configuration of compression rules and enabling SSL.



# 2. Introduction to Oracle HTTP Server (OHS)

Oracle HTTP Server is the Web server component for Oracle Fusion Middleware. It is based on Apache web server, and includes all base Apache modules and modules developed specifically by Oracle. It provides a HTTP listener for Oracle WebLogic Server and the framework for hosting static pages, dynamic pages, and applications over the Web. Key aspects of Oracle HTTP Server are its technology, its serving of both static and dynamic content and its integration with both Oracle and non-Oracle products.

Oracle HTTP Server consists of several components that run within the same process. These components provide the extensive list of features that Oracle HTTP Server offers when handling client requests.

Following are the major components:

### 2.1 HTTP Listener

Oracle HTTP Server is based on an Apache HTTP listener to serve client requests. An HTTP server listener handles incoming requests and routes them to the appropriate processing utility.

### 2.2 Modules (mods)

Modules extend the basic functionality of Oracle HTTP Server, and support integration between Oracle HTTP Server and other Oracle Fusion Middleware components. There are modules developed specifically by Oracle for Oracle HTTP Server. Ex: mod\_wl\_ohs, mod\_plsql

Oracle HTTP Server also includes the base Apache and third-party modules out-of-the-box. These modules are not developed by Oracle. Ex: mod\_proxy, mod\_perl



# 3. Installation of OHS 11g

Invoke the setup exe to start the installation

$old o$ Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 1 of 14 $\_$ $ imes$				
Welcome	EUSION MIDDLEWARE 118			
🔘 Welcome 🔺				
ulnstall Software Updates	Welcome to Oracle Fusion Middleware 11g Web Tier Utilities Installer version 11.1.1.9.0. This installer can be used to install a new Web Tier			
Linstall and Configure	Oracle Home or to update an existing Web Tier Oracle Home.			
Prerequisite Checks	For additional information and installation instructions, please refer to			
Installation Location	the Oracle Fusion Middleware Installation Guide for Web Tier Utilities and the Oracle Fusion Middleware Patching Guide.			
Security Updates	Click <u>H</u> elp at any time for context-sensitive help.			
Configure Components	Click Next to begin the installation.			
Specify WebLogic Doma	Circk Mexico begin the instantion.			
Specify Component Detail				
Configure Ports	Copyright (c) 1999, 2015, Oracle and/or its affiliates. All rights reserved.			
unstallation Summary				
Installation Progress				
Configuration Progress				
Installation Complete				
Help	< <u>Back</u> <u>Next&gt;</u> <u>Finish</u> Cancel			
	Elapsed Time: 0m 8s			

Select Skip Software Updates

Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 2 of 14 Install Software Updates					
Clain Coffmans Undator	kip <u>S</u> oftware Updates earch <u>M</u> y Oracle Supp Us <u>e</u> r Name: <u>P</u> assword:	ort for Updates			
<u>Configure Components</u>	iearch Local Directory Local Directory: earch For <u>U</u> pdates		st Connection		
Installation Summary Installation Progress Configuration Progress Installation Complete		< Back Next >	Finish		

Configuration Oracle HTTP Server for Oracle FLEXCUBE



#### Select Install and Configure

elect Installatio	n Type
Welcome         Skip Software Updates         Install and Configure         Prerequisite Checks         Installation Location         Security Updates         Configure Components         Specify WebLogic Doma         Specify Component Dett         Configure Ports         Installation Summary	<ul> <li>Install and Configure Select this option if you are performing a new installation.</li> <li>Install Software - Do Not Configure Select this option if you are updating an existing installation or performing a new installation to be configured later.</li> </ul>
Installation Progress Configuration Progress Installation Complete	When installation is complete, you can modify the configured instance using Enterprise Manager or WebLogic Server Administration Console.

Prerequisite Ch	ecks	-0			
Welcome	Selection	Check	Progress	Status	
Skip Software Updates	~	Checking operating system certific	100%	~	
Linstall and Configure	~	Checking recommended operating	100%	~	
Prerequisite Checks	V	Checking kernel parameters	100%	1	
Installation Location	~	Checking Recommended glibc ver	100%	~	
Security Updates	V	Checking physical memory	100%	×	
Configure Components		Checking for LD_ASSUME_KERNEL	100%	×	
Specify WebLogic Doma	22 C				
Specify Component Detail					
Configure Ports	-				
Installation Summary		Abort	Retry	<u>C</u> ontinue	
Installation Progress					
Configuration Progress	1.	hecking recommended operating system	em packages		
		hecking kernel parameters			
Installation Complete		hecking Recommended glibc version			



Welcome           Skip Software Updates           Install and Configure           Prerequisite Checks           Installation Location		
Security Updates Configure Components Specify WebLogic Doma Specify Component Det Configure Ports Installation Summary Installation Progress Configuration Progress	Oracle <u>M</u> iddleware Home: Oracle Home Directory:	a/Software/Weblogic10.3.6 Browse Oracle_WT1 r must already be installed.
Help		 <a href="mailto:selimish">Einish</a> <a href="mailto:cancel">Cancel</a>

Oracle Fusion Middle	ware 11g Web Tier Utilities Installation - Step 6 of 14 $\_$ $ ightarrow$
Specify Security L	Jpdates
Welcome     Skip Software Updates     Install and Configure     Prerequisite Checks     Installation Location     Security Updates     Configure Components     Specify WebLogic Doma     Specify Component Detter	Provide your email address to be informed of security issues, install the product and initiate configuration manager. <u>View details</u> . Email: Easier for you if you use your My Oracle Support email address/username. I wish to receive security updates via My Oracle Support. My Oracle Support Password:
<u>Configure Ports</u> Installation Summary     Installation Progress     Configuration Progress     Installation Complete <u>Help</u>	Einish Cancel          Elapsed Time: 2m 8





#### Select only Oracle HTTP Server

$oldsymbol{\circ}$ Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 7 of 14 $\_$ $ imes$				
Configure Compon	ents CRACLE 118			
Welcome         Skip Software Updates         Install and Configure         Prerequisite Checks         Installation Location         Security Updates         Configure Components         Specify Component Details         Configure Ports         Installation Summary         Installation Progress	<ul> <li>✓ Oracle HTTP Server</li> <li>○ Oracle Web Cache</li> <li>Oracle Process Manager Notification (OPMN) is always configured</li> <li>▲ssociate Selected Components with WebLogic Domain</li> </ul>			
Configuration Progress Installation Complete	< <u>B</u> ack <u>N</u> ext > <u>Einish</u> Cancel			
	Elapsed Time: 3m 18s			



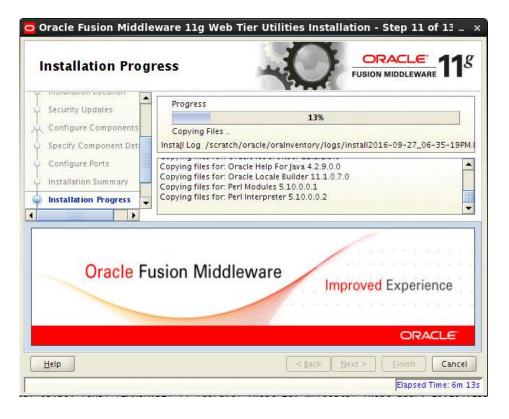
Oracle Fusion Middler Specify Component	1	lities Installation - Step 8 of 13 _ CRACLE 118 FUSION MIDDLEWARE
	Instance Home Location: In <u>s</u> tance Name: OHS Component Name:	WT2/instances/instance1 Browse instance1 ohs1
Installation Progress Configuration Progress Installation Complete		< <u>Back</u> <u>Next&gt;</u> <u>Finish</u> Cancel Elapsed Time: 4m 1

Enter the required OHS instance and component names

Configure Ports	
	<u>Auto Port Configuration</u> <u>Specify Ports using Configuration file</u> <u>File name: //home/sachidam/staticports.ini Browse</u> <u>View/Edit File</u>
Help	< <u>B</u> ack <u>N</u> ext > Einish Cancel



Installation Sumn	nary	A.			11 <sup>8</sup>
Welcome         Skip Software Updates         Install and Configure         Prerequisite Checks         Installation Location         Security Updates         Configure Components         Specify Component Details         Configure Ports         Installation Summary         Installation Progress         Configuration Progress         Installation Complete		tch / work_a nce Name: i nce Home: / Case e d: 1900 MB e: 454512 M e: 454512 M e: 454512 M e: 454512 M e: 454512 M e: 454512 M e: 452612 M sector a sector a s s s s s s s s s s s s s	nstance1 /scratch/work_ai B R 	eblogic 10.3.6/Oracle_ rea/Software/Weblogic	-:10.3. •
< <u>H</u> elp			< <u>B</u> ack	t>	Cancel





Welcome	<u>C</u> onfiguration Tools	
Skip Software Updates	Name	Status
Install and Configure	□ □ Web Tier Configuration	100%
Prerequisite Checks	Create and Start AS Instance (instance1)	<b>v</b>
Installation Location	Create and Start OHS Component (ohs1)	<b>v</b>
Configure Components		
Specify Component Details		
Specify Component Details Configure Ports	<u>Abort</u> <u>R</u> etry	Continue
Configure Ports Installation Summary	Abort Retry Configuration Log Location: /scratch/oracle/oralnventory/logs/install2016-09-27_06-3	
Configure Ports Installation Summary	Configuration Log Location:	
Configure Ports Installation Summary Installation Progress	Configuration Log Location: /scratch/oracle/oralnventory/logs/install2016-09-27_06-3	

Installation Com	plete CRACLE FUSION MIDDLEWARE
Welcome Skip Software Updates Install and Configure Prerequisite Checks Installation Location Security Updates Configure Components Specify Component Details Configure Ports Installation Summary Installation Progress Configuration Progress Installation Complete	□       Type: Install and Configure         □       Location: /scratch/work_area/Software/Weblogic10.3.6/Oracle_WT2         □       Oracle Instance Name: instance1         □       Oracle Instance Home: /scratch/work_area/Software/Weblogic10.3.         □       Standalone Case         □       Oracle Home         □       Oracle Home Size: 1585.278 MB         □       Oracle Instance Home         □       Oracle Instance Home         □       Instance Home Size: 17.348 MB         □       Oracle Instance Home         □       Instance Home Size: 17.348 MB         □       Save Installation Summary:         Save       Save         Oracle Fusion Middleware 11g Web Tier Utilities installed and configured successfully.
< <u>H</u> elp	<pre>     Einish Canc Elapsed Time: 12m </pre>

This completes the installation of Oracle HTTP Server with <Instance> and <component>. Example: Instance is instance1 and component is ohs1.



If you would like to change the port after the installation (OHS Listen Port) edit \$ORACLE\_INSTANCE/config/OHS/<component\_name>/httpd.conf and change the listen port.

NOTE: This port is for http protocol and not for https.

😑 http:	d.conf
181	
182	+
183	# Listen: Allows you to bind Apache to specific IP addresses and/or
184	<pre># ports, instead of the default. See also the <virtualhost></virtualhost></pre>
185	# directive.
186	÷
187	# Change this to Listen on specific IP addresses as shown below to
188	<pre># prevent Apache from glomming onto all bound IP addresses (0.0.0.0)</pre>
189	÷
190	# Listen 12.34.56.78:80
191	
192	# OHS Listen Port
193	Listen 7777
194	
195	+
196	# Dynamic Shared Object (DSO) Support
197	#
198	# To be able to use the functionality of a module which was built as a DSO you
199	
200	· · · · · · · · · · · · · · · · · · ·
201	<pre># Statically compiled modules (those listed by `httpd -l') do not need</pre>
202	# to be loaded here.
203	*
204	
205	<pre># LoadModule foo_module "\${ORACLE_HOME}/ohs/modules/mod_foo.so"</pre>
206	



# 4. Configure Oracle HTTP Server infront of Weblogic Server

In Oracle HTTP Server requests from Oracle HTTP Server to Weblogic server are proxied using mod\_wl\_ohs module. This configuration file needs to be modified to include the Weblogic server and port details.

mod\_wl\_ohs.conf file is located at

{ORACLE\_INSTANCE}/config/OHS/{COMPONENT\_NAME}/mod\_wl\_ohs.conf

Add the below directives to mod\_wl\_ohs.conf file.

### 4.1 For WebLogic in Single Instance

<Location /<<context/url>> >

SetHandler weblogic-handler

WebLogicHost <<server name>>

WeblogicPort <<port>>

</Location>

Example:

<Location /FCISNeoWeb>

SetHandler weblogic-handler

WebLogicHost wlserver1

WeblogicPort 7707

</Location>

This will forward /FCISNeoWeb from HTTP server to /FCISNeoWeb on WebLogic Server wlserver1: 7707



1. H 🖸 🖻 X 🕮 X 🕷 🗠 🛤 🙇	11. 🔒 🔷 🥔	
# NOTE : This is a template to configur	re mod_weblogic.	
loadModule weblogic_module "\${ORACLE	NOMI)/ohs/modules/mod_wl_ohs.so"	
This empty block is needed to save ma clfModule weblogic_module> WeblogicMest CMERLOBIC_BOST> WeblogicMest CMERLOBIC_BOST WeblogicMest CMERLOBI	od_vi related configuration from DK to this file when changes are made at the Base Virt	oal Kort Level
<pre>« <location weblogic="">     SetHandler weblogic-handler     PathIni /weblogic     ErrorFage http://WEBLOGIC_HOME:)     </location></pre>	NTELOGIC_PORT/	
Closation /FCISNeONeb> SetBandler weblogio-handler Neblogioffost shuserver Neblogioffost 8004 NEFocuySEL 00 SecureFroxy 08 MiSSiNalet "/arratch/work_area/Softwar c/location>	re/Weblogic10.3.6/Gracle_WT1/instances/instance1/config/CMS/chs1/keystores/default"	
Line: 23/28 Column: 23	Modified	

### 4.2 For Weblogic Instances in Cluster

<Location /<<context/url>> >

SetHandler weblogic-handler

WebLogicCluster <server1>:<port1>,<server2>:<port2>

</Location>

Example

<Location / FCISNeoWeb > SetHandler weblogic-handler WebLogicCluster wlserver1:7010, wlserver2:7010 </Location>

This will forward /FCISNeoWeb from HTTP server to /FCISNeoWeb on WebLogic Cluster wlserver1:7010 and wlserver2:7010





# 5. Enable "WebLogic Plug-In Enabled" Flag in Weblogic

This flag needs to be enabled in weblogic if it is accessed through proxy plugins. When the WebLogic plugin is enabled, a call to getRemoteAddr will return the address of the browser client from the proprietary WL-Proxy-Client-IP header instead of the web server.

- a. Plugin flag at managed server level
  - i. Click on 'Environment'- > 'Servers' -> '<ManagedServer>' -> 'General' -> 'Advanced'
  - ii. Check the 'WebLogic Plug-In Enabled' box.
  - iii. Click 'Save'
  - iv. Restart the Server.
- b. Plugin flag at domain level
  - v. Click on <Domain> -> 'Web Applications'
  - vi. Check the 'WebLogic Plug-In Enabled' box.
  - vii. Click 'Save'
  - viii. Restart the server.



## 6. Compression Rule Setting

Content compression in Oracle HTTP Server is done using mod\_deflate. This can compress HTML, text or XML files to approx. 20 - 30% of their original sizes, thus saving on server traffic. However, compressing files causes a slightly higher load on the server, but clients' connection times to server is reduced.

### 6.1 Loading mod\_deflate

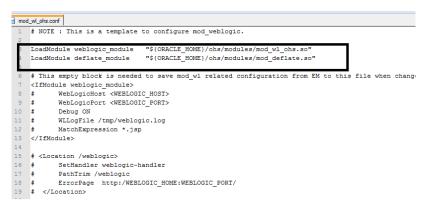
mod\_deflate is used for compression in OHS and this is installed in Oracle HTTP Server under location

"\${ORACLE\_HOME}/OHS/modules/mod\_deflate.so"

But it might not be loaded.

To load the file add the below directive in mod\_wl\_ohs.conf file

LoadModule deflate\_module "\${ORACLE\_HOME}/OHS/modules/mod\_deflate.so"



## 6.2 Configuring File Types

mod\_deflate also requires to specify which type files are going to be compressed.

In the LOCATION section of mod\_wl\_ohs.conf file add the below entries.

AddOutputFilterByType DEFLATE text/plain

AddOutputFilterByType DEFLATE text/xml

AddOutputFilterByType DEFLATE application/xhtml+xml

AddOutputFilterByType DEFLATE text/css

AddOutputFilterByType DEFLATE application/xml

AddOutputFilterByType DEFLATE application/x-javascript

Configuration Oracle HTTP Server for Oracle FLEXCUBE



AddOutputFilterByType DEFLATE text/html

SetOutputFilter DEFLATE

Images are supposed to be in a compressed format, and therefore are bypassed by mod\_deflate.

21	<location fcjneoweb=""></location>
22	SetHandler weblogic-handler
23	WebLogicHost wlserverl
24	WebLogicPort 7707
6	AddOutputFilterByType DEFLATE text/plain
7	AddOutputFilterByType DEFLATE text/xml
8	AddOutputFilterByType DEFLATE application/xhtml+xml
9	AddOutputFilterByType DEFLATE text/css
1	AddOutputFilterByType DEFLATE application/xml
1	AddOutputFilterByType DEFLATE application/x-javascript
2	AddOutputFilterByType DEFLATE text/html
 	SetOutputFilter DEFLATE

### 6.3 httpd.conf File Changes

This is a server configuration file which typically contains directives that affect how the server runs, such as user and group IDs it should use, and location of other files. Cross check the existence of mod\_wl\_ohs.conf include in httpd.conf file.

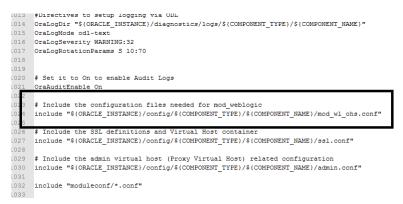
httpd.conf file is present under location

"\${ORACLE\_INSTANCE}/config/OHS/{COMPONENT\_NAME}/httpd.conf"

In this file cross check for the below entry

include "\${ORACLE\_INSTANCE}/config/OHS/\${COMPONENT\_NAME}/mod\_wl\_ohs.conf"

If above include entry is not present, then add the above include section.





# 7. Configuring SSL for Oracle HTTP Server

Secure Sockets Layer (SSL) is required to run any Web site securely. Secure Sockets Layer (SSL) is an encrypted communication protocol that is designed to securely send messages across the Internet.

Reading of **"SSL\_Configuration on Weblogic**" document provided as part of FCIS installation is recommended before proceeding with further setup.

In Oracle HTTP server, SSL configuration can be done between

- Browser to Oracle HTTP Server (Mandatory)
- Oracle HTTP Server to Oracle Weblogic Server(If required)

### 7.1 SSL Configuration for Inbound Request to Oracle HTTP

### <u>Server</u>

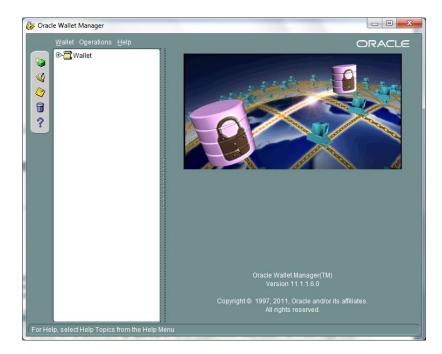
Perform these tasks to enable and configure SSL between browser and Oracle HTTP Server.

- Obtain a certificate from CA or create a self signed certificate.
- Create an Oracle Wallet which contains the above SSL Certificate. The default wallet that is
  automatically installed with Oracle HTTP Server is for testing purposes only. The default wallet is
  located in "\${ORACLE\_INSTANCE}/config/OHS/\${COMPONENT\_NAME}/keystores/default"
- Configuring Wallet in ssl.conf file

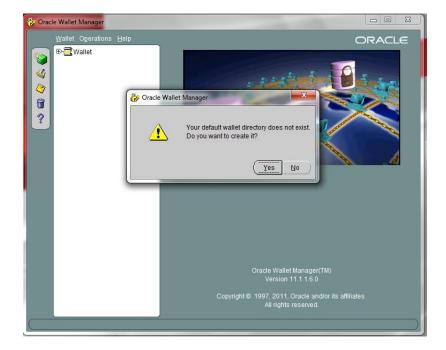


#### 7.1.1 Create a new Wallet and import Certificate

1. Go to the \Oracle\_WT1\bin\launch.exe, this will launch your wallet manager

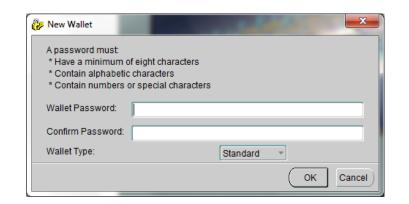


2. Click on Create new and then click no option.

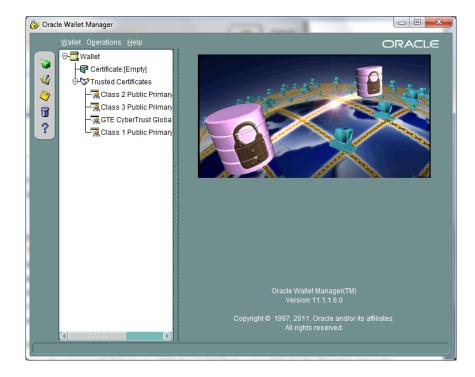




3. Enter the wallet password and click on OK, this will create a new wallet.

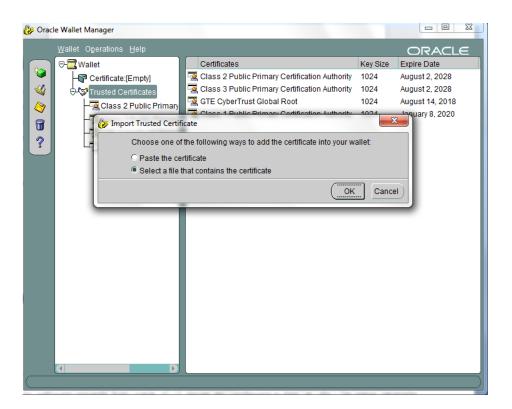


4. Not it will ask for certificate request creation, Click on NO to proceed





5. Right click on trusted certificates and then import trusted certificate.

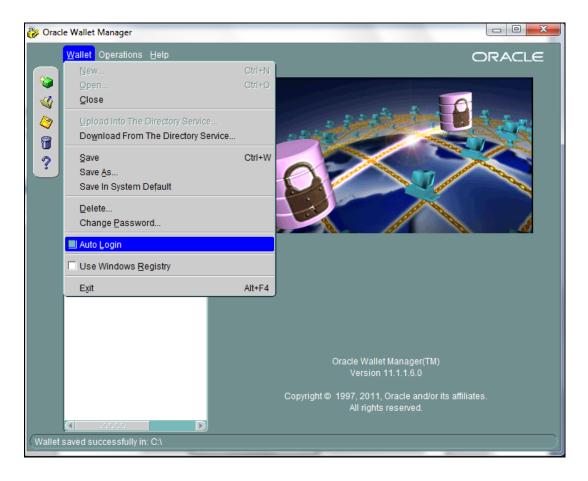


6. Browse to the folder where certificate is stored and click on Open





- Click on Save Wallet button on the left side navigation and save the wallet either to default location("\${ORACLE\_INSTANCE}/config/OHS/\${COMPONENT\_NAME}/keystores/default") or folder of your choice.
- 8. Click on Wallet tab and enable Auto Login





#### 7.1.2 Configuring Wallet in ssl.conf file

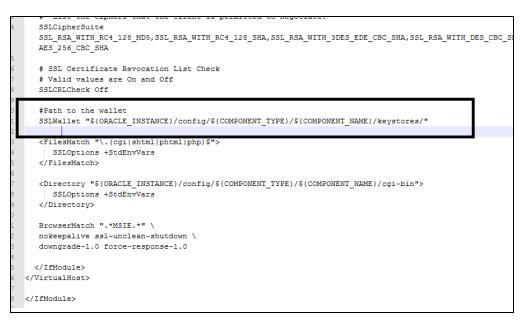
In ssl.conf file the newly created wallet need to updated. This file is located under folder

"\${ORACLE\_INSTANCE}/config/OHS/\${COMPONENT\_NAME}/

Change the SSLWallet directive to point to the location of new wallet created.

#### SSLWallet

"\${ORACLE\_INSTANCE}/config/\${COMPONENT\_TYPE}/\${COMPONENT\_NAME}/keystores/"



Change the Listen port number in ssl.conf file to the SSL enabled port, by default the value is 4443

```
*****
  # Oracle HTTP Server mod_ossl configuration file: ssl.conf
                                                     ±
 3
6
 # OHS Listen Port
 Listen 4443
 <IfModule ossl_module>
 ##
  ## SSL Global Context
  ##
  ## All SSL configuration in this context applies both to
3
4
  ## the main server and all SSL-enabled virtual hosts.
  ##
5
6
  ŧ.
  #
     Some MIME-types for downloading Certificates and CRLs
     AddType application/x-x509-ca-cert .crt
     AddType application/x-pkcs7-crl
                              .crl
  #
    Pass Phrase Dialog:
```



## 7.2 <u>Configuring SSL between Oracle HTTP Server and Oracle</u> <u>Weblogic Server</u>

SSL for outbound requests from Oracle HTTP Server are configured in mod\_wl\_ohs.

Refer to "**SSL\_Configuration on Weblogic**" document for weblogic server setting mentioned in below section.

#### 7.2.1 Turn off KeepAliveEnabled

The below parameter in mod\_wl\_ohs should be turned off, by default it is on. Add the below directive under LOCATION section of mod\_wl\_ohs file

KeepAliveEnabled OFF

0

6	W1SSLWallet "D:\misc\ssl\"
5	KeepAliveEnabled OFF
3	SetOutputFilter DEFLATE
2	AddOutputFilterByType DEFLATE text/html
1	AddOutputFilterByType DEFLATE application/x-javascript
0	AddOutputFilterByType DEFLATE application/xml
9	AddOutputFilterByType DEFLATE text/css
8	AddOutputFilterByType DEFLATE application/xhtml+xml
7	AddOutputFilterByType DEFLATE text/xml
6	AddOutputFilterByType DEFLATE text/plain
~	



#### 7.2.2 To enable one-way SSL

- 1. Generate a custom keystore identity.jks for Weblogic Server containing a certificate.
- 2. At Identity section in Keystores tab in weblogic Admin Console for server set
  - a. The custom trust store with the identity.jks file location
  - b. The keystore type as JKS
  - c. The passphrase used to created the keystore

Home >base_do	main >Summary	of Environment	>Summa	ry of Serve	rs >AdminS	Gerver					
🔥 Changes to	your Keystore	configuration ma	y requir	e you to u	pdate your	SSL Configuratio	n. Please re	view your s	ettings on the	e SSL tab.	
🛷 All changes	have been acti	vated. No restar	ts are n	ecessary.							
🛷 Settings up	dated successfi	ully.									
Settings for Ad	minServer										
Configuration	Protocols	Logging Deb	ug M	lonitoring	Control	Deployments	Services	Security	Notes		
General Clus	ter Services	Keystores	SSL	Federati	on Services	Deployment	Migration	Tuning	Overload	Health Monitoring	Server Start
Save											
		storage and mar f message trans			e keys and i	trusted certificat	e authorities	s (CAs). This	s page lets yo	ou view and define var	ious keystore o
Keystores:					Custom Io	dentity and Cust	om Trust Ch	ange	Which o	configuration rules sho	
										stores? More Info.	
<ul> <li>Identity —</li> </ul>										_	
Custom Ident	ity Keystore				D:\mise	c\testidentity.j	ks		The pa	th and file name of the	e identity keysta
Custom Iden	ity Keystore	Туре:			JKS				The typ	of the keystore. Ge	nerally, this is J
		-									
Custom Iden	ity Keystore	Passphrase:								a ypted custom identit will be opened with	
Confirm Custo	om Identity K	eystore Pass	hrase:								
— Trust ——											
Custom Trust	Keystore:				D:\mise	c\\testtrust.jks	;		The pa	th and file name of the	e custom trust k
Custom Trust	Keystore Ty	pe:			JKS				The typ	e of the keystore. Ge	nerally, this is J
Custom Trust	Keystore Pa	ssphrase:			•••••					stom trust keystore's p ned without a passphr	
Confirm Custo	om Trust Key	store Passphr	ase:		•••••						

- 3. Copy the certificate to Oracle HTTP Server and import the new certificate into OHS wallet as a trusted certificate.
- 4. Add following new directive in mod\_wl\_ohs.conf to point to the wallet location

WISSLWallet "\${ORACLE\_INSTANCE}/config/OHS/{COMPONENT\_NAME}/keystores/default"



5. Change the port in mod\_wl\_ohs file to point to SSL port of Weblogic server.

WebLogicPort 443
AddOutputFilterByType DEFLATE text/plain
AddOutputFilterByType DEFLATE text/xml
AddOutputFilterByType DEFLATE application/xhtml+xml
AddOutputFilterByType DEFLATE text/css
AddOutputFilterByType DEFLATE application/xml
AddOutputFilterByType DEFLATE application/x-javascript
AddOutputFilterByType DEFLATE text/html
SetOutputFilter DEFLATE
KeepAliveEnabled OFF
WISSLWallet "\${ORACLE INSTANCE}/config/OHS/{COMPONENT NAME}/keystores/"

Restart both Weblogic Server and Oracle HTTP Server

To enable two-way SSL

- Perform one-way SSL configuration steps
- Generate a new trust store, trust.jks for Weblogic server
- Keystore created for one-way SSL could be used, but it is recommended to create a separate truststore
- Export the user certificate from Oracle HTTP Server wallet, and import it into truststore created above
- At Trust section in Keystores tab in Weblogic Admin Console for the server set



- > The custom trust store with the trust.jks file location
- > The keystore type as JKS
- > The passphrase used to created the keystore

Messages						
A Changes to your Keystore configuration may require you t	o update your SSL Configurat	on. Please re	view your s	ettings on the	e SSL tab.	
$\checkmark$ All changes have been activated. No restarts are necessar	у.					
<ul> <li>Settings updated successfully.</li> </ul>						
Settings for AdminServer						
Configuration Protocols Logging Debug Monitorin	g Control Deployments	Services	Security	Notes		
General Cluster Services Keystores SSL Fede	ration Services Deploymen	t Migration	Tuning	Overload	Health Monitoring	Server Start
Save						
Keystores ensure the secure storage and management of pri you to manage the security of message transmissions. Keystores: Identity	vate keys and trusted certifica Custom Identity and Cus			Which o	configuration rules sh systores? More Info	ould be used for
Custom Identity Keystore:	D:\misc\testidentity	.jks		The pai	th and file name of th	e identity keysta
Custom Identity Keystore Type:	JKS			The typ	e of the keystore. Ge	enerally, this is J
Custom Identity Keystore Passphrase:	•••••				crypted custom identi e will be opened with	
Confirm Custom Identity Keystore Passphrase:	•••••					
Trust Custom Trust Keystore:	D:\misc\\testtrust.jl	S		The pa	th and file name of th	e custom tr st k
Custom Trust Keystore Type:	JKS			The typ	e of the keystore. Ge	enerally, this J
Custom Trust Keystore Passphrase:	•••••				stom trust keystore's ned without a passph	
Confirm Custom Trust Keystore Passphrase:						



#### 1. Under the SSL tab

Ensure trusted CA is set as from Custom Trust Keystore.

Home >base_dom	nain >Summary o	of Environn	ment >Sum	mary of Serve	rs >AdminS	erver					
ttings for Adn	ninServer										
Configuration	Protocols L	Logging	Debug	Monitoring	Control	Deployments	Services	Security	Notes		
General Clust	er <u>Services</u>	Keystor	es SSI	L Federatio	n Services	Deployment	Migration	Tuning	Overload	Health Monitoring	
Save	Cont	figuratior	n - Servic	es- Tab							
	- 7										
This page lets y	ou view and def	fine variou	is Secure	Sockets Layer	(SSL) settir	ngs for this serv	er instance.	These setti	ngs help you	u to manage the secu	rit
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Identity —									KEY) d		; 1
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2. Restart Weblogic Server



## 8. Starting, Stopping, and Restarting Oracle HTTP Server

Navigate to the below location in command prompt \${ORACLE\_INSTANCE}/bin/ and run below commands

## 8.1 <u>Start</u>

opmnctl startproc ias-component={COMPONENT\_NAME}

Example: opmnctl startproc ias-component=ohs1

### 8.2 <u>Stop</u>

opmnctl stopproc ias-component={COMPONENT\_NAME}

Example: opmnctl stopproc ias-component=ohs1

### 8.3 <u>Restart</u>

opmnctl restartproc ias-component={COMPONENT\_NAME}

Example: opmnctl restartproc ias-component=ohs1



## 9. Test the Application

Test the application deployed on Weblogic using Oracle HTTP Server after restarting both the oracle http server and weblogic server

https://ohs\_servername:ohs\_https\_port/<<context/url>>

http://ohs\_servername:ohs\_http\_port/<<context/url>>

ohs\_servername: server on which OHS is deployed

ohs\_https\_port: port number mentioned against LISTEN directive in SSL.conf file

ohs\_http\_port: port number mentioned against LISTEN directive in httpd.conf file

Example:

https://localhost:4443/FCJNeoWeb/welcome.jsp

Or

http://localhost:7777/FCJNeoWeb/welcome.jsp



# 10. Server Logs Location

Oracle HTTP Server Logs are generated under folder

{ORACLE\_INSTANCE}/diagnostics/logs/OHS/{COMPONENT\_NAME}/





## 11. References

SSL\_Configuration.doc for Weblogic provided as part of FCIS installation.

http://docs.oracle.com/cd/E16764\_01/web.1111/e10144/under\_mods.htm

http://docs.oracle.com/cd/E25054\_01/core.1111/e10105/sslconfig.htm





### ORACLE<sup>®</sup>

Oracle\_HTTP\_Server\_Configuration [May] [2018] Version 14.0.0.0

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