**Installation and Configuration**

1. Install database
2. Install Oracle SOA Suite
3. Apply SOA Suite patches

Is this the point where we create a machine image or even before? Do we need vanilla setup or configured setup?

1. Run RCU
2. Database object creation
   1. C##Travelogix user/schema
   2. Tables C## Travelogix.SessionInfo
   3. Creating additional users c##staticdata & c##reviews & assigning proper privileges to these users.

All the commands for user creation & privilege assignment is in script travelogix.sql on below location.

**D:\SVNRepo\trunk\Deployments\travelogix.sql**

* 1. XREF tables creation in XXX\_SOAINFRA schema.

How? There are many individual scripts per product type/supplier? Do we write a shell script to navigate directory and run the scripts one by one? Where do we run this? Local Jenkins machine?

* 1. Change the datatype of column LOCALHOST\_TIMESTAMP to timestamp(3). Create view V\_WLI\_QS\_REPORT on tables WLI\_QS\_REPORT\_ATTRIBUTE and WLI\_QS\_REPORT\_DATA

SQL script location -svn://10.21.32.170/OSB/trunk/Deployments/DEV\_SOAINFRA\_Scripts.sql

If Admin server is running, it needs a restart after this change.

* 1. Add partitioning to WLI\_WS\_REPORT\_ATTRIBUTE and WLI\_WS\_REPORT\_DATA tables. How to add partitioning to WLI\_WS\_REPORT\_DATA table? It has no date column?

1. Run deployment scripts for creating/configuring Weblogic data source and outbound connection pool in DBAdapter.
2. The script is created using WLST & it should be run using wlst.cmd/sh.Script is in the location

**D:\SVNRepo\trunk\Deployments\datasource\jdbcWlstCreateDev.py.**

This script will create the SupplierDB data source ,add the DbAdapter entry for the respective connectivity factory, updates the respective deployment plan.

Note : Please ensure once in the script that you mentioned the data source name & db server details correctly.

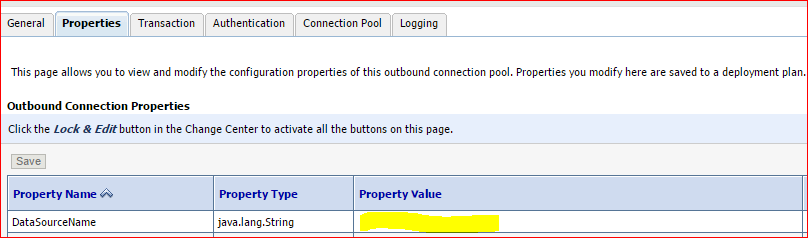
1. In order to execute the script go to below location

**cd /opt/Oracle/Middleware/Oracle\_Home/oracle\_common/common/bin/**

copy the wlst script to this location & execute following command for script.

./wlst.sh **jdbcWlstCreateDev.py**

1. If everything goes well ,data source will be created in weblogic configuration.
2. After this we need to manuaaly add the data source name in the connection factory DataSourceName property.
3. To to Deployments --- > DbAdapter 🡪configuration -🡪 **Outbound Connection Pools -🡪** [**javax.resource.cci.ConnectionFactory**](http://localhost:7001/console/console.portal?_nfpb=true&_pageLabel=ConnectorOutboundConnectionConfigPropertiesPage&ConnectorOutboundConnectionConfigPropertiesPortlethandle=com.bea.console.handles.ModuleDescriptorHandle%28%22com.bea%3AName%3DDbAdapter%2CType%3DAppDeployment%3BDbAdapter.rar%3Bjavax.resource.cci.ConnectionFactory%3Beis%2FDB%2FSOADemo%2Ceis%2FDB%2FSOADemoLocalTx%2Ceis%2Fdb%2FaiaB2BInfraDBCF%2Ceis%2FDB%2FSOA%2Ceis%2Fjdbc%2Fdemo%2Ceis%2FDB%2FThree%3BConnectionDefinitionBean%3BCONNECTOR%22%29) **--🡪 eis/DB/SupplierDB**



1. Add the value **jdbc/SupplierDB.**
2. Save the changes and then activate the changes.
3. After that you need to update the DbAdapter deployment with the current Plan.xml.
4. For that go to deployments -🡪 Lock and edit -🡪select DbAdapter 🡪Update.Click next and then finish.
5. Restart the soa\_server1 once.After restart check the DbAdapter deployment state.Bring it to active if not.
6. Name of the data source will be the one we created in the above script.
7. Copy XRef function JAR files on each server where OSB and SOA is installed

Location of cnk-functions.\* files <SVN\_HOME>/trunk/SourceCode/Java/cnk-functions

1. cnk-functions.jar to <MW\_HOME>/soa/soa/modules/oracle.soa.ext\_11.1.1/classes directory.
2. cnk-functions.jar, cnk-functions.properties and cnk-functions.xml to <MW\_HOME>/osb/config/xpath-functions directory
3. Copy Vimal's JARs to directory /opt/Oracle/Middleware/Oracle\_Home/user\_projects/domains/Domain\_name/**lib**

common-lang3.jar

commons-codec-1.9.jar

dom4j-1.6.jar

poi-3.9.jar

poi-bin-3.14.jar

poi-ooxml-3.5-beta5.jar

poi-ooxml-3.9.jar

poi-ooxml-schemas-3.9.jar

xmlbeans-2.3.0.jar

Location : **svn://10.21.32.170/OSB/trunk/Deployments/Required Jar Files**

1. Need to do necessary setup so that server can support SSL and TLS.

Please add the following line in JAVA\_OPTIONS to support SSL and TLS all version by the weblogic server

-Dweblogic.security.SSL.protocolVersion=ALL

In my case I have modified the line in startWebLogic.cmd as below

set JAVA\_OPTIONS=%SAVE\_JAVA\_OPTIONS% **-Dweblogic.security.SSL.protocolVersion=ALL**

1. Turn off host name verification

<http://serverfault.com/questions/503751/certificate-verification-error-when-sending-a-service-request-from-weblogic>

|  |  |
| --- | --- |
|  | In alternatively we can work like below.  Above Answer # setting "Set "Custom Hostname Verifier" to weblogic.security.utils.SSLWLSWildcardHostnameVerifier" did not work for me.  I have done following steps it has worked for me:  Go to the  WebLogic admin console -> Environment -> Servers -> your server -> Configuration -> SSL   * Click "Lock & Edit"   + Open the "Advanced" flap   + Change "Hostname Verification" from "BEA Hostname Verifier" to "None"   + Click "Save" and then "Activate Changes"   + Restart your server. |

1. Memory tuning/allocation of osb nodes? steps?
2. Other config parameters to be changed for tuning?
3. WLI\_QS\_REPORT table used for message reporting in OSB is changed so that LOCAL\_TIMESTAMP field can store date time both. (plz check correct column name from dB)
4. User account setup of EM/Sbconsole
5. Do we keep test console running on server? TBD
6. Oracle SOA - Configuration Changes

All configuration changes were done in Enterprise Manager.

1. Common Configuration (soa-infra → SOA Infrastructure → SOA Administration → Common Properties)

Following properties were changed for faster EM performance.

|  |  |  |
| --- | --- | --- |
| **Property Name** | **Old Value** | **New Value** |
| Audit Level | Development | Production |
| Default Query Duration | 24 hours | 6 hours |

1. BPEL Configuration (soa-infra → SOA Infrastructure → SOA Administration → BPEL Properties)

Following properties were changed to tackle various problems faced during testing.

|  |  |  |
| --- | --- | --- |
| **Property Name** | **Old Value** | **New Value** |
| Large Document Threshold (Byte) | 100000 | 20000000 |
| SyncMaxWaitTime | 45 | 120 |

Also need to add below parameter in setDomainEnv.sh file

**-Dweblogic.MaxMessageSize=30000000**

1. Settings for maximum message size at weblogic server level.

HOME->Server\_Name->Protocols->General

|  |  |  |
| --- | --- | --- |
| **Property Name** | **Old Value** | **New Value** |
| Maximum Message Size | 10000000 | 30000000 |

**Deployment**

1. Proxy server deployment? Ant script setup for scripts ?
2. Deployments from Jenkins to server. How do we keep track of failed deployments ? Mail notification?
   1. OSB
   2. SOA

As of now, there are no Jenkins deployment jobs for SOA components. Need to create as number of SOA deployments will be significant.

1. ELK setup
2. Script to run job using JDBC plug-in for logstash to push data to Elastic server. Scheduling this script.

What is location of this script in SVN? The configuration steps do not have copying this script to database server as a step.

1. Setup default dashboard for testers and tech team
2. Purging /archival policy for ELK logs ?
3. DVM updates for connectors?
4. Configuring Session Management service used for Air session management. Setting up DB used by it
5. Setting of time out values for SOA/OSB call outs
6. Setting DB users for running scripts and exports for Xref and other tables

XRef tables should be deployed using XXX\_SOAINFRA user/schema.

1. ~~How to deploy DVM in SharedArtifacts + MDS ?~~

This is taken care of by deployment classes/scripts.

In case of OSB projects, the deployment classes automatically find and extract files from SharedArtifacts and package it in OSB project’s configJAR.

In case of SOA projects, the MDS dependencies of a SOA project are built and deployed before building and deploying projects.

**Scheduled Jobs**

Following jobs need to be scheduled to run either daily or at predetermined time interval. How to do this is still open. Cron or ESS or combination of both?

1. Purge data from C#Travelogix.SessionInfo

2. Purge data from XXX\_SOAINFRA.WLI\_QS\_REPORT\_\* tables

The row count in database and Elastic needs to match. Only then the data should be purged from database.

3. Static data jobs???

4. Private Inventory Jobs???

Lookup data loading job ?

City-Hotel mapping data loading

**Frequently Raised Problems-**

1. We may encounter an error of **OSB-380000** With **message Not Implemented** in response of a web service (either in SOAP UI or Testconsole).

**Solution** – One solution is to check for below option in business service , it should be unchecked in connectors configuration.

**Sbconsole->connector name->Business-> transport detail->advanced options->use chunked streaming mode**

chunked streaming mode= false in Business service.

1. **unable to find valid certification path to requested target at osb connector**

This is the case where you are integrating the supplier whose URL includes **https.** As at initially you will get below error in osb.out logs

**Caused by: sun.security.validator.ValidatorException: PKIX path building failed: sun.security.provider.certpath.SunCertPathBuilderException: unable to find valid certification path to requested target**

at sun.security.validator.PKIXValidator.doBuild(PKIXValidator.java:387) at sun.security.validator.PKIXValidator.engineValidate(PKIXValidator.java:292) at sun.security.validator.Validator.validate(Validator.java:260) at sun.security.ssl.X509TrustManagerImpl.validate(X509TrustManagerImpl.java:324) at sun.security.ssl.X509TrustManagerImpl.checkTrusted(X509TrustManagerImpl.java:229)

Now in order to solve above error we need to import server certificate of supplier in to the default trust store .

But even after adding the server certificates ,you will get the same. Hence in order to solve such issue ,please add/append below two parameters in **setDomain.env/cmd** under **JAVA\_OPTION** parameter under domain/bin directory.

Note : Make sure you added the server certificates in java keystore.

**Default java key store Location :**  /opt/java/jdk1.8.0\_91/jre/lib/security/cacerts

Its default password is : **changeit**

**Two Parameters are**

**1.** **-Djavax.net.ssl.trustStore=**/opt/java/jdk1.8.0\_73/jre/lib/security/cacerts

Above parameter specifies the locaton of trust store

**2. -Djavax.net.ssl.trustStorePassword=**changeit

This parameter specifies the password for default trust store.In case of cacerts the password is **changeit.**You can change it according your requirement.

After doing those changes you need to take restart of the admin / managed server .

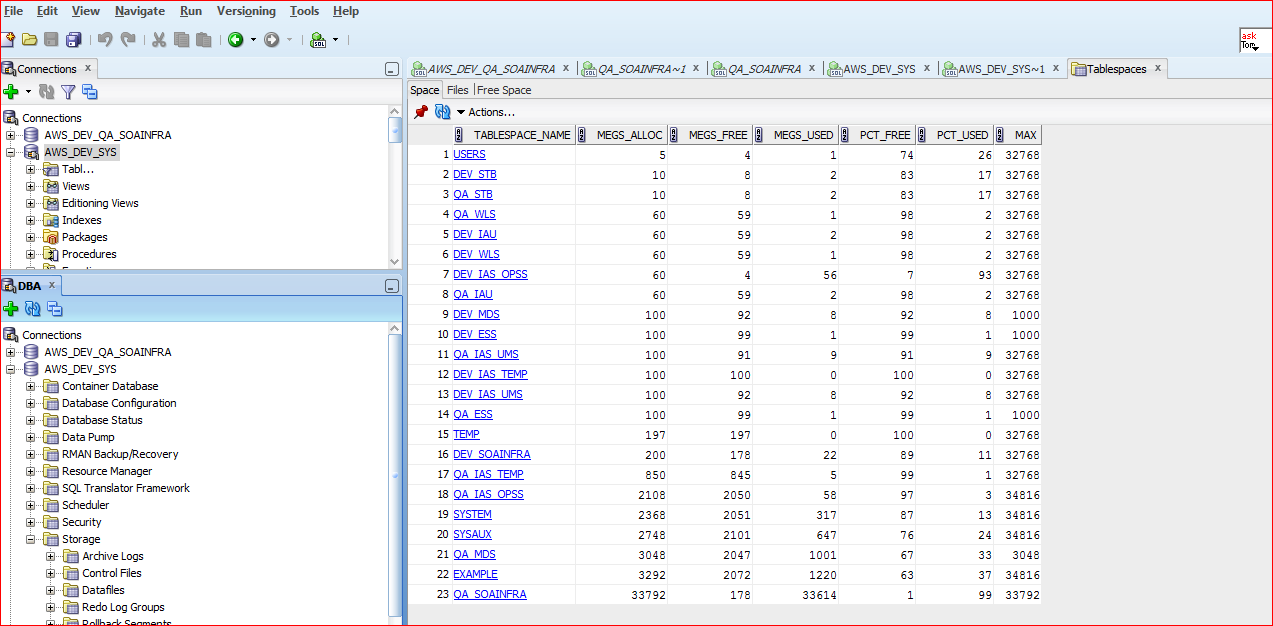
Issue is resolved after adding above two parameters.

**3. ORA-01653: unable to extend table QA\_SOAINFRA.CUBE\_INSTANCE by 1024 in tablespace QA\_SOAINFRA**

This means the storage for one of the tablespace is full.And you need to make some space free for new objects / flow instance ids.

Note : IN order to make the changes in storage , you need to

This is can be done with the help of DBA or through SQLDEVELOPER tool from DBA tab.



Click on the respective tablespace & then go to data files.

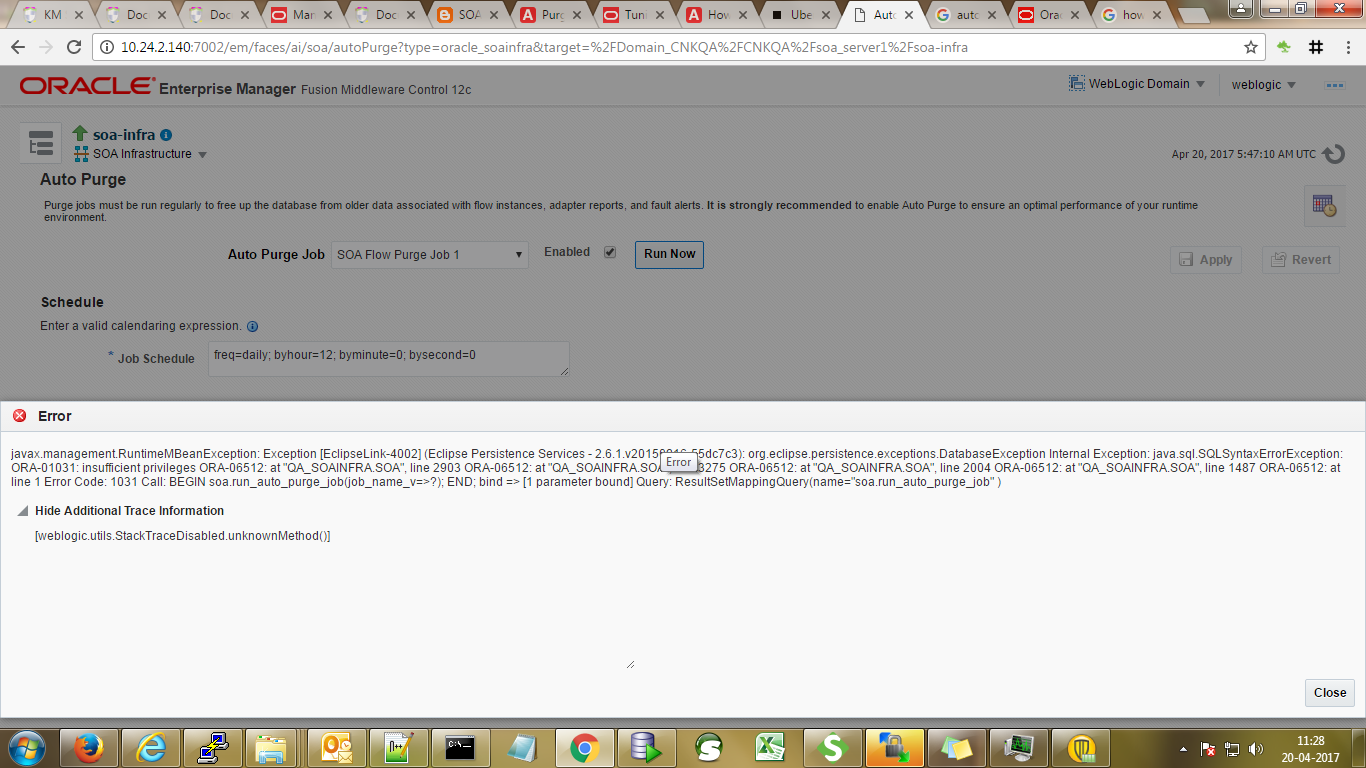
Add the data files with the new improved values.

**4.** Another issue you might face at OS levels is about the number of open file handles .In order to increase the same you need to contact the corresponding AWS team for increasing the ulimit parameter for OS to specific value.

**5.**Take care of number of open user processes. You need to contact AWS team for the same. They will be doing this change at OS level.

6. In order to enable purging on the soa instance , you need to first load the scripts into the database & the main script which calls all other dependent script is present in location.

7. If the scripts are not uploaded already then you may get below error while executing the auto purge job.



8. IN order to resolve this error, you need to execute the script present in the below location in your oracle installation.

Note: Make sure that your user [RCU\_REPO\_NAME]\_SOAINFRA is having dba / proper permission for executing the scripts.

**Location Is :** /opt/Oracle/Middleware/Oracle\_Home/soa/common/sql/soainfra/sql/oracle/122100/soa\_purge12

**Script Name**: soa\_purge\_scripts.sql

9.Command to execute the script is

Login to the database , then connect to the pluggable database instance.Please start the same if it is not started already.

& then execute above script.

@/opt/Oracle/Middleware/Oracle\_Home/soa/common/sql/soainfra/sql/oracle/122100/soa\_purge12/ soa\_purge\_scripts.sql

**10. OWSM Agent owsm-pm-connection-t3 Out Of Sync Causing WSM-02557:oracle.wsm.policymanager.accessor.BeanAccessor and WSM-06408 errors**

**Or**

**OWSM Error with Generic Error**

If you are getting above error message in the soa server logs , then there are some problems with the OWSM setup.

Above error occurs generally when you set up the SOA environment at first & if you are not specifying anything in listen address during domain creation at start.

You can confirm above error , by executing the wsm-pm application in the browser , once hit you will get **Policy Manager Status:** Non – Operational

The value should be **operational**.

In order to resolve above error, you need to make some changes by logging into the em console.Please follow below steps for resolving the error.

Access the EM (<http://localhost:7001/em>), and navigate to  **base\_domain--> Weblogic Domain --> Cross Component Wiring --> Components --> OWSM Agent**    The two components now are Out of Sync and port is still 7004.

Select owsm-pm-connection-t3 and click on "Bind" button.  The Bind Client Configuration window will appear and will prompt you to confirm the binding.   Click "Yes" button . Now the port has changed to 7005.

**But Status still showing out of Sync.** This will need a restart. But do not restart yet since you need to bind the other component.

Do the same for **owsm-pm-connection-http**.