

Cómo configurar un entorno para proveer servicios Spatial (mapping, geocoding, routing)

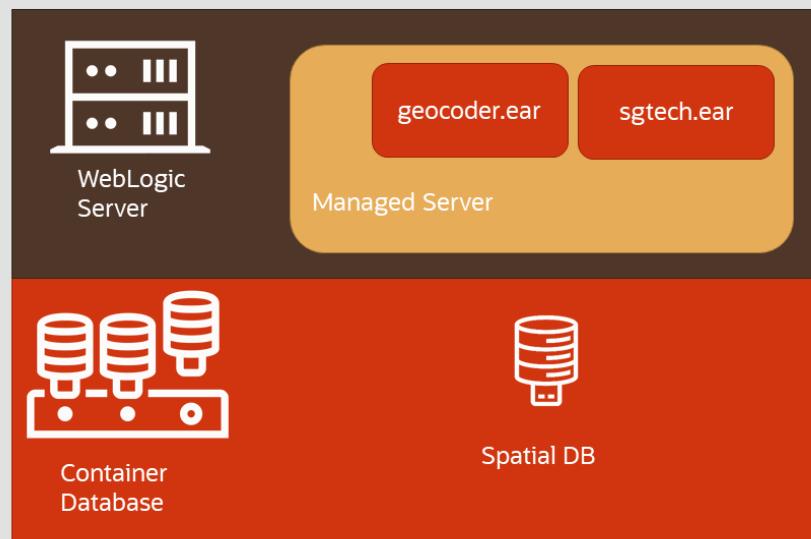
Contenidos

CÓMO CONFIGURAR UN ENTORNO PARA PROVEER SERVICIOS SPATIAL (MAPPING, GEOCODING, ROUTING).....	1
DIAGRAMA A ALTO NIVEL.....	3
REQUISITOS PREVIOS	3
CÓMO IMPORTAR LOS DATOS DESDE HERE.COM	4
ACCEDER A HERE.COM DOWNLOAD CENTER.....	4
PASOS PARA LA IMPORTACIÓN DE DATOS.....	7
<i>Prepara la base de datos para recibir los datos</i>	7
<i>Importar los datos del paquete ODF Admin Boundaries Europe</i>	8
<i>Importar los datos del paquete ODF Premium Europe</i>	9
<i>Importar los datos del paquete ODF Point Addressing Europe</i>	19
<i>Importar los datos del paquete ODF Routing Transport Europe</i>	23
TAREAS POST-INSTALACIÓN.....	27
<i>Tarea 1</i>	27
<i>Tarea 2</i>	27
<i>Tarea 3</i>	28
CONFIGURACIÓN WEBSERVICES SPATIAL	30
VM CON WEBLOGIC SERVER	32
<i>Creación de Vault y Secreto</i>	32
<i>Crear instancia de WebLogic del Cloud Marketplace</i>	35
<i>Preparación de servicios a desplegar</i>	45
<i>Web services: geocoder y Spatial Studio</i>	49
<i>Despliegue Geocoder y Spatial Studio</i>	50
<i>Webservice Routing</i>	58
<i>Despliegue Routerserver</i>	59
VM CON SPATIAL STUDIO PRE-INSTALADO.....	63
<i>Despliegue Geocoder</i>	68



Diagrama a alto nivel

El siguiente diagrama ilustra lo que se va a configurar con esta guía



Requisitos previos

- Base de datos versión 11.2.0.4 o superior
- Espacio requerido: 320 GB (*datafiles*)
- Espacio temporal en *filesystem* para almacenar y descomprimir los archivos: 400GB
- Tener una cuenta en here.com

Cómo importar los datos desde here.com

Acceder a *here.com Download Center*

Los siguientes pasos corresponden a cómo acceder al *Download Center* para descargar los contenidos requeridos para importarlos en la base de datos.

Acceder a [here.com](https://here.flexnetoperations.com/control/navt/login?nextURL=%2Fcontrol%2Fnavt%2Fhome) introduciendo su usuario y contraseña:

Ir a > *Product Categories > Europe, Middle East, Africa > Additional Content Europe, Middle East, Africa*:

Descargar los siguientes paquetes de archivos:

- 1- ODF Admin Boundaries Europe**
- 2- ODF Premium Europe**
- 3- ODF Point Addressing Europe**
- 4- ODF Routing Transport Europe**



Account Name:
Oracle Corporation

HERE DATA PRODUCTS
[Product Categories](#)
[Product Search](#)
[Recent Email Notifications](#)
[Recently Uploaded Files](#)
[Files Not Downloaded](#)

ADMINISTRATION
[Account Members](#)
[Change Password](#)
[Download Preferences](#)
[Email Preferences](#)

INFORMATION
[Download Help](#)
[FAQs](#)
[User Manual](#)
[Support](#)
[Logout](#)

B2B Download Center

Product List

Additional Content Europe, Middle East, Africa

Version translation can be found in the Product Availability Dates schedule located in the Documental

[Current Release](#) [Previous Releases](#)

Version	Description
S201	HERE Government Codes for Streets Shapefile Israel S201_F0
S201	Traffic Patterns LINK Europe S201_F0
S201	Traffic Patterns LINK MEA S201_F0
S191	ODF Admin Boundaries Europe S191_H0
S191	ODF Base Europe S191_H0
S191	ODF Point Addressing Europe S191_H0
S191	ODF Premium Europe S191_H0
S191	ODF Routing Transport Europe S191_H0

Subir los archivos .tar al entorno, por ejemplo, se puede utilizar los comandos “sftp, ftp”

Recomendación:

Intentar crear un directorio exclusivo para recibir estos archivos, así el proceso será más fácil. Utilizar un *filesystem* con suficiente espacio para descomprimir estos archivos.

```
oracle$ mkdir /u02/here/
```

Comentario:

Los nombres de los archivos pueden ser diferentes si se utiliza una versión distinta en *here.com*. De hecho, el fichero **ODF Admin Boundaries Europe** no estaba disponible en el último acceso a *here.com*, y la versión ya no era la 191, sino la 201.

Descripción de los archivos .tar:

1 - ODF Admin Boundaries Europe S191_H0

265.4 MB EUAM191H0EEU000DADMB.tar

2 - ODF Premium Europe S191_H0

2.4 GB EUAM191H0EEU000DODFC_1of21.tar

5.2 GB EUAM191H0EEU000DODFC_2of21.tar

5.2 GB EUAM191H0EEU000DODFC_3of21.tar

4.6 GB EUAM191H0EEU000DODFC_4of21.tar

4.7 GB EUAM191H0EEU000DODFC_5of21.tar

4.4 GB EUAM191H0EEU000DODFC_6of21.tar

5 GB EUAM191H0EEU000DODFC_7of21.tar



6.2 GB EUAM191H0EEU000DODFC_8of21.tar
5.7 GB EUAM191H0EEU000DODFC_9of21.tar
5.3 GB EUAM191H0EEU000DODFC_10of21.tar
5.5 GB EUAM191H0EEU000DODFC_11of21.tar
8 GB EUAM191H0EEU000DODFC_12of21.tar
5.8 GB EUAM191H0EEU000DODFC_13of21.tar
1.2 GB EUAM191H0EEU000DODFC_14of21.tar
7.2 GB EUAM191H0EEU000DODFC_15of21.tar
6.7 GB EUAM191H0EEU000DODFC_16of21.tar
5.8 GB EUAM191H0EEU000DODFC_17of21.tar
6.2 GB EUAM191H0EEU000DODFC_18of21.tar
5.6 GB EUAM191H0EEU000DODFC_19of21.tar
5.7 GB EUAM191H0EEU000DODFC_20of21.tar
4.4 GB EUAM191H0EEU000DODFC_21of21.tar

3 - ODF Point Addressing Europe S191_H0

5.2G EUAM191H0EEU000DODFP_1of3.tar
6.4G EUAM191H0EEU000DODFP_2of3.tar
5.3G EUAM191H0EEU000DODFP_3of3.tar

4 - ODF Routing Transport Europe S191_H0

625.5 MB EUAM191H0EEU000DODFT.tar

Una vez conectados al entorno, donde se han descargado los archivos .tar, descomprimirlos:

```
oracle$ cd /u02/here/  
oracle$ tar -xvf EUA*tar
```

Esto descomprimirá todos los archivos EUA*tar existentes. Este proceso puede requerir de un tiempo para completarse debido a la gran cantidad de datos.

En el siguiente paso, se necesita ejecutar el comando gunzip para los archivos. Se debe confirmar que nos encontramos en el directorio correcto donde los archivos fueron descomprimidos.

```
oracle$ pwd  
oracle$ cd /u02/here/  
oracle$ gunzip *.gz  
(Este proceso puede requerir de un tiempo para completarse debido a la gran cantidad de datos).
```

Recomendación:

Todos estos archivos y directorios necesitan tener los permisos del Sistema Operativo del usuario Oracle.



Pasos para la importación de datos

Prepara la base de datos para recibir los datos

En este ejemplo se utiliza Oracle DB 19c CDB Arquitectura (PDBs).

En primer lugar, se conecta con “sqlplus / as sysdba” a la base de datos en Linux host. Una vez se está en CDB\$ROOT entonces se necesita conectar a Pluggable Database (PDB) ya que CDB\$ROOT no debería contener *user data*.

Antes de la importación de datos, se necesita completar algunas tareas previas.

- Tablespace BI_EU se utilizará para recibir los datos del primer paquete (ODF Admin Boundaries Europe). Si no se ha descargado el paquete admin boundaries, este paso no es necesario.
- Tablespace SPATIAL_TBS se utilizará para recibir los datos del resto de paquetes usando el método *transportable tablespace import*.

Recomendación:

Puede utilizar un usuario y contraseña diferentes en el entorno.

```
$ sqlplus / as sysdba
SQL> alter session set container = PDB1;
SQL> CREATE big file TABLESPACE BI_EU;
SQL> ALTER TABLESPACE BI_EU RESIZE 2G;

SQL> CREATE bigfile TABLESPACE spatial_tbs;
SQL> ALTER TABLESPACE spatial_tbs RESIZE 100G;
SQL> create user spatial identified by "Oracle_My_secure_pass" default
tablespace spatial_tbs quota unlimited on spatial_tbs account unlock;
SQL> grant create session, connect, resource, create view, create sequence,
create synonym, create procedure, query rewrite to spatial;
SQL> create directory mydir as '/u02/here/';
SQL> grant read, write on directory mydir to spatial;
SQL> ALTER USER SPATIAL quota unlimited on BI_EU;
```



Importar los datos del paquete ODF Admin Boundaries Europe

Como recordatorio, es importante destacar que este paso solo es necesario si estos datos se han descargado previamente.

Para este primer paquete se utilizará la herramienta *imp* en vez de *impdp* (*Data Pump*) debido a que la exportación fue generada usando la herramienta *exp* que se encuentra obsoleta.

Seguir los siguientes pasos para importar los datos pertenecientes a este paquete.

Comentario:

El archivo *dump* ADBM_EU_Q120.DMP pertenece al archivo .tar mencionado anteriormente en los pasos de este paquete.

```
[oracle@spatialdb1 here]$ imp
system/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXXX.spatialvcn.oraclevcn.c
om
  file=ADMB_EU_Q120.DMP ignore=y indexes=n statistics=none constraints=n
  grants=n log=ou_boundaries2.log fromuser=BI_EU touser=spatial

Se puede confirmar que la importación se ha realizado correctamente usando la
siguiente consulta (si el fichero descargado de here es una versión diferente,
puede ser que el nombre de las tablas no coincida con las aquí mostradas):

sqlplus
spatial/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXXX.spatialvcn.oraclevcn.
com

SQL> select table_name from user_tables order by 1 asc;

TABLE_NAME
-----
-
BI_ADMIN_AREA
BI_ADMIN_CITY_CENTER
BI_ADMIN_GEOMETRY
BI_ADMIN_GEOMETRY_WORLD
BI_COUNTRY_PROFILE
BI_MAPS
BI_M_ISO_COUNTRY_CODES
BI_PARSER_PROFILES
BI_STYLES
BI_THEMES
SDO_CACHED_MAPS

11 rows selected.
```



Importar los datos del paquete ODF Premium Europe

Para este paquete se utilizará *Transportable Tablespace* para importar los datos.

Utilizar *datapump* con un archivo *parfile*. Para este paquete se tiene 3 archivos diferentes: *dump*: GC, MAP, RC.

El primer archivo *dump* que va a importarse es el GC:

Crear el *parfile* con la siguiente configuración:

Comentario:

Todos los archivos mencionados aquí están en el archivo *.tar* relacionado con ODF Premium Package/Dataset. Si se está descargando una nueva versión, se debe verificar los archivos en el archivo *.tar*.

```
[oracle@spatialdb1 here]$ vi myparfilegc.par
```

Teclear "i" en el modo de edición en *vi*., copiar y pegar el siguiente contenido. Cambiar el parámetro *userid* de acuerdo con el entorno, y el nombre de *dumpfile* y *logfile* en función de la versión descargada (en este caso 120)

Type: i

```
userid=system/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXXX.spatialvcn.oraclevcn.com
metrics=y
directory=mydir
dumpfile=mydir:TTS_GC_EU_Q120.DMP
logfile=TTS_GC_EU_Q120.log
REMAP_SCHEMA=ODF_EU:spatial
transport_datafiles='/u02/here/gc_eu_q120_1.dbf'
transport_datafiles='/u02/here/gc_eu_q120_2.dbf'
transport_datafiles='/u02/here/gc_eu_q120_3.dbf'
transport_datafiles='/u02/here/gc_eu_q120_4.dbf'
transport_datafiles='/u02/here/gc_eu_q120_5.dbf'
transport_datafiles='/u02/here/gc_eu_q120_6.dbf'
transport_datafiles='/u02/here/gc_eu_q120_7.dbf'
transport_datafiles='/u02/here/gc_eu_q120_8.dbf'
transport_datafiles='/u02/here/gc_eu_q120_9.dbf'
transport_datafiles='/u02/here/gc_eu_q120_10.dbf'
```



```
transport_datafiles='/u02/here/gc_eu_q120_11.dbf'
transport_datafiles='/u02/here/gc_eu_q120_12.dbf'
transport_datafiles='/u02/here/gc_eu_q120_13.dbf'
transport_datafiles='/u02/here/gc_eu_q120_14.dbf'
transport_datafiles='/u02/here/gc_eu_q120_15.dbf'
transport_datafiles='/u02/here/gc_eu_q120_16.dbf'
transport_datafiles='/u02/here/gc_eu_q120_17.dbf'
transport_datafiles='/u02/here/gc_eu_q120_18.dbf'
transport_datafiles='/u02/here/gc_eu_q120_19.dbf'
transport_datafiles='/u02/here/gc_eu_q120_20.dbf'
transport_datafiles='/u02/here/gc_eu_q120_21.dbf'
transport_datafiles='/u02/here/gc_eu_q120_22.dbf'
transport_datafiles='/u02/here/gc_eu_q120_23.dbf'
transport_datafiles='/u02/here/gc_eu_q120_24.dbf'
transport_datafiles='/u02/here/gc_eu_q120_25.dbf'
transport_datafiles='/u02/here/gc_eu_q120_26.dbf'
transport_datafiles='/u02/here/gc_eu_q120_27.dbf'
transport_datafiles='/u02/here/gc_eu_q120_28.dbf'
```

Guardar el archivo usando el comando:

```
:wq!
```

Ahora ya se puede ejecutar *impdp* con el *parfile*.

Recomendación:

Usar *nohup* para ejecutarlo en segundo plano.

```
nohup impdp parfile=myparfilegc.par &
```

Cuando termine de ejecutarse este comando, se recibirá un mensaje de que el proceso se ha completado. Se puede monitorear el archivo *Log* que fue definido en el *parfile*. Entonces se verá un mensaje como este:
“Job “SYSTEM”.“SYS_IMPORT_TRANSPORTABLE_01” successfully completed”

Ahora ya se puede conectar a la base de datos y verificar si las tablas han sido creadas correctamente. Cabe reseñar que si la versión de ficheros ha variado respecto a la del manual, las tablas importadas no tienen por qué ser exactamente las mismas.

```
sqlplus
spatial/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXXX.spatialvcn.oraclevcn.
com
SQL> select table_name from user_tables;
TABLE_NAME
-----
SDO_CACHED_MAPS
BI_ADMIN_GEOMETRY
BI_ADMIN_GEOMETRY_WORLD
BI_PARSER_PROFILES
BI_COUNTRY_PROFILE
BI_M_ISO_COUNTRY_CODES
```



```
BI_ADMIN_AREA
BI_ADMIN_CITY_CENTER
BI_THEMES
BI_STYLES
BI_MAPS
GC_COUNTRY_PROFILE
GC_POI_NVT
GC_AREA_NVT
GC_POSTAL_CODE_NVT
GC_ROAD_NVT
GC_M_ISO_COUNTRY_CODES
GC_INTERSECTION_NVT
GC_META_VERSION_INFO
GC_PARSER_PROFILES
GC_PARSER_PROFILEAFS
GC_ROAD_SEGMENT_NVT
TABLE_NAME
MDRT_C4D09$
23 rows selected.
```

El segundo archivo que va a importarse es el MAP:

Crear el *parfile* con la siguiente configuración:

```
vi myparfilemap.par
```

Teclear "i" en el modo de edición en vi., copiar y pegar el siguiente contenido. Cambiar el parámetro *userid* de acuerdo con el entorno.

```
Type: i
```

```
userid=system/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXXX.spatialvcn.orac
levcn.com
metrics=y
directory=mydir
dumpfile=mydir:TTS_MAP_EU_Q120.DMP
logfile=TTS_MAP_Q120.log
REMAP_SCHEMA=ODF_EU:spatial
transport_datafiles='/u02/here/map_eu_q120_1.dbf'
transport_datafiles='/u02/here/map_eu_q120_2.dbf'
transport_datafiles='/u02/here/map_eu_q120_3.dbf'
transport_datafiles='/u02/here/map_eu_q120_4.dbf'
transport_datafiles='/u02/here/map_eu_q120_5.dbf'
transport_datafiles='/u02/here/map_eu_q120_6.dbf'
transport_datafiles='/u02/here/map_eu_q120_7.dbf'
transport_datafiles='/u02/here/map_eu_q120_8.dbf'
transport_datafiles='/u02/here/map_eu_q120_9.dbf'
transport_datafiles='/u02/here/map_eu_q120_10.dbf'
transport_datafiles='/u02/here/map_eu_q120_11.dbf'
transport_datafiles='/u02/here/map_eu_q120_12.dbf'
transport_datafiles='/u02/here/map_eu_q120_13.dbf'
transport_datafiles='/u02/here/map_eu_q120_14.dbf'
transport_datafiles='/u02/here/map_eu_q120_15.dbf'
transport_datafiles='/u02/here/map_eu_q120_16.dbf'
transport_datafiles='/u02/here/map_eu_q120_17.dbf'
```



```
transport_datafiles='/u02/here/map_eu_q120_18.dbf'  
transport_datafiles='/u02/here/map_eu_q120_19.dbf'  
transport_datafiles='/u02/here/map_eu_q120_20.dbf'  
transport_datafiles='/u02/here/map_eu_q120_21.dbf'  
transport_datafiles='/u02/here/map_eu_q120_22.dbf'  
transport_datafiles='/u02/here/map_eu_q120_23.dbf'  
transport_datafiles='/u02/here/map_eu_q120_24.dbf'  
transport_datafiles='/u02/here/map_eu_q120_25.dbf'  
transport_datafiles='/u02/here/map_eu_q120_26.dbf'  
transport_datafiles='/u02/here/map_eu_q120_27.dbf'  
transport_datafiles='/u02/here/map_eu_q120_28.dbf'  
transport_datafiles='/u02/here/map_eu_q120_29.dbf'  
transport_datafiles='/u02/here/map_eu_q120_30.dbf'  
transport_datafiles='/u02/here/map_eu_q120_31.dbf'  
transport_datafiles='/u02/here/map_eu_q120_32.dbf'  
transport_datafiles='/u02/here/map_eu_q120_33.dbf'
```

Guardar el archivo usando el comando:

```
:wq!
```

Ahora ya se puede ejecutar *impdp* con el *parfile*.

Recomendación:

Usar *nohup* para ejecutarlo en segundo plano.

```
nohup impdp parfile=mparfilemap.par &
```

Cuando termine de ejecutarse este comando, se recibirá un mensaje de que el proceso se ha completado. Se puede monitorear el archivo *Log* que fue definido en el *parfile*. Entonces se verá un mensaje como este:

```
"Job "SYSTEM"."SYS_IMPORT_TRANSPORTABLE_01" successfully completed"
```

Ahora ya se puede conectar a la base de datos y verificar si las tablas han sido creadas correctamente.

```
[oracle@spatialdb1 here]$ sqlplus  
spatial/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXX.spatialvcn.oraclevcn.c  
om  
SQL> set pagesize 500  
SQL> select table_name from user_tables;
```

```
TABLE_NAME
```

```
-----  
SDO_CACHED_MAPS  
BI_ADMIN_GEOMETRY  
BI_ADMIN_GEOMETRY_WORLD  
BI_PARSER_PROFILES  
BI_COUNTRY_PROFILE  
BI_M_ISO_COUNTRY_CODES
```



```
BI_ADMIN_AREA
BI_ADMIN_CITY_CENTER
BI_THEMES
BI_STYLES
BI_MAPS
GC_COUNTRY_PROFILE
GC_POI_NVT
GC_AREA_NVT
GC_POSTAL_CODE_NVT
GC_ROAD_NVT
GC_M_ISO_COUNTRY_CODES
GC_INTERSECTION_NVT
GC_META_VERSION_INFO
GC_PARSER_PROFILES
GC_PARSER_PROFILEAFS
GC_ROAD_SEGMENT_NVT
MDRT_C4D09$
NTC_MAP_LAYER_BOUNDARY
NTC_MAP_AREA_NAME
NTC_MAP_AREA_NAME_TRANS
NTC_MAP_BUILDING_NAME
NTC_MAP_BUILDING_NAME_TRANS
NTC_MAP_LINE_NAME
NTC_MAP_LINE_NAME_TRANS
NTC_MAP_POI_NAME
NTC_MAP_POI_NAME_TRANS
NTC_MAP_POI_SUBCATEGORY
NTC_META_FTYPE_REF
NTC_META_POI_CAT_REF
NTC_META_ROAD_FC_REF
NTC_META_CHAIN
NTC_META_CHAIN_TRANS
NTC_META_CUISINE
NTC_META_POI_SUBCATEGORY
NTC_MAP_ROAD_NAME
NTC_MAP_ROAD_NAME_TRANS
NTC_META_VERSION_INFO
NTC_MAP_BUILDING_AREA
NTC_MAP_FACILITY_AREA
NTC_MAP_LANDUSE_AREA
NTC_MAP_WATER_AREA
NTC_MAP_OCEAN_AREA
NTC_MAP_ISLAND_AREA
NTC_MAP_ADMIN_AREA
NTC_MAP_ADMIN_BUILTUP_AREA
NTC_MAP_ZONE_AREA
NTC_MAP_RAILROAD_LINE
NTC_MAP_WATER_LINE
NTC_MAP_ADMIN_LINE
NTC_MAP_ROAD_HIGHWAY_AGGR
NTC_MAP_ROAD_SEC_AGGR
NTC_MAP_ROAD_LOCAL_AGGR
NTC_MAP_POI_AUTO
NTC_MAP_POI_TOURISTIC
```



NTC_MAP_POI_TRANSPORTATION
NTC_MAP_POI_ACTIVITY
NTC_MAP_POI_RESTAURANT
NTC_MAP_POI_BUSINESS
NTC_MAP_POI_HOTEL
NTC_MAP_POI_PUBLIC_FACILITY
NTC_MAP_POI_SERVICE
NTC_MAP_POI_SHOP
NTC_MAP_POI_CITY_CENTER
NTC_MAP_POI_CITY_GE_1000
NTC_MAP_ROAD_HIGHWAY
NTC_MAP_ROAD_SECONDARY
NTC_MAP_ROAD_LOCAL
NTC_MAP_ROAD_FERRY
NTC_MAP_GRADE_SEP_ROAD_XING
NTC_MAP_GRADE_SEP_CARTO_XING
WOM_ADMIN_LINE
WOM_POI
WOM_POI_CITY_CENTER
WOM_ROAD_HIGHWAYS
WOM_AREA
WOM_AREA_BACKDROP
WOM_AREA_COUNTRY_GEN
WOM_ROAD_HIGHWAYS_GEN
SDO_MAPS
SDO_STYLES
SDO_THEMES
MDRT_C4C59\$
MDRT_C6824\$
MDRT_C68BB\$
MDRT_C6867\$
MDRT_C6920\$
MDRT_C6A06\$
MDRT_C6A16\$
MDRT_C5581\$
MDRT_C5B8C\$
MDRT_C6AEE\$
MDRT_C580D\$
MDRT_C67A2\$
MDRT_C69C0\$
MDRT_C6B3D\$
MDRT_C6B4D\$
MDRT_C6B55\$
MDRT_C6B5F\$
MDRT_C6A93\$
MDRT_C68FF\$
MDRT_C6AA2\$
MDRT_C67F2\$
MDRT_C67AD\$
MDRT_C6A4E\$
MDRT_C5C6B\$
MDRT_C6BA2\$
MDRT_C684C\$
MDRT_C5C8A\$



```
MDRT_C6BAD$  
MDRT_C68DE$  
MDRT_C5C44$  
MDRT_C5C54$  
MDRT_C689D$  
MDRT_C68A8$  
MDRT_C67CB$  
MDRT_C6B6A$  
MDRT_C6B74$  
MDRT_C6B84$  
MDRT_C6B8F$  
MDRT_C5BF5$  
MDRT_C5C00$  
MDRT_C5C11$
```

128 rows selected.

El tercer archivo es el RC:

Crear el *parfile* con la siguiente configuración:

```
vi myparfilerc.par
```

Teclear "i" en el modo de edición en vi, copiar y pegar el siguiente contenido.
Cambiar el parámetro *userid* de acuerdo con el entorno.

Type: i

```
userid=system/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXX.spatialvcn.oracle  
evcn.com  
metrics=y  
directory=mydir  
dumpfile=mydir:TTS_RC_EU_Q120.DMP  
logfile=TTS_RC_Q120.log  
REMAP_SCHEMA=ODF_EU:spatial  
transport_datafiles='/u02/here/rc_eu_q120_1.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_2.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_3.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_4.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_5.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_6.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_7.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_8.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_9.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_10.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_11.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_12.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_13.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_14.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_15.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_16.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_17.dbf'
```



```
transport_datafiles='/u02/here/rc_eu_q120_18.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_19.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_20.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_21.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_22.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_23.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_24.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_25.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_26.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_27.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_28.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_29.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_30.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_31.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_32.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_33.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_34.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_35.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_36.dbf'  
transport_datafiles='/u02/here/rc_eu_q120_37.dbf'
```

Guardar el archivo usando el comando:

```
:wq!
```

Ahora ya se puede ejecutar *impdp* con el *parfile*.

Recomendación:

Usar *nohup* para ejecutarlo en segundo plano.

```
nohup impdp parfile=myparfilerc.par &
```

Cuando termine de ejecutarse este comando, se recibe un mensaje de que el proceso se ha completado. Se puede monitorear el archivo log que fue definido en el parfile. Entonces se verá un mensaje como este:
“Job “SYSTEM”.“SYS_IMPORT_TRANSPORTABLE_01” successfully completed”

Ahora ya se puede conectar a la base de datos y verificar si las tablas han sido creadas correctamente.

```
[oracle@spatialdb1 here]$ sqlplus  
spatial/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXX.spatialvcn.oraclevcn.c  
om  
SQL> set pagesize 500  
SQL> select table_name from user_tables order by 1 asc;
```

TABLE_NAME

```
-----  
-  
BI_ADMIN_AREA  
BI_ADMIN_CITY_CENTER  
BI_ADMIN_GEOGRAPHY  
BI_ADMIN_GEOGRAPHY_WORLD
```



```
BI_COUNTRY_PROFILE
BI_MAPS
BI_M_ISO_COUNTRY_CODES
BI_PARSER_PROFILES
BI_STYLES
BI_THEMES
EDGE
GC_AREA_NVT
GC_COUNTRY_PROFILE
GC_INTERSECTION_NVT
GC_META_VERSION_INFO
GC_M_ISO_COUNTRY_CODES
GC_PARSER_PROFILEAFS
GC_PARSER_PROFILES
GC_POI_NVT
GC_POSTAL_CODE_NVT
GC_ROAD_NVT
GC_ROAD_SEGMENT_NVT
MDRT_C4C59$
MDRT_C4D09$
MDRT_C54B3$
MDRT_C5581$
MDRT_C580D$
MDRT_C5B8C$
MDRT_C5BF5$
MDRT_C5C00$
MDRT_C5C11$
MDRT_C5C44$
MDRT_C5C54$
MDRT_C5C6B$
MDRT_C5C8A$
MDRT_C67A2$
MDRT_C67AD$
MDRT_C67CB$
MDRT_C67F2$
MDRT_C6824$
MDRT_C684C$
MDRT_C6867$
MDRT_C689D$
MDRT_C68A8$
MDRT_C68BB$
MDRT_C68DE$
MDRT_C68FF$
MDRT_C6920$
MDRT_C69C0$
MDRT_C6A06$
MDRT_C6A16$
MDRT_C6A4E$
MDRT_C6A93$
MDRT_C6AA2$
MDRT_C6AEE$
MDRT_C6B3D$
MDRT_C6B4D$
MDRT_C6B55$
```



```
MDRT_C6B5F$  
MDRT_C6B6A$  
MDRT_C6B74$  
MDRT_C6B84$  
MDRT_C6B8F$  
MDRT_C6BA2$  
MDRT_C6BAD$  
NODE  
NTC_MAP_ADMIN_AREA  
NTC_MAP_ADMIN_BUILTUP_AREA  
NTC_MAP_ADMIN_LINE  
NTC_MAP_AREA_NAME  
NTC_MAP_AREA_NAME_TRANS  
NTC_MAP_BUILDING_AREA  
NTC_MAP_BUILDING_NAME  
NTC_MAP_BUILDING_NAME_TRANS  
NTC_MAP_FACILITY_AREA  
NTC_MAP_GRADE_SEP_CARTO_XING  
NTC_MAP_GRADE_SEP_ROAD_XING  
NTC_MAP_ISLAND_AREA  
NTC_MAP_LANDUSE_AREA  
NTC_MAP_LAYER_BOUNDARY  
NTC_MAP_LINE_NAME  
NTC_MAP_LINE_NAME_TRANS  
NTC_MAP_OCEAN_AREA  
NTC_MAP_POI_ACTIVITY  
NTC_MAP_POI_AUTO  
NTC_MAP_POI_BUSINESS  
NTC_MAP_POI_CITY_CENTER  
NTC_MAP_POI_CITY_GE_1000  
NTC_MAP_POI_HOTEL  
NTC_MAP_POI_NAME  
NTC_MAP_POI_NAME_TRANS  
NTC_MAP_POI_PUBLICFacility  
NTC_MAP_POI_RESTAURANT  
NTC_MAP_POI_SERVICE  
NTC_MAP_POI_SHOP  
NTC_MAP_POI_SUBCATEGORY  
NTC_MAP_POI_TOURISTIC  
NTC_MAP_POI_TRANSPORTATION  
NTC_MAP_RAILROAD_LINE  
NTC_MAP_ROAD_FERRY  
NTC_MAP_ROAD_HIGHWAY  
NTC_MAP_ROAD_HIGHWAY_AGGR  
NTC_MAP_ROAD_LOCAL  
NTC_MAP_ROAD_LOCAL_AGGR  
NTC_MAP_ROAD_NAME  
NTC_MAP_ROAD_NAME_TRANS  
NTC_MAP_ROAD_SECONDARY  
NTC_MAP_ROAD_SEC_AGGR  
NTC_MAP_WATER_AREA  
NTC_MAP_WATER_LINE  
NTC_MAP_ZONE_AREA  
NTC_META_CHAIN
```



```
NTC_META_CHAIN_TRANS  
NTC_META_CUISINE  
NTC_META_FTYPE_REF  
NTC_META_POI_CAT_REF  
NTC_META_POI_SUBCATEGORY  
NTC_META_ROAD_FC_REF  
NTC_META_VERSION_INFO  
PARTITION  
RC_META_VERSION_INFO  
ROUTER_CONDITION  
ROUTER_NAV_STRAND  
ROUTER_TURN_RESTRICTION_DATA  
SDO_CACHED_MAPS  
SDO_MAPS  
SDO_ROUTER_DATA_VERSION  
SDO_STYLES  
SDO_THEMES  
SIGN_POST  
WOM_ADMIN_LINE  
WOM_AREA  
WOM_AREA_BACKDROP  
WOM_AREA_COUNTRY_GEN  
WOM_POI  
WOM_POI_CITY_CENTER  
WOM_ROAD_HIGHWAYS  
WOM_ROAD_HIGHWAYS_GEN
```

```
138 rows selected.
```

Importar los datos del paquete ODF Point Addressing Europe

Para este paquete se utilizará Transportable Tablespace para importar los datos.
Utilizar datapump con un archivo parfile.

Crear el parfile con la siguiente configuración:

Comentario:

Todos los archivos mencionados aquí están en el archivo .tar relacionado con ODF Point Addressing Europe Package/Dataset.

```
[oracle@spatialdb1 here]$ vi myparfilepa.par
```

Teclear "i" en el modo de edición en vi., copiar y pegar el siguiente contenido. Cambiar el parámetro userid de acuerdo con el entorno
Type: i

```
userid=system/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXX.spatialvcn.oracle  
evcn.com
```



```
metrics=y
directory=mydir
dumpfile=mydir:TTS_GC_PA_EU_Q120.DMP
logfile=TTS_PA_EU_Q120.log
REMAP_SCHEMA=ODF_EU:spatial
transport_datafiles='/u02/here/gc_pa_eu_q120_1.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_2.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_3.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_4.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_5.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_6.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_7.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_8.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_9.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_10.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_11.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_12.dbf'
transport_datafiles='/u02/here/gc_pa_eu_q120_13.dbf'
```

Guardar el archivo usando el comando:

```
:wq!
```

Ahora ya se puede ejecutar impdp con el parfile.

Recomendación:

Usar nohup para ejecutarlo en segundo plano.

```
nohup impdp parfile=mparfilepa.par &
```

Cuando termine de ejecutarse este comando, se recibe un mensaje de que el proceso se ha completado. Se puede monitorear el archivo log que fue definido en el parfile. Entonces se verá un mensaje como este:

“Job “SYSTEM”.“SYS_IMPORT_TRANSPORTABLE_01” successfully completed”

Ahora ya se puede conectar a la base de datos y verificar si las tablas han sido creadas correctamente.

```
[oracle@spatialdb1 here]$ sqlplus
spatial/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXX.spatialvcn.oraclevcn.com
SQL> set pagesize 500
SQL> select table_name from user_tables order by 1 asc;
```

TABLE_NAME

```
-----
-
BI_ADMIN_AREA
BI_ADMIN_CITY_CENTER
BI_ADMIN_GEOMETRY
BI_ADMIN_GEOMETRY_WORLD
BI_COUNTRY_PROFILE
BI_MAPS
BI_M_ISO_COUNTRY_CODES
BI_PARSER_PROFILES
BI_STYLES
```



```
BI_THEMES
EDGE
GC_ADDRESS_POINT_NVT
GC_AREA_NVT
GC_COUNTRY_PROFILE
GC_INTERSECTION_NVT
GC_META_VERSION_INFO
GC_M_ISO_COUNTRY_CODES
GC_PARSER_PROFILEAFS
GC_PARSER_PROFILES
GC_POI_NVT
GC_POSTAL_CODE_NVT
GC_ROAD_NVT
GC_ROAD_SEGMENT_NVT
MDRT_C4C59$
MDRT_C4D09$
MDRT_C54B3$
MDRT_C5581$
MDRT_C580D$
MDRT_C5B8C$
MDRT_C5BF5$
MDRT_C5C00$
MDRT_C5C11$
MDRT_C5C44$
MDRT_C5C54$
MDRT_C5C6B$
MDRT_C5C8A$
MDRT_C67A2$
MDRT_C67AD$
MDRT_C67CB$
MDRT_C67F2$
MDRT_C6824$
MDRT_C684C$
MDRT_C6867$
MDRT_C689D$
MDRT_C68A8$
MDRT_C68BB$
MDRT_C68DE$
MDRT_C68FF$
MDRT_C6920$
MDRT_C69C0$
MDRT_C6A06$
MDRT_C6A16$
MDRT_C6A4E$
MDRT_C6A93$
MDRT_C6AA2$
MDRT_C6AEE$
MDRT_C6B3D$
MDRT_C6B4D$
MDRT_C6B55$
MDRT_C6B5F$
MDRT_C6B6A$
MDRT_C6B74$
MDRT_C6B84$
```



```
MDRT_C6B8F$  
MDRT_C6BA2$  
MDRT_C6BAD$  
NODE  
NTC_MAP_ADMIN_AREA  
NTC_MAP_ADMIN_BUILTUP_AREA  
NTC_MAP_ADMIN_LINE  
NTC_MAP_AREA_NAME  
NTC_MAP_AREA_NAME_TRANS  
NTC_MAP_BUILDING_AREA  
NTC_MAP_BUILDING_NAME  
NTC_MAP_BUILDING_NAME_TRANS  
NTC_MAP_FACILITY_AREA  
NTC_MAP_GRADE_SEP_CARTO_XING  
NTC_MAP_GRADE_SEP_ROAD_XING  
NTC_MAP_ISLAND_AREA  
NTC_MAP_LANDUSE_AREA  
NTC_MAP_LAYER_BOUNDARY  
NTC_MAP_LINE_NAME  
NTC_MAP_LINE_NAME_TRANS  
NTC_MAP_OCEAN_AREA  
NTC_MAP_POI_ACTIVITY  
NTC_MAP_POI_AUTO  
NTC_MAP_POI_BUSINESS  
NTC_MAP_POI_CITY_CENTER  
NTC_MAP_POI_CITY_GE_1000  
NTC_MAP_POI_HOTEL  
NTC_MAP_POI_NAME  
NTC_MAP_POI_NAME_TRANS  
NTC_MAP_POI_PUBLIC_FACILITY  
NTC_MAP_POI_RESTAURANT  
NTC_MAP_POI_SERVICE  
NTC_MAP_POI_SHOP  
NTC_MAP_POI_SUBCATEGORY  
NTC_MAP_POI_TOURISTIC  
NTC_MAP_POI_TRANSPORTATION  
NTC_MAP_RAILROAD_LINE  
NTC_MAP_ROAD_FERRY  
NTC_MAP_ROAD_HIGHWAY  
NTC_MAP_ROAD_HIGHWAY_AGGR  
NTC_MAP_ROAD_LOCAL  
NTC_MAP_ROAD_LOCAL_AGGR  
NTC_MAP_ROAD_NAME  
NTC_MAP_ROAD_NAME_TRANS  
NTC_MAP_ROAD_SECONDARY  
NTC_MAP_ROAD_SEC_AGGR  
NTC_MAP_WATER_AREA  
NTC_MAP_WATER_LINE  
NTC_MAP_ZONE_AREA  
NTC_META_CHAIN  
NTC_META_CHAIN_TRANS  
NTC_META_CUISINE  
NTC_META_FTYPE_REF  
NTC_META_POI_CAT_REF
```



```
NTC_META_POI_SUBCATEGORY  
NTC_META_ROAD_FC_REF  
NTC_META_VERSION_INFO  
PARTITION  
RC_META_VERSION_INFO  
ROUTER_CONDITION  
ROUTER_NAV_STRAND  
ROUTER_TURN_RESTRICTION_DATA  
SDO_CACHED_MAPS  
SDO_MAPS  
SDO_ROUTER_DATA_VERSION  
SDO_STYLES  
SDO_THEMES  
SIGN_POST  
WOM_ADMIN_LINE  
WOM_AREA  
WOM_AREA_BACKDROP  
WOM_AREA_COUNTRY_GEN  
WOM_POI  
WOM_POI_CITY_CENTER  
WOM_ROAD_HIGHWAYS  
WOM_ROAD_HIGHWAYS_GEN  
  
139 rows selected.
```

Importar los datos del paquete ODF Routing Transport Europe

Para este paquete se utilizará Transportable Tablespace para importar los datos.
Utilizar datapump con un archivo parfile.

Crear el parfile con la siguiente configuración:

Comentario:

Todos los archivos mencionados aquí están en el archivo .tar relacionado con ODF Routing Transport Europe Package/Dataset.

```
[oracle@spatialdb1 here]$ vi myparfilerouting.par
```

Teclear "i" en el modo de edición en vi., copiar y pegar el siguiente contenido. Cambiar el parámetro userid de acuerdo con el entorno
Type: i



```
userid=system/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXX.spatialvcn.oracle
evcn.com
metrics=y
directory=mydir
dumpfile=mydir:TTS_RC_TP_EU_Q120.DMP
logfile=TTS_RC_TP_Q120.log
REMAP_SCHEMA=ODF_EU:spatial
transport_datafiles='/u02/here/rc_tp_eu_q120_1.dbf'
transport_datafiles='/u02/here/rc_tp_eu_q120_2.dbf'
```

Guardar el archivo usando el comando:

```
:wq!
```

Ahora ya se puede ejecutar impdp con el parfile.

Recomendación:

Usar nohup para ejecutarlo en segundo plano.

```
nohup impdp parfile=mparfilerouting.par &
```

Cuando termine de ejecutarse este comando, se recibe un mensaje de que el proceso se ha completado. Se puede monitorear el archivo log que fue definido en el parfile. Entonces se verá un mensaje como este:

“Job “SYSTEM”.“SYS_IMPORT_TRANSPORTABLE_01” successfully completed”

Ahora ya se puede conectar a la base de datos y verificar si las tablas han sido creadas correctamente:

```
[oracle@spatialdb1 here]$ sqlplus
spatial/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXX.spatialvcn.oracle
SQL> set pagesize 500
SQL> select table_name from user_tables order by 1 asc;
```

TABLE_NAME

-
BI_ADMIN_AREA
BI_ADMIN_CITY_CENTER
BI_ADMIN_GEOMETRY
BI_ADMIN_GEOMETRY_WORLD
BI_COUNTRY_PROFILE
BI_MAPS
BI_M_ISO_COUNTRY_CODES
BI_PARSER_PROFILES
BI_STYLES
BI_THEMES
EDGE
GC_ADDRESS_POINT_NVT
GC_AREA_NVT
GC_COUNTRY_PROFILE
GC_INTERSECTION_NVT
GC_META_VERSION_INFO
GC_M_ISO_COUNTRY_CODES



```
GC_PARSER_PROFILEAFS
GC_PARSER_PROFILES
GC_POI_NVT
GC_POSTAL_CODE_NVT
GC_ROAD_NVT
GC_ROAD_SEGMENT_NVT
MDRT_C4C59$
MDRT_C4D09$
MDRT_C54B3$
MDRT_C5581$
MDRT_C580D$
MDRT_C5B8C$
MDRT_C5BF5$
MDRT_C5C00$
MDRT_C5C11$
MDRT_C5C44$
MDRT_C5C54$
MDRT_C5C6B$
MDRT_C5C8A$
MDRT_C67A2$
MDRT_C67AD$
MDRT_C67CB$
MDRT_C67F2$
MDRT_C6824$
MDRT_C684C$
MDRT_C6867$
MDRT_C689D$
MDRT_C68A8$
MDRT_C68BB$
MDRT_C68DE$
MDRT_C68FF$
MDRT_C6920$
MDRT_C69C0$
MDRT_C6A06$
MDRT_C6A16$
MDRT_C6A4E$
MDRT_C6A93$
MDRT_C6AA2$
MDRT_C6AEE$
MDRT_C6B3D$
MDRT_C6B4D$
MDRT_C6B55$
MDRT_C6B5F$
MDRT_C6B6A$
MDRT_C6B74$
MDRT_C6B84$
MDRT_C6B8F$
MDRT_C6BA2$
MDRT_C6BAD$
NODE
NTC_MAP_ADMIN_AREA
NTC_MAP_ADMIN_BUILTUP_AREA
NTC_MAP_ADMIN_LINE
NTC_MAP_AREA_NAME
```



```
NTC_MAP_AREA_NAME_TRANS  
NTC_MAP_BUILDING_AREA  
NTC_MAP_BUILDING_NAME  
NTC_MAP_BUILDING_NAME_TRANS  
NTC_MAP_FACILITY_AREA  
NTC_MAP_GRADE_SEP_CARTO_XING  
NTC_MAP_GRADE_SEP_ROAD_XING  
NTC_MAP_ISLAND_AREA  
NTC_MAP_LANDUSE_AREA  
NTC_MAP_LAYER_BOUNDARY  
NTC_MAP_LINE_NAME  
NTC_MAP_LINE_NAME_TRANS  
NTC_MAP_OCEAN_AREA  
NTC_MAP_POI_ACTIVITY  
NTC_MAP_POI_AUTO  
NTC_MAP_POI_BUSINESS  
NTC_MAP_POI_CITY_CENTER  
NTC_MAP_POI_CITY_GE_1000  
NTC_MAP_POI_HOTEL  
NTC_MAP_POI_NAME  
NTC_MAP_POI_NAME_TRANS  
NTC_MAP_POI_PUBLICFacility  
NTC_MAP_POI_RESTAURANT  
NTC_MAP_POI_SERVICE  
NTC_MAP_POI_SHOP  
NTC_MAP_POI_SUBCATEGORY  
NTC_MAP_POI_TOURISTIC  
NTC_MAP_POI_TRANSPORTATION  
NTC_MAP_RAILROAD_LINE  
NTC_MAP_ROAD_FERRY  
NTC_MAP_ROAD_HIGHWAY  
NTC_MAP_ROAD_HIGHWAY_AGGR  
NTC_MAP_ROAD_LOCAL  
NTC_MAP_ROAD_LOCAL_AGGR  
NTC_MAP_ROAD_NAME  
NTC_MAP_ROAD_NAME_TRANS  
NTC_MAP_ROAD_SECONDARY  
NTC_MAP_ROAD_SEC_AGGR  
NTC_MAP_WATER_AREA  
NTC_MAP_WATER_LINE  
NTC_MAP_ZONE_AREA  
NTC_META_CHAIN  
NTC_META_CHAIN_TRANS  
NTC_META_CUISINE  
NTC_META_FTYPE_REF  
NTC_META_POI_CAT_REF  
NTC_META_POI_SUBCATEGORY  
NTC_META_ROAD_FC_REF  
NTC_META_VERSION_INFO  
PARTITION  
RC_META_VERSION_INFO  
ROUTER_CONDITION  
ROUTER_NAV_STRAND  
ROUTER_TRANSPORT
```



```
ROUTER_TRUCKING_DATA  
ROUTER_TURN_RESTRICTION_DATA  
SDO_CACHED_MAPS  
SDO_MAPS  
SDO_ROUTER_DATA_VERSION  
SDO_STYLES  
SDO_THEMES  
SIGN_POST  
WOM_ADMIN_LINE  
WOM_AREA  
WOM_AREA_BACKDROP  
WOM_AREA_COUNTRY_GEN  
WOM_POI  
WOM_POI_CITY_CENTER  
WOM_ROAD_HIGHWAYS  
WOM_ROAD_HIGHWAYS_GEN  
  
141 rows selected
```

Comentario:

Si se está descargando una nueva versión, se debe verificar los archivos en el archivo .tar.

Si la máquina donde reside el dbcs, dispone de ASM (Automatic Storage Management), conviene mover los tablespaces al almacenamiento del ASM. Esta tarea se podría llevar a cabo mediante una sentencia del tipo ‘alter database move datafile’ teniendo como destino el ASM.

Tareas post-instalación

Tarea 1

Para *mapping*: Cargar las definiciones de los mapas en las vistas del diccionario de datos

```
sqlplus  
spatial/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXX.spatialvcn.oraclevcn.com  
  
insert into user_sdo_styles (select * from sdo_styles);  
insert into user_sdo_themes (select * from sdo_themes);  
insert into user_sdo_maps (select * from sdo_maps);  
insert into user_sdo_cached_maps (select * from sdo_cached_maps);  
commit;  
exit;
```

Tarea 2

Para *routing*: Configurar las definiciones de red adecuada (15-20 minutos)



Crear el directorio en el Sistema Operativo. En este ejemplo se utiliza /u02/tmp

Se necesita dar los permisos para ambos usuarios: el propietario de los datos (*SPATIAL*) y *MDSYS* (la cuenta “*system*” para *Spatial*)

```
oracle$ mkdir /u02/tmp/
sqlplus
system/ADmin123456##

alter session set container=PDB1;
CREATE OR REPLACE DIRECTORY SDO_ROUTER_LOG_DIR AS '/u02/tmp';
GRANT READ, WRITE ON DIRECTORY SDO_ROUTER_LOG_DIR TO MDSYS;
GRANT READ, WRITE ON DIRECTORY SDO_ROUTER_LOG_DIR TO SPATIAL;
call dbms_java.grant_permission('MDSYS', 'java.io.FilePermission',
'/u02/tmp/*', 'read,write');
call dbms_java.grant_permission('SPATIAL', 'java.io.FilePermission',
'/u02/tmp/*', 'read,write');
GRANT CREATE VIEW TO SPATIAL;

sqlplus
spatial/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXX.spatialvcn.oraclevcn.com

call SDO_ROUTER_PARTITION.CREATE_ROUTER_NETWORK (
  log_file_name => 'RN_ODF_EU_Q120.log',
  network_name => 'RN_ODF_EU_Q120'
);
commit;
```

Tarea 3

Para *truck routing*: Configurar los datos de *truckling data* (10 minutos)

```
sqlplus
spatial/"Oracle_My_secure_pass"@spatialdb1:1521/pdb1.XXX.spatialvcn.oraclevcn.com
call SDO_ROUTER_PARTITION.CREATE_TRUCKING_DATA(
  log_file_name => 'RC_TP_ODF_EU_Q119.log'
);
commit;
```



Recomendaciones:

Si en el futuro desea actualizar sus datos con una nueva versión de Here.com recomendamos crear un nuevo usuario para cada versión de los datos y contenidos.

Esto hará más fácil la instalación de la nueva versión a la vez que mantiene la anterior disponible para las aplicaciones.

También se requiere cuando se instala múltiples sets de datos (como NA, EU,...).

Para eliminar versiones antiguas solo tendrá que hacer un "drop user cascade" y "drop tablespace"".

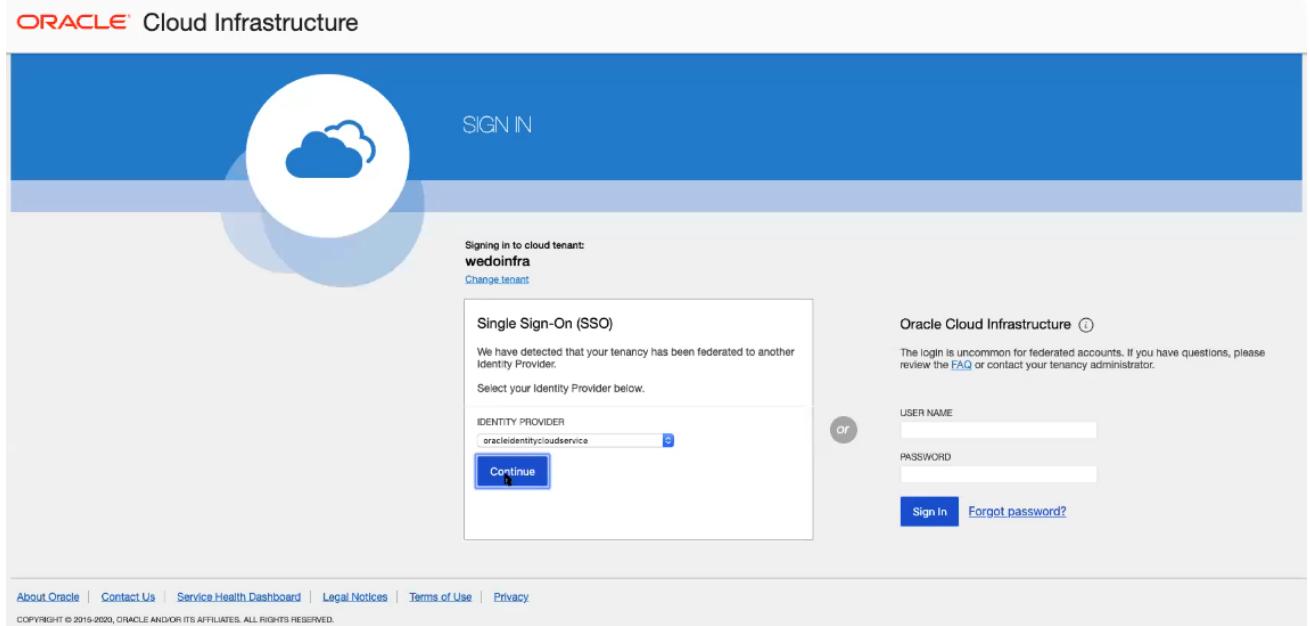


Configuración webservices Spatial

Existen 2 opciones en el OCI Marketplace para configurar los webservices para Spatial:

1. Lanzar una VM con WebLogic
2. Lanzar una VM con Spatial Studio, que incluye un servidor WebLogic

En cualquier caso, debemos acceder a la consola de OCI con nuestro usuario y contraseña



Y navegar hacia el Marketplace utilizando el menú izquierdo.

- Data Science >
- Solutions and Platform >
- Analytics >
- Resource Manager >
- Email Delivery > [Launch a VM instance](#)
- Application Integration >
- Monitoring >
- Logging >
- Developer Services > [Create a network with a wizard](#)
- Blockchain Platform
- Marketplace > [Applications](#) (cursor)
- VMware Solution



Una vez en el Marketplace, debemos decidir si optar por comenzar con una VM con Spatial Studio instalado o una VM con únicamente WebLogic server

The screenshot shows the Oracle Cloud Marketplace interface. At the top, there's a navigation bar with 'ORACLE Cloud' and 'Applications >'. A search bar says 'Search for resources, services, and documentation'. To the right, it shows 'Germany Central (Frankfurt)'. Below the navigation, the page title is 'Marketplace'.

Featured Applications:

- Fortinet FortiGate Next-Gen Firewall (BYOL)**: Comprehensive Security in One, Simplified Solution. Type: Image | Price: BYOL.
- ORACLE E-Business Suite Cloud Manager**: Create, manage and configure Oracle E-Business Suite... Type: Image | Price: Free.
- Altair PBS Professional**: Workload Manager and Batch Queueing Software. Type: Image | Price: BYOL.
- Aviatrix Secure Networking Platform**: Multi-Cloud Cross-Region Aviatrix Controller (PayAsYouGo version). Type: Stack | Price: Paid.
- ORACLE E-SBC**: Oracle Enterprise Virtual Session Border Controller. Enabling highly secure and reliable voice, video and unified...
- Palo Alto Networks VM-Series Next Generation Firewall**: Protecting applications from threats and stopping data theft. Type: Image | Price: BYOL.

All Applications:

Below the featured section, there's a heading 'All Applications' followed by a grid of application icons. One icon, 'Oracle Database Sharding', is highlighted with a larger preview window showing its details.

Filters:

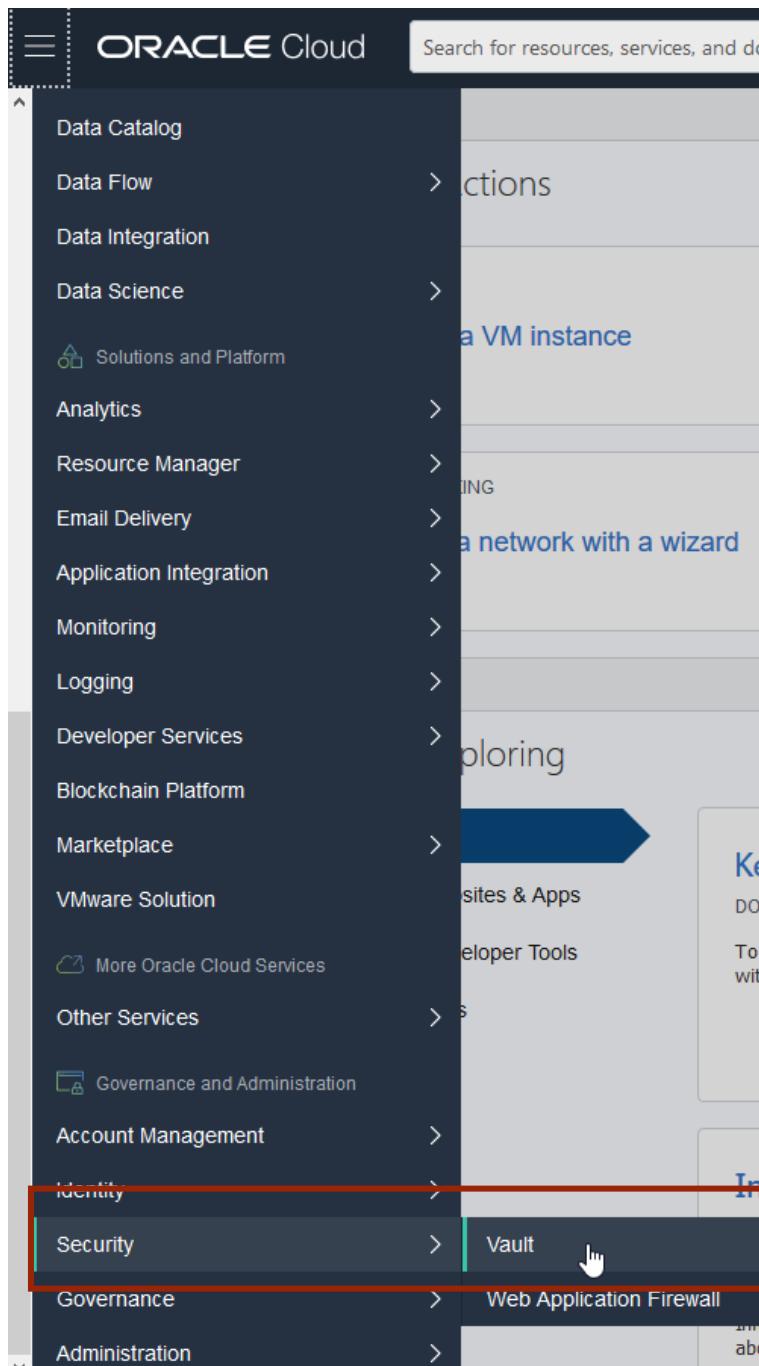
- Type: Any
- Publisher: Any
- Category: Any
- Price: Any



VM Con WebLogic Server

Para crear una instancia del Marketplace con WebLogic Server, es necesario primero crear un Vault y a continuación un secreto cuyo contenido será la contraseña de acceso a la consola de administración de WebLogic.

Creación de Vault y Secreto



En el compartimento al que tengamos acceso, creamos el nuevo Vault



Security		Vaults in Spatial Compartment			
Vault	Web Application Firewall	Vaults let you centrally manage the encryption keys that protect your data and the secret credentials that you use to securely access resources. Learn more			
List Scope	COMPARTMENT	Create Vault Restore Vault			
Spatial	wedoinfra (root)/WEDOLABS/Spatial	Name	State	Virtual Private	Created
		X	Pending Deletion	No	Thu, Jul 23, 2020, 08:42:03 UTC
		WLS	Active	No	Thu, May 28, 2020, 10:59:11 UTC

Rellenamos los datos pertinentes y pulsamos en Create Vault

Create Vault

Vaults provide your growing data and application encryption with scalable key storage. You can start small, with as little as a single key, and grow to thousands of keys to support your growing cloud deployment.

CREATE IN COMPARTMENT

Spatial

NAME

MAKE IT A VIRTUAL PRIVATE VAULT
Creates the vault as a dedicated partition on the HSM, sets pricing based on the maximum usage against key limits, and accommodates greater performance needs. [Learn more](#)

[Show Advanced Options](#)

[Create Vault](#) [Cancel](#)

Una vez creado el vault, antes de crear el secret hay que confirmar que se haya creado una encryption key previamente. En el caso de no ser así hay que ir a **Vault-> Master Encryption Key->Create Key**



The screenshot shows the Oracle Cloud Infrastructure console. In the top navigation bar, there is a search bar and a dropdown for 'Germany Central (Frankfurt)'. Below the navigation, a card displays a 'Public Wrapping Key' with the value 'PUBLIC KEY----'. It includes details like OCID: ...wzgxya, Type: RSA, and Date Modified: Tue, Nov 3, 2020, 15:35:24 UTC. To the right, it shows Key Length: 4096 bits and Status: Enabled.

Resources

Master Encryption Keys

Create Key | Restore Key

Name	State	Protection Mode	Created
SpatialVaultKey	Enabled	HSM	Tue, Nov 3, 2020, 15:45:48 UTC

Showing 1 Item | Page 1

COMPARTMENT: SpatialCompartment

List Scope: trialspatial (root)/SpatialCompartment

Filters

Una vez comprobado que tenemos la key creada, navegamos a Secrets y pulsamos en Create Secret

The screenshot shows the Oracle Cloud Infrastructure console. In the top navigation bar, there is a search bar and a dropdown for 'Germany Central (Frankfurt)'. Below the navigation, a card displays a 'Public Wrapping Key' with the value 'PUBLIC KEY----'. It includes details like OCID: ...j2g7ma, Type: RSA, and Date Modified: Thu, May 28, 2020, 10:59:11 UTC. To the right, it shows Key Length: 128 bits and Status: Enabled.

Resources

Secrets

Create Secret

Name	Status	Created
WL_S_Admin_password	Active	Thu, May 28, 2020, 13:41:40 UTC

Rellenamos la información pertinente. El campo más importante es Secret Contents que será la contraseña que introduciremos con el usuario administrador (weblogic) para entrar a la consola de administración. A continuación, pulsamos en Create Secret.



Create Secret

[Help](#)

CREATE IN COMPARTMENT

Spatial
wedoinfra (root)\WEDOLABS\Spatial

NAME

WLS_Admin_Password

DESCRIPTION

ENCRYPTION KEY IN SPATIAL [\(CHANGE COMPARTMENT\)](#)

MasterKey

SECRET TYPE TEMPLATE

Plain-Text

SECRET CONTENTS

[REDACTED]

Show Base64 conversion

Show Advanced Options

[Create Secret](#) [Cancel](#)

Una vez creado el secreto, hacemos click en él y copiamos su OCID para utilizarlo más adelante.

[Security](#) » [Vaults](#) » [WLS](#) » [Secret Details](#)

WLS_Admin_password

[Edit](#) [Move Resource](#) [Add Tags](#) [Delete Secret](#)

[Secret Information](#) [Tags](#)

OCID: ...4d6zwa [Show](#) [Copy](#)

Created: Thu, May 28, 2020, 13:41:40 UTC

Compartiment: wedoinfra (root)\WEDOLABS\Spatial

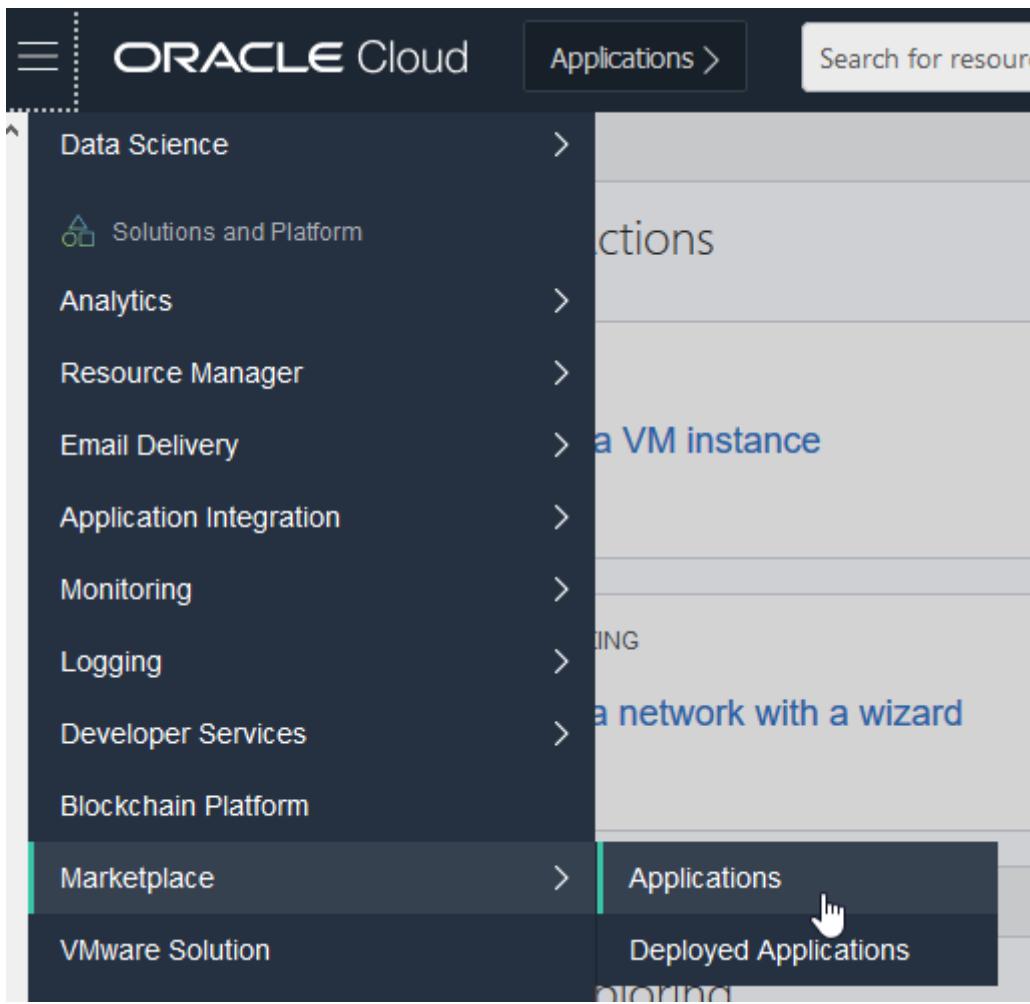
Vault: WLS

Podemos pasar al siguiente paso que es crear una instancia de la imagen de WebLogic disponible en el Cloud Marketplace.

Crear instancia de WebLogic del Cloud Marketplace

Navegamos hacia Marketplace → Applications





En el buscador del navegador, buscamos “weblogic”. Seleccionamos la máquina Oracle Weblogic Server Enterprise Edition BYOL.

Product	Description	Type	Price
Oracle Enterprise Data Quality on WebLogic	A full instance of EDQ, Oracle's data quality management software...	Type: Stack	BYOL
Oracle WebLogic Server Enterprise Edition BYOL	Accelerate WebLogic deployment in Oracle Cloud Infrastructure	Type: Stack	BYOL
Oracle WebLogic Suite BYOL	Accelerate WebLogic deployment in Oracle Cloud Infrastructure	Type: Stack	BYOL
Oracle WebLogic Server Standard Edition BYOL	Accelerate WebLogic deployment in Oracle Cloud Infrastructure	Type: Stack	BYOL
Oracle WebLogic Edition UCM	Accelerate WebLogic deployment in Oracle Cloud Infrastructure	Type: Stack	Paid
Oracle WebLogic Server Enterprise Edition UCM	Accelerate WebLogic deployment in Oracle Cloud Infrastructure	Type: Stack	Paid

Mantenemos la versión que se seleccione por defecto (12.2.1.4.x). Seleccionamos el Compartiment donde deseamos crear el Stack de Resource Manager que, tras el asistente, realizará el trabajo o Job de creación de la VM en el mismo Compartiment. Aceptamos los términos y condiciones y pulsamos “Launch Stack”.





Oracle WebLogic Server Enterprise Edition BYOL

Accelerate WebLogic deployment in Oracle Cloud Infrastructure

Quickly provision an Oracle WebLogic Server domain in Oracle Cloud Infrastructure for developing and deploying Java Enterprise Edition (Java EE) applications.

Categories: Application Development

Type Stack	Software Price per OCPU
Version	BYOL
WLS 12.2.1.4.2007...	(Bring Your Own License)
Compartments	There are additional fees for the infrastructure usage. ⓘ
Spatial	WebLogic (1000WEBCLOUDAUSqual)
<input checked="" type="checkbox"/> I have reviewed and accept the Oracle Standard Terms and Restrictions	
Launch Stack	

Overview

Provider

More Apps

Usage Instructions

App by Oracle

Oracle WebLogic Server provides a complete implementation of the Java EE specification, which includes a standard set of APIs for creating distributed Java applications that can access a wide variety of services, such as databases, messaging services, and enterprise systems. The first node hosts the administration server for the domain along with the first managed server. Each additional managed server is hosted on a separate node. You can also provision a load balancer in Oracle Cloud Infrastructure to distribute application traffic across the servers in your domain.

[Oracle WebLogic Server Enterprise Edition](#) includes clustering for high availability, and Oracle Java SE Advanced (Java Mission Control and Java Flight Recorder) for diagnosing problems.

Create a JRF-enabled domain if you want to build applications with Oracle Application Development Framework (ADF). An existing Oracle Cloud Infrastructure DB System or Oracle Autonomous Transaction Processing database is required in order to provision a JRF-enabled domain. All domains running Oracle WebLogic Server 11g must be JRF-enabled and use an existing DB System.

You can provision a new virtual cloud network (VCN) and subnets in Oracle Cloud Infrastructure, or you can use an existing VCN and subnets for the Oracle WebLogic Server domain and load balancer. By default the WebLogic Server subnet is public and accessible from external clients, but alternatively you can provision Oracle WebLogic Server in a private subnet.

You can configure a domain to use Oracle Identity Cloud Service for authentication. Administrators and users will be granted access to applications based on group membership in Identity Cloud Service.

Support

Contacts:

Support Hotline (1.800.668.8921)

Links:

[Guidelines to submit Support SR](#)

[Oracle Support](#)

Version Details

Version: 20.2.3

Release Date: Jul 15, 2020, 00:00 UTC

System Requirements

- If you are not an administrator, you must be able to create dynamic groups and policies
- You must be able to create stacks, compute instances, networks (optional), and load balancers (optional) in the selected compartment

Podemos dar un nombre, una descripción y añadir etiquetas al Stack para identificarlo. Pulsamos Next.



Create Stack

1 Stack Information

Configure Variables

Review

NAME OPTIONAL

Oracle WebLogic Server Enterprise Edition BYOL-20200727180201

DESCRIPTION OPTIONAL

CREATE IN COMPARTMENT

Spatial
wedoinfra (root)/WEDOLABS/Spatial

TERRAFORM VERSION

0.12.x

TAGS

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.

[Learn more about tagging](#)

TAG NAMESPACE	TAG KEY	VALUE	X
None (add a free-for...)			X

+ Additional Tag

[Next](#) [Cancel](#)

En este paso, detallamos los recursos a crear:

Resource Name Prefix	Prefijo con el que se desee identificar los recursos
WebLogic Server Shape	VM.Standard2.1 (más que suficiente)
SSH Public Key	La clave pública ligada a la clave privada con la que se accederá al servidor vía ssh
Weblogic Server Availability Domain	Cualquiera de los dominios disponibilidad vale
Weblogic Server Node	1
Weblogic Server Admin User Name	weblogic
Secret's Ocid for Weblogic Server Admin Password	Copiar y pegar el OCID del secreto anteriormente guardado.



Create Stack

Stack Information

Configure Variables

Review

WebLogic Server Instance

RESOURCE NAME PREFIX
CMM

The names of all compute and network resources will begin with this prefix. It can only contain letters or numbers and must begin with a letter.

WEBLOGIC SERVER SHAPE
VM.Standard2.1

The shape for all WebLogic Server compute instances

SSH PUBLIC KEY
yJeEt9+3ixTTFJeWH7xuBCXL+kOoZNrmgNiovwJssRMJiJxMJJB imported-openssh-key

Use the corresponding private key to access the WebLogic Server compute instances

WEBLOGIC SERVER AVAILABILITY DOMAIN
VrTN:EU-FRANKFURT-1-AD-1

The name of the availability domain in which to create the WebLogic Server compute instances

WEBLOGIC SERVER NODE COUNT
1

The initial number of WebLogic Server compute instances, and also the number of managed servers in the domain. The maximum is 8, except for 11g Standard Edition which is 4.

WEBLOGIC SERVER ADMIN USER NAME
weblogic

The name of the administrator in the WebLogic Server domain

SECRETS OCID FOR WEBLOGIC SERVER ADMIN PASSWORD
.1.bfpm7gl6aafak.abtheijrlesyodus72ccf3qzkgkuwmsou5rztxeq6te6psv5yaxnh5j2g7ma

Back

Next

Cancel

No es necesario realizar la configuración avanzada de WebLogic (podemos aceptar la configuración por defecto). Para la creación de la red podemos optar por utilizar una VCN existente (en la que está la base de datos de Spatial, por ejemplo) o crear una VCN nueva para la VM de WebLogic. En el primer caso deberemos asegurarnos de añadir reglas en la lista de seguridad de nuestra VCN para permitirlo, concretamente el siguiente tráfico:

Source	Protocol	Port
0.0.0.0	TCP	7002
0.0.0.0	TCP	7003
0.0.0.0	TCP	7004
0.0.0.0	TCP	22
<CIDR subred WebLogic> (xx.xx.3.0/24 por defecto)	TCP	All

En el segundo caso, deberemos crear un Local Peering Gateway (LPG) para conectar la VCN del entorno WebLogic con el del entorno Spatial DB.



Indicamos que queremos crear una nueva VCN en el Compartment adecuado. Elegimos un CIDR Block que no entre en conflicto con las demás VCNs y nos aseguramos de que el CIDR block de la subred para el servidor Weblogic coincida con el CIDR Block de la nueva VCN.

Stack Information

2 Configure Variables

3 Review

WebLogic Server Instance Advanced

WLS INSTANCE ADVANCED CONFIGURATION

WebLogic Server Network

NETWORK COMPARTMENT OPTIONAL

Spatial

The compartment where you want to create the network resources such as Virtual Cloud Network, security lists, route tables and gateways.

VIRTUAL CLOUD NETWORK STRATEGY

Create New VCN

Create or use existing VCN

WEBLOGIC SERVER NETWORK

wls_spatial_2

The name of the new Virtual Cloud Network (VCN) to create for this service

WEBLOGIC SERVER NETWORK CIDR OPTIONAL

10.99.0.0/16

The CIDR to assign to the new Virtual Cloud Network (VCN) to create for this service. This field is not required if you want to use an existing VCN. When using VCN peering ensure that the VCNs being peered have non-overlapping CIDR blocks.

SUBNET STRATEGY

[Back](#) [Next](#) [Cancel](#)



Create Stack

Stack Information

Configure Variables

Review

WEBLOGIC SERVER NETWORK

wls_spatial_2

The name of the new Virtual Cloud Network (VCN) to create for this service

WEBLOGIC SERVER NETWORK CIDR *OPTIONAL*

10.99.0.0/16

The CIDR to assign to the new Virtual Cloud Network (VCN) to create for this service. This field is not required if you want to use an existing VCN. When using VCN peering ensure that the VCNs being peered have non-overlapping CIDR blocks.

SUBNET STRATEGY

Create New Subnet

Create or use existing subnet

SUBNET TYPE

Use Public Subnet

Choose between private and public subnets

SUBNET SPAN

Regional Subnet

Choose between regional and AD specific subnets

WEBLOGIC SERVER SUBNET CIDR

10.99.3.0/24

The CIDR of the new subnet to create for WebLogic Server compute instances. This field is required only if you want to use an existing VCN. The new subnet's CIDR should not overlap with any other subnet CIDRs.

PROVISION LOAD BALANCER

Provision a load balancer in Oracle Cloud Infrastructure to distribute application traffic to the managed servers in the domain

[Back](#) [Next](#) [Cancel](#)

Todos los demás valores se pueden dejar por defecto, pulsamos Next y en la siguiente pantalla revisamos la configuración y pulsamos en Create Stack.



Create Stack

- [Stack Information](#)
- [Configure Variables](#)
- 3 Review**

Verify your configuration variables, and then create your stack. The apply job will automatically run to create resources specified in the configuration. Due to limited space, we show only variables without default values or that you edited.

Stack Information

Name ...105910 [Show](#) [Copy](#)

Description

Compartment ...oa2h6q [Show](#) [Copy](#)

Terraform version 0.12.x

WebLogic Server Instance

Resource Name Prefix CMM

WebLogic Server Shape VM.Standard2.1

SSH Public Key ...sh-key [Show](#) [Copy](#)

WebLogic Server Availability Domain VrTN:EU-FRANKFURT-1-AD-1

Secrets OCID for WebLogic Server ...j2g7ma [Show](#) [Copy](#)
Admin Password

WebLogic Server Network

[Back](#)

Create

[Cancel](#)

Automáticamente se nos llevará a la visualización del Stack recién creado donde podemos ejecutar las acciones de Terraform de Plan (para comprobar que se creará todo sin problemas) y Apply (para crear los recursos definidos en el asistente).

Resource Manager » Stacks » Stack Details

Oracle WebLogic Server Enterprise Edition BYOL-20200728105910

ACTIVE

Stack Information Tags Terraform Actions ▾ Delete Stack More Actions ▾

To connect to the application, click the Plan button.

Import State Destroy

View Usage Instructions

Description: Compartment: wedoinfra (root)/WEDOLABS/Spatial
OCID: ...3gnb2q [Show](#) [Copy](#) Terraform Configuration File (.zip): Uploaded [Upload New File](#) [Download](#)
Created: Tue, Jul 28, 2020, 09:24:51 UTC Terraform version: 0.12.x

Resources Jobs

Name	Type	State	Start Time	End Time
No items				

Showing 0 Jobs < Page 1 >



Como buena práctica, siempre es mejor ejecutar Plan en primer lugar.

Plan

NAME OPTIONAL

plan-job-20200728112734

TAGS OPTIONAL

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.

[Learn more about tagging](#)

TAG NAMESPACE	TAG KEY	VALUE
None (add a free-form tag)		

+ Additional Tag

Plan

Resource Manager » Stacks » Stack Details » Job Details

RMJ
IN PROGRESS

plan-job-20200728112734

Edit Job Download Terraform Configuration Cancel Job Add Tags

Job Information Tags

OCID: ...gipcoq Show Copy
Job Type: Plan
Working Directory: Not specified
End Time: N/A

Compartment: wedoinfra (root)/WEDOLABS/Spatial
State: In Progress
Start Time: Tue, Jul 28, 2020, 09:28:33 UTC

Resources Logs

Logs Variables

Resource Manager » Stacks » Stack Details » Job Details

RMJ
SUCCEEDED

ormjob20200707100923

Edit Job Download Terraform Configuration Download Terraform State Add Tags

Job Information Tags

To connect to the application running on this stack, see the Usage instructions. [View Usage Instructions](#)

OCID: ...zz7cca Show Copy
Job Type: Apply
State: Succeeded
Start Time: Tue, Jul 7, 2020, 10:09:23 UTC

Compartment: wedoinfra (root)/WEDOLABS/Spatial
Plan Job ID: Automatically approved
Working Directory: Not specified
End Time: Tue, Jul 7, 2020, 10:16:10 UTC

Resources Logs

Logs Variables Associated Resources Outputs View State

Haciendo scroll hacia el final del log, encontramos los detalles de conexión a WebLogic Server



```

Apply complete! Resources: 21 added, 0 changed, 0 destroyed.

Outputs:

Bastion_Instance =
Fusion_Middleware_Control_Console =
Is_VCN_Peered = false
Load_Balancer_Ip = [
  ""
]
Loadbalancer_Subnets_Id = []
Sample_Application = https://130.61.22.76:7004/sample-app
Sample_Application_protected_by_IDCS =
Virtual_Cloud_Network_CIDR = 10.30.0.0/16
Virtual_Cloud_Network_Id = ocid1.vcn.ocl.eu-frankfurt-1.aaaaaaaaaqtijsmaauamztrqskmbrirle6kmh2jcwiryo7ahuyufyoi6a
WebLogic_Server_Administration_Console = https://130.61.22.76:7002/console
Weblogic_Edition = SE
Weblogic_Instances = (
  "Instance Id": "ocid1.instance.ocl.eu-frankfurt-1.antheljrqtij3maczh4ny5oyvdd3k6fwavg37mczxhwccohqg5erofds5oa",
  "Instance name": "wl4spat-wis-0",
  "Private IP": "10.30.3.2",
  "Public IP": "130.61.22.76"
)
Weblogic_Subnet_Id = [
  "ocid1.subnet.ocl.eu-frankfurt-1.aaaaaaaaaxi62bdezdgmsqu7hn754cnix6pgwigou246mn5knncug6q5suq",
]
Weblogic_Version = 12.2.1.4 Standard Edition (Non JRF)

```

Estos detalles también los podemos encontrar en la pestaña de Outputs:

Key	Value
Bastion_Instance	"ocid1.vcn.ocl.eu-frankfurt-1.aaaaaaaaaqtijsmaauamztrqskmbrirle6kmh2jcwiryo7ahuyufyoi6a"
Is_VCN_Peered	false
Load_Balancer_Ip	[]
Loadbalancer_Subnets_Id	[]
Sample_Application	https://130.61.22.76:7004/sample-app

La consola de administración de Weblogic está disponible en <https://<<IP pública de la VM>>:7002/console>

Para que la VM de WebLogic pueda conectar con la VM de la base de datos de Spatial, sería necesario en este momento configurar un [Local Peering Gateway entre ambas VCNs](#). Ésto no se detalla en este documento.



Preparación de servicios a desplegar

Accedemos a la consola de administración de WebLogic y entramos con el usuario y la contraseña que hemos configurado (weblogic/Oracle_My_secure_pass- en nuestro caso).



The screenshot shows the Oracle WebLogic Server Administration Console 12c interface. The left sidebar includes a 'Change Center' section with 'View changes and restarts' and a 'Domain Structure' tree. A 'How do I...' section provides links for configuration tasks. The main content area has several tabs: 'Information and Resources', 'General Information', 'Resource Group Templates', 'Resource Groups', 'Deployed Resources', 'Services', 'Interoperability', 'Diagnostics', and 'Charts and Graphs'. Each tab lists specific configuration items or monitoring links.

En el menú de la izquierda, vamos, pulsamos el + a la izquierda de Services y hacemos click en Data Sources



ORACLE WebLogic Server Admin Console

The screenshot shows the Oracle WebLogic Server Admin Console interface. It includes:

- Change Center:** A panel with "View changes and restarts" and buttons for "Lock & Edit" and "Release Configuration".
- Domain Structure:** A tree view of the domain structure under "wls4spat_domain":
 - Domain Partitions
 - Environment
 - Deployments
 - Services
 - Messaging
 - Data Sources (selected)
 - Persistent Stores
 - Foreign JNDI
 - Work Contexts
 - XML Registries
 - XML Entity Caches
 - jCOM
 - Mail Sessions
- How do I...:** A list of options:
 - Search the configuration
 - Use the Change Center
 - Record WLST scripts
 - Change Console preferences
 - Manage Console extensions
 - Monitor servers
- System Status:** A summary of running servers:

Health of Running Servers as of 1:43 PM	
Failed (0)	
Critical (0)	
Overloaded (0)	
Warning (0)	
OK (2)	

Hacemos click en “Lock & Edit” para modificar la configuración de WebLogic y a continuación hacemos click en New → Generic Data Source



Change Center

View changes and restarts

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.

Lock & Edit

Release Configuration

Domain Structure

- wls4spat_domain
 - Domain Partitions
 - Environment
 - Deployments
 - Services
 - + Messaging
 - Data Sources
 - Persistent Stores
 - Foreign JNDI Providers
 - Work Contexts
 - XML Registries
 - XML Entity Caches
 - jCOM

Summary of JDBC Data Sources

Configuration Monitoring

A JDBC data source is an object bound to the JNDI tree that provides data access to an external database. This page summarizes the JDBC data source objects that have been created.

Customize this table

Data Sources (Filtered - More Columns Exist)

	New	Delete
Generic Data Source		
GridLink Data Source		
Multi Data Source		
Proxy Data Source		
UCP Data Source		

En la pestaña General, definimos lo siguiente:

Name	SPATIAL1
Scope	Global (por defecto)
JNDI Name	jdbc/spatial
Database Type	Oracle (por defecto)

Y pulsamos next

Create a New JDBC Data Source

Back | Next | Finish | Cancel

JDBC Data Source Properties

The following properties will be used to identify your new JDBC data source.

* Indicates required fields

What would you like to name your new JDBC data source?

Name: SPATIAL1

What scope do you want to create your data source in?

Scope: Global

What JNDI name would you like to assign to your new JDBC Data Source?

JNDI Name: jdbc/spatial

What database type would you like to select?

Database Type: Oracle

Back | Next | Finish | Cancel

En las siguientes 2 pantallas aceptamos los valores por defecto:

Create a New JDBC Data Source

Back | Next | Finish | Cancel

JDBC Data Source Properties

The following properties will be used to identify your new JDBC data source.

Database Type: Oracle

What database driver would you like to use to create database connections? Note: * indicates that the driver is explicitly supported by Oracle WebLogic Server.

Database Driver: *Oracle's Driver (Thin) for Service connections; Versions:Any

Back | Next | Finish | Cancel



Create a New JDBC Data Source

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Transaction Options

You have selected non-XA JDBC driver to create database connection in your new data source.

Does this data source support global transactions? If yes, please choose the transaction protocol for this data source.

Supports Global Transactions

Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the Logging Last Resource (LLR) transaction optimization. Recommended in place of Emulate Two-Phase Commit.

Logging Last Resource

Select this option if you want to enable non-XA JDBC connections from the data source to emulate participation in global transactions using JTA. Select this option only if your application can tolerate heuristic conditions.

Emulate Two-Phase Commit

Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the one-phase commit transaction processing. With this option, no other resources can participate in the global transaction.

One-Phase Commit

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

En el siguiente paso, introducimos lo siguiente (asegurar que el nombre de los campos coincide con los de la base de datos que ha creado en la primera parte del manual):

Database Name	spatialdb1
Host Name	pdb1.subnetxx.spatialvcn.oraclevcn.com (en realidad no importa lo que pongamos aquí pues lo cambiaremos en la pantalla final)
Port	1521
Database User Name	Spatial
Password	Oracle_My_secure_pass

Create a New JDBC Data Source

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Connection Properties

Define Connection Properties.

What is the name of the database you would like to connect to?

Database Name: spatialdb1

What is the name or IP address of the database server?

Host Name: clevcn.com

What is the port on the database server used to connect to the database?

Port: 1521

What database account user name do you want to use to create database connections?

Database User Name: spatial

What is the database account password to use to create database connections?

Password:

Confirm Password:

Additional Connection Properties:

oracle.jdbc.DRPCConnectionClass:

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

En la pantalla final, añadimos / modificamos lo siguiente (tener en cuenta que los campos URL, Database user name y password han de adaptarse a los datos de la bbdd):

Driver Class Name	oracle.jdbc.OracleDriver
URL	jdbc:oracle:thin:@//spatialdb1:1521/pdb1.subnet.spatialvcn.oraclevcn.com
Database User Name	spatial
Password	Oracle_My_secure_pass
Properties	user=spatial



Una vez introducidos estos valores, pulsamos en Test Configuration y comprobamos que todo está bien.

Puede darse el caso de que el nombre de la bbdd(spatialdb1) de problemas para resolverse, y haya de ser sustituido por la ip privada de la bbdd. Por otro lado, conviene revisar que todos los pasos de la comunicación entre vpn's a través de Local Peering Gateways se ha realizado de manera correcta. (Creación, modificación de Route Tables y security lists, etc).

The screenshot shows the 'Test Database Connection' dialog box. At the top, there is a message 'Connection test succeeded' with a green checkmark icon. Below this, the title is 'Create a New JDBC Data Source'. The 'Test Configuration' tab is selected, while 'Back', 'Next', 'Finish', and 'Cancel' buttons are visible. The 'Driver Class Name' field contains 'oracle.jdbc.OracleDriver'. The 'URL' field contains 'jdbc:oracle:thin:@//spatialdb1:1521/pdb1.sub05271623'. The 'Database User Name' field contains 'spatial'. The 'Password' and 'Confirm Password' fields both contain masked text. The 'Properties' field contains 'user=spatial'. At the bottom right of the dialog, there is a 'Close' button.

Web services: geocoder y Spatial Studio

Ahora podemos pasar a desplegar las aplicaciones necesarias para usar Spatial Studio:

- geotech.ear
- sgtech.ear

Ambas aplicaciones pueden ser descargadas del siguiente enlace:

[Web Services Spatial](#)

Si se descargan los .ear del enlace anterior, no es necesario realizar ninguna modificación. Si se obtiene geocoder.ear de otra fuente hay que asegurarse que esté utilizando la fuente de datos previamente configurada además de desactivar un componente innecesario (Lucene) que puede causar problemas en el despliegue.

Modificaciones a geocoder.ear

El fichero a modificar es geocoder.ear/web.war/WEB-INF/config/geocodercfg.xml.

Lo primero es modificar el parámetro `geocoderluceneavailability` de true a false.

```
<geocoderluceneavailability>false</geocoderluceneavailability>
<geocoderlucenenpath>GEOCODER_LUCENE_INDEX_PATH</geocoderlucenenpath>
```

Lo siguiente es especificar la fuente de datos previamente configurada localizando las siguientes líneas en el fichero y asegurarse que el datasource es jdbc/spatial1.

```
<geocoder>
    <database container_ds="jdbc/spatial1"
        load_db_parser_profiles="true" />
```



```
</geocoder>
```

Despliegue Geocoder y Spatial Studio

Hay 2 formas de desplegar los Web Services. Una es cargando los .ear vía SCP a la VM Linux donde está WebLogic. También es posible subir los .ear directamente desde un navegador web. De esta forma, los .ear quedarán subidos a la ubicación /u01/data/domains/wls4spat_domain/servers/wls4spat_adminserver/upload/sgtech-wls-optimized.ear/app.

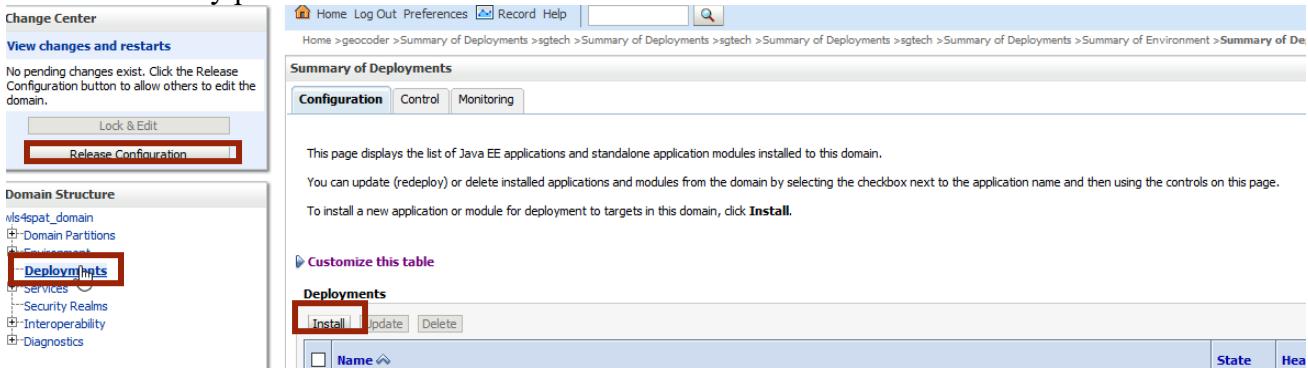
En cualquier caso, los pasos a seguir son prácticamente los mismos.

En este caso, lo hemos hecho cargando vía SCP a la VM Linux. Para ello, nos hemos conectado a la máquina de bbdd donde hemos importado los ficheros en la parte inicial del documento y se ha buscado el fichero geocoder.ear.zip.

Esta aplicación, habría que moverla a la máquina desplegada con el servidor weblogic.

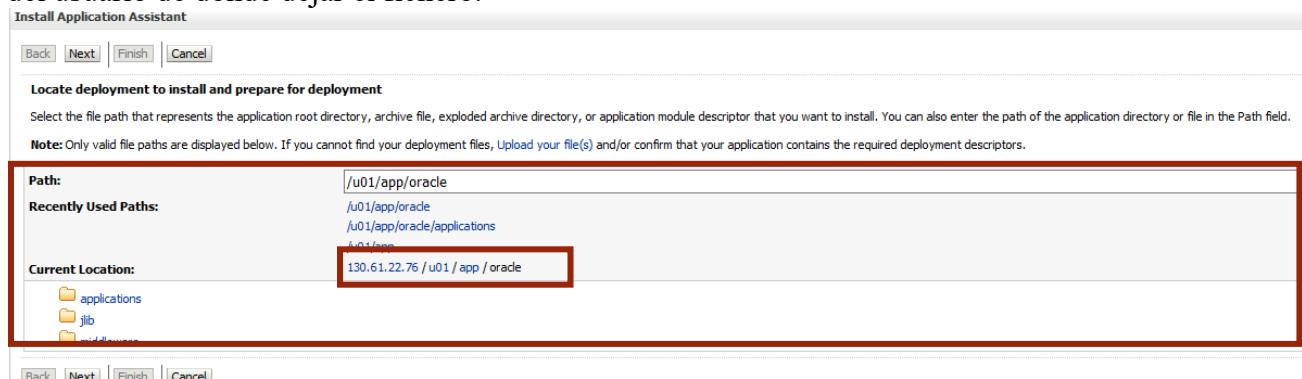
Se podría crear una ruta tmp/app donde almacenar dicha aplicación. Para realizar las modificaciones se ha de descomprimir el fichero geocoder.ear.zip. Posteriormente hay que hacer las modificaciones al fichero geocodercfg.xml(explicadas en el paso anterior: ‘Modificaciones a geocoder.ear’).

Navegamos hacia Deployments, nos aseguramos que hemos pulsado en Lock & Edit para realizar modificaciones y pulsamos en Install.



The screenshot shows the Oracle WebLogic Server Administration Console. In the top left, there's a 'Change Center' section with 'View changes and restarts' and a note about pending changes. Below it is a 'Domain Structure' tree with 'wls4spat_domain' expanded, showing 'Domain Partitions', 'Environment', and 'Deployments' (which is selected and highlighted with a red box). On the right, the 'Summary of Deployments' page is displayed. It has tabs for 'Configuration', 'Control', and 'Monitoring'. The 'Configuration' tab is active. A message says: 'This page displays the list of Java EE applications and standalone application modules installed to this domain. You can update (redeploy) or delete installed applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page. To install a new application or module for deployment to targets in this domain, click **Install**'. Below this is a table titled 'Deployments' with columns 'Name', 'State', and 'Hea'. At the bottom of the page, there's a 'Customize this table' link and a 'Deployments' toolbar with 'Install', 'Update', and 'Delete' buttons. The URL in the browser is: Home > geocoder > Summary of Deployments > sgtech > Summary of Deployments > sgtech > Summary of Deployments > sgtech > Summary of Environment > Summary of Deployments.

Si hemos cargado los .ear mediante SCP a la VM, podremos localizarlo en la navegación inferior. Si no, podemos hacer click en el enlace que nos permitirá subirlos desde el navegador. En este caso lo localizamos mediante la navegación inferior, teniendo en cuenta que la ruta dependerá de la elección del usuario de dónde dejar el fichero.



The screenshot shows the 'Locate deployment to install and prepare for deployment' step of the 'Install Application Assistant'. It has buttons for 'Back', 'Next', 'Finish', and 'Cancel'. The 'Path:' field is set to '/u01/app/oracle'. Below it is a 'Recently Used Paths:' list with three items: '/u01/app/oracle', '/u01/app/oracle/applications', and '/u01/app'. To the right of the path fields is a 'Current Location:' dropdown menu with the value '130.61.22.76 / u01 / app / oracle' (also highlighted with a red box). At the bottom of the page, there's a 'Locate deployment to install and prepare for deployment' toolbar with 'Back', 'Next', 'Finish', and 'Cancel' buttons. The URL in the browser is: Home > geocoder > Summary of Deployments > sgtech > Summary of Deployments > sgtech > Summary of Deployments > sgtech > Summary of Environment > Summary of Deployments.

Vamos a optar por cargar los ficheros desde la VM. Hacemos click en la ruta seleccionada y navegamos hasta donde tenemos el fichero en la máquina virtual.



Una vez navegado hasta la ruta del fichero, lo seleccionamos y pulsamos Next.

Mantenemos la opción por defecto **Install this deployment as an application** y pulsamos Next

Seleccionamos el servidor gestionado **wls4spat_server_1** como destino del despliegue y pulsamos Next.

En la siguiente pantalla seleccionamos la opción **I will make the deployment accessible from the following location**, revisamos la configuración y pulsamos Next.



The screenshot shows the Oracle WebLogic Server Administration Console interface. On the left, there's a sidebar with sections like 'Security Realms', 'Interoperability', 'Diagnostics', 'How do I...', 'System Status' (showing 5:01 PM), and 'Change Center' (with a note about pending changes). The main area is titled 'Security' and contains options for security models. A red box highlights the radio button 'I will make the deployment accessible from the following location'. Below it, the 'Location' field is set to '/u01/data/app/geocoder.ear'. Another red box highlights the radio button 'Use the same accessibility as the application' under 'Plan Source Accessibility'. At the bottom, there's a summary table for 'Target Summary'.

Llegamos a la pantalla final, donde tenemos un resumen de la configuración. Se revisa y se pulsa Finish.

This screenshot shows the 'Install Application Assistant' screen. It includes a 'Review your choices and click Finish' section, an 'Additional Configuration' section (with a note about required configuration), and a 'Summary' section. Under 'Deployment', the 'Name' is 'geocoder-1', 'Staging Mode' is 'I will make the deployment accessible at /u01/data/app/geocoder.ear', and 'Plan Staging Mode' is 'Use the same accessibility as the application'. The 'Security Model' is 'DDOnly: Use only roles and policies that are defined in the deployment descriptors.' The 'Scope' is 'Global'. The 'Target Summary' table shows 'geocoder.ear' in the Components column and 'CMM_server_1' in the Targets column.



Install Application Assistant

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Optional Settings

You can modify these settings or accept the defaults.
* Indicates required fields

General

What do you want to name this deployment?

* Name:

Security

What security model do you want to use with this application?

DD Only: Use only roles and policies that are defined in the deployment descriptors.

Custom Roles: Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.

Custom Roles and Policies: Use only roles and policies that are defined in the Administration Console.

Advanced: Use a custom model that you have configured on the realm's configuration page.

Source Accessibility

How should the source files be made accessible?

Use the defaults defined by the deployment's targets

Recommended selection.

Copy this application onto every target for me

During deployment, the files will be copied automatically to the Managed Servers to which the application is targeted.

I will make the deployment accessible from the following location

Location:

Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.

Plan Source Accessibility

How should the plan source files be made accessible?

Use the same accessibility as the application

Recommended selection.

Copy this plan onto every target for me

During deployment, the plan files will be copied automatically to the Managed Servers to which the application is targeted.

Do not copy this plan to targets

You must ensure the plan files exist in the shared location and that each target can reach the location.

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Install Application Assistant

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Review your choices and click Finish

Click Finish to complete the deployment. This may take a few moments to complete.

Additional Configuration

In order to work successfully, this application may require additional configuration. Do you want to review this application's configuration after completing this assistant?

Yes, take me to the deployment's configuration screen.

No, I will review the configuration later.

Summary

Deployment:

Name: geocoder-1

Staging Mode: Use the defaults defined by the chosen targets

Plan Staging Mode: Use the same accessibility as the application

Security Model: DOOnly: Use only roles and policies that are defined in the deployment descriptors.

Scope: Global

Target Summary

Components	Targets
geocoder.ear	wls4spat_server_1

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Para el caso del otro ear, podríamos subirlo desde el navegador, en vez de hacerlo vía scp.
 Los pasos a seguir son muy similares a los anteriores:
 Hacemos click en ‘upload your file’



Install Application Assistant

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Locate deployment to install and prepare for deployment

Select the file path that represents the application root directory, archive file, exploded archive directory, or application module descriptor that you want to install. You can also enter the path of the application directory or file in the Path field.

Note: Only valid file paths are displayed below. If you cannot find your deployment files, [Upload your file\(s\)](#) and/or confirm that your application contains the required deployment descriptors.

Path:	/u01/app/oracle
Recently Used Paths:	/u01/app/oracle /u01/app/oracle/applications /u01/app
Current Location:	130.61.22.76 / u01 / app / oracle
 applications  jib 	

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Hacemos click en Browse.. (la opción de arriba).

Install Application Assistant

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Upload a deployment to the Administration Server

Click the Browse button below to select an application or module on the machine from which you are currently browsing. When you have located the file, click the Next button to upload this deployment to the Administration Server.

Deployment Archive: No file selected.

Upload a deployment plan (this step is optional)

A deployment plan is a configuration which can supplement the descriptors included in the deployment archive. A deployment will work without a deployment plan, but you can also upload a deployment plan archive now. This deployment plan archive will be a directory of configuration information packaged as a .jar file. See related links for additional information about deployment plans.

Deployment Plan: No file selected.

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Navegamos hacia donde se encuentra el .ear y una vez cargado pulsamos Next.

Install Application Assistant

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Upload a deployment to the Administration Server

Click the Browse button below to select an application or module on the machine from which you are currently browsing. When you have located the file, click the Next button to upload this deployment to the Administration Server.

Deployment Archive: geocoder.ear

Upload a deployment plan (this step is optional)

A deployment plan is a configuration which can supplement the descriptors included in the deployment archive. A deployment will work without a deployment plan, but you can also upload a deployment plan archive now. This deployment plan archive will be a directory of configuration information packaged as a .jar file. See related links for additional information about deployment plans.

Deployment Plan: No file selected.

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

En la siguiente ventana pulsamos Next.

Messages

The file geocoder.ear has been uploaded successfully to /u01/data/domains/wls4spat_domain/servers/wls4spat_adminserver/upload

Install Application Assistant

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Locate deployment to install and prepare for deployment

Select the file path that represents the application root directory, archive file, exploded archive directory, or application module descriptor that you want to install. You can also enter the path of the application directory or file in the Path field.

Note: Only valid file paths are displayed below. If you cannot find your deployment files, [Upload your file\(s\)](#) and/or confirm that your application contains the required deployment descriptors.

Path:	/u01/data/domains/wls4spat_domain/servers/wls4spat_adminserver/upload/geocoder.ear/app/geocoder.ear
Recently Used Paths:	/u01/app/oracle /u01/app/oracle/applications /u01/app
Current Location:	130.61.22.76 / u01 / data / domains / wls4spat_domain / servers / wls4spat_adminserver / upload / geocoder.ear / app
 geocoder.ear	

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Mantenemos la opción por defecto **Install this deployment as an application** y pulsamos Next



Install Application Assistant

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Choose installation type and scope

Select if the deployment should be installed as an application or library. Also decide the scope of this deployment.

The application and its components will be targeted to the same locations. This is the most common usage.

[Install this deployment as an application](#)

Application libraries are deployments that are available for other deployments to share. Libraries should be available on all of the targets running their referencing applications.

[Install this deployment as a library](#)

Select a scope in which you want to install the deployment.

Scope: [Global](#) ▾

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Seleccionamos el servidor gestionado **wls4spat_server_1** como destino del despliegue y pulsamos Next.

Install Application Assistant

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Select deployment targets

Select the servers and/or clusters to which you want to deploy this application. (You can reconfigure deployment targets later).

Available targets for geocoder-1 :

Servers
<input type="checkbox"/> wls4spat_adminserver
<input checked="" type="checkbox"/> wls4spat_server_1

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

En la siguiente pantalla aceptamos todos los valores por defecto, revisamos la configuración y pulsamos Finish.



Install Application Assistant

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Optional Settings

You can modify these settings or accept the defaults.
* Indicates required fields

General

What do you want to name this deployment?

* Name:

Security

What security model do you want to use with this application?

DD Only: Use only roles and policies that are defined in the deployment descriptors.

Custom Roles: Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.

Custom Roles and Policies: Use only roles and policies that are defined in the Administration Console.

Advanced: Use a custom model that you have configured on the realm's configuration page.

Source Accessibility

How should the source files be made accessible?

Use the defaults defined by the deployment's targets

Recommended selection.

Copy this application onto every target for me

During deployment, the files will be copied automatically to the Managed Servers to which the application is targeted.

I will make the deployment accessible from the following location

Location:

Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.

Plan Source Accessibility

How should the plan source files be made accessible?

Use the same accessibility as the application

Recommended selection.

Copy this plan onto every target for me

During deployment, the plan files will be copied automatically to the Managed Servers to which the application is targeted.

Do not copy this plan to targets

You must ensure the plan files exist in the shared location and that each target can reach the location.

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Install Application Assistant

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Review your choices and click Finish

Click Finish to complete the deployment. This may take a few moments to complete.

Additional Configuration

In order to work successfully, this application may require additional configuration. Do you want to review this application's configuration after completing this assistant?

Yes, take me to the deployment's configuration screen.

No, I will review the configuration later.

Summary

Deployment:

Name:

Staging Mode: Use the defaults defined by the chosen targets

Plan Staging Mode: Use the same accessibility as the application

Security Model: DDOOnly: Use only roles and policies that are defined in the deployment descriptors.

Scope: Global

Target Summary

Components	Targets
geocoder.ear	wls4spat_server_1

[Back](#) | [Next](#) | [Finish](#) | [Cancel](#)

Una vez repetido el proceso, hay que asegurarse de que los despliegues estén en estado **Active**. En caso de que no sea así, hacemos click en el servicio (Por ejemplo geocoder.ear), y accedemos a la pestaña '**Control**'. Una vez en esa pestaña, seleccionamos el servicio y clicamos en '**Start**'.



Summary of Deployments

[Configuration](#) | [Control](#) | [Monitoring](#)

This page displays the list of Java EE applications and standalone application modules installed to this domain. You can update (redeploy) or delete installed applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page. To install a new application or module for deployment to targets in this domain, click **Install**.

[Customize this table](#)

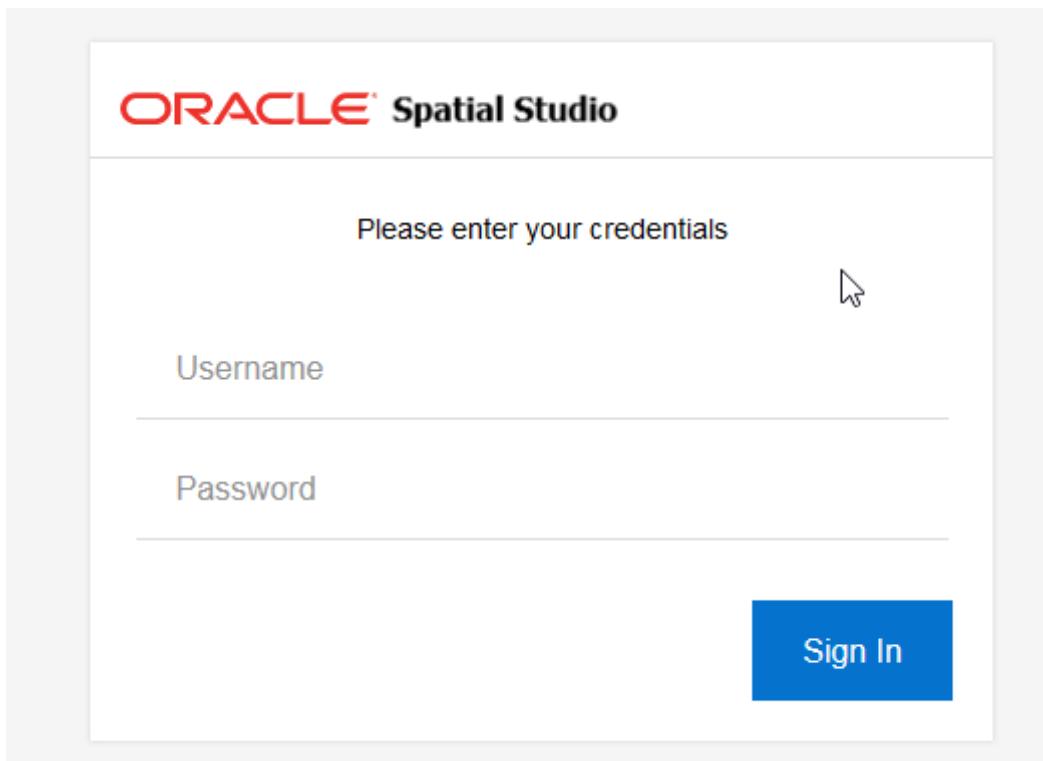
Deployments

Install Update Delete	Name	State	Health	Type	Targets	Scope	Domain Partitions	Deployment Order
<input type="checkbox"/>	geocoder	Active	✓ OK	Enterprise Application	wls4spat_server_1	Global		100
<input type="checkbox"/>	sample-app	Active	✓ OK	Web Application	wls4spat_server_1	Global		100
<input type="checkbox"/>	sqtech	Active	✓ OK	Enterprise Application	wls4spat_server_1	Global		100

[Install](#) | [Update](#) | [Delete](#)

Showing 1 to 3 of 3 Previous | Next

Ahora podremos acceder a Spatial studio desde la url <https://<IP del servidor>:<puerto del servidor gestionado>/spatialstudio>.



Podemos acceder con el usuario administrador de WebLogic y su contraseña (weblogic/Oracle_My_secure_pass- en este ejemplo). Los usuarios son gestionados desde WebLogic por lo que para añadir nuevos usuarios debe hacerse desde la configuración de seguridad de WebLogic (no cubierto en este documento).

ORACLE Spatial Studio

[Create](#)

[Projects](#)

Projects

No items to display.

Published projects

No items to display.



Para comprobar que el servicio de geocoding está desplegado correctamente, se podría hacer el siguiente test:

Webservice Routing

El servicio de cálculo de rutas usa la cartografía cargada en los pasos previos de este manual. Este servicio depende del servicio de geocoding cuando se solicite un cálculo de una ruta donde los puntos de partida y llegada sean direcciones postales en lugar de posiciones geocodificadas, por ello es recomendable instalar previamente el servicio de geocoding, ya que la URL de acceso a este servicio se configura durante la instalación del servicio de routing.

NOTA: Este servicio requiere de suficientes recursos de CPU y memoria para funcionar. Es necesario ajustar los parámetros de memoria de Weblogic en \$DOMAIN_HOME/bin/setDomainEnv.sh asignando como mínimo 8GB a la JVM

```
WLS_MEM_ARGS_64BIT="-Xms2g -Xmx8g"
```

El ear de instalación se puede encontrar en la instalación de la base de datos en el siguiente path: \$ORACLE_HOME/md/jlib/ routeserver.ear.zip

Se copia este zip a la máquina del Weblogic, donde se supone que ya está instalado el geocoder y por lo tanto existe un datasource definido que conecta con la base de datos que contiene la cartografía. En este manual el nombre de ese datasource es jdbc/spatial1

Una vez copiado routeserver.ear.zip en la ruta /u01/app y descomprimido (por seguir el mismo procedimiento usado en el caso del geocoder), es necesario hacer algunos ajustes en web.xml

```
[oracle@wls4spat-wls-0 routeserver.ear]$ pwd  
/u01/app/routeserver.ear  
[oracle@wls4spat-wls-0 routeserver.ear]$ vi web.war/WEB-INF/web.xml
```

El primer parámetro a configurar es container_ds, que debe apuntar al datasource previamente definido en la instalación de geocoder (también puede definirse uno distinto para cada servicio).

```
<init-param>  
  <param-name>container_ds</param-name>  
  <param-value>jdbc/spatial1</param-value>  
</init-param>
```

Los parámetros: routeserver_schema_jdbc_connect_string, routeserver_schema_username y routeserver_schema_password deben estar vacíos, ya que con el parámetro container_ds es suficiente.

El siguiente parámetro para configurar es routeserver_network_name, que se creó en la Tarea 2 posterior a la importación de los datos de la cartografía con el paquete SDO_ROUTER_PARTITION.CREATE_ROUTER_NETWORK:

```
<init-param>
```



```

<param-name>routesserver_network_name</param-name>
<param-value>RN_ODF_EU_Q120</param-value>
</init-param>

```

A continuación se configura la integración con el servicio de geocoding con los siguientes parámetros:

```

<init-param>
    <param-name>geocoder_type</param-name>
    <param-value>httpclient</param-value>
</init-param>
<init-param>
    <param-name>geocoder_http_url</param-name>
    <param-value>http://10.30.3.2:7003/geocoder/gcserver</param-value>
</init-param>

```

En este caso los dos servicios están en el mismo weblogic, se escoge la modalidad de httpclient, y no es necesario configurar proxies.

Despliegue Routerserver

Ahora, desde la consola en el menú de Deployments, pulsamos en Install:

Name	State	Health	Type	Targets	Scope	Domain Partitions	Deployment Order
geocoder	Active	OK	Enterprise Application	wls4spat_server_1	Global		100
sample-app	Active	OK	Web Application	wls4spat_server_1	Global		100
sgtech		Failed	Enterprise Application	wls4spat_server_1	Global		100



En el asistente de instalación de aplicaciones, si es necesario se posiciona en la carpeta /u01/app donde se descomprimió routerserver.ear y se selecciona esta carpeta y se pulsa Next:

The screenshot shows the 'Install Application Assistant' step of the deployment wizard. The 'Path:' field is set to '/u01/app/routerserver.ear'. In the file tree, 'routerserver.ear' is selected and highlighted with a red box. The 'Next' button at the bottom is also highlighted with a red box.

En la siguiente pantalla, nos aseguramos de que se instala como aplicación (no como librería):

The screenshot shows the 'Choose installation type and scope' step. The 'Install this deployment as an application' option is selected and highlighted with a red box. The 'Scope:' dropdown is set to 'Global'. The 'Next' button at the bottom is highlighted with a red box.

A continuación se selecciona el managed server donde se quiere desplegar la aplicación:



The screenshot shows the Oracle WebLogic Server Administration Console 12c. On the left, there's a sidebar with 'Domain Structure' showing nodes like 'wls4spat_domain', 'Domain Partitions', 'Environments', 'Deployments', etc. Below it is a 'How do I...' section with links for starting/stopping applications, configuring them, creating deployment plans, targeting them to servers, and testing modules. The main area is titled 'Install Application Assistant' and is at step 2: 'Select deployment targets'. It lists 'Servers' with 'wls4spat_adminserver' and 'wls4spat_server_1'. 'wls4spat_server_1' has a checked checkbox and is highlighted with a red box. At the bottom are 'Back', 'Next' (highlighted with a red box), 'Finish', and 'Cancel' buttons.

En el siguiente paso, se escoge la opción de que la aplicación está disponible ya en la ruta donde se descomprimió previamente:

The screenshot shows the Oracle WebLogic Server Administration Console 12c. On the left, there's a sidebar with 'Domain Structure' showing nodes like 'wls4spat_domain', 'Domain Partitions', 'Environments', 'Deployments', etc. Below it is a 'How do I...' section with links for starting/stopping applications, configuring them, creating deployment plans, targeting them to servers, and testing modules. The main area shows a deployment named 'routeserver' with various tabs like General, Security, Source Accessibility, and Target. Under 'Source Accessibility', it asks 'How should the source files be made accessible?'. There are three options: 'Use the defaults defined by the deployment's targets' (radio button is off), 'Copy this application onto every target for me' (radio button is off), and 'I will make the deployment accessible from the following location' (radio button is selected and highlighted with a red box). The 'Location' field contains the path '/u01/app/routeserver.ear'.

La aplicación debería desplegarse sin errores y ya se puede pulsar ‘Activate Changes’ y bloquear la configuracion:



ORACLE WebLogic Server Administration Console 12c

Change Center

View changes and restarts

Pending changes exist. They must be activated to take effect.

Domain Structure

- wls4spat_domain
 - Domain Partitions
 - Partition Work Managers
 - Environment
 - Deployments**
 - Services
 - Security Realms
 - Interoperability
 - Diagnostics

How do I...

- Install an enterprise application
- Configure an enterprise application
- Update (redeploy) an enterprise application
- Monitor the modules of an enterprise application
- Deploy EJB modules
- Install a Web application

Summary of Deployments

Configuration Control Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain. You can update (redeploy) or delete installed applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page. To install a new application or module for deployment to targets in this domain, click **Install**.

Customize this table

Deployments

Install	Update	Delete	Showing 1 to 4 of 4 Previous Next						
	Name	State	Health	Type	Targets	Scope	Domain Partitions	Deployment Ord.	
<input type="checkbox"/>	geocoder	Active	OK	Enterprise Application	wls4spat_server_1	Global		100	
<input type="checkbox"/>	routeserver	distribute	Initializing	Enterprise Application	wls4spat_server_1	Global		100	

Este es el estado final tras completar el despliegue:

ORACLE WebLogic Server Administration Console 12c

Change Center

View changes and restarts

Click the **Lock & Edit** button to modify, add or delete items in this domain.

Lock & Edit

Release Configuration

Domain Structure

- wls4spat_domain
 - Domain Partitions
 - Partition Work Managers
 - Environment
 - Deployments**
 - Services
 - Security Realms
 - Interoperability
 - Diagnostics

How do I...

- Install an enterprise application
- Configure an enterprise application
- Update (redeploy) an enterprise application
- Monitor the modules of an enterprise application

Summary of Deployments

Configuration Control Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain. You can update (redeploy) or delete installed applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page. To install a new application or module for deployment to targets in this domain, click **Install**.

Customize this table

Deployments

Install	Update	Delete	Showing 1 to 4 of 4 Previous Next						
	Name	State	Health	Type	Targets	Scope	Domain Partitions	Deployment Ord.	
<input type="checkbox"/>	geocoder	Active	OK	Enterprise Application	wls4spat_server_1	Global		100	
<input type="checkbox"/>	routeserver	Prepared	OK	Enterprise Application	wls4spat_server_1	Global		100	

La página principal de la aplicación de muestra y se puede hacer pruebas usando algunos ejemplos proporcionados.





Oracle Spatial and Graph RouteServer

RouteServer Demo

Route Requests

[Route Requests using un-geocoded addresses](#)

[Route Requests using pre-geocoded addresses](#)

[Route Requests using Latitude and Longitude](#)

Batch Route Requests

[Batch Route Requests using un-geocoded addresses](#)

[Batch Route Requests using pre-geocoded addresses](#)

[Batch Route Requests using Latitude and Longitude](#)

VM con Spatial Studio pre-instalado

Utilizamos el buscador para encontrar la VM con Spatial Studio

The screenshot shows the Oracle Cloud Marketplace interface. A search bar at the top contains the text 'spatial studio'. Below the search bar, there is a sidebar with filters for 'All Applications', 'Deployed Applications', 'Filters' (with dropdowns for 'TYPE', 'PUBLISHER', 'CATEGORY', and 'PRICE'), and a 'clear' button. The main area displays search results under 'All Applications'. The first result, 'Oracle Spatial Studio', is highlighted with a red box. Other results include 'Oracle Spatial Studio - Quick Start', 'UiPath Robot + Studio', and 'Visual Studio Code Remote Workstation'.

Indicamos el Compartiment donde queremos instanciar esta VM y aceptamos los términos y condiciones. Clicamos en 'Launch Stack'.



Oracle Spatial Studio

ORACLE
Spatial Studio

Spatial Analytics and Maps. Fast and Easy.

Oracle Spatial Studio is a self-service web application that makes it easy for users to create interactive maps and perform spatial analysis on their business data.

Categories: Packaged Application, Analytics, Packaged Application

Type Stack: 19.2.0-2GA - default

Compartiment: Choose...

Software Price per OCPU: BYOL (Bring Your Own License)

I have reviewed and accept the [Oracle Standard Terms and Restrictions](#).

Launch Stack

Overview**Provider****More Apps****Usage Instructions****App by Oracle**

Oracle Spatial Studio, also referred to as Spatial Studio, is a multiuser Java EE application that lets you connect with, visualize, explore, and analyze geospatial data stored in and managed by Oracle Spatial and Graph.

Spatial Studio is included as a deployable application with all Database editions/cloud plans.

This Marketplace app provides Spatial Studio deployed to a WebLogic Server Standard Edition.

[Bring Your Own License](#) (BYOL) enables you to bring your on-premises [Oracle WebLogic Server Standard Edition](#) licenses to Oracle Cloud.

Note: Spatial Studio is not the Spatial and Graph Map Visualization Component (formerly called "MapViewr"), which is not an end-user "tool" but rather a separate and distinct component.

Screenshots

A continuación, rellenamos la información básica para identificar el servidor (Nombre, Descripción y Tags) y pulsamos en Next.

Create Stack

- 1 Stack Information
- 2 Configure Variables
- 3 Review

Your application will launch as part of a stack that includes the infrastructure resources required to ensure that the application deploys and runs properly.

NAME OPTIONAL

Oracle Spatial Studio-20200724111020

DESCRIPTION OPTIONAL

CREATE IN COMPARTMENT

CarlosMartin

interactivetech (root)/SOUTH/CarlosMartin

TERRAFORM VERSION

0.11.x

TAGS

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.

[Learn more about tagging](#)

TAG NAMESPACE

TAG KEY

VALUE

None (add a free-for-			X
-----------------------	--	--	---

Next**Cancel**

Finalmente, seleccionamos el shape de la VM y copiamos nuestra clave pública para acceder por SSH al servidor una vez esté arrancado. También seleccionamos el Dominio de Disponibilidad que deseemos y pulsamos en Next.

Create Stack

Stack Information

Configure Variables

Review

Configure the variables for the infrastructure resources that this stack will create when you run the apply job for this execution plan.

Spatial Studio Compute Instance

RESOURCE NAME PREFIX
sgtech

The names of all compute and network resources will begin with this prefix. It can only contain letters or numbers and must begin with a letter.

WEBLOGIC SERVER INSTANCE SHAPE
VM.Standard2.1

The shape for the Spatial Studio WebLogic Server compute instance

SSH PUBLIC KEY
iSQrr3TgULvf8TmeMx/fbbbJoNSNHfnMolw3lu/7s6HAevB7F cammarti@cammarti-linux

Use the corresponding private key to access the Server compute instance

SERVER AVAILABILITY DOMAIN
UAOc:EU-FRANKFURT-1-AD-1

The name of the availability domain in which to create the WebLogic Server compute instance

Instance Network

NETWORK COMPARTMENT OPTIONAL
CarlosMartin

The compartment where you want to create the network resources such as Virtual Cloud Network, security lists,

Back Next Cancel

Revisamos y aceptamos la configuración y automáticamente se creará un nuevo Stack del Resource Manager y se creará automáticamente un Job de Apply. En otras palabras, Resource Manager va a crear el recurso que hemos especificado en la configuración.



☰ ORACLE Cloud Applications > Search for resources, services, and documentation Germany Central (Frankfurt) ⓘ 🔍 ⓘ ⚙️

Resource Manager » Stacks » Stack Details » Job Details

ormjob20200724091233

SUCCEEDED

RMJ

Edit Job Download Terraform Configuration Download Terraform State Add Tags

Job Information Tags Application Information

To connect to the application running on this stack, see the Usage Instructions. View Usage Instructions

OCID: ...brwc6a Show Copy
Job Type: Apply
State: Succeeded
Start Time: Fri, Jul 24, 2020, 09:12:33 UTC

Compartment: interactivetech (root)/SOUTH/CarlosMartin
Plan Job ID: Automatically approved
Working Directory: Not specified
End Time: Fri, Jul 24, 2020, 09:20:39 UTC

Resources

Logs

Download Logs Show Timestamps

```
Initializing modules...
- module.subscription
  Getting source "./modules/subscription"
- module.computekeygen
  Getting source "./modules/compute/keygen"
- module.networkvnic
  Getting source "./modules/network/vnic"
```

Logs

Download Logs Show Timestamps

```
Initializing modules...
- module.subscription
  Getting source "./modules/subscription"
- module.computekeygen
  Getting source "./modules/compute/keygen"
- module.networkvnic
  Getting source "./modules/network/vnic"
```

Tras unos 5 minutos, el trabajo finalizará y al final del log (debemos hacer scroll) encontraremos los detalles de conexión a Spatial Studio y la consola de Administración de Weblogic.

Apply complete! Resources: 12 added, 0 changed, 0 destroyed.

Outputs:

```
instance_name = sgtech
instance_ocid = ocid1.instance.oc1.eu-frankfurt-1xxxxxxxxxxxxxx
private_ip = 10.0.0.2
public_ip = x.x.x.x
spatial_studio_public_url = https://x.x.x.x:8001/spatialstudio
wls_console_public_url = https://x.x.x.x:7002/console
```

También podemos acceder a estos detalles navegando a Outputs.

☰ ORACLE Cloud Applications > Search for resources, services, and documentation Germany Central (Frankfurt) ⓘ 🔍 ⓘ ⚙️

Resource Manager » Stacks » Stack Details » Job Details

ormjob20200724091233

SUCCEEDED

RMJ

Edit Job Download Terraform Configuration Download Terraform State Add Tags

Job Information Tags Application Information

To connect to the application running on this stack, see the Usage Instructions. View Usage Instructions

OCID: ...brwc6a Show Copy
Job Type: Apply
State: Succeeded
Start Time: Fri, Jul 24, 2020, 09:12:33 UTC

Compartment: interactivetech (root)/SOUTH/CarlosMartin
Plan Job ID: Automatically approved
Working Directory: Not specified
End Time: Fri, Jul 24, 2020, 09:20:39 UTC

Resources

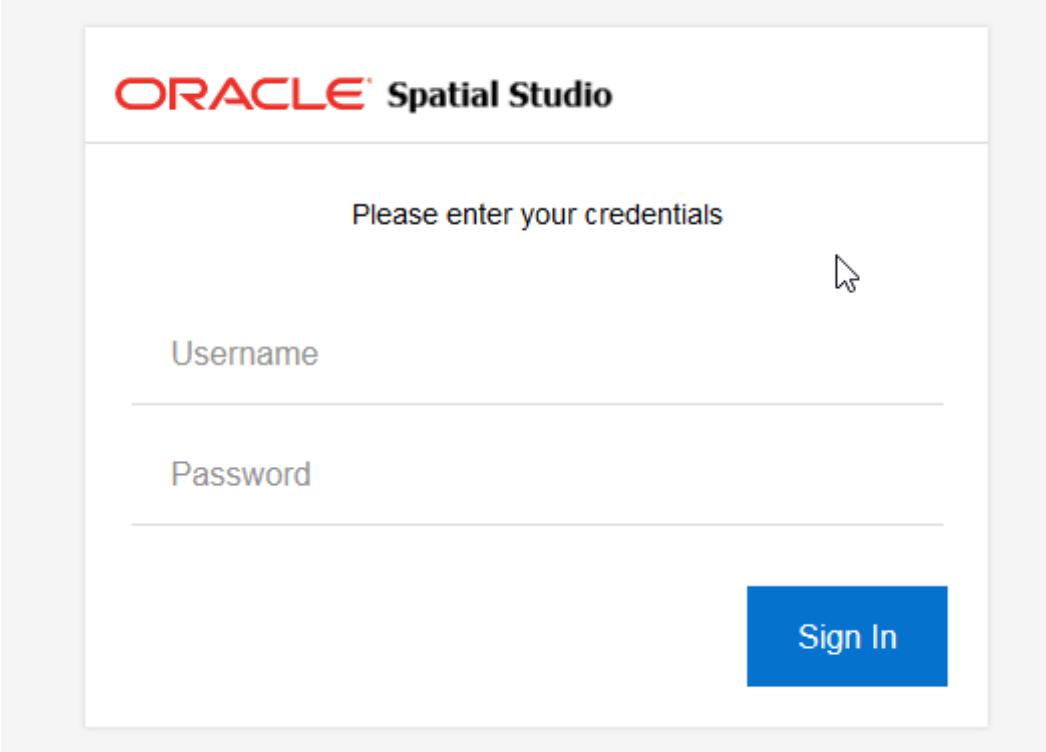
Outputs

Key	Value
instance_name	sgtech
instance_ocid	...vwwhyua Show Copy
private_ip	10.0.0.2
public_ip	
spatial_studio_public_url	https://x.x.x.x:8001/spatialstudio
wls_console_public_url	https://x.x.x.x:7002/console



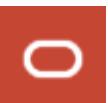
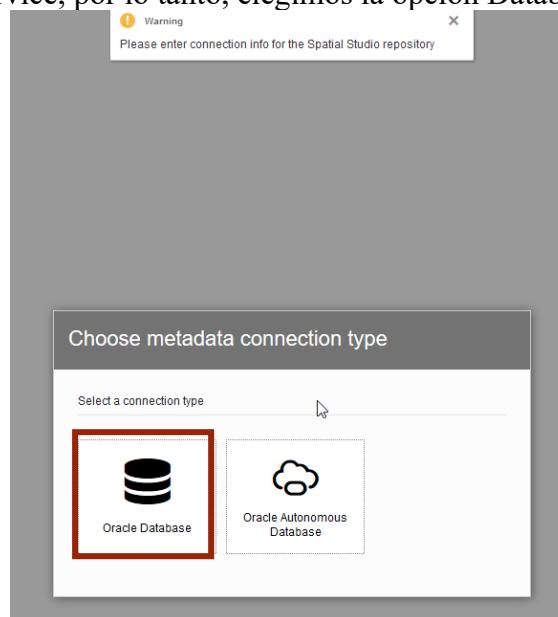
Accedemos a la dirección de spatial_studio_public_url y entramos con las siguientes credenciales:

Username	weblogic
Password	welcome1



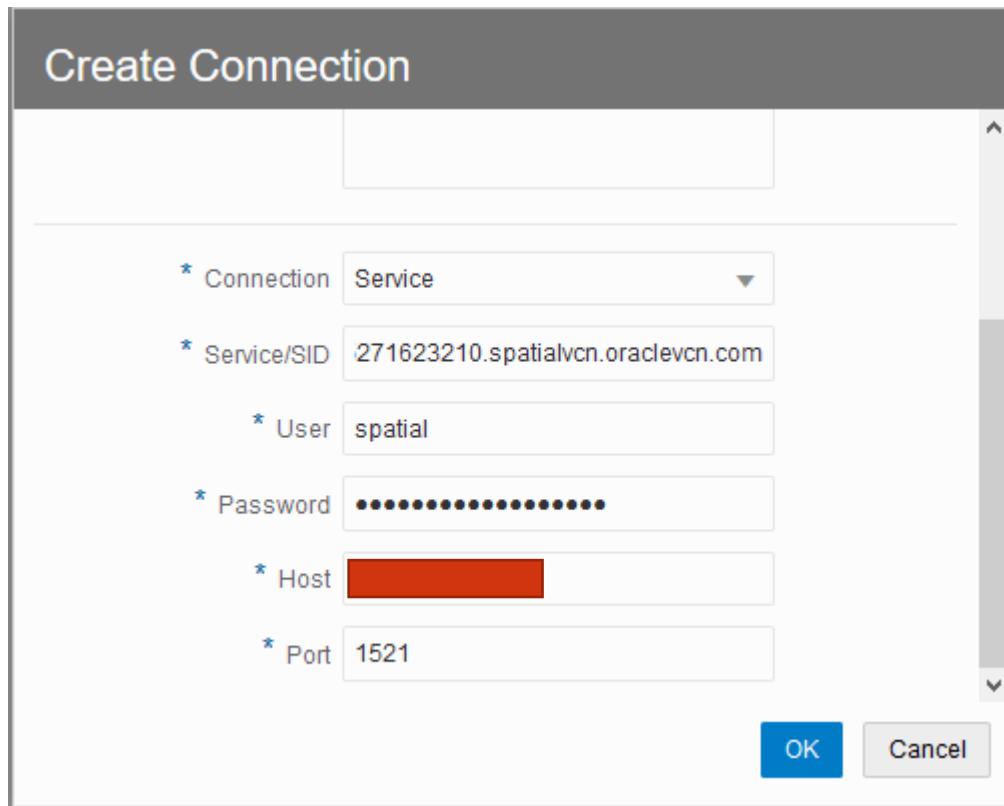
Este usuario es el administrador por defecto del servidor WebLogic y la contraseña se ha asignado automáticamente desde el Resource Manager. Para añadir nuevos usuarios o cambiar la contraseña del usuario administrador, se debe entrar a la consola de administración de WebLogic ubicada en wls_console_public_url.

Al ser la primera vez que entramos, nos pedirá que configuremos una conexión a una base de datos. En la primera parte de este documento, se ha detallado como configurar la base de datos sobre un servicio Database Cloud Service, por lo tanto, elegimos la opción Database.



Introducimos los siguientes campos (los campos concretos dependen de la configuración que se haya hecho con la base de datos previamente, así que habría que adaptar la información que aquí aparece al caso particular de nuestra bbdd). Es reseñable comentar que el usuario incluido para crear la conexión a la bbdd, podría ser diferente al empleado en la primera parte del documento; el cual se emplea para cargar la información de geocoding, mapping, routing. De este modo, garantizamos que la información generada al realizar operaciones espaciales esté separada de esta última. Para ello, habría que crear en bbdd un nuevo usuario.

Connection	Service
Service / SID	El nombre del servicio de la PDB en la que se han creado las tablas de Spatial: pdb1.xxx.spatialvcn.oraclevcn.com
User	El usuario que se haya creado para el esquema de Spatial: spatial
Password:	La contraseña de ese usuario: Oracle_My_secure_pass
Host:	El hostname o IP de la VM sobre la que está instalada la base de datos
Port:	1521



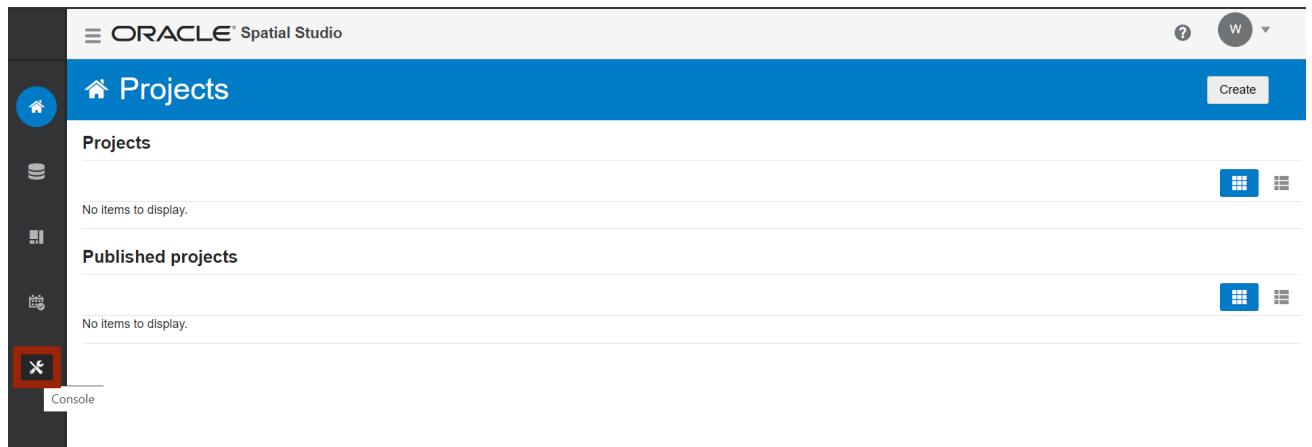
Pulsamos OK y ya está Spatial Studio listo para ser utilizado.

Despliegue Geocoder

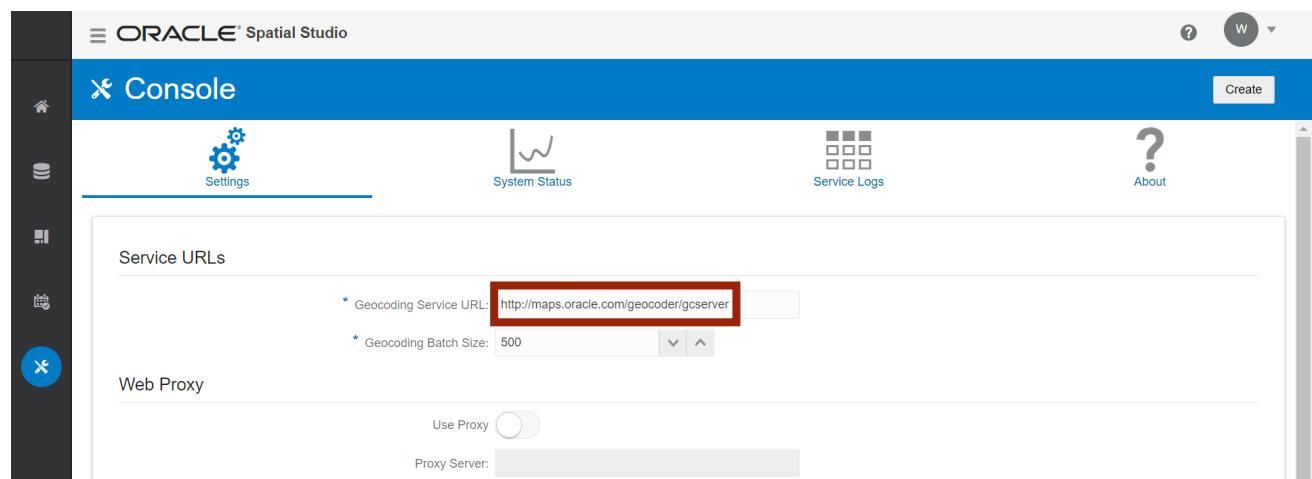
El proceso de despliegue de Geocoder se ha explicado previamente en esta guía. Haga [click](#) aquí para ver seguir los pasos necesarios.



Para llamar al nuevo despliegue del servicio geocoder, habría que acceder a la consola de administración.



Una vez dentro de la parte de administración, cambiamos la url del servicio de geocoding por la url del servidor weblogic donde lo hemos desplegado



La nueva url a introducir sería en el formato http:<ip_weblogic>:<port>/geocoder/gcserver, siendo <ip_weblogic> la ip pública del weblogic donde se ha desplegado el servicio y el puerto el 7003

