



EUROPEAN COMMISSION

DIGIT
Connecting Europe Facility

Service Metadata Publisher

Administration Guide

SMP 4.X

Version [2.4.1]

Status [Final]

© European Union, 2018

Reuse of this document is authorised provided the source is acknowledged. The Commission's reuse policy is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents.

Date: 04/07/2019

Document Approver(s):

Approver Name	Role
Adrien FERAL	

Document Reviewers:

Reviewer Name	Role
Pawel GUTOWSKI	Developer
Caroline AEBY	CEF Support

Summary of Changes:

Version	Date	Created by	Short Description of Changes
V0.1	22/02/2016	DHENEIN Christophe	Initial Document Creation
V1.0	15/06/2017	Chaouki BERRAH (CEFS), Christophe DHENEIN (CEFS)	Document restructuring and updating.
V1.1	16/06/2016	Chaouki BERRAH (CEFS), Christophe DHENEIN (CEFS)	3.0.0-RC2 changed to 3.X Screens updated.
V1.2	12/02/2018	Chaouki BERRAH	Version 4.0 RC1 changes added
V1.3	16/02/2018	Chaouki BERRAH	Update after test installation
V1.4	21/02/2018	Chaouki BERRAH	Pawel changes included.
V1.5	26/02/2018	Chaouki BERRAH	Links added
V1.6	28/02/2018	Chaouki BERRAH Caroline AEBY	Updates
V1.7	20/03/2018	CEF Support	Reuse notice added
V1.8	11/06/2018	Chaouki BERRAH	Document update
V1.9	28/06/2018	CEF Support	References to nexus updated.
V2.0	01/10/2018	Caroline AEBY	No more standby service
V2.1	18/10/2018	Chaouki BERRAH	Updates
V2.2	23/10/2018	Caroline AEBY	SMP 4.1 RC – SMP admin console
V2.3	25/10/2018	Joze Rihtarsic	SMP 4.1 Updates
V2.4	15/11/2018	Joze Rihtarsic Chaouki BERRAH	Oracle Script Changes for Migration purposes
V2.4.1	04/07/2019	Chaouki BERRAH	MYSQL Script correction

Table of Contents

1. INTRODUCTION	6
1.1. Purpose.....	6
2. CONVENTION	7
Example 1: Sample Oracle Statement:.....	7
Example 2: Sample Configuration File:.....	7
3. PREREQUISITES.....	8
3.1. Binaries repository	8
3.2. Source Code Repository	8
3.3. Database Scripts	9
4. DEPLOYMENT	10
4.1. Deployment overview	10
5. DATABASE CREATION	11
5.1. MySQL.....	11
5.2. Oracle Database	11
6. ORACLE WEBLOGIC CONFIGURATION	13
6.1. Disabling the Authentication on the WebLogic.....	14
6.2. Configuring the Extra CLASSPATH for WebLogic.....	14
7. TOMCAT CONFIGURATION.....	16
7.1. Configuring the Extra CLASSPATH for Tomcat.....	16
7.2. JDBC Driver	17
8. SMP CONFIGURATION	18
8.1. Database configuration	18
8.1.1. Oracle Database:	18
8.1.2. MySQL:	18
8.2. SMP Keystores.....	19
8.2.1. XMLDSIG response signing Keystore.....	19
8.2.2. SML Keystore.....	19
9. SMP .WAR FILE DEPLOYMENT	21
9.1.1. Tomcat.....	21
9.1.2. Oracle WebLogic.....	21
9.1.3. Verification of the Installation.....	21
10. CONFIGURING THE CEF SMP FOR USE WITH AN SML.....	22
10.1. Defining the SMP ID	22
10.2. Configuring the BDMSL Integration.....	22

10.3. Configuring the SML URL.....	22
10.4. SMP authentication to an SML.....	23
10.4.1. Plain Text HTTP.....	23
10.4.2. HTTPS/TLS.....	23
11. SMP USER MANAGEMENT.....	24
11.1. User Roles.....	24
11.2. BCrypt password generation.....	25
11.3. SMP Database User Creation.....	26
11.3.1. Admin SMP User creation.....	26
11.3.2. Admin ServiceGroup User Creation.....	26
12. LOGGING CONFIGURATION.....	27
12.1. Logging properties.....	27
13. SOAPUI TESTING.....	29
13.1. Creation, update and deletion of Service Groups.....	29
13.1.1. Create a Service Group.....	29
13.1.2. Update a Service Group.....	29
13.1.3. Delete a ServiceGroup.....	30
13.2. Creation, update and deletion of Service Metadata.....	30
13.2.1. Create a Service Metadata.....	30
13.2.2. Update Service Metadata.....	31
13.2.3. Delete Service Metadata.....	31
14. THE SWAGGERUI INTERFACE.....	33
14.1. Introduction.....	33
14.2. Downloading the CEF SMP SwaggerUI web application project.....	33
14.3. Configuring the SMP SwaggerUI.....	34
14.4. Generating the Web Application Archive (.war file).....	35
14.5. Deploy the SMP SwaggerUI war file.....	35
14.5.1. On Tomcat.....	35
14.5.2. On WebLogic:.....	36
15. SMP COMPILATION.....	37
15.1. Compilation prerequisites.....	37
15.1.1. Supported Operating System Platform.....	37
15.1.2. Software Requirements.....	37
15.2. Downloading the source code.....	37
15.3. Compilation.....	38
16. SMP CONFIGURATION FILE AND TABLE.....	40
16.1. Multitenancy and Multidomain Support.....	40
16.2. The smp.config.properties file.....	40
16.2.1. Detailed SMP configuration file (smp.config.properties).....	43

16.2.1.1. bdmsl.integration.url.....	46
16.2.1.2. XMLDSIG response signing	46
16.2.1.3. Proxy Settings	46
16.3. smp_domain table configuration	46
16.3.1. Example: Update the default single domain smp_domain table record:	46
17. SMP ADMIN CONSOLE	47
18. CONTACT INFORMATION	48

1. INTRODUCTION

This Administration Guide is intended for Administrators who are in charge of installing, managing and troubleshooting an eDelivery SMP (Service Metadata Publisher).

1.1. Purpose

The purpose of this guide is to provide detailed information on how to deploy and configure an SMP 4.X on either a WebLogic or Tomcat Application Server with either MySQL or Oracle database.

It also provides detailed descriptions of the related Security Configurations (Certificates).

There is also a section on the use of Soap UI to create, update and delete SMP Service Groups and Metadata.

Another section describes an alternative method to perform the creation, update and deletions using Swagger UI.

2. CONVENTION

The Commands and Configuration files listed in this document usually contain a mix of reserved words (commands, instructions and system-related special words) and user-defined words (chosen by the user) as well as comments and preferred values for certain variables. The conventions used in this document, to distinguish between them, are the following:

- **Bold** is used for "reserved" words and commands.
- *Normal italic* together with a short description of the argument, is used for user-defined names (chosen by yourself to designate items like users, passwords, database etc.). It normally contains at least 2 words separated by "_".
- ***Bold and italic*** is used for advisable values which can be changed by the user depending on their infrastructure.
- Comments are sometimes added to describe the purpose of the commands, usually enclosed in brackets ().
- By default, non-OS specific paths will be described using Linux patterns.

Example 1: Sample Oracle Statement:

```
create user smp_user identified by smp_password;
```

```
grant all privileges to smp_user;
```

(Where *smp_user* and *smp_password* are names chosen by the user)

Example 2: Sample Configuration File:

```
jdbc.driver = com.mysql.jdbc.Driver
```

```
jdbc.url = jdbc:mysql://localhost:3306/smp_database
```

```
jdbc.user = smp_user
```

```
jdbc.password = smp_password
```

```
target-database = MySQL
```

(Where: *smp_user*, *smp_database* and *smp_password* are names chosen by the user.

localhost:3306 represents hostname:port parameters of the MySQL database.)

3. PREREQUISITES

Please install the following software on the target system. For further information and installation details, please refer to the software owner's documentation.

- Java runtime environment is now (JRE) 8 **only**:
<http://www.oracle.com/technetwork/java/javase/downloads/index.html>
- **One** of the supported Database Management Systems :
 - MySQL 5,6 or above
 - Oracle 10g+
- **One** of the supported Application Servers:
 - WebLogic 12c
 - Tomcat 8

3.1. Binaries repository

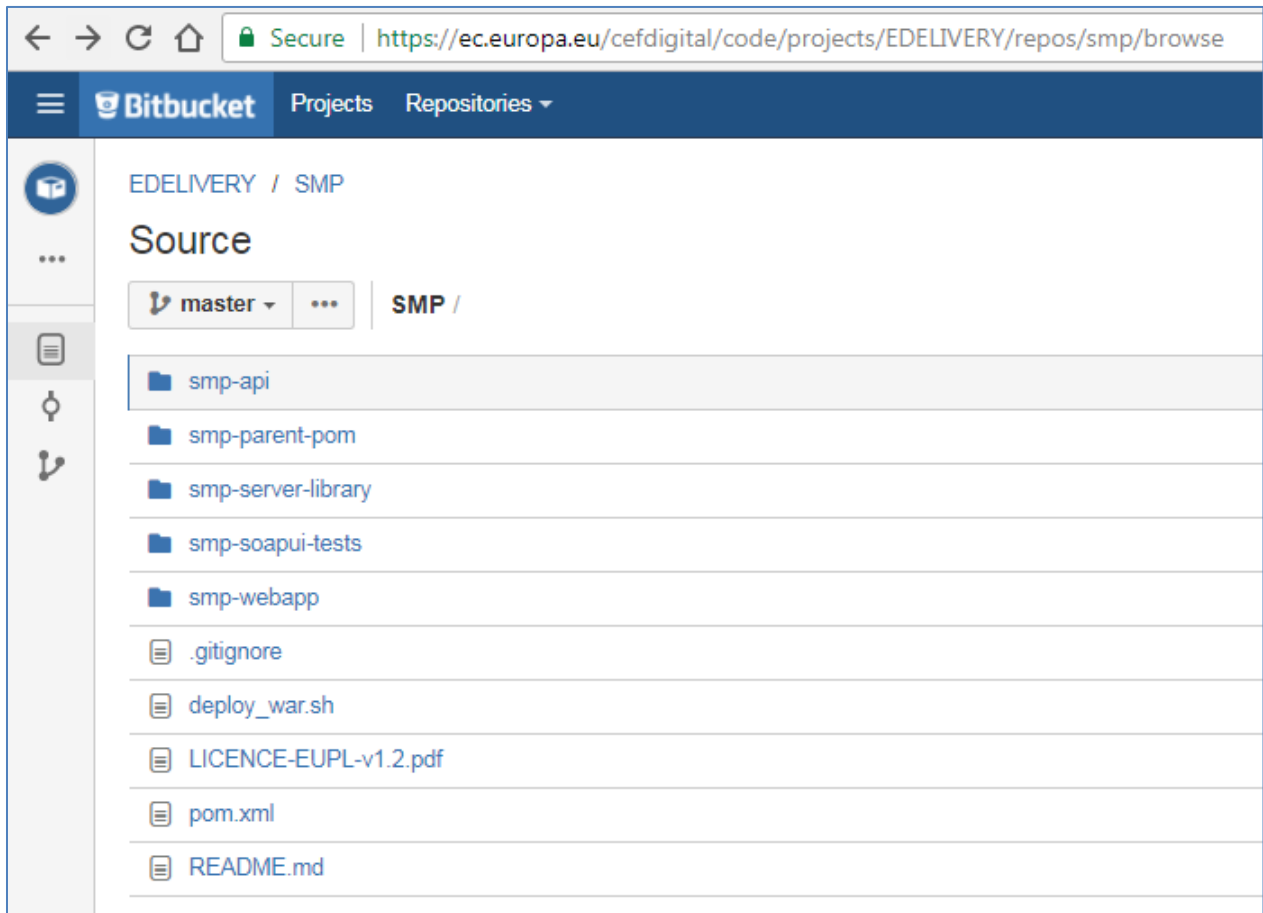
All the CEF SMP artefacts, can be downloaded from the CEF Digital site¹.

3.2. Source Code Repository

The source code of CEF SMP is available in the **GIT** repository at the following location:

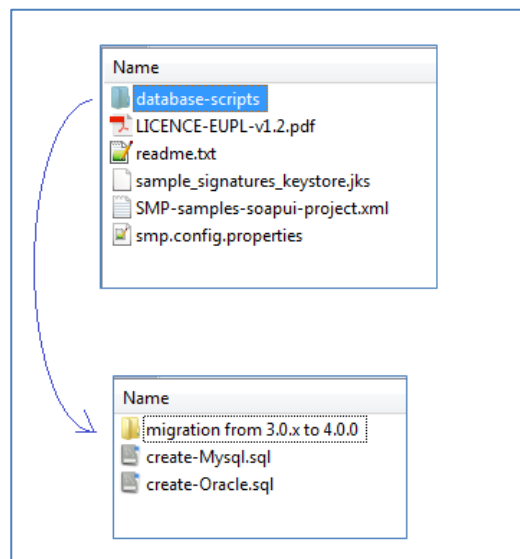
<https://ec.europa.eu/cefdigital/code/projects/EDELIVERY/repos/smp/browse>

¹ <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/SMP>



3.3. Database Scripts

The scripts to create (or migrate) the Oracle or MySQL databases are included in the following downloadable zip file from the CEF Digital site (section §3.1): smp-4.x-setup.zip.



4. DEPLOYMENT

4.1. Deployment overview

As mentioned in the prerequisites, the deployment of the CEF SMP is only supported on Tomcat and WebLogic application servers.

The deployment of the CEF SMP on both platforms is almost identical and only minor platform specific changes will be documented in a dedicated section of this manual.

The deployment of the CEF SMP can be summarized in the following mandatory steps:

- Database Configuration
- Application Server Preparation
- SMP Initial Configuration
- SMP .WAR file Deployment

Remark:

*The environment variable, **cef_edelivery_path**, refers to the name of the folder where the SMP package is installed and will be used in the remainder of this document.*

*For Tomcat, it refers to **CATALINA_HOME**.*

*For Oracle WebLogic, it refers to **DOMAIN_HOME**.*

5. DATABASE CREATION

This section describes the steps necessary to create the database, tables and the SMP database user (**dbuser** used for database connection purpose).

It also includes the creation of an initial SMP user account that will be used by REST clients to connect to the SMP.

The SMP uses a direct connection to the database, which removes the need to configure a data source within WebLogic.

For this step you need to use the script included in the zip file downloaded in section §3.3.

5.1. MySQL

1. Download and copy the `create-Mysql.sql` script to `cef_edelivery_path/sql-scripts`
2. Open a command prompt and navigate to the `cef_edelivery_path/sql-scripts` folder
3. Execute the following MySQL commands:

```
mysql -h localhost -u root_user --password=root_password -e "drop schema if
exists smp_schema;create schema smp_schema;alter database smp_schema
charset=utf8; create user smp_dbuser@Localhost identified by
'smp_password';grant all on smp_schema.* to smp_dbuser@Localhost;"
```

This creates a `smp_schema` and an `smp_dbuser` with (all) privileges to the `smp_schema`.

Execute the following command to create the required objects (tables, etc.) in the database:

```
mysql -h localhost -u root_user -p root_password smp_schema < mysql5innoDB-4.x.ddl
```

5.2. Oracle Database

1. Download and copy the [oracle10g-4.x.ddl](#) script to `cef_edelivery_path/sql-scripts`
2. Navigate to `cef_edelivery_path/sql-scripts` directory
3. Execute the following commands :

```
sqlplus sys as sysdba (password should be the one assigned during the Oracle
installation )
=====
Once logged in Oracle:
create user smp_dbuser identified by smp_dbpassword;
grant all privileges to smp_dbuser;
connect smp_dbuser
show user; (should return : smp_dbuser)
```

```
@create-Oracle.sql (run the scripts with the @ sign from the location of the scripts)
```

```
exit
```

```
=====
```

6. ORACLE WEBLOGIC CONFIGURATION

This section does not include the installation of a WebLogic application server. It is assumed that the WebLogic Server is installed and a WebLogic domain is created with an administration server and a managed server on which the CEF SMP will be deployed.

Hereafter the domain location will be referred as *DOMAIN_HOME* (user-defined name).

In the examples below, we will use the following Domain and Server names:

- Domain Name : SMPDOMAIN
- Administration Server : AdminServer
- SMP Managed Server : SMP_ManagedServer

As shown below:

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Summary of Servers" and contains a table of servers. The table has the following data:

Name	Type	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	Configured			RUNNING	OK	7001
SMP_ManagedServer	Configured			RUNNING	OK	7003

In order to deploy the SMP on the WebLogic Application Server platform, two preliminary steps need to be completed:

- Disabling the Authentication on the Weblogic Server,
- Configuring the Extra CLASSPATH for WebLogic

This is described in the following 2 sections.

6.1. Disabling the Authentication on the WebLogic

The CEF SMP has its own authentication mechanism which makes the WebLogic authentication redundant. Therefore the WebLogic Authentication has to be disabled to stop it from interfering with the SMP authentication.

To do so, edit the config.xml file by adding the following tag before the `</security-configuration>` closing tag:

```
<enforce-valid-basic-auth-credentials>>false</enforce-valid-basic-auth-credentials>
```

Here is an example:

```
../  
<enforce-valid-basic-auth-credentials>>false</enforce-valid-basic-auth-  
credentials>  
</security-configuration>  
/..
```

6.2. Configuring the Extra CLASSPATH for WebLogic

In this Oracle WebLogic example, a directory called **smp** will be created in the root path of the WebLogic installation (DOMAIN_HOME) and the CLASSPATH modified to include this new directory.

Create an smp directory in the DOMAIN_HOME directory.

Within the `cef_edelivery_path/smp` directory, create the following sub-directories:

- conf
- conf keystores
- temp
- logs

Edit the WebLogic DOMAIN_HOME/bin/setDomainEnv.sh.

For Linux:

Add the **EXPORT CLASSPATH=\${CLASSPATH}:\${DOMAIN_HOME}/smp/conf** statement at the end of the CLASSPATH definition as shown below:

```
../  
if [ "${PRE_CLASSPATH}" != "" ] ; then  
    CLASSPATH="${PRE_CLASSPATH}${CLASSPATHSEP}${CLASSPATH}"  
    export CLASSPATH
```

```
fi
    CLASSPATH=${CLASSPATH}:${DOMAIN_HOME}/smp/conf
    export CLASSPATH
/..
```

For Windows:

```
../
If NOT "%PRE_CLASSPATH%"==" " (
    set CLASSPATH=%PRE_CLASSPATH%;%CLASSPATH%
)
set CLASSPATH=%CLASSPATH%;%DOMAIN_HOME%\smp\conf
/..
```

7. TOMCAT CONFIGURATION

In order to deploy the SMP on Tomcat, the steps below need to be completed.

7.1. Configuring the Extra CLASSPATH for Tomcat

In this Tomcat example, a directory called **smp** will be created in the root path of the Tomcat installation (**CATALINA_HOME**) and the **CLASSPATH** modified to include this new directory using an existing Tomcat batch file (**CATALINA_HOME/bin/setenv.[sh|bat]**).

Create a **smp** directory in the **CATALINA_HOME** directory.

Within the **cef_edelivery_path/smp** directory, create two new sub-directories:

- conf
- keystores

For Linux:

Edit the **CATALINA_HOME/bin/setenv.sh** file

```
#!/bin/sh
# Set CLASSPATH to include $CATALINA_HOME/smp/conf
# where the smp 'smp.config.properties' is located
export CATALINA_HOME=/cef_edelivery_path/smp
export JAVA_OPTS="$JAVA_OPTS -Dsmp.config.properties=$CATALINA_HOME/conf"
export CLASSPATH=$CATALINA_HOME/conf
```

For Windows:

Edit the **%CATALINA_HOME%/bin/setenv.bat** file

```
REM Set CLASSPATH to include $CATALINA_HOME/smp/conf
REM where the 'smp.config.properties' is located
set CATALINA_HOME=%cef_edelivery_path%\smp
set JAVA_OPTS=%JAVA_OPTS% -Dsmp.config.properties=%CATALINA_HOME%\conf
set classpath=%classpath%;%catalina_home%\conf
```


7.2. JDBC Driver

The JDBC driver needs to be downloaded from the manufacturer website.

- For Oracle Database : <http://www.oracle.com/technetwork/apps-tech/jdbc-112010-090769.html>
- For Mysql : <https://www.mysql.com/products/connector/>

The JDBC driver (.jar file) must be copied to the following directory: `cef_edelivery_path/lib`.

8. SMP CONFIGURATION

For this step, use the following resources delivered within the zip file downloaded in section §3.3:

- An smp config file named **smp.config.properties** located in the CLASSPATH
- A keystore file called **sample_signatures_keystore.jks** used for XMLDSIG

The **smp.config.properties** file must be copied to the **cef_edelivery/smp/conf/** folder and referenced by the **CLASSPATH** variable as explained in the next section.

The **sample_signatures_keystore.jks** file must be copied to the **keystores** folder under **cef_edelivery/smp/conf/** created during the Server preparation (see §7.1).

8.1. Database configuration

The CEF SMP database back-end configuration is performed within the CEF SMP configuration file (**smp.config.properties** file).

Depending on the selected database back-end, modify the **smp.config.properties** files as indicated below.

8.1.1. Oracle Database:

```
../  
## JDBC configuration for DB Oracle  
jdbc.driver = oracle.jdbc.OracleDriver  
jdbc.url = jdbc:oracle:thin:@dbhost:dbport:smp_database  
jdbc.user = smp_user  
jdbc.password = smp_user_pwd  
target-database = Oracle  
jdbc.read-connections.max = 10  
/..
```

8.1.2. MySQL:

```
../  
## JDBC configuration for DB MySQL  
# JDBC configuration for DB MySQL  
jdbc.driver = com.mysql.jdbc.Driver  
jdbc.url = jdbc:mysql://dbhost:dbport/smp_database  
jdbc.user = smp_user  
jdbc.password = smp_user_pwd
```

```
target-database = MySQL
jdbc.read-connections.max = 10

/..
```

8.2. SMP Keystores

CEF SMP uses two distinct keystores for different purposes:

- One **mandatory** keystore is used for signing the responses to **GET** requests (XMLDSIG response signing)
- One **optional** (SML) keystore is used to authenticate SMP using 2-way-SSL when it is calling SML via HTTPS

8.2.1. XMLDSIG response signing Keystore

This keystore is **mandatory** and will prevent the CEF SMP from starting if not deployed and/or properly configured.

A sample keystore is included in the zip file downloaded in section §3.3.

Details of the sample keystore:

- `xmldsig.keystore.classpath:` `/{path}/sample_signatures_keystore.jks`
- `xmldsig.keystore.password:` `secure123.`

Remark:

The value of the `xmldsig.keystore.password` (=secure123) also acts as the password for the `SML_CLIENT_KEY_ALIAS` field in the `smp_domain` table described later.

This keystore can be copied to `./smp/keystores/` or any other chosen directory of the SMP server, and then configured in the `smp.config.properties` file as shown in the following example:

```
../
## XMLDSIG response signing:
xmldsig.keystore.classpath = ./smp/keystores/sample_signature_keys.jks
xmldsig.keystore.password = secure123

/..
```

8.2.2. SML Keystore

The SML keystore is **optional** and only needs to be deployed and configured if the SMP will be accessing an SML using HTTPS.

The SML keystore should be deployed in a server location and configured in the `smp.config.properties` using a relative or an absolute location.

```
../  
# BDMSL URL  
bdmsl.integration.url=http://localhost:8080/manageparticipantidentifier  
  
## Keystore JKS file path (optional). Used for X509 client 2-way-SSL  
authentication in SML integration  
## If there is more than one domain configured, alias of each key must be set up  
in SMP_DOMAIN table  
## Password must be equal for every key within the keystore and for keystore  
itself  
bdmsl.integration.keystore.path=  
bdmsl.integration.keystore.password=
```

9. SMP .WAR FILE DEPLOYMENT

The CEF SMP is deployed following the steps listed below.

9.1.1. Tomcat

Copy the `cef_edelivery/smp/temp/ smp-4.X.war` file to the Tomcat **webapps** directory (`cef_edelivery/webapps`).

9.1.2. Oracle WebLogic

Deploy the **.war** file within WebLogic using the Oracle Weblogic deployer or using the Weblogic Administration Console.

An example of using the Oracle the **weblogicc.deployer** is provided below:

```
java weblogic.Deployer -adminurl
t3://${WebLogicAdminServerListenAddress}:${WebLogicAdminServerPort} \
-username ${WebLogicAdminUserName} \
-password ${WebLogicAdminUserPassword} \
-deploy -name smp-4.X.war \
-targets ${SMP_ManagedServer} \
-source $TEMP_DIR/ smp-4.X.war
```

9.1.3. Verification of the Installation

Verify the installation by navigating with your browser to the following address: **<http://localhost:7003/ smp-4.X>**

The following page is displayed only if the deployment is successful:



10. CONFIGURING THE CEF SMP FOR USE WITH AN SML

The SMP can be registered to an SML using two identification mechanisms:

- Using HTTP and plain text with metadata embedded into the header of the REST request,
- Using HTTPS/TLS and a keystore containing a certificate.

10.1. Defining the SMP ID

The name of the SMP instance can be freely chosen but it is not currently possible to know whether the name chosen is free for registration or not.

The name of the SMP must be in the following format:

SMP-XXX-YYY or **XXX-SMP-YYY**

Where:

- XXX and YYY can be any user-defined word.
- No underscore character is allowed.
- It is also RECOMMENDED but not mandatory to use only uppercase characters.

The configuration of the SMP ID is achieved by the inserting the SMP ID into the **SML_SMP_ID** field of the **smp_domain** table.

10.2. Configuring the BDMSL Integration

The first step is to configure the SMP so that it could be used with an SML.

This is achieved by setting the **bdmsl.integration.enabled** parameter to **true**, default is **false**.

```
## BDMSL (SML) integration ON/OFF switch
bdmsl.integration.enabled=false
```

10.3. Configuring the SML URL

The configuration of the SML URL end point is achieved by configuring the **bdmsl.integration.url** property in the **smp.config.property** file as follows:

```
## BDMSL URL
bdmsl.integration.url=http://localhost:8080/manageparticipantidentifier
```

10.4. SMP authentication to an SML

Once registered in an SML, the SMP needs to authenticate against the SML during normal operation.

This can be achieved by using plain text HTTP or HTTPS/TLS.

10.4.1. Plain Text HTTP

SML_CLIENT_CERT_HEADER contains the SMP's certificate needed if accessing SML directly through HTTP. The configured "Client-Cert" HTTP header will be added to each SML request bypassing SSL certificate verification made normally by SSL terminators.

SML_CLIENT_CERT_HEADER is the configuration attribute (column) in the **smp_domain** table described in section §16.3.

10.4.2. HTTPS/TLS

When using HTTPS/TLS, as mentioned in the **bdmsl.integration.url** covered earlier, all information related to the Keystore containing the SMP certificate must be configured under in the **smp.config.property** file:

```
bdmsl.integration.keystore.path=  
bdmsl.integration.keystore.password=
```

REMARK

- **The Keystore, by default, must contain one key-pair that will be used for authentication.**
 - The Keystore JKS file path (optional): used for X509 client 2-way-SSL authentication in SML integration.
- **For more complex deployments (multiple domains), a link to the relevant section must be provided.**
 - *The **alias** of each key must be set up in **SMP_DOMAIN** table.*
 - *The **Password** must be the same for every key within the Keystore and for the Keystore itself.*

11. SMP USER MANAGEMENT

Only **Admin SMP** and Admin **ServiceGroup** users, who connect to the CEF SMP, need to be created in the SMP database.

Anonymous users or public users can access the SMP to retrieve only. They are not registered and therefore not added to the database.

There are no restrictions on the number of users that can be created to access the CEF SMP.

The (MYSQL or ORACLE) Database script provided creates an **smp_admin** user with password=**changeit**, by default. This password must be immediately changed for the purpose of using the **SMP in Acceptance or Production**.

11.1. User Roles

The CEF SMP users can be of three types as briefly described below:

Actor	UC	Short description	Oper.	Data
Admin SMP	Create or Update Service Group	Create a new ServiceGroup for a new receiver participant. This service stores the Service Group and links it to the specified duplet participantIdentifier + participantIdentifierScheme. Information is stored into ServiceGroup table. This same service is used to create and update a ServiceGroup.	PUT	ServiceGroup
Admin SMP	Erase Service Group	Erases the service group definition AND the list of services for the specified receiver participant.	DELETE	ServiceGroup
Admin Service Group	Create or Update Service Metadata	Publish detailed information about one specific document service (multiple processes and endpoints). This same service is used to create and update ServiceMetaData.	PUT	ServiceMetadata
Admin Service Group	Erase Service Metadata	Remove all information about one specific service (i.e. all related processes and endpoints definitions).	DELETE	ServiceMetadata
User	Retrieve Service Group	Obtain the list of services provided by a specific receiver participant (collection of references to the ServiceMetaData's). This service provides the information related to the Service Group according to the input duplet participantIdentifier + participantIdentifierScheme. Returns information	GET	ServiceGroup

Actor	UC	Short description	Oper.	Data
		from the ServiceMetadata table only (references to actual MetaData).		
User	Retrieve Service Metadata	Obtain detailed definition about one specific service of a specific participant for all supported transports. This service retrieves the SignedServiceMetadata according to the input quadruplet participantIdentifier+participantIdentifierScheme+documentIdentifier+documentIdentifierScheme. Returns information from the Endpoint table.	GET	SignedServiceMetadata

Note: For a complete description of the SMP user management, please consult the SMP Interface Control Document (ICD) document available at: <https://ec.europa.eu/cefdigital/wiki/x/0wvNAg>.

11.2. BCrypt password generation

The SMP v4.X uses the BCrypt algorithm to hash users' passwords. A BCrypt-hashing tool is bundled into the SMP WAR file. To get the hashing code, follow the steps below.

Place a copy of the **smp-4.X.war** file into a temporary directory of your choice.

Extract the war file using the **jar** command:

```
jar -xvf smp-4.X.war
```

Obtain one or multiple hashes at once, using the following command:

```
java -cp "WEB-INF/lib/*" eu.europa.ec.edelivery.smp.BCryptPasswordHash password_to_be_hashed
```

The result will be a BCrypt hash of the specified password (listed below in italic):

```
java -cp "WEB-INF/lib/*" eu.europa.ec.edelivery.smp.BCryptPasswordHash password_to_be_hashed
$2a$10$6nYTSUSH2BQfb0LIyCXn8eUViBcnn.WcjUrW0tJLMND0dAtI85zMa
```

The next command shows the hashing of several passwords at once, separated by a space in the command.

```
java -cp "WEB-INF/lib/*" eu.europa.ec.edelivery.smp.BCryptPasswordHash password_to_be_hashed_1 password_to_be_hashed_2
$2a$10$6nYTSUSH2BQfb0LIyCXn8eUViBcnn.WcjUrW0tJLMND0dAtI85zMa
$2a$10$7zNzSeZpxiHeqY2BRKkHE.HknfIe3aiu6XzU.qHHnnPbUHkTfcmDG
```

11.3. SMP Database User Creation

Adding an SMP user is performed by adding a new entry in the SMP database (**SMP_USER** table).

User role is determined by **ROLE** column in the **SMP_USER** table as follows:

User Role	Role value
Admin SMP	SMP_ADMIN
Admin Service Group	SERVICE_GROUP_ADMIN
System Administrator	SYSTEM_ADMIN
AnonymousUser (Not defined in the SMP User database)	N/A

In the following two examples, an **Admin SMP** and **Admin ServiceGroup** users are created.

11.3.1. Admin SMP User creation

Example:

Username : smp_admin
 Password (Hashed) : \$2a\$10\$6nYTSUSH2BQfbOLlyCXn8eUViBcnn.WcjUrWotJlMNDODAtI85zMa
 Role : SMP_ADMIN

Execute the following database command using the database user/password created in the Database Configuration section of this guide.

Oracle example:

```
SQL> INSERT into SMP_USER (ID, USERNAME, PASSWORD, ROLE, ACTIVE,
  CREATED_ON, LAST_UPDATED_ON) values (SMP_USER_SEQ.NEXTVAL, 'smp_user',
  '$2a$10$6nYTSUSH2BQfbOLlyCXn8eUViBcnn.WcjUrWotJlMNDODAtI85zMa',
  'SMP_ADMIN', 1, SYSDATE, SYSDATE );
```

11.3.2. Admin ServiceGroup User Creation

Username : smp_user1
 Password (Hashed) : \$2a\$10\$6nYTSUSH2BQfbOLlyCXn8eUViBcnn.WcjUrWotJlMNDODAtI85zMa
 IsAdmin : SERVICE_GROUP_ADMIN

Execute the following database command.

```
SQL> insert into smp_user (ID, username, password, ROLE, ACTIVE,
  CREATED_ON, LAST_UPDATED_ON) values (SMP_USER_SEQ.NEXTVAL, 'smp_user1',
  '$2a$10$6nytsush2bqfboliycxn8euvibcnn.wcjurwotjlmndodati85zma',
  'SERVICE_GROUP_ADMIN', 1, SYSDATE, SYSDATE);
```

12. LOGGING CONFIGURATION

12.1. Logging properties

The SMP logging properties are defined in the `./WEBINF/log4j.properties` file embedded in the SMP `.war` file.

It is possible to modify the configuration of the logs by editing the embedded **log4j properties**.

Name	Date modified	Type	Size
internal	20/04/2016 10:38	File folder	
keystores	25/04/2016 16:13	File folder	
plugins	20/04/2016 10:38	File folder	
policies	20/04/2016 10:38	File folder	
temp	27/04/2016 10:41	File folder	
work	20/04/2016 16:44	File folder	
domibus-configuration.xml	26/04/2016 10:11	XML File	5 KB
domibus-datasources.xml	20/04/2016 15:31	XML File	6 KB
domibus-plugins.xml	19/04/2016 10:26	XML File	2 KB
domibus-security.xml	19/04/2016 10:26	XML File	5 KB
domibus-transactions.xml	19/04/2016 10:26	XML File	4 KB
log4j.properties	19/04/2016 10:26	PROPERTIES File	2 KB
persistence.xml	19/04/2016 10:26	XML File	2 KB

In the example below, a **log4j.properties** file is shown:

```
# Direct log messages to stdout
log4j.appender.stdout=org.apache.log4j.ConsoleAppender
log4j.appender.stdout.Target=System.out
log4j.appender.stdout.layout=org.apache.log4j.PatternLayout
log4j.appender.stdout.layout.ConversionPattern=%d{ABSOLUTE} %5p %c{1}:%L - %m%n

log4j.appender.file=org.apache.log4j.FileAppender
log4j.appender.file.file=${catalina.home}/logs/domibus.log
log4j.appender.file.layout=org.apache.log4j.PatternLayout
log4j.appender.file.layout.ConversionPattern=%d{ABSOLUTE} %5p %c{1}:%L - %m%n

log4j.appender.atomikos=org.apache.log4j.FileAppender
log4j.appender.atomikos.file=${catalina.home}/logs/atomikos.log
log4j.appender.atomikos.layout=org.apache.log4j.PatternLayout
log4j.appender.atomikos.layout.ConversionPattern=%d{ABSOLUTE} %5p %c{1}:%L - %m%n

# In order to enable logging of request/responses please change the loglevel to INFO
log4j.logger.org.apache.cxf=WARN
# Root logger option
log4j.rootLogger=INFO, file, stdout

log4j.logger.com.atomikos=WARN, atomikos
```

In red: the parameters can be edited to modify the location of the log file, and the layout.

In **green**: the parameters can be edited to change the level of logging (3 levels defined: INFO, WARN, and ERROR).

13. SOAPUI TESTING

Soap UI can be used to create, update and delete Service Groups and Metadata.

An SMP SoapUI project contains sample requests and is included in the zip file already downloaded.

The procedure to create, update or delete a Service Group is described in the next steps.

13.1. Creation, update and deletion of Service Groups.

13.1.1. Create a Service Group

In the left navigation pane of the SoapUI interface, browse to the REST PUT method as shown below:

The screenshot displays the SoapUI 5.4.0 interface. The left-hand 'Navigator' pane shows a tree structure of projects and sample requests. The 'UC02 - PUT' request is selected, showing its details in the main workspace. The 'Request Properties' pane at the bottom left shows the following configuration:

Property	Value
Name	simple request
Description	
Encoding	UTF-8
Endpoint	http://localhost:8080/smp
Timeout	
Bind Address	
Follow Redirects	true
Username	smp_admin
Password	*****

The main workspace shows the 'simple request' configuration with the following details:

- Method:** PUT
- Endpoint:** http://localhost:8080/smp
- Resource:** /{ParticipantIdentifierScheme}

The 'Request' tab shows a table of parameters:

Name	Value	Style	Level
ParticipantIdentifierSch...	ehealth-participantid-qns	TEMPLATE	RESOURCE
ParticipantIdentifier	urn:poland:ncpb	TEMPLATE	RESOURCE

The 'Raw' tab shows the XML request body:

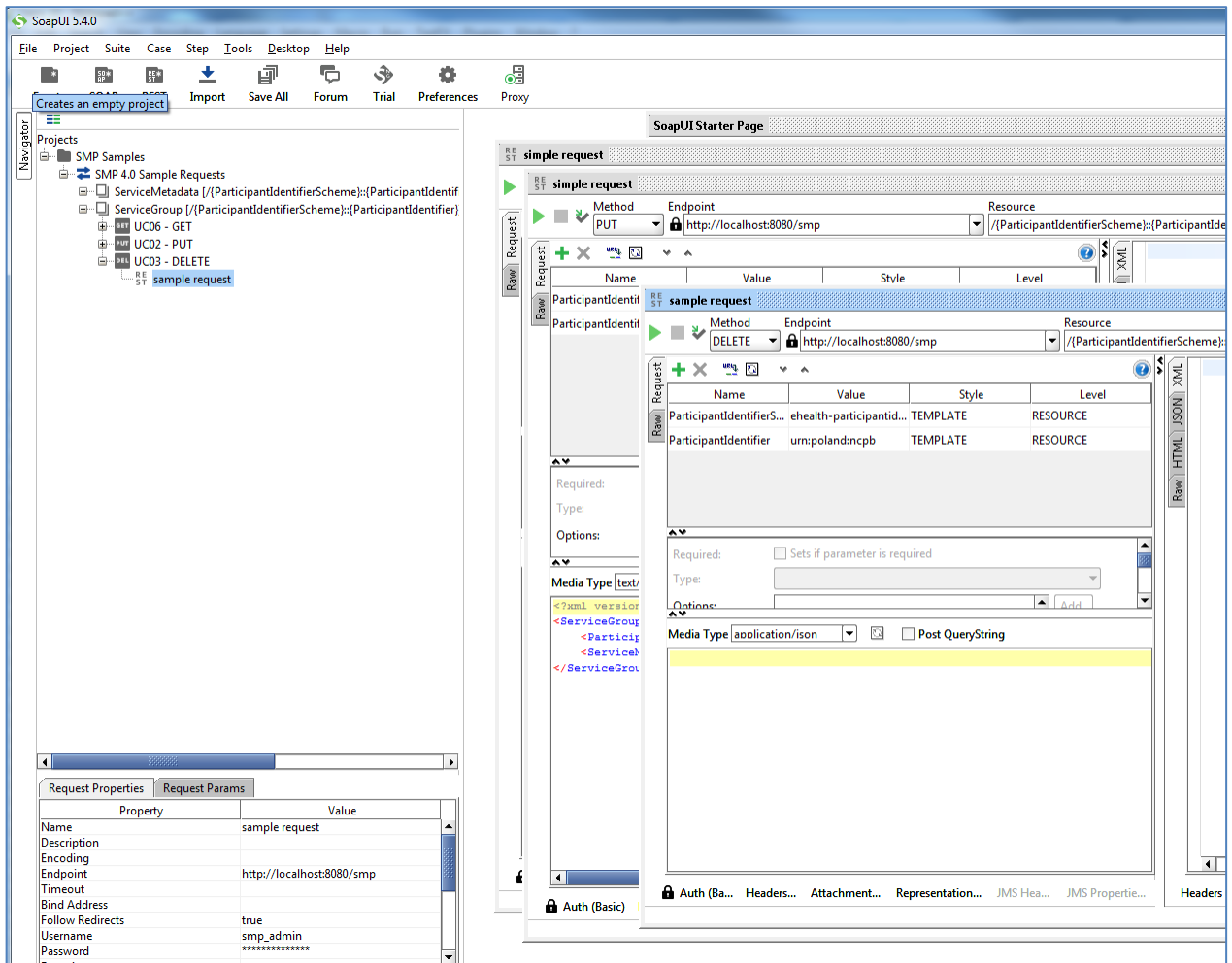
```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ServiceGroup xmlns="http://docs.oasis-open.org/bdxx/ns/SMP/2016/05">
  <ParticipantIdentifier scheme="{=request.getProperty('ParticipantIdentifier')}" />
  <ServiceMetadataReferenceCollection />
</ServiceGroup>
```

13.1.2. Update a Service Group

The REST method to update the **ServiceGroup** is the same as the one used for creating **ServiceGroup** described in the previous section.

13.1.3. *Delete a ServiceGroup*

On the SoapUI interface on the left navigation panel, browse to the REST DELETE method as indicated below:



13.2. Creation, update and deletion of Service Metadata.

13.2.1. *Create a Service Metadata*

In the left navigation pane of the SoapUI interface, browse to the REST PUT method as shown below:

The screenshot displays the SoapUI 5.4.0 interface. The main window shows a REST PUT request configuration for the endpoint `http://localhost:8080/smp`. The request body is an XML document for `<ServiceMetadata>` with various parameters like `<ParticipantIdentifier>`, `<DocumentIdentifier>`, and `<ProcessList>`.

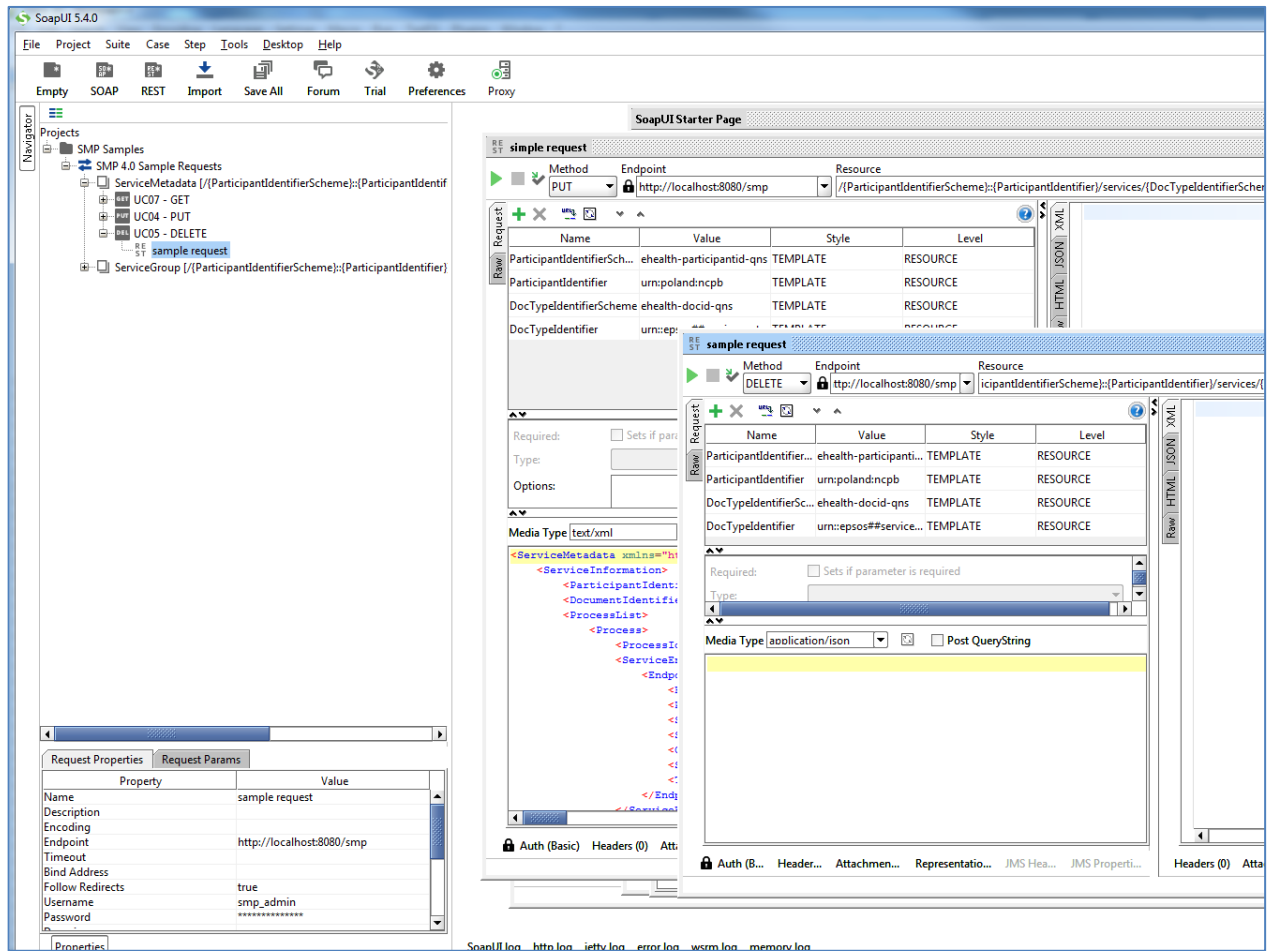
Property	Value
Name	simple request
Description	
Encoding	UTF-8
Endpoint	http://localhost:8080/smp
Timeout	
Bind Address	
Follow Redirects	true
Username	smp_admin
Password	*****

13.2.2. [Update Service Metadata](#)

The REST method to update **ServiceMetadata** is the same as the one use for creating **ServiceMetadata** as described in the previous section.

13.2.3. [Delete Service Metadata](#)

In the left navigation pane of the SoapUI interface, browse to the **REST DELETE** method as indicated below:



14. THE SWAGGERUI INTERFACE

14.1. Introduction

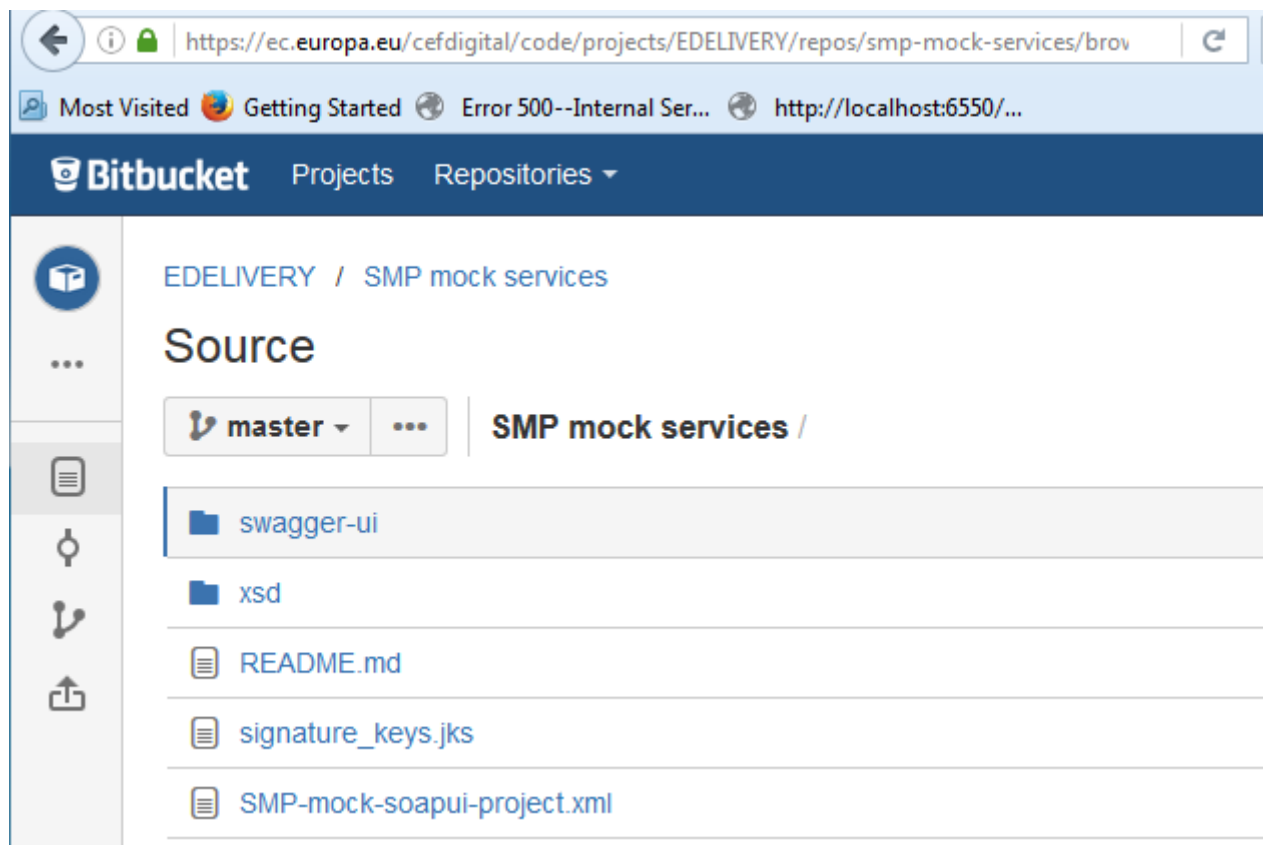
"Swagger is an API developer tools for the OpenAPI Specification (OAS). It allows anyone (developers or end-users) to interact with the API's resources"².

The SMP Web Client can be tested at: <http://130.206.118.4/smp-swagger-ui> and, as explained, is a WEB client configured to shoot (PUT, GET or DELETE) at the mocked SMP implementation Metadata.

14.2. Downloading the CEF SMP SwaggerUI web application project

The CEF SMP SwaggerUI web application project can be freely downloaded from the following location:

<https://ec.europa.eu/cefdigital/code/projects/EDELIVERY/repos/smp-mock-services/browse>



Create a new **swagger_temp** temporary directory.

Within the previously created **swagger_temp** directory, execute the following command:

² Quote from: <http://swagger.io/>.

```
git clone https://ec.europa.eu/cefdigital/code/scm/edelivery/smp-mock-
services.git
Cloning into 'smp-mock-services'...
remote: Counting objects: 133, done.
remote: Compressing objects: 100% (130/130), done.
remote: Total 133 (delta 50), reused 0 (delta 0)
Receiving objects: 100% (133/133), 823.54 KiB | 0 bytes/s, done.
Resolving deltas: 100% (50/50), Done.
```

The SMP **SwaggerUI** project is downloaded and saved the **smp-mock-services** directory:

```
ls
smp-mock-services
```

14.3. Configuring the SMP SwaggerUI

Navigate to the **swagger-ui** directory located under the **smp-mock-services** directory.

The contents is listed below:

```
ls
css  fonts  images  index.html  lib  smp.json  swagger-ui.js
```

Edit the **smp.json** file and modify it to target your SMP:

Replace:

```
{
  "swagger": "2.0",
  "info": {
    "description": "This WEB client is configured to shoot at the [mocked SMP
implementation](http://smp-digit-
mock.publisher.ehealth.acc.edelivery.tech.ec.europa.eu/ehealth-actorid-
qns%3A%3Aurn%3Apoland%3Ancpb). After a few improvements (both on client and
server side) it might be used also for shooting at TEST / PROD environments. You
can find out more about Swagger at [http://swagger.io](http://swagger.io)",
    "version": "1.0.0",
    "title": "SMP 3.X WEB client (based on Swagger-UI)"
  },
  "host": "smp-digit-mock.publisher.ehealth.acc.edelivery.tech.ec.europa.eu",
  "basePath": "/",
  "externalDocs": {
    "description": "Find out more about SMP 3.X mock services",
```

With:

```
"url": "https://ec.europa.eu/cefdigital/code/projects/EDELIVERY/repos/smp-
mock-services"
{
  "swagger": "2.0",
  "info": {
    "description": "This WEB client is configured to shoot at
[http://localhost:7003/ smp-4.X](http://localhost:7003/ smp-4.X). After a few
improvements (both on client and server side) it might be used also for shooting
at TEST / PROD environments. You can find out more about Swagger at
[http://swagger.io](http://swagger.io)",
    "version": "1.0.0",
    "title": "SMP 4.X WEB client (based on Swagger-UI)"
  },
  "host": "localhost:7003",
  "basePath": "/ smp-4.X",
  "externalDocs": {
  },
}
```

14.4. Generating the Web Application Archive (.war file)

To generate the CEF SMP SwaggerUI Web Application archive (.war file), jus create a zip file of the content of the swagger-ui directory and rename it as **swagger.war**.

This can be performed using any **zip** utility (**winzip** on Windows or **zip** on Linux).

Example on Linux:

```
zip -r swagger.war swagger-ui/*
```

14.5. Deploy the SMP SwaggerUI war file

14.5.1. On Tomcat

Copy the **swagger.war** file to *cef_edelivery_path /webapps*.

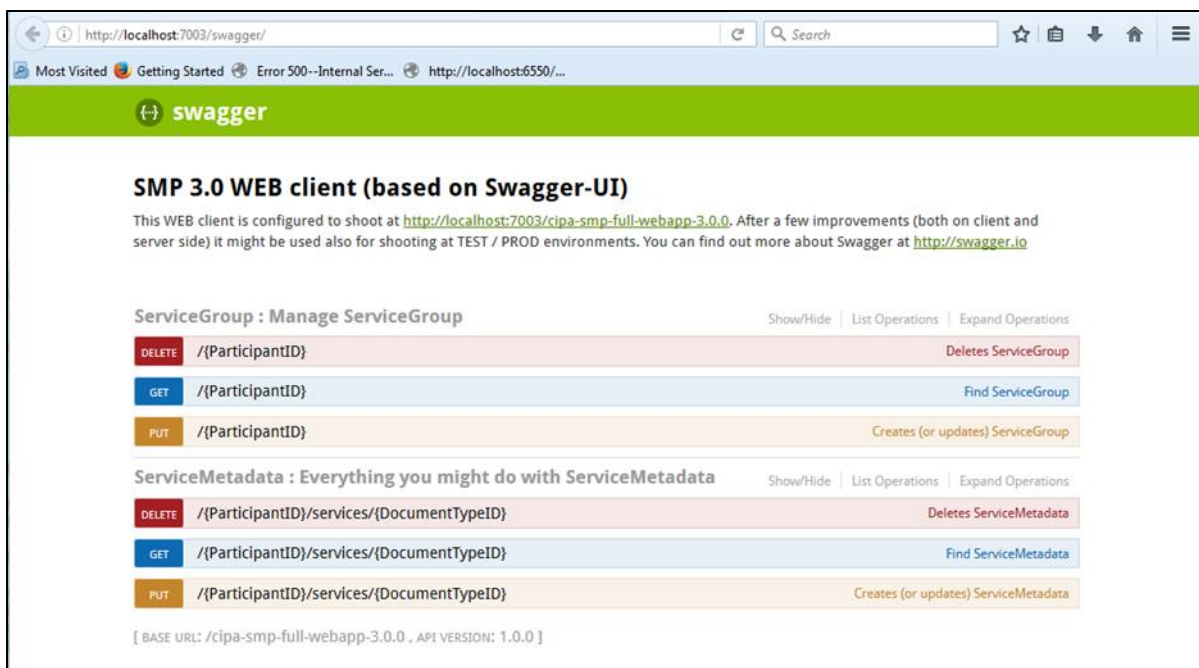
14.5.2. On WebLogic:

Deploy the .war file within WebLogic:

```
java weblogic.Deployer -adminurl
t3://${WebLogicAdminServerListenAddress}:${WebLogicAdminServerPort} \
-username ${WebLogicAdminUserName} \
-password ${WebLogicAdminUserPassword} \
-deploy -name swagger.war \
-targets ${SMP_ManagedServer} \
```

After starting the application, connect to <http://localhost:7003/swagger>.

A successful deployment should display the following page:



15. SMP COMPILATION

15.1. Compilation prerequisites

15.1.1. Supported Operating System Platform

CEF SMP can be built on the following OS platforms:

- Windows Workstation & Server
- Linux platform

15.1.2. Software Requirements

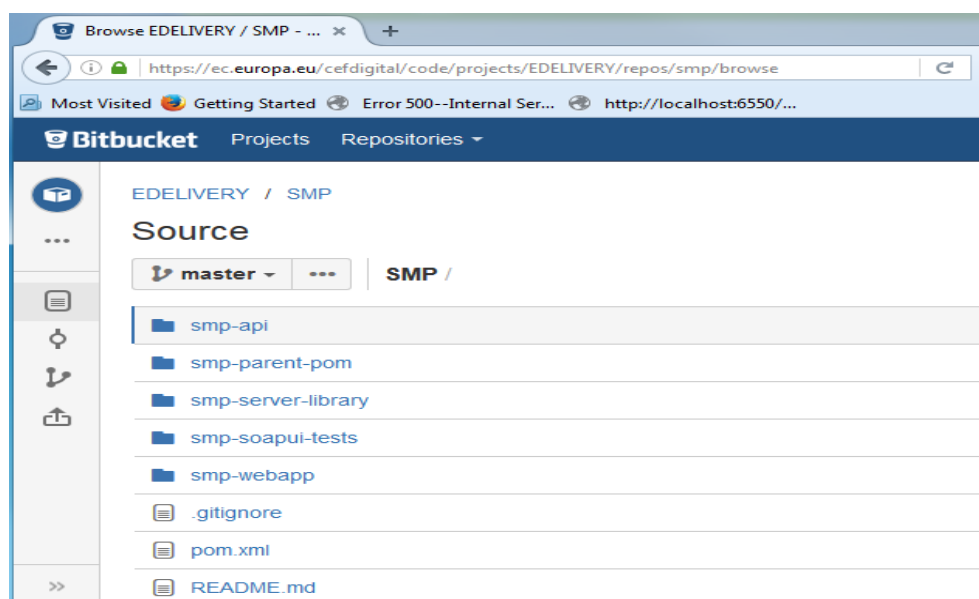
The following software components on the target system:

- Java Development Kit environment (JDK), version 7 or 8:
<http://www.oracle.com/technetwork/java/javase/downloads/index.html>
- Maven 3.0 and above (<https://maven.apache.org/download.cgi>)
- GIT (optional: Git is only used to download the project sources but these sources can be downloaded from any system having Git installed and then just copied manually on the compilation platform).

15.2. Downloading the source code

The source code of SMP is freely available and can be downloaded from the following location:

<https://ec.europa.eu/cefdigital/code/scm/edelivery/smp.git>



15.3. Compilation

Create a new **comp_dir** temporary directory.

Within the previously created **comp_dir** directory, execute the following command:

```
git clone https://ec.europa.eu/cefdigital/code/scm/edelivery/smp.git
Cloning into 'smp'...
remote: Counting objects: 52788, done.
remote: Compressing objects: 100% (15640/15640), done.
remote: Total 52788 (delta 25293), reused 47993 (delta 23387)
Receiving objects: 100% (52788/52788), 637.14 MiB | 2.06 MiB/s, done.
Resolving deltas: 100% (25293/25293), done.
```

Go to the newly created **smp** directory.

The directory contains the following:

```
ls
pom.xml  README.md  smp-api  smp-parent-pom  smp-server-library  smp-soapui-
tests  smp-webapp
```

Start the compilation by executing the following command:

```
mvn clean install -DskipTests
```

A successful compilation will result with the following:

```
mvn clean install -DskipTests
[INFO] Scanning for projects...
/..
../
[INFO] Installing /home/smpcomp/smp/smp/pom.xml to
/home/smpcomp/.m2/repository/eu/europa/ec/smp/3.X/smp-3.X.pom
[INFO] -----
[INFO] Reactor Summary:
[INFO]
[INFO] smp-parent-pom ..... SUCCESS [ 0.120 s]
[INFO] smp-angular ..... SUCCESS [132.375 s]
[INFO] smp-api ..... SUCCESS [ 32.375 s]
[INFO] smp-server-library ..... SUCCESS [02:01 min]
[INFO] smp-webapp ..... SUCCESS [ 23.314 s]
[INFO] SMP Builder POM ..... SUCCESS [ 2.222 s]
```

```
[INFO] -----  
[INFO] BUILD SUCCESS  
[INFO] -----  
[INFO] Total time: 03:00 min  
[INFO] Finished at: 2017-06-08T11:35:27+02:00  
[INFO] Final Memory: 61M/726M  
[INFO] -----
```

The resulting will be a Web application Archive (.war file) named **smp-4.X.war** located in the **smp-webapp/target/** directory:

```
ls ./smp-webapp/target  
smp-4.X  smp-4.X.war  classes  generated-sources  generated-test-sources  maven-  
status  test-classes  webapp-classes
```

16. SMP CONFIGURATION FILE AND TABLE

16.1. Multitenancy and Multidomain Support

The SMP is able to support multiple certificates in the same SMP. This is very useful in the Acceptance environment where multiple domains like ISA ITB, eHealth and others are hosted.

The SMP has the capability of keeping a relationship between a particular **Service Group** and its related **domain**.

As a result of this feature, the SMP Administration has the option, if need be, to define extra domains for newly created **Service Groups** meaning that the SMP is able to handle multiple domains environments.

Remark:

*In normal circumstances, when any one SMP is used for only one Domain, the domain used is then considered as the "domain by default" (or "default domain") for configuration purposes. The domain, in this case, does not need to be specified in the **Service Group** definitions or other configurations of the SMP as in previous versions of SMP.*

The SMP configuration is performed in 2 different locations: in the **smp.config.properties** file as well as in the **smp_domain** table. The following section describes the details of the parameters that are included in the configuration.

16.2. The smp.config.properties file

The CEF SMP configuration is performed via the **smp.config.properties** file.

This file is delivered by default embedded within the SMP war file.

```
#
# Copyright 2017 European Commission | CEF eDelivery
#
# Licensed under the EUPL, Version 1.2 or - as soon they will be approved
by the European Commission - subsequent versions of the EUPL (the
"Licence");
# You may not use this work except in compliance with the Licence.
#
# You may obtain a copy of the Licence attached in file: LICENCE-EUPL-
v1.2.pdf
#
# Unless required by applicable law or agreed to in writing, software
distributed under the Licence is distributed on an "AS IS" basis,
# WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
```



```
# See the Licence for the specific language governing permissions and
limitations under the Licence.

#

# Blue Coat reverse-proxy authentication, by default disabled (false)
# Be careful with switching it to 'true' - do it only if you know what you
are doing.
# Authentication with Blue Coat means that all HTTP requests having
'Client-Cert' header will be authenticated
# as username placed in the header.
# Never expose SMP to the WEB without properly configured reverse-proxy
and active blue coat.
authentication.blueCoat.enabled=false

## Only set to false in PRODUCTION mode. This variable is used to clear
the context path of the SMP
contextPath.output=true

## Most Java libraries and J2EE containers block encoded slashes in URL -
For security reasons.
## Theoretically there are no restrictions on slash "/" characters in
document or participant identifiers,
## but by default we block them as well.
## If slash "/" characters must be supported, then switch this property to
"true".
## Remember that in such case the relevant change should be also applied
on J2EE level
## I.e. for Tomcat it is handled by property:
org.apache.tomcat.util.buf.UDecoder.ALLOW_ENCODED_SLASH=true
encodedSlashesAllowedInUrl=false

## Participant Identifier Schema of each PUT ServiceGroup request is
validated against this schema
## I.e this regex: ^(?!^.{26})([a-z0-9]+-[a-z0-9]+-[a-z0-9]+)
## - limits length of scheme to 25 characters
## - forces pattern to consist of 3 alpha-numeric segments delimited with
"-", i.e: aa1-bb2-cc3
## To turn validation OFF, set regex to "match all": .*
identifiersBehaviour.ParticipantIdentifierScheme.validationRegex=^(?!^.{26}
)([a-z0-9]+-[a-z0-9]+-[a-z0-9]+)
```

```
## All Identifiers by default are CASE-INSENSITIVE.
## Specifies schemes of participant/document identifiers that must be
considered CASE-SENSITIVE.
## List values (delimited by pipe character: "|" ) placed here are checked
against runtime (request) schemes in the CASE-INSENSITIVE way
identifiersBehaviour.caseSensitive.ParticipantIdentifierSchemes=casesensit
ive-participant-scheme1|casesensitive-participant-scheme2
identifiersBehaviour.caseSensitive.DocumentIdentifierSchemes=casesensitive
-doc-scheme1|casesensitive-doc-scheme2

# Switches ON/OFF the BDXL client - integrationwith with SML
bdmsl.integration.enabled=false

# SML URL (incl. the service name)
#bdmsl.integration.url=https://sml.peppolcentral.org/manageparticipantiden
tifier
#
bdmsl.integration.url=https://smk.peppolcentral.org/manageparticipantident
ifier
bdmsl.integration.url=http://localhost:8080/manageparticipantidentifier
bdmsl.integration.keystore.path=
bdmsl.integration.keystore.password=

bdmsl.integration.proxy.server=
bdmsl.integration.proxy.port=
bdmsl.integration.proxy.user=
bdmsl.integration.proxy.password=

## XMLDSIG response signing:
xmlldsig.keystore.classpath = ../keystore/keystore.jks
xmlldsig.keystore.password = peppol

## JDBC configuration for DB
jdbc.driver = oracle.jdbc.OracleDriver
jdbc.url =
jdbc:oracle:thin:@olrdev3.cc.cec.eu.int:1597/EX1UDIGD_TAF.cc.cec.eu.int
jdbc.user = CIPA_ADMIN
jdbc.password = the_password
target-database = Oracle
jdbc.read-connections.max = 10
```

16.2.1. Detailed SMP configuration file (smp.config.properties)

The **WEB-INF/classes/smp.config.properties** file is used to configure various SMP properties; the following table describes them briefly:

Parameter	Default Value	Comment
authentication.blueCoat.enabled	false	Authentication with Blue Coat means that all HTTP requests having Client-Cert header will be authenticated as username placed in the header. # Never expose an SMP to the WEB without properly configured reverse-proxy and active blue coat.
contextPath.output	true	PRODUCTION mode. This variable is used to clear the context path of the SMP
encodedSlashesAllowedInUrl	false	Most Java libraries and J2EE containers block encoded slashes in URL, for security reasons. ## Theoretically there are no restrictions on slash "/" characters in document or participant identifiers, ## but by default we block them as well. ## If slash "/" characters must be supported, than switch this property to "true". ## Remember that in such case the relevant change should be also applied on J2EE level ## I.e. for Tomcat it is handled by property: org.apache.tomcat.util.buf.UDecoder.ALLOW_ENCODED_SLASH=true
bdmsl.integration.enabled	false	BDMSL (SML) integration ON/OFF switch

Parameter	Default Value	Comment
identifiersBehaviour.caseSensitive.ParticipantIdentifierSchemes	casesensitive-participant-scheme1 casesensitive-participant-scheme2	## All Identifiers by default are CASE-INSENSITIVE.
identifiersBehaviour.caseSensitive.DocumentIdentifierSchemes	casesensitive-doc-scheme1 casesensitive-doc-scheme2	## Specifies schemes of participant/document identifiers that must be considered CASE-SENSITIVE. ## List values (delimited by pipe character: " ") placed here are checked against runtime (request) schemes in the CASE-INSENSITIVE way
bdmsl.integration.url	# https://sml.peppolcentral.org/manageparticipantidentifier http://localhost:8080/manageparticipantidentifier	The URL of the targeted SML (incl. the service name)
bdmsl.integration.keystore.path		The location of the keystore
bdmsl.integration.keystore.password		The password of the keystore
xmldsig.keystore.classpath	../keystore/keystore.jks	The location of the xmldsig keystore
xmldsig.keystore.password	peppol	The password of the xmldsig keystore
jdbc.driver	com.mysql.jdbc.Driver	Database Configuration: Driver MySQL: com.mysql.jdbc.Driver Oracle Database: oracle.jdbc.OracleDriver
jdbc.url	jdbc:mysql://localhost:3306/smp	Database Configuration: url MySQL : jdbc:mysql://dbhost:dbport/smp_database Oracle Database: jdbc:oracle:thin:@dbhost:dbport:smp_database jdbc:oracle:thin:@dbhost:dbport/smp_service

Parameter	Default Value	Comment
jdbc.user	smp	Database User/Password Configuration: User
jdbc.password	The_password	Database User/password Configuration: Password
target-database	MySQL	Target Database Backend type/Brand: For MySQL, use: MySQL For Oracle Database, use: Oracle
jdbc.read-connections.max	10	Database Configuration: Max Read Connection

17. SMP ADMIN CONSOLE

The SMP UI has two purposes.

- First is to enable anonymous users to search and explore published data in the SMP. Anonymous users can search for participants by participant ID, schema or domain.
- Second purpose is to enable Service Group administrators to manage owned Service groups. For SMP administrator to manage Service groups registered on SMP and for System Administrator to manage users and domains.

The administration dashboard is reachable via the following URLs:

[http://\[host\]:\[port\]/smp\[-version\]/iu/](http://[host]:[port]/smp[-version]/iu/)

If deployment package (war file) filename changed in order to simply upgrade the old SMP version as for example

smp-4.0.0.war to cipa-smp-full-webapp than application root context might change also for example:

[http:// \[host\]:\[port\]/cipa-smp-full-webapp/ui/](http://[host]:[port]/cipa-smp-full-webapp/ui/) .

Three types of roles are defined in the SMP admin console:

- **System Administrator:** this is a “super admin” who can manage SMP users and domains
- **SMP Administrator:** the SMP administrator can create/delete Service Groups, manage users and domains for service groups and its extensions and metadata. The SMP administrator has access to all Services Groups registered in the SMP.
- **Service Group Administrator:** this user can administer only the metadata for the Service Groups that he owns. He cannot change ownerships or the domains for the existing Service Group.

When users are logged, their role is displayed in read-only mode (as a label). Only the System Administrator can change the role of another user including an SMP Administrator and a Service group Administrator. They, however, cannot change the role of another System Administrator.

18. CONTACT INFORMATION

CEF Support Team

By email: CEF-EDELIVERY-SUPPORT@ec.europa.eu

Support Service: 8am to 6pm (Normal EC working Days)