

***ESPD - Interoperability and Diffusion***

**D2.2**

**Updated SIMOG web Interfaces**

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| --- | --- |
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# Glossary

|  |  |
| --- | --- |
| **ACK** | Acknowledged. Positive reply obtained after invoking web-services provided by SIMOG to check submitted ESPD criteria for compliancy |
| **A.N.AC.** | *Autorità Nazionale Anti-Corruzione* (National Anti-Corruption Authority) |
| **CA** | Contracting Authority |
| **CEF** | Connecting Europe Facility |
| **CEN** | European Committee for Standardization |
| **CIG** | *Codice Identificativo Gara* (Contract Reference Number): code adopted in Italy to identify a public contract entered into after a tender or entrusted with one of the other methods permitted by the Public Contracts Code |
| **CPB** | Central Purchasing Body |
| **EDM** | Exchange Data Model |
| **EC** | European Commission |
| **EO** | Economic Operator |
| **ESPD** | Electronic Single Procurement Document |
| **EU** | European Union |
| **e-Certis** | Online mapping tool used to identify and compare certificates requested in public procurement procedures across the EU. Available at the following link: *https://ec.europa.eu/growth/tools-databases/ecertis/* |
| **GURI** | Official Journal of the Italian Republic (*Gazzetta Ufficiale della Repubblica Italiana*) |
| **MIT** | Ministry for Infrastructures and Transports (*Ministero delle Infrastrutture e dei Trasporti*) |
| **MS** | Member State |
| **NACK** | Not Acknowledged. Negative reply obtained after invoking web-services provided by SIMOG to check submitted ESPD criteria for compliancy |
| **PA** | Public Administration |
| **PEPPOL** | Pan-European Public Procurement Online |
| **SIMOG** | *Sistema Informativo Monitoraggio Gare* (Tender Monitoring Information System): online national system that allows Contracting Authorities (CAs) to request the Contract Reference Number (CIG) required for economic operators to pay the contribution to the Authority due for participation in public tenders |
| **SME** | Small-Medium Enterprise |
| **TED** | Tenders Electronic Daily |
| **UC** | Use Case |
| **WS** | Web Service |
| **XML** | eXtensible Markup Language |
|  |  |
|  |  |
|  |  |

# Definition and Glossary

La presenza nel documento dell'abbreviazione [tbd] (to be defined) indica una parte per la quale non si hanno elementi sufficienti per procedere ad una completa definizione; come tale sarà subordinata ad un'ulteriore definizione in una successiva versione del documento.

La presenza nel documento dell'abbreviazione [tbc] (to be confirmed) indica una parte per la quale sono stati assunti elementi che debbono essere confermati; come tale sarà subordinata ad una conferma in fase successiva.

La presenza nel documento dell'abbreviazione (non applicabile) indica che un argomento previsto nello standard di struttura di questo documento, risulta privo di significato nel contesto di questo sistema.

## Naming convention

Di seguito sono elencate le convenzioni per l’identificazione degli elementi presenti all’interno del documento e dove:

* nnn è un progressivo numerico.
* {short\_desc} è una descrizione breve

|  |  |
| --- | --- |
| **Identificativo** | **Descrizione** |
| **RIF. {short\_desc}.nnn** | Identificativo univoco di un riferimento dove {short\_desc} è una descrizione breve e nnn è un progressivo numerico |
| **REQ.{short\_desc}.nnn** | Identificativo univoco di un requisito dove {short\_desc} è una descrizione breve e nnn è un progressivo numerico |

Table 1 - Convenzioni di carattere generale

## Design conventions

|  |  |
| --- | --- |
| **Identificativo** | **Descrizione** |
| **UC.nnn. {short\_desc}** | Ciascun caso d’uso (UC) è individuato da un identificativo univoco ed una breve descrizione |
| **SD.nnn. {short\_desc}** | Ciascun sequence diagram (SD) è individuato da un identificativo univoco ed una breve descrizione |
| **AD.nnn. {short\_desc}** | Ciascun activity diagram (AD) è individuato da un identificativo univoco ed una breve descrizione |

Table 2 - Convenzioni di progettazione

## Normative requirements

|  |  |  |
| --- | --- | --- |
| Codice riferimento | Riferimento normativo | Descrizione |
| RIF.NORM.01 | NA | NA |

Table 3 - Contesto normativo

## Internal References

|  |  |  |  |
| --- | --- | --- | --- |
| **Reference code** | **Document description** | **Version** | **Document Name** |
| **RIF.DOCINT.001** | Design document | 1.4 | eCertisRS\_PDS\_20180925v1.4.docx |

Table 4 - Riferimenti interni

## External references

|  |  |  |
| --- | --- | --- |
| **Reference code** | **Code** | **Description** |
| **RIF.EXT.001** | NA | NA |

Table 5 - Riferimenti esterni

# Executive summary

This document aims to describe web interface services and how to connect to CEF-ESPD application.

Services are implemented as REST architecture.

The REST architectural style constrains an architecture to a client/server architecture and is designed to use

a stateless communication protocol, typically HTTP. In the REST architecture style, clients and servers

exchange representations of resources by using a standardized interface and protocol.

The document will describe the service identity, the activation methods and the different way to invoke

services and any results produced by this invocation.

# Services Description

Rest services are availables to Contracting Authorities that may invoke them to upload and validate ESPD document and also download an ESPD document previously created and validated.

# Web Services Interfaces

Web interfaces service follows the HTTP stateless REST standard and use using JSON as data interchange format and an synchronous request / reply interaction mode.

All cef-espd REST services are developed in Java architecture with the Spring Boot 2.0 framework, which includes Hibernate as the persistence core system; services follow the "stateless" protocol.

API documentation of Rest Services is done by the tool Swagger that follows OpenAPI specification: a text file in YAML or JSON format describes all functionality of web application, input d output parameter in a human readable format and automatic execution.

Tool can explain resources of web service RESTful.

## Interoperability flow

N.a.

## EJB interfaces

N.a.

## Web-Services interfaces

N.a.

## RESTful Interfaces

### ESPD

Following services may consent to upload and validate of ESPD generated by Contracting Authorities acting as e-procurement platform.

Those Contracting Authoritie are able to produce a complete ESPD document.

ESPD described in next chapters follow the UBL 2.2. specification in order to create un ESPD self contained.

All the application adopting Maven, deputed to the drafting and / or validation of an xml path adhering to the aforementioned UBL specification, may expose the following dependence in the context of the "pom".

*<dependency>*

*<groupId>eu.europa.ec.grow.espd</groupId>*

*<artifactId>exchange-model2</artifactId>*

*<version>2.0.2</version>*

*</dependency>*

#### Download ESPD

## Download ESPD

|  |  |  |
| --- | --- | --- |
| **Description** | Download last valid ESPD related to a procurement procedure | |
| **Method** | **GET /v1/bid/{bidId}/espd** | |
| ***Input Parameter*** | | |
| *Type* | *Name* | *Description* |
| Path Param - Numeric | **bidId** | Unique identifier for a procurement procedure given by the Simog system, related to the ESPD to download |
| Query Param - String | **tenderingStationId** | UUID unique identifier of a Contracting Authorities responsible of a procurement procedure |
| ***Output parameter*** | | |
| *Type* | *Description* | |
| File | ESPD related to a procurement procedure | |

Call Example :

curl -X GET "http://localhost:8081/CefEspdMs/v1/bid/41/espd?tenderingStationId=2AA847F7-D5A2-4655-9EAF-4D24D5BD123" -H "accept: \*/\*"

## Upload and ESPD validation

|  |  |  |
| --- | --- | --- |
| **Description** | Validation and loading of an ESPD related to a procurement procedure | |
| **Method** | **POST /v1/bid/{bidId}/espd** | |
| ***Input parameter*** | | |
| *Type* | *Name* | *Description* |
| Path Param - Numeric | **bidId** | Unique identifier for a procurement procedure given by the Simog system, related to the ESPD to download |
| Query Param - String | **tenderingStationId** | UUID unique identifier of a Contracting Authorities responsible of a procurement procedure |
| Header | VALIDATION-ONLY | Not mandatory.  If the Header has ‘VALIDATION-ONLY’ as true, execute the validation |
| Form Parameter – file xml | espd | ESPD to download |
| ***Output parameter*** | | |
| *Type* | *Description* | |
| ValidationResponseDTO | Bean returned by validation | |

Call Example :

curl -X POST "http://localhost:8081/CefEspdMs/v1/bid/41/espd?tenderingStationId=2AA847F7-D5A2-4655-9EAF-4D24D5BD123" -H "accept: \*/\*" -H "VALIDATION-ONLY: false" -H "Content-Type: multipart/form-data" -F "espd=@ESPD.xml;type=text/xml"

## Output Structure

ValidationResponseDTO

{ notifications:[

{ errorCode: String

Enum:[ INVALID\_BID, INVALID\_AUTHENTICATION\_TOKEN, INVALID\_CRITERIA\_GROUP, INVALID\_CRITERIA,

INVALID\_PROPERTY\_GROUP,

INVALID\_PROPERTY\_GROUPTYPE,

INVALID\_PROPERTY,

INVALID\_PROPERTY\_DATATYPE,

INVALID\_ESPD\_DATA ],

errorDescription: String,

notificationType: String

Enum:[

SUCCESS,

WARNING,

ERROR,

SEVERE ]

}

],

outcome: String

Enum:[

SUCCESS,

INVALID\_REQUEST,

UNAUTHORIZED\_USER,

FORMAL\_VALIDATION\_ERROR, SEMANTIC\_VALIDATION\_ERROR ]

}

Esempio bean di risposta

{

"outcome": "FORMAL\_VALIDATION\_ERROR",

"notifications": [

{

"notificationType": "ERROR",

"errorCode": "INVALID\_BID",

"errorDescription": "INVALID\_BID\_ID\_IN\_ESPD\_XML - expected procurementProject.ID = 41 ,actual procurementProject.ID = 10"

},

{

"notificationType": "ERROR",

"errorCode": "INVALID\_LOT",

"errorDescription": "INVALID\_LOT\_ID\_IN\_ESPD\_XML - ID NOT PRESENT - procurementProjectLot.ID = 1001003"

},

{

"errorCode": "INVALID\_CRITERIA",

"errorDescription": "NOT\_FOUND - Criterion :[id=90a2e100-44cc-45d3-9970-69d6714f159B]",

"notificationType": "ERROR"

}

]

}

### Codici di ritorno

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Codice** | **Tipo** | **Descrizione Breve** | **Descrizione** | **Possibili cause** |
| **200** | SUCCESSO | OK | Operazione eseguita con successo | NA |
| **500** | ERRORE | NOK | Errore interno del server | Errore imprevisto |
| **403** | ERRORE | NOK | Accesso negato | Accesso negato |
| **404** | INSUCCESSO | NOK | Risorsa non disponibile | Path sbagliato o risorsa inesistente o non disponibile.  Restituisce un messaggio di errore indicando che con i parametri utilizzati non esiste corrispondenza |

Table 7