



***TELESPAZIO***

***a LEONARDO and THALES company***

Policy Enforcement Point Interface  
Control Document  
***EOEPCA.ICD.xxx***

TVUK System Team

Version 1.0, 30/11/2020:

# Policy Enforcement Point Interface Control Document

1. Introduction	2
1.1. Purpose and Scope	2
2. Overview	3
3. Policy Enforcement Point Interfaces	4
3.1. Endpoints	4
3.1.1. PolicyEnforcement	4
3.1.1.1. Proxy DELETE	4
3.1.1.1.1. Description	4
3.1.1.1.2. Parameters	4
3.1.1.1.3. Return Type	4
3.1.1.1.4. Responses	5
3.1.1.1.5. Samples	5
3.1.1.2. Proxy GET	5
3.1.1.2.1. Description	5
3.1.1.2.2. Parameters	5
3.1.1.2.3. Return Type	5
3.1.1.2.4. Responses	5
3.1.1.2.5. Samples	5
3.1.1.3. Proxy HEAD	5
3.1.1.3.1. Description	6
3.1.1.3.2. Parameters	6
3.1.1.3.3. Return Type	6
3.1.1.3.4. Responses	6
3.1.1.3.5. Samples	6
3.1.1.4. Proxy POST	6
3.1.1.4.1. Description	6
3.1.1.4.2. Parameters	6
3.1.1.4.3. Return Type	7
3.1.1.4.4. Responses	7
3.1.1.4.5. Samples	7
3.1.1.5. Proxy PUT	7
3.1.1.5.1. Description	7
3.1.1.5.2. Parameters	7
3.1.1.5.3. Return Type	7
3.1.1.5.4. Responses	7
3.1.1.5.5. Samples	8
3.1.1.6. Proxy PATCH	8

3.1.1.6.1. Description	8
3.1.1.6.2. Parameters	8
3.1.1.6.3. Return Type	8
3.1.1.6.4. Responses	8
3.1.1.6.5. Samples	8
3.1.2. PolicyAuthorize	8
3.1.2.1. Authorize DELETE	8
3.1.2.1.1. Description	9
3.1.2.1.2. Parameters	9
3.1.2.1.3. Return Type	9
3.1.2.1.4. Responses	9
3.1.2.1.5. Samples	9
3.1.2.2. Authorize GET	9
3.1.2.2.1. Description	9
3.1.2.2.2. Parameters	9
3.1.2.2.3. Return Type	10
3.1.2.2.4. Responses	10
3.1.2.2.5. Samples	10
3.1.2.3. Authorize HEAD	10
3.1.2.3.1. Description	10
3.1.2.3.2. Parameters	10
3.1.2.3.3. Return Type	10
3.1.2.3.4. Responses	10
3.1.2.3.5. Samples	11
3.1.2.4. Authorize POST	11
3.1.2.4.1. Description	11
3.1.2.4.2. Parameters	11
3.1.2.4.3. Return Type	11
3.1.2.4.4. Responses	11
3.1.2.4.5. Samples	11
3.1.2.5. Authorize PUT	11
3.1.2.5.1. Description	11
3.1.2.5.2. Parameters	12
3.1.2.5.3. Return Type	12
3.1.2.5.4. Responses	12
3.1.2.5.5. Samples	12
3.1.2.6. Authorize PATCH	12
3.1.2.6.1. Description	12
3.1.2.6.2. Parameters	12
3.1.2.6.3. Return Type	13
3.1.2.6.4. Responses	13

3.1.2.6.5. Samples .....	13
3.1.3. Resources .....	13
3.1.3.1. Resources GET .....	13
3.1.3.1.1. Description .....	13
3.1.3.1.2. Parameters .....	13
3.1.3.1.3. Return Type .....	13
3.1.3.1.4. Content Type .....	13
3.1.3.1.5. Responses .....	13
3.1.3.1.6. Samples .....	13
3.1.3.1.7. Filter by path .....	14
3.1.3.1.8. Description .....	14
3.1.3.1.9. Parameters .....	14
3.1.3.1.10. Return Type .....	14
3.1.3.1.11. Content Type .....	14
3.1.3.1.12. Responses .....	14
3.1.3.1.13. Samples .....	14
3.1.3.2. Resources POST .....	14
3.1.3.2.1. Description .....	14
3.1.3.2.2. Parameters .....	14
3.1.3.2.3. Body Parameter .....	15
3.1.3.2.4. Return Type .....	15
3.1.3.2.5. Content Type .....	15
3.1.3.2.6. Responses .....	15
3.1.3.2.7. Samples .....	15
3.1.3.3. Resources DELETE .....	15
3.1.3.3.1. Description .....	15
3.1.3.3.2. Parameters .....	15
3.1.3.3.3. Return Type .....	16
3.1.3.3.4. Responses .....	16
3.1.3.3.5. Samples .....	16
3.1.3.4. Resource GET (ID) .....	16
3.1.3.4.1. Description .....	16
3.1.3.4.2. Parameters .....	16
3.1.3.4.3. Return Type .....	16
3.1.3.4.4. Content Type .....	16
3.1.3.4.5. Responses .....	17
3.1.3.4.6. Samples .....	17
3.1.3.5. Resource HEAD (ID) .....	17
3.1.3.5.1. Description .....	17
3.1.3.5.2. Parameters .....	17
3.1.3.5.3. Return Type .....	17

3.1.3.5.4. Content Type .....	17
3.1.3.5.5. Responses .....	17
3.1.3.5.6. Samples .....	17
3.1.3.6. Resource PUT (ID) .....	18
3.1.3.6.1. Description .....	18
3.1.3.6.2. Parameters .....	18
3.1.3.6.3. Body Parameter .....	18
3.1.3.6.4. Return Type .....	18
3.1.3.6.5. Responses .....	18
3.1.3.6.6. Samples .....	18
3.1.3.7. Resource PATCH (ID) .....	18
3.1.3.7.1. Description .....	19
3.1.3.7.2. Parameters .....	19
3.1.3.7.3. Body Parameter .....	19
3.1.3.7.4. Return Type .....	19
3.1.3.7.5. Responses .....	19
3.1.3.7.6. Samples .....	19
3.1.4. API .....	19
3.1.4.1. Swagger UI .....	19
3.1.4.1.1. Description .....	19
3.1.4.1.2. Parameters .....	19
3.1.4.1.3. Return Type .....	20
3.1.4.1.4. Responses .....	20
3.1.4.1.5. Samples .....	20
3.2. Models .....	20
3.2.1. <i>NewResource</i> .....	20
3.2.2. <i>Resource</i> .....	20

EO Exploitation Platform Common Architecture  
*Policy Enforcement Point Interface Control Document*  
EOEPCA.ICD.xxx

<b>COMMENTS and ISSUES</b> If you would like to raise comments or issues on this document, please do so by raising an Issue at the following URL <a href="https://github.com/EOEPCA/um-pep-engine/issues">https://github.com/EOEPCA/um-pep-engine/issues</a> .	<b>PDF</b> This document is available in PDF format <a href="#">here</a> .
<b>EUROPEAN SPACE AGENCY CONTRACT REPORT</b> The work described in this report was done under ESA contract. Responsibility for the contents resides in the author or organisation that prepared it.	<b>TELESPAZIO VEGA UK Ltd</b> 350 Capability Green, Luton, Bedfordshire, LU1 3LU, United Kingdom. Tel: +44 (0)1582 399000 <a href="http://www.telespazio-vega.com">www.telespazio-vega.com</a>

## AMENDMENT HISTORY

This document shall be amended by releasing a new edition of the document in its entirety. The Amendment Record Sheet below records the history and issue status of this document.

*Table 1. Amendment Record Sheet*

ISSUE	DATE	REASON
<b>0.1</b>	dd/mm/yyyy	Initial in-progress draft

# Chapter 1. Introduction

## 1.1. Purpose and Scope

This document presents the Policy Enforcement Point Interfaces for the Common Architecture. It serves as a complementary document to its corresponding Software Design Document.

# Chapter 2. Overview

This Interface Control Document (ICD) is a companion to the System Design Document for the Policy Enforcement Point. The ICD provides a Building Block level specification of the interfaces exposed by the PEP to the rest of EOEPKA components.

## Section [\[Interfaces\]](#)

Provides the interface specification of the Building Block.



# Chapter 3. Policy Enforcement Point Interfaces

## Abstract

*This OpenAPI Document describes the endpoints exposed by Policy Enforcement Point Building Block deployments. <br> <br> Using this API will allow to register resources that can be protected using both the Login Service and the Policy Decision Point and access them through the Policy Enforcement Endpoint. <br> <br> As an example this documentation uses |"proxy|" as the configured base URL for Policy Enforcement, but this can be manipulated through configuration parameters.*

## 3.1. Endpoints

### 3.1.1. PolicyEnforcement

#### 3.1.1.1. Proxy DELETE

DELETE /proxy/{path}

Request to Back-End Service

##### 3.1.1.1.1. Description

This operation propagates all headers

##### 3.1.1.1.2. Parameters

###### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

###### Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

##### 3.1.1.1.3. Return Type

-

#### 3.1.1.1.4. Responses

Table 2. http response codes

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

#### 3.1.1.1.5. Samples

#### 3.1.1.2. Proxy GET

GET /proxy/{path}

Request to Back-End Service

##### 3.1.1.2.1. Description

This operation propagates all headers and query parameters

##### 3.1.1.2.2. Parameters

###### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

###### Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

##### 3.1.1.2.3. Return Type

-

##### 3.1.1.2.4. Responses

Table 3. http response codes

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

#### 3.1.1.2.5. Samples

#### 3.1.1.3. Proxy HEAD

HEAD /proxy/{path}

## Request to Back-End Service

### 3.1.1.3.1. Description

This operation propagates all headers and query parameters

### 3.1.1.3.2. Parameters

#### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

#### Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

### 3.1.1.3.3. Return Type

-

### 3.1.1.3.4. Responses

Table 4. http response codes

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

### 3.1.1.3.5. Samples

### 3.1.1.4. Proxy POST

POST /proxy/{path}

## Request to Back-End Service

### 3.1.1.4.1. Description

This operation propagates all headers, query parameters and body

### 3.1.1.4.2. Parameters

#### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

## Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

### 3.1.1.4.3. Return Type

-

### 3.1.1.4.4. Responses

Table 5. http response codes

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

### 3.1.1.4.5. Samples

### 3.1.1.5. Proxy PUT

PUT /proxy/{path}

Request to Back-End Service

#### 3.1.1.5.1. Description

This operation propagates all headers, query parameters and body

#### 3.1.1.5.2. Parameters

### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

## Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

### 3.1.1.5.3. Return Type

-

### 3.1.1.5.4. Responses

Table 6. http response codes

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

#### 3.1.1.5.5. Samples

#### 3.1.1.6. Proxy PATCH

PATCH /proxy/{path}

Request to Back-End Service

##### 3.1.1.6.1. Description

This operation propagates all headers, query parameters and body

##### 3.1.1.6.2. Parameters

###### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

###### Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

##### 3.1.1.6.3. Return Type

-

##### 3.1.1.6.4. Responses

Table 7. http response codes

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

#### 3.1.1.6.5. Samples

### 3.1.2. PolicyAuthorize

#### 3.1.2.1. Authorize DELETE

DELETE /authorize

Request to Back-End Service

#### 3.1.2.1.1. Description

This operation propagates all headers

#### 3.1.2.1.2. Parameters

##### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

##### Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

#### 3.1.2.1.3. Return Type

-

#### 3.1.2.1.4. Responses

*Table 8. http response codes*

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

#### 3.1.2.1.5. Samples

#### 3.1.2.2. Authorize GET

GET /authorize

Request to Back-End Service

#### 3.1.2.2.1. Description

This operation propagates all headers and query parameters

#### 3.1.2.2.2. Parameters

##### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

##### Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

#### 3.1.2.2.3. Return Type

-

#### 3.1.2.2.4. Responses

Table 9. http response codes

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

#### 3.1.2.2.5. Samples

#### 3.1.2.3. Authorize HEAD

HEAD /authorize

Request to Back-End Service

##### 3.1.2.3.1. Description

This operation propagates all headers and query parameters

##### 3.1.2.3.2. Parameters

##### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

##### Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

##### 3.1.2.3.3. Return Type

-

##### 3.1.2.3.4. Responses

Table 10. http response codes

Code	Message	Datatype
200	OK	<<>>

Code	Message	Datatype
401	Unauthorized access request.	<<>>

#### 3.1.2.3.5. Samples

#### 3.1.2.4. Authorize POST

POST /authorize

Request to Back-End Service

##### 3.1.2.4.1. Description

This operation propagates all headers, query parameters and body

##### 3.1.2.4.2. Parameters

##### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

##### Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

##### 3.1.2.4.3. Return Type

-

##### 3.1.2.4.4. Responses

Table 11. http response codes

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

#### 3.1.2.4.5. Samples

#### 3.1.2.5. Authorize PUT

PUT /authorize

Request to Back-End Service

##### 3.1.2.5.1. Description

This operation propagates all headers, query parameters and body



### 3.1.2.5.2. Parameters

#### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

#### Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

### 3.1.2.5.3. Return Type

-

### 3.1.2.5.4. Responses

Table 12. http response codes

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

### 3.1.2.5.5. Samples

### 3.1.2.6. Authorize PATCH

PATCH /authorize

Request to Back-End Service

#### 3.1.2.6.1. Description

This operation propagates all headers, query parameters and body

#### 3.1.2.6.2. Parameters

#### Path Parameters

Name	Description	Required
path	Path to the Back-End Service	X

#### Header Parameters

Name	Description	Required
Authorization	RPT Token generated through UMA Flow	-

### 3.1.2.6.3. Return Type

-

### 3.1.2.6.4. Responses

Table 13. http response codes

Code	Message	Datatype
200	OK	<<>>
401	Unauthorized access request.	<<>>

### 3.1.2.6.5. Samples

## 3.1.3. Resources

### 3.1.3.1. Resources GET

GET /resources

List all owned resources

#### 3.1.3.1.1. Description

This operation lists all resources filtered by ownership ID. Ownership ID is extracted from the OpenID Connect Token

#### 3.1.3.1.2. Parameters

##### Header Parameters

Name	Description	Required
Authorization	JWT or Bearer Token	-

#### 3.1.3.1.3. Return Type

array[[resource]]

#### 3.1.3.1.4. Content Type

- application/json

#### 3.1.3.1.5. Responses

Table 14. http response codes

Code	Message	Datatype
200	OK	List[[resource]]

#### 3.1.3.1.6. Samples

#### 3.1.3.1.7. Filter by path

GET /resources?path=<PATH>

Get the resource with the path specified

#### 3.1.3.1.8. Description

This operation returns the resource filtered by ownership ID and the path passed as argument in the URL. Ownership ID is extracted from the OpenID Connect Token

#### 3.1.3.1.9. Parameters

##### Header Parameters

Name	Description	Required
Authorization	JWT or Bearer Token	-

##### URL Parameters

Name	Description	Required
path	reverse_match_url of resource	-

#### 3.1.3.1.10. Return Type

JSON

#### 3.1.3.1.11. Content Type

- application/json

#### 3.1.3.1.12. Responses

Table 15. http response codes

Code	Message	Datatype
200	OK	JSON

#### 3.1.3.1.13. Samples

### 3.1.3.2. Resources POST

POST /resources

Creates a new Resource reference in the Platform

#### 3.1.3.2.1. Description

This operation generates a new resource reference object that can be protected. Ownership ID is set to the unique ID of the End-User

#### 3.1.3.2.2. Parameters

#### 3.1.3.2.3. Body Parameter

Name	Description	Required
NewResource	<a href="#">NewResource</a>	X

#### Header Parameters

Name	Description	Required
Authorization	JWT or Bearer Token	-

#### 3.1.3.2.4. Return Type

[\[resource\]](#)

#### 3.1.3.2.5. Content Type

- application/json

#### 3.1.3.2.6. Responses

Table 16. http response codes

Code	Message	Datatype
200	OK	<a href="#">[resource]</a>
401	UNAUTHORIZED	<<>>
404	NOT FOUND	<<>>

#### 3.1.3.2.7. Samples

#### 3.1.3.3. Resources DELETE

**DELETE** /resources/{resource\_id}

Deletes an owned Resource Reference from the Platform

##### 3.1.3.3.1. Description

This operation removes an existing Resource reference owned by the user.

##### 3.1.3.3.2. Parameters

#### Path Parameters

Name	Description	Required
resource_id	Unique Resource ID	X

#### Header Parameters

Name	Description	Required
Authorization	JWT or Bearer Token	-

#### 3.1.3.3.3. Return Type

-

#### 3.1.3.3.4. Responses

Table 17. http response codes

Code	Message	Datatype
200	OK	<<>>
401	UNAUTHORIZED	<<>>
404	NOT FOUND	<<>>

#### 3.1.3.3.5. Samples

#### 3.1.3.4. Resource GET (ID)

GET /resources/{resource\_id}

Retrieve a specific owned resource

##### 3.1.3.4.1. Description

This operation retrieves information about an owned resource.

##### 3.1.3.4.2. Parameters

###### Path Parameters

Name	Description	Required
resource_id	Unique Resource ID	X

###### Header Parameters

Name	Description	Required
Authorization	JWT or Bearer Token	-

#### 3.1.3.4.3. Return Type

[resource]

#### 3.1.3.4.4. Content Type

- application/json

### 3.1.3.4.5. Responses

Table 18. http response codes

Code	Message	Datatype
200	OK	<a href="#">[resource]</a>
404	NOT FOUND	<<>>

### 3.1.3.4.6. Samples

### 3.1.3.5. Resource HEAD (ID)

HEAD /resources/{resource\_id}

Retrieve a specific owned resource

#### 3.1.3.5.1. Description

This operation retrieves information about an owned resource.

#### 3.1.3.5.2. Parameters

##### Path Parameters

Name	Description	Required
resource_id	Unique Resource ID	X

##### Header Parameters

Name	Description	Required
Authorization	JWT or Bearer Token	-

#### 3.1.3.5.3. Return Type

[\[resource\]](#)

#### 3.1.3.5.4. Content Type

- application/json

#### 3.1.3.5.5. Responses

Table 19. http response codes

Code	Message	Datatype
200	OK	<a href="#">[resource]</a>
404	NOT FOUND	<<>>

### 3.1.3.5.6. Samples

### 3.1.3.6. Resource PUT (ID)

PUT /resources/{resource\_id}

Updates an existing Resource reference in the Platform

#### 3.1.3.6.1. Description

This operation updates an existing 'owned' resource reference.

#### 3.1.3.6.2. Parameters

##### Path Parameters

Name	Description	Required
resource_id	Unique Resource ID	X

#### 3.1.3.6.3. Body Parameter

Name	Description	Required
Resource	<i>Resource</i>	X

##### Header Parameters

Name	Description	Required
Authorization	JWT or Bearer Token	-

#### 3.1.3.6.4. Return Type

-

#### 3.1.3.6.5. Responses

Table 20. http response codes

Code	Message	Datatype
200	OK	<<>>
401	UNAUTHORIZED	<<>>
404	NOT FOUND	<<>>

#### 3.1.3.6.6. Samples

### 3.1.3.7. Resource PATCH (ID)

PATCH /resources/{resource\_id}

Patches an existing Resource reference in the Platform

Currently, only support for this method is presented, and requires and functions the same as PUT.

#### 3.1.3.7.1. Description

This operation updates an existing 'owned' resource reference.

#### 3.1.3.7.2. Parameters

##### Path Parameters

Name	Description	Required
resource_id	Unique Resource ID	X

#### 3.1.3.7.3. Body Parameter

Name	Description	Required
Resource	<i>Resource</i>	X

##### Header Parameters

Name	Description	Required
Authorization	JWT or Bearer Token	-

#### 3.1.3.7.4. Return Type

-

#### 3.1.3.7.5. Responses

Table 21. http response codes

Code	Message	Datatype
200	OK	<<>>
401	UNAUTHORIZED	<<>>
404	NOT FOUND	<<>>

#### 3.1.3.7.6. Samples

### 3.1.4. API

#### 3.1.4.1. Swagger UI

/swagger-ui

##### 3.1.4.1.1. Description

This operation accesses the API for the Policy Enforcement Point

##### 3.1.4.1.2. Parameters



## Path Parameters

Name	Description	Required
-	-	-

## Header Parameters

Name	Description	Required
-	-	-

### 3.1.4.1.3. Return Type

-

### 3.1.4.1.4. Responses

Table 22. http response codes

Code	Message	Datatype
200	OK	<<>>

### 3.1.4.1.5. Samples

## 3.2. Models

### 3.2.1. *NewResource*

Field Name	Required	Type	Description	Format
name	Y	String	Human readable name for the resource	-
description	Y	String	Human readable description of the resource	-
icon_uri	Y	String	Protected uri of the resource.	-
resource_scopes	Y	List of <a href="#">[string]</a>	List of scopes associated with the resource	-

### 3.2.2. *Resource*

Field Name	Required	Type	Description	Format
ownership_id	Y	UUID	UUID of the Owner End-User	uuid
description	Y	UUID	Human readable description of the resource	uuid

Field Name	Required	Type	Description	Format
name	Y	String	Human readable name for the resource	-
icon_uri	Y	String	Protected uri of the resource.	-
resource_scopes	Y	List of <a href="#">[string]</a>	List of scopes associated with the resource	-

<< End of Document >>