TRESOR PDP/ContextHandler REST Guide

General Information

- Accept Header not used at the moment, written down only to indicate what kind of return value can be expected
- UTF-8 is assumed and used throughout if no charset is given (Exception: error messages)
- Error messages use default error pages from server if no additional content is sent from contexthandler

Relevant URLs

URL	Resource	Methods	Authentication
/	Home document	GET	
/pdp	PDP	POST	
/policy	PolicyStore	GET PUT	X
/policy/serviceID	PolicyStore	GET PUT DELETE	X

HttpMethod	URL	function
GET	/	discover home document
POST	/pdp	get pdp decision
GET	/policy	get all policies belonging to my domain
PUT	/policy	create a new policy
GET	/policy/serviceID	get specific policy
PUT	/policy/serviceID	replace existing policy
DELETE	/policy/serviceID	delete existing policy

Home document example

```
<resources xmlns='http://ietf.org/ns/home-documents' xmlns:atom='http://www.w3.org/2005/Atom'>
    <resource rel='http://docs.oasis-open.org/ns/xacml/relation/pdp'>
        <atom:link href='/pdp' />
    </resource>
</resources>;
```

Call examples

Home (URL: /)

Request: **GET**

```
GET / HTTP/1.1
```

```
Accept: application/xml
```

Success:

```
HTTP/1.0 200 OK
Content-Type: application/xml
Body: <home-document>
```

Failure:

```
HTTP/1.1 500 INTERNAL SERVER ERROR
```

PDP (URL: /pdp)

Request: **POST**

```
POST /pdp HTTP/1.1
Accept: application/xacml+xml
Content-Type: application/xacml+xml
Body: <xacml-request>
```

OR

```
POST /pdp HTTP/1.1
Accept: application/samlassertion+xml
Content-Type: application/samlassertion+xml
Body: <xacml-saml request>
```

Success:

```
HTTP/1.0 200 OK
Content-Type: application/xacml+xml
Body: <xacml-response>
```

OR

```
HTTP/1.0 200 OK
Content-Type: application/samlassertion+xml
Body: <xacml-saml response>
```

Failure: *Malformed XACML request*

```
HTTP/1.1 400 BAD REQUEST
```

PolicyStore (URL: /policy)

Request: **GET**

```
GET /policy HTTP/1.1
Accept: application/json
Authorization: BASIC <base64 encoded "username:password">
```

Success:

```
HTTP/1.0 200 OK
Content-Type: application/json
Body: { "<serviceID1>" : "<policy1>", "<serviceID2>" : "<policy2>", ... }
```

Failure: *Authentication failed*

```
HTTP/1.1 401 UNAUTHORIZED
WWW-Authenticate: BASIC realm="policystore"
Content-Type: text/html
```

Failure: *Authentication succeeded but not authorized to act*

```
HTTP/1.1 403 FORBIDDEN
```

Request: **PUT**

```
PUT /policy HTTP/1.1
Authorization: BASIC <base64 encoded "username:password">
Content-Type: application/json
Body: { "service" : "<serviceID>", "policy" : "<xacml policy>" }
```

Success:

```
HTTP/1.1 201 CREATED
Location: /policy/<serviceID>
```

Failure: *Authentication failed*

```
HTTP/1.1 401 UNAUTHORIZED
WWW-Authenticate: BASIC realm="policystore"
Content-Type: text/html
```

Failure: *Authentication succeeded but not authorized to act*

```
HTTP/1.1 403 FORBIDDEN
```

Failure: *Policy already exists*

```
HTTP/1.1 403 FORBIDDEN
Content-Type: text/plain
Content: Policy already exists
```

Failure: *Malformed request, json and/or xacml policy*

```
HTTP/1.1 400 BAD REQUEST
```

Failure: *Unknown reason, likely an indication for a problem with the policy store or a bug*

```
HTTP/1.1 500 INTERNAL SERVER ERROR
```

PolicyStore (URL: /policy/serviceID)

Request: **GET**

```
GET /policy/serviceID HTTP/1.1
Accept: application/json
Authorization: BASIC <base64 encoded "username:password">
```

Success:

```
HTTP/1.0 200 OK
Content-Type: application/json
Body: { "<serviceID>" : <xacml policy> }
```

Failure: *Authentication failed*

```
HTTP/1.1 401 UNAUTHORIZED
WWW-Authenticate: BASIC realm="policystore"
Content-Type: text/html
```

Failure: *Authentication succeeded but not authorized to act*

```
HTTP/1.1 403 FORBIDDEN
```

Failure: *Policy not found*

```
HTTP/1.1 404 NOT FOUND
```

Request: **PUT**

```
PUT /policy/serviceID HTTP/1.1
Authorization: BASIC <base64 encoded "username:password">
Content-Type: application/json
Body: { "policy": <xacml policy> }
```

Success:

```
HTTP/1.1 204 NO CONTENT
```

Failure: *Authentication failed*

```
HTTP/1.1 401 UNAUTHORIZED
WWW-Authenticate: BASIC realm="policystore"
Content-Type: text/html
```

Failure: *Authentication succeeded but not authorized to act*

```
HTTP/1.1 403 FORBIDDEN
```

Failure: *Policy not found*

```
HTTP/1.1 404 NOT FOUND
```

Failure: *Malformed request, json and/or xacml policy*

```
HTTP/1.1 400 BAD REQUEST
```

Failure: *Unknown reason, likely an indication for a problem with the policy store or a bug*

```
HTTP/1.1 500 INTERNAL SERVER ERROR
```

Request: **DELETE**

```
DELETE /policy/serviceID HTTP/1.1
Authorization: BASIC <base64 encoded "username:password">
```

Success:

```
HTTP/1.1 204 NO CONTENT
```

Failure: *Authentication failed*

```
HTTP/1.1 401 UNAUTHORIZED
WWW-Authenticate: BASIC realm="policystore"
Content-Type: text/html
```

Failure: *Authentication succeeded but not authorized to act*

```
HTTP/1.1 403 FORBIDDEN
```

Failure: *Policy not found*

```
HTTP/1.1 404 NOT FOUND
```

Failure: *Unknown reason, likely an indication for a problem with the policy store or a bug*

```
HTTP/1.1 500 INTERNAL SERVER ERROR
```