

RPP - Core

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Updates

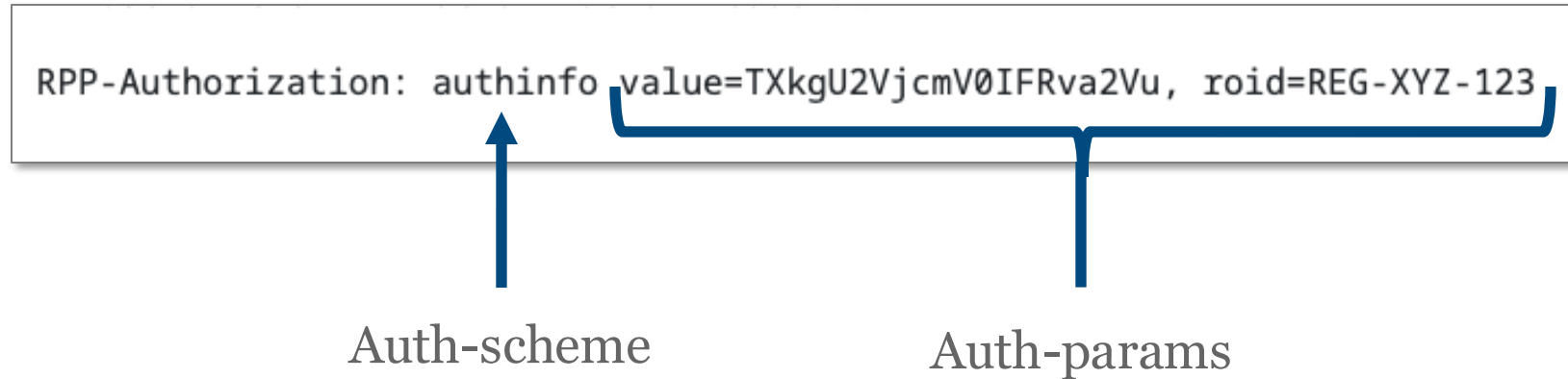
- Merged RPP-EPP-Code and RPP-Code into single RPP-Code header
- Updated mapping HTTP status code to RPP-Code
- Updated RPP-Authorization header
- Added new “process” URL path segment and representations
- Added “availability” path segment to Check URL
- Added use of Problem Detail (RFC9457) for error responses
- Cleanup text and updated the examples

RPP-Code Header

- Backward compatible with EPP result codes
- Added additional leading digit, allowing for new RPP codes
 - EPP result codes: 0xxxx
 - RPP result codes: 1xxxx

RPP-Authorization Header

- Provide object authorization information(EPP pwAuthInfoType)
- Similar to HTTP Authorization header (RFC9110)



Process

- Use “processes” path segment for non-CRUD processes (e.g. Renewal, Transfer)
- Generic interface for process interaction
- Process data is separated from object data

Request

```
POST /rpp/v1/domains/foo.example/processes/renewals HTTP/2
Host: rpp.example
Authorization: Bearer <token>
Accept: application/rpp+json
Content-Type: application/rpp+json
RPP-Cltrid: ABC-12345
Accept-Language: en
Content-Length: 210
```

Response

```
HTTP/2 200 OK
Date: Wed, 24 Jan 2024 12:00:00 UTC
Server: Example RPP server v1.0
Content-Language: en
RPP-Svtrid: XYZ-12345
RPP-Cltrid: ABC-12345
Content-Length: 205
Location: https://rpp.example/rpp/v1/domains/foo.example/processes/renewals/XYZ-12345
Content-Type: application/rpp+json
RPP-code: 01000
```

Newly created
Process URL



Check for Availability

- Added new /availability resource
 - Support for both HEAD and GET methods
 - HEAD: quick check
 - GET: Detailed response, e.g. pricing info

Request

```
HEAD domains/foo.example/availability HTTP/2
Host: rpp.example
Authorization: Bearer <token>
Accept-Language: en
RPP-Cltrid: ABC-12345
```

Response

```
HTTP/2 404 Not Found
Date: Wed, 24 Jan 2024 12:00:00 UTC
Server: Example RPP server v1.0
RPP-Cltrid: ABC-12345
RPP-Svtrid: XYZ-12345
RPP-code: 01000
Content-Length: 0
```

Availability resource does not exist,
domain cannot be registered

Problem Detail

Detailed error responses using Problem Detail (RFC9457)

- RPP Problem Type, can be registered at IANA registry
- Contains 1 or more error objects
- Extensible

```
{
  "type": "urn:ietf:params:rpp:error",
  "title": "RPP Error",
  "errors": [{
    "type": "https://rpp.example/problems/domains/domain-syntax",
    "result": "02005",
    "paths": [ "$.domain.name" ],
    "reason": "Invalid character(s) in domain name",
  },
  {
    "type": "https://rpp.example/problems/domains/domain-allowed-length",
    "result": "02004",
    "paths": [ "$.domain.name" ],
    "reason": "Domain name length must be between 3 and 63 characters",
  }
]
```

Machine

Human

Next steps

- Align current work with requirements, need consensus on requirements
- Incorporating Tiger Team recommendations
- Request for adoption

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Thank You

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