State-of-play

Technical guidelines on the use of the OGC API – Features as an INSPIRE Download service

Setting up an INSPIRE Download service based on the OGC API-Features standard

`Version: 0.2` `Date: 2020-05-03`

Table of Contents

- 1. Introduction
- 2. Scope
- 3. Conformance
- 4. Normative references
- 5. Terms and definitions
- 6. Symbols and abbreviated terms
- 7. INSPIRE Download Services based on OAPIF
  - 7.1. Main principles
  - 7.2. Requirements class “INSPIRE-pre-defined-data-set-download-OAPIF”
  - 7.3. Requirements class “INSPIRE-multilinguality”
  - 7.4. Requirements class “INSPIRE-OAPIF-GeoJSON”
  - 7.5. Requirements class "INSPIRE-bulk-download"
- 8. Bibliography
- Annex A: Abstract Test Suite
- Annex B: Mapping the requirements from the IRs to the OGC API - Features standard (and extensions)
- Annex C: Mapping between INSPIRE Network services metadata and OpenAPI definitions
- Annex D: Supported languages

https://github.com/INSPIRE-MIF/gp-ogc-api-features/blob/master/spec/oapif-inspire-download.md

Issue 1: language support

Solution: HTTP content negotiation

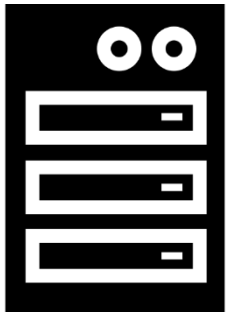
Includes:

- media type negotiation
- language negotiation
- character encoding negotiation

"Please give me GeoJSON or GML, in Finnish, Danish or English."

GET [URL]
Accept: application/geo+json, application/gml+xml
Accept-Language: fi,da,en

1



HTTP/1.1 200 OK
Content-Type: application/geo+json
Content-Language: en

2

"Ok. I've returned GeoJSON in English."

Laptop PNG Icon found on PNG Repo is licensed under Creative Commons BY 4.0

Server PNG Icon found on PNG Repo is licensed under Creative Commons BY 4.0

Issue 1: language support

INSPIRE implementing rules

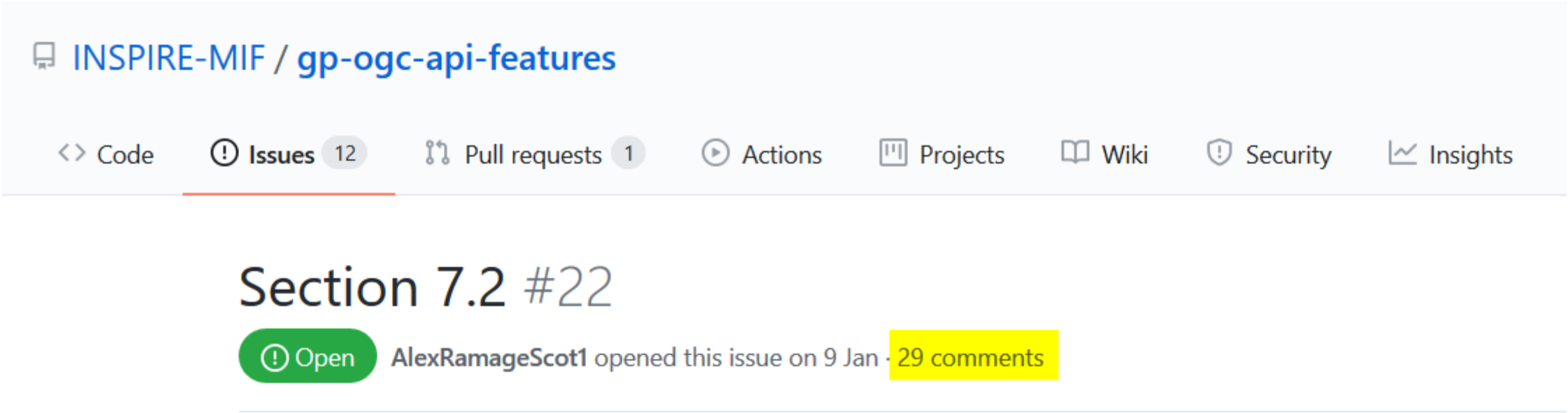
- language (request): natural language requested for the response
- response language (response): natural language used in the Get Download Service Metadata response parameters
- supported languages (response): list of the natural languages supported by the Download Service

???

RFC 7231

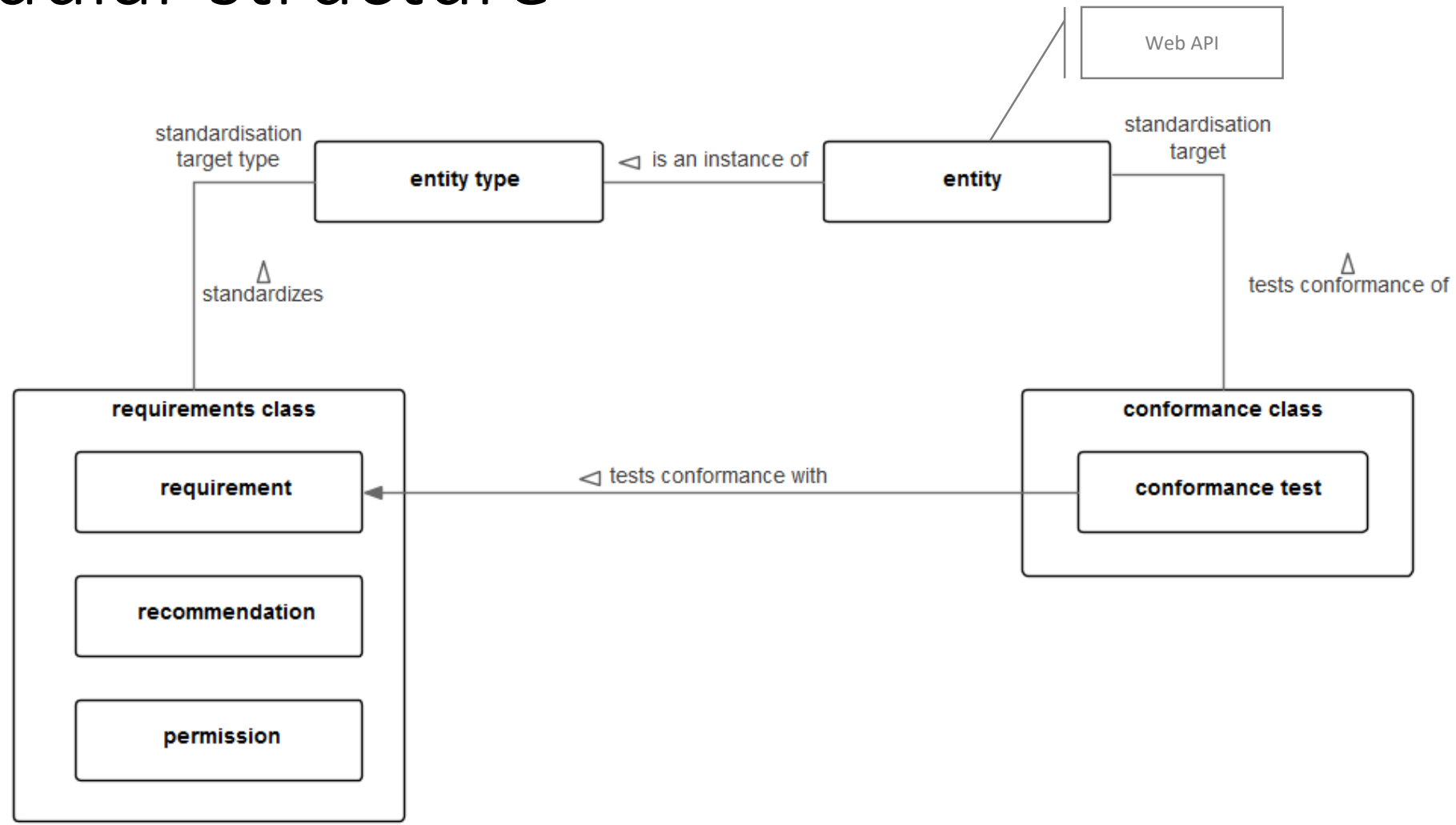
- Accept-Language:
  set of natural languages that are preferred in the response
  Note: A request without any Accept-Language header field implies that the user agent will accept any language in response.
- Content-Language:
  natural language(s) of the intended audience for the representation
  Note: If no Content-Language is specified, the default is that the content is intended for all language audiences.
  Note: Multiple languages MAY be listed for content that is intended for multiple audiences.

Issue 2: fine-grained access vs bulk access

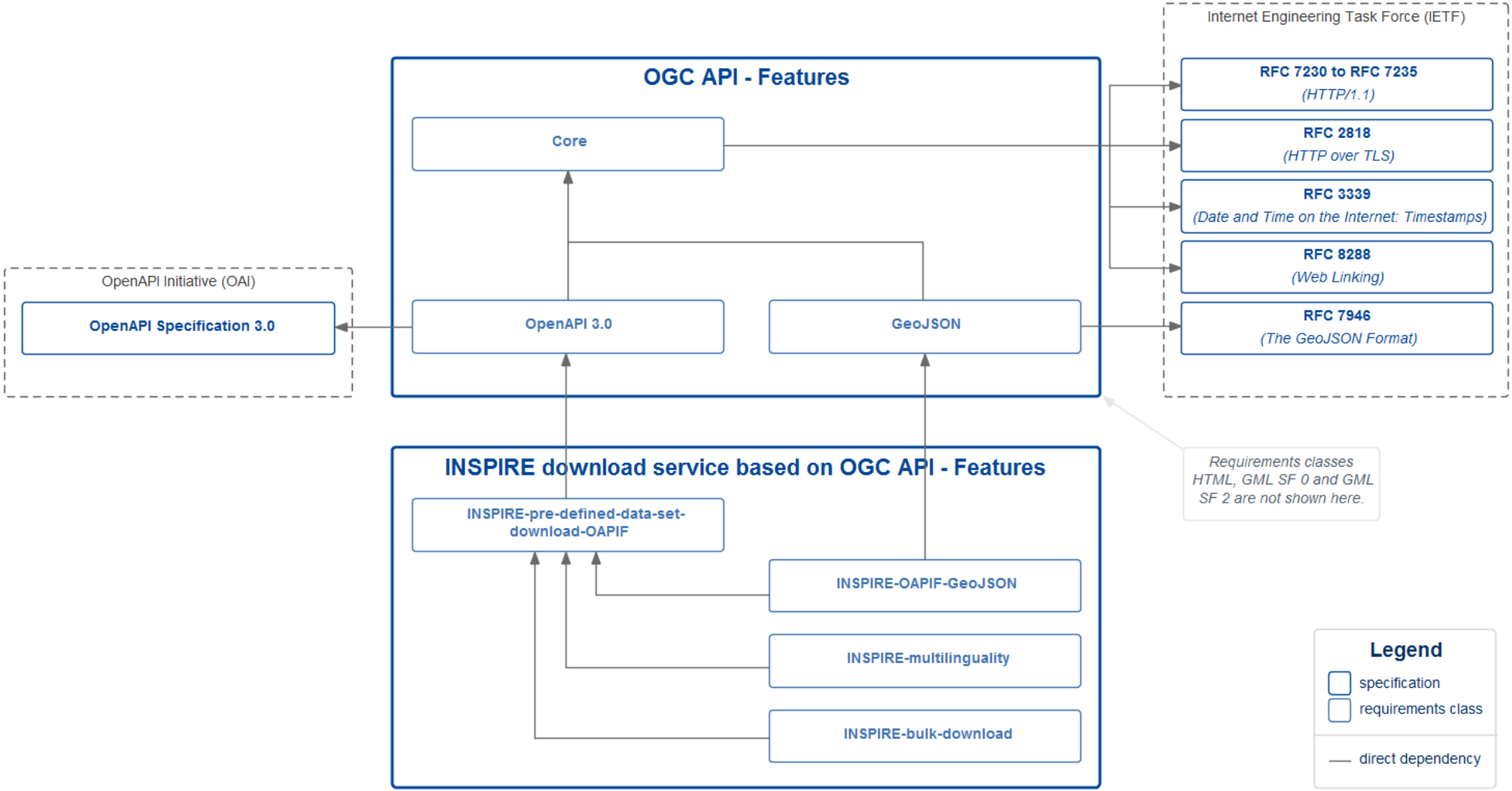


https://github.com/INSPIRE-MIF/gp-ogc-api-features/issues/22

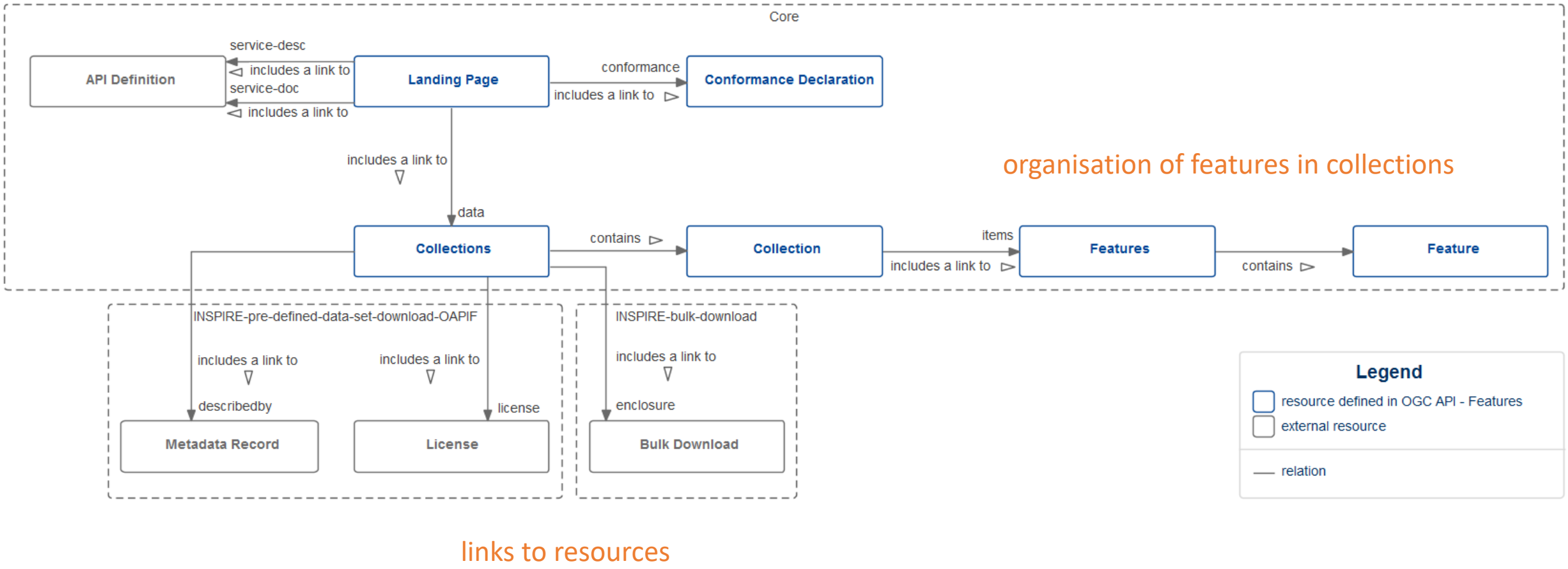
Modular structure

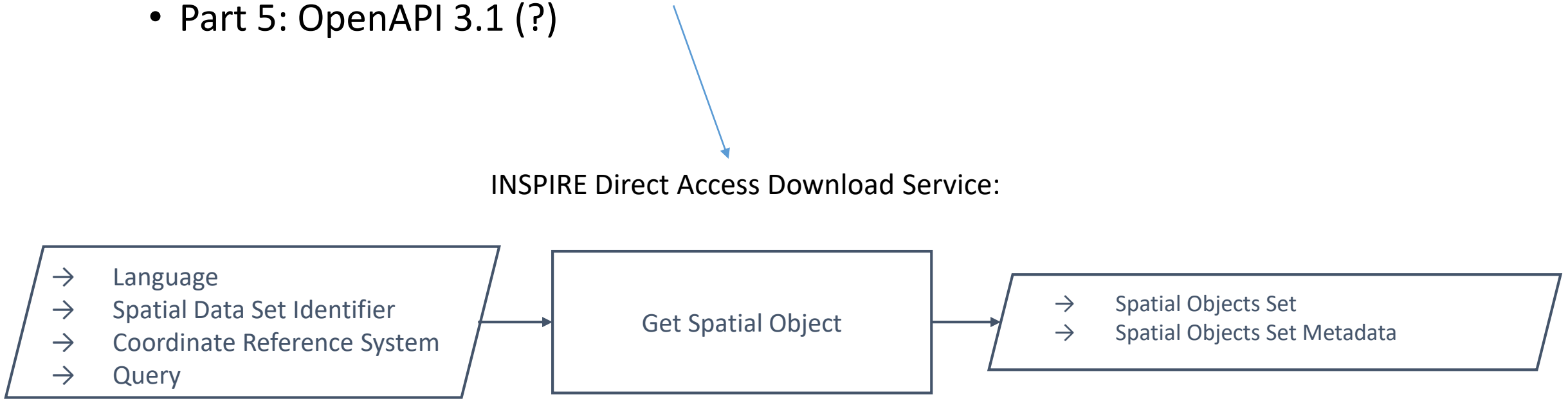


OGC 08-131r3, *The Specification Model — A Standard for Modular specifications* (note: this is my understanding of the modular spec, this figure is not present in OGC 08-131r3)


Internet Engineering Task Force (IETF)
RFC 7230 to RFC 7235
(HTTP/1.1)
RFC 2818
(HTTP over TLS)
RFC 3339
(Date and Time on the Internet: Timestamps)
RFC 8288
(Web Linking)
RFC 7946
(The GeoJSON Format)
OGC API - Features
Core
OpenAPI 3.0
GeoJSON
OpenAPI Initiative (OAI)
OpenAPI Specification 3.0
Requirements classes HTML, GML SF 0 and GML SF 2 are not shown here.
INSPIRE download service based on OGC API - Features
INSPIRE-pre-defined-data-set-download-OAPIF
INSPIRE-OAPIF-GeoJSON
INSPIRE-multilinguality
INSPIRE-bulk-download
Legend
specification
requirements class
direct dependency

Resources


Core
service-desc
API Definition
includes a link to
service-doc
includes a link to
Landing Page
conformance
includes a link to
Conformance Declaration
includes a link to
data
Collections
contains
Collection
items
includes a link to
Features
contains
Feature
organisation of features in collections
INSPIRE-pre-defined-data-set-download-OAPIF
includes a link to
describedby
Metadata Record
includes a link to
license
License
INSPIRE-bulk-download
includes a link to
enclosure
Bulk Download
Legend
resource defined in OGC API - Features
external resource
relation
links to resources

Todo

- review current spec and solve any outstanding issues
- map remaining INSPIRE requirements to
  - Part 2: Coordinate Reference Systems by Reference
  - Part 3: Common Query Language (?)
  - Part 5: OpenAPI 3.1 (?)