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# OGC API Coverages

OGC API Hackathon 2019  
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# OGC API Coverages - Intro

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- Establishes how to access coverages as defined by the Coverage Implementation Schema (CIS) 1.1 through OpenAPI
- Current scope
  - Only gridded coverages are addressed, not MultiPoint/Curve/Surface/SolidCoverages.
  - Only GeneralGridCoverage is addressed, other coverage types will follow later.
  - Only coverage extraction functionality is considered, not general processing
  - Subsetting is considered in the query component only for now.

# OGC API Coverages - Paths



- From Common
  - Path = /
  - Path = /api
  - Path = /conformance
  - Path = /collections/
  - Path = /collections/{collectionId}
- Path = /collections/{collectionId}/coverages
  - Returns list of coverages in the collection. Supports bbox parameter.
- Path = /collections/{collectionId}/coverages/{coverageId}
  - Returns the coverage itself. Typically as an image file.
- Path = /collections/{collectionId}/coverages/{coverageId}/domainset
  - Returns a description of the domain set of the coverage
- Path = /collections/{collectionId}/coverages/{coverageId}/rangetype
  - Returns a description of the range type of the coverage
- Path = /collections/{collectionId}/coverages/{coverageId}/metadata
  - Returns additional metadata about a coverage.

# OGC API Coverages - Issues



- Issue 21: Tree structure vs features API
  - features and coverages in same service?
- Issue 19: Identifier syntax for OAPI Common
  - any restrictions (cf. NCNAME)
- Issue 15: What extensions should API Coverages have?
  - CRS transformation extension - part of common?
  - Guidance for extensions & application profiles

[https://github.com/opengeospatial/ogc\\_api\\_coverages/projects/1](https://github.com/opengeospatial/ogc_api_coverages/projects/1)

# OGC API Coverages - Issues



- HTML representation
  - Issue 13: HTML not optimal for findability/discovery
  - Issue 14: Coverage representation in HTML
  - Hypermedia As The Engine Of Application State (HATEOAS)  
<https://en.wikipedia.org/wiki/HATEOAS>
- Issue 9: Make use of HTTP headers
  - Multiple formats in one request (multipart/related; JSON + GeoTIFF)
  - Guidance from common (#28)

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# OGC API Coverages - Issues



- Issue 8: Coverage collections
  - Hierarchies, nesting, member of more than one set, and not member of any set
  - Unique IDs needed?
  - OpenAPI Common - CRS: representation of same coverage in different CRS
- Issue 5: How to model resource (sub) selection based on the coverage model
  - Guidance for using conformance classes from common

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## Points of Contact:

**Chuck Heazel**

**[cmheazel@heazeltech.com](mailto:cmheazel@heazeltech.com)**

**Peter Baumann**

**[baumann@rsdaman.com](mailto:baumann@rsdaman.com)**

**Stephan Meißl**

**[stephan.meissl@eox.at](mailto:stephan.meissl@eox.at)**