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OGC API Coverages

OGC API Hackathon 2019
London, United Kingdom
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OGC API Coverages - Intro



- 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

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)

https://github.com/opengeospatial/ogc_api_coverages/projects/1

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

https://github.com/opengeospatial/ogc_api_coverages/projects/1



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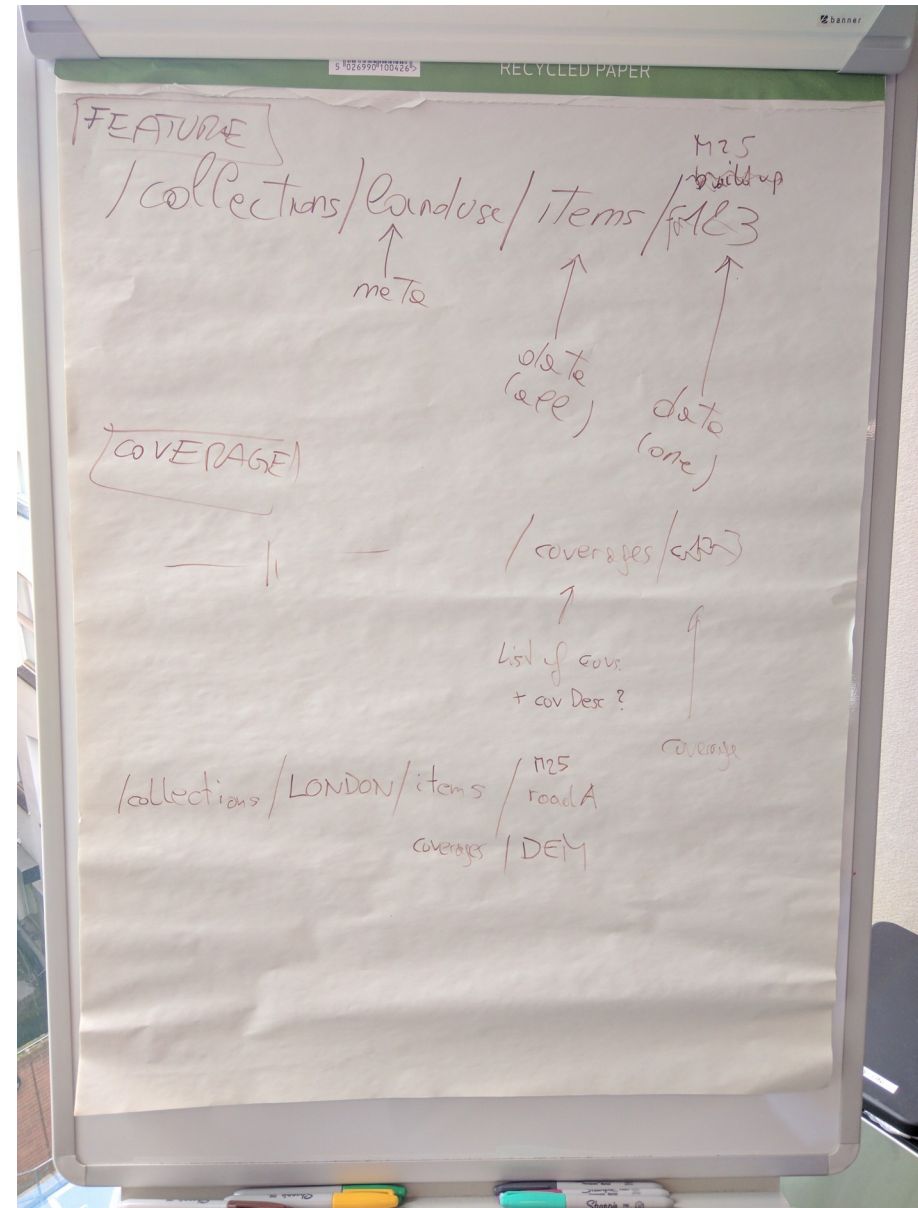
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/collections/{id}/items URL & response



- /collections/landuse/items/ - common and features
- /collections/landuse/coverages/ - even valid?
- Does common have guidance on these URLs and what they shall return?
- E.g. /items gives features themselves. Should /coverages also return coverages or is covDesc fine?



Root paths



- Resource specific collections, hierarchies, etc.
 - What about
 - /hierarchies
 - /mosaics
 - Allowed by common???
 - <https://github.com/opengeospatial/OGC-API-Hackathon-2019/issues/8>
- Version
 - Where to report service version
 - https://github.com/opengeospatial/oapi_common/issues/29