CMR Catalog Service for the Web

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Agenda

• What is CSW?
• Why CSW?
• API
• Current status
• Synopsis
WHAT IS CSW?
Catalog Service for the Web

From OGC website:

‘Catalog services support the ability … search collections of descriptive information (metadata) for data, services, and related information objects. … Catalogue services are required to support the discovery and binding to registered information resources within an information community.

OGC Catalog interface standards specify the interfaces, bindings, and a framework for defining application profiles required to publish and access digital catalogs of metadata for geospatial data, services, and related resource information…’
WHY CSW?
Why?

- GCMD/IDN provides a CSW for it’s collection metadata. CMR is now mandated to provide all APIs for the GCMD/IDN
- It is a widely-used earth data discovery standard
- CWIC maintains a CSW framework for interoperability
Base URL

https://cmr.earthdata.nasa.gov/csw/collections
Service description

• GetCapabilities is supported via GET and POST
• GET example:

?request=GetCapabilities&service=CSW&version=2.0.2
Finding collections

• GetRecords is supported via POST
• POST example:

```xml
<csw:GetRecords
 startPosition="1"
 maxRecords="10" outputFormat="application/xml"
 outputSchema="http://www.isotc211.org/2005/gmd"
 resultType="results" service="CSW" version="2.0.2">
  <csw:Query typeNames="csw:Record">
    <csw:ElementSetName>brie</csw:ElementSetName>
  </csw:Query>
</csw:GetRecords>
```
Portraying collections

• GetRecordById is supported via GET and POST
• GET example:

request=GetRecordById&service=CSW&version=2.0.2&id=C1224520098-NOAA_NCEI&ElementSetName=full
Describing supported formats

• DescribeRecord is supported via GET and POST

• GET example:

request=DescribeRecord&service=CSW&version=2.0.2&amp;NAMESPACE=xmlns(csw=http://www.opengis.net/cat/csw/2.0.2)&typeName=csw:record
Describing parameters

• GetDomain is supported via GET and POST

• GET example:

request=GetDomain&service=CSW&version=2.0.2&PropertyName=Platform
Supported output schemas

- csw:Record
- gmi:MI_Metadata (ISO MENDS)
- gmd:MD_Metadata (CSW ISO standard)
Supported query parameters

- Title
- AnyText
- Modified
- BoundingBox, polygon, line, point
- TempExtent_begin and TempExtent_end
- Instrument
- Platform
- ScienceKeywords
CWIC support

• Any collection who’s granules are contained within the CWIC infrastructure are tagged with the following keyword element

• Csw:Record example

<dc:subject>CWIC > CEOS WGISS Integrated Catalog</dc:subject>
• The power and performance of CMR
• An(other) standards based API
• ISO (gmd and gml) and CSW metadata support
• CWIC integration for non-NASA datasets
UPCOMING
Granule support and stuff

- csw/granules?
- Loose coupling between collections and granules
- 3.0 when it is released
  - Submission Date: 2014-03-11
  - Approval Date: 2016-02-23
  - Publication Date: 2016-mm-dd
QUESTIONS?
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