Onboarding Process for a new CMR provider

This process is used when a new organization comes on board as a provider of Earth Science metadata in the NASA Common Metadata Repository (CMR).

Step-by-step guide

1. Familiarize yourself with the CMR at Common Metadata Repository Home, especially the CMR Data Partner User Guide
2. Familiarize yourself with the CMR Unified Metadata Model for collections and granules at https://earthdata.nasa.gov/about/science-system-description/eosdis-components/common-metadata-repository/unified-metadata-model-umm
3. Familiarize yourself with the Earthdata Search Client at https://search.earthdata.nasa.gov
    a. Take the Tour
4. Gather and organize the administrative information and the data management strategy for your provider and your data collections
    a. Ensure that the data center(s) that archive, distribute, originate, and process your earth science data collections are included in the controlled vocabulary of Data Center names in the GCMD Keyword Management System (KMS) at GCMD Keyword Access.
    If your data center(s) are already included in the controlled vocabulary, review each data center short name, long name, and data center url for accuracy.
    If your data center(s) are not included, or there are errors in the short name, long name, or data center url, submit a request to add or update your data center information, per the instructions at Keyword FAQ#HowDoISubmitaKeywordRequestorIssue
    b. Select a provider name. See CMR Data Partner User Guide#CMRProviderIdentification
    Provider names should be descriptive of the data center and/or mission.
    Providers with shared missions may want to establish a common convention for provider names. For example, for 'Land, Atmosphere Near real-time Capability for EOS (LANCE)' providers, consider using a naming convention such as 'LANCE<instrument>' (e.g., LANCEMODIS, LANCEAMSR2)
    Provider names may be related to the data center short name in the GCMD Keyword Management System
    c. Determine how many datasets (collections) you will have in the CMR, and gather the following information for each (you will be entering this information as collection metadata in the CMR):
        i. Short name
        ii. Long name
        iii. DOI (highly recommended)
        iv. url of Landing page for collection information
        v. url(s) for distribution of data from the collection
        vi. url(s) for services provided for data from the collection
        vii. science keywords that apply to the collection (see GCMD Keyword Access)
        viii. spatial coverage of the data in the collection
        ix. temporal coverage of the data in the collection
        x. acquisition information about the data in the collection (platform, instrument)
    d. For each collection, determine whether the collection will be visible to guest users, registered users, or a restricted group of users (e.g., a science team, system administrators)
    e. Determine who your CMR administrator will be. This person or persons will be responsible for working with the CMR OPS team to establish and maintain collection and granule search and order permissions, ordering configurations, and service configurations for your provider.
    f. Determine who will enter CMR collection and granule metadata for your provider. This person or persons will be responsible for creating collection level records in the CMR (using the Metadata Management Tool UI or the CMR Ingest API), and for ingesting granules into the CMR using the CMR Ingest API.
    g. Determine who your user support team will be. This person or persons will be responsible for fielding end user questions about search and order of your data through CMR clients such as the Earthdata Search Client.
    h. Determine the native format of your collection and granule metadata records.
    The CMR accepts metadata in several native formats, including ECHO, DIF, ISO-19115, and UMM-JSON. If your collection and granule metadata already exists and is in one of these forms, you may ingest it in its native format into the CMR using the CMR Ingest API. If your collection and granule metadata does not already exist, it is recommended that you use UMM-JSON as your native metadata format. The Metadata Management Tool (MMT) provides a user interface for creating collection records in UMM-JSON format.
5. Establish Earthdata Login accounts for your CMR administrator and your metadata management team. A separate Earthdata Login account is required for each CMR environment you will use (SIT (optional), UAT, and PROD. Go to the appropriate url below (one for each environment) to create your Earthdata Login accounts.
    a. https://sit.urs.earthdata.nasa.gov
    b. https://uat.urs.earthdata.nasa.gov
    c. https://urs.earthdata.nasa.gov
6. Work with the CMR OPS team to establish your provider in the CMR. The OPS team will:
    a. Create your provider in the CMR (in UAT and Production; optionally also in the SIT environment)
    b. Create an administrative group for your provider. Members of the administrative group will be the person or persons you have designated as your provider administrator, as well as the CMR OPS team.
    c. Give default permissions to members of the administrator group.
7. Your provider administrator will then use the Metadata Management Tool to establish other user groups, search and order permissions, ordering configurations and service configurations for your provider. See Metadata Management Tool (MMT) User's Guide for instructions on how to do this, and see CMR Data Partner User Guide#Chapter5:The4thStep-DataManagement
8. Enter collection metadata in the CMR User Acceptance Test (UAT) environment.
    a. For legacy metadata (i.e., existing metadata in ECHO, DIF, or ISO native format), use the CMR API.
    b. For new metadata
        i. For small or medium numbers of collections, use the Metadata Management Tool to enter collection records in the UAT CMR. https://mmt.uat.earthdata.nasa.gov

            See Metadata Management Tool (MMT) User's Guide for instructions.
        ii. For large numbers of collections, you may wish to use the CMR API to enter collection metadata.
9. Enter granule metadata in the CMR UAT environment.
    a. Use the CMR API.
10. Test search and order with the Earthdata Search Client in the UAT environment.

    a. Search for your collections
    b. Order granules from your collections
    c. Verify that collections that are hidden from the public do not appear in public user search results
11. Enter collection metadata in the CMR Production environment.
    a. If you have a small number of collections, the OPS team may be able to copy your UAT collection metadata to the Production CMR.
    b. Otherwise, enter your collection metadata in the Production CMR the same way that you entered it in the UAT CMR in step 8. https://mmt.earthdata.nasa.gov is the production MMT.
12. Enter granule metadata in the CMR Production environment.
    a. Use the CMR API
13. Test search and order with the Earthdata Search Client in the Production environment.
    a. Search for your collections
    b. Order granules from your collections
    c. Verify that collections that are hidden from the public do not appear in public user search results
14. Create an Earthdata Status App account so that you can post outage and status messages from your provider on the Earthdata Search Client and MMT.

CMR Vocabulary and Acronyms

CMR Data Partner User Guide#Acronyms

EDSC: Earth Data Search Client

UMM: Unified Metadata Model

UMM-C: Unified Metadata Model - Collections

UMM-G: Unified Metadata Model - Granules

UMM-Common: Unified Metadata Model - metadata fields common to multiple

Collection: collection of data files; a dataset

Granule: data file

Related articles

- Onboarding Process for a new CMR provider
- CMR Requirements Review Process