

**GSFC ESDIS CMO**  
**March 15, 2019**  
**Released**

423-RQMT-016, Original Rev -  
Earth Science Data and Information Systems (ESDIS)  
Project, Code 423

# **Metadata Management Tool (MMT) Requirements Specification**



**Goddard Space Flight Center**  
**Greenbelt, Maryland**

National Aeronautics and  
Space Administration

## Metadata Management Tool (MMT) Requirements Specification Signature/Approval Page

**Prepared by:**

*Signature obtained on file*

Valerie Dixon  
ESDIS Common Metadata Repository  
Manager  
NASA GSFC Code 586

*03/15/2019*

Date

**Reviewed by:**

*Signature obtained on file*

Kathleen Baynes  
ESDIS System Architect  
NASA GSFC Code 586

*03/15/2019*

Date

**Approved by:**

*Signature obtained on file*

Andrew Mitchell  
ESDIS Project Manager  
NASA GSFC Code 423

*03/15/2019*

Date

**[Electronic] Signatures available in B32 Room E148  
online at: / <https://ops1-cm.ems.eosdis.nasa.gov/cm2/>**

## Preface

This document is under ESDIS Project configuration control. Once this document is approved, ESDIS approved changes are handled in accordance with Class I and Class II change control requirements described in the ESDIS Configuration Management Procedures. Changes to this document shall be verified by a Document Change Notice (DCN) and implemented by change bars or by complete revision.

Any questions should be addressed to: [esdis-esmo-cmo@lists.nasa.gov](mailto:esdis-esmo-cmo@lists.nasa.gov)

ESDIS Configuration Management Office (CMO)

NASA/GSFC

Code 423

Greenbelt, Md. 20771

## **Abstract**

This document provides the Metadata Management Tool (MMT) system requirements presented as a set of user stories following the Agile development approach.

***Keywords:*** CMR, UMM, MMT, GCMD, Metadata



---

---

## Table of Contents

1	INTRODUCTION .....	1
1.1	Purpose .....	1
1.2	Scope .....	1
1.3	Related Documentation .....	1
1.3.1	Applicable Documents .....	1
1.3.2	Reference Documents .....	2
1.4	Agile Programming and Requirements Analysis .....	2
1.5	User Roles .....	3
1.5.1	MMT System .....	3
1.5.2	MMT Operator .....	3
1.5.3	MMT User .....	3
2	Requirements .....	4
2.1	Graphical User Interface (GUI) Design .....	4
2.2	Operations Management .....	5
2.3	User Authentication .....	5
2.4	Search .....	6
2.4.1	Metadata Record Search .....	6
2.4.2	Metadata Associations Search .....	7
2.4.3	Provider Order Search .....	8
2.5	Metadata CRUD .....	8
2.5.1	Metadata Forms .....	9
2.5.2	Metadata Drafts .....	9
2.5.3	Keyword Selection .....	9
2.5.4	Metadata Validation .....	10
2.5.5	Metadata Ingest .....	11
2.5.6	Metadata Revisions .....	11
2.5.7	Alerts and Notifications .....	12
2.5.8	Help Information .....	12
2.6	Collections (UMM-C) CRUD .....	13
2.6.1	Collection Specific Forms and Fields .....	13
2.6.2	Collection Drafts, Editing and Publishing .....	14
2.7	Services (UMM-S) CRUD .....	15
2.8	Variables (UMM-Var) CRUD .....	16
2.9	Granules (UMM-G) CRUD .....	17
2.10	Templates (UMM-C) .....	17
2.11	Bulk Update .....	18
2.11.1	Bulk Update Management .....	18
2.11.2	Bulk Update Record, Field and Value Selection .....	18
2.11.3	Bulk Update Actions .....	20
2.11.4	Bulk Delete Actions .....	21
2.12	Metadata Associations .....	21
2.13	Metadata Quality Assessments .....	22
2.14	Provider Information and Holdings .....	23

2.14.1 Provider Information .....	23
2.14.2 Holdings Report .....	23
2.15 Permissions and Groups .....	23
2.15.1 ACL Reports .....	24
2.15.2 ACL Rules .....	25
2.15.3 System Level ACLs .....	25
2.15.4 Group ACLs .....	25
2.15.5 Object ACLs .....	28
2.15.6 Search and Order ACLs .....	29
2.16 Provider Orders .....	30
2.16.1 Provider Order Management .....	30
2.16.2 Order Policies .....	30
2.16.3 Order Options .....	31
2.17 Provider Services .....	31
2.17.1 Service Entries .....	32
2.17.2 Service Options .....	32
2.18 Data Quality Summaries .....	33
2.18.1 Data Quality Summary Creation and Editing .....	33
2.18.2 Data Quality Summary Assignments .....	33
Appendix A.....	Abbreviations and Acronyms

# 1 INTRODUCTION

The Metadata Management Tool (MMT) (<https://mmt.earthdata.nasa.gov>) is a web-based user interface which allows metadata authors to create and manage their metadata records using the Common Metadata Repository (CMR's) Unified Metadata Model (UMM). Metadata authors can create and update CMR metadata records using a data entry form based on the metadata fields in the UMM. Metadata authors may also publish, view, delete, and manage CMR metadata records and access using the MMT.

## 1.1 Purpose

The purpose of this document is to capture the system requirements for the Metadata Management Tool.

## 1.2 Scope

This document covers requirements and user stories for the MMT. This document does not contain release notes or any version reporting. This document does not cover test criteria for any requirements or user stories.

## 1.3 Related Documentation

The latest versions of all documents below should be used. The latest Earth Science Data and Information System (ESDIS) Project documents can be obtained from Uniform Resource Locator (URL): <https://ops1-cm.ems.eosdis.nasa.gov>. ESDIS documents have a document number starting with either 423 or 505. Other documents are available for reference in the ESDIS project library website at: [http://esdisfmp01.gsfc.nasa.gov/esdis\\_lib/default.php](http://esdisfmp01.gsfc.nasa.gov/esdis_lib/default.php) unless indicated otherwise.

### 1.3.1 Applicable Documents

The following documents are referenced within or are directly applicable, or contain policies or other directive matters that are binding upon the content of this document.

Document Number	Document Title
423-RQMT-003	Metadata Requirements Base Reference Document
423-CDRD-EED2	Contract Data Requirements Document for Earth Observing System Data and Information System (EOSDIS) Evolution and Development 2 (EED2)
N/A	EOSDIS EED2 Statement of Work for Providing Development, Sustaining Engineering, and Continuous Evolution of the Common Metadata Repository

### 1.3.2 Reference Documents

The following documents are not binding on the content but referenced herein and amplify or clarify the information presented in this document.

Document Number	Document Title
NPR 2810.1A	Security of Information Technology document
ECHO Forms	<a href="https://api.echo.nasa.gov/legacy-services/echoforms/index.html">https://api.echo.nasa.gov/legacy-services/echoforms/index.html</a>

### 1.4 Agile Programming and Requirements Analysis

The EOSDIS Evolution and Development 2 (EED2) teams are using Agile Programming methodologies throughout the software development lifecycle-including the requirements analysis phase. The process of developing requirements has not changed much from other software programming management methods such as waterfall or iterative methods. The two major differences between Agile and other methods are:

- A greater emphasis on stakeholder participation
- Requirements are allowed to evolve throughout the Agile development process to account for changing priorities, new requirements that were left out initially, or changes due to issues encountered during development and testing

These two differences may not seem all that different from other methods; however, requirements managed by Agile processes provide for a much more flexible framework from which to develop software.

In this document, requirements are captured as a set of User Stories written in the form:

"As a <role> I want to <action> so that I can <explanation>".

The requirement is told from the perspective from a user role instead of the generic "The system shall...". Requirements written in this form helps to refine the system requirement by identifying the user or consumer of the required functionality, the function that the user needs, and why this function is needed. The concept of providing value to the system user is reflected in the explanation of the user story form. This provides the rationale or the benefit of the requirement.

Requirements that begin "As the MMT, ...", do not refer to the older style of "The system shall..." statements. In the context of User Stories, "the MMT" takes an active role by ensuring that those processes in the workflow that are to be automated will be managed by the system itself. The action describes what needs to be done, not how it needs to be implemented. This

allows the developer to choose from "Best Practices" techniques on how to best implement a requirement. The first principle of the Agile Manifesto is: Our highest priority is to satisfy the customer through early and continuous delivery of valuable software. (<http://agilemanifesto.org/principles.html>)

The MMT requirements and user stories will be tracked and maintained using Atlassian's Jama Requirements Management tool. The user stories presented in this document are written to a Systems Requirements level and will be kept in sync with the user stories maintained in Jama. Of note is that the stories in this document have all been approved, but not all have been prioritized for implementation as of the date of this document.

## 1.5 User Roles

The following roles will be used to clarify the MMT User Stories by defining system boundaries and those that are responsible for completing the tasks associated with these requirements.

### 1.5.1 MMT System

The MMT System allows metadata authors and providers to create metadata records and manage their provider holdings in the CMR. Key functionalities include:

- Creating, editing and publishing UMM compliant metadata to the CMR
- Managing permissions and access to metadata holdings
- Creating and managing Service and Order Options, and Data Quality Summaries

### 1.5.2 MMT Operator

The MMT Operator is responsible for the day to day maintenance and monitoring of the system. The MMT Operator is also responsible for adding or removing users and managing users' access to provider holdings. The MMT Operator works with the CMR Operator to troubleshoot issues when they occur.

### 1.5.3 MMT User

MMT Users are Providers, Metadata Authors and Metadata Curators who use the MMT to publish and manage metadata holdings in the CMR.

Provider - a representative/employee of a Distributed Active Archive Center (DAAC) or other organization which provides metadata or services to the CMR

Metadata Author - a Provider who has permission to create or edit metadata records for their organization

Metadata Curator - someone who has been assigned a role by NASA to review CMR metadata and assess its quality

## 2 REQUIREMENTS

### 2.1 Graphical User Interface Design

The following stories are related to the overall visual design and behavior of the MMT Graphical User Interface (GUI).

Story ID	User Story
<a href="#">CMR-STORY-1406</a>	As a user with accessibility needs, I want the GUI to comply with Section 508 usability standards so that I may use the GUI
<a href="#">CMR-STORY-1408</a>	As a user, I want the GUI to have the look and feel of other Earthdata sites so that I may identify it as an Earthdata application
<a href="#">CMR-STORY-1409</a>	As a user, I want the GUI to have a Help function so that I may learn how to use its features
<a href="#">CMR-STORY-1410</a>	As a user, I want to be warned when my browser does not meet site requirements or does not have Javascript enabled so I may understand problems I may see
<a href="#">CMR-STORY-1411</a>	As a user, I want to see a progress indicator for long running processes so that I know my actions are being processed
<a href="#">CMR-STORY-1528</a>	As a user, I want the GUI landing page to provide access to general descriptive information about the CMR and the MMT, regardless of whether I am logged in to Earthdata Login
<a href="#">CMR-STORY-1613</a>	As a user, I want the GUI to provide access to information about upcoming CMR outages and scheduled maintenance
<a href="#">CMR-STORY-1621</a>	As a user, I want the GUI to operate completely and correctly with the following browsers: IE 9 or later, Firefox 35 or later, Firefox Extended Support Release (ESR) 31 or later, Apple Safari 6 or later, and Google Chrome 39 or later
<a href="#">CMR-STORY-2054</a>	As a user, I should see breadcrumbs so that I can easily see where I am at within the application
<a href="#">CMR-STORY-2059</a>	As a user, I want to leave feedback about the MMT so that I may request features and report bugs
<a href="#">CMR-STORY-2060</a>	As a user, I should see a footer consistent with the look and feel of the rest of the application
<a href="#">CMR-STORY-2153</a>	As a user, I should not see links to actions that I do not have permissions to perform
<a href="#">CMR-STORY-2205</a>	As a user, MMT should remember the page I was trying to access if I must log in to view the page first

Story ID	User Story
<a href="#">CMR-STORY-2461</a>	As a user, I should be notified if I do not have any provider associations
<a href="#">CMR-STORY-2462</a>	As a user, I should see an error page with appropriate information if I try to access a page that requires authentication.
<a href="#">CMR-STORY-2469</a>	As a user, I should not be able to navigate to pages I do not have permissions to
<a href="#">CMR-STORY-2470</a>	As a Provider Administrator, I should see a dashboard with helpful links for CMR administration
<a href="#">CMR-STORY-2490</a>	As a user, I should see messages from the Earthdata Status app
<a href="#">CMR-STORY-2520</a>	As a Provider, I should see an entry point for Service and Variable CRUD
<a href="#">CMR-STORY-2734</a>	As a user, I want the application to remember if I dismiss a site-wide notification
<a href="#">CMR-STORY-2735</a>	As a user, I want the application to know my DAAC affiliation
<a href="#">CMR-STORY-2790</a>	As a user, I want to set a default dashboard depending on whether I usually Manage Metadata or Manage CMR

## 2.2 Operations Management

The following stories are related to the operational management of the MMT and include the functions performed by an MMT Operator.

Story ID	User Story
<a href="#">CMR-STORY-1413</a>	As a user, I want the Metadata Management GUI to be deployable without downtime, so that I may avoid interruptions caused by routine version upgrades
<a href="#">CMR-STORY-1473</a>	As an Operator, I want to set the Secure Socket Layer (SSL) certificate for a Provider
<a href="#">CMR-STORY-2156</a>	As a CMR client, I can log the request Id for an internal error returned by the CMR
<a href="#">CMR-STORY-2480</a>	As an Operator, I would like all ACL transactions to be logged via Splunk
<a href="#">CMR-STORY-2785</a>	As an Operator, I should be able to determine who created/edited a metadata record from logs
<a href="#">CMR-STORY-2786</a>	As an Operator, I should be able to tell which metadata features are most often edited/completed from logs
<a href="#">CMR-STORY-2848</a>	As an Operator, I want to deactivate the SSL certificate for a Provider

## 2.3 User Authentication

The following stories are related to the authentication of users via Earthdata Login (URS) and Launchpad.

Story ID	User Story
<a href="#">CMR-STORY-1407</a>	As a user, I want the GUI to require login through EOSDIS Earthdata Login so that I can take advantage of Single Sign-on
<a href="#">CMR-STORY-1490</a>	As a user, I want the GUI to prevent the loss of my work due to Earthdata Login timeout
<a href="#">CMR-STORY-1491</a>	As a user, I want the GUI to allow me to log out from my GUI session and from Earthdata Login
<a href="#">CMR-STORY-1525</a>	As a user, I want to have access to the GUI landing page regardless of whether I am logged in to Earthdata Login
<a href="#">CMR-STORY-1529</a>	As a user, I want the GUI landing page to allow login to the MMT
<a href="#">CMR-STORY-2773</a>	As a user, I want the GUI to require login via Launchpad
<a href="#">CMR-STORY-2774</a>	As a user, I should be able to continue to login with my Earthdata login credentials while MMT migrates users to Launchpad
<a href="#">CMR-STORY-2809</a>	As a user, I want the MMT to maintain a single sign on when logged in with Launchpad
<a href="#">CMR-STORY-2810</a>	As a user, I should be redirected to Earthdata Login if I am not logged in and do not have a linked Launchpad- AUID and URS ID
<a href="#">CMR-STORY-2811</a>	As a user, I want to be able to log out from my session and from Launchpad
<a href="#">CMR-STORY-2820</a>	As a Provider, I should be able to authorize access to MMT pages
<a href="#">CMR-STORY-2830</a>	As a Provider, I should be able to invite potential group members to approve the MMT to access their Earthdata Login profile

## 2.4 Search

The following stories are related to searching for metadata drafts or published records, metadata associations and Provider Orders.

### 2.4.1 Metadata Record Search

The following stories are related to searching for draft and published versions of collection, variable, service and granule metadata records.

Story ID	User Story
<a href="#">CMR-STORY-1373</a>	As a Provider, I want to see my search results as a list of metadata records
<a href="#">CMR-STORY-1374</a>	As a Provider, I want to sort my search results
<a href="#">CMR-STORY-1417</a>	As a Provider, I want to select a metadata record from my search results for display
<a href="#">CMR-STORY-1518</a>	As a Provider, I want to search for collection metadata records by Provider
<a href="#">CMR-STORY-1520</a>	As a Provider, I want to search for CMR metadata records using multiple selection criteria so I may more easily locate the records I need
<a href="#">CMR-STORY-1530</a>	As a Provider, I want to search for a collection metadata record by specifying its CMR Concept Id
<a href="#">CMR-STORY-1574</a>	As a Provider, I want to see counts of records for each sort field value in my sorted search results
<a href="#">CMR-STORY-1581</a>	As a Provider, I want to search for collection metadata records by record state
<a href="#">CMR-STORY-1584</a>	As a Provider, I want to search for a granule metadata record by specifying the Granule Universal Identifier
<a href="#">CMR-STORY-1586</a>	As a Provider, I want to search for a collection metadata record by specifying the Entry Title for the record.
<a href="#">CMR-STORY-1587</a>	As a Provider, I want to search for a collection metadata record by specifying the Entry ID for the record
<a href="#">CMR-STORY-1604</a>	As a Provider, I want to search for CMR metadata records by specifying a wildcard substring value for all searchable metadata fields
<a href="#">CMR-STORY-1642</a>	As a Provider, I want to search for granule metadata records by Provider
<a href="#">CMR-STORY-1644</a>	As a Provider, I want to search for granule metadata records by granule temporal extent
<a href="#">CMR-STORY-1677</a>	As a Provider, I want a search for a metadata record to return the latest revision of that record, unless I specify a particular revision number
<a href="#">CMR-STORY-2442</a>	As a Provider, I should not see all search results on the same screen
<a href="#">CMR-STORY-2479</a>	As a Provider, when I search for draft records using Full Metadata Record Search, I should only be able to search for drafts from my providers
<a href="#">CMR-STORY-2498</a>	As a Provider, I want to search for submitted variable records from the CMR based on keyword

Story ID	User Story
<a href="#">CMR-STORY-2511</a>	As a Provider, I want to search for submitted service records from the CMR based on keyword
<a href="#">CMR-STORY-2519</a>	As a Provider, I want a high level search UI for Collection, Service, and Variable records in CMR
<a href="#">CMR-STORY-2751</a>	As a Provider, I want to be able to sort Variable search results
<a href="#">CMR-STORY-2766</a>	As a Provider, I want to be able to sort Service search results

#### 2.4.2 Metadata Associations Search

The following stories are related to searching for associations between collection, service, variable and granule metadata records.

Story ID	User Story
<a href="#">CMR-STORY-1641</a>	As a Provider, I want to search for all granule metadata records associated with a specific collection, by collection Entry ID
<a href="#">CMR-STORY-1693</a>	As a Provider, I want to search for service metadata records for all services associated with a specific collection, by collection Entry ID
<a href="#">CMR-STORY-1694</a>	As a Provider, I want to search for collection metadata records for all collections associated with a specific service, by service Entry ID
<a href="#">CMR-STORY-2503</a>	As a Provider, I want my variable search results to show all collections associated with each variable, so that I can see all uses of this variable for my provider
<a href="#">CMR-STORY-2516</a>	As a Provider, I want to distinguish between services which have the same title in my search results based on associated collections, associated variables, and description
<a href="#">CMR-STORY-2805</a>	As a Provider, I want to be able to search for and see all variables associated with a collection
<a href="#">CMR-STORY-2806</a>	As a Provider, I want to be able to search for and see all services associated with a collection

#### 2.4.3 Provider Order Search

The following stories are related to searching for orders made against the provider's system.

Story ID	User Story
<a href="#">CMR-STORY-1256</a>	As a Provider, I want to view a summary list of my provider orders

Story ID	User Story
<a href="#">CMR-STORY-1259</a>	As a Provider, I want to search for a provider order by specifying its order id
<a href="#">CMR-STORY-1442</a>	As a Provider, I want to filter a summary list of my provider orders
<a href="#">CMR-STORY-2348</a>	As an Operator, I want to search for an order from any provider by specifying the order GUID
<a href="#">CMR-STORY-2349</a>	As an Operator, I want to search for all orders associated with a specified email address.
<a href="#">CMR-STORY-2849</a>	As a Provider, I want to search for orders against my Provider based on the CMR-supplied Provider Order Id
<a href="#">CMR-STORY-2850</a>	As a Provider, I want to search for orders against my Provider based on the CMR order id for the overall customer order
<a href="#">CMR-STORY-2851</a>	As a Provider, I want to search for orders against my Provider based on a time range of order submission
<a href="#">CMR-STORY-2852</a>	As a Provider, I want to search for orders against my Provider based on the Earthdata Login name of the user who placed the order
<a href="#">CMR-STORY-2853</a>	As a Provider, I want to search for orders against my Provider based on the email address of the user who placed the order
<a href="#">CMR-STORY-2854</a>	As a Provider, I want to search for orders against my Provider based on Collection shortname and version id
<a href="#">CMR-STORY-2855</a>	As a Provider, I want to search for orders against my provider by order state
<a href="#">CMR-STORY-2856</a>	As a Provider, I want to search for orders against my Provider by a combination of ANDing and ORing search criteria

## 2.5 Metadata Create, Read, Update, Delete

The following stories are related to creating, reading, updating, deleting (CRUD) and publishing metadata in all CMR supported formats.

### 2.5.1 Metadata Forms

The following stories are related to form-based entry of descriptive information in the MMT.

Story ID	User Story
<a href="#">CMR-STORY-2109</a>	As a Metadata Author, I should be able to easily navigate to individual sections of a form for data entry
<a href="#">CMR-STORY-2152</a>	As a Metadata Author, I can filter form fields to only view required fields while editing my metadata

Story ID	User Story
<a href="#">CMR-STORY-2458</a>	As a Metadata Author, I should be able to use a date/time picker to enter a properly formatted value
<a href="#">CMR-STORY-2477</a>	As a Metadata Author, I want to be able to clear information I have already entered on my form so that I can re-enter new values
<a href="#">CMR-STORY-2846</a>	As a Metadata Author, I want to display the UMM-M fields of a selected meta-metadata record in a forms-based format
<a href="#">CMR-STORY-2857</a>	As a Metadata Author, I should be able to navigate between forms when creating a record

### 2.5.2 Metadata Drafts

The following stories are related to the creation and management of metadata drafts.

Story ID	User Story
<a href="#">CMR-STORY-1368</a>	As a Metadata Author, I want to save a draft when I am creating or updating a metadata record and return to it at a later time
<a href="#">CMR-STORY-1504</a>	As a Metadata Author, I want to see a list of draft metadata records for my Provider
<a href="#">CMR-STORY-1505</a>	As a Metadata Author, I want to select a draft metadata record from a list for editing
<a href="#">CMR-STORY-1506</a>	As a Metadata Author, I want to select a draft metadata record from a list for deletion
<a href="#">CMR-STORY-1579</a>	As a Metadata Author, I want to select a metadata record for translation
<a href="#">CMR-STORY-1602</a>	As a Metadata Author, I want to select a published metadata record from my search results for update
<a href="#">CMR-STORY-2167</a>	As a user, I should only see drafts for the provider I am currently logged in under
<a href="#">CMR-STORY-2478</a>	As a Metadata Author, I should be able to save my draft without leaving the current form page

### 2.5.3 Keyword Selection

The following stories are related to the input and selection of descriptive keyword values.

Story ID	User Story
<a href="#">CMR-STORY-1480</a>	As a user, I want the GUI to facilitate the use of the GCMD keywords and recommended field entries, to promote consistency across CMR metadata
<a href="#">CMR-STORY-1802</a>	As a user, I want the GUI to allow me to initiate a process to propose new values of GCMD keywords if the keyword values I need are not available when I am creating or updating metadata
<a href="#">CMR-STORY-2202</a>	As a Metadata Author, I should be able to search for spatial keywords using the keyword picker
<a href="#">CMR-STORY-2459</a>	As a Metadata Author, I should be able to pick temporal keywords from a list
<a href="#">CMR-STORY-2460</a>	As a Metadata Author, I should be able to pick spatial keywords from a list
<a href="#">CMR-STORY-2465</a>	As a Metadata Author, I should be able to enter valid science keywords by searching for and selecting a keyword
<a href="#">CMR-STORY-2467</a>	As a Metadata Author, I want science keywords to be suggested for me based on my metadata
<a href="#">CMR-STORY-2468</a>	As a Metadata Author, I want to select Organization identification information from a controlled vocabulary rather than entering it free-form.
<a href="#">CMR-STORY-2781</a>	As a Metadata Author, I want to be able to enter a free-form descriptive keyword as the last level of my selected Science Keyword hierarchy
<a href="#">CMR-STORY-2782</a>	As a Metadata Author, I want to be able to edit a free-form descriptive keyword as the last level of my selected Science Keyword hierarchy
<a href="#">CMR-STORY-2783</a>	As a Metadata Author, I want to be able to delete a free-form descriptive keyword as the last level of my selected Science Keyword hierarchy
<a href="#">CMR-STORY-2794</a>	As a Metadata Author, I want to select Directory Name from a controlled vocabulary when filling in the Metadata Information form

### 2.5.4 Metadata Validation

The following stories are related to the validation of metadata for UMM compliance.

Story ID	User Story
<a href="#">CMR-STORY-1431</a>	As a user, I want the GUI to enforce that all required fields are populated during data entry
<a href="#">CMR-STORY-1500</a>	As a Metadata Author, I want to validate my metadata record while editing, to test my changes
<a href="#">CMR-STORY-1501</a>	As a Metadata Author, I want to have my metadata record automatically validated when I submit it to the CMR
<a href="#">CMR-STORY-1502</a>	As a Metadata Author, I want to be able to save a draft of my metadata record even if it fails validation.
<a href="#">CMR-STORY-1589</a>	As a Metadata Author, I want my metadata record to be validated against the schema associated with its native metadata standard.
<a href="#">CMR-STORY-1590</a>	As a Metadata Author, I want metadata records that are created or updated using an XML editor to be validated for XML well formed-ness
<a href="#">CMR-STORY-1638</a>	As a Metadata Author, I want to have field-specific validation feedback for metadata records that are created or updated using a forms-based editor
<a href="#">CMR-STORY-2746</a>	As a Metadata Author, I want to apply a provider-specific set of metadata validation rules when creating or updating my metadata records
<a href="#">CMR-STORY-2789</a>	As a Provider, I want to check if links in my metadata are broken

### 2.5.5 Metadata Ingest

The following stories are related to publishing metadata to the CMR.

Story ID	User Story
<a href="#">CMR-STORY-1270</a>	As a Provider, I want to view an ingest report detailing ingest events over a given time period by collection for my Provider
<a href="#">CMR-STORY-1372</a>	As a Metadata Author, I want to view my metadata record in a formatted HTML preview pane, before submitting the record to the CMR
<a href="#">CMR-STORY-1414</a>	As a Metadata Author, I want to be able to submit a new or updated metadata record for ingestion into the CMR directly from the MMT
<a href="#">CMR-STORY-1646</a>	As a Provider, I want to select a collection metadata record for deletion from the CMR
<a href="#">CMR-STORY-1746</a>	As a Provider, I want to view a report of metadata records that were rejected at ingest time, along with the reason for the rejection

### 2.5.6 Metadata Revisions

The following stories are related to the management of metadata revisions.

Story ID	User Story
<a href="#">CMR-STORY-1214</a>	As a Metadata Author, I want to replace the current revision of a metadata record with an earlier revision
<a href="#">CMR-STORY-1580</a>	As a Provider, I want to see a list of all revisions of a selected metadata record
<a href="#">CMR-STORY-1639</a>	As a Provider, I want to see when and by whom each revision of a metadata record was created
<a href="#">CMR-STORY-1640</a>	As a Metadata Author, I want to restore a deleted record from a previous revision
<a href="#">CMR-STORY-2053</a>	As a Provider, I want to see the revision notes for each revision of a metadata record
<a href="#">CMR-STORY-2107</a>	As a Provider, I should be able to easily see that I am viewing a non-current version of a published collection record

### 2.5.7 Alerts and Notifications

The following stories are related to the different types of messages users receive when using the MMT.

Story ID	User Story
<a href="#">CMR-STORY-1429</a>	As a user, I want to be prompted to confirm all deletion actions before they are finalized
<a href="#">CMR-STORY-1430</a>	As a Metadata Author, I want error messages to be displayed on the GUI when validation checks fail for data entry
<a href="#">CMR-STORY-1926</a>	As a Metadata Curator, I want the GUI to display a quality-rating symbol indicating that a metadata record has passed field-level validation
<a href="#">CMR-STORY-2063</a>	As a Metadata Author, I should see a confirmation message when a record is created, updated, or deleted
<a href="#">CMR-STORY-2125</a>	As a Metadata Author, I should see an indication of when my form is completely valid but only partial completed
<a href="#">CMR-STORY-2126</a>	As a Metadata Author, I should be notified if a conditionally required field has become required
<a href="#">CMR-STORY-2187</a>	As a Metadata Author, I should be alerted if a published record has an open draft

---

---

Story ID	User Story
<a href="#">CMR-STORY-2214</a>	As a Metadata Provider, when I publish a record using the MMT, I want to receive an email confirming the publication
<a href="#">CMR-STORY-2215</a>	As a Metadata Author, I should see a validation message when an existing metadata value does not match a dropdown option
<a href="#">CMR-STORY-2464</a>	As a user, I should see meaningful error messages returned by the CMR
<a href="#">CMR-STORY-2757</a>	As a Metadata Author, if I am editing a draft of a published record, I want to be told that a new revision of the published record has been published since I opened my draft

### 2.5.8 Help Information

The following stories are related to UMM field descriptions and the MMT User's Guide.

Story ID	User Story
<a href="#">CMR-STORY-1713</a>	As a Metadata Author, I want to be able to get information about each metadata field for which I am entering values, so that I can understand the meaning of the field and enter the values correctly
<a href="#">CMR-STORY-2457</a>	As a Metadata Author, I want to see a legend in the Metadata Fields panel so that I can understand the meaning of the circle icons
<a href="#">CMR-STORY-2808</a>	As a user, I want to access the MMT User's Guide from the MMT

## 2.6 UMM Collections CRUD

The following stories are related to creating, reading, updating and deleting UMM – Collections (UMM-C) compliant metadata collection records.

### 2.6.1 Collection Specific Forms and Fields

The following stories are related to the collection specific forms and fields.

Story ID	User Story
<a href="#">CMR-STORY-1210</a>	As a Metadata Author, I want to edit the UMM-C fields of a selected collection metadata record in a forms-based format
<a href="#">CMR-STORY-1486</a>	As a Metadata Author, I want to create or update spatial metadata in a collection metadata record by entering bounding box coordinate information as latitude and longitude text fields
<a href="#">CMR-STORY-1493</a>	As a Metadata Author, I want to use a forms-based editor to create or update the UMM-C fields in a collection metadata record
<a href="#">CMR-STORY-1588</a>	As a Metadata Author, I want to display the spatial extent of a metadata record as a shape on a map
<a href="#">CMR-STORY-2047</a>	As a Metadata Author, I want to see an indication of which collection metadata fields are required, when I am creating or editing a collection metadata record
<a href="#">CMR-STORY-2110</a>	As a Metadata Author, I should see the ISO topic category returned by the CMR

Story ID	User Story
<a href="#">CMR-STORY-2201</a>	As a Metadata Author, I should see descriptions for top level UMM-C fields
<a href="#">CMR-STORY-2212</a>	As a Provider, I want to indicate that my collection has OPeNDAP endpoints
<a href="#">CMR-STORY-2443</a>	As a Metadata Author, I want to use a forms-based editor to create or update Data Identification values
<a href="#">CMR-STORY-2444</a>	As a Metadata Author, I want to use a forms-based editor to create or update Descriptive Keyword values
<a href="#">CMR-STORY-2445</a>	As a Metadata Author, I want to use a forms-based editor to create or update Metadata Information values
<a href="#">CMR-STORY-2446</a>	As a Metadata Author, I want to use a forms-based editor to create or update Temporal Extent values
<a href="#">CMR-STORY-2447</a>	As a Metadata Author, I want to use a forms-based editor to create or update Spatial Extent values
<a href="#">CMR-STORY-2448</a>	As a Metadata Author, I want to use a forms-based editor to create or update Acquisition Information values
<a href="#">CMR-STORY-2449</a>	As a Metadata Author, I want to use a forms-based editor to create or update Distribution Information values
<a href="#">CMR-STORY-2450</a>	As a Metadata Author, I should see values for Data Identification on the record preview page
<a href="#">CMR-STORY-2451</a>	As a Metadata Author, I should see values for Descriptive Keywords on the record preview page
<a href="#">CMR-STORY-2452</a>	As a Metadata Author, I should see values for Metadata Information on the record preview page
<a href="#">CMR-STORY-2453</a>	As a Metadata Author, I should see values for Temporal Extent on the record preview page
<a href="#">CMR-STORY-2454</a>	As a Metadata Author, I should see values for Spatial Extent on the record preview page
<a href="#">CMR-STORY-2455</a>	As a Metadata Author, I should see values for Acquisition Information on the record preview page
<a href="#">CMR-STORY-2456</a>	As a Metadata Author, I should see values for Distribution Information on the record preview page
<a href="#">CMR-STORY-2463</a>	As a Metadata Author, I should see a picklist containing countries, states, provinces when entering an address
<a href="#">CMR-STORY-2466</a>	As a Metadata Author, I want my Collection Citation text and Literature Citation text to be automatically generated from building block values in my collection metadata

Story ID	User Story
<a href="#">CMR-STORY-2488</a>	As a Metadata Author, I would like to add DOI information to a collection record
<a href="#">CMR-STORY-2749</a>	As a Metadata Author, I want to be able to enter Additional Attribute information according to the current UMM model
<a href="#">CMR-STORY-2776</a>	As a Metadata Author, I want to access detailed collection field documentation from MMT
<a href="#">CMR-STORY-2812</a>	As a Metadata Author, I want to be able to choose global spatial coverage, and to have a global bounding box automatically populated when I do so
<a href="#">CMR-STORY-2822</a>	As a Metadata Author, I want to be able to enter Version information on the Metadata Association subform

### 2.6.2 Collection Drafts, Editing and Publishing

The following stories are related to the creation and management of draft collection records.

Story ID	User Story
<a href="#">CMR-STORY-1184</a>	As a Metadata Author, I want to use an XML text editor to create or update a collection metadata record
<a href="#">CMR-STORY-1185</a>	As a Metadata Author, I want to create a collection metadata record by importing metadata from an external XML file
<a href="#">CMR-STORY-1186</a>	As a Metadata Author, I want to create a collection metadata record by copying metadata from an existing collection and then editing it
<a href="#">CMR-STORY-1200</a>	As a Provider, I want to be prevented from deleting a collection record if there are any existing granule metadata records for that collection
<a href="#">CMR-STORY-1487</a>	As a Metadata Author, I want to create or update spatial metadata in a collection metadata record by uploading a shape file
<a href="#">CMR-STORY-1651</a>	As a Provider, I want to be informed how many granule metadata records are present in the CMR for the collection metadata record I am planning to delete
<a href="#">CMR-STORY-1924</a>	As a Metadata Author, I want to export a collection metadata record in XML format, so that I can edit it in an external XML editor
<a href="#">CMR-STORY-1925</a>	As a Metadata Author, I want to select a CMR-supported metadata standard in which to export my collection metadata XML

Story ID	User Story
<a href="#">CMR-STORY-2024</a>	As a Metadata Author, I want to create multiple collection metadata records by importing metadata from an external XML file
<a href="#">CMR-STORY-2046</a>	As a Metadata Author, I want to see an indication of the total number of collection metadata fields, and my progress in completing those fields, when I am creating or editing a collection metadata record
<a href="#">CMR-STORY-2052</a>	As a Metadata Author, I want to enter revision notes for a collection metadata record that I updated, so that I can indicate why the revision was created
<a href="#">CMR-STORY-2788</a>	As a Metadata author, collection progress should be required to submit a draft for ingest

## 2.7 UMM Services CRUD

The following stories are related to creating, reading, updating and deleting UMM-Services (UMM-S) compliant service metadata records.

Story ID	User Story
<a href="#">CMR-STORY-1683</a>	As a Metadata Author, I want to create a service metadata record by importing metadata from an external XML file
<a href="#">CMR-STORY-2026</a>	As a Metadata Author, I want to create multiple service metadata records by importing metadata from an external XML file
<a href="#">CMR-STORY-2050</a>	As a Metadata Author, I want to see an indication of the total number of service metadata fields, and my progress in completing those fields, when I am creating or editing a service metadata record
<a href="#">CMR-STORY-2505</a>	As a Metadata Author, I want to create a service record and save it as a draft
<a href="#">CMR-STORY-2506</a>	As a Provider, I want to view a list of draft service records for my provider
<a href="#">CMR-STORY-2507</a>	As a Metadata Author, I want to edit a published service record for my provider
<a href="#">CMR-STORY-2508</a>	As a Provider, I want to delete a draft service record for my provider
<a href="#">CMR-STORY-2509</a>	As a Provider, I want to submit a service record to CMR for publication
<a href="#">CMR-STORY-2513</a>	As a Provider, I want to delete an existing service record from the CMR
<a href="#">CMR-STORY-2764</a>	As a Metadata Author, I want to see a preview page for my draft service record

Story ID	User Story
<a href="#">CMR-STORY-2767</a>	As a Metadata Author, I want to create a service record by copying metadata from an existing service record and then editing it
<a href="#">CMR-STORY-2768</a>	As a Provider, I want to view an html representation of a published service record
<a href="#">CMR-STORY-2769</a>	As a Provider, I want to be able to download the JSON metadata file for a published service record for my provider
<a href="#">CMR-STORY-2770</a>	As a Provider, I want to see the revision history for a published service record
<a href="#">CMR-STORY-2771</a>	As a Provider, I want to revert a published service record to a previous revision
<a href="#">CMR-STORY-2772</a>	As a Provider, I want to view a previous revision of a published service record
<a href="#">CMR-STORY-2795</a>	As a Metadata Author, I want my edits to a service record to be validated in-line against the UMM-S schema

## 2.8 UMM Variables CRUD

The following stories are related to creating, reading, updating and deleting UMM-Variables (UMM-Var) compliant variable metadata records.

Story ID	User Story
<a href="#">CMR-STORY-2492</a>	As a Metadata Author, I want to create a variable record and save it as a draft
<a href="#">CMR-STORY-2493</a>	As a Provider, I want to view a list of draft variable records for my provider
<a href="#">CMR-STORY-2494</a>	As a Metadata Author, I want to edit a published variable record for my provider
<a href="#">CMR-STORY-2495</a>	As a Provider, I want to delete a draft variable record for my provider
<a href="#">CMR-STORY-2496</a>	As a Provider, I want to submit a variable record to CMR for publication
<a href="#">CMR-STORY-2500</a>	As a Provider, I want to delete an existing variable record from the CMR
<a href="#">CMR-STORY-2521</a>	As a Metadata Author, I want to see a preview page for my draft variable record
<a href="#">CMR-STORY-2522</a>	As a Provider, I want to view an html representation of a published variable record
<a href="#">CMR-STORY-2523</a>	As a Metadata Author, I want my edits to a variable record to be validated in-line against the UMM-Var schema

Story ID	User Story
<a href="#">CMR-STORY-2525</a>	As a Provider, I want to see the revision history for a published variable record
<a href="#">CMR-STORY-2526</a>	As a Provider, I want to view a previous revision of a published variable record
<a href="#">CMR-STORY-2527</a>	As a Provider, I want to revert a published variable record to a previous revision
<a href="#">CMR-STORY-2540</a>	As a Provider, I want to be able to download the JSON metadata file for a published variable record for my provider
<a href="#">CMR-STORY-2541</a>	As a Metadata Author, I want to create a variable record by copying metadata from an existing variable record and then editing it

## 2.9 UMM Granules CRUD

The following stories are related to creating, reading, updating and deleting UMM-Granules (UMM-G) compliant granule metadata records.

Story ID	User Story
<a href="#">CMR-STORY-1187</a>	As a Metadata Author, I want to use an XML text editor to create or update a granule metadata record
<a href="#">CMR-STORY-1188</a>	As a Metadata Author, I want to create a granule metadata record by importing metadata from an external XML file
<a href="#">CMR-STORY-1203</a>	As a Provider, I want to select one or more granule metadata records for deletion from the CMR
<a href="#">CMR-STORY-1503</a>	As a Metadata Author, I want to validate that my granule metadata record is associated with a parent collection and is valid within that parent collection
<a href="#">CMR-STORY-2025</a>	As a Metadata Author, I want to create multiple granule metadata records by importing metadata from an external XML file
<a href="#">CMR-STORY-2048</a>	As a Metadata Author, I want to see an indication of the total number of granule metadata fields, and my progress in completing those fields, when I am creating or editing a granule metadata record

## 2.10 Templates -UMM- C

The following stories are related to the creation and management of collection record templates.

Story ID	User Story
<a href="#">CMR-STORY-1367</a>	As a Metadata Author, I want to create a collection metadata record by choosing a custom template specific to my provider site, so that I can have the default values required by my discipline automatically populated
<a href="#">CMR-STORY-1494</a>	As a Metadata Author, I want to create a custom template for collection metadata specific to my provider site, with the default values required by my discipline automatically populated
<a href="#">CMR-STORY-1495</a>	As a Metadata Author, I want to see a list of custom templates for collection metadata specific to my provider site
<a href="#">CMR-STORY-1496</a>	As a Metadata Author, I want to update a custom template for collection metadata specific to my provider site
<a href="#">CMR-STORY-1497</a>	As a Metadata Author, I want to delete a custom template for collection metadata specific to my provider site
<a href="#">CMR-STORY-1645</a>	As a Metadata Author, I want to see a list of all collection records that were created using a specified custom template

## 2.11 Bulk Update

The following stories are related to making and managing bulk updates to collection records.

### 2.11.1 Bulk Update Management

The following stories are related to the management of bulk update operations.

Story ID	User Story
<a href="#">CMR-STORY-1513</a>	As a Metadata Author, I want to be prompted to confirm all bulk update actions before they are finalized
<a href="#">CMR-STORY-2528</a>	As a Metadata Author, I want to specify a name for my bulk update request
<a href="#">CMR-STORY-2546</a>	As a Provider, I want my collection revision table to indicate who performed bulk update revisions
<a href="#">CMR-STORY-2742</a>	As a Metadata Author, I want to see a recent and past bulk edit operations on my dashboard
<a href="#">CMR-STORY-2744</a>	As a Metadata Author, I need to submit multiple collections for update

Story ID	User Story
<a href="#">CMR-STORY-2745</a>	As a Metadata Author, I want to view a list and a summary of a bulk edit operation
<a href="#">CMR-STORY-2750</a>	As a Provider, I would like to know the date and time of my bulk updates
<a href="#">CMR-STORY-2762</a>	As a Metadata Author, for each record in my bulk update, I want to see if the record was updated, not updated, or the update failed
<a href="#">CMR-STORY-2763</a>	As a Metadata Author, I want to see a warning that my records will be stored in UMM-JSON format after a bulk update

### 2.11.2 Bulk Update Record, Field and Value Selection

The following stories are related to the selection of records, fields and values to be included in bulk update operations.

Story ID	User Story
<a href="#">CMR-STORY-1196</a>	As a Metadata Author, I want to select a common field in all selected collection metadata records for bulk update
<a href="#">CMR-STORY-1207</a>	As a Metadata Author, I want to select multiple granule metadata records from my search results for bulk update
<a href="#">CMR-STORY-1208</a>	As a Metadata Author, I want to select a common field in all selected granule metadata records for bulk update
<a href="#">CMR-STORY-1512</a>	As a Metadata Author, I want to enter a new value for the selected collection metadata field for bulk update
<a href="#">CMR-STORY-1514</a>	As a Metadata Author, I want the field I selected for bulk update to be updated with the new value I entered, in all collection metadata records selected for bulk update
<a href="#">CMR-STORY-1515</a>	As a Metadata Author, I want to have only the metadata field I am changing automatically validated when I submit a bulk update
<a href="#">CMR-STORY-1516</a>	As a Metadata Author, I want to enter a new value for the selected granule metadata field for bulk update
<a href="#">CMR-STORY-1517</a>	As a Metadata Author, I want the field I selected for bulk update to be updated with the new value I entered, in all granule metadata records selected for bulk update
<a href="#">CMR-STORY-1601</a>	As a Metadata Author, I want a form that allows me to select the fields to bulk update

Story ID	User Story
<a href="#">CMR-STORY-1697</a>	As a Metadata Author, I want to select multiple service metadata records from my search results for bulk update
<a href="#">CMR-STORY-1698</a>	As a Metadata Author, I want to select a common field in all selected service metadata records for bulk update
<a href="#">CMR-STORY-1699</a>	As a Metadata Author, I want to enter a new value for the selected service metadata field for bulk update
<a href="#">CMR-STORY-1700</a>	As a Metadata Author, I want the field I selected for bulk update to be updated with the new value I entered, in all service metadata records selected for bulk update
<a href="#">CMR-STORY-2544</a>	As a Metadata Author, I want bulk update Find operations to include the ability to find records where a selected field is empty
<a href="#">CMR-STORY-2547</a>	As a Metadata Author, I want to be able to choose current Location Keywords from facets for Bulk Update
<a href="#">CMR-STORY-2741</a>	As a Metadata Author, I want to provide specific fields to search for within the advanced search
<a href="#">CMR-STORY-2743</a>	As a Metadata Author, I want to select multiple collections to update all at once
<a href="#">CMR-STORY-2748</a>	As a Metadata Author, I want to 'and' multiple search fields/values while searching for Collections
<a href="#">CMR-STORY-2758</a>	As a Metadata Author, I want to be able to choose current Platform shortnames from facets for Bulk Update
<a href="#">CMR-STORY-2759</a>	As a Metadata Author, I want to be able to choose current Instrument shortnames from facets for Bulk Update
<a href="#">CMR-STORY-2760</a>	As a Metadata Author, I want to be able to choose current Data Center shortnames from facets for Bulk Update
<a href="#">CMR-STORY-2761</a>	As a Metadata Author, I want to select all records for my provider for a bulk update

### 2.11.3 Bulk Update Actions

The following stories are related to the bulk update actions a user can perform on supported metadata fields.

Story ID	User Story
<a href="#">CMR-STORY-2524</a>	As a Metadata Author, I want to replace one level of a hierarchical metadata field without affecting the other levels
<a href="#">CMR-STORY-2530</a>	As a Metadata Author, I want to be able to Add to Existing and Clear All & Replace Location Keywords
<a href="#">CMR-STORY-2531</a>	As a Metadata Author, I want to be able to Find & Remove Location Keywords
<a href="#">CMR-STORY-2532</a>	As a Metadata Author, I want to be able to Find & Replace Location Keywords
<a href="#">CMR-STORY-2533</a>	As a Metadata Author, I want to be able to Add to Existing and Clear All & Replace a Data Center
<a href="#">CMR-STORY-2534</a>	As a Metadata Author, I want to be able to Find & Remove a Data Center
<a href="#">CMR-STORY-2535</a>	As a Metadata Author, I want to be able to Find & Replace a Data Center
<a href="#">CMR-STORY-2536</a>	As a Metadata Author, I want to be able to Add to Existing and Clear All & Replace Platforms
<a href="#">CMR-STORY-2537</a>	As a Metadata Author, I want to be able to Find & Remove Platforms
<a href="#">CMR-STORY-2538</a>	As a Metadata Author, I want to be able to Find & Replace Platforms
<a href="#">CMR-STORY-2539</a>	As a Metadata Author, I want to be able to Find & Update Science Keywords
<a href="#">CMR-STORY-2542</a>	As a Metadata Author, I want the Data Center home page url to be updated when I do a Data Center Find & Update
<a href="#">CMR-STORY-2543</a>	As a Metadata Author, I want to be able to Find & Remove Instruments
<a href="#">CMR-STORY-2545</a>	As a Metadata Author, I want to choose Platform, Instrument, and Data Center values to Find&Update or Find&Remove from actual values in the CMR
<a href="#">CMR-STORY-2548</a>	As a Metadata Author, I want to Find & Replace multiple keywords in a single bulk update operation
<a href="#">CMR-STORY-2752</a>	As a Metadata Author, I want to add more than one value at a time with the Bulk Update 'Add to Existing' function
<a href="#">CMR-STORY-2754</a>	As a Metadata Author, I want to be able to Find & Update Data Centers
<a href="#">CMR-STORY-2755</a>	As a Metadata Author, I want to be able to Find & Update Instruments
<a href="#">CMR-STORY-2756</a>	As a Metadata Author, I want to be able to Find & Update Platforms

#### 2.11.4 Bulk Delete Actions

The following stories are related to the bulk delete actions a user can perform.

Story ID	User Story
<a href="#">CMR-STORY-1647</a>	As a Metadata Author, I want to select a common field in all selected collection metadata records for bulk deletion
<a href="#">CMR-STORY-1648</a>	As a Metadata Author, I want the field I selected for bulk deletion to be deleted from all selected collection metadata records
<a href="#">CMR-STORY-1649</a>	As a Metadata Author, I want to select a common field in all selected granule metadata records for bulk deletion
<a href="#">CMR-STORY-1650</a>	As a Metadata Author, I want the field I selected for bulk deletion to be deleted from all selected granule metadata records
<a href="#">CMR-STORY-1701</a>	As a Metadata Author, I want to select a common field in all selected service metadata records for bulk deletion
<a href="#">CMR-STORY-1702</a>	As a Metadata Author, I want the field I selected for bulk deletion to be deleted from all selected service metadata records
<a href="#">CMR-STORY-2807</a>	As a Provider, I want to do a bulk delete of records in the MMT

#### 2.12 Metadata Associations

The following stories are related to creating and managing associations between metadata records.

Story ID	User Story
<a href="#">CMR-STORY-1710</a>	As a Provider, I want to be informed of any existing Metadata Association relationships between the metadata record I wish to delete and other CMR metadata records
<a href="#">CMR-STORY-2501</a>	As a Provider, I want to associate a variable with a collection for my provider
<a href="#">CMR-STORY-2502</a>	As a Provider, I want to remove the association between a variable and a collection for my provider
<a href="#">CMR-STORY-2514</a>	As a Provider, I want to associate a service with a collection for my provider
<a href="#">CMR-STORY-2515</a>	As a Provider, I want to remove the association between a service and a collection for my provider

Story ID	User Story
<a href="#">CMR-STORY-2517</a>	As a Provider, I want to associate a service with a variable in an associated collection for my provider
<a href="#">CMR-STORY-2518</a>	As a Provider, I want to remove the association between a service and a variable in an associated collection for my provider
<a href="#">CMR-STORY-2753</a>	As a Provider, when deleting a variable record which has collection associations, I want to be told how many collections are associated with the variable and that the associations will be removed when the variable is deleted
<a href="#">CMR-STORY-2765</a>	As a Provider, when deleting a service record which has collection associations, I want to be told how many collections are associated with the service and that the associations will be removed when the service is deleted
<a href="#">CMR-STORY-2796</a>	As a Provider, when deleting a collection record which has variable associations, I want to be told how many variables are associated with the collection and that the associations will be removed when the collection is deleted

### 2.13 Metadata Quality Assessments

The following stories are related to the assessment and scoring of overall metadata quality.

Story ID	User Story
<a href="#">CMR-STORY-1477</a>	As a Metadata Curator, I want to display metadata quality metrics for a CMR Metadata Provider
<a href="#">CMR-STORY-1534</a>	As a Metadata Author, I want to save my updates to a 'curated' metadata record as the active version of the metadata record in the CMR
<a href="#">CMR-STORY-1582</a>	As a Metadata Curator, I want to select a metadata record for quality assessment
<a href="#">CMR-STORY-1583</a>	As a Metadata Author, I want to select a 'curated' version of a metadata record so that I can review the proposed metadata quality changes
<a href="#">CMR-STORY-1622</a>	As a Metadata Curator, I want to mark a metadata record to indicate that it has completed the quality assessment process
<a href="#">CMR-STORY-1653</a>	As a Metadata Author, I want to select the rubric to be used for the quality assessment

Story ID	User Story
<a href="#">CMR-STORY-1654</a>	As a Metadata Author, I want to see an overall quality score for my metadata record when I run a quality assessment
<a href="#">CMR-STORY-1656</a>	As a Metadata Curator, I want to view the quality assessment score for a metadata record
<a href="#">CMR-STORY-1659</a>	As a Metadata Author, I want to enter field-level comments on a 'curated' version of a metadata record, so that there is a record of the author/curator discussion about quality assessment updates to the record
<a href="#">CMR-STORY-1661</a>	As a Metadata Author, I want field-level comments on a 'curated' version of a metadata record to be annotated with the commenter's name and date and time of the comment
<a href="#">CMR-STORY-1678</a>	As a Metadata Curator, I want to prioritize CMR metadata records for quality assessment

## 2.14 Provider Information and Holdings

The following stories are related to the reporting of CMR provider holdings and management of provider contact information.

### 2.14.1 Provider Information

The following stories are related to the management of Provider descriptions and contact information.

Story ID	User Story
<a href="#">CMR-STORY-1227</a>	As a Provider, I want to edit an existing provider contact.
<a href="#">CMR-STORY-1229</a>	As a Provider, I want to view a list of provider contacts for my provider
<a href="#">CMR-STORY-1548</a>	As an Operator, I want to view a list of provider contacts for one or more providers
<a href="#">CMR-STORY-2055</a>	As a Provider, I want to add a Description of my Holdings as part of my provider information

### 2.14.2 Holdings Report

The following stories are related to the reporting of Metadata Provider holdings in the CMR.

Story ID	User Story
<a href="#">CMR-STORY-1269</a>	As a Provider, I want to view a data holdings report detailing granule counts by collection for my provider
<a href="#">CMR-STORY-1526</a>	As a user, I want the GUI landing page to provide access to a listing of all public CMR holdings, with all CMR providers and the number of collections and number of granules for each provider, regardless of whether I am logged in to Earthdata Login
<a href="#">CMR-STORY-1527</a>	As a user, I want the GUI landing page to provide access to a listing for each CMR provider of the provider's public collections and the number of granules in each, regardless of whether I am logged in to Earthdata Login
<a href="#">CMR-STORY-2489</a>	As a Provider, I want to export my holdings report into an Excel formatted document

## 2.15 Permissions and Groups

The following stories are related to the management of access control lists for a Provider's metadata holdings.

### 2.15.1 ACL Reports

The following stories are related to accessing information about access control groups (ACLs), permissions as they relate to specific Providers and records.

Story ID	User Story
<a href="#">CMR-STORY-1247</a>	As a Provider, I want to see a list of my access control groups to which a given user belongs
<a href="#">CMR-STORY-1248</a>	As an Operator, I want to see a list of access control groups owned by a given provider
<a href="#">CMR-STORY-1251</a>	As a Provider, I want to check if a given end user or guest has access to a specified list of collections, and if so, what type of access they have
<a href="#">CMR-STORY-1452</a>	As a Provider, I want to see a list of my access control groups
<a href="#">CMR-STORY-1453</a>	As a Provider, I want to see a list of members of an access control group that I manage
<a href="#">CMR-STORY-1469</a>	As an Operator, I want to see a summary list of all access control groups
<a href="#">CMR-STORY-1560</a>	As a Provider, I want to see a list of the access rule/access control group combinations for granules in a collection

Story ID	User Story
<a href="#">CMR-STORY-1598</a>	As a user, I want to see a list of access control groups to which I belong
<a href="#">CMR-STORY-1599</a>	As a Metadata Author, I want to see a list of the collection metadata records for which I have update/delete access
<a href="#">CMR-STORY-1744</a>	As a Metadata Author, I want to sort a list of the collection metadata records for which I have update/delete access by collection identifier
<a href="#">CMR-STORY-1801</a>	As an Operator, I want to see a list of all access control groups to which a given user belongs
<a href="#">CMR-STORY-1812</a>	As a Metadata Author, I want to see a list of the collections for which I have granule metadata update/delete access
<a href="#">CMR-STORY-1813</a>	As a Metadata Author, I want to sort a list of the collections for which I have granule metadata update/delete access by collection id
<a href="#">CMR-STORY-1814</a>	As a Metadata Author, I want to see a list of the service metadata records for which I have update/delete access
<a href="#">CMR-STORY-1815</a>	As a Metadata Author, I want to sort a list of the service metadata records for which I have update/delete access by service identifier
<a href="#">CMR-STORY-2344</a>	As a Provider, I want to see a list of permissions that a given user has for one or more of my collections
<a href="#">CMR-STORY-2345</a>	As a Provider, I want to see a list of the permissions that a given user has for one or more provider objects
<a href="#">CMR-STORY-2481</a>	As a Provider, I want to see permissions associated with my group on the group page
<a href="#">CMR-STORY-2793</a>	As a Provider, I want to be able to run an "ACL Report" on my provider

### 2.15.2 ACL Rules

The following stories are related to the creation and management of access control list rules.

Story ID	User Story
<a href="#">CMR-STORY-1297</a>	As a Provider, I want to control access for provider specific administration such as calendar events, group management, order management, and ingest
<a href="#">CMR-STORY-1547</a>	As a Provider, I want to define one or more access control rules for constraining end user access to collections for my provider

Story ID	User Story
<a href="#">CMR-STORY-1552</a>	As a Provider, I want to update an access control rule
<a href="#">CMR-STORY-1553</a>	As a Provider, I want to delete an access control rule
<a href="#">CMR-STORY-1719</a>	As a Provider, I want to give specific access permissions to all guest users
<a href="#">CMR-STORY-1725</a>	As a Provider, I want to define one or more access control rules for constraining end user access to granules in one of my collections
<a href="#">CMR-STORY-1798</a>	As a Provider, I want to give specific access permissions to all registered users
<a href="#">CMR-STORY-1810</a>	As a Provider, I want to define one or more access control rules for constraining access to create, read, update, and delete metadata records for my provider
<a href="#">CMR-STORY-2784</a>	As a Provider, I want to be able to configure temporal filters in ACLs for collections and granules
<a href="#">CMR-STORY-2792</a>	As a Provider, I should be able to create a Collection Permission that has no access to collections

### 2.15.3 System Level ACLs

The following stories are related to the creation and management of system level ACLs.

Story ID	User Story
<a href="#">CMR-STORY-2335</a>	As an Operator, I want to create a System Level access control group
<a href="#">CMR-STORY-2482</a>	As an Operator, I want to view all system object ACLs for a system level access control group

### 2.15.4 Group ACLs

The following stories are related to the creation and management of group level ACLs.

Story ID	User Story
<a href="#">CMR-STORY-1237</a>	As a Provider, I want to create an access control group
<a href="#">CMR-STORY-1238</a>	As a Provider, I want to give all members of an access control group permission to view collection metadata for all of my collections
<a href="#">CMR-STORY-1454</a>	As a Provider, I want to update the description of an existing access control group

Story ID	User Story
<a href="#">CMR-STORY-1455</a>	As a Provider, I want to add one or more CMR registered users to an access control group that I manage
<a href="#">CMR-STORY-1459</a>	As a Provider, I want to remove one or more members from an access control group that I manage
<a href="#">CMR-STORY-1465</a>	As a Provider, I want to delete an access control group that I manage
<a href="#">CMR-STORY-1546</a>	As a Provider, I want to give all members of an access control group permission to view metadata for all of my collections which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1556</a>	As a Provider, I want to give all members of an access control group permission to view granule metadata for all granules in all of my collections
<a href="#">CMR-STORY-1594</a>	As a Provider, I want to give all members of an access control group permission to update collection metadata for a list of my collections
<a href="#">CMR-STORY-1596</a>	As a Provider, I want to give all members of an access control group permission to update granule metadata for all granules in all of my collections
<a href="#">CMR-STORY-1723</a>	As a Provider, I want to give all members of an access control group permission to view service metadata for all of my services
<a href="#">CMR-STORY-1724</a>	As a Provider, I want to give all members of an access control group permission to update service metadata for all of my services
<a href="#">CMR-STORY-1734</a>	As a Provider, I want to give all members of an access control group permission to search for data in all of my collections which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1739</a>	As a Provider, I want to give all members of an access control group permission to create collection metadata for my provider
<a href="#">CMR-STORY-1740</a>	As a Provider, I want to give all members of an access control group permission to create, update, and delete granule metadata for one or more of my collections
<a href="#">CMR-STORY-1741</a>	As a Provider, I want to give all members of an access control group permission to create service metadata for my provider
<a href="#">CMR-STORY-1803</a>	As a Provider, I want to give all members of an access control group permission to view collection metadata for a list of my collections

Story ID	User Story
<a href="#">CMR-STORY-1804</a>	As a Provider, I want to give all members of an access control group permission to view granule metadata for all granules in a specified list of my collections
<a href="#">CMR-STORY-1805</a>	As a Provider, I want to give all members of an access control group permission to view metadata for all granules for my provider which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1806</a>	As a Provider, I want to give all members of an access control group permission to view service metadata for a list of my services
<a href="#">CMR-STORY-1807</a>	As a Provider, I want to give all members of an access control group permission to view metadata for all of my services which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1808</a>	As a Provider, I want to give all members of an access control group permission to update collection metadata for all of my collections
<a href="#">CMR-STORY-1809</a>	As a Provider, I want to give all members of an access control group permission to update granule metadata for all granules in a list of my collections
<a href="#">CMR-STORY-1811</a>	As a Provider, I want to give all members of an access control group permission to update service metadata for a list of my services
<a href="#">CMR-STORY-1816</a>	As a Provider, I want to give all members of an access control group permission to update or delete collection metadata for all of my collections which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1817</a>	As a Provider, I want to give all members of an access control group permission to update or delete metadata for all granules in all of my collections which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1818</a>	As a Provider, I want to give all members of an access control group permission to update and delete metadata for all granules for my provider which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1819</a>	As a Provider, I want to give all members of an access control group permission to update and delete metadata for all of my services which have an 'access restriction' metadata field value within a specified range

Story ID	User Story
<a href="#">CMR-STORY-1927</a>	As a Provider, I want to give all members of an access control group permission to search for data in all of my collections which have a null value of the 'access restriction' metadata field
<a href="#">CMR-STORY-1928</a>	As a Provider, I want to give all members of an access control group permission to search for data for all granules in all of my collections which have a null value of the 'access restriction' metadata field
<a href="#">CMR-STORY-1930</a>	As a Provider, I want to give all members of an access control group permission to order data for all of my collections which have a null value of the 'access restriction' metadata field
<a href="#">CMR-STORY-2033</a>	As a Provider, I want to give all members of an access control group permission to delete collection metadata for all of my collections
<a href="#">CMR-STORY-2034</a>	As a Provider, I want to give all members of an access control group permission to delete collection metadata for a list of my collections
<a href="#">CMR-STORY-2035</a>	As a Provider, I want to give all members of an access control group permission to delete granule metadata for all granules in all of my collections
<a href="#">CMR-STORY-2036</a>	As a Provider, I want to give all members of an access control group permission to delete granule metadata for all granules in a list of my collections
<a href="#">CMR-STORY-2037</a>	As a Provider, I want to give all members of an access control group permission to delete service metadata for all of my services
<a href="#">CMR-STORY-2038</a>	As a Provider, I want to give all members of an access control group permission to delete service metadata for a list of my services
<a href="#">CMR-STORY-2061</a>	As a Provider, I want to give all members of an access control group permission to search for data in one of my collections only if the data were created after a specified date
<a href="#">CMR-STORY-2200</a>	As a Provider, I should be able to invite potential group members to approve the MMT to access their Earthdata Login profile
<a href="#">CMR-STORY-2204</a>	As a Provider, I should be able to select any combination of permission types when setting permissions
<a href="#">CMR-STORY-2471</a>	As a Provider, I want to grant permissions to all of my collections to all members of an access control group

Story ID	User Story
<a href="#">CMR-STORY-2472</a>	As a Provider, I want to grant permissions to a list of my collections to all members of an access control group
<a href="#">CMR-STORY-2473</a>	As a Provider, I want to grant permissions to collections with an access constraint value to all members of an access control group
<a href="#">CMR-STORY-2474</a>	As a Provider, I want to grant permissions to all granules to all members of an access control group
<a href="#">CMR-STORY-2475</a>	As a Provider, I want to grant permissions to all granules of a list of collections to all members of an access control group
<a href="#">CMR-STORY-2476</a>	As a Provider, I want to grant permissions to granules with an access constraint value to all members of an access control group
<a href="#">CMR-STORY-2736</a>	As a Provider, I want to see a group's associated permissions
<a href="#">CMR-STORY-2737</a>	As an Operator, I want to create or update Single Instance Identity ACLs to grant members of a specific group Group Management abilities over another group

### 2.15.5 Object ACLs

The following stories are related to the creation and management of object level ACLs.

Story ID	User Story
<a href="#">CMR-STORY-2336</a>	As a Provider, I want to give all members of an access control group view permissions on a provider object
<a href="#">CMR-STORY-2337</a>	As a Provider, I want to give all members of an access control group create permissions on a provider object
<a href="#">CMR-STORY-2338</a>	As a Provider, I want to give all members of an access control group update permissions on a provider object
<a href="#">CMR-STORY-2339</a>	As a Provider, I want to give all members of an access control group delete permissions on a provider object
<a href="#">CMR-STORY-2340</a>	As an Operator, I want to give all members of a system level access control group permission to create a system object
<a href="#">CMR-STORY-2341</a>	As an Operator, I want to give all members of a system level access control group permission to view a system object
<a href="#">CMR-STORY-2342</a>	As an Operator, I want to give all members of a system level access control group permission to update a system object

Story ID	User Story
<a href="#">CMR-STORY-2343</a>	As an Operator, I want to give all members of a system level access control group permission to delete a system object
<a href="#">CMR-STORY-2483</a>	As an Operator, I want to update system object ACLs for a system level access control group
<a href="#">CMR-STORY-2484</a>	As a Provider, I want to view all provider object ACLs for an access control group associated with my provider
<a href="#">CMR-STORY-2485</a>	As a Provider, I want to update provider object ACLs associated with access control groups for my provider

### 2.15.6 Search and Order ACLs

The following stories are related to the creation and management of Search and Order ACLs.

Story ID	User Story
<a href="#">CMR-STORY-1557</a>	As a Provider, I want to give all members of an access control group permission to view metadata for all granules in all of my collections which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1565</a>	As a Provider, I want to give all members of an access control group permission to order data for a list of my collections
<a href="#">CMR-STORY-1566</a>	As a Provider, I want to give all members of an access control group permission to order data for all of my collections which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1567</a>	As a Provider, I want to give all members of an access control group permission to order data for all granules in my collections
<a href="#">CMR-STORY-1568</a>	As a Provider, I want to give all members of an access control group permission to order data for all granules in a specified list of my collections
<a href="#">CMR-STORY-1733</a>	As a Provider, I want to give all members of an access control group permission to search for data in a list of my collections
<a href="#">CMR-STORY-1735</a>	As a Provider, I want to give all members of an access control group permission to search for data for all granules in all of my collections
<a href="#">CMR-STORY-1736</a>	As a Provider, I want to give all members of an access control group permission to search for data for all granules in a specified list of my collections

Story ID	User Story
<a href="#">CMR-STORY-1791</a>	As a Provider, I want to give all members of an access control group permission to search for data in all of my collections
<a href="#">CMR-STORY-1792</a>	As a Provider, I want to give all members of an access control group permission to order data for all of my collections
<a href="#">CMR-STORY-1793</a>	As a Provider, I want to give all members of an access control group permission to search for data for all granules in all of my collections which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1795</a>	As a Provider, I want to give all members of an access control group permission to search for data for all my granules which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1796</a>	As a Provider, I want to give all members of an access control group permission to order data for all granules in all of my collections which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1797</a>	As a Provider, I want to give all members of an access control group permission to order data for all my granules which have an 'access restriction' metadata field value within a specified range
<a href="#">CMR-STORY-1929</a>	As a Provider, I want to give all members of an access control group permission to search for data for all my granules which have a null value of the 'access restriction' metadata field
<a href="#">CMR-STORY-1931</a>	As a Provider, I want to give all members of an access control group permission to order data for all granules in all of my collections which have a null value of the 'access restriction' metadata field
<a href="#">CMR-STORY-1932</a>	As a Provider, I want to give all members of an access control group permission to order data for all my granules which have a null value of the 'access restriction' metadata field

## 2.16 Provider Orders

The following stories are related to the creation and management of Provider Orders and Policies.

### 2.16.1 Provider Order Management

The following stories are related to the status, tracking and management of Provider orders.

Story ID	User Story
<a href="#">CMR-STORY-1257</a>	As a Provider, I want to view the detailed order information for an individual order for my Provider
<a href="#">CMR-STORY-1445</a>	As a Provider, I want to remove an open catalog item from an open Provider order
<a href="#">CMR-STORY-1448</a>	As a Provider, I want to cancel an open provider order
<a href="#">CMR-STORY-1449</a>	As a Provider, I want to resubmit a provider order which is in a terminal state
<a href="#">CMR-STORY-2791</a>	As a Provider, I want to be able to add a Status Message to my order when viewing the order on the MMT

### 2.16.2 Order Policies

The following stories are related to the creation and management of Provider Order Policies.

Story ID	User Story
<a href="#">CMR-STORY-1255</a>	As a Provider, I want to create and view an order policy for my Provider
<a href="#">CMR-STORY-1432</a>	As a Provider, I want to update an order policy for my Provider
<a href="#">CMR-STORY-1433</a>	As a Provider, I want to remove an order policy for my Provider
<a href="#">CMR-STORY-2738</a>	As a Provider, I want to test whether the Routing Location Endpoint in my provider Order Policy is valid
<a href="#">CMR-STORY-2847</a>	As a Provider, I want to view the order policies for my Provider

### 2.16.3 Order Options

The following stories are related to the creation and management of Provider Order Options and Assignments.

Story ID	User Story
<a href="#">CMR-STORY-1258</a>	As a Provider, I want to create and view an order option with a plain text editor, using ECHO Forms XML

Story ID	User Story
<a href="#">CMR-STORY-1435</a>	As a Provider, I want to update an order option with a plain text editor, using ECHO Forms XML
<a href="#">CMR-STORY-1436</a>	As a Provider, I want to delete an order option
<a href="#">CMR-STORY-1438</a>	As a Provider, I want to associate an order option with one or more of my collections
<a href="#">CMR-STORY-1439</a>	As a Provider, I want to disassociate an order option from one or more of my collections
<a href="#">CMR-STORY-1440</a>	As a Provider, I want to mark an order option as deprecated
<a href="#">CMR-STORY-1441</a>	As a Provider, I want to view a list of my collections and their order option associations
<a href="#">CMR-STORY-1483</a>	As a Provider, I want to view a list of my collections which have no order option associations
<a href="#">CMR-STORY-1617</a>	As a Provider, I want to be told of any errors in my order option when the option is submitted to the CMR
<a href="#">CMR-STORY-1618</a>	As a Provider, I want to preview how my order option will be displayed in a client that uses the CMR API, before submitting the order option
<a href="#">CMR-STORY-1624</a>	As a Provider, I want to sort a list of my collections with their order option associations by collection or by order option
<a href="#">CMR-STORY-2486</a>	As a Provider, I would like to see a list of my order options
<a href="#">CMR-STORY-2787</a>	As a Provider, I would like to delete order options with collection associations

## 2.17 Provider Services

The following stories are related to the management of Provider Service Entries and Options.

### 2.17.1 Service Entries

The following stories are related to the creation and management of Provider Service Entries.

Story ID	User Story
<a href="#">CMR-STORY-1823</a>	As a Provider, I want to associate a new service with one or more other services
<a href="#">CMR-STORY-2366</a>	As a Provider, I want to create and view a service interface entry
<a href="#">CMR-STORY-2368</a>	As a Provider, I want to create and view a service implementation entry

Story ID	User Story
<a href="#">CMR-STORY-2371</a>	As a Provider, I want to update an existing service interface entry for my provider
<a href="#">CMR-STORY-2372</a>	As a Provider, I want to delete a service interface entry
<a href="#">CMR-STORY-2386</a>	As a Provider, I want to update an existing service implementation entry for my provider
<a href="#">CMR-STORY-2387</a>	As a Provider, I want to delete a service implementation entry
<a href="#">CMR-STORY-2388</a>	As a Provider, I want to delete a service implementation / service option association

### 2.17.2 Service Options

The following stories are related to the creation and management of Provider Service Options.

Story ID	User Story
<a href="#">CMR-STORY-2373</a>	As a Provider, I want to create and view a service option definition with a plain text editor, using ECHO Forms XML
<a href="#">CMR-STORY-2375</a>	As a Provider, I want to update a service option definition with a plain text editor, using ECHO Forms XML
<a href="#">CMR-STORY-2376</a>	As a Provider, I want to preview how my service option definition will be displayed in a client that uses the CMR API, before submitting the service option
<a href="#">CMR-STORY-2377</a>	As a Provider, I want to be told of any errors in my service option definition when the option is submitted to the CMR
<a href="#">CMR-STORY-2378</a>	As a Provider, I want to delete a service option definition
<a href="#">CMR-STORY-2379</a>	As a Provider, I want to associate a service option with one of my service implementations and one or more of my collections
<a href="#">CMR-STORY-2380</a>	As a Provider, I want to remove one or more collections from a service option / service implementation assignment
<a href="#">CMR-STORY-2382</a>	As a Provider, I want to view a list of my collections and their service option assignments
<a href="#">CMR-STORY-2383</a>	As a Provider, I want to sort a list of my collections with their service option associations by collection, service option, or service implementation
<a href="#">CMR-STORY-2384</a>	As a Provider, I want to view a list of my collections which have no service option associations

Story ID	User Story
<a href="#">CMR-STORY-2385</a>	As a Provider, I want to indicate whether a service option/service implementation/collection association is for granules only or for collections and granules

## 2.18 Data Quality Summaries

The following stories are related to the management of a Provider's data quality assessment summaries and assignments to collection(s).

### 2.18.1 Data Quality Summary Creation and Editing

The following stories are related to the creation and management of Provider Data Quality Summaries.

Story ID	User Story
<a href="#">CMR-STORY-1231</a>	As a Provider, I want to create and view a data quality summary
<a href="#">CMR-STORY-1233</a>	As a Provider, I want to update an existing data quality summary
<a href="#">CMR-STORY-1234</a>	As a Provider, I want to delete a data quality summary

### 2.18.2 Data Quality Summary Assignments

The following stories are related to the creation and management of Provider Data Quality Summary Assignments.

Story ID	User Story
<a href="#">CMR-STORY-1232</a>	As a Provider, I want to assign a data quality summary to one or more collections.
<a href="#">CMR-STORY-1235</a>	As a Provider, I want to remove the assignment of a data quality summary from one or more collections
<a href="#">CMR-STORY-1236</a>	As a Provider, I want to view a list of my collections with their data quality summary assignments
<a href="#">CMR-STORY-1388</a>	As a Provider, I want to sort a list of my collections with their data quality summary assignments by collection shortname and version, or by data quality summary name
<a href="#">CMR-STORY-1631</a>	As a Provider, I want to view a list of my collections which have no data quality summary assignments
<a href="#">CMR-STORY-1632</a>	As a Provider, I want to view a list of my data quality summaries with their collection assignments

## Appendix A Abbreviations and Acronyms

ACL	Access Control List
API	Application Programming Interface
AUID	Agency User ID
CCB	Configuration Change Board
CCR	Configuration Change Request
CMO	Configuration Management Office
CMR	Common Metadata Repository
CRUD	Create, Read, Update, Delete
DAAC	Distributed Active Archive Center
DOI	Data Object Identifier
ECHO	Earth Observing System (EOS) Clearinghouse
EED2	EOSDIS Evolution and Development 2
EMS	ESDIS Metrics System
EOSDIS	Earth Observing System Data and Information System
ESDIS	Earth Science Data and Information System
ESR	Extended Support Release
GCMD	Global Change Master Directory
GSFC	Goddard Space Flight Center
GUI	Graphical User Interface
GUID	Globally Unique Identifier
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
HTTPS	Hypertext Transfer Protocol Secure
ID	Identifier
ISO	International Organization for Standardization
JSON	JavaScript Object Notation
MMT	Metadata Management Tool
NASA	National Aeronautics and Space Administration
NPR	NASA Procedural Requirements
OPeNDAP	Open-source Project for a Network Data Access Protocol
SSL	Secure Socket Layer
UI	User Interface
UMM	Unified Metadata Model
UMM-C	Unified Metadata Model - Collection
UMM-G	Unified Metadata Model - Granule
UMM-S	Unified Metadata Model - Service
UMM-Var	Unified Metadata Model - Variables
URL	Uniform Resource Locator
URS	User Registration Service
XML	Extensible Markup Language

