1.3.0—CMIP5 security and integration	Goal: ESG security updates and product service integration	Date: Monday, April 4, 2011

Gateway

- Spring Framework 3.0 upgrade.
- Security enhancements:
    - Centralized gateway registry.
    - Centralized white-list management.
- Gateway collation of data node manager metrics:
- Enhanced CMIP5 XML harvesting from METAFOR questionnaire atom feed.
- Demonstrate base Live Access Server (LAS) Product Service integration:
    - Enable basic subsetting services.
    - Enable basic data visualization services.
- New data set notification support.

Data Node

- Include ESG Publisher graphical user interface (GUI) in the release of the data node:
    - Modified and added new features as requested by ESG staff and management.
    - ESG publisher provides a GUI interface, which has been updated to support data set versioning.
- Access metrics service in place for metrics fetching.
- New release of installation script.
- ESG publisher generates all metadata as prescribed by the Data Reference Syntax (DRS):
    - Data set versioning is supported as defined by DRS.
    - Support is enabled in the ESG publisher for retrieval of data sets using a DRS-defined syntax.
    - DRS controlled vocabulary is maintained within the ESG publisher configuration.
    - ESG publisher supports DRS filename conventions.
- ESG publisher maintains CMOR (Climate Model Output Rewriter) table information.
- ESG publisher interfaces with the ESG node installation script.
- ESG query services:
    - ESG data node suite connects with all ESG programming interfaces.
    - ESG publisher allows metadata queries to be directed to any ESG gateway.
- Support for other (non-CMIP) projects:
    - A data handler has been written for observational data associated with CMIP5.
    - A data handler is available for the Transpose Atmospheric Model Intercomparison Project (AMIP) project.

1.4.0—CMIP5 distributed archive	Goal: ESG product services and user interface	Date: Monday, May 16, 2011

Gateway

- Data access by DRS Uniform Resource Locators (URLs).
- Advanced support for replica discovery and download:
    - Search of replicated data sets.
    - WGet script generation at remote gateway.
- Present data set version history in user interface (UI).
- Fully support deletion of data sets:
    - Verify database integrity after hard deletion.
    - Support logical deletion.
- Enhance data download workflows:
    - Improved script generation (via Data Cart capabilities, add WGet help, version requests).
    - Improved large file set selection.
- LAS product server integration (data sets and variable selection with auth-z):
    - Enable basic subsetting services.
    - Enable basic data visualization services.
- Manage file access locations using publisher:
    - Support for file rename, move, and remove use cases.
- New data set version notification support.
- Optional token support discontinued based on federation feedback.

- Data node documentation and help instructions.
- Support for GridFTP services (GridFTP is the Globus high-performance FTP server):
    - ESG publisher allows configuration and generation of GridFTP access to URLs.
- Continue upgrade of installation script with new component integration.
- LAS "Product Server" integration:
    - ESG publisher generates LAS URLs for publication, which enables LAS access to all published data sets.
- Enhance ESG publisher GUI:
    - Design and build database metadata validation tool.
    - Incorporate MyProxy into the publisher GUI.
    - Add gateway query capability to the publisher GUI.
    - Add ESG list files to publisher GUI to show what files comprise a data set.
- Continue support for other (non-CMIP) projects:
    - Data handler development.
    - Product tool integration.
- DRS refinement and CMIP5 data conventions updates (as needed).
- Continue operational status of CMIP5.

1.5.0—CMIP5 – Baseline 3	**Goal:** Based on 1.4 system reviews and user feedback	**Date:** Monday, July 18, 2011

Gateway

Release schedule will be based on user feedback on the 1.4 release

Data Node

Release schedule will be based on user feedback on the 1.4 release