

## [The Common Metadata Repository: A High Performance, High Quality Metadata Engine for Next Generation EOSDIS Applications \[1\]](#)

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**Abstract:** As data archives grow and more data becomes accessible online, cataloging, searching, and extracting relevant data from these archives becomes a critical part of Earth Science research. Current metadata systems such as ECHO, EMS, and GCMD require metadata providers to maintain multiple, disparate systems utilizing different formats and different mechanisms for submitting and updating their entries. As an end user or application developer, this inconsistency reduces the value of the metadata and complicates finding and using earth science data.

Building on the results of the EOSDIS Metadata Harmony Study of 2012, we completed a Metadata Harmony Study 2 in 2013 to identify specific areas where metadata quality, consistency, and availability could be improved while reducing the burden on metadata providers.

This poster discusses the results of the Metadata Harmony 2 study and the impacts on the EOSDIS community. Specifically, we'll discuss:

- The Unified Metadata Model (UMM) that unifies the ECHO, GCMD, and EMS metadata models
- The Common Metadata Repository (CMR) which will provide a high performance common repository for both EOSDIS and non-EOSDIS metadata unifying the ECHO, GCMD, and EMS metadata stores
- The CMR's approach to automated metadata assessment and review combined with a dedicated a science support team to significantly improve quality and consistency across Earth Science metadata
- Future expandability of the CMR beyond basic science metadata to incorporate multiple metadata concepts including visualization, data attributes, services, documentation, and tool metadata
- The CMR's relationship with evolving metadata standards such as work from the MENDS group and ISO19115 NASA Best Practices

This poster is targeted at metadata providers, consumers, and Earth Science Data end users to introduce components that will support next generation EOSDIS applications.

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