**HPC DME 1.0 .0 Release Notes**

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| Release Name: HPCDME-1.0.0  Version 1.0.0  December 28, 2016  ================================================================                              Contents  ================================================================  1.0 HPC DME Introduction  2.0 Release History  3.0 New Features and Updates  4.0 Bug Reports and Support  5.0 Documentation  6.0 References  ================================================================                        1.0 HPC DME Introduction  ================================================================  The HPC DME, High Performance Computing Data Management Environment, is an adaptable and open ended data storage environment supporting storage and management of biomedical and informatics data, produced from various lab or clinical systems. HPC DME provides capabilities for storing, managing, transferring and sharing data across different systems securely and efficiently.  Users can store data objects on HPC DME object archive, share and transfer their data such that they do not have to redistribute or maintain copies of the data on other systems. HPC DME stores and associates user defined metadata to any registered data at different levels of data life cycle, enabling the environment not only to help identify the data but also to enhance the search and download data files (from archive) capabilities.  ================================================================                        2.0 Release History  ================================================================  This is the initial production release on December 28, 2016  ================================================================                        3.0 New Features and Updates  ================================================================  This initial release contains no Web interface yet to enable accessing HPC DME APIs via a custom developed Graphic User Interface. However, the APIs are accessible via HPC Client Utility, Soap UI or CURL (Please see HPC DME General Training material as linked here: <https://github.com/CBIIT/HPC_DME_APIs/blob/master/doc/training/HPC_DME_General_Training.docx> ).  The core of HPC DME APIs consists of: 1) Metadata management: HPC DME by default integrates with iRODS iCAT instance to manage metadata and its security for both collections and data objects. 2) Data transfer: HPC DME supports both asynchronous data transfer between Globus endpoints via Globus/GridFTP and synchronous data file registration through HTTP multipart request to HPC REST interface . HPC DME pluggable architecture allows both these implementations to be replaced with alternatives easily while keeping its APIs unchanged.  The basic features of HPC DME is to help users in registering and uploading their data to the HPC DME archive storage and managing it. HPC DME archive storage can be a permanent storage for the users’ data and be used as a platform to search, manage and transfer the data to other storage systems and also to share with other collaborators or users. Each data object is stored along with its required and user defined metadata. The associated metadata can be used as search criteria to identify dataset(s).  The complete list of features and common use scenarios are compiled below as reference:   * *Register a collection (PI Lab, Project, Run, Sample or dataset)* * *Register a single data file/object into storage archive asynchronously* * *Register a single data file/object into storage archive synchronously* * *Perform update on a metadata attribute* * *Subscribe to a known event* * *Generate a report* * *Update/assign permission* * *Perform simple search functions* * *Download a data file/object to Globus share* * *Download a data file/object to a local directory*   Additional details about these supported features and use scenarios for HPC DME1.0.0 release can be found at HPC DME General Training on the project GitHub:  <https://github.com/CBIIT/HPC_DME_APIs/blob/master/doc/training/HPC_DME_General_Training.docx>  ================================================================                     4.0 Bug Reports and Support  ================================================================  The preferred approach is to first search the HPC Agile Board for your issue or feature enhancement if you have the access privilege (<https://tracker.nci.nih.gov/secure/RapidBoard.jspa?rapidView=244>).  When there is no entry in the JIRA Tracker, feel free to post your question to the Tracker.  Users are welcome to email their problem or feature request through email to: [HPC\_DME\_Admin@nih.gov](mailto:HPC_DME_Admin@nih.gov).  ================================================================                          5.0 Documentation  ================================================================  The HPC DME Server API, User Guide, Admin Guide documentation, and related documentation can be found on the project's GitHub:  <https://github.com/CBIIT/HPC_DME_APIs/tree/master/doc/guides>  Training related documentation and presentation may be found on the following GitHub directory:  <https://github.com/CBIIT/HPC_DME_APIs/tree/master/doc/training>  ================================================================                          6.0 References  ================================================================  The following URLs access web pages relevant to HPC DME.  HPC DME GitHub Home Page  <https://github.com/CBIIT/HPC_DME_APIs>  NCI HPC DME Agile JIRA Board Home Page:  <https://tracker.nci.nih.gov/secure/RapidBoard.jspa?rapidView=244>  iRODS Open Source Data Management Software home page:  <https://irods.org/>  IBM CleverSafe Object Storage:  <https://www.ibm.com/cloud-computing/products/storage/object-storage/why-cos/> |