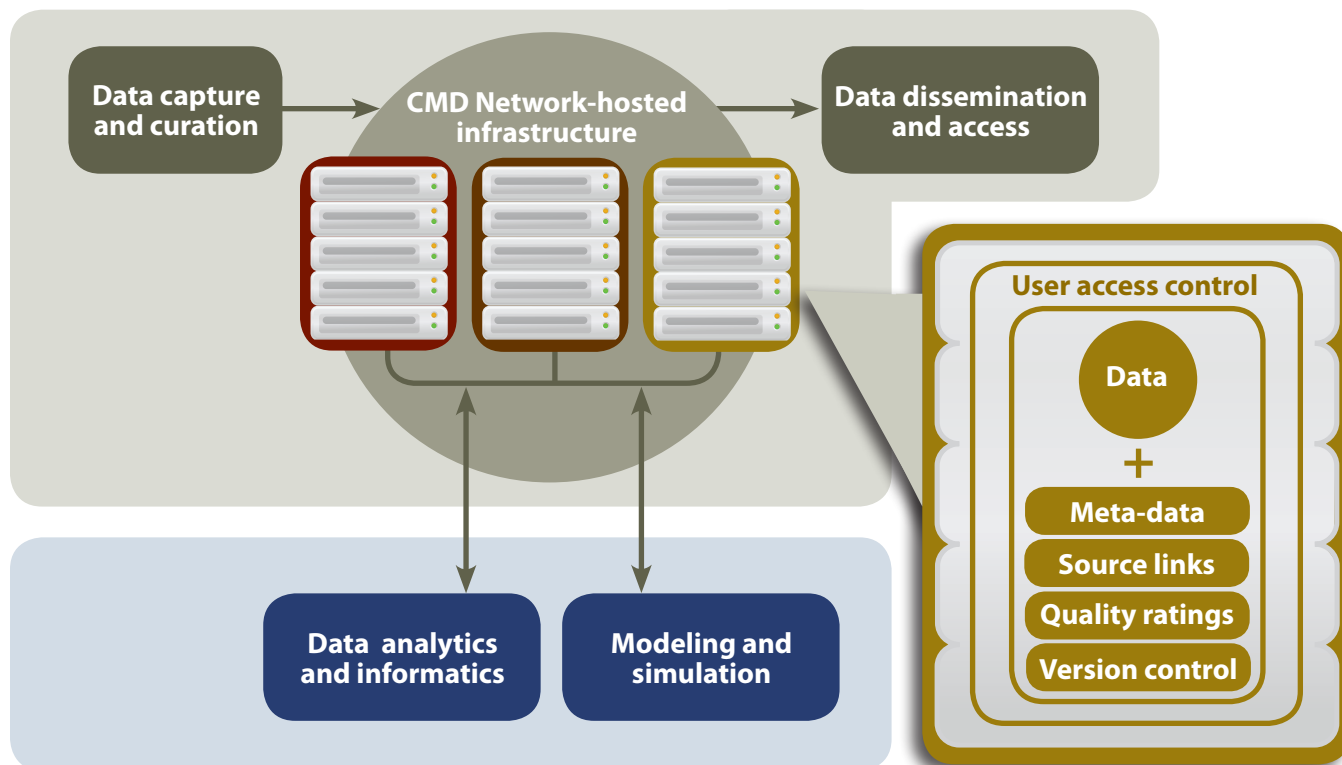


The Computational Materials Data Network: Materials Data Laboratory

The Materials Data Laboratory will provide a sustainable data infrastructure to enable the management of large, diverse materials data sets accessible to the community for data analytics and informatics, as well as for use in modeling and simulation. It will build on the capability of ASM International, which currently manages multiple materials data sets utilizing off-the-shelf database technology.



In addition to hosting a common infrastructure for data storage, the Materials Data Laboratory will enable data capture, curation, and control, and will support data access and dissemination to facilitate collaboration.

Data Capture, Curation, and Control

- Enables users to directly upload data, making it easier for industry, national laboratories, and academia to contribute and manage data
- Adds meta-data to ensure materials data is captured with relevant pedigree information
- Links related information, ensuring “traceability” and facilitating data analysis
- Enables appropriate access control and offers version control for managing changing data

Data Dissemination and Access

- Provides a simple, controlled “single point of entry” for critical materials data—increases awareness of what is available and make it easy to study and apply this data
- Makes data and computational functionality available to users via a web portal, allowing them to conduct analysis and modeling online
- Enables data sets to be accessed easily within in-house software, including CAD, CAE, and PLM systems via file export or direct integration

Contact

Scott D. Henry, ASM International
Scott.Henry@asminternational.org
440.338.5401
www.cmdnetwork.org