



DataONE Member Node Partnership Guidelines

Background

Data Observation Network for Earth (DataONE) is the foundation of new innovative environmental science through a distributed framework and sustainable cyberinfrastructure that meets the needs of science and society for open, persistent, robust, and secure access to well-described and easily discovered Earth observational data.

Supported by the U.S. National Science Foundation (Grant #OCI-0830944) as one of the initial DataNets, DataONE will ensure the preservation, access, use and reuse of multi-scale, multi-discipline, and multi-national science data via three principle cyberinfrastructure elements and a broad education and outreach program.

Purpose

These guidelines provide a framework for DataONE Member Nodes to actively collaborate on technologies, community education, standards, strategic planning, and other related efforts in support of the establishment and operation of DataONE.

Member Node Definition

A DataONE Member Node (MN) is operated by an organization to share data, infrastructure, and expertise with DataONE. A MN can be any group that is willing to expose all or portions of its data holdings, or that is willing to host data from other Member Nodes (MNs), through the standardized DataONE service interface. MN institutions may include (but are not limited to) libraries, research centers, scientific consortia, universities, museums, non-profit organizations, citizen science initiatives, corporate divisions and governmental and non-governmental organizations. Individual researchers wishing to share data via DataONE are encouraged to do so through MNs within their scientific domain, organizational affiliation, or geographic region.

Coordinating Node Definition

Coordinating Nodes (CN) provide network-wide services to enhance interoperability of the MN and support indexing and replication services. CNs provide a replicated catalog of Member Node metadata holdings and make it easy for scientists to discover data wherever they reside, also enabling data repositories to make their data and services more broadly available to the international community. DataONE CNs are located at the University of New Mexico, the University of California Santa Barbara, and at the University of Tennessee (in collaboration with Oak Ridge National Laboratory).

Period of the Partnership Guidelines

These Partnership Guidelines will be in effect until they are revoked by either the Member Node or by DataONE, or until they are modified with jointly acceptable revisions by DataONE and the Member Node. Annual review of these guidelines should occur by the Member Node organization and DataONE Leadership in support of any modifications or necessary changes required to these guidelines.



Joint Goals and Objectives

Roles and responsibilities are described for Member Node organizations participating in DataONE.

Member Nodes participating in DataONE are expected to:

- a) Implement the DataONE service API appropriate to the desired Tier of service, minimally supporting data and metadata discovery and access. This may require mapping the MN's internal data model to the DataONE model (data, system metadata, scientific metadata) and providing system metadata to CNs. Otherwise, MNs may choose to provide their data and metadata using software suites that already implement the DataONE service API;
- b) Support DataONE authentication and authorization policies and protocols;
- c) Store copies of other MN's data and metadata, as directed by prior agreement with CNs and if the MN is operating in a replication capacity;
- d) Maintain persistence and uniqueness of its own data and metadata identifiers;
- e) Upload only selected content for which the MN has the legal right of redistribution, and grant rights to DataONE to make that content available as specified by the access control rules provided by the MN and documented in the metadata;
- f) Participate in the DataONE User Group;
- g) Provide a primary contact for MN activities and operations.

DataONE Service Responsibilities:

As part of the partnership with MNs, DataONE will ensure that Coordinating Node services and capabilities described below are provided with the overall goal of maintaining a persistent, reliable, and sustainable cyberinfrastructure.

Specifically, DataONE will:

- a) Make available DataONE infrastructure and services;
- b) Manage its underlying IT infrastructure according to standards for continuity and security that are widely adopted by higher education and/or government organizations. In the advent of detection of malware, viruses, compromised content, and/or other services/processes impacting the DataONE network, DataONE will immediately suspend the operation and availability of that particular MN until resolution by all parties involved results;
- c) Protect the integrity of the network by restricting service access to or from any MN exhibiting activity deemed to represent a breach of service guidelines;
- d) Make reports of summary metrics available to MNs on a regular basis and at the request of MNs on an ad-hoc basis;
- e) Provide appropriate attribution to all supplied data and metadata and encourage members of the DataONE community to do likewise;
- f) Ensure MNs have access to documentation, training materials, and community support in order to establish and maintain DataONE tools and services;
- g) Make no claims of ownership about metadata or data entered into DataONE, but require the right to redistribute metadata and data on behalf of the MN and as specified by the MN in their access control directives;
- h) Make available the full suite of DataONE tools and best practices materials, and provide frequent updates on DataONE product development;



- i) Actively solicit feedback, suggestions, and input for future DataONE services, capabilities, and initiatives from Member Node participants.

DataONE Network Responsibilities

The federated network of MNs and CNs that make-up DataONE will be most efficient and will best support the science community when a common suite of best practices are adopted by all partners.

These best practices include, but are not limited to:

- a) Implement the full DataONE service API over time (authentication, authorization, storage, node capabilities, state of health, and replication APIs as they are defined);
- b) Maintain a high percentage of system uptime;
- c) Provide sufficient security so as to avoid compromise of the operation of the network or integrity of data and metadata;
- d) Provide emergency contact information (24/7 is preferable, but not required) for use by DataONE staff as needed;
- e) Actively participate in the DataONE community (engaging in communications, attending DataONE Users Group meetings as appropriate);
- f) Share lessons learned and other experiences with the DataONE community;
- g) Communicate with and provide some level of technical assistance to associated communities of users;
- h) Contribute resources (such as hardware capacity, open source code, documentation, sample products and services) that enhance the overall function, value, and sustainability of the DataONE community;
- i) Promote appropriate attribution to contributed data and metadata;
- j) Promote high quality data and comprehensive metadata policies and practices;
- k) Support the DataONE values and principles.

Collaboration and Communication Methods

These partnership guidelines will be carried out through periodic meetings (DataONE Users Group), briefings, working group participation, listserv communication, conference calls, and other communication as necessary.