This document provides a description of relevant MSU/iCER services related to managing and sharing digital data. If necessary, this document used as a template should be tailored for your specific grants and digital data type.

Description of Digital Data

For your data management plan, this section needs to include descriptions of types of digital data and formats that might arise in your research. For example, JPG image formats, text data, tabular data in CSV format, etc.

Data Storage

Digital data stored on research file spaces within MSU's High Performance Computing Center (HPCC) is reliable and secure, and its availability is guaranteed for a minimum of three years. Research spaces utilize ZFS file systems which ensure data integrity. File servers have full hardware redundancy capable of fail-over, and are able to withstand triple-disk failures without loss of data. Hourly ZFS snapshots are available, and off-site backups are maintained daily. This will allow for full recovery of data in the event of a catastrophic failure in the server room. If necessary, cryptographic-quality check-summing (SHA256) can be enabled.

Data Sharing

There are three modes of data sharing supported by a variety of groups at MSU.

1. MSU IT Services maintains a GitLab instance to allow multiple research groups to collaborate on code development, provide code reviews, and manage sharing of code with external parties. This service will allow for careful and efficient tracking of code development or ASCII-based data acquisition.
2. The Institute for Cyber-Enabled Research (iCER) subscribes to Globus Online Services, which allows researchers to share data with external users. MSU users can grant read and/or write permissions to any files or folders within that shared endpoint (e.g. folders within iCER file systems) so that data can be moved easily for sharing. Additionally, MSU users can create and manage their own groups using the group management service, controlling access to multiple resources for specific groups of people.
3. MSU IT Services provides web-hosting services for a fee so that data can be disseminated on the Internet.

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