

Possible Storage Options (List is not all Inclusive)

HITS Network Attached Storage

[Network Attached Storage](#) (NAS) is best used for data that will be analyzed and used locally within Michigan Medicine networking.

Dropbox

[Dropbox](#) is best used for collaboration data or data that must be accessed remotely (outside of the University of Michigan). Also available for individual work. Not to be used for large, long-term data archive/backup.

Google Shared Drives

[Google Shared Drives](#) are best used for collaborative work and data sharing. Also available for individual work.

MM Office 365/OneDrive ✱

[MM Office 365/OneDrive](#) is best used for native Office 365 documents and limited collaboration. OneDrive is considered a personal data storage that can be shared. SharePoint is recommended for collaborative work.

Public Cloud Services

U-M has service agreements with three public cloud services providers: [Amazon Web Services \(AWS\)](#), [Google Cloud Platform \(GCP\)](#), and [Microsoft Azure](#).

Advanced Research Computing (ARC)

Turbo

[Turbo](#) is best used for active research storage, particularly when analysis is done on ARC and/or if data will migrate to Data Den. Commutable storage via the Great Lakes Cluster. See table for more info.

Data Den

[Data Den](#) is best used for archiving long-term data. Manages large files, including the creation of archive files (zip/tar) for many small files. A good place to store datasets to meet data retention requirements. See table for more info.

Globus

[Globus](#) allows the free transfer of data between different storage systems, lab computers, and personal desktops/laptops.

Research Computing Package(s)




U-M Research Computing Package (UMRCP)

[The University of Michigan Research Computing Package](#) (UMRCP), provided by ITS, is an investment into the U-M research community via simple, dependable access to several ITS-provided high-performance computing clusters and data storage resources. See table for more info.

The Michigan Medicine Research Computing Investments (MMRCI)

[The Michigan Medicine Research Computing Investments](#) (MMRCI) offered by Michigan Medicine Health Information Technology Services (HITS) further expands upon the UMRCP program for Michigan Medicine researchers. MMRCI offers increased storage limits, increased core hour credits, additional cost sharing on core hours invested, and more! See table for more info.

Legend

-  Managed by HITS
(Accessed w/ @med.umich.edu Credentials)
Contact for Help: <https://hits.medicine.umich.edu/>
-  Managed by ITS (Accessed w/ @umich.edu Credentials)
Contact for Help: <https://its.umich.edu/help>
-  The ITS-Managed Microsoft 365 service for academic campuses is not permitted for Michigan Medicine business, education, patient care, or research use.

How Do I Decide?

Depending on your workflow, sometimes a hybrid approach is taken. If you would like to discuss in more detail, please submit a consult request to the Academic Engagement Team: [Academic Consultation](#)

Storage Options: Reference Guide

Service	HITS Network Attached Storage	Dropbox	Google Shared Drives	MM Office 365/ OneDrive*	Turbo	Data Den
Cost	Free	Free	Free	Free	10TB from UMRCP (free) 20TB from MMRCI (free)	100TB from UMRCP (free) 900TB from MMRCI (free)
Storage Limit	H:drive is limited to 25GB. Other drives can be configured to meet your needs.	Individual: 5TB Team: Unlimited (Submit a consult request for options)	Individual: 250GB Team: 15GB	1 TB	Additional capacity is available using your shortcode. Please submit a consult request for more information.	Additional capacity is available using your shortcode. Please submit a consult request for more information.
Storage Type	Active	Active	Active	Active	Active	Archive
Collaborative?	Internal	Internal/External	Internal/External	Internal (Limited)	Internal/External (Limited)	Internal/External (Limited)
How to Access Offsite	Michigan Medicine VPN	No VPN req'd	No VPN req'd	No VPN req'd	Campus VPN	No
Mounted as a Drive?	Yes	Yes- Via Selective Sync	No- Web Based	Yes & Web Based	Yes	No
PHI Permitted? <small>(See the safe computing link below for more info)</small>	Yes	Yes	No	Yes- HITS Only	Yes	Yes
Questions or Ready to Order?	Academic Consultation	Getting Started with Dropbox	Getting Started With U-M Google	Office 365 - Overview	Turbo Research Storage	Data Den Research Archive

U-M Research Computing Package (UMRCP)

- 80,000 CPU Hours of High-Performance Computing
- 10 TB of Replicated/Snapshot High Performance Storage
- 100 TB of Archive Storage
- 16 GB of RAM for Secure Enclave Services
- Additional HPC Allocations for Coursework

If you have additional questions or are ready to order, please visit the following website: [University of Michigan Research Computing Package](#)

The Michigan Medicine Research Computing Investments (MMRCI)

Offered by Michigan Medicine Health Information Technology Services (HITS) and further expands upon the UMRCP program for Michigan Medicine researchers.

For more information and eligibility requirements, please visit: [The Research Computing Package Website](#)

What About Sensitive Data?

For more details on sensitive data, please see the guide below to help make informed security and compliance decisions about which services to use when collecting, processing, storing, or sharing data: [Safe Computing Guide to IT Services](#)