



# File Storage Options for Employees



# Understanding File Storage Options for Employees

## 01 Data Levels

### **Data Levels**

At the end of section one, you will be able to identify the classification of data levels used at Charlotte.

## 02 Personal vs. Shared

### **Personal vs. Shared**

At the end of section two, you will be able to recognize the benefits of using shared drives and folders such as Google Shared Drives and Dropbox Team Folders.

## 03 Available Tools

### **Available Tools**

At the end of section three, you will be able to identify the available file storage tools provided by Charlotte.

## 04 Decision Matrix

### **Decision Matrix**

At the end of section four, you will be able to use a decision matrix to compare and contrast the available tools.

01

# Data Levels

Data Classification at Charlotte

# Data Classification at Charlotte

Data classification levels range from Level 0 (public) to Level 3 (highly restricted). As you make decisions about where to store data, first identify the level of the data.



## Level 0

Public data that does not require any authorization to access and will not harm the University or any students, staff, or faculty if openly distributed.

## Level 1

Internal data that is intended for use by designated personnel, departments, or groups within the university. May adversely affect the University community if openly distributed.

## Level 2

Confidential or sensitive data that is intended for very specific use and should not be shared with anyone without authorization. Regulations and laws require protection of this data.

## Level 3

Highly restricted data that must not be disclosed to anyone without explicit authorization. Governing statutes, regulations, and standards dictate how to protect this data.

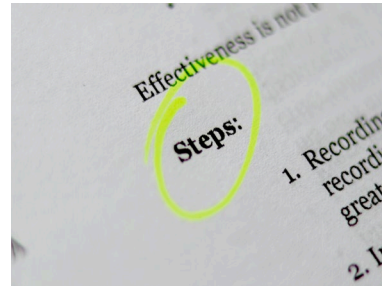
# Sample Data by Classification

The following are just a few examples of data that fall into each of the four levels of data classification.



## Level 0 - Public

- Advertising
- Product and service information
- Directory listings
- Published research



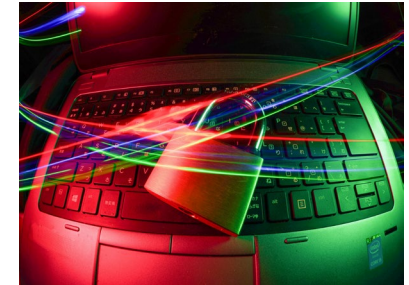
## Level 1 - Internal

- Department policies and procedures
- Budget information
- Unpublished research



## Level 2 – Confidential/Sensitive

- Personally identifiable information (PII)
- Financial information
- Grades and student-related data



## Level 3 – Highly Restricted

- Social Security Numbers
- Restricted research data
- Restricted information protected by non-disclosure agreements

02

# Personal vs. Shared

# Personal vs. Shared Drives/Folders

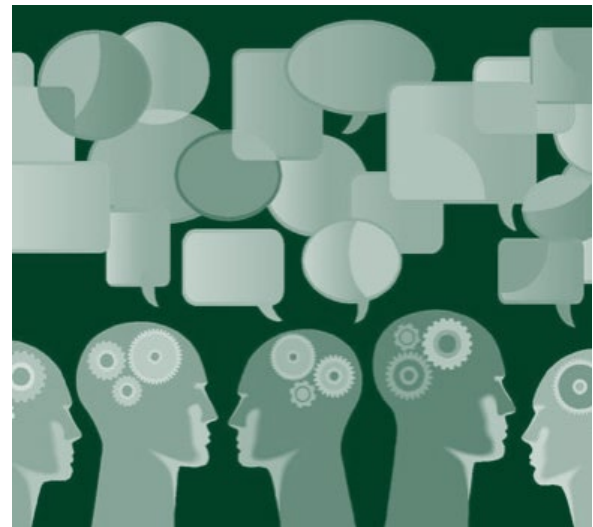
Personal drives and folders serve as repositories for any data, files and information that you create for your own use.

*Files that are intended to be shared with others should be stored in shared drives or shared folders.*



Shared drives and folders are repositories for data and files that are co-authored or intended for reference and use throughout departments or groups.

*Files that are need for use by more than one individual should be stored in shared areas such as Google Shared Drives or Dropbox Team Folders.*





# Benefits of Using Shared Drives and Folders

## Collaboration



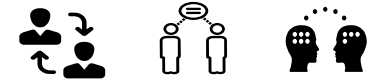
Using central spaces for storing files and information allows a group to easily collaborate.

## Department / Committee Administration



Storing in-demand files in a central space keeps them easily accessible.

## Knowledge Transfer



Sharing content in a central space keeps it available to all who need access and avoids loss of information should someone leave the university.

## Documentation Management



Maintaining document version control is easier when only one copy is shared in a central space.

## Support



The office of OneIT provides training and/or FAQ pages for Google Shared Drives and Dropbox Team Folders.



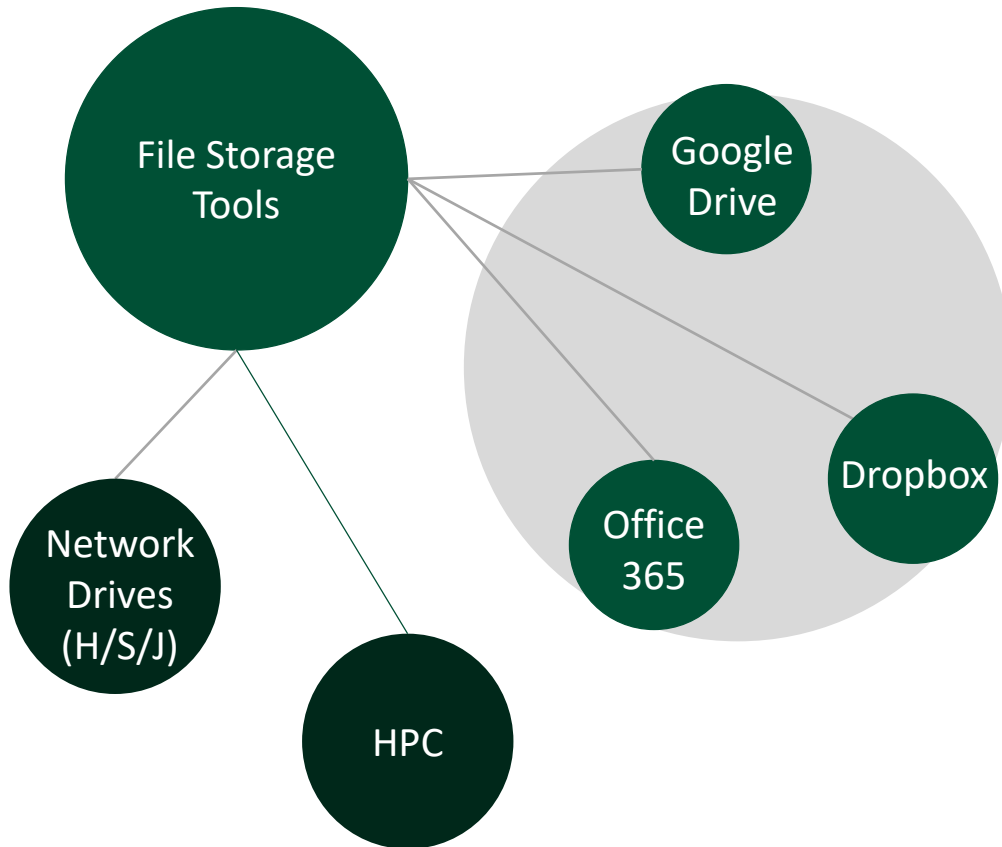
03

# Available Tools

File storage tools made available for Faculty and Staff

# Available File Storage Tools

Charlotte offers three primary file storage options for use by faculty and staff.



## ★ Cloud Storage

OneIT recommends cloud storage for general use, ease of access, and level of support.

Cloud storage options are available through Google Drive, Office 365 - OneDrive, and Dropbox

## Network Drives

OneIT provides on-campus server network drives (H:/ S:/ J: ) that are accessible from university-provided computers.

## HPC: High Performance Computing - Research

The Research Computing Group provides research systems to serve a variety of campus research activities.

★ OneIT recommended for general purposes, ease of access and level of support

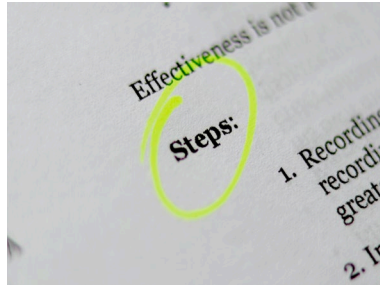
# Tools by Data Classification Level

The tools provided for file storage are accessible for use for the following levels of data classification.



## Level 0 - Public

- \*University owned individual computers
- Google Drive
- Office 365 - OneDrive
- Dropbox
- OneIT-provided Network Drives



## Level 1 - Internal

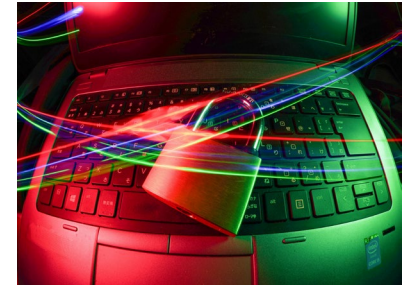
- \*University owned individual computers
- Google Drive
- Office 365 - OneDrive
- Dropbox
- OneIT-provided Network Drives



## Level 2 – Confidential/Sensitive

- Google Drive
- Office 365 - OneDrive
- Dropbox
- OneIT-provided Network Drives

\*University owned individual computers are not to be used to store Level 2 and 3 data.



## Level 3 – Highly Restricted

- Varies, dependent upon data security plan
- Contact the Data Security Officer for your college to learn more.

# Accessing File Storage Tools – Cloud Storage



Google Drive -  
Shared



Fill out the Google Shared Drive request form for a new shared drive.

Contact your department or committee for access to existing shared drives.



Google Drive -  
Personal

<https://drive.google.com/>  
Sign in using your Charlotte email and NinerNET credentials.



Dropbox



Fill out the Dropbox for Business request forms to request access to Dropbox or to request a team folder.

<https://dropbox.charlotte.edu/>

Sign in using your NinerNET credentials

Contact your department or committee for access to existing team folders.



Office 365 -  
OneDrive

<https://login.microsoftonline.com/>

Sign in using your Charlotte email.

Select the Work or school account option and provide your NinerNET credentials.



OneIT recommended for general use, ease of access, and level of support

# Accessing File Storage Tools – Network and Research Computing’s HPC Storage



## Network Drives

Network drives are available on your university computer. Through the File Explorer, look under This PC to locate your personal network drive (H) and shared and department network drives (S and J).

To access these drives from off campus, you must first connect to the VPN.



## Research Computing’s HPC storage

Research computing’s HPC storage is available to members of UNC Charlotte’s research community.

Visit the University Research Computing website to learn more.

# Sharing with Students

Shared Drives and Folders allow for collaboration with students in the following instances:



## Google Shared Drives

Google shared drives can be shared with all students as students have a Google account with Charlotte.

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## Dropbox Shared Folders

Requests for access for *\*student employees only* can be made if needed:  
[Dropbox Request](#)

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## Network Drives (S,J)

Requests for access for *\*student employees only* can be made if needed:  
[Network Storage Drive Ticket Request](#)



\*Dropbox and network drives are not available to the general student population.

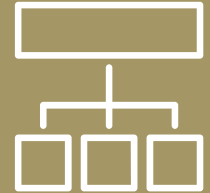
## Guidelines for Research Data Security



Faculty members working on research are expected to document and follow security guidelines for research.

Take time to review the [Guideline for Research Data Security website](#) to learn more.

## Department Specific File Storage



Your department may offer additional storage options than you have read about in this presentation.

Please contact your department about additional information and support for the tools that they offer.

04

# Decision Matrix

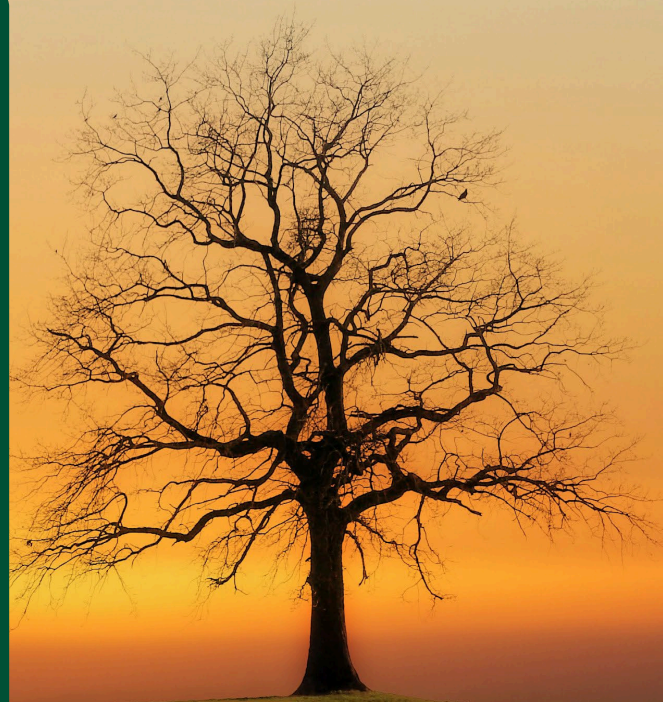
Compare and contrast file storage tools





## Knowledge Transfer

As you make decisions about where to store files, keep in mind the need for knowledge transfer. Utilizing shared storage spaces such as Google Shared Drives and Dropbox Team Folders will reduce the issues of knowledge loss when people transfer or leave the university.



# Comparing File Storage Tools

The data matrix on the following page will help you compare tools and answer the following questions regarding general use tools: Google Drive, Dropbox, Office 365 OneDrive, and Network Drives (H/S/J):

## Quota Limit

What is the storage capacity of each tool? How much can I store on my available drives?

## Availability

How do I access each tool?

## Collaboration

Who can I choose to share my files and folders with in each tool?

## Support







Where can I find support information on using these tools?\*

\*OneIT recommended general use tools denoted with a gold star have the highest level of support.



## General Use File Storage Options for Faculty

Use the decision matrix below to compare the file storage and sharing tools offered at the University of North Carolina at Charlotte.

|                      | <br>Google Drive   | <br>Dropbox  | <br>Office 365<br>OneDrive | <br>Network Drive |
|----------------------|--|---|---|--|
| <b>Description</b>   | Cloud based storage offering both personal and shared folders.   |   |   | On-campus server solution.   |
| <b>Data Level</b>    | Appropriate for storage of public, internal, and confidential/sensitive data. Level 0-2 data.  |   |   |  |
| <b>Quota Limit</b>   | 100 GB*  | 200 GB**  | 100 GB  | 200 MB   |
| <b>Availability</b>  | Automatically available through your Google account using your NinerNET credentials.   | Available upon sign up for Dropbox for Education using your NinerNET credentials.   | Automatically available through your Microsoft account using your NinerNET credentials.                       | Automatically available on your university assigned computer: H/S/J drives.                          |
| <b>Collaboration</b> | Shared drives for collaboration with faculty, staff, students, sponsored guests.   | Shared folders for collaboration with faculty, staff, and sponsored guests.   | Files and folders can be shared with faculty and staff only.  | S/J: shared and department drives  |
| <b>Support</b>       | FAQs are available online at <a href="https://spaces.charlotte.edu">spaces.charlotte.edu</a> .<br>Google Drive training is available: IT & Computing calendar at <a href="https://events.charlotte.edu">events.charlotte.edu</a> |   |   |  |

 OneIT recommended for general use, ease of access, and level of support

\*Quota limits effective 2023

\*\*contact OneIT Service Desk to request additional space for Dropbox.



# FAQs

Visit the following FAQ pages at [spaces.charlotte.edu](https://spaces.charlotte.edu) to learn more about our file storage tools:

[Dropbox](#)

[Network Drives](#)

[Google Drive](#)

[Office 365 - OneDrive](#)

# Additional Resources

Additional resources about file storage and the available tools can be found at the following Charlotte webpages in the green bar at the bottom of this page.

If you would like a member of OneIT to discuss these options with your department, please contact the [OneIT Service Desk](#).



## IT Security & Compliance

### Guideline for Data Handling

[oneit.charlotte.edu/iso/guideline-data-handling](https://oneit.charlotte.edu/iso/guideline-data-handling)

### Guideline for Research Data Security

<https://oneit.charlotte.edu/iso/guideline-research-data-security>

### UNC Charlotte FAQ

Information Technology  
[spaces.charlotte.edu](https://spaces.charlotte.edu)

### IT & Computing Events

Charlotte Campus Events  
[campusevents.charlotte.edu](https://campusevents.charlotte.edu)



# Thank you!

You have completed this presentation.