

SHARED PRACTICE GUIDE 001 – CLOUD STORAGE SYSTEMS

Rev 03

1. Introduction

Shared practice guides (SPG) are a vehicle to share knowledge between the U3As in the London region. They are created by collating knowledge and experiences from those U3As. They are only a guide – what worked for one U3A might not work for your U3A. If in your experience something is wrong or you disagree with something in this SPG, please write in to allow an update to be created and published. It's hoped that these Guides will grow over time with more shared experiences.

2. Scope

This particular SPG addresses the aspect of a shared cloud storage system. The definition of this is explained below. Due to the nature of the subject this SPG is more about providing information rather than one best practice. Each U3A will still need to decide what is right for them.

3. Benefits

Many individuals may be using cloud storage already (e.g. for keeping their personal photographs). This SPG looks at the use of a 'shared' file storage system. Traditionally this might have been a set of committee paper records kept by the Executive Committee. Paper records have then been replaced by digital files. However this tends to be held on members' own devices. Meaning they cannot be viewed by others; they have to be physically transferred (electronically at succession); there is a risk of loss if the member dies, is ill, or fails to handover all files. Having a live open shared (digital, cloud based) storage system avoids these risks.

A shared cloud storage system has the following advantages:

- Accessible at all times
- One file shared by all
- Don't have to send large files by email – can just send a link instead
- Handover (when an EC Member resigns is easier (his/her files already held centrally)
- Builds up an archive of files
- Allows access to files if an Executive Committee Member becomes ill

Addressing perceived disadvantages:

- Security: cloud systems are seen as no less secure from hacking than a personal computer. You can set levels of access at file or folder level
- File structure: an agreed file/ folder structure has to be followed (to allow others to find files)
- Data Protection: easier to ensure we are complying with policy by visibility of what is on the shared cloud storage system rather than on someone's PC.
- Another IT system to cope with: all cloud storage systems are intuitive
- Costs: see below

4. Which System?

While the benefits are explained above, once the decision is taken by a U3A to 'invest' in a cloud storage system the question then arises of – 'Which one?'

SPG 13- CLOUD STORAGE

Part of the decision process will be considering what other IT system your U3A is using, or will be using. We all have our preferences – some will want to use Apple products; others like the Google suite. This might be the dominant reason for choosing one cloud storage over another, but the implications need to be understood. Your decision process also needs to consider what size of memory your U3A needs. You don't want to make one decision and then within a year need to reconsider. For example LRU3A chose Google Drive for its cloud storage system. This provided 15GB of free storage and was seen as ample for its long term file storage needs. However after a couple of years LRU3A then needed to store a number of video files of their Talks. These are high in memory size (typically 0.5 to 1GB per recording). Therefore the options needed to be reconsidered.

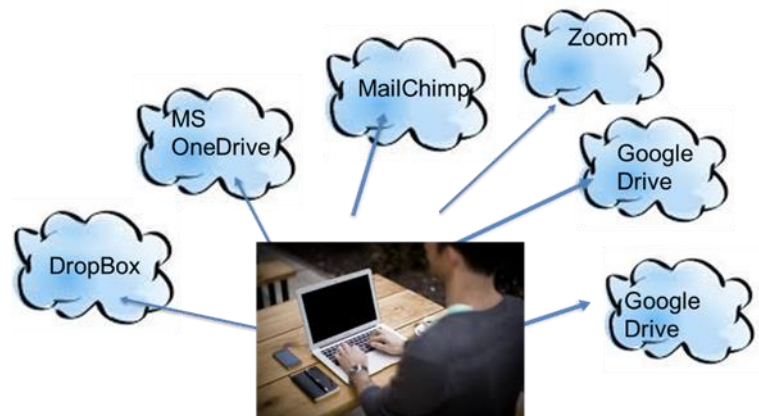
You therefore need to decide – are you hoping for a free service (if your memory requirements are going to be low) or do you see your needs growing so you expect to pay for the service. If so then it might be purely a commercial decision – where can you get the cheapest annual plan?

People might be most familiar with Dropbox but it offers a very low memory for its free level of subscription. However if we think in the longer term we are going to exceed even 15GB of memory requirements then a paid for level of Dropbox would be the answer or equivalent. This would cost in the region of £96/ year. Nowadays there are many alternative equivalent storage systems available.

5. Multiple Clouds

There is also another option – use multiple cloud locations for your storage. This can be by default or by design.

For example: Mailchimp effectively provides free cloud storage. While primarily a main shot system it does allow attachment of PDF files. These files are stored on Mailchimp's servers – at no extra cost. However these files are not accessible easily or can become too many. You need to know which 'Campaign' they were used to support.



(Graphic does not show all Cloud Systems possible)

Similarly many website domain hosts offer increased storage capacity – at a cost. So a U3A could decide to not only hold current linked documents on their website, but to keep previous or other files on this host as well.

So a form of solution is to use multiple locations to make up the U3A's total storage system. This can be difficult to manage (remembering what is where) and can lead to storing the same file in multiple locations – and hence paying unnecessary storage charges.

6. Choice of System

The main cloud storage systems that are on the market currently are:

- Dropbox
- Google Drive
- Box
- Microsoft OneDrive

SPG 13- CLOUD STORAGE

- Apple Cloud
- pCloud
- Zoom

See Appendix 1 for a comparison of these systems. These providers are in constant competition and therefore information in Appendix 1 may not be up to date. Use the internet to check latest information.

Another scenario is that video recordings be uploaded to YouTube. However now YouTube is a Google product and appears to be subject to the same overall account memory limitations. This depends on what form of Google account you have. However a few U3As are now using YouTube with good experience. They see that:

- There doesn't seem to be a limit to how many videos can be uploaded and how much space they take (this is disputed – could be part of a Google account limit)
- Video doesn't need to be downloaded to play it, i.e. it can be streamed (this is possible from cloud storage but seems to be a case of "if you know how")
- Not downloading means if after 5 minutes it's not for you time will have been saved not downloading it and needing to remember to delete it
- It remembers where you were if you don't play it all first time
- It can be embedded in e.g. a web page and adverts (generally) avoided
- Part of the google family, i.e. convenient if you are already on Google Drive.

However there could be copyright issues with any material posted on YouTube. Has permission been received from presenters and registered.

Zoom is also a storage location. Many U3As have taken out Zoom Pro accounts. But even this level of paid account has a limit on storage. Zoom is the most expensive form of cloud storage so not a cheap option – but the easiest (no need to transfer video files to another system).

Consideration also needs to be given to website domains. Website hosting companies also are selling cloud storage. So you can use this service and hence store files with them or you can store the files somewhere else and only have links from your website. Generally website hosters are not the cheapest form of cloud storage. For those using SiteBuilder for their website then this only allows an overall storage limit of 150MB per site (and also a limit per document). This is quite low so you might hit this max and hence not upload to this site but instead store elsewhere and only use links on SiteBuilder.

7. Costs

For a minimum of 100 GBs costs would be (but see Notes below table):

Name	Cost / month	Cost / year	Size
MS OneDrive	£1.99	£23.88	100 GB **
Apple Drive	£2.49	£29.88	200 GB
Dropbox	£7.99	£95.88	2 TB *
Google Drive	£1.59	£19.08	100 GB

There are different features and functionality between the above packages but all provide basic cloud storage services.

There are also options re how to procure cloud memory storage. Charity Digital Exchange and Charity Digital offer discounts. These organisation work on the basis of: you join and pay an annual

SPG 13- CLOUD STORAGE

administration fee, then various software programmes are available to charities at discounted prices. The Third Age Trust has a membership with Charity Digital for all U3As so you can avoid paying the annual fee. See the national website for how to register your U3A with Charity Digital.

An example of what is on offer (fees & VAT excluded):

- Dropbox Business Standard, 5TB, £38.00/year + VAT
- Dropbox Business Advanced, unlimited, £65.00/year +VAT
- https://www.charitydigitalexchange.org/product_catalogue

** Also an option is 1TB Apple Onedrive for just videos, which is free if a U3A joins Charity Digital Exchange.

Both CDE and CD offer discounts on Zoom Pro.

Google offer similar through Charity Digital or direct:

<https://www.google.com/intl/en-GB/nonprofits/offerings/apps-for-nonprofits/#!/#gsuite-pricing>

As an example of the options available:

- G Suite Business for Nonprofits
- £3.07 (Normally £9.20) / user / month
- Includes everything from G Suite for Nonprofits, as well as:
 - 1 TB cloud storage per user
 - Content search across all your files, emails and more
 - Google Vault to retain, search and export your data
 - More security and administrative options, including advanced reports
 - Video conference for up to 150 people with Google Meet

8. Selection Process

So the decision process is probably something like:

- Decide the size of memory storage you need
- Determine if there are other software considerations / needs
- Are there strong User preferences, or other factors?
- What your Successor might be using
- What system do you want?
- Procure direct or through CDE or CD?

9. Reference Material

There are many sources of information on the internet. There are reviews and comparisons of the main packages or information on the sites of the main Suppliers. Latest costs should be checked on the Supplier's site.

10. Contact Point

If you feel any of the above is unclear or if you think something should be added please give us feedback. Send comments to Derek Harwood at: webmaster.londonregionu3a@gmail.com

SPG 13- CLOUD STORAGE

APPENDIX 1 – CLOUD STORAGE OPTIONS

AppleDrive: Charges per month: 50 GB: £0.79; 200 GB: £2.49; 2 TB: £6.99

Dropbox Family includes the same features as Dropbox Plus for up to 6 members.

£167.88/year for up to 6 users (Plus is £95.88/year for 1 user)

Share 2,000 GB of encrypted cloud storage

Easily create shared spaces for photos, videos, docs and more

Google Drive	Box	DropBox	MS OneDrive	Zoom
www.google.com/drive	box.com	https://www.dropbox.com Now owned by Google	https://www.microsoft.com/en-gb/microsoft-365/onedrive/compare-onedrive-plans?activetab=tab:primaryr1	https://zoom.us/account/billing/buy?plan=pro&subPlan=allSubPlan&type=basic2pro
Free 15 Gb	Free 10 Gb	2GB of space is free.	5GB free	There is 1GB/month of cloud recording storage included in a Pro Account.
Plans start at £1.59/month for 100 GB; 2 TB £79.99 / year	File size limit of 250 Mb (videos/music may be larger) “Starter”: £4 per user/month, £48 / yr, 100 GB “Business”: £12 per user/ month, £144 / yr, Unlimited	If you want more space or features, you can upgrade to Dropbox Plus, Professional, or Business. Depending on your plan. Plus £7.99 / month or £96.00 / year (ex VAT), 2 TB (1,000 GB) of space	OneDrive 100 GB at £1.99 / month; Microsoft 365 Personal 1 TB £59.99 / year; Microsoft 365 Family, 6 TB total (1000 GB per person), £79.99 / year	£80 / month for 500 GB; £400 / month for 3 TB
Supports				
Windows, Mac, Android, iOS	plus Windows phone & Blackberry	As others	Primarily MS	
Has nested folders. Sharing permissions are inherited down	Has nested folders. Sharing permissions are inherited down	Has nested folders. Sharing permissions are inherited down.		

SPG 13- CLOUD STORAGE

		Can share at Folder level or at document level.		
Sharing				
<p>Through the web interface can only edit files that are from Google Office. Can edit these Google Office files with simultaneous access by more than one person.</p> <p>For other files, need to download the file, edit on own computer, and reupload the changed file.</p> <p>Cannot set an expiry date</p> <p>Cannot password protect files</p>	<p>Can share folders/files to people even without a Box account. Can specify whether view/edit/upload a new version.</p> <p>Can edit files online (allowing simultaneous access by more than one person) but only with Google Office files or by using the online MS Office 365.</p> <p>Can edit other files online (allowing only one person at a time) with a free downloadable plug-in.</p> <p>Can set an expiry date.</p> <p>Can password protect files</p>	<p>Can share folders/files to people even without a gmail account. Can specify whether view/edit/upload a new version.</p> <p>Can edit files online (allowing simultaneous access by more than one person).</p>		
Retract sharing				
<p>Can revoke. No Google sharing audit report.</p> <p>Found a third party add-on with good reviews to produce a sharing audit report. Tried to install it but failed. It was not in</p>	<p>Can revoke. A change of trustee would only involve folder sharing.</p> <p>For other sharing (which can be forgotten) suggest always use expiry</p>	<p>Can revoke. A change of trustee would only involve changing folder permissions.</p>		

SPG 13- CLOUD STORAGE

the approved Google app store so maybe just as well	dates. For sharing audits, a Granular Permissions (view/edit access) might be useful Business version tracks which links have been shared with which external addresses (see Cloudpro)			
Synchronisation				
Via downloaded app, with any folder. Then can edit files that are not from Google Office on own computer	Via downloaded app, with any folder	Via downloaded app, with any folder Just like MS Explorer.		
Ease of use				
Web access 'not best user interface'	Sharing control can feel overwhelming for simple sharing	Web access clean and well-constructed.		
Other				
Versioning only when editing via the Google Docs app	No versioning in the free account No undelete			
Anybody without a Google account wanting to download a whole folder, can only do this one file at a time	Good support for previews			
If you live in the Google universe, it is an excellent storage option	Need to download then upload in order to do a move for a tidy up			

SPG 13- CLOUD STORAGE

Google Drive developed out of Google Office and started in 2012. Probably hosted in US	When uploading, if you run out of space it just stops without telling you. Hosted in US from 2005			
	Sharing control is useful for teams			