GET THE WORD OUT

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Piedmont-Appalachian College of Commissioner Science

Ridgecrest Conference Center
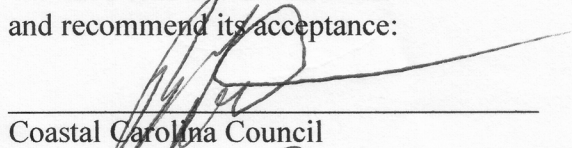
Ridgecrest, NC

Bob Wright, Advisor

To the Doctoral Candidate Review Board:

I am submitting herewith a Dissertation written by Paula Castleman, entitled "Get the Word Out". I have examined the final copy of this report for format and content and recommend that it be accepted in partial fulfillment of the requirements for the Degree of Doctor of Commissioner Science.

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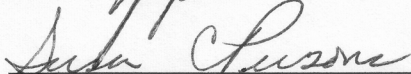
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We have read this Dissertation
and recommend its acceptance:

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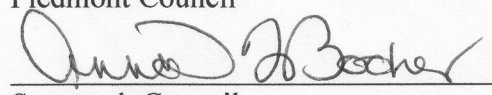Coastal Carolina Council

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Daniel Boone Council

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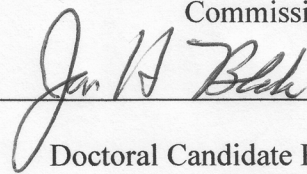Great Smoky Mountain Council

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Palmetto Council

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Piedmont Council

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Sequoyah Council

Accepted for the Piedmont-Appalachian College of
Commissioner Science:

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Chairman
Doctoral Candidate Review Board
and Blue Ridge Council

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ABSTRACT

When I was a new Cub Scout leader, I struggled with trying to keep up with all my records electronically. I would save them on a USB drive and take the drive to work. After making changes to a document, I would take the USB drive home and save the files on the desktop and laptop. Occasionally, after working for hours on a document, I would overwrite the new files with the old files I was attempting to replace. Luckily, another Cub Scout leader saw what I was doing and suggested I look into cloud storage. At that time, cloud storage was a very new thing. It has come a long way in the years since I started in Scouting. This document is a review of the different types of cloud storage and how they were applicable to Scouting and the situations I have encountered as a Cubmaster, Roundtable Commissioner and eventually a District Commissioner.

CHAPTER I

INTRODUCTION

Time after time, I have heard Scout leaders saying that they can't find a form that was emailed to them or that they lost a document in all of their paperwork. I have picked up registration forms for Webelos Woods, day camp, Spook-A-Ree, or numerous other events from the council office, only to get home and discover I have misplaced those same forms. I have repeatedly emailed a document to someone because they just couldn't find the document in their inbox. It would be nice if there was a central location in which documents, forms, or helpful information about the district was stored and all leaders had access to it at any time.

In a February 2009 interview Dropbox CEO Drew Houston, when asked where he got his inspiration for Dropbox stated, "I needed it badly. I worked on multiple desktops and a laptop and could never remember to keep my USB drive with me. I was drowning in email attachments trying to share files for my previous startup. My home desktop's power supply literally exploded one day, killing one of my hard drives, and I had no backups."[1]

I ran into similar circumstances. Ten years ago, I was a new Cub Scout leader trying to keep up with all my records electronically. I would save them on a USB drive and take the drive to work. After making changes to a document, I would take the USB drive home and save them on the desktop and laptop. Occasionally, after working for hours on a document, I would overwrite the new files with the old files I was attempting to replace. Luckily, another Cub Scout leader saw what I was doing and suggested I look into cloud storage, particular Dropbox.

PC Magazine says that cloud storage provides, "seamless access to all your important data - Word docs, PDFs, spreadsheets, photos, any other digital assets from wherever you are." [2] Cloud storage is when your files and documents are stored online, eliminating the need to email files to yourself or plugging and unplugging USB drives. There are several different services available for this type storage. Each one offers unique features. Some of the most popular are Google Drive, Apple iCloud, Box and Dropbox.
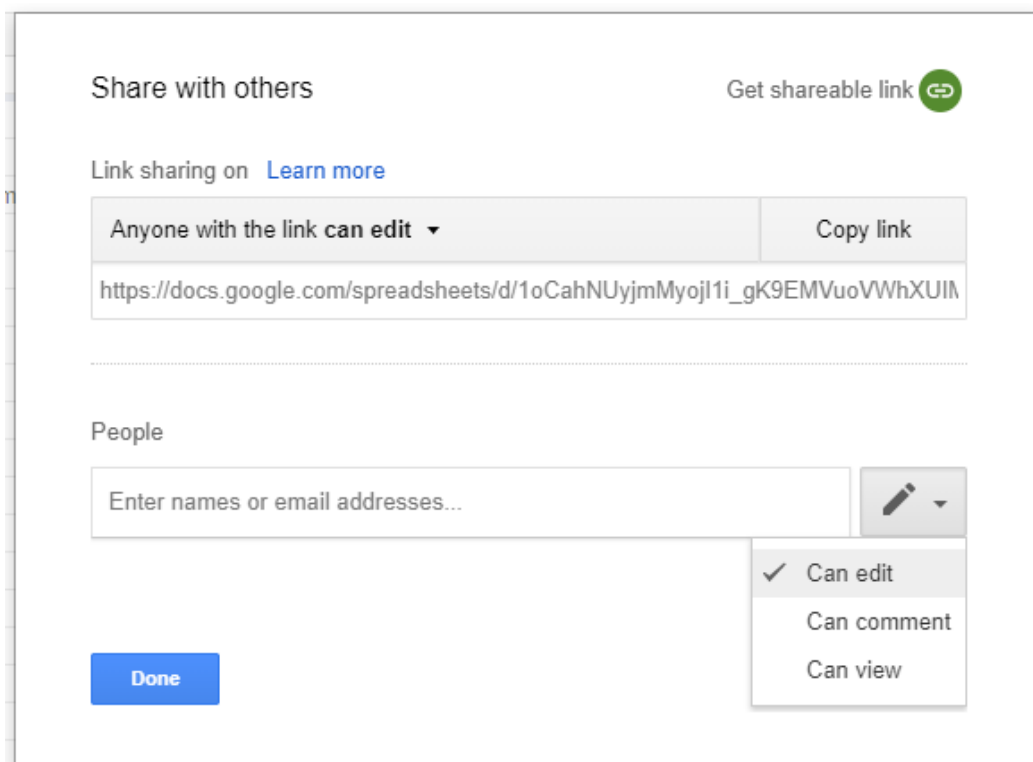
Figure 1. Cloud storage options.

Name	IDrive	SugarSync	Microsoft OneDrive	SpiderOakONE	CertainSafe Digital Safety Deposit Box	Google Drive	Apple iCloud Drive	Box (Personal)	Dropbox
Lowest Price	SEE IT	SEE IT	SEE IT	SEE IT	SEE IT	SEE IT	SEE IT	SEE IT	
Editors' Rating	●●●●◐ EC	●●●○○	●●●●● EC	●●●○○	●●●●◐ EC	●●●●● EC	●●●○○	●●●●◐ EC	●●●●○
Area of Specialization	Backup	Simplicity, Ease of Use	Collaboration; Microsoft Office 365 Included With 1TB Purchase	Security	Security	Collaboration	Apple Device Users	Compatibility With Other Services; Business Use	Compatibility With Other Services
File Size Limit	Unlimited	Unlimited	10GB	Unlimited	100GB	5TB	15GB	250MB With Free Account; 2GB With Starter Account	10GB; Unlimited With Desktop Client
Free Storage	5GB	None	5GB	2GB	None	15GB	5GB	10GB	2GB
Online Editing	✖	✖	✔	✖	✖	✔	✔	✖	✖
File Versioning	✔	✔	✔	✔	✔	✔	✔	✔	✔
Windows App	✔	✔	✔	✔	✖	✔	✔	✔	✔
iOS App	✔	✔	✔	✔	✖	✔	✔	✔	✔
Android App	✔	✔	✔	✔	✖	✔	✖	✔	✔
Read Review	IDrive Review	SugarSync Review	Microsoft OneDrive Review	SpiderOakONE Review	CertainSafe Digital Safety Deposit Box Review	Google Drive Review	Apple iCloud Drive Review	Box (Personal) Review	Dropbox Review

CHAPTER II

GOOGLE DRIVE

Google Drive was launched by Google on April 4, 2012. Drive was created as a place to "create, share, collaborate and keep all of your stuff."[3] Google Docs, Google Sheets, Google Slides, as well as many other services comprise Google Drive. It allows users to create and edit documents, spreadsheets, presentations and more while collaborating with others in real time. Privacy settings are available on each file and folder in Google Drive. Files can be shared with multiple users and the creator can control the type of access the user has. The user can edit, comment or only view the file.

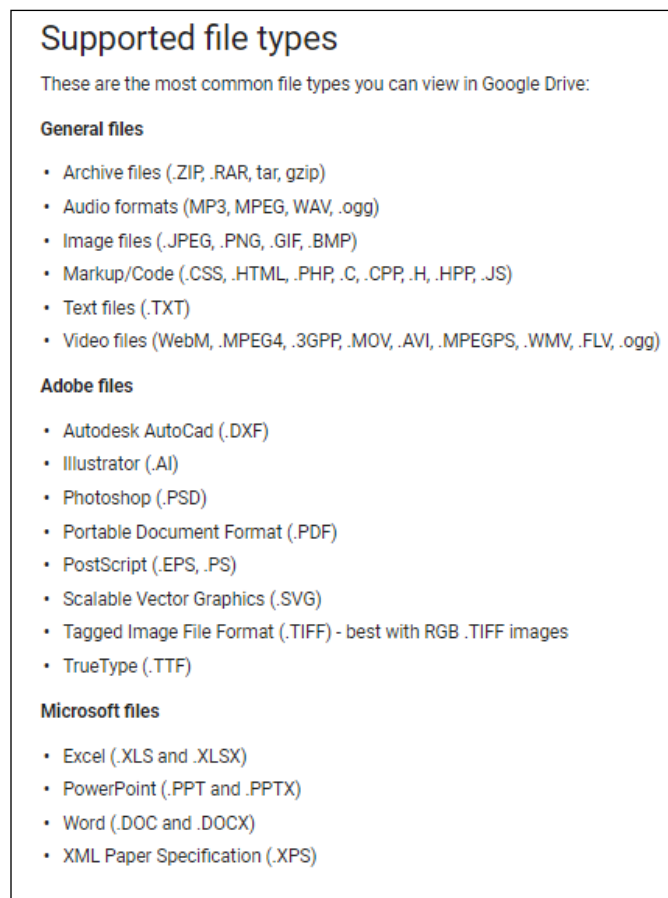Figure 2. Sharing Google Drive files with other users.

HOW DOES IT WORK

   To get started with Google drive, all you need is a Google account. Google Drive is accessible on most internet capable devices. Documents in Drive can be accessed from anywhere via the web (home, office, etc.). You can also download the Drive app and access documents via an Android or iOS-based phone or tablet.

   Documents created are in a proprietary format. However, files of numerous formats can be stored and viewed in Google Drive.[5]

Figure 3. File types supported by Google Drive.

WHAT IS IT GOING TO COST?

Google Drive offers 15GB of storage for free. The storage is shared across files in Google Drive, messages and attachments in Gmail, and pictures and videos in Google Photos. Additional storage is available (100GB for $1.99 per month).[4]

PROS AND CONS

PROS:

- Google Drive is free for up to 15GB of storage. Files in Googles proprietary online format do not count toward this quota.

- You can create, store and share documents.

- Documents are accessible at home and office on most desktops, as well as on Android or iOS-based phone or tablet.

- Documents can be accessible offline. However, internet access is needed in order to sync the files on other devices. This functionality works best with Chrome OS.

- When a document is shared from Google Drive, the creator can control the type of access: Edit, Comment or View a document.

- Edits are automatically saved without any additional steps.

- When collaborating on a file, the collaborator's suggested changes are in brackets. The document owner can accept the changes or not.

- Multiple people can edit a document at the same time.

CONS:

- Documents are only editable in Goggle proprietary format. However, you can convert the files into Microsoft Office and other formats when the files are downloaded.

- On a mobile device, Google Docs, Sheets and Slides are different apps. This can be confusing as well as use more storage on the device.

- "Can be confusing to navigate the many features and rules."[6]

- Editing offline is not simple.

OTHER USEFUL INFORMATION

Other apps are available that can be used with Google Drive. Google Forms is one such app. It can be used to create forms or surveys.

CHAPTER III

APPLE iCloud

"iCloud is the name Apple gives to its range of cloud-based services, covering areas as diverse as email, contact and calendar syncing, the location of lost devices and the storage of music in the cloud."[7]

HOW DOES IT WORK?

In order to use iCloud, you have to set up an account. Once you have activated your account and enabled it, you can choose what items you want to sync between devices.[8]

Figure 4. iCloud settings.

Files created in iCloud use Apple's proprietary programs Pages, Numbers and Keynote.[11]

WHAT IS IT GOING TO COST?

Each iCloud starts with 5GB of storage at no charge. This would include data from mail, documents, photos and videos stored in photos library, as well as backups of iOS devices. You can upgrade to 50GB for $0.99 per month. Also, you can share the 200GB and 2TB with your family.[10]

PROS AND CONS

PROS

- "iCloud keeps contacts, notes, photos, calendars, reminders, safari browser tabs and passwords synced" across multiple devices.[13]

- iCloud backs up all of your data in one place, no matter which device you are using.[14]

- You can manually select which apps and data are updated in order to stay within the 5GB of free storage. [14]

CONS

- iCloud does not open all file types. Although, according to www.computerworld.com, it does a passable job with most popular formats.[9]

- Over time, the number of Apple devices connected to an iCloud account can become unwieldly, making it easy to lose track of which ones are still signed in with an Apple ID after they've been lost, handed down or sold.[9]

- "Unlike Google Drive, you can't set permissions for folders or individual files and share them with others. You can still collaborate on projects stored in iCloud, but the nitty-gritty of it is handled by the app."[12]

- "iCloud seems to suffer more outages than competing services and can be glitch."[15]

- iCloud can be difficult to use from non-Apple devices. [15]

OTHER USEFUL INFORMATION

"In case your device is lost or stolen, iCloud.com allows you to track your iPhone's location, as well as send a message to display on the device, lock the phone, and/or remotely wipe your data." iCloud tracks your iPhone at all times. If your phone is lost, you can use a web browser to enable an audible sound to help you locate it. If the phone is not found, you can lock it and send a message that is displayed on the locked screen. You can remotely put the phone into a "Lost mode" or even erase the phone.[9]

CHAPTER IV

BOX

Box was created by Aaron Levie as part of a college project.[16]

HOW DOES IT WORK?

Box provides file sharing and collaboration along with other tools to work with files uploaded to their cloud. "The Box Services offers collaboration features or other integrated tools, which allow you to share your content."[17] Users determine how their files are shared with others. You may share your files with others so that they may view and/or edit. They can also upload documents and photos into shared file folders and give other users permission to view shared files.

WHAT IS IT GOING TO COST?

For $5 per user per month, you can get 100 GB of storage for a minimum of three users and maximum of 10 users. Their next tier is $15 per user per month. This gives you unlimited storage for a minimum of 3 users. There is no cap on the maximum number of users.[18]

PROS AND CONS

PROS

- GetApp says that Box is easy to use and can use with other tools.[19]

- Files stored on the cloud are safe.

- Files can be shared with other users

- The application is easy to set up.

CONS

- GetApp says that Box has "limited functionality with your Desktop".[19]

- Scott S. Daniel's review on GetApp says that Box has more of a learning curve for users because of more features. [20]

- Lakhan Malik's review of Box says that it is "way too easy to accidentally delete or edit files. There is also no editing history."[21]

OTHER USEFUL INFORMATION

As with other cloud storage options, you can share files. Box allows you to share confidential files with a password protected link. You can also set a date for the password to expire. You can also delete the password. This allows you to share the file with whom you want to share it with when you want to share it.

While it appears that many of Box's features are similar to other Cloud services, after looking over their website, it seems that Box is primarily designed for teams working on documents together. To that end, Box meets many security requirements such as HIPPA.

CHAPTER V

DROPBOX

Dropbox is a file hosting service which allows clients to securely store pictures, documents, spreadsheets and other electronic files. With Dropbox, a user can save a file on his computer and it will be synchronized to the same folder (with the same files) on any linked PC, tablet or mobile device and Dropbox's cloud-based storage system.

HOW DOES IT WORK?

The Dropbox application is available for Microsoft Windows, Mac OS, Linux, Android, iOS, and Blackberry platforms.[22] After you set up your Dropbox account, the program creates a folder on your computer called "Dropbox". This folder looks and acts like any other folder on your computer and there will be a shortcut icon located in the system tray (for Windows users) or top menu bar (for Mac users) or indicator on the indicator icon tray (for Linux users).[23]

To use Dropbox, you simply store files in your Dropbox folder. It will automatically be synchronized to any other devices where you have installed Dropbox. Files you have saved on your desktop computer at home will be automatically updated on your computer at work and your laptop. The files are also stored online so you can access them from a non-linked device. Please keep in mind, if you delete a file from Dropbox, it will also be deleted on those other devices and online as well. Dropbox also offers the added benefit of version history. You are able to restore a previous or deleted version of any file within 30 days. While Dropbox requires internet connection to update files on all connected devices, after updating the files are available offline.

WHAT IS IT GOING TO COST?

Dropbox is free for all applications. The free personal account allows you 2GB of storage. You can earn 500MB of bonus space up to 16GB by inviting your friends and family to join and install Dropbox.[24] Dropbox also offers promotional storage space with the purchase of some devices. I had a 100GB promotion that I received with the purchase of a cellular device. Unfortunately, that promotional storage space expired October 15, 2018 requiring me to either delete files, or purchase Dropbox Pro. Dropbox Pro is available for $9.99 per month or $99 per year. It allows you up to 1TB of storage. Business accounts are also available.

PROS AND CONS

PROS

- In a March 29, 2017 article, 9to5Mac says that "Dropbox has always been 100% reliable and has consistently synced within seconds."[15]

- Dropbox is very easy to use. You simply drag and drop a file into a Dropbox folder and it is synced across all devices.

- Dropbox documents and folders are easy to share. "Simply copy them into your public folder and right-click to get a link you can share." [15]

- Dropbox has the ability to share larger files such as a PowerPoint file.

- Dropbox can be used by a team or individual.

CONS

- Android and iOS devices do not store any backed-up files on them by default. They connect to the web service in order to allow you to manage or edit files.

- There are no storage tiers between the 2GB and the 1TB at $9.99/month. Although, you can be awarded extra storage through referrals and adding new devices. [15]

OTHER USEFUL INFORMATION

Dropbox Pro offers other benefits in addition to the larger storage space. A Dropbox Pro user has the ability to remote wipe a lost or stolen device, set expirations dates for shared links, set passwords for shared links, and other benefits.

Another benefit of Dropbox is file sharing. Dropbox allows you to share a link to any of your files in the "Public" folder. Also, from the Dropbox website you can share entire folders. However, Dropbox does not allow you to collaborate on a file in real time.

Dropbox Paper does offer the option for multiple users to work on documents in real time. There are several templates that are available (Group Brainstorming, Project Plan, Meeting Agenda, etc.) as well as the option to pull in a Microsoft Word document. You can choose multiple users who all have the option to edit and their edits are marked.

Dropbox also has a feature called Showcase (part of Dropbox Professional). With Showcase, you can collaborate with clients and track what they have viewed. You can also add your branding to the document giving it a more professional appearance.

CHAPTER VI

SUMMARY

Looking back over the comparison of Google Drive, iCloud, Box and Dropbox, one can see that each system has very beneficial uses and drawbacks. Box's main focus seems to be corporate teams although Dropbox also has corporate friendly options. Drive and iCloud have proprietary formats. The files would have to be converted to other formats in order to use them with other systems. Google Drive's Drive Forms has the ability to do surveys and elections that I was unable to find on the other options. Google Forms allows the user to collect information from an individual without them being influenced by other's answers.

As a new Scout leader, I was struggling with keeping electronic records updated on multiple systems. I would work on those records on the desktop computer at home, the desktop computer at work, and on the laptop while at Cub Scout meetings or waiting on my children at their after-school activities. I struggled trying to keep all those records updated on multiple systems. I had a thumb drive I tried to carry with me all the time. But there were times I forgot the drive. I lost track of the number of times I accidentally overwrote those up to date files on the thumb drive with the out of date documents I was trying to replace.

A good friend noticed my dilemma with the files. He suggested I look into Cloud storage and helped me setup a Dropbox account. We set up the advancement records for the Pack in an Excel file and saved it in the Dropbox folder. I was then able to share that file with our advancement person. He could update files on his computer and they automatically updated on all my computers. The process was less aggravating and I saved a lot of time.

Scout leaders are constantly receiving information and forms they need to keep up with. We pick up forms at council for day camp, Webelos Woods, Spook-A-Ree, summer camp and so many other things. We are handed forms and various other handouts at roundtable. Even more forms and handouts are emailed to us. Even with the best organizational system, it can be difficult to locate the exact form you need in a rush.

That was my scenario 10 years ago. I am still using Dropbox today, albeit, much different than I did then. In those days, I used it as file storage. Today, I use it for storage as well as sharing files and documents with others.

As I have moved from Cubmaster to Cub Scout Roundtable Commissioner, District Commissioner and now Assistant District Commissioner, I have shared documents (paper and otherwise) on many occasions. I choose to use Dropbox as my primary Cloud storage. As I discovered more about Google Drive and the ability to administer surveys and hold elections, I have added it to my arsenal of Scout friendly tools.

I have a file in my Dropbox folder labeled Pack 271. In this folder I keep special ceremonies I have written for graduations and Arrow of Light celebrations, Scouting for Food info, Bobcat handouts, and so much more. I also have folders for each year that includes advancement records, recharter, Pack calendar and minutes from leader and committee meetings. I share the Pack 271 folder with my assistant Cubmaster, Advancement Chairman and den leaders.

I also have a Dropbox folder labeled BSA Foothills District. In this folder I have sub folders for Boy Scouts, Cub Scouts and Venturing containing Roundtable Guides. There is a

folder for Commissioners which includes cards with job descriptions, Commissioner tools and other useful items needed for a Commissioner.

The BSA Foothills District also has folders for Roundtable and Events. These two have been shared more than any of my other folders. The Roundtable folder includes PowerPoints that we use each month at Roundtable. When a leader misses Roundtable, they can go to this folder and find the monthly PowerPoint to catch up on what they missed. The Events folder has fliers from any Foothills District or Piedmont Council upcoming events. Each event has a subfolder with planning notes from previous years. This is a great resource in planning upcoming events.

In conjunction with Dropbox, Google Drive is used extensively by the Pack and the Foothills District. Because Google Docs offers the ability to share and edit documents, the Pack and District have used it to sign up to bring items to a covered dish. The district has also used Google Forms to survey participants at events and most recently we used it to submit leadership names for awards at our upcoming district banquet.

Overall, each of the cloud services discussed offers many similar options. For Cub Scout Pack and the Foothills District, Dropbox and Google Drive are our choices for sharing documents and handling administrative paperwork because of the ease of use and other options that they offer.

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