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**Experience: Beginners** 

Identity No: Fa22-BS/DFCS/030/A

**DEPT: Digital Forensics and Research Centre** 

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## Acknowledgement: -

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Thank you to \_\_\_\_\_\_ for giving us the opportunity to begin this evaluation and for all of your tremendous help in getting this assignment finished on time.

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#### **Executive Summary: -**

As the time of the web is rising, so are the violations that are committed against the utilization of PCs. As a reaction to the development of PC wrongdoing, the field that is associated with the utilization of crime scene investigation has showed up. It includes gathering and inspecting electronic proof that surveys harm to the pc as well as because of an electronic assault. Its fundamental intention is to get all vital information from such a potentially necessary framework to get a lawbreaker. These days, with the most noteworthy pace of cybercrime, it is proficient to all and assists them with understanding the freshest innovation that is involved these days in the field of criminology and how it tends to be drilled successfully and lawfully. Through this thought, the utilization of this particular field and its exposure of such regulations are really advantageous. As the period of new innovation has compromised, The PC at last turned out to be extremely strong. Tragically, as PCs have become further developed, wrongdoings connected with them have become further developed. Disseminated forswearing of administration assaults and other infections, zone call seizing, diversions, and site closures are only a couple of the huge number of reported assault types produced by the utilization of PCs against different PCs. The method involved with utilizing logical information to gather, dissect, and present scientific proof to the court. Legal essentially depicts the recuperation and investigation of likely proof. Potential proof can take many structures, from fingerprints passed on windows to proof of recuperated DNA from bloodstains to documents on hard drives. PC crime scene investigation is characterized as "the utilization of PC examination and examination methods to decide expected legitimate proof."

#### Introduction: -

This basic scenario known as the Lone Wolf scenario involves an incurable person known to be planning a major disaster. In 2019, an agent named Jones requested a digital forensic examination of a certain laptop to obtain any information related to these allegations. Mr. Jscloudy decided to hold a court hearing to discuss the issue of gun violence, which is why the order was deemed inadmissible. As a result, the US judge authorized the search of Mr. Jscloudy's residence and the seizure of digital media there. He agreed that the search warrant was legally sufficient to carry out the necessary checks. Jscloudy resides in Alexandria, Virginia. So, he was unhappy with the media's coverage of gun violence and what he saw as an attack on the Second Amendment. Before the plot began, Jscloudy and his brother Joseph McCarthy had a heated discussion online. During this discussion, Jscloudy threw his laptop on the floor, damaging it. Jscloudy uses the trash chute in his apartment to dispose of this laptop and it is picked up once a day. Joseph gives Jscloudy his old laptop and promises him that he won't break it. Joseph wiped the laptop's disk clean and gave it to Jscloudy. Jscloudy will not encrypt any data or take any overt action to conceal it. Jscloudy gives Joseph access to his cloud storage account. Joseph became suspicious when he read some records regarding Jscloudy 's sudden decision not to return from vacation. Joseph read some newspapers and went to the police and was arrested while talking online to Joseph, who had a search warrant for Jscloudy 's apartment. The investigator's main goal is to determine what was planned and whether anyone else was involved. This anecdotal enhanced screening scenario examined an individual's photo and computer memory that had been confiscated. The suspect was charged with planning a mass shooting. Our role as a measurable examiner is to find evidence that confirms or disproves this accusation.

#### **Acquisitions: -**

During the search session, the forensic examiner has to present the laptop by making sure it is on and unlocked by allowing the examiner to remove machine memory. Therefore, a specific notebook, FTK Imager, was used for forensic imaging and was sent to the lab for further investigation.

```
[Computed Hashes]
MD5 checksum:
                 7af48fa65519e84246b1729e5b68f140
SHA1 checksum:
                 694e26624d1ea029eb50d793b198edf85be4b4fc
Image Information:
Acquisition started: Fri Apr 06 08:50:44 2018
Acquisition finished: Fri Apr 06 09:42:25 2018
Segment list:
 F:\CFRS 780 Lone Wolf Scenario\Evidence Files\LoneWolf.E01
 F:\CFRS 780 Lone Wolf Scenario\Evidence Files\LoneWolf.E02
 F:\CFRS 780 Lone Wolf Scenario\Evidence Files\LoneWolf.E03
 F:\CFRS 780 Lone Wolf Scenario\Evidence Files\LoneWolf.E04
 F:\CFRS 780 Lone Wolf Scenario\Evidence Files\LoneWolf.E05
 F:\CFRS 780 Lone Wolf Scenario\Evidence Files\LoneWolf.E06
 F:\CFRS 780 Lone Wolf Scenario\Evidence Files\LoneWolf.E07
 F:\CFRS 780 Lone Wolf Scenario\Evidence Files\LoneWolf.E08
 F:\CFRS 780 Lone Wolf Scenario\Evidence Files\LoneWolf.E09
Image Verification Results:
Verification started: Fri Apr 06 09:42:26 2018
Verification finished: Fri Apr 06 10:24:18 2018
MD5 checksum:
                7af48fa65519e84246b1729e5b68f140 : verified
SHA1 checksum:
                 694e26624d1ea029eb50d793b198edf85be4b4fc : verified
```

Figure 1 Hashes verified

## Investigation: -

Before the investigation, all evidence files were sent to the office, this was where the chain of custody was signed. The software that I used was known as Autopsy. This certain software is considered an open-source forensic suite that is quite similar to FTK. The main thing I wanted to do was to view the hash of the disk image that was able to validate integrity. By the use of this software, known as Autopsy, it spontaneously is capable of hashing every kind of file that is been processed through the analysis stage in which it includes all essential data sources to be compared like a disk image. We already know the MD5 from this certain image that was taken from the FTK imager log file is as follows: 7af48fa65519e84246b1729e5b68f140. As we preview it through Autopsy, the result comes out as a match.

#### Metadata

Name: /img\_LoneWolf.E01

Type: E01

Size: 512110190592

MD5: 7af48fa65519e84246b1729e5b68f140

SHA1: 694e26624d1ea029eb50d793b198edf85be4b4fc

SHA-256: Not calculated

Sector Size: 512

Figure 2 Hash verified using autopsy

In the wake of confirming the circle picture trustworthiness, I started my examination on the client's Desktop. It's here where you can typically gain proficiency with a lot of data about the individual. It was here that numerous records of interest were found.

## Type of files found

#### 1. The Cloudy Manifesto.docx

- MD5 Hash: 14c07920ddc81fbd489e61d60e5c9f28
- File Location: C: Users/jCloudy/OneDrive
- Scheduled Timing:
  - Modified time and date: 2018-04-01 21:35:27 EDT
  - Accessed time and date: 2018-04-01 21:35:27 EDT
  - Created time and date: 2018-04-01 21:35:27 EDT
  - Changed time and date: 2018-04-01 21:35:39 EDT

#### 2. Planning.docx

- o MD5 Hash: 4ef414e469b7830faa2db429fe1321ee
- File Location: C: Users/jCloudy/OneDrive
- Scheduled Timing:
  - Modified time and date: 2018-04-04 01:30:41 EDT
  - Accessed time and date: 2018-04-04 01:30:41 EDT
  - Created time and date: 2018-03-29 22:16:48 EDT
  - Changed time and date: 2018-04-04 01:30:49 EDT

#### 3. Operation 2nd Hand Smoke.pptx

- MD5 Hash: b301fbf4104fb64b566b076c12a5d113
- File Location: C: Users/jCloudy/OneDrive
- Scheduled Timing:
  - Modified time and date: 2018-04-04 01:11:27 EDT
  - Accessed time and date: 2018-04-04 01:11:27 EDT
  - Created time and date: 2018-04-04 00:56:19 EDT
  - Changed time and date: 2018-04-04 01:11:53 EDT

#### 4. Cloudy thoughts (4apr).docx

- MD5 Hash: f8c2bc733c109a88405dfd13b47d0690
- File Location: C: Users/jCloudy/OneDrive
- Scheduled Timing:
  - Modified time and date: 2018-04-04 22:39:30 EDT
  - Accessed time and date: 2018-04-04 22:39:30 EDT
  - Created time and date: 2018-04-04 22:39:29 EDT
  - Changed time and date: 2018-04-04 22:39:41 EDT

## 5. AIRPORT INFORMATION.docx

- o MD5 Hash: 297eec248647f33f887d72328ab56f3c
- o File Location: C: Users/jCloudy/OneDrive
- Scheduled Timing:
  - Modified time and date: 2018-04-04 00:59:32 EDT
  - Accessed time and date: 2018-04-04 00:59:32 EDT
  - Created time and date: 2018-03-29 22:29:57 EDT
  - Changed time and date: 2018-04-04 00:59:40 EDT.

## The Cloudy Manifesto: -

This record depicts the speculator's perspectives on firearm control and weaponfree zones. As indicated by this archive, he expects to demonstrate that firearm free zones tackle nothing and indeed, is riskier. The following is a bit from the record.

"Something must be proven that the gun-free zone does not and will never work. So, I want to break the law. Because that is the thing that the crooks will do. Regardless of your laws, when they choose to act, they will. Medications have consistently been unlawful, yet that doesn't prevent individuals from getting drugs. Speeding is illicit; however, individuals drive quickly. Extortion is illicit, yet covetousness is a solid helper. So, I will be a lonely person, showing to the American public that laws and signs will not work. Just have the ability to ensure that it will work. The Second Amendment is not "inappropriate wording", it was written by similar people who wrote the rest of the constitution. In addition, no one complains about insurance and the opportunities it provides. Especially the first change, let you regurgitate your crazy gun control thoughts. You will soon see blood-splattered and naked bodies piled high. I will do what I should do. No matter who gets hurt, the unexpected rebate will be huge. I will change. I will improve. I will become an experienced producer. I will fight. I will be a lone wolf"

## Planning: -

## **Method of Planning**

#### 1) Main Target

- Must have a great plan in escaping
- Most suitable for the location to be near the airport
- The zone must be a weapons-free area.

## 2) Necessities

- A specified gun that is brought from the black market
  - Northern VA Gun Works 7518 Fullerton Rd # K, Springfield, VA 22153
  - NOVA 412 W Broad Street Falls Church, VA 22046
- Ammo.
  - 9mm is 1000 for \$360
  - Kel-Tec Sub 2000 9mm bullets for \$400.
- Gloves that are made of rubber
- Clothes that can be easily worn out
- Money in hand

#### 3) Exit point

- No other country available
  - Indonesia (looks cheap but quite expensive)
  - Exit point to Vietnam
  - Has the ability to earn 100 per day for a period of 9 years
- Brought tickets for one day
- Direct flight is most suitable
- Luggage should be in the vehicle

#### 4) Publish

- a. New ideas and thoughts could be written down
- b. The separate location used for saving things
- c. Saving in the cloud is more secured for access
- d. "Holding a press release when its time to be free

#### **Operation 2nd Hand Smoke**

All screenshots in the PowerPoint document are known to be taken from the attack plan. These are mainly screenshots taken from the target, such as escape routes, ticket information, and most importantly, the hotel location where the suspect is staying. plans to launch his attack on a certain event called "Town Hall for Our Lives". This location is located at 21030 Whitfield Place and will begin on April 7. The suspect planned to break in through the library, which is how he would carry out the attack, first by going straight to the airport, where his main goal was to fly to Korea and then to Indonesia. Below are few screenshots:

Figure 3 Event names Town Hall for our lives

Event: 1230 - 1400



Current candidate speakers are:

Figure 4 entrance the suspect was planning to use

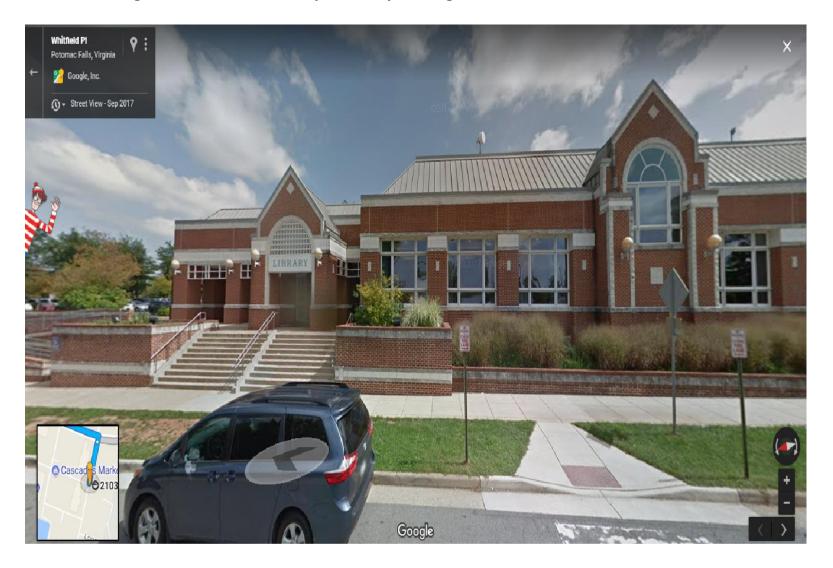


Figure 5 entrance and exit mapped by the suspect

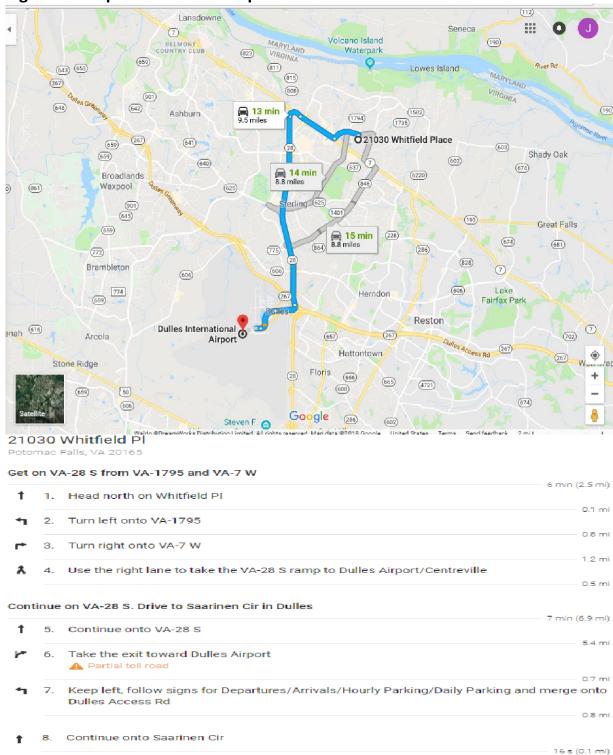
Marshalls

el-lone Depot

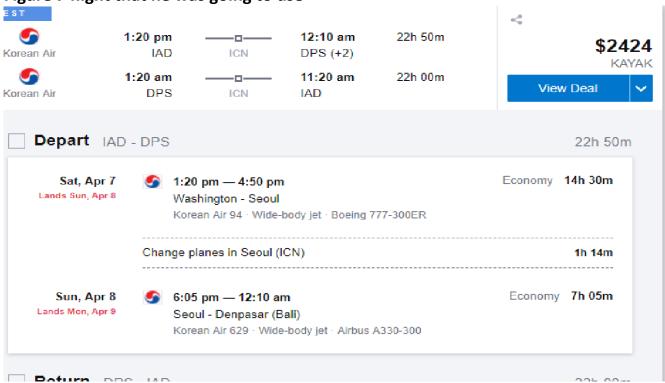
Google

Go

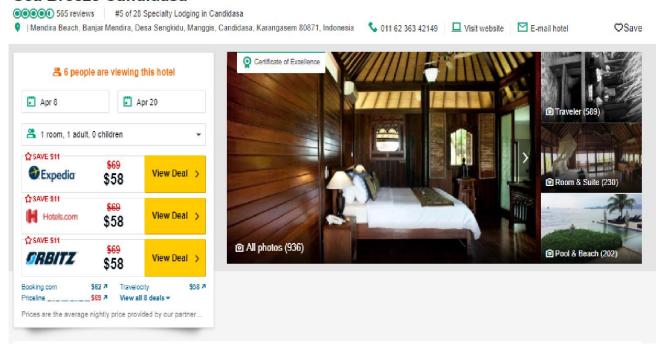
Figure 6 escape route to the airport



## Figure 7 flight that he was going to use



# Figure 8 Hotel suspect booked Sea Breeze Candidasa



## **Cloudy Thoughts**

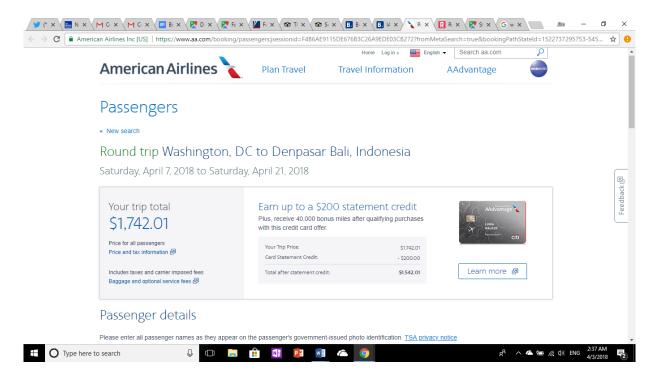
From this document, the evidence is precise that the suspect was planning to carry on with the attack no matter the consequences. This was the message that was written

" I don't know if this plan will work. Plans never survive first contact. I don't expect to fail, but there are so many possibilities. But now the weather. Its going to snow, and the winds will be strong. No problem for the attack, but if my flight is delayed or canceled, that might prove to be a problem. I'm stressed and writing used to help me calm down. It seems to be working. I'm leaving a lot behind, and the weight of this responsibility is almost too much to handle. I won't stop now, though. Even if I'm killed at the site, I know that what I'm doing is just and right. Freedom requires sacrifice. If I must be that lamb, then I walk to my slaughter freely of my own accord. I am saving everything to the cloud on several accounts. I don't want my words mixed up, and I don't want my thoughts deleted. I want my family to understand why I did this. I think they will keep my secret if I am successful and leave the country without problems. The only record will remain in the cloud and Paul will have the only other keys. My fate will be in God's hands. I pray I have the strength and the luck necessary to persevere. Please let the weather clear!"

## **Airport Information**

From the looks of it, it seems that the suspect has purchased a plane ticket through the airport in which he was planning to escape. Therefore a screenshot was been taken to show all the necessary details Reagan National Airport is known to have the best record of on-time departures. Dallas Airport has flights that travel to Indonesia and there is a divert flight back to Qatar 22 min from Fairfax County Democratic Committee, 8500 Executive Park Ave, Fairfax, VA 22031 to Dulles Airport.

Figure 9 suspect's flight booking



#### **Cloud Artifacts**

With the use of the suspect's main plan, he mentioned that he was planning to upload as many documents as possible to various destinations based on redundancy, this is how he was planning to use for a press release after he planned on escaping. There are few artefacts that I have managed to find from every installed cloud application. From the following screenshots shown below the filenames and paths are included as per their content.

## **Box Sync**

The folder that gets synced

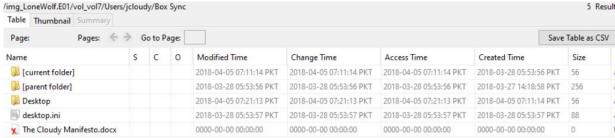


Figure 10 contains synced files

#### Drop box

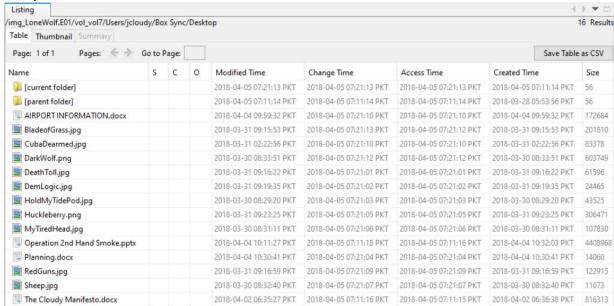


Figure 11 folder that has to be synced

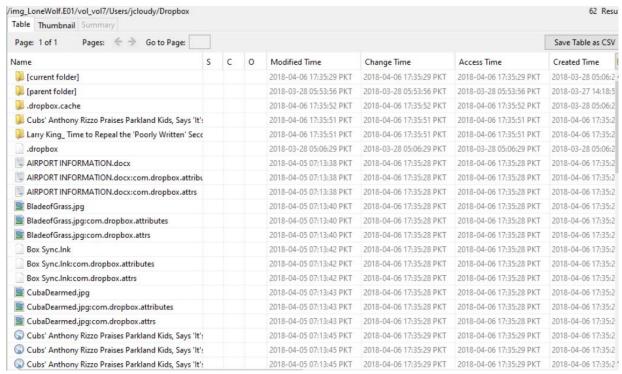


Figure 12 synced folder content Dropbox

img_LoneWolf.E01/vol_vol7/Users/jcloudy/Dropbox Table Thumbnail Summary							62 Resu	
Page: 1 of 1 Pages: ← → Go to Page:							Save Table as CSV	
Name	S	С	0	Modified Time	Change Time	Access Time	Created Time	
■ DarkWolf.png				2018-04-05 07:13:46 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
arkWolf.png:com.dropbox.attributes				2018-04-05 07:13:46 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
arkWolf.png:com.dropbox.attrs				2018-04-05 07:13:46 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
DeathToll.jpg				2018-04-05 07:13:47 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
DeathToll.jpg:com.dropbox.attributes				2018-04-05 07:13:47 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
DeathToll.jpg:com.dropbox.attrs				2018-04-05 07:13:47 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
DemLogic.jpg				2018-04-05 07:13:48 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
DemLogic.jpg:com.dropbox.attributes				2018-04-05 07:13:48 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
DemLogic.jpg:com.dropbox.attrs				2018-04-05 07:13:48 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
desktop.ini				2018-03-28 05:06:29 PKT	2018-03-28 05:06:29 PKT	2018-03-28 05:06:29 PKT	2018-03-28 05:06:2	
Dropbox.lnk				2018-04-05 07:13:50 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
Dropbox.Ink:com.dropbox.attributes				2018-04-05 07:13:50 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
Dropbox.lnk:com.dropbox.attrs				2018-04-05 07:13:50 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
Google Drive.lnk				2018-04-05 07:13:51 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
Google Drive.Ink:com.dropbox.attributes				2018-04-05 07:13:51 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
Google Drive.Ink:com.dropbox.attrs				2018-04-05 07:13:51 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
HoldMyTidePod.jpg				2018-04-05 07:13:52 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
HoldMyTidePod.jpg:com.dropbox.attributes				2018-04-05 07:13:52 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
HoldMyTidePod.jpg:com.dropbox.attrs				2018-04-05 07:13:52 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
Huckleberry.png				2018-04-05 07:13:53 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:28 PKT	2018-04-06 17:35:2	
Hucklehern pharcom drophov attributer				2018_04_05.07-12-52 DKT	2018_04_06 17-25-28 DKT	2018_04_06 17-35-28 DKT	2018-04-06 17:35:2	

Figure 13 folder using Dropbox 1Figure 14 folder using Dropbox 2

#### Google Drive

Sheep.jpg

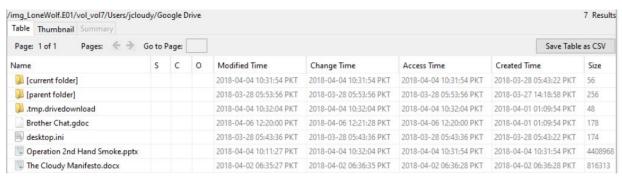


Figure 15 synced folder using Google Drive

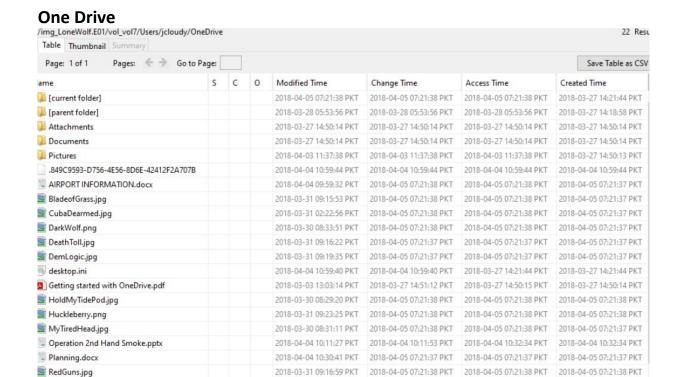


Figure 16 Synced folder using One Drive

2018-03-30 08:32:40 PKT 2018-04-05 07:21:38 PKT

2018-04-05 07:21:38 PKT 2018-04-05 07:21:37 PKT

#### **Amazon S3**

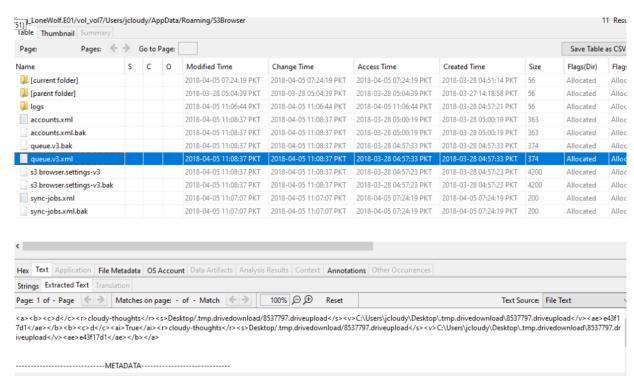


Figure 17 synced folder using Amazon S3

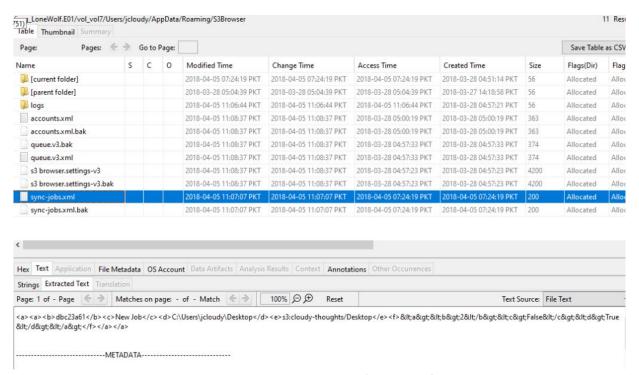


Figure 18 suspects computer synced to another pc

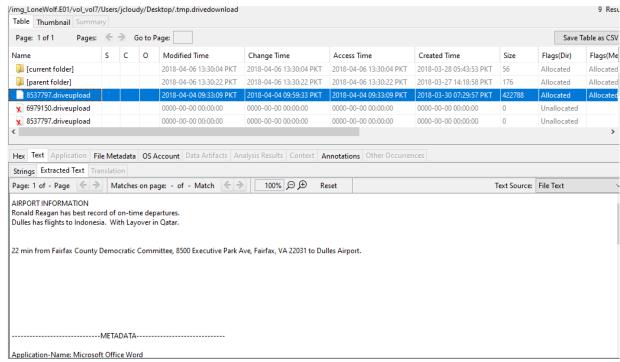
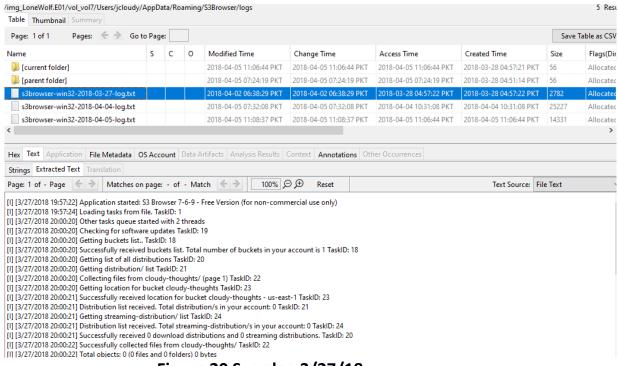
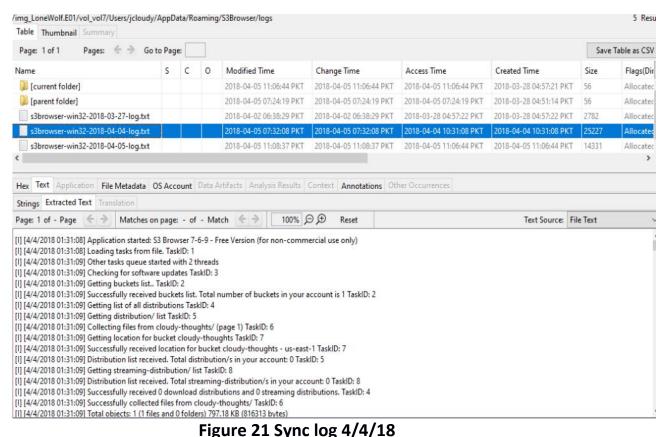


Figure 19 Contents of the currently queued file



**Figure 20 Sync log 3/27/18** 



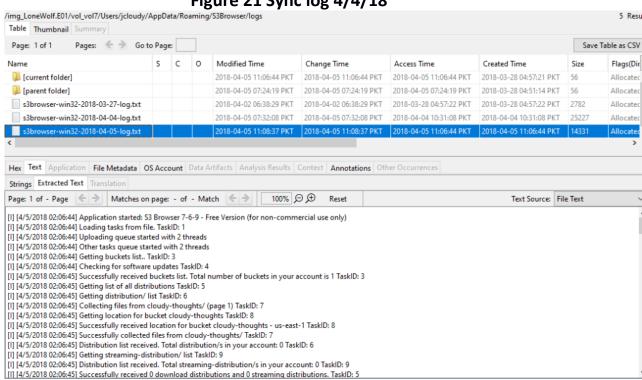


Figure 22 Sync log 4/5/18

#### Web Search: -

#### **Cookie Details**

Domain: live.com
URL: login.live.com

Name:

Value: jimcloudy@outlook.com|b5e4e06f22924dca||

#### Web Search

Term: upcoming anti-gun rally near me

Time: 2018-04-03 11:21:17 PKT

Domain: google.com Program Name: Google Chrome

#### Web Search

Term: do the cops track web searches
Time: 2018-04-01 01:03:23 PKT

Domain: google.com Program Name: Google Chrome

#### Web Search

Term: gun store near me
Time: 2018-03-31 22:48:41 PKT

Domain: google.com Program Name: Google Chrome

#### Web Search

Term: Is there a map of gun free zones D.C.

Time: 2018-03-30 04:13:52 PKT

Domain: google.com Program Name: Google Chrome

#### Web Search

Term: just how easy is it to buy an illegal gun

Time: 2018-03-29 09:37:29 PKT

Domain: google.com Program Name: Google Chrome

#### **Conclusions: -**

Several archives on the victims' computer were utilized to plan a major disaster at this specific address, "21030 Whitfield Place in Sterling, Virginia," on April 7. The suspect's primary goal was to go through the library's passageway. He intended to make his next statement to the media as soon as possible, so he could head straight to the Dallas Airport terminal to catch his aircraft to Indonesia.