

CASE REPORT

NATIONAL GALLERY DC

Tracy's iPhone [2012-07-15-National-Gallery]

A report by Beven Hobson

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EXECUTIVE SUMMARY

On January 21, 2016, DigiTech Inc. was called in to assist with the National Gallery, Washington DC (NGDC) case involving the conspiracy associated with the theft of valuable stamps and defacing of museum of art at the NGDC.

- Tracy is a suspect in the above-mentioned conspiracy.
- As part of the investigation, Tracy's iPhone was taken into custody.
- DigiTech Inc. was tasked with investigating evidence relevant to the above-mentioned conspiracy.

As described fully in this report, DigiTech, Inc. made the following findings:

- Tracy Had a financially aimed Motivation to commit the above-mentioned theft and defacement.
- Tracy had her brothers (Pat) assistance as well as an associate of Pat called King.
- Tracy and Pat used Aliases during the preparation of these events, Coral and Perry respectively.
- Tracy and Pat had conspired to steal the highly valuable stamp collection.
- Pat had blackmailed King into helping them by threatening to get in touch with King's Parole officer.
- Tracy had arranged for Carry to be able to sneak in a tablet for a flash mob event (which resulted in the defacement)

All data was Attained utilizing a combination of the following tools / programs;

- Kali Linux
- Nano text editor
- Google Maps (for GPS co-ordinates)
- Sqlite Browser
- Autopsy

DETAILS OF TRACY'S IPHONE

Please Refer to Appendix A at the end of this Document.

EVIDENCE TO ESTABLISH PERSONAS

This section establishes aliases, phone numbers, emails addresses associated with each person, and relationships between each individual.

Tracy:

Phone Number: (703) 340-9961
Email: tracysumtwelve@gmail.com
Work email: tracy.sumtwelve@nationalgallerydc.org
Alias email: coralbluetwo@hotmail.com
Relationship: Accused

Pat:

Phone Number: (571) 308-3236
Email: patsumtwelve@gmail.com
Alias Email: perrypatsum@yahoo.com
Relationship: Brother of the Accused (Co-Conspirator)

Terry:

Phone Number: (703) 829-6071
Email: n/a
Relationship: Daughter of the Accused

Joe:

Phone Number: n/a
Email: joe.sum.twelve@gmail.com
Relationship: Ex Husband of the Accused (Terry's Father)

Carry:

Phone Number: (202) 725-2124
Email: carrysum2012@yahoo.com
catsumtwelve@gmail.com
Relationship: Friend of the Accused and organizer of the Flash Mob

King:

Phone Number: n/a
Email: throne1966@hotmail.com
Relationship: Parolee being Blackmailed by the accused and her brother

Tracy and Pat are using Multiple Alias email accounts to communicate with one another which signals a potential risk, later on we will see that they had organized the Theft and made the flash mob possible and had blackmailed King through email.

Evidence relating to theft of valuable stamps

This sub-section provides details regarding the evidence found as it relates to the theft of valuable stamps.

For full View of all time stamps please see Appendix B, relevant evidence is as follows;

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
1.	6/19/2012 20:06:33	F: patsumtwelve@gmail.com T: tracysumtwelve@gmail.com Subject: Paris Speak and answer	Pat emails Tracy letting her know that he has accepted her proposal and asks her to email using her alias for further instructions.	Mailbox Data Structure

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
3.	6/19/2012 21:38:59	F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com Subject: Crazydave by the VMs Attachment: Crazydave1.mp3	Pat (Perry) emails Tracy (Coral) with instructions to install a Virtual Machine hidden in an audio file.	Mailbox Data Structure

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
6.	6/28/2012 19:31:33	6/28/2012 19:31:33 F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com Subject: Whats going on	Pat (Perry) emails Tracy (Coral) asking her to henceforth communicate using the aliases and the Virtual Machine setup to keep them safer. He also indicates that they might have to get into riskier/illegal business since both of them were facing financial hardships.	Mailbox Data Structure

			He tells her that few of his workplace friends were good at these businesses and that he will inform her should something pop-up; in the meantime they should keep discussing some ideas for the same.	
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Artifact #	Timestamp	Header Information	Key Information	Evidence Location
10.	7/2/2012 16:13:18	F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com Subject: Re: Some good news	Email Thread: Some good news Tracy (Coral) emails Pat (Perry) mentioning that some interesting foreign exhibit is going to happen and that from assessing the paperwork she feels that it would be a big deal. Pat (Perry) replies back feeling hopeful about this being the opportunity they were looking for.	Mailbox Data Structure

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
13.	7/3/2012 14:53:04	F: perrypatsum@yahoo.com T: :coralbluetwo@hotmail.com Subject: Re: Some good news	Email Thread: Some good news Tracy (Coral) emails Pat (Perry) saying that the exhibit is rare and highly valuable stamp collection and that may be this is their opportunity. Pat (Perry) replies to Tracy (Coral) asking her to collect as much information as possible about the stamp exhibit and that in the meantime he would look into options for pulling off the heist.	Mailbox Data Structure

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
16.	7/6/2012 15:49:31	F: patsumtwelve@gmail.com T: throne1966@hotmail.com Cc:coralbluetwo@hotmail.com Subject: can't pass up	Pat emails King with Tracy (Coral) in cc, saying that he has a lucrative proposition, a heist at national gallery. He also threatens King to comply or else he would put King's parole in jeopardy.	Mailbox Data Structure

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
18.	7/9/2012 14:44:11	F: tracysumtwelve@gmail.com T: coralbluetwo@hotmail.com Subject: things	documents.zip is a compressed ZIP folder containing 3 insurance documents related to stamps. docs.zip is an encrypted ZIP folder containing 3 insurance documents related to stamps.	/mobile/Library/Mail/POP- coralbluetwo@hotmail.com@pop3.live.com/INBOX.mbox/Messages/8 A3BD06F-CDB1-4453- 9C69-77E06823F2A E.emlx

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
21	7/10/2012 15:24:57	F: patsumtwelve@gmail.com T: coralbluetwo@hotmail.com Subject: Fwd: can't pass up Attachment: needs.txt	Email Thread: cant' pass up King agrees to help with the heist and sends in a document with equipment required for it. The attached document is saved as a 'txt' file.	/mobile/Library/Mail/POP- coralbluetwo@hotmail.com@pop3.live.com/INBOX.mbox/Messages/9 F0508B8-04FB-490E- A7F0-3E23B0E7C5 9B.emlx

			Pat forwards that email to Tracy (Coral) *needs.txt is a pdf file which was saved with a wrong extension.	
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Artifact #	Timestamp	Header Information	Key Information	Evidence Location
41.	7/10/2012 15:26:19	F: Pat T: Tracy	Pat messages Tracy telling her about the email and informing that the attachment needs to be changed to pdf. He asks Tracy to tell this information to Coral.	SMS

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
42.	7/10/2012 15:58:04	F: Tracy T: Pat	Tracy acknowledges the email and message.	SMS

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
43.	7/10/2012 16:37:09	F: Tracy T: Pat *Failed	Tracy tried to share the following location with Pat over MMS message but it failed. Location: 2600-2700 24th Rd S, Arlington, VA 22206	SMS

Evidence relating to Defacement of Museum Art

This sub-section provides details regarding the evidence found as it relates to the Defacement of Museum art.

For full View of all time stamps please see Appendix B, relevant evidence is as follows;

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
14.	7/5/2012 15:51:31	F: carrysum2012@yahoo.com T: tracysumtwelve@gmail.com Subject: Long time no see...	Carry reaches out to Tracy asking her if they could meet-up for lunch and suggests this Friday. She also mentions that through Facebook she realized that Tracy was having a hard time recently.	Mailbox Data Structure

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
19.	7/9/2012 18:18:47	F: carrysum2012@yahoo.com T: tracysumtwelve@gmail.com Subject: Re: Long time no see..	Email Thread: Long time no see... Tracy thanked Carry for the lunch. Carry emails Tracy asking for help sneaking in a tablet for a flash mob event they had spoken earlier about. Carry suggests that Tracy would be compensated in some way for the help.	Mailbox Data Structure

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
20.	7/10/2012 13:48:40	F: carrysum2012@yahoo.com T: tracysumtwelve@gmail.com	Email Thread: Long time no see... Tracy agrees to help Carry sneak in the tablet and asks	Mailbox Data Structure

		Subject: Re: Long time no see...	when Carry would like to get in to take a look around the gallery. Carry replies saying that this would be a big help and asks if she could come around 9 tomorrow.	
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Artifact #	Timestamp	Header Information	Key Information	Evidence Location
22.	7/11/2012 17:06:19	F: carrysum2012@yahoo.com T: tracysumtwelve@gmail.com Subject: Re: Long time no see...	Email Thread: Long time no see Tracy confirms the meet at 9 tomorrow. Carry wants Tracy to pass her information regarding shift changes of security. She suggests that Tracy would be well compensated for the information. Tracy confirms that she will give the security shift information Carry requested in exchange for money but asks Carry to be careful with it. Carry replies asking Tracy not to worry and says "It will be gun".	Mailbox Data Structure

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
23.	7/11/2012 19:28:53	F: "Google+" <noreply-5dd47ca1@plus.google.com> T: tracysumtwelve@gmail.com Subject: Carry Carsumtwotwelve added you on Google+	Email Thread: Long time no see Previous email from the thread from Carry asking for the security shift details from Tracy.	Mailbox Data Structure

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
24.	7/11/2012 23:22:03	F: "Carry Carsumtwotwelve (Google+)" <replyto-748d3d22@plus.google.com> T: tracysumtwelve@gmail.com Subject: Carry Carsumtwotwelve is sharing with you on Google+	Notification from Google+ informing Tracy that Carry had shared an album.	Mailbox Data Structure

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
32.	7/5/2012 18:18:23	F: Carry T: Tracy	Carry sets up the time and location as 1pm at Bubba's grill for meeting with Tracy	SMS

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
33.	7/5/2012 18:20:26	F: Tracy T: Carry	Tracy confirms the meeting time and location	SMS

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
39.	7/6/2012 16:27:16	F: Carry T: Tracy	Carry messages saying she has a table inside	SMS

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
40.	7/6/2012 16:27:50	F: Tracy T: Carry	Tracy replies back saying that she will be there.	SMS

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
47.	7/11/2012 12:41:45	F: Carry T: Tracy	Carry messages Tracy informing that she is almost there (National Gallery)	SMS

Artifact #	Timestamp	Header Information	Key Information	Evidence Location
48.	7/11/2012 12:49:08	F: Tracy T: Carry	Tracy replies to Carry asking her to meet out front. She says that she will take the tablet in.	SMS

PLOT TIMELINE

- 21/06/2012 17:43:15 – Aliases are established between Pat and Tracy
- 03/07/2012 14:53:04 – Tracy approaches Pat with her idea to steal the valuable stamps
- 05/07/2012 15:51:31 – Carry Reaches out to Tracy
- 06/07/2012 16:27:16 – Tracy Meets with Carry
- 09/07/2012 14:44:11 – Pat Blackmails King to assist in the plan
- 09/07/2012 14:44:11 – Tracy emails Pat insurance documents for the stamps
- 09/07/2012 18:18:47 – Carry Requests Tracy's assistance for the flash mob
- 10/07/2012 13:48:40 – Tracy accepts Carry's proposal
- 10/07/2012 15:24:57 – King agrees to assist in the heist
- 11/07/2012 12:49:08 – Tracy meets Carry at the Museum to sneak in the tablet
- 12/07/2012 18:03:51 – Carry shares a google folder to Tracy via email message.

WI-FI/GPS LOCATION INFORMATION

Please Refer to Appendix C at the end of this document.

CONCLUSION

Evidence found on Tracy's iPhone indicated the following:

- Tracy used the alias Coral and Pat used the alias, Perry.
- Tracy was involved in both the theft of the valuable stamps as well as the defacement of property at the museum.
- Tracy organized this heist with her brother Pat, and they blackmailed King into their involvement also.
- Tracy and Pat attempted to communicate through secret channels and messages.
- Tracy was Financially motivated to commit this heist as she needed money to pay for her daughter's expensive school.
- Tracy assisted in the defacement by helping her friend Carry sneak a tablet past the museum security.

APPENDICIES

Appendix A - Details of Tracy's iPhone

Name	Findings	Location in iPhone image file
Model	Iphone 1 or 2	/vol5/mobile/library/logs/applesupport/general.log
Host Name	Tracy Sumtwelves Iphone	/vol5/logs/lockdownd.log.1
OS Version	#4.2.1	/vol5/mobile/library/logs/applesupport/general.log
Install Time	6/6/2012 12:03:28 -0700	/vol5/mobile/library/logs/applesupport/general.log
User Email	traceysumtwelve@gmail.com coralbluetwo@hotmail.com tracy.sumtwelve@nationalgallerydc.org	/vol5/mobile/library/mail/envelope index
Phone Number	(703)340-9661	/vol5/logs/lockdownd.log.1
Serial Number	#86004482y7h	/vol5/mobile/library/logs/applesupport/general.log
ICCID	89014103255195342366	/vol5/logs/lockdownd.log.1
IMEI	012021003735398	/vol5/root/library/lockdown/activation_records/wildcard_record.plist
MD5 Hash	34c4888f095dc3241330462923f6fea5	
SHA256 Hash	71aed05a86a753dec4ef4033ed7f52d6577ccb534ca0d1e83ffd27683e621607	

Appendix B - Correspondence Evidence Worksheet

Master Timeline of NGDC				
Artifact #	Timestamp	Header Information	Key Information	Evidence Location
1.	6/19/2012 20:06:33	F: patsumtwelve@gmail.com T: tracysumtwelve@gmail.com Subject: Paris Speak and answer	Pat emails Tracy letting her know that he has accepted her proposal and asks her to email using her alias for further instructions.	Mailbox Data Structure
2.	6/19/2012 20:26:47	F: perrypatsum@yahoo.com T: tracysumtwelve@gmail.com Subject: Look me up sometime	Pat (Perry) emails Tracy to ask her to communicate using her alias.	Mailbox Data Structure
3.	6/19/2012 21:38:59	F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com Subject: Crazydave by the VMs Attachment: Crazydave1.mp3	Pat (Perry) emails Tracy (Coral) with instructions to install a Virtual Machine hidden in an audio file.	Mailbox Data Structure
4.	6/19/2012 21:39:34	F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com Subject: Re: ???	Pat (Perry) replies to Tracy (Coral) confirming that he was getting her emails.	Mailbox Data Structure
5.	6/21/2012 17:43:15	F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com Subject: Re: Crazydave by the VMs	Pat (Perry) replies to Tracy (Coral) on a email thread about Virtual Machine installation saying that she should listen to some other songs as well.	Mailbox Data Structure

			In the email thread Tracy (Coral) confirms that the instructions sent earlier in the audio file helped her.	
6.	6/28/2012 19:31:33	6/28/2012 19:31:33 F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com Subject: Whats going on	<p>Pat (Perry) emails Tracy (Coral) asking her to henceforth communicate using the aliases and the Virtual Machine setup to keep them safer. He also indicates that they might have to get into riskier/illegal business since both of them were facing financial hardships.</p> <p>He tells her that few of his workplace friends were good at these businesses and that he will inform her should something pop-up; in the meantime they should keep discussing some ideas for the same.</p>	Mailbox Data Structure
7.	6/29/2012 14:21:56	F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com Subject: Re: Whats going on	<p>This is an email thread between Pat (Perry) and Tracy (Coral) discussing ideas for making some money.</p> <p>To Pat's suggestion that they use the Virtual Machines and aliases to communicate and keep looking for ways to make money, Tracy replies that she will keep her eyes open for opportunities and insists</p>	Mailbox Data Structure

			that Pat try to get in on some business soon, since her kid didn't want to change schools. She also indicates that she is paying attention to documents especially insurance papers so that she could identify something of potential. Pat assures that he will make something happen although he is nervous because IA has been sniffing around.	
8.	6/29/2012 14:31:36	F: perrypatsum@yahoo.com T: tracysumtwelve@gmail.com Subject: hey sis	Pat (Perry) emails Tracy addressing her as 'sister' and enquires about Terry. Asks her to check in with Coral with whom he has been planning some things. He also suggests all of them going together for dinner as friends. He asks Tracy to check in with Coral. Possible misdirection attempted by referring to Coral as a third person in the narrative.	Mailbox Data Structure
9.	6/29/2012 15:21:35	F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com Subject: Re: Whats going on	Pat (Perry) replies to the email thread allaying Tracy's (Coral) concern about IA sniffing around him. Tracy in her earlier email in the thread says that although nothing interesting has turned up yet she expects something soon. Pat in his email mentions that they can certainly get the job done if something like what they had earlier discussed pops up.	Mailbox Data Structure
10.	7/2/2012 16:13:18	F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com	Email Thread: Some good news	Mailbox Data Structure

		Subject: Re: Some good news	Tracy (Coral) emails Pat (Perry) mentioning that some interesting foreign exhibit is going to happen and that from assessing the paperwork she feels that it would be a big deal. Pat (Perry) replies back feeling hopeful about this being the opportunity they were looking for.	
11.	7/2/2012 20:00:31	F: perrypatsum@yahoo.com T: coralbluetwo@hotmail.com Subject: Re: Some good news	Email thread: Some good news Following up on the earlier email about the exhibit, Tracy (Coral) mentions going through documents related to the exhibit from which she found that the exhibit is worth a lot of money but the shipping cost is very low comparatively. Pat (Perry) emails back saying that such a thing may mean that the exhibit is something small which would be a very good thing for them.	Mailbox Data Structure
12.	7/3/2012 13:29:37	F: joe.sum.twelve@gmail.com T: tracysumtwelve@gmail.com Subject: Re: Regarding Terry	Email Thread: Regarding Terry Tracy emails Joe asking whether he could help her with Terry's tuition this year since it is becoming too expensive for her. Joe replies back saying that he won't be paying Terry's tuition if she is not living with him.	Mailbox Data Structure
13.	7/3/2012 14:53:04	F: perrypatsum@yahoo.com T :coralbluetwo@hotmail.com	Email Thread: Some good news	Mailbox Data Structure

		Subject: Re: Some good news	Tracy (Coral) emails Pat (Perry) saying that the exhibit is rare and highly valuable stamp collection and that may be this is their opportunity. Pat (Perry) replies to Tracy (Coral) asking her to collect as much information as possible about the stamp exhibit and that in the meantime he would look into options for pulling off the heist.	
14.	7/5/2012 15:51:31	F: carrysum2012@yahoo.com T: tracysumtwelve@gmail.com Subject: Long time no see...	Carry reaches out to Tracy asking her if they could meet-up for lunch and suggests this Friday. She also mentions that through Facebook she realized that Tracy was having a hard time recently.	Mailbox Data Structure
15.	7/6/2012 15:27:51	F: patsumtwelve@gmail.com T: tracysumtwelve@gmail.com Subject: Re: Good News	Email Thread: Good News Tracy emailed Pat saying that she spoke with Coral and that Coral got some great news about her job and suggested that Pat catch up with Coral. Pat replied back saying that he knows a guy called King.	Mailbox Data Structure
16.	7/6/2012 15:49:31	F: patsumtwelve@gmail.com T: throne1966@hotmail.com Cc: coralbluetwo@hotmail.com Subject: can't pass up	Pat emails King with Tracy (Coral) in cc, saying that he has a lucrative proposition, a heist at national gallery. He also threatens King to comply or else he would put King's parole in jeopardy.	Mailbox Data Structure

17.	7/6/2012 17:59:24	F: patsumtwelve@gmail.com T: tracysumtwelve@gmail.com Subject: Re: Good News	Email Thread: Good News Tracy suggests they (meaning King, Tracy and Pat) should hang out sometime. Pat emails Tracy with account login information for: coralblue@hotmail.com Password: legalBee	Mailbox Data Structure
18.	7/9/2012 14:44:11	F: tracysumtwelve@gmail.com T: coralbluetwo@hotmail.com Subject: things	documents.zip is a compressed ZIP folder containing 3 insurance documents related to stamps. docs.zip is an encrypted ZIP folder containing 3 insurance documents related to stamps.	/mobile/Library/Mail/POP-coralbluetwo@hotmail.com@pop3.live.com/INBOX.mbox/Messages/8A3BD06F-CDB1-4453-9C69-77E06823F2AE.emlx
19.	7/9/2012 18:18:47	F: carrysum2012@yahoo.com T: tracysumtwelve@gmail.com Subject: Re: Long time no see..	Email Thread: Long time no see... Tracy thanked Carry for the lunch. Carry emails Tracy asking for help sneaking in a tablet for a flash mob event they had spoken earlier about. Carry suggests that Tracy would be compensated in some way for the help.	Mailbox Data Structure
20.	7/10/2012 13:48:40	F: carrysum2012@yahoo.com T: tracysumtwelve@gmail.com	Email Thread: Long time no see...	Mailbox Data Structure

		Subject: Re: Long time no see...	Tracy agrees to help Carry sneak in the tablet and asks when Carry would like to get in to take a look around the gallery. Carry replies saying that this would be a big help and asks if she could come around 9 tomorrow.	
21	7/10/2012 15:24:57	F: patsumtwelve@gmail.com T: coralbluetwo@hotmail.com Subject: Fwd: can't pass up Attachment: needs.txt	Email Thread: cant' pass up King agrees to help with the heist and sends in a document with equipment required for it. The attached document is saved as a 'txt' file. Pat forwards that email to Tracy (Coral) *needs.txt is a pdf file which was saved with a wrong extension.	/mobile/Library/Mail/POP-coralbluetwo@hotmail.com@pop3.live.com/INBOX.mbox/Messages/9F0508B8-04FB-490E-A7F0-3E23B0E7C59B.emlx
22.	7/11/2012 17:06:19	F: carrysum2012@yahoo.com T: tracysumtwelve@gmail.com Subject: Re: Long time no see...	Email Thread: Long time no see Tracy confirms the meet at 9 tomorrow. Carry wants Tracy to pass her information regarding shift changes of security. She suggests that Tracy would be well compensated for the information. Tracy confirms that she will give the security shift information Carry requested in exchange for money but asks Carry to be careful with it. Carry replies asking Tracy	Mailbox Data Structure

			not to worry and says "It will be gun".	
23.	7/11/2012 19:28:53	F: "Google+" <noreply-5dd47ca1@plus.google.com> T: tracysumtwelve@gmail.com Subject: Carry Carsumtwotwelve added you on Google+	Email Thread: Long time no see Previous email from the thread from Carry asking for the security shift details from Tracy.	Mailbox Data Structure
24.	7/11/2012 23:22:03	F: "Carry Carsumtwotwelve (Google+)" <replyto-748d3d22@plus.google.com> T: tracysumtwelve@gmail.com Subject: Carry Carsumtwotwelve is sharing with you on Google+	Notification from Google+ informing Tracy that Carry had shared an album.	Mailbox Data Structure
25.	7/12/2012 16:12:07	F: "Carry Carsumtwotwelve (Google+)" <replyto-748d3d22@plus.google.com> T: tracysumtwelve@gmail.com Subject: Carry Carsumtwotwelve is sharing with you on Google+	Notification from Google+ informing Tracy that Carry had shared an album.	Mailbox Data Structure
26.	7/12/2012 18:03:51	F: carrysum2012@yahoo.com T: tracysumtwelve@gmail.com Subject: Re: Long time no see...	Email Thread: Long time no see... Tracy emailed Carry asking her what she meant by "It will be gun". Carry replies saying that it was a typographical error and she meant "It will be fun".	Mailbox Data Structure


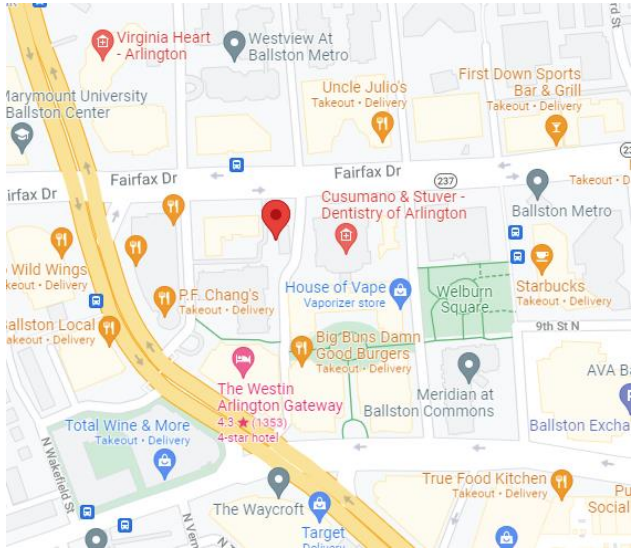
27.	6/12/2012 21:25:04	F: Pat T: Tracy	Pat asks Tracy about her plans for the weekend	SMS
28.	6/13/2012 17:30:28	F: Terry T: Tracy	I'm going out with dad after school for pizza! Thought I'd let you know if you planned to cook. T	SMS
29.	6/13/2012 18:30:38	F: Tracy T: Pat	Tracy replies to Pats message saying that she has no big plans and enquires about his plans.	SMS
30.	6/13/2012 18:33:46	F: Tracy T: Terry	Ok, sounds good.	SMS
31.	7/3/2012 14:04:32	F: Terry T: Tracy	Terry replies back saying that she doesn't want to switch schools and would rather stay with her dad and continue at Prufrock	SMS
32.	7/5/2012 18:18:23	F: Carry T: Tracy	Carry sets up the time and location as 1pm at Bubba's grill for meeting with Tracy	SMS
33.	7/5/2012 18:20:26	F: Tracy T: Carry	Tracy confirms the meeting time and location	SMS
34.	7/6/2012 15:02:19	F: Tracy T: Pat	Tracy asks Pat to give her a call	SMS
35.	7/6/2012 15:08:37	F: Pat T: Tracy	Pat says he is busy and suggests calling later	SMS
36.	7/6/2012 15:11:54	F: Tracy T: Pat	Tracy says its important and insists that pat call her soon	SMS
37.	7/6/2012 15:13:31	F: Pat T: Tracy	Pat says he will call in 5 min	SMS
38.	7/6/2012 15:18:50	F: Pat T: Tracy	Pat calls Tracy and they speak for 4 min 4 secs.	SMS
39.	7/6/2012 16:27:16	F: Carry T: Tracy	Carry messages saying she has a table inside	SMS
40.	7/6/2012 16:27:50	F: Tracy T: Carry	Tracy replies back saying that she will be there.	SMS

41.	7/10/2012 15:26:19	F: Pat T: Tracy	Pat messages Tracy telling her about the email and informing that the attachment needs to be changed to pdf. He asks Tracy to tell this information to Coral.	SMS
42.	7/10/2012 15:58:04	F: Tracy T: Pat	Tracy acknowledges the email and message.	SMS
43.	7/10/2012 16:37:09	F: Tracy T: Pat *Failed	Tracy tried to share the following location with Pat over MMS message but it failed. Location: 2600-2700 24th Rd S, Arlington, VA 22206	SMS
44.	7/10/2012 17:18:38	F: Tracy T: Terry	Tracy messages Terry for Lunch	SMS
45.	7/10/2012 18:19:24	F: Tracy T: Terry	Tracy messages Terry that she is back at work.	SMS
46.	7/10/2012 18:58:24	F: Terry T: Tracy	Terry messages Tracy saying she is busy and suggests meeting up over the weekend if her dad isn't busy.	SMS
47.	7/11/2012 12:41:45	F: Carry T: Tracy	Carry messages Tracy informing that she is almost there (National Gallery)	SMS
48.	7/11/2012 12:49:08	F: Tracy T: Carry	Tracy replies to Carry asking her to meet out front. She says that she will take the tablet in.	SMS
49.	7/13/2012 1:02:10	F: Terry T: Tracy	I really want to go to Dad's this weekend. He said he'll take me shopping for school	SMS


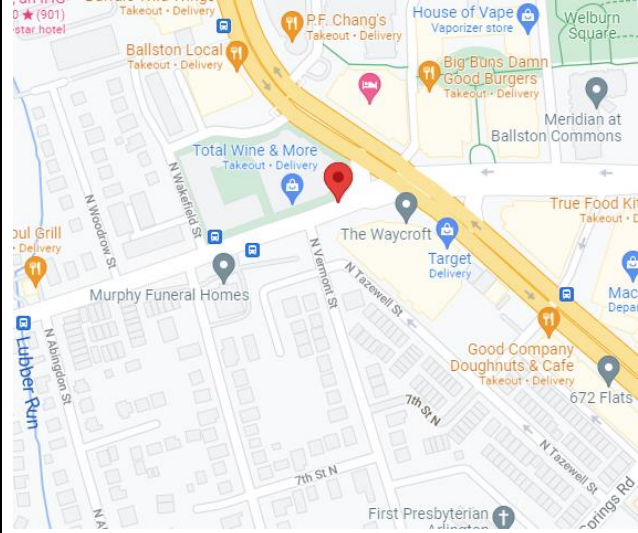
Appendix C - Location Information Worksheet

Location Information

Artifact #	Timestamp	Header Information	Body	Map Screenshot
1	13/06/2012 19:01:22 PM	GPS	38.87767624 - 77.11546951	

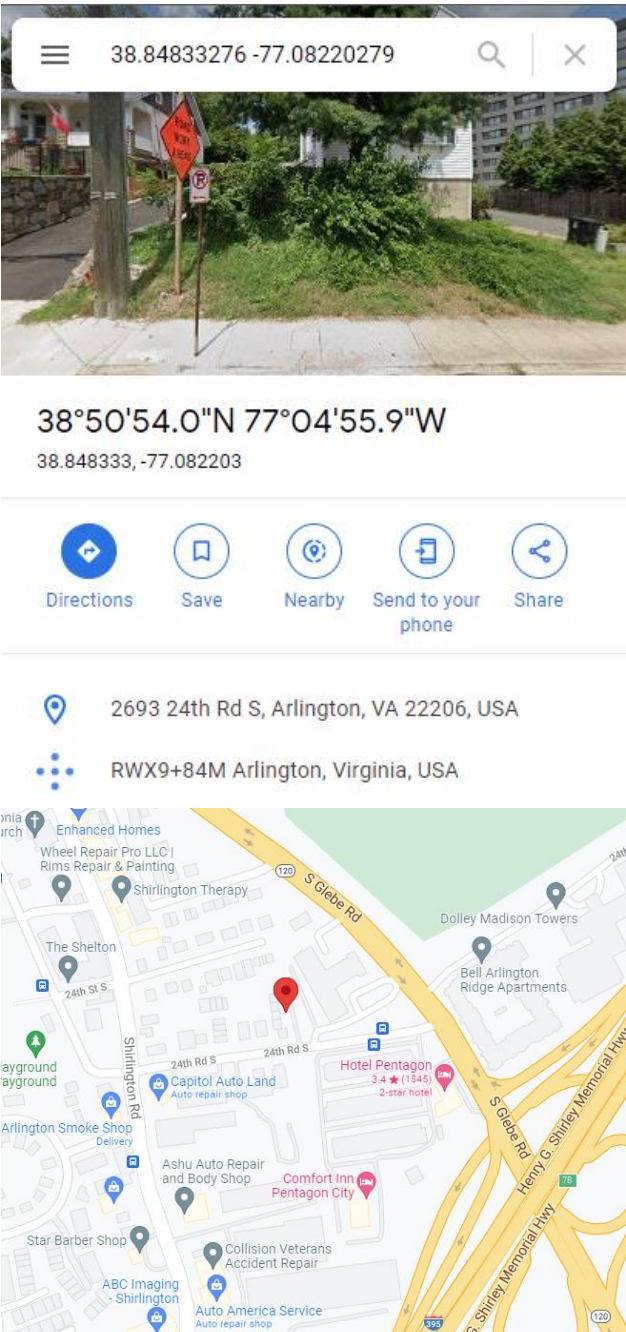
4	13/06/2012 07:04:04 PM	WIFI	38.88170194 - 77.11397719	<div data-bbox="841 262 1469 1606"> <div> <div>☰</div> <div>38.88170194 -77.11397719</div> <div>🔍</div> <div>✕</div> </div> <div>  </div> <div> <div>38°52'54.1"N 77°06'50.3"W</div> <div>38.881702, -77.113977</div> </div> <div> <div> <div>📍</div> <div>Directions</div> </div> <div> <div>🔖</div> <div>Save</div> </div> <div> <div>📶</div> <div>Nearby</div> </div> <div> <div>📱</div> <div>Send to your phone</div> </div> <div> <div>🔗</div> <div>Share</div> </div> </div> <div> <div>📍</div> <div>4420 Fairfax Dr, Arlington, VA 22203, USA</div> </div> <div> <div>📶</div> <div>VVJP+MCJ Arlington, Virginia, USA</div> </div> <div>  </div> </div>
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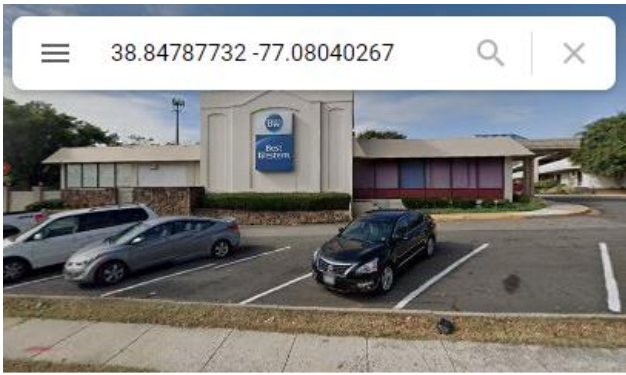

The image is a screenshot of a mobile application interface for location tracking or navigation. At the top, a white header bar contains a hamburger menu icon on the left, a text input field with the phone number "38.88239771 -77.11155992", a magnifying glass search icon, and a close (X) icon. Below the header is a large rectangular photograph of a silver car parked on a street in front of a Subway restaurant. The restaurant has a red brick facade and a green awning. The address "4227 VA-237, Arlington, VA 22203, USA" is displayed in large, bold black text. Below the address, the coordinates "38°52'56.6"N 77°06'41.6"W" and the phone number "38.882398, -77.111560" are shown. A horizontal line separates this information from a row of five circular blue icons: a location pin (Directions), a bookmark (Save), a magnifying glass (Nearby), a smartphone (Send to your phone), and a share symbol (Share). Below these icons is another horizontal line, followed by the address "4227 VA-237, Arlington, VA 22203, USA" and a blue location pin icon. Below the address is a blue location pin icon and the text "VVJQ+X94 Arlington, Virginia, USA". The bottom half of the image shows a map of the area around 4227 VA-237. The map is a street map with various landmarks and businesses labeled, including Ballston Metro, Wells Fargo Bank, IHOP, Starbucks, and various restaurants like Uncle Julio's and P.F. Chang's. The map is centered on the location of 4227 VA-237, which is marked with a red location pin.

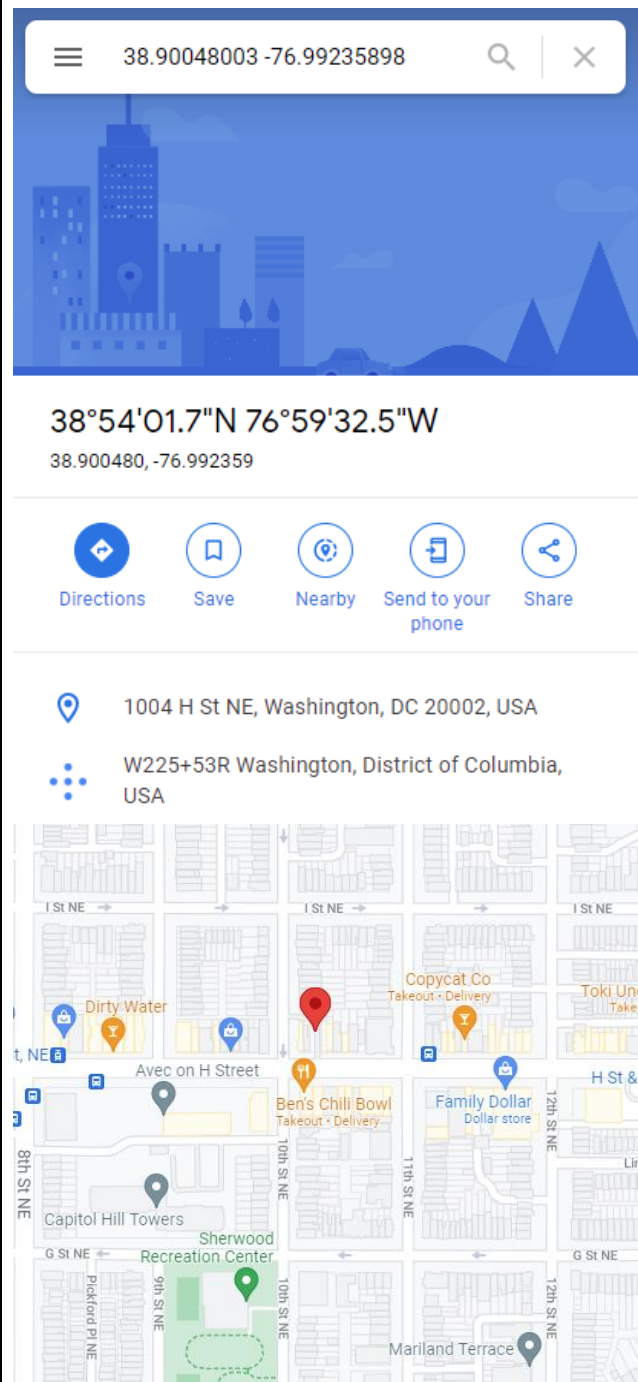
8	02/07/2012 04:19:25 PM	WIFI	38.87990736 - 77.11460858	<div data-bbox="834 260 1468 1608"> <div> <div> <div></div> <div>38.87990736 -77.11460858</div> <div> <div></div> <div></div> </div> </div> <div>  </div> <div> <div>38°52'47.7"N 77°06'52.6"W</div> <div>38.879907, -77.114609</div> </div> <div> <div> <div></div> <div>Directions</div> </div> <div> <div></div> <div>Save</div> </div> <div> <div></div> <div>Nearby</div> </div> <div> <div></div> <div>Send to your phone</div> </div> <div> <div></div> <div>Share</div> </div> </div> <div> <div> <div></div> <div>800 N Glebe Rd, Arlington, VA 22203, United States</div> </div> <div> <div></div> <div>VVHP+X56 Arlington, Virginia, USA</div> </div> <div>  </div> </div> </div></div>
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A screenshot of the Google Maps application. At the top, there is a search bar with the address "38.88062763 -77.11558109" and a magnifying glass icon. Below the search bar is a street view image of a modern building with a glass facade. Underneath the image, the coordinates "38°52'50.3"N 77°06'56.1"W" and the address "38.880628, -77.115581" are displayed. Below the address, there are five circular icons: a blue location pin for "Directions", a blue bookmark for "Save", a blue location pin with a magnifying glass for "Nearby", a blue smartphone for "Send to your phone", and a blue share icon for "Share". Below these icons, the address "900 N Glebe Rd, Arlington, VA 22203, USA" is shown with a location pin icon. Below that, the address "VVJM+7Q3 Arlington, Virginia, USA" is shown with a location pin icon. The main part of the screenshot is a map of the area around 900 N Glebe Rd. The map shows Fairfax Dr, Ballston Center, and various businesses like The Griffin Firm, PLLC, Marymount University, and The Westin Arlington Gateway. A red pin is placed on the map at the intersection of Fairfax Dr and Ballston Center.

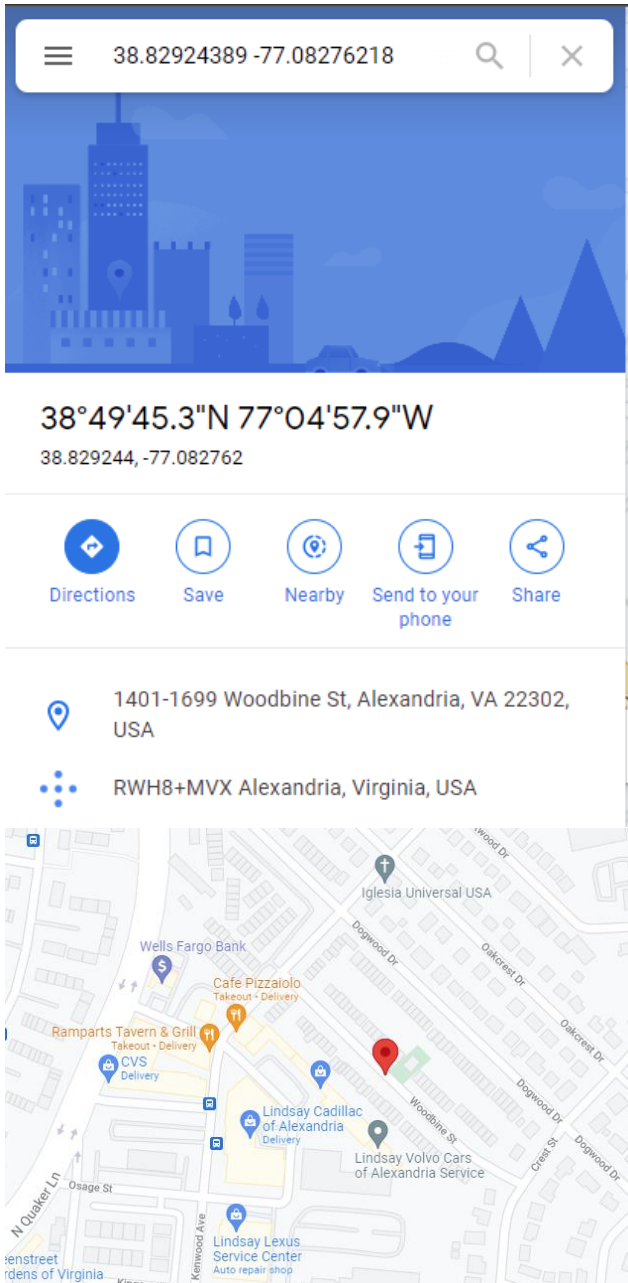
The screenshot shows a mobile application interface for location services. At the top, there is a search bar containing the address "1700 Army Navy Dr, Arlington, VA 22202, USA". Below the search bar, a map view displays the location with a red pin. To the right of the map, a list of nearby points of interest is visible, including "Dolley Madison Towers", "Bell Arlington Ridge Apartments", and "Alpha Cryo". The interface is clean and modern, with a white background and blue accents.

12	10/07/2012 04:31:12 PM	WIFI	38.84833276 - 77.08220279	
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13	10/07/2012 04:31:13 PM	WIFI	38.84787732 - 77.08040267	 <p>38°50'52.4"N 77°04'49.5"W</p> <p>38.847877, -77.080403</p> <p>Directions Save Nearby Send to your phone Share</p> <p>2480 S Glebe Rd, Arlington, VA 22206, USA</p> <p>RWX9+5R5 Arlington, Virginia, USA</p> 
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14	10/07/2012 4:45:00 PM	GPS	38.90048003 - 76.99235898	<div data-bbox="834 260 1468 1633">  </div>
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A screenshot of a mobile map application. At the top, there is a search bar with the text "38.82650965 -77.088391". Below the search bar is a blue header with a stylized city skyline. The main content area shows a map of Alexandria, VA, with a red pin marking the location at 3410 King St. The map includes labels for streets like King St, W Braddock Rd, and N Quaker Ln, and various points of interest such as Safeway, Sunoco Gas Station, and the Alexandria City Parking Garage. At the bottom, there is a navigation bar with icons for Directions, Save, Nearby, Send to your phone, and Share.

16	10/07/2012 04:46:30 PM	WIFI	38.82924389 - 77.08276218	
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