



# Cybersecurity

## 21.3 The Final Report

# Case Report National Gallery DC

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

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## Executive Summary

On January 21, 2016, Digitech Inc. was called in to assist the National Gallery, Washington D.C. (NGDC) case involving the conspiracy associated with the theft of valuable stamps and defacing of museums are at the NGDC.

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

As described fully in the report, Digitech, Inc. made the following findings.

- Alex is seeking to embarrass the United States and damage public relations by defacing foreign art belonging to Majavia that is on display at the National Gallery during the month of July. He plans a flash mob with Carry, who hides many of her correspondence in steg files and encrypted files.
- Carry contacts Tracy about organizing a "Flash mob" at the gallery, and will give money for her help. Tracy agrees and the two stay in correspondence about sneaking in Carry's tablet to the museum.
- Tracy has been in contact with her brother Pat about plans to steal stamps from the National Gallery.
- Criminal with alias "King" blackmailed by Pat to aid in the National Gallery heist. He shared a list of supplies to bring to the heist with Pat and Tracy.

## Equipment and Tools

Using the digital forensic platform Autopsy, investigators secured information from multiple emails with attachment, sms text messages and GPS locations that were plugged into Google maps. Within a Kali VM, investigators viewed hashes and utilized a program called fcrackzip to crack a document.zip's password.

# Details of Tracy's iPhone

## Module 21 iPhone Details Worksheet

### Details of Tracy's iPhone

Name	Findings	Location in iPhone image file
Model	Iphone 1, 2	/mobile/Library/Logs/AppleSupport/general.log
Host Name	Tracy Sumtwelve's phone	preferences/SystemConfiguration/com.apple.mobileguest.plist
OS Version	iPhone OS 4.2.1 (8C148)	/mobile/Library/Logs/AppleSupport/general.log
Install Time	6/6/2012 12:03:28	/mobile/Library/Logs/AppleSupport/general.log
User Email	<a href="mailto:tracy.sumtewelve@nationalgallerydc.org">tracy.sumtewelve@nationalgallerydc.org</a> , <a href="mailto:tracysumtewelve@gmail.com">tracysumtewelve@gmail.com</a> , coralbluetwo@hotmail.com	mobile/Library/Mail
Phone Number	(703) 340-9661	/logs/lockdownd1.log

Serial Number	86004482Y7H	/mobile/Library/Logs/AppleSupport/general.log
ICCID	89014103255195342366	/logs/lockdownd1.log
IMEI	01202	/root/Library/Lockdown/activation_records/wildcardrecord.plist
MD5 Hash	34c4888f095dc3241330462923f6fea5	/root/corpus
SHA256 Hash	71aed05a86a753dec4ef4033ed7f52d657 7ccb534ca0d1e83ffd27683e6216007	/root/corpus

## Evidence to Establish Personas

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

Tracy ("Coral"):

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

Pat ("Perry")::

Phone Number: 571-308-3236  
Email: patsumtwelve@gmail.com , perrypatsum@yahoo.com  
Relationship: Tracy's Brother

Terry:

Phone Number: 703-829-6071  
Email: Currently Unknown  
Relationship: Tracy and Joe's Daughter

Joe:

Phone Number: Currently Unknown  
Email: joe.sum.twelve@gmail.com  
Relationship: Soon-to-be ex-husband of Tracy

Carry ("Cat"):

Phone Number: 202-725-2124  
Email: carrysum2012@yahoo.com  
Relationship: somewhat criminally involved individual and Krasnovian supporter who shares family ties with Alex. Acquaintances with Tracy.

King ("Kart"):

Phone Number: N/A  
Email: throne1966@hotmail.com  
Relationship: blackmailed by Pat to participate in heist

# Evidence relating to theft of valuable stamps

Primary evidence of stamp fraud is found in Terry's email that she sent to herself, see Email #3, which includes a document.zip attachment. The password to this zip file is Hercules, which was cracked using fcrackzip. It contains PDFs of stamp insurance. Pictures of stamps on Terry's device match the description of the stamps that were insured.

As evident in Email #4, "King" is being blackmailed to participate in the heist by Pat with threats to call his parole officer. Detailed in the case report is Pat's plan on stealing the stamps during the heist.

To: coralbluetwo@hotmail.com  
Content-Type: multipart/mixed; boundary=f46d0447963147823c04c47b5552  
Return-Path: patsumtwelve@gmail.com  
X-OriginalArrivalTime: 10 Jul 2012 15:24:58.0245 (UTC) FILETIME=[2A69E350:01CD5EB0]  
--f46d0447963147823c04c47b5552  
Content-Type: multipart/alternative; boundary=f46d0447963147823804c47b5550  
Content-Type: text/plain; charset=windows-1252  
Content-Transfer-Encoding: quoted-printable  
this is what we need to get for the guy thats going to make our job happen  
-----  
From: King kthings <throne1966@hotmail.com>  
Date: Tue, Jul 10, 2012 at 11:19 AM  
Subject: RE: can't pass up  
To: patsumtwelve@gmail.com  
5 0 32 0 1671155914  
6 0 22 0 -6846932125  
You're too kind... I got you brotha. I need some tools in order to do this  
job for you. Here are some requirements that i will need:  
see attachment  
msg\_pieces  
R0WID message\_id data\_part\_id preview\_part\_content\_type height version Flags content\_id content\_loc headers  
2 26 0 -1 text/vcard 0 1 0 1 2600-2700 24th Rd S.vcf

**needs.txt**  
-A rope and javelin (using alternative means to break in)  
-tactical turtlenecks ( what i will be wearing)  
-spray paint (for the cameras)  
-vibram five finger shoes (in order to walk silently)  
-pack of smokes (detecting lasers)  
-smoke grenades (use as a means of escape if caught)



NATIONAL GALLERY DC  
WASHINGTON



**Memorandum of Insurance Assurance:**

**TO: MyStamp Collections**

In Regards to items owned or on loan to the National Gallery DC , Washington from MyStamp Collections from the period of May 12, 2012 to May 12, 2013, all items in aforementioned list will be in the custody of National Gallery DC and therefore fiscal responsibility of said items is carried by the same. As per agreement between both parties the following items are covered by AwesomelInsurance Inc. Policy x23654 for the following amounts under any circumstances leading to the degradation of said items excepting normal wear of display.

<b>Lot # 25. Armed Forces Reserve</b>	<b>\$43,000.00</b>
<b>Lot # 26. Stamp of Kazakstan2</b>	<b>\$29,000.00</b>
<b>Lot# 27. BradyCo.</b>	<b>\$12,000.00</b>

**Terms do not cover period of transport from or to the National Gallery.**

D'Mann



**President National Gallery DC**





NATIONAL GALLERY DC  
WASHINGTON



**Memorandum of Insurance Assurance:**

**TO: MyStamp Collections**

In Regards to items owned or on loan to the National Gallery of Art, Washington from MyStamp Collections from the period of May 12, 2012 to May 12, 2013, all items in aforementioned list will be in the custody of National Gallery DC and therefore fiscal responsibility of said items is carried by the same. As per agreement between both parties the following items are covered by AwesomelInsurance Inc. Policy x23654 for the following amounts under any circumstances leading to the degradation of said items excepting normal wear of display.

Lot # 1. Douglas MacArthur	\$35,000.00
Lot # 2. Nederland	\$30,000.00
Lot# 3. Mongolia	\$24,000.00

Terms do not cover period of transport from or to the National Gallery.

D'Mann

President National Gallery DC





NATIONAL GALLERY DC  
WASHINGTON



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<b>Lot # 11. Woman's Profile</b>	<b>\$31,000.00</b>
<b>Lot # 12. Stamp of Kazakstan</b>	<b>\$29,000.00</b>
<b>Lot# 13. 1929 Napal</b>	<b>\$27,000.00</b>

Terms do not cover period of transport from or to the National Gallery.

D'Mann

President National Gallery DC



# Evidence relating to defacement of museum art

Email #4 from [patsumtwelve@gmail.com](mailto:patsumtwelve@gmail.com) to [throne1966@hotmail.com](mailto:throne1966@hotmail.com) and [coralbluetwo@hotmail.com](mailto:coralbluetwo@hotmail.com) details a plan to deface the national gallery. Attached is needs.txt, which lists supplies to bring to the heist. Supplies include a rope and javelin, tactical turtlenecks, spray paint, vibram five finger shoes, pack of smokes, and smoke grenades.

In Email #6, [carrysum2012@yahoo.com](mailto:carrysum2012@yahoo.com) asks tracysumtwelve@gmail.com to sneak her tablet into the gallery for her flash mob event. Tracy agrees to help her. Over text, SMS #2, Carry setting up plans to meet Tracy for lunch at Bubba's grill. Tracy tells Carry to meet outside so that she can sneak her tablet into the gallery. In a follow up, SMS #6, Tracy asks Carry how the flash mob is going.

SMS #5 likely shows payment from Carry or Alex to Terry in the form of \$1000 spoofed Target Gift Card.

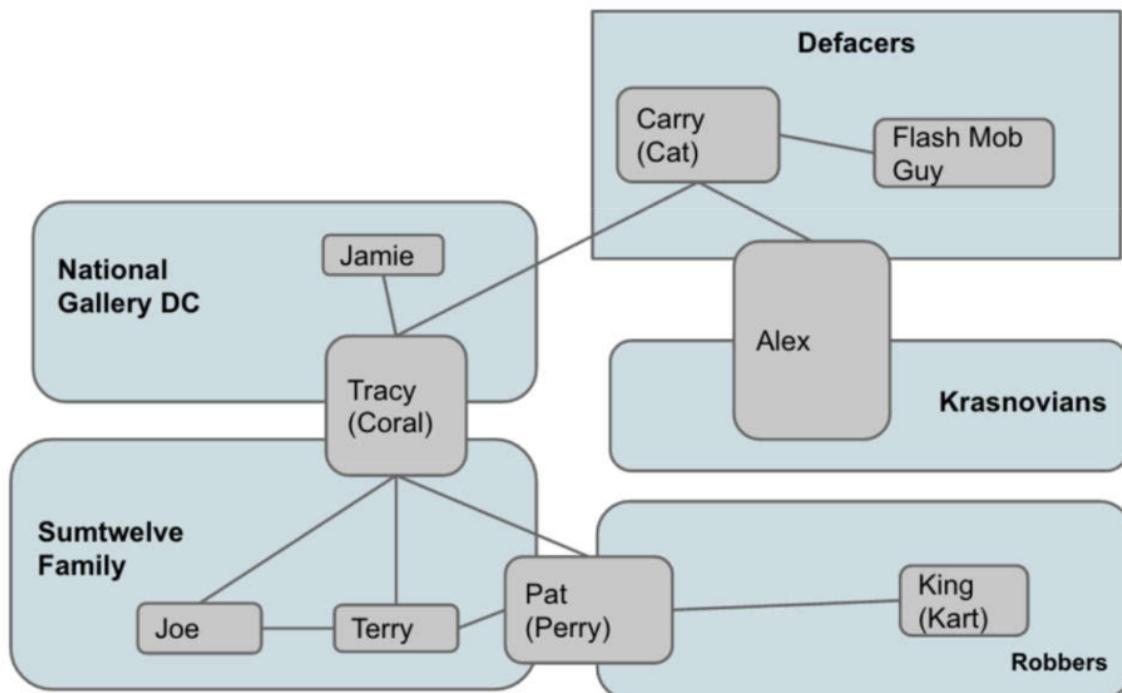
```
X-Mailer: YahooMailWebService/0.8.120.356233
Message-ID: <1341928120.60574.BPMail_high_carrier@web120304.mail.nel.yahoo.com>
Date: Tue, 10 Jul 2012 06:48:40 -0700 (PDT)
From: Carry Sumttwentytwelve <carrysum2012@yahoo.com>
Subject: Re: Long time no see...
To: tracysumtwelve@gmail.com
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Awesome this will be a big help. Can i come in tommorrow, around 9?
-----
On Tue, Jul 10, 2012 6:29 AM PDT Tracy Sumtwelve wrote:
>Hey,
>I can definitely help get your tablet in. Our security guards can be pretty ridiculous sometimes! When would you want to get in and take a look around?
>Tracy
>On Jul 9, 2012, at 2:18 PM, Carry Sumttwentytwelve wrote:
>> Hey I was wondering
>> if there was any way you could help me get my tablet into the gallery. I know security isn't to keen on computers and the like in the gallery, but maybe you could pull some strings and get it in for me? I can make it worth your while :) But really I would happy to get lunch again or something else for your help. I want to get some pictures for my flash mob event I told you about. Let me know.
>>
>> On Fri, Jul 6, 2012 10:55 AM PDT Tracy Sumtwelve wrote:
>> Hey Carry,
>> Just wanted to say thanks for lunch. I had a great time and it was good catching up with you. We should do lunch more often.
>> Tracy
>> On Jul 5, 2012, at 11:51 AM, Carry Sumttwentytwelve wrote:
>>>
>>> Hi,
>>>
>>> I saw on facebook that you were having a hard time lately, and i realized that we haven't spoken face to face in quite a while. I was really hoping that we could get together and have lunch. Does this Friday sound good? Let me know.
>>>
>>> -Carry
```

## Plot Timeline

- Tue, Jun 19, 2012 02:38:59 PM Pat emails Tracy with the Crazydave1.mp3 audio recording attachment.
- Thu, Jul 5 2012 06:18:23 PM Tracy and Carry agree to meet at Bubbas grill to discuss the plan.

- Fri, Jul 6 2012 11:49:31 AM Pat emails someone who is named King and blackmails them to take part in a heist at the National Gallery.
- Fri, Jul 6 2012 4:27:16 PM Tracy and Carry confirm the meeting at Bubba's.
- Sat, Jul 7 2012 7:36:35 PM Tracy receives an SMS message from an unknown number that states that she has received a Target Gift Card worth \$1000. The URL, [www.target.com.trdt.biz](http://www.target.com.trdt.biz), is not actually related to Target. Conclusion, this is payment for services.
- Mon, Jul 9 2012 10:44:11 AM Tracy sent an email containing attachments documents.zip, docs.zip. Inside these attachments were documents on stamp insurance.
- Tue, Jul 10 2012 11:19 AM Pat forwarded the emails to King. King then replied with a list of materials he will need for the job.
- Tue, Jul 10 2012 11:24 AM Pat forwarded the email with the materials to Tracy (coralblue) on what King needs to get the job done.
- Wed, July 11th, 2012 Tracy conspires with Carry to sneak Carry's tablet into the gallery.
- Thu, July 12th, 2012 Tracy contacts Carry to ask how the flashmob is going.

Persons under investigation:



# Conclusion

- Tracy's iphone model 1, 2 includes three of her emails:  
[tracy.sumtwelve@nationalgallerydc.org](mailto:tracy.sumtwelve@nationalgallerydc.org), [tracysumtwelve@gmail.com](mailto:tracysumtwelve@gmail.com),  
[coralbluetwo@hotmail.com](mailto:coralbluetwo@hotmail.com). It also includes her phone number (703) 340-9661.
- Tracy and Pat used alias emails, [coralbluetwo@hotmail.com](mailto:coralbluetwo@hotmail.com) and  
[patsumtwelve@gmail.com](mailto:patsumtwelve@gmail.com), and alias names, Coral and Pat.
- Pat coordinated with "King", [throne1966@hotmail.com](mailto:throne1966@hotmail.com), to break into the national gallery to steal stamps. Pat blackmails King into cooperating by threatening to call his parole officer.
- Tracy sends herself documents of insured stamps, which match the stamps she is looking to steal.
- Tracy receives a Target giftcard with a spoofed URL for a \$1000 Gift Card, likely payment from Carry or Alex.
- There are three clusters of Wi-Fi and Cell locations in Washington, DC.

## Appendix A: Correspondence Evidence

This subsection will provide an amalgamation of the email and SMS correspondence evidence.

Master Timeline of NGDC				
Artifact #	Timestamp	Header Information	Key Information	Evidence Location
Email #1	11 July 2012 04:18:33	<a href="mailto:microsoft@reply.digitalriver.com">microsoft@reply.digitalriver.com</a> <a href="mailto:coralbluetwo@hotmail.com">coralbluetwo@hotmail.com</a> Subject: Only 30 days left! Start a free office training course now.	Microsoft office free trial spam.	01FE9965-A 923-40CF-A7 8A-72CE3BD 26571.emlx
Email #2	19 June 2012 21:39:04	From Pat to Tracy <a href="mailto:perrypatsum@yahoo.com">perrypatsum@yahoo.com</a> <a href="mailto:coralbluetwo@hotmail.com">coralbluetwo@hotmail.com</a> Subject: Crazydave by the VMs	Perry attached an mp3 file called Crazydave1.mp3.	3896FC6F-A 083-4D39-B0 A2-CE6836D 44CA.emlx
Email	9 July	From Tracy to Tracy	Attached file documents.zip sent from	8A3BD06F-C

#3	2012 10:44:11	<a href="mailto:tracysumtwelve@gmail.com">tracysumtwelve@gmail.com</a> to <a href="mailto:coralbluetwo@hotmail.com">coralbluetwo@hotmail.com</a> Subject: things	Tracy to herself	DB1-4453-9C 69-77E06823 F2AE.emlx
Email #4	10 July 2012 08:24:58	From Pat to Tracy <a href="mailto:patsumtwelve@gmail.com">patsumtwelve@gmail.com</a> To <a href="mailto:coralbluetwo@hotmail.com">coralbluetwo@hotmail.com</a> Pat forwarded King's email from <a href="mailto:throne1966@hotmail.com">throne1966@hotmail.com</a> Subject: can't pass up	Pat is blackmailing King to help with the heist by threatening to call their parole officer. King sent a list of needs for the heist in needs.txt. Pat then forwarded King's response to Tracy.	9F0508B8-0 4FB-490E-A7 F0-3E23B0E 7C59B.emlx
Email #5	5 July 2012 12:58:42	From Woina to Tracy <a href="mailto:Woina.Honril@m57.biz">Woina.Honril@m57.biz</a> To <a href="mailto:coralbluetwo@hotmail.com">coralbluetwo@hotmail.com</a> Subject: Busy	"I didn't" is only text. Attached is 000001.doc And 000002.doc	F3F4EB95-5 2EB-42FC-92 79-46DAB24 B6E34.emlx
Email #6	9 July, 2012 02:18 PM	From <a href="mailto:carrysum2012@yahoo.com">carrysum2012@yahoo.com</a> To <a href="mailto:tracysumtwelve@gmail.com">tracysumtwelve@gmail.com</a> Subject: Long time no see...	Carry asks Tracy to sneak her tablet into the gallery for her flash mob event. Tracy agrees to help her.	/vol5//\$CarvedFiles/f0408520.plist
SMS #1	July 3, 2012 13:41:51	From Tracy to Terry (703) 340-9961 To (703) 829-6071	Tracy telling Terry that she can no longer afford to pay for her school.	/vol5/mobile /Library/SMS /sms.db
SMS #2	July 5, 2012 18:18:23	From Carry to Tracy (202) 725-2124 To (703) 340-9961	Carry setting up plans to meet Tracy for lunch at Bubba's grill.	/vol5/mobile /Library/SMS /sms.db
SMS #3	July 6, 2012 15:02:19	From Tracy to Pat (703) 340-9961 To (571) 308-3236	In a series of texts, Tracy frantically tries to get Pat to talk on the phone.	/vol5/mobile /Library/SMS /sms.db
SMS #4	July 6, 2012 16:27:16	From Carry to Tracy (202) 725-2124 To (703) 340-9961	Carry confirms that she has a table inside, presumably at Bubba's grill. This confirms that their lunch did happen.	/vol5/mobile /Library/SMS /sms.db
SMS #5	July 7 2012 19:36:35	From a fake Target giveaway to Tracy (206) 910-0932 To (703) 340-9961	Scam text claiming that Tracy has won a \$1,000 Target giftcard with a spoofed URL.	/vol5/mobile /Library/SMS /sms.db

SMS #6	July 10, 2012 15:26:19	From Pat to Tracy (571) 308-3236 To (703) 340-9961	Text about coral email. Informs Tracy to change email attachment to a pdf.	/vol5/mobile /Library/SMS /sms.db
SMS #7	July 11, 2012 12:49:08	From Tracy to Carry (703) 340-9961 To (202) 725-2124	Tracy tells Carry to meet outside so that she can sneak her tablet into the gallery.	/vol5/mobile /Library/SMS /sms.db
SMS #8	July 12, 2012 17:06:45	From Tracy to Carry (703) 340-9961 To (202) 725-2124	Tracy asks Carry how the flash mob is going.	/vol5/mobile /Library/SMS /sms.db

≡ 21.3 Correspondence Evidence Worksheet - MASTER LIST

## Appendix B: WiFi and GPS Location Information

WiFi location data gathered from the /vol5/root/Library/Caches/locationd/consolidated.db and plotted using easymapmaker.com

Figures B1 - B9 shown below are the plotted latitude and longitude data from her phone.

