Digital Forensics Report:

An Investigation Christopher Gardner



By:Hana Abuzeid December 13, 2020

Introduction

Background & Scope

This report will include an analysis of the investigation of Christopher Gardner, where his supervisor Kurt Aubuchon does not suspect anything against him, yet he thinks that Gardner had been acting somewhat off before his resignation. Aubuchon is worried that Gardner may have been eliminating Dolos restrictive documentation from the organization before his resignation.

Likewise, one of Gardner's colleagues revealed to Aubuchon that she had caught Gardner having a quiet call with a woman, called "Sharon" or "Cherie". The colleague thinks that Gardner is considering his own financial firm. However, Dolos does employ a woman named Sharron Hammond and she hasn't resigned or been reported for acting abnormally. It isn't clear if she is in this or not ,but he left with someone else in the company knowing his future plan.

Aubuchon had visited Gardner's works area after his flight and had found a SanDisk Mini Blaze, 16GB USB that he had forgotten. It is known that any type of USB is precluded at Dolos which makes the supervisor to believe that he had the intention to copy some of Dolos data to take it with him.

With the help of Apex Forensics, giving the opportunity to investigate using industry-standard forensic tools and techniques. Evidence will show us Gardner plans and if he was working with anyone else, either inside or outside the company, and if there was an intention of planning to start a rival financial firm. More details on this investigation below.

Objective:

Writing this report with everything we have learned this semester. The main content should include how the applications operate, found evidence and came to the conclusion based on our deep searching through this flash drive.

Evidence handling

Handling the evidence we first prepared the USB to extract the data and all information from it. We then ran the image under a trusted forensic tool (Autopsy) with a verified write blocker, securing the original content, and making a copy for our investigation collection. Sanitization of the flash drive the best method in this case is "purging" since it is leaving Dolos to our Apex Forensic lab.

Chain of Custody, written record with all individuals that have maintained control over items of evidence and that are responsible to present it in a court of law. Document filled out below.

APEX FORENSICS CHAIN OF CUSTODY DOCUMENT

CASE NUMBER 001	CASE NAME Dolos Financial Services				
EVIDENCE COLLECTED BY Hana Abuzeid	EVIDENCE COLLECTED FROM Kurt Aubuchon (Dolos manager)				
SIGNATURE hanabuzeid	SIGNATURE Kurtaubuchon				
LOCATION St. Louis, MO	DATE/TIME 12/13/20, 6am				

EVIDENCE INFORMATION							
EVIDENCE OWNER Kurt Aubuchon from Dolos							
DESCRIPTION							
MODEL SanDisk Cruzer Mini USB Device	TYPE Physical						
SERIAL NUMBER 4C530110000610110324	MANUFACTURER SanDisk						
CONDITION Good	POWERED ON? HP Laptop						
REMARKS	Service and the service and th						

PROPERTY CONTROL									
DATE/TIME	RELEASED BY	RECEIVED BY	REMARKS						
DATE 12/13/20	NAME Kurt Aubuchon Dolos	NAME Apex Forensic							
ТІМЕ	SIGNATURE	SIGNATURE							
DATE	NAME	NAME							

Detailed Findings

This section is heavily on evidence and our exploring through this case (fun!). Now let's start with the very first thing we've done which was running the image that was found in the flash

drive through autopsy. There are a couple of files that were interesting at first glance such as "Temp.zip" which contained a huge amount of information. There were images, audios, documents of all sorts of kind, unallocated files, deleted files, encrypted files ,etc..

Searching through the image.001, we find some information but are not that relevant or clear for this investigation which we find images of 3 different families (not identified). Email addresses were found as well.





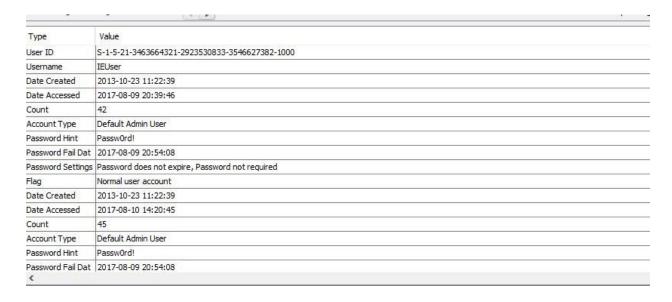


```
%4k@2.cy (1)
cps-requests@verisign.com (2)
d8n@k.pk (1)
ditnavn@example.com (1)
dittnamn@exempel.com (1)
e@rpvb.af(1)
eime@example.com (1)
go@sd.in (1)
gosc@wiadomosc.info (5)
ihrname@beispiel.com (1)
info@diginotar.nl (1)
jmeno@example.com (1)
joanna.smith@domain.com (1)
john.smith@domain.com (1)
meno@example.com (1)
n@displayname.mh (1)
neve@example.com (1)
noen@example.com (1)
nome@esempio.com (1)
omanimi@esimerkki.com (1)
proverka@primer.com (1)
seunome@exemplo.com (1)
seunome@exemplo.com.br (1)
sunombre@ejemplo.com (1)
twojanazwa@przyklad.com (1)
uwnaam@voorbeeld.com (1)
votrenom@exemple.com (1)
w@fmi.sy (1)
w@iupfbw.mp (1)
w@subscopeust.com (1)
wyourname@example.com (1)
vourname@example.com (1)
```

The file "Temp.zip" was extracted to the laptop then added to autopsy as a data source, from the file extracted we get a file with all the documents (more details later) and the other file "file machine" which had several files with different extensions. We ran

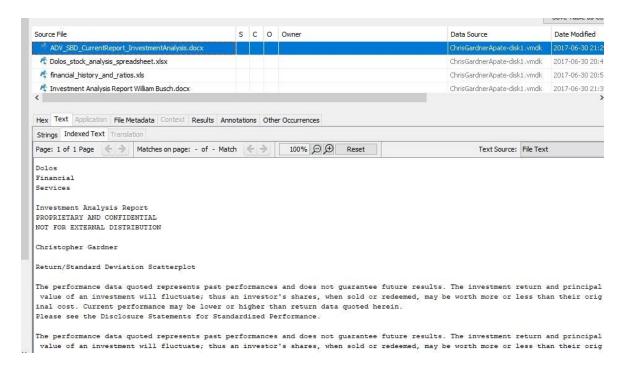
ChrisGardnerApate-disk1.vmdk under autopsy, took over 20 hours to fully load and reveal the truth.

Steganography is the practice of hiding messages or data files inside another. In this investigation there were files inside of other files making our evidence tree longer, most importantly is the information found important to our case? Now an encrypted file to crack a password did not require a specific one and in the photo below it gives us a hint of what it would possibly be but isn't required to enter it.



Metadata did reveal documents that were found but needed to be extracted to view them. Documents that say Dolos_stock_analysis_spreadsheet as well as history_and_ratios which the header says "confidential not for external distribution".

A document with a person named "William Busch" with information from a financial analysis report. A file called custlist (customer list) had information of customers in Dolos network (email, location, \$\$\$)(images below)

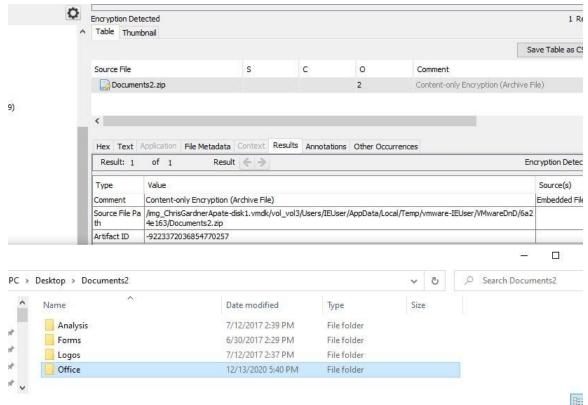


809840	Isidro	Bolles	ibollesgk@fda.gov 2 Debs Center Santa Barb		DATA	ra California 93106		460-85-6842		\$48,019,142.01		4				
155847	Wyndham	Bolt	wboltnq@csmonitor.co	on.	8 Transpor	t Terrace	Minneapol	in	Minnesota	55428	881-08-88	62	\$194,004,	487.45	(8)	
427391	Francine	Bondesen	fbondesenk@msn.com	10 Acker 9	lace	San Diego	Californi	a 52115	661-52-140	1	\$21,744,8	24.90	10			
265135	Andrej	Bonhan	abonhan4r@intel.com	210 Gulset	h Circle	Phoenix	Arizona	05059	526-96-775	5	\$90,055,5	68.76	1			
059264	Erma	Boog	eboog@y@google.ru	2 Shelley	Lane	Pittsburgh	Pennsylva	nia	15206	450-22-27	74	\$155,634	465.14	6		
160922	Jimmy	Bootj	jbooij9i@list-manage	e.com	469 Bosman	Avenue	Sacrament	- California	94257	713-02-39	63	\$60,799,	663.74	10		
121428	Fancy	Borgnol.	fborgnolk2@nature.co	on	7169 Expre	ss Parkway	Waco	Texas	76711	534-25-52	90	\$153,725	244.69	5		
321259	Marcile	Bosket	mbosketik@adobe.com	00240 Vall	ey Edge St	reet	Alpharett	a Georgia	30022	778-47-97	1.9	\$139,113	536.99	0		
673889	Javier	Bottleston	e jbottlest	onednButexa	s.edu	3 Hooker 0	Center	Austin	Texas	78769	501-66-01	79	\$120,798,	740.38	5	
451187	Lula	Branhall	lbramhall9w@cafepres	ss.com	65236 Bren	twood Cros	sing	Oklahoma C	ity	Oklahoma	73190	621-20-69	996	\$95,097,	75.58	
555754	Eryn	Branton	ebrantonh68cdc.gov	717 Armist	ice Alley	Columbus	Ohio	43210	277-40-351	2	\$96,046,1	26.15	3			
170956	Leyla	Brasher	lbrasherao@freewebs.	com	5 Luster 0	Center	Panama Ci	ty	Florida	32405	666-87-23	96	\$107,650,	189.16	9	
87309	Janot	Brede	jbredehh@cyberchimps	s.com	15 Farmeo	Circle	San Franc	isco	California	94110	283-99-03	63	930,454,4	188.40	9	
981780	Anny	Brellin	abrellinf48dot.gov	I Elgar Te	rrace	Sandy	Utah	84093	605-15-832	4	\$116,928,	151.75	8			
646583	Poul.	Brenner	pbremmer6i@naver.com	n 22784 Vall	ey Edge Ci	rcle	San Diego	California	92131	298-21-74	66	\$38,273,	727.47	9		
636627	Milty	Brennans	mbrennans20@berkeley	y_edu	3 Debra Ce	nter	Chicago	Illinois	60614	266-74-34	86	\$145,179	712.72	2		
514061	Ly	Brennen	lbrennengj@ask.com	7035 Kipli	ng Plasa	Nashville	Tennessee	37210	827-25-274	12	\$141,516,	127.17	9			
105219	Teresita	Brever	tbrewerdr@fastcompar	ny.com	41 Randy I	Point	Cincinnat.	iOhio	45254	760-19-05	24	\$160,617	,209,21	6		
451618	Shelley	Briatt	sbriatt5j8yandex.ru	8 Duke Roa	b	Augusta	Georgia	30905	119-19-116	8	\$174,786,	720.34	1			
165692	Exequiel	Bridal	ebridal618myspace.co	OEL.	5306 Pette	rle Street	Boulder	Colorado	80305	224-38-58	77	\$29,584,	633.25	7		
438069	Kippy	Bridat	kbridat3d8ning.com	5278 Helen	a Trail	Austin	Теная	79737	949-38-573	12	\$128,564,	008.63	8			
387782	Noak	Bridge	nbridgeb08bluehost.c	com.	58911 Rigg	bey Way	Zephyrhil	ls .	Florida	33543	290-42-14	90	\$19,342,5	95.84	6	
588575	Joli	Briereton	jbriereton648biblegs	атенау.соп	93 Sugar C	Court	Glendale	Arizona	85305	608-44-47	10	\$127,487	794.14	6		
681192	Jennie	Brilon	jbrilon2p@about.me	5 Mayer Ci	rcle	Rochester	New York	14604	698-04-530	10	\$91,107,0	57.28	2			
23887	Reinaldo	Brilon	rbriloncO@bbb.org	37960 Spai	ght Place	Chicago	Illinois	60686	362-82-936	0	\$71,857,2	03.83	2			
598643	Haleigh	Brindley	hbrindleyho@flickr.c	com	7954 Ridge	way Lane	Miami	Florida	33142	977-65-95	61	\$111,800	570.69	3		
433575	Alain	Brockwell	abrockwellingwhiteho	vop.ezu	43787 Line	ien Avenue	Irvine	California	92619	657-14-27	36	\$37,645,	570.79	9		
105785	Dyanne	Brookfield	idbrookfield7u@usnews	.com	652 Bobwhi	te Center	Green Bay	Wisconsin	54313	252-04-68	05	\$63,369,	962.94	1		
573769	Jeramey	Brookwood	jbrookwoodm08admin.o	ch	71682 Hers	rick Circle	Philadelph	hia	Pennsylvan	i.a	19160	743-27-2	166	\$105,013	766.17	
357592	Washingto	nBruster	wbrustereh@ustream.t	tw.	48 Indepen	dence Road	Los Angel		California	90030	425-28-45	72	\$144,385.	573.66	6	

CONFIDENTIAL AND PROPRIETARY. NOT FOR EXTERNAL DISTRIBUTION 2017 Dolos Financial Services Stock Analysis Spreadsheet How to analyze a new stock Stock Scorecard Stock Ticker Create a new workbook from your template worksheet or download a new copy of the workbook at: Company Name Log onto Morningstar.com. If you don't already have a free Morningstar account, click here: Industry/Sector Date Analysis Started: Search for stock on Morningstar . Enter stock info in the upper left corner of this sheet. Load data from Morningstar into: Balance Sheet, Income Stat and Cash I worksheets. *Enter Data into cell A1 in each respective sheet. Always delete any old data completely before loading new data. . Load data from Morningstar into: Select your stock rating criteria below and fill in your rating criteria. We've put in some sample criteria to show you how this part of the spreadsheet works. Go To: Most Recent Year of Financial Data: 2012 All Scorecard Measures Gross Margin: 3 Year Avg NA Financial Statement Analysis Avg Gross Margin Growth: Past 3 Years NA 0% 10% 20% 30% 40% Ratios and Growth Metrics Smart Financial Planning Spreadsheet! It can help you get a better grasp on how much your household Charts Net Income Growth: Most Recent Year 0% 10% 20% 30% 40% is spending and saving, and how you're positioned to meet your goals. Return to Download Page Intrinsic Value Calculation

Financial history & ratios **DOLOS FINANCIAL SERVICES** CONFIDENTIAL AND PROPRIETARY. NOT FOR EXTERNAL DISTRIBUTION Fiscal Year Ends Jun-30 RMA Average Current: from 01/2017 % to 06/2017 % 2016 2015 2014 Notes on Preparation Notes: You may want to print this information to use as reference later. To delete these instructions, click the border of this text box and then press the DELETE key. Assets Cash/ Equivalents Trade Receivables 21,226,547.2 961,738,573.2 9,161,550.6 5,317,630.9 997,444,301.8 20,589,750.7 932,886,416.0 8,886,704.1 5,158,102.0 967,520,972.8 812,014.9 149,217.6 12,346,052.9 559,378,557.9 21,659,742.0 981,365,891.0 Trade Receivable Inventory Value All other current Total Current Ass Fixed Assets (net Intangibles (net) All other Total Assets 5,328,657.0 5,426,154.0 1,017,800,308.0 854,213.0 156,972.0 7,444,301.8 837,128.7 153,832.6 Liabilities/ Equity Notes payable (ST) Current L. T. Debt Trade Payables Income Tax Payables Income Tax Payable All other current Total Current Liabilities Lang-term Debt Deferred Taxes All other non-current Net Worth Total Liabilities & Net Worth % 0.00% 5.47% 0.06% 0.06% 0.00% 2,493,270.9 14,685,872.3 151,765.7 151,878.4 5,374.3 0.93% 5.47% 0.06% 0.06% 0.00% 0.93% 5.47% 0.06% 0.06% 0.00% 8,541,782.9 88,271.9 88,337.5 3,125.9 3] Fill in the "RMA Avg." column. a. "RMA" refers to the book State 0.06% 0.06% 0.00% 5,484.0 6.51% 0.64% 0.68% 0.19% 10,171,685.9 6.51% 17,845,063.0 1,748,516.0 17,488,161.7 6.51% 16,963,516.9 6.51% 996,654.1 1,057,316.4 294,675.2 1,662,139.3 1,763,306.9 491,435.5 0.64% \$ 143,625,722.1 251,974,951.0 246,935,452.0 \$ 156,146,053.6 100.00% \$ 273,940,445.0 100.00% \$ 268,461,636.1 100.00% \$ 260,407,787.0 100.00% 4] Analyza your financial history: as Look for significant changes in absolute values (\$) or relative distribution of Assets, Liabilities, or Expenses (%). What do these changes tell you about hew your company is evolving. b. Also look for changes in your ratios. Why are ratio values shifting, and what does this mean? Income Data Net Sales Cost of Sales (COGS) Gross Profit Operating Expense: Operating Profit All other expenses Pre-tax Profit 4,881,931.4 8,996,012.5 954,736.9 142,411.1 1,056.8 373,205.8 164.97% 303.99% 32.26% 4.81% 0.04% 12.61% 8,393,496.2 15,466,828.4 1,641,477.5 244,847.1 1,816.9 641,652.1 8,141,691,3 15,002,823,6 1,592,233,1 237,501,7 1,762,4 622,402,5 164.97% 303.99% 32.26% 4.81% 0.04% 12.61% 164.97% 303.99% 32.26% 4.81% 0.04% 12.61% 164.97% 5703.54% 5703.54% 5703.54% Screenshot 91.62% 8.72% 91.62% 8.72% 91.62% 8.72%

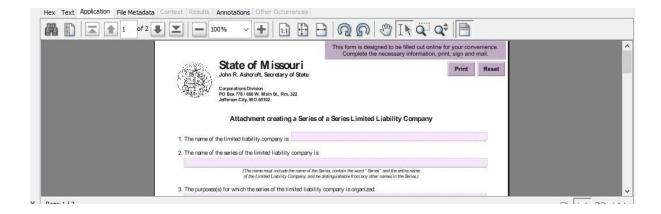
An encrypted file contained 4 files that had information that **might** prove Gardeners intention to have these documents and data for his own firm. A file called "Document2.zip" was extracted, having 4 folders in them. Adding them back as a data source in autopsy we find that each folder has data related to his future firm plan.

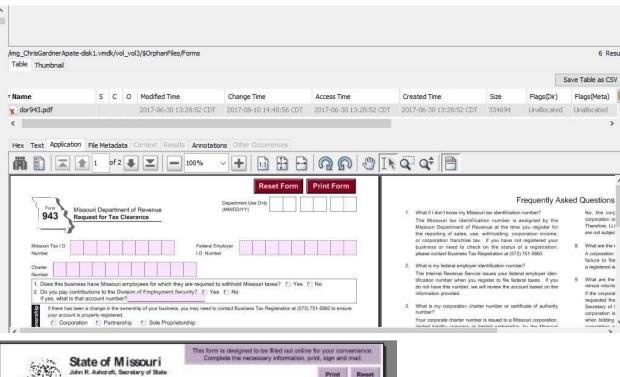


Let's look closely into each folder, Analysis has documents.

Forms, has 4 types of forms to "fill out" or documents for companies use.

- 1. Application for reservation of name
- 2. Tax clearance
- 3. Articles of organization
- 4. Attachment creating a series of a series limited liability company.









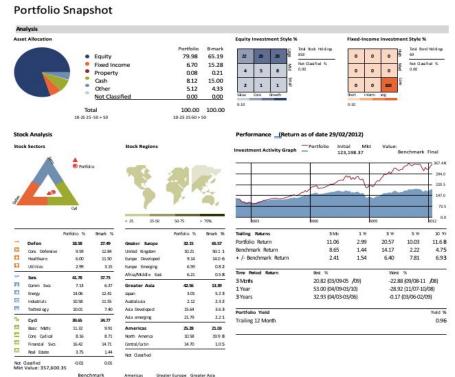
Logos, he had couple of "statue" and from the image obtained looks like he is calling his financial firm as "Apate Capital Management"



Office, looking at the EXIF data we find that he has a location in mind and has taken photos of the building and in the image a sign with "lease" is presented on a billboard at the location he desires to do so.



Mentioned above, a pdf with "Willian Busch" looking through the document the title is "Dolos Financial Services" and "Investment Analysis report" it has 44 pages with different information of financial computations, distributions, and predictions of Dolos investments. The first page of Busch's report contained a portfolio snapshot.



Gardner has copied the extract introduction page with the same statue logo and taken information off of Busch's analysis report. However, he had 17 pages.

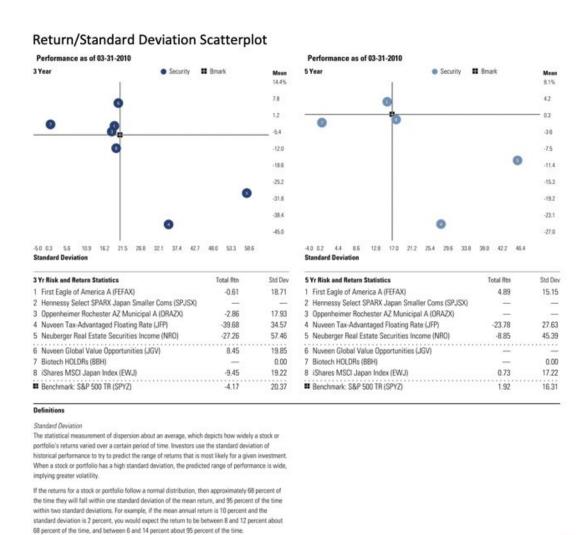


DOLOS FINANCIAL SERVICES

Investment Analysis Report
PROPRIETARY AND CONFIDENTIAL
NOT FOR EXTERNAL DISTRIBUTION

Prepared by:

Christopher Gardner



Conclusion

In conclusion, this report included an analysis of the investigation of Christopher Gardner, where his supervisor Kurt Aubuchon does not suspect anything against him. However; in reality, and while finding evidence against Gardner he did indeed take very vital information to the company after resigning while contacting an inside employee that is still employed at this company. Gardner was in contact with this employee and was speaking of how he will be starting his own company. The employee, Sharon Hammond listened to Gardner and this raised a red flag to another employee working at the company who has been suspecting that Gardner was taking confidential information from the company before he left.

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