# EXHIBIT A

Report of Digital Forensic Analysis in:

*Paul D. Ceglia*
*v.*
*Mark Elliot Zuckerberg, Individually, and Facebook, Inc.*

Civil Action No: 1:10-cv-00569-RJA

March 26, 2012

STROZ FRIEDBERG

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# I. Introduction

On April 11, 2011, Paul Ceglia filed an Amended Complaint seeking a share of Facebook, Inc. ("Facebook"). Mr. Ceglia based his claim on a purported contract between Mr. Ceglia and Mark Zuckerberg (hereinafter, the "Work for Hire Document"). The Work for Hire Document was attached to the Amended Complaint as Exhibit A. In addition, the Amended Complaint included excerpts of purported emails between Mr. Ceglia and Mr. Zuckerberg (hereinafter, the "Purported Emails").

On July 1, 2011, the Honorable Leslie G. Foschio entered an Order for expedited discovery requiring Mr. Ceglia to "produce . . . the following electronic assets: (1) the native electronic version of the [Work for Hire Document] and all electronic copies of th[at] contract . . . ; (2) the original, native electronic files consisting of or containing the [Purported Emails] and all electronic copies of the [P]urported [E]mails; and (3) all computer and electronic media in [Mr. Ceglia's] possession, custody, or control . . . ." (Order, *Ceglia v. Zuckerberg, et al.*, No. 1:10-cv-00569-RJA, July 1, 2011, at p. 2).

The Court also issued an Electronic Asset Inspection Protocol (the "Protocol") governing the analysis of the electronic assets produced by Mr. Ceglia. Pursuant to the Protocol, Stroz Friedberg, LLC ("Stroz Friedberg") was to create "forensically-sound copies" of the electronic assets produced by Mr. Ceglia. (Electronic Asset Inspection Protocol, *Ceglia v. Zuckerberg, et al.*, No. 1:10-cv-00569-RJA, July 1, 2011, at p. 2). Stroz Friedberg then was authorized to search those electronic assets "in order to identify only documents, data, fragments, and artifacts that reasonably appear to be related to the authenticity of the [Work for Hire Document] and the [Purported Emails]." (Id.). Stroz Friedberg also received additional data pursuant to subpoenas or other Orders of the Court, including various sources of email data. This data also was analyzed by Stroz Friedberg.

This report is a summary of Stroz Friedberg's findings regarding the authenticity of the Work for Hire Document and the Purported Emails based on its analysis of the media produced by Mr. Ceglia pursuant to the Protocol and its analysis of the other data received as part of expedited discovery. This report is not intended to detail each and every aspect of Stroz Friedberg's work in this engagement. Stroz Friedberg reserves the right to supplement or modify this report based on any new or additional information not previously examined, or brought to its attention or based on any new or additional allegations made by Mr. Ceglia.

## II. Executive Summary

Stroz Friedberg found direct and compelling digital forensic evidence that the documents relied upon by Mr. Ceglia to support his claim are forged. Stroz Friedberg also found what it believes to be the authentic contract between Mr. Ceglia and Mr. Zuckerberg. That contract contains no references to Facebook. As described more fully in this report, Stroz Friedberg made the following findings bearing on the authenticity of the Work for Hire Document and the Purported Emails:

- Stroz Friedberg did not find any exact copies of the Work for Hire Document on the hundreds of pieces of media produced by Mr. Ceglia, including three computers, three hard drives, 174 floppy disks, and 1,087 CDs (hereinafter, the "Ceglia Media").

- Stroz Friedberg did find a signed copy of an April 28, 2003 contract between Mr. Ceglia and Mr. Zuckerberg, entitled "STREET FAX," concerning Mr. Zuckerberg's work on the StreetFax project (hereinafter, the "StreetFax Contract"). The StreetFax Contract differs substantially from the Work for Hire Document; the StreetFax Contract concerns only Mr. Zuckerberg's work on the StreetFax project and includes no references to Facebook.

- The StreetFax Contract was found as two image files, each file being a scanned copy of one page of the two-page contract. The image file of the second page of the StreetFax Contract was saved to a computer produced by Mr. Ceglia on March 3, 2004 at 10:35:21 a.m., and then sent out via email approximately two minutes later at 10:37:15 a.m. The image file of the first page of the StreetFax Contract was saved to a computer produced by Mr. Ceglia on March 3, 2004 at 10:38:35 a.m., and then sent out via email less than one minute later at 10:39:11 a.m. These images were attached to two emails from ceglia@adelphia.net to Jim Kole of Sidley Austin Brown & Wood LLP ("Sidley Austin") (hereinafter, the "StreetFax Emails"). The first of the two emails reads: "Hi Jim, Hope all is well, I am at 727 490 5751 when your ready. Ill send page two next I should be here for the next hour. Paul." The second of the two emails includes an attachment but has no text in the body of the email.

- Sidley Austin also produced copies of the StreetFax Emails, which it has maintained since March 3, 2004. Stroz Friedberg determined that the content of the emails and the attached copy of the StreetFax Contract produced by Sidley Austin are the same as the content of the emails and the attached copy of the StreetFax Contract found on the Ceglia Media.

- Stroz Friedberg identified seven unsigned electronic documents on the Ceglia Media that are variants of the Work for Hire Document. All of these electronic documents were backdated to appear as if they were created at earlier dates. They appear to be part of an effort to create a fraudulent contract.

- Stroz Friedberg did not find any of the Purported Emails in native file format, that is to say, as files in an email format. They do not exist in native format on any of the Ceglia Media or in any of Mr. Ceglia's webmail accounts examined by Stroz Friedberg.

- Stroz Friedberg did identify the Microsoft Word documents into which Mr. Ceglia claims to have copied-and-pasted the text of the Purported Emails. All of these Word documents were backdated to appear as if they were created at earlier dates.

- The Purported Emails themselves, which Mr. Ceglia has proffered as authentic communications with Mr. Zuckerberg, are fabricated. Many of the Purported Emails reflect the wrong time zone. For example, all of the Purported Emails purportedly sent from October 26, 2003 to April 4, 2004 contain the "-0400" time zone stamp that reflects Eastern Daylight Time. However, Eastern Daylight Time was not in effect during this time. There is no place in the Continental United States from which Mr. Ceglia could have sent these Purported Emails with an accurate "-0400" time zone stamp.

- The Purported Emails have formatting differences in the email headers that are inconsistent with Mr. Ceglia's explanation that he copied-and-pasted the emails into Word documents. These formatting inconsistencies include differences in the number of spaces following the colon in the "To" and "From" fields and the way in which the word "Tuesday" is abbreviated. These formatting differences indicate that the Purported Emails were typed or edited manually and were not solely the result of a copy-and-paste operation.

- Stroz Friedberg found evidence that a hex editor was used on documents found on the Ceglia Media.

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Hex editors can be used to create electronic forgeries because they allow the manipulation of data at a level that makes traditional digital forensic analysis of the fraudulent change to the document more difficult, if not impossible, to detect.

- Stroz Friedberg found substantial evidence of possible spoliation, including multiple reinstallations of the Windows operating system during the pendency of this litigation on the computer that contained the StreetFax Contract. Stroz Friedberg also found evidence that relevant files were deleted and overwritten in February 2011. In addition, Stroz Friedberg found evidence that email data was deleted from the recently disclosed getzuck@gmail.com account.

- Stroz Friedberg identified substantial evidence of the existence of several pieces of media that Mr. Ceglia did not turn over, identify, or otherwise account for, some of which appear to have

contained versions of a contract between Mr. Ceglia and Mr. Zuckerberg, namely: “Zuckerberg Contract page1.tif” and “Zuckerberg Contract page2.tif.” Three pieces of undisclosed media were used during the pendency of this litigation.

- There is no digital forensic evidence on the Ceglia Media supporting a conclusion that the Work for Hire Document or the Purported Emails are authentic documents dating from 2003 and 2004. To the contrary, the digital forensic evidence strongly indicates that these documents were fabricated by Mr. Ceglia at a later date.

# III. Stroz Friedberg Background

## A. Company Information

Founded in 2000, Stroz Friedberg is an international firm specializing in critical areas of digital risk management, including digital forensics, electronic discovery, data breach and cybercrime response, and business intelligence services and investigations. Stroz Friedberg's management includes former federal and state prosecutors and former law enforcement officers with both government and private-sector experience in traditional and cyber-based investigations, digital forensics, data preservation and analysis, infrastructure protection, and electronic discovery. Many of its staff of digital forensic examiners, electronic security professionals, electronic discovery specialists, and private investigators joined Stroz Friedberg following careers in law enforcement, the intelligence community, and consulting.

## B. Biographies

This report was prepared by Bryan J. Rose, Michael F. McGowan, and Jason A. Novak, under the direction and supervision of Eric M. Friedberg.

### 1. Eric M. Friedberg

This investigation was supervised and directed by Eric M. Friedberg. Mr. Friedberg is Co-President of Stroz Friedberg. He has participated in and supervised hundreds of digital forensic examinations over his eleven plus years with Stroz Friedberg, both in the context of litigation-related disputes and responses to cybercrime. He also has participated in and supervised many of the firm's electronic forgery matters, including disputes over the authenticity of contracts, emails, movie scripts, and memoranda. In addition, Mr. Friedberg has published an article and lectured on electronic forgeries. Prior to joining Stroz Friedberg, Mr. Friedberg was an Assistant United States Attorney with the United States Attorney's Office for the Eastern District of New York from 1989 to 2000, where he acted at various times as the Office's Chief of Narcotics and the District's lead cybercrime prosecutor. A copy of Mr. Friedberg's C.V. is attached to this report as Exhibit A.

### 2. Bryan J. Rose

Bryan J. Rose is a Managing Director at Stroz Friedberg and the head of its New York office. Mr. Rose manages matters in the areas of digital forensics, electronic discovery, and cybercrime response and supervises digital forensic examiners in the performance of their jobs. Prior to joining Stroz Friedberg, Mr.

Rose served as an Assistant United States Attorney in the Eastern District of New York and as an Assistant Attorney General in the State of Illinois. He also served as a law clerk for The Honorable Joel M. Flaum of the United States Court of Appeals for the Seventh Circuit. Mr. Rose is a graduate of the University of Virginia School of Law, where he was named a Hardy Cross Dillard Scholar and served as Editor-in-Chief of the *Virginia Law Review*. A copy of Mr. Rose's C.V. is attached to this report as Exhibit B.

### 3. Michael F. McGowan

Michael F. McGowan is a Director of Digital Forensics at Stroz Friedberg and co-manages Stroz Friedberg's digital forensic operations. Mr. McGowan helped lead the development of Stroz Friedberg's expertise in detecting the backdating and forgery of electronic documents. He has gained significant expertise through experience, research, and training in detecting electronic forgeries and has conducted digital forensic examinations in significant cases hinging on the authenticity of proffered electronic documents. In many cases, Mr. McGowan has been able to find critical evidence regarding the authenticity of electronic documents that proved case-dispositive. Mr. McGowan has provided trial and hearing testimony on a number of occasions and has been admitted as an expert in digital forensics in federal and state court, including on behalf of the United States Department of Justice in connection with one of the Enron Task Force prosecutions. A copy of Mr. McGowan's C.V. is attached to this report as Exhibit C.

### 4. Jason A. Novak

Jason A. Novak is an Assistant Director of Digital Forensics at Stroz Friedberg. Mr. Novak has conducted hundreds of digital forensic preservations and analyses, including work to identify evidence of spoliation, backdating, unauthorized access, the theft of intellectual property, and the interception of third-party data. Mr. Novak has provided sworn testimony in support of his analyses, as well as reports to domestic and international regulatory agencies. He holds a Bachelor of Arts degree in Political Science with a minor in Computer Science from the University of Chicago and is an EnCase Certified Examiner. A copy of Mr. Novak's C.V. is attached to this report as Exhibit D.

## IV. Evidence Considered

Pursuant to the July 1, 2011 Order, Stroz Friedberg collected digital media made available by Mr. Ceglia through his agents between July 15, 2011 and July 22, 2011, in three different locations: Chicago, Illinois; Sarasota, Florida; and Buffalo, New York. Stroz Friedberg inspected the data on the following media for analysis according to the terms of the Court-ordered Protocol:

- A Compaq Presario SR5413WM desktop computer with a 250 gigabyte hard drive, which Stroz Friedberg imaged in Buffalo, New York, on July 15, 2011.
- An eMachines ET1161-05 desktop computer with a 160 gigabyte hard drive, which Stroz Friedberg imaged in Buffalo, New York, on July 19, 2011.
- A Toshiba Satellite L305-55968 laptop computer with a 320 gigabyte hard drive, which Stroz Friedberg imaged in Chicago, Illinois, on July 15, 2011.
- A 200 gigabyte Maxtor Personal Storage 3200 external hard drive, which Stroz Friedberg imaged in Sarasota, Florida, on July 15, 2011. An external hard drive is a drive designed to be used and connected to a computer externally, without being physically inserted into the computer's case.
- A 120 gigabyte Seagate ST3120025A internal hard drive, which Stroz Friedberg imaged in Sarasota, Florida, on July 15, 2011 (hereinafter, the "Seagate Hard Drive"). This hard drive was produced as a standalone drive, without the computer in which it had once resided. An internal hard drive is a drive that is designed to be used within a computer, not as an external device.
- A 500 gigabyte Western Digital internal hard drive, which Stroz Friedberg preserved in Chicago, Illinois, on July 18, 2011 . This hard drive also was produced as a standalone drive. Upon examination, Stroz Friedberg determined that this hard drive contained a series of E01 files, which is a forensic image file format, meaning that the data on this hard drive was a forensic image of another piece of digital media. Stroz Friedberg determined that this Western Digital hard drive contained a forensic copy of the Seagate Hard Drive, made on March 29, 2011 by an expert retained by Mr. Ceglia (hereinafter, the "Forensic Image Created by Plaintiff's Expert").
- 174 floppy disks, five of which were made available to Stroz Friedberg in Sarasota, Florida, on July 15, 2011 and 169 of which were made available to Stroz Friedberg in Chicago, Illinois, between July 15, 2011 and July 22, 2011.
- 1,087 CDs, twelve of which were made available to Stroz Friedberg in Sarasota, Florida, on July 15, 2011 and 1,075 of which were made available to Stroz Friedberg in Chicago, Illinois, between July 15, 2011 and July 22, 2011.

- One DVD, which was made available to Stroz Friedberg in Chicago, Illinois, between July 15, 2011 and July 22, 2011.

Using widely-accepted digital forensic techniques and procedures, digital forensic personnel from Stroz Friedberg made bit-for-bit, verified forensic copies or images of: the hard drive within the Compaq Presario desktop computer; the hard drive within the eMachines desktop computer; the hard drive within the Toshiba Satellite laptop computer; the Maxtor external hard drive; the Seagate Hard Drive; 173 of the 174 floppy disks; and 393 of the 1,087 CDs. The digital forensic copying process captured the entire contents of each piece of media, including the active user-accessible files, the deleted files, and the unallocated space, which may contain deleted content. Because the Forensic Image Created by Plaintiff's Expert is a forensic image file, Stroz Friedberg used a forensically-sound copy method to copy the forensic image file on that drive to preservation media.

During the preservation process, Stroz Friedberg did not make copies of the following pieces of the Ceglia Media:

- One floppy disk, on which the data could not be accessed;
- 81 CDs that could not be imaged for technical reasons;[1]
- 613 CDs that were not imaged because, after review, they did not appear to contain data relevant to the authenticity of Work for Hire Document or the Purported Emails, which were the subject of the review authorized by the Court; and
- One DVD that could not be imaged for technical reasons.

Stroz Friedberg also received additional data pursuant to subpoenas or other Orders of the Court, including various sources of email data.

[1] When Stroz Friedberg encountered technical obstacles copying a piece of media, it made efforts to acquire as much information as possible about the data. For four of the CDs that could not be imaged, Stroz Friedberg made file listings of their contents. For one of the CDs, a preservation of the logical active files was made. One of the CDs could not be read because an evidence number label from one of Mr. Ceglia's experts had been placed on the back of the CD, making it unreadable. Another one of the CDs could not be imaged and a partial logical acquisition was made of its contents.

## V. Stroz Friedberg's Process and Procedures

Stroz Friedberg conducted its analysis of the Ceglia Media pursuant to the Protocol issued by the Court on July 1, 2011 (Doc. No. 85). Stroz Friedberg searched and analyzed the Ceglia Media "to identify only documents, data, fragments, and artifacts that reasonably appear[ed] to be related to the authenticity of the [Work for Hire Document] attached to the Amended Complaint and the [P]urported [E]mails described in the Amended Complaint." (Protocol at p. 2). The documents, data, fragments, and artifacts found by Stroz Friedberg that reasonably appeared to be related to the authenticity of the Work for Hire Document or the Purported Emails first were produced to Mr. Ceglia's attorneys for a privilege review. The material was turned over to attorneys from Gibson Dunn only if no privilege objection was raised, an asserted privilege objection was withdrawn by Mr. Ceglia or his attorneys, or an assertion of privilege was overruled by the Court. Stroz Friedberg has followed the terms of the Protocol for all data found on the Ceglia Media and any other data subject to the Protocol during its analysis, including the procedures for privilege review and production set forth above and the maintenance of a search log.

In addition, Stroz Friedberg conducted an analysis of emails produced by Sidley Austin in response to a Court-authorized subpoena, as well as other materials produced pursuant to subpoenas or consent, including the contents of various webmail accounts belonging to Mr. Ceglia, or data produced by or collected from Mr. Ceglia's agents or experts. This material was handled pursuant to the Protocol if applicable, or according to the terms of the applicable Court Order governing the production of the data.

During this analysis, Stroz Friedberg employed a methodology tailored to the particular facts of this case. Stroz Friedberg's methodology included: (1) conducting keyword and other searches of the digital forensic copies of the Ceglia Media and other data, including webmail accounts, to identify responsive documents or fragments of documents; (2) manually reviewing the documents containing keyword hits, certain unsearchable file types, such as image files with no text, and other documents to determine whether they were relevant to the authenticity of the Work for Hire Document or the Purported Emails; and (3) reviewing the digital forensic copies of the Ceglia Media for digital forensic artifacts relevant to the authenticity of the Work for Hire Document or the Purported Emails.

Stroz Friedberg's methodology was designed to identify documents or forensic artifacts relevant to the authenticity of the Work for Hire Document and the Purported Emails. This methodology would have identified any and all copies or versions of the Work for Hire Document, any and all copies or versions of the StreetFax Contract, any and all copies of the Purported Emails, and other email correspondence between Mr. Ceglia and Mr. Zuckerberg.

# VI. Work for Hire Document

## A. The Work for Hire Document Was Not Found on the Ceglia Media

No exact copies of the Work for Hire Document were found on the Ceglia Media, which comprise hundreds of pieces of media, including computers, hard drives, floppy disks, and CDs.[2] Stroz Friedberg used a methodology that would have identified any copies of the Work for Hire Document on the Ceglia Media if they had been present.

Stroz Friedberg did obtain a copy of the Work for Hire Document directly from Paul Argentieri, counsel for Mr. Ceglia, pursuant to a Court Order. This copy was attached to a June 27, 2010 email message[3] from Mr. Ceglia to Mr. Argentieri. This means that Mr. Ceglia possessed the Work for Hire Document in electronic form on June 27, 2010, three days before the lawsuit was filed. Furthermore, in its analysis of Mr. Ceglia's Gmail (paulceglia@gmail.com) account, Stroz Friedberg identifed a June 29, 2010 email from Mr. Ceglia to Karin Peterson, a former StreetFax employee, with a copy of the Work for Hire Document attached.

Stroz Friedberg would, therefore, have expected to find a copy of the Work for Hire Document – sent by Mr. Ceglia to Mr. Argentieri on June 27, 2010, and to Ms. Peterson on June 29, 2010 – somewhere on the Ceglia Media. Again, it did not.

[2] Stroz Friedberg did identify a March 2011 document that contains various litigation documents, including a copy of the filed version of the Work for Hire Document and a full transcript of the July 20, 2010 oral arguments in this matter.

[3] Unless otherwise specified, the dates and times referred to in this report are represented in Eastern Daylight or Standard Time.

# VII. The StreetFax Contract (Ceglia Media)

## A. The StreetFax Contract Was Found on Two Different Ceglia Hard Drives

As noted above, Stroz Friedberg searched for and did not find any exact copies of the Work for Hire Document on the Ceglia Media. However, Stroz Friedberg did find a copy of the StreetFax Contract on two hard drives produced by Mr. Ceglia: the Seagate Hard Drive and the Forensic Image Created by Plaintiff's Expert, which is a forensic image of the Seagate Hard Drive.[4]

### 1. The StreetFax Contract Was Found on Two Hard Drives

During its analysis of the Seagate Hard Drive and the Forensic Image Created by Plaintiff's Expert, Stroz Friedberg found references to Outlook Express email, a common Microsoft email client.[5]

Stroz Friedberg examined the Outlook Express email to determine if any of the Outlook Express email messages were relevant to the authenticity of the Work for Hire Document or the Purported Emails. Among the Outlook Express email was a DBX file named "Sent Items.dbx," which typically contains copies of emails sent from the email client. A DBX file is a standard email container file that stores multiple email messages and their attachments, similar to a Microsoft Outlook PST file or a Lotus Notes NSF file.

Upon examination, only two of the emails were determined to be relevant to the authenticity of the Work for Hire Document. A redacted screenshot of the relevant contents of the "Sent Items.dbx" file found on the Seagate Hard Drive and the Forensic Image Created by Plaintiff's Expert is below.

[4] The Forensic Image Created by Plaintiff's Expert was created on March 29, 2011 and subsequently preserved by Stroz Friedberg on July 18, 2011. The Seagate Hard Drive itself continued to be used after March 29, 2011 and was imaged by Stroz Friedberg on July 15, 2011.

[5] An email client is a type of software program used to access email.

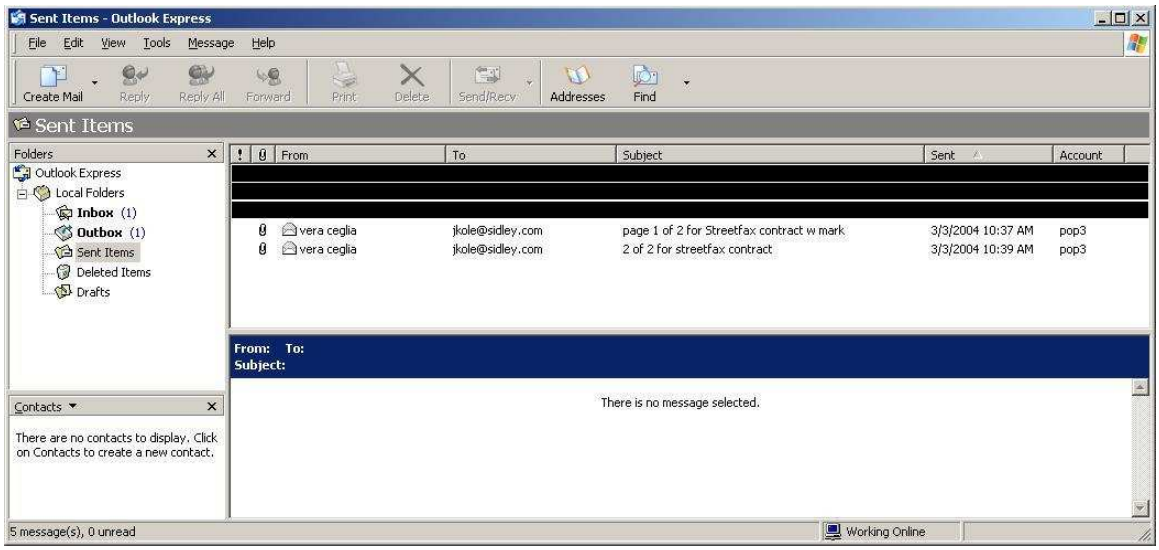


**Fig. 1: Redacted Screenshot of "Sent Items.dbx" File**

The two emails contained in the "Sent Items.dbx" file that were determined to be relevant to the authenticity of the Work for Hire Document, shown in the screenshot above, had the following subject lines: "page 1 of 2 for Streetfax contract w mark" and "2 of 2 for streetfax contract." The StreetFax Emails were sent from "ceglia@adelphia.net" to "jkole@sidley.com." The first of the two emails reads: "Hi Jim, Hope all is well, I am at 727 490 5751 when your ready. Ill send page two next I should be here for the next hour. Paul." The second of the two emails includes an attachment but has no text in the body of the email.

Screenshots showing the StreetFax Emails are below:

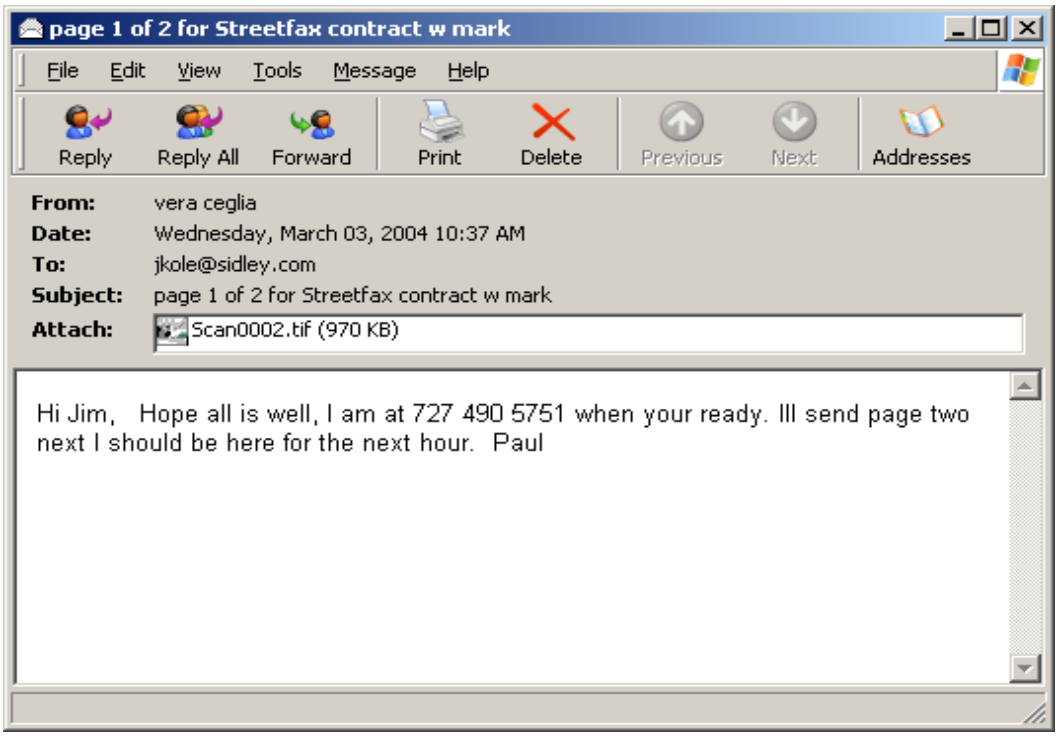


**Fig. 2: Screenshot of the First StreetFax Email**

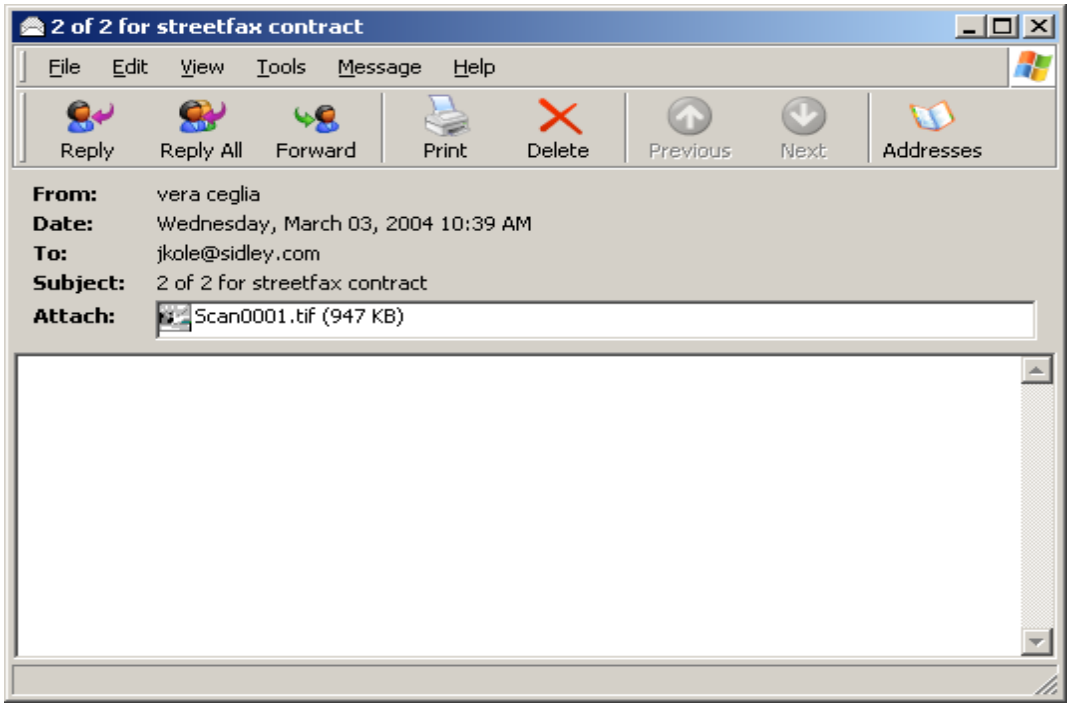


**Fig. 3: Screenshot of the Second StreetFax Email**

Both of the StreetFax Emails contain one-page attachments in Tagged Image File Format, commonly known as TIFF images. TIFF images are a standard image format in which the document itself is not a text-based document like a Word document, but rather is a "picture" that includes the document and text in a graphic format.

Upon examination, Stroz Friedberg determined that the two TIFF images attached to the StreetFax Emails were each one page of the two-page StreetFax Contract. The TIFF image attachments appear to be scanned documents and are of low-quality resolution. Copies of the StreetFax Emails and attached StreetFax Contract,[6] as found on the Ceglia Media, are attached as Exhibits E, F, G, and H.

In examining the StreetFax Contract, Stroz Friedberg noted that it differed substantially from the Work for Hire Document relied on by Mr. Ceglia in this lawsuit. One obvious difference is that, unlike the Work for Hire Document, the StreetFax Contract relates only to Mr. Zuckerberg's work on the StreetFax project and does not contain any references to Facebook.

Thus while Stroz Friedberg did not find any copies of the Work for Hire Document, it did uncover the StreetFax Contract relating exclusively to Mr. Zuckerberg's work on the StreetFax project.

### 2. A Metadata Analysis Supports the Authenticity of the StreetFax Contract and the StreetFax Emails

Stroz Friedberg conducted an analysis of the metadata associated with the "Sent Items.dbx" file and the StreetFax Emails, which provide additional corroboration that the StreetFax Emails and the attached StreetFax Contract are authentic.[7] Specifically, Stroz Friedberg found that the metadata indicates that the StreetFax Emails were sent on March 3, 2004. The metadata did not contain any anomalies.

#### (1) Metadata for the Sent Items.dbx File Is Consistent with Authentic Emails

Stroz Friedberg examined the file system metadata associated with the "Sent Items.dbx" file containing the StreetFax Emails. The file system metadata for the "Sent Items.dbx" file indicates that it was created on December 23, 2003 and has not been modified or accessed since June 22, 2008.

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[6] The StreetFax Contract appears to be oriented upside-down in TIFF images found on the Ceglia Media. In Exhibits F and H, we have rotated the pages of the StreetFax Contract so that they are oriented correctly.

[7] Stroz Friedberg conducted the metadata analysis because information about the creation date and use of those files could bear on their authenticity. Computer operating systems use file systems to organize and store electronic files on digital media, and file systems generally store metadata about the individual files within the file system. This type of metadata is referred to as file system metadata. File system metadata typically includes the file's physical location on the media, the location of the file within the directory structure of the file system, and timestamps, such as when the file was first created on the file system, when the file was last accessed, and when the file was last modified.

The last accessed date of the "Sent Items.dbx" file is consistent with legitimate emails. While the last accessed file system timestamp can be updated by user or system actions, such as the opening of Microsoft Outlook Express or the automatic running of an antivirus scan, the metadata shows that the "Sent Items.dbx" file has not been accessed by a user or an automated process since June 22, 2008. Since the StreetFax Emails were sent and received on March 3, 2004, Stroz Friedberg would expect the last accessed date of the "Sent Items.dbx" file to post-date that date, which is the case here.

(2) Metadata for the StreetFax Emails Is Consistent with Authentic Emails

Stroz Friedberg also examined the metadata associated with the StreetFax Emails themselves, including the sent date and time for each email. That metadata, which appears below, corroborates the authenticity of the StreetFax Emails because it confirms that the emails were sent on March 3, 2004:

| Subject | Sent Date/Time | Attachment |
|---|---|---|
| page 1 of 2 for Streetfax contract w mark | 03/03/2004 10:37:15 AM | Scan0002.tif |
| 2 of 2 for streetfax contract | 03/03/2004 10:39:11 AM | Scan0001.tif |

## B. Other Evidence on the Ceglia Media Establishes the Authenticity of the StreetFax Contract and the StreetFax Emails

Stroz Friedberg identified other evidence on the Seagate Hard Drive and the Forensic Image Created by Plaintiff's Expert that corroborates that the StreetFax Emails were sent on March 3, 2004.

1. The Attached Scans of the StreetFax Contract Were Created on the Ceglia Media Minutes Before the StreetFax Emails Were Sent

Mr. Ceglia sent the email that attached the second page of the StreetFax Contract to Jim Kole at 10:37:15 a.m. He sent the second email that attached the first page of the Street Fax Contract at 10:39:11 a.m. The two scanned images – i.e., the attached pages of the StreetFax Contract – were created on a computer produced by Mr. Ceglia shortly before the two emails were sent.

Stroz Friedberg found evidence of a deleted file named "Scan0002.tif," which was created on March 3, 2004 at 10:35:21 a.m. Although the file was deleted, Stroz Friedberg was able to partially recover and view its contents using digital forensic techniques. The recoverable portion of this file appeared to match the second page of the StreetFax Contract. Stroz Friedberg also compared the file sizes and determined that the deleted file was exactly the same size as the copy of "Scan0002.tif" that was emailed to Mr. Kole.

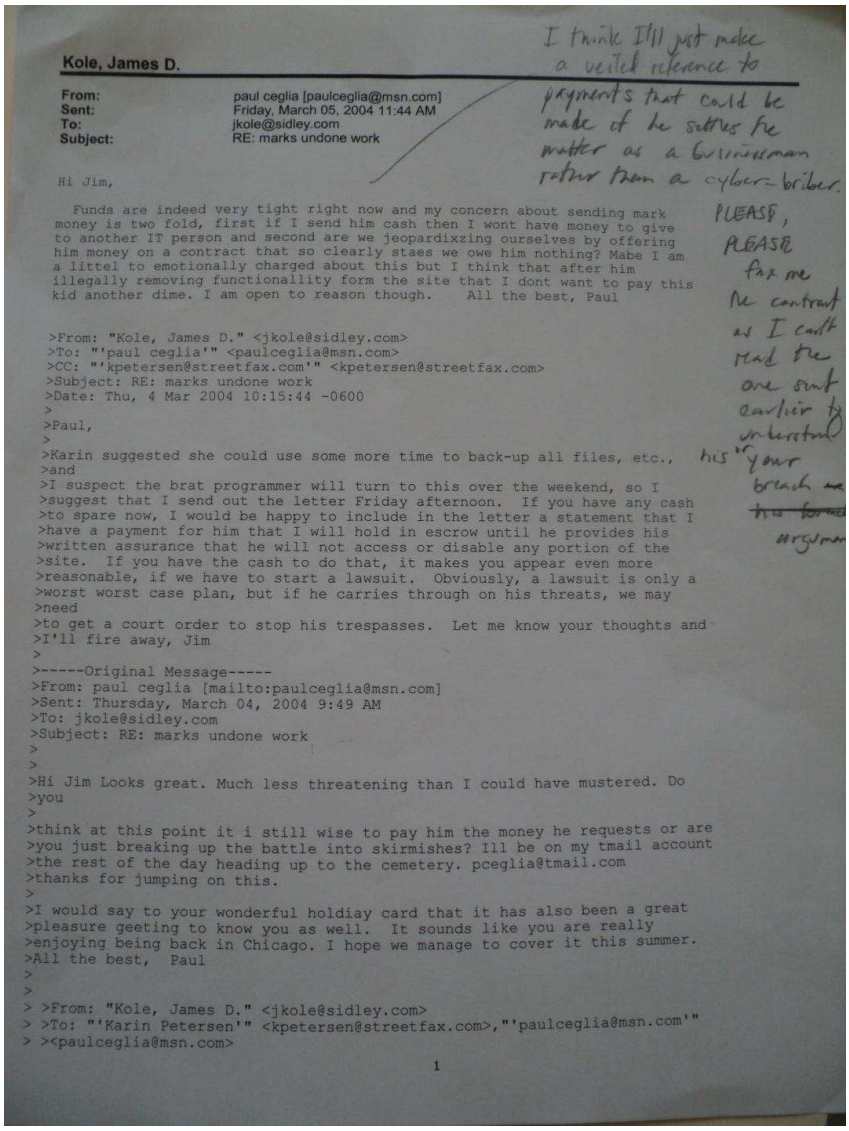
Stroz Friedberg also found evidence of a deleted file named "Scan0001.tif," which was created on March 3, 2004 at 10:38:35 a.m. The contents of this file could not be recovered. However, Stroz Friedberg compared the file sizes and determined that it was exactly the same size as the copy of "Scan0001.tif" that was emailed to Mr. Kole.

Thus, the digital forensic evidence reflects the following chronology of events. On the morning of March 3, 2004 at 10:35:21 a.m., a scanned copy of the second page of the StreetFax Contract was saved to the computer containing the Seagate Hard Drive. Approximately two minutes later, at 10:37:15 a.m., this file was sent as an attachment to the first StreetFax Email that Mr. Ceglia sent to Mr. Kole. Shortly thereafter, a scanned copy of the first page of the StreetFax Contract was saved onto the computer containing the Seagate Hard Drive at 10:38:35 a.m., and emailed to Mr. Kole less than a minute later at 10:39:11 a.m.

The contemporaneous creation of files with the same names and sizes as the StreetFax Contract on the Seagate Hard Drive corroborates that the pages of the StreetFax Contract were scanned to that hard drive on the morning of March 3, 2004 and sent to Mr. Kole using the computer containing the Seagate Hard Drive shortly thereafter.

### 2. March 4-5, 2004 Emails from Jim Kole Support the Authenticity of the StreetFax Emails

In its review of Mr. Ceglia's Gmail (paulceglia@gmail.com) account, obtained pursuant to Mr. Ceglia's consent, Stroz Friedberg identified a June 30, 2011 email from Jessica Ceglia, Mr. Ceglia's niece, to Mr. Ceglia. Attached to this email are photographs of paper documents. One of the photographs is of a printout of an email chain sent on March 4-5, 2004, involving Mr. Ceglia, Mr. Kole, and Karin Petersen, a former StreetFax employee. The printout appears to have been printed by Mr. Kole, as the top of the document, where Microsoft Outlook identifies the name of the user whose account was used to print the email, reads "Kole, James D."



Kole, James D.

I think I'll just make a veiled reference to payments that could be made if he settles the matter as a businessman rather than a cyber-briber. PLEASE, PLEASE fax me the contract as I can't read the one sent earlier to understand his or your breach [illegible] argume

From: paul ceglia [paulceglia@msn.com]
Sent: Friday, March 05, 2004 11:44 AM
To: jkole@sidley.com
Subject: RE: marks undone work

Hi Jim,

Funds are indeed very tight right now and my concern about sending mark money is two fold, first if I send him cash then I wont have money to give to another IT person and second are we jeopardixzing ourselves by offering him money on a contract that so clearly staes we owe him nothing? Mabe I am a littel to emotionally charged about this but I think that after him illegally removing functionallity form the site that I dont want to pay this kid another dime. I am open to reason though. All the best, Paul

>From: "Kole, James D." <jkole@sidley.com>
>To: "'paul ceglia'" <paulceglia@msn.com>
>CC: "'kpetersen@streetfax.com'" <kpetersen@streetfax.com>
>Subject: RE: marks undone work
>Date: Thu, 4 Mar 2004 10:15:44 -0600
>
>Paul,
>
>Karin suggested she could use some more time to back-up all files, etc.,
>and
>I suspect the brat programmer will turn to this over the weekend, so I
>suggest that I send out the letter Friday afternoon. If you have any cash
>to spare now, I would be happy to include in the letter a statement that I
>have a payment for him that I will hold in escrow until he provides his
>written assurance that he will not access or disable any portion of the
>site. If you have the cash to do that, it makes you appear even more
>reasonable, if we have to start a lawsuit. Obviously, a lawsuit is only a
>worst worst case plan, but if he carries through on his threats, we may
>need
>to get a court order to stop his trespasses. Let me know your thoughts and
>I'll fire away, Jim
>
>-----Original Message-----
>From: paul ceglia [mailto:paulceglia@msn.com]
>Sent: Thursday, March 04, 2004 9:49 AM
>To: jkole@sidley.com
>Subject: RE: marks undone work
>
>
>Hi Jim Looks great. Much less threatening than I could have mustered. Do
>you
>
>think at this point it i still wise to pay him the money he requests or are
>you just breaking up the battle into skirmishes? Ill be on my tmail account
>the rest of the day heading up to the cemetery. pceglia@tmail.com
>thanks for jumping on this.
>
>I would say to your wonderful holdiay card that it has also been a great
>pleasure geeting to know you as well. It sounds like you are really
>enjoying being back in Chicago. I hope we manage to cover it this summer.
>All the best, Paul
>
>
> >From: "Kole, James D." <jkole@sidley.com>
> >To: "'Karin Petersen'" <kpetersen@streetfax.com>,"'paulceglia@msn.com'"
> ><paulceglia@msn.com>

1

**Fig. 4: Photograph of Printed March 4-5, 2004 Email Chain**

Mr. Kole's printout of the email chain contains a handwritten note in the upper-right margin. The handwritten note reads as follows: "I think I'll just make a veiled reference to payments that could be made if he settles the matter as a businessman rather than a cyber-briber. PLEASE, PLEASE fax me the contract as I can't read the one sent earlier to understand his or your breach [crossed-out text] argume[cutoff text]."

This document is significant because it is evidence that Mr. Kole earlier had received a copy of the contract between Mr. Ceglia and Mr. Zuckerberg that was difficult to read. As noted above, the copy of the StreetFax Contract attached to the March 3, 2004 emails to Mr. Kole is a low-quality scanned image. Thus, the handwritten note on the printout of the March 4-5, 2004 email chain corroborates the authenticity of the StreetFax Emails.

# VIII. The StreetFax Contract (Sidley Austin)

## A. Sidley Austin Produced Copies of the StreetFax Emails and the Attached StreetFax Contract

Stroz Friedberg also was provided copies of the StreetFax Emails from Sidley Austin, the law firm for which Stroz Friedberg understands Mr. Kole worked when Mr. Ceglia sent him the StreetFax Emails. The StreetFax Emails were sent to Sidley Austin's domain, sidley.com. Stroz Friedberg further understands that these copies of the StreetFax Emails were produced by Sidley Austin pursuant to a subpoena authorized by the Court.

## B. The StreetFax Emails Are Identical to the Ceglia Copies

Stroz Friedberg conducted a visual comparison of the copies of the StreetFax Emails on the Ceglia Media and the StreetFax Emails produced by Sidley Austin. Stroz Friedberg determined that the two copies appeared to be identical.

Stroz Friedberg then conducted an analysis of the sender, recipient, sent on, and subject metadata, as well as the content and attachments, of the two sets of StreetFax Emails. Stroz Friedberg determined that the metadata, the content, and the attachments of the two sets of StreetFax Emails matched. This was expected, given that the copies constitute two halves of an email correspondence – the sender's side and the recipient's side.

In addition, Stroz Friedberg conducted an automated comparison of the attached pages of the StreetFax Contract produced by Sidley Austin and the attached pages of the StreetFax Contract found on the Ceglia Media. This comparison was done by generating hash values for the TIFF image files. A hash value is a digital fingerprint of a file generated by running the contents of a file or other electronic data set through a cryptographic algorithm to produce a string of alphanumeric characters. If two electronic files differ even by a single bit, they would have different hash values.

Stroz Friedberg confirmed that the attached pages of the StreetFax Contract produced by Sidley Austin and the attached pages of the StreetFax Contract found on the Ceglia Media have matching hash values and that they are identical. Again, this was expected, since these come from the two sides of the same email correspondence.

## C. The Internet Headers of the StreetFax Emails Confirm That They Were Routed Through Sidley Austin's and Adelphia's Servers on March 3, 2004

The Internet headers of the StreetFax Emails confirm that those emails were sent and received on March 3, 2004 through servers used by Adelphia and Sidley Austin.

When an email message is transmitted across the Internet from the sender to a recipient, each server that is used in the transmission affixes to the header information of the email the date and time when the email message was received by the server. This information can be used to reconstruct an email message's path through the Internet, as it shows both what servers were used to transmit the email along its path from sender to recipient and the date and time of the transmission.

The Internet header related to the email's transmission is affixed to the email message by the servers through which the email passes, not the computer used to send or receive the email. This means that the Internet header information related to the transmission of the StreetFax Emails was affixed by servers controlled by Adelphia and Sidley Austin and is not dependent on the date and time settings of the computers used by Mr. Ceglia or Mr. Kole. The Internet header thus provides additional information to establish the authenticity of the StreetFax Emails.

### 1. The Internet Header of the StreetFax Email Sent At 10:37 a.m.

The earlier of the two StreetFax Emails was sent at 10:37 a.m. Eastern Standard Time and had the subject "page 1 of 2 for Streetfax contract w mark." The Internet header of that email confirms the following:

- The email was sent from a computer with the IP address 24.53.222.222 to a server at adelphia.net and received by that server at 10:37:10 a.m. Eastern Standard Time on March 3, 2004. Records obtained from Adelphia demonstrate that the adelphia.net account used to send the StreetFax Emails was registered to Carmine Ceglia. In his October 24, 2011 declaration, Mr. Ceglia identified this account as belonging to his parents (Ceglia October 24, 2011 Declaration, Doc. No. 180, at ¶ 8(b)).

- The email then was sent from the Adelphia server to a server at sidley.com and received by that sidley.com server at 9:38:01 a.m. Central Standard Time on March 3, 2004. The sidley.com server is used by Sidley Austin, the law firm where Stroz Friedberg has been informed that Mr. Kole worked and had an email address at the time.

- The email then was routed internally from one Sidley Austin server (mail02) to another (chexchange04) and received by the Sidley Austin server chexchange04 at 9:38:08 a.m. Central Standard Time on March 3, 2004.[8]

The Internet header related to the transmission of the 10:37 a.m. StreetFax Email produced by Sidley Austin appears below:

```
Received: from mail02.sidley.com (MAIL02 [10.16.4.97]) by chexchange04.sidley.com with SMTP
(Microsoft Exchange Internet Mail Service Version 5.5.2654.52)
        id FNLSNFD1; Wed, 3 Mar 2004 09:38:08 -0600
Received: from 68.168.78.199 by mail02.sidley.com with SMTP (Tumbleweed
 MMS SMTP Relay); Wed, 03 Mar 2004 09:38:01 -0500
Received: from youro0kwkw9jwc ([24.53.222.222]) by mta9.adelphia.net (
 InterMail vM.5.01.06.05 201-253-122-130-105-20030824) with SMTP id
 <20040303153710.ELGV26462.mta9.adelphia.net@youro0kwkw9jwc> for
 <jkole@sidley.com>; Wed, 3 Mar 2004 10:37:10 -0500
```

**Fig. 5: Internet Header of 10:37 a.m. StreetFax Email Produced by Sidley Austin**[9]

The second of the two StreetFax Emails was sent at 10:39 a.m. Eastern Standard Time and had the Subject "2 of 2 for streetfax contract." The Internet header of that email confirms the following:

- The email was sent from a computer with the IP address 24.53.222.222 to a server at adelphia.net and received by that server at 10:39:06 a.m. Eastern Standard Time on March 3, 2004.

- The email then was sent from the Adelphia server to a server at sidley.com and received by that sidley.com server at 9:41:30 a.m. Central Standard Time on March 3, 2004.

[8] Due to the time it takes for an email to traverse the Internet from one server to another, it is common for there to be small differences between the time an email is sent by one server and the time it is received by another.

[9] The Sidley Austin server named mail02.sidley appears to be set to the Central time zone, as the time it appended to this Internet header (9:38:01 a.m.) is approximately one hour earlier than the time appended by the Adelphia server (10:37:10 p.m.), which resided in the Eastern time zone. However, the offset indicates that the time zone is set to Eastern time. The server time and time zone are separate fields that can be set independently. Thus, the likely explanation is that while the server time was correctly set and reflects the actual time in the Central time zone, the time zone setting was incorrectly set to Eastern time.

- The email then was routed internally from one Sidley Austin server (mail01) to another (chexchange03) and received by the Sidley Austin server chexchange03 at 9:43:01 a.m. Central Standard Time on March 3, 2004.

The Internet header related to the transmission of the 10:39 a.m. StreetFax Email produced by Sidley Austin appears below:

```
Received: from mail01.sidley.com ([10.16.4.89]) by chexchange03.sidley.com with SMTP
(Microsoft Exchange Internet Mail Service Version 5.5.2653.13)
          id FNL7R89V; Wed, 3 Mar 2004 09:43:01 -0600
Received: from 68.168.78.199 by mail01.sidley.com with SMTP (Tumbleweed
 MMS SMTP Relay); Wed, 03 Mar 2004 09:41:30 -0500
Received: from youro0kwkw9jwc ([24.53.222.222]) by mta9.adelphia.net (
 InterMail vM.5.01.06.05 201-253-122-130-105-20030824) with SMTP id
 <20040303153906.EMRF26462.mta9.adelphia.net@youro0kwkw9jwc> for
 <jkole@sidley.com>; Wed, 3 Mar 2004 10:39:06 -0500
```

**Fig. 6: Internet Header of 10:39 a.m. StreetFax Email Produced by Sidley Austin[10]**

The Internet header information for the StreetFax Emails establishes that the email messages from Mr. Ceglia to Mr. Kole were sent and received on the morning of March 3, 2004, which is the same as the sent and received date shown on the faces of the StreetFax Emails. In addition, this evidence confirms that the servers used in the transmission were associated with Adelphia, the service provider for the email account used by the sender, and Sidley Austin, the employer of the recipient, of the StreetFax Emails.

In addition to containing the dates and times at which the emails were transmitted from Adelphia's servers to Sidley Austin's servers, the Internet headers of the emails also contain detailed information about the servers used in the transmission of the messages, including the name and version of the software used by the servers. For example, the Internet headers above show that the Sidley Austin servers chexchange04.sidley.com and chexchange03.sidley.com are running Microsoft Exchange Internet Mail Service ("Microsoft Exchange"), versions 5.5.2654.52 and 5.5.2653.13 respectively. Microsoft Exchange version 5.5 was released in November 1997, and version 5.5.2653 was released in November 2000. Furthermore, the message IDs for the StreetFax Emails, which are <20040303153710.ELGV26462.mta9.adelphia.net@youro0kwkw9jwc> for the 10:37 a.m. email and <20040303153906.EMRF26462.mta9.adelphia.net@youro0kwkw9jwc> for the 10:39 a.m. email, are

[10] The server mail01.sidley also appears to have an incorrect time zone setting.

distinct and appear to contain timestamps that are consistent with the times that the emails were sent.[11] These details are important corroborating evidence of the authenticity of the emails, as the names and versions of the software being run are consistent with the software and versions that could have been running on Sidley Austin's servers in March 2004.

### D. The Metadata of the PST File in Which the StreetFax Emails Were Located Supports the Authenticity of the Emails

Sidley Austin produced the StreetFax Emails within a PST file, which is a Microsoft Outlook container file used to store multiple Microsoft Outlook items such as messages, calendar items, and contacts. A PST file contains metadata about the messages stored within it, as well as the metadata contained within the messages themselves.

Specifically, the PST file shows that the StreetFax Emails were forwarded on March 3, 2004 between 10:47 a.m. and 10:48 a.m. Eastern Standard Time, approximately 10 minutes after Mr. Kole received these emails. No information was provided regarding the indentity of the person or persons to whom Mr. Kole forwarded those emails. This means that Mr. Kole had to have received the StreetFax Emails prior to March 3, 2004 at 10:47 a.m. Eastern Standard Time, as he could not have forwarded them prior to receiving them.

In addition, the file system metadata of the PST shows that it was created on January 27, 2006 and last modified on February 20, 2007.[12] As such, the StreetFax Emails existed in the PST no later than February 20, 2007. Since the StreetFax Emails were sent and received on March 3, 2004, Stroz Friedberg would expect the last modified date of the PST file at Sidley Austin file to post-date that date, which is the case here.

---

[11] The timestamps in the message IDs appear to be listed in Coordinated Universal Time, which is five hours ahead of Eastern Standard Time. For example, 10:37 a.m. Eastern Standard Time would correspond with 3:37 p.m. Coordinated Universal Time.

[12] PST files can be created by users to manage email in a variety of ways, including (1) to store related emails (e.g., all emails related to StreetFax); or (2) to reduce the size of an online mailbox in response to size limitations or for other reasons. Thus, it is common to see a PST file whose creation date post-dates the sent or received date of some or all of the emails it contains.

## IX. The Purported Emails (Ceglia Media)

Mr. Ceglia's Amended Complaint purports to quote from or otherwise reference 22 Purported Emails between Mr. Ceglia and Mr. Zuckerberg. During the litigation, Mr. Ceglia acknowledged that he did not keep the Purported Emails referenced in the Amended Complaint in their original native form, that is to say, as individual files in message format. Rather, he claimed to have copied-and-pasted the text of the Purported Emails into Microsoft Word documents saved to floppy disks in order to maintain copies of these messages, as he claimed he did not know of any other way to preserve emails. (Ceglia June 12, 2011 Declaration, Doc. No. 65, at ¶ 11). Mr. Ceglia also claimed to have performed this copy-and-paste process in 2003 and 2004, "[d]uring and just after [he] discontinued regular email communication with Mr. Zuckerberg." (Ceglia November 17, 2011 Declaration, Doc. No. 225, at ¶¶ 5, 7).

During its analysis of the Ceglia Media, Stroz Friedberg searched for the Purported Emails quoted or otherwise referenced in the Amended Complaint and identified the emails as existing only in three Word documents, which are attached to this report as Exhibits I, J, and K. The Purported Emails in these Word documents had content that resembled the text quoted in the Amended Complaint. Stroz Friedberg did not identify any copies of the Purported Emails in email format files.

Specifically, Stroz Friedberg identified three files containing the text of 27 purported emails: (1) "Mark emails july04.doc," containing three purported emails between Mr. Zuckerberg and Mr. Ceglia, dated between April 6, 2004 and July 22, 2004; (2) "Mark harvard emails up to Dec.doc," containing nine purported emails between Mr. Zuckerberg and Mr. Ceglia, dated between July 30, 2003 and November 30, 2003; and (3) "mark feb emails.doc," containing fifteen purported emails between Mr. Zuckerberg and Mr. Ceglia, dated between January 1, 2004 and February 7, 2004. These three files were produced on two media: (1) a floppy disk produced in Chicago, Illinois; and (2) a CD produced in Sarasota, Florida.[13]

Mr. Ceglia claims to have copied-and-pasted the text of the 27 purported emails to Word documents that were then saved to a floppy disk in 2003 and 2004, when the purported emails supposedly were sent and received. Specifically, in Mr. Ceglia's November 17, 2011 declaration, he stated that he "saved those files to floppy disks." (Ceglia November 17, 2011 Declaration, Doc. No. 225, at ¶ 8). This floppy disk appears to be one of the floppy disks copied by John Evans,[14] one of Mr. Ceglia's retained experts, and subsequently analyzed by another of Mr. Ceglia's forensic experts, Jerry Grant. In his November 16,

[13] The files are not exact duplicates and do not have the same hash values on each media. However, it appears from a manual inspection that the content of each document on each media is the same.

[14] In his June 17, 2011 declaration, Mr. Evans stated, "[o]ne of the floppy disks in PLA's custody, as collected and imaged from Mr. Ceglia, contains three Microsoft Word documents containing what I understand to be email communications between Mr. Ceglia and Mr. Zuckerberg relating to the issues in this case." (Evans June 17, 2011 Declaration, Doc. No. 61, at ¶ 8).

2011 declaration, Mr. Grant states that he "received 41 floppy disks for review" and "determined that the first 2 were relevant to this matter." (Grant November 16, 2011 Declaration, Doc. No. 226, at ¶¶ 9, 10).

Stroz Friedberg found substantial evidence that all three of the Word documents containing the purported emails are backdated. The effect of backdating is to obscure the true date and time at which computer activity, such as the creation or modification of documents, occurred. Backdating can be accomplished by setting the system clock on a computer hard drive to an earlier date, such that activity that occurs on the hard drive while the computer is in a backdated state will appear to have occurred at that earlier time.

In addition, the text of the Purported Emails themselves demonstrates that they are fabricated.

## A. All Three Word Documents Containing the Text of the Purported Emails Are Backdated

Mr. Ceglia produced three unique Microsoft Word documents – "Mark emails july04.doc," "Mark harvard emails up to Dec.doc," and "mark feb emails.doc" – containing the text of 27 purported emails, all of which were backdated.

### 1. The Word Document "Mark emails july04.doc"Has Been Backdated

As noted above, the Word document "Mark emails july04.doc" contains the text of three purported emails that supposedly were sent and received between April 6, 2004 and July 22, 2004. However, Stroz Friedberg found substantial evidence that there were multiple versions of this file, some of which were backdated.

Stroz Friedberg found five entries related to this file on a floppy disk produced in Chicago, Illinois, one of which relates to an active file and the remaining four of which relate to deleted versions of the file. The active file purports to have been created, last modified, and last accessed[15] on July 23, 2004. However, two of the records related to deleted copies have file created timestamps from an earlier date, October 21, 2003, as follows:

| File Name | State | File Created | Last Written | Last Accessed |
|---|---|---|---|---|
| Mark emails july04.doc | Active | 07/23/2004 09:46:51 AM | 07/23/2004 06:24:28 PM | 7/23/2004 |
| Mark emails july04.doc | Deleted | 10/21/2003 11:52:59 AM | 10/21/2003 11:53:00 AM | 10/21/2003 |
| Mark emails july04.doc | Deleted | 10/21/2003 11:53:49 AM | 07/23/2004 10:18:50 AM | 10/21/2003 |

[15] No time values are available for this metadata field as the FAT file system on the floppy disk does not maintain that information.

This metadata anomaly constitutes evidence of backdating because a file that was last modified in October 2003 could not contain authentic emails from July 2004. It also is highly unlikely that this file would be named "Mark emails july04.doc" if it actually had been created and last modified in October 2003. This metadata anomaly likely resulted from at least one copy of the file named "Mark emails july04.doc" having been saved using a computer with a system clock backdated to October 21, 2003.

Moreover, the existence of multiple copies of this and other files is significant in and of itself. It is Stroz Friedberg's experience that in the process of creating a forged electronic document, the forger frequently creates and deletes multiple versions of the document being forged. These versions often evidence metadata anomalies and reflect iterative attempts to backdate or forge the documents.

### 2. The Word Document "Mark harvard emails up to Dec.doc" Has Been Backdated

The Word document "Mark harvard emails up to Dec.doc" contains the text of nine purported emails that supposedly were sent and received between July 30, 2003 and November 30, 2003. This document contains the same metadata anomaly as the file named "Mark emails july04.doc."

Stroz Friedberg found seven entries related to this file on a floppy disk produced in Chicago, Illinois. One of the seven entries relates to an active file and the remaining six relate to deleted versions of the file. The active file purports to have been created, last modified, and last accessed on July 23, 2004. However, two of the records related to deleted copies indicate that the file was created, last modified, and last accessed on the earlier date of October 21, 2003, as follows:

| File Name | State | File Created | Last Written | Last Accessed |
|---|---|---|---|---|
| Mark harvard emails up to Dec.doc | Active | 07/23/2004 09:47:01 AM | 07/23/2004 06:15:54 PM | 7/23/2004 |
| Mark harvard emails up to Dec.doc | Deleted | 10/21/2003 11:54:12 AM | 10/21/2003 11:54:14 AM | 10/21/2003 |
| Mark harvard emails up to Dec.doc | Deleted | 10/21/2003 11:54:49 AM | 10/21/2003 11:54:50 AM | 10/21/2003 |

Again, a document that was last modified in October 2003 could not contain authentic emails from December 2003. It also is highly unlikely that this file would be named "Mark harvard emails up to Dec.doc" if it actually had been created and last modified in October 2003. This discrepancy likely resulted from the files having been saved with a computer whose system clock had been backdated to October 21, 2003, which is the same date as the deleted version of "Mark emails july04.doc" was saved.

### 3. The Word Document "mark feb emails.doc" Has Been Backdated

The Word document "mark feb emails.doc" contains the text of fifteen purported emails that supposedly were sent and received between January 1, 2004 and February 7, 2004. Mr. Ceglia produced this Word document on a floppy disk in Chicago, Illinois. The file "mark feb emails.doc" has a purported creation date of July 23, 2004. However, when Stroz Friedberg reviewed records of deleted files on the floppy disk, it discovered a metadata anomaly.

Specifically, the floppy disk contains a record of a deleted version of the file "mark emails 082903.doc." That deleted file has a last accessed date of February 18, 2011, which indicates that the file was deleted on or after that date. The metadata of the files on the floppy disk shows that no files were added to or modified on the floppy disk since July 23, 2004. This fact, and the fact that a copy of "mark emails 082903.doc" was deleted on or after February 18, 2011, are not consistent with the amount of disk space available on the floppy disk.

The deleted version of "mark emails 082903.doc" was 17,128 bytes in size. Therefore, there should be at least 17,128 bytes of free space available on the floppy disk, since no files have been added to the disk or modified after February 18, 2011, the date the file was deleted. In fact, according to the metadata, no files have been added to, or modified on, the floppy disk since July 23, 2004. However, the floppy disk is almost full and only has 2,048 bytes of free space available. Thus, the actual amount of available disk space reflects usage that is inconsistent with the dates and times in its metadata. This anomaly demonstrates that data was added to the floppy disk on or after February 18, 2011 and that the dates and times of files on this floppy disk are not accurate and have been backdated.

Moreover, the deleted file "mark emails 082903.doc" sat in the same location on the floppy disk where the active file "mark feb emails.doc" now sits. Since data can only be written to available disk space, the file "mark feb emails.doc" could not have been saved to the floppy disk until the file that previously resided in the location where it was saved – "mark emails 082903.doc" – had been deleted. The file "mark emails 082903.doc" was not deleted until on or after February 18, 2011, meaning that the file "mark feb emails.doc" was added to the floppy disk after that date. Consequently, the purported July 23, 2004 creation date for that file is incorrect and provides further evidence of backdating.

Thus, the file "mark feb emails.doc" likely was created on the floppy disk sometime on or after February 18, 2011, using a computer whose system clock was backdated to July 23, 2004.

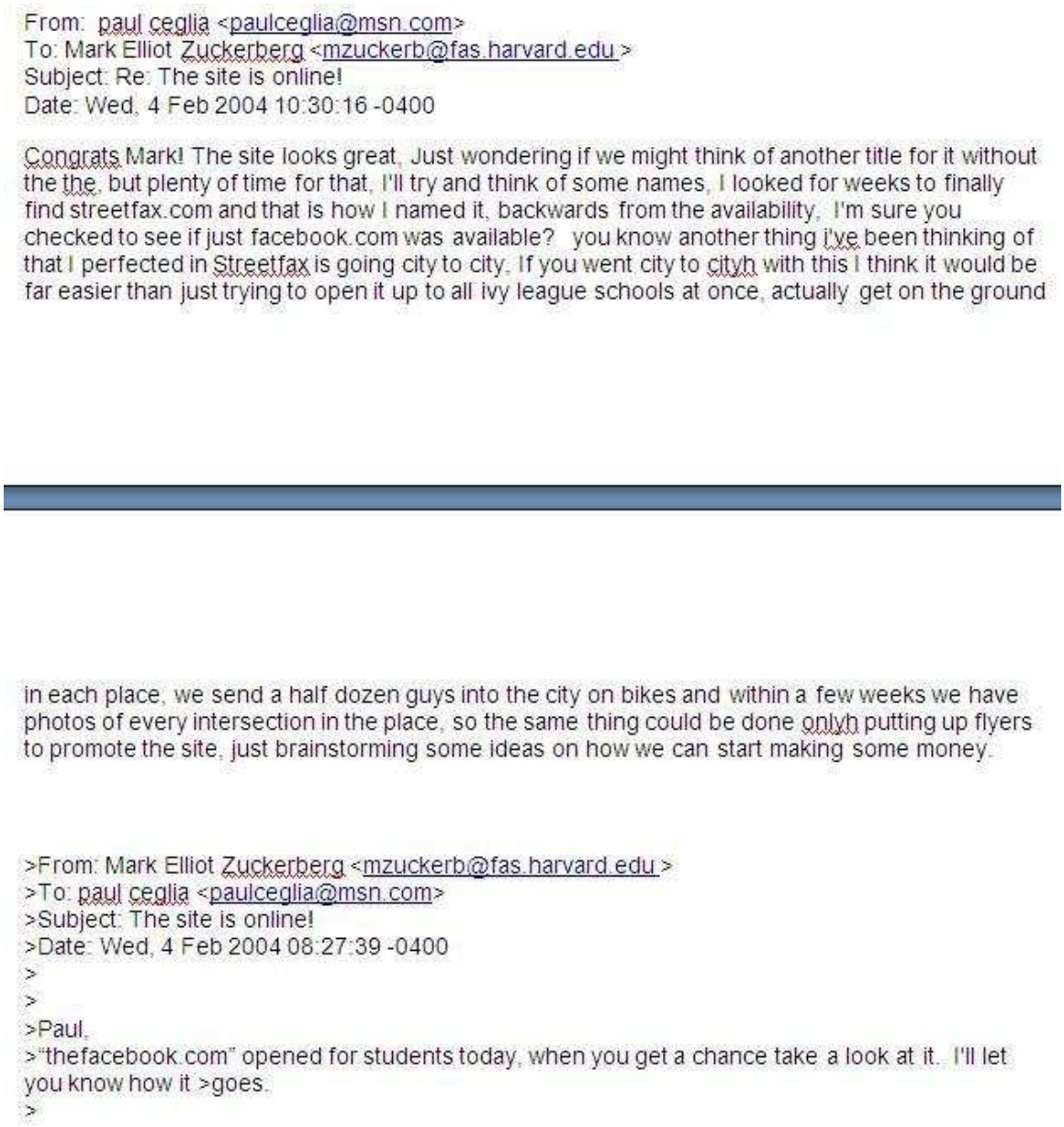
## B. The Purported Emails Contain the Wrong Time Zone Stamps

In addition to the backdated Microsoft Word documents containing the Purported Emails, the text of the Purported Emails themselves constitutes substantial evidence that they are fabricated.

Each of the purported emails contains a "Date" line that contains the date and time the email was purportedly sent, a line that is normally automatically added to an email by the computer's system clock. At the end of each "Date" line, the time zone that the email was purportedly sent in is indicated with an offset of the format "+HHMM" or "-HHMM." HHMM indicates hours and minutes from Coordinated Universal Time ("UTC"); the + or – indicates whether the time zone is before or after Coordinated Universal Time. For example, Eastern Daylight Time is represented as "-0400" and Eastern Standard Time is represented as "-0500."

Standard time was in effect in the United States from late October 2003 to early April 2004. Thus, one would expect that authentic emails sent during that time period from a location in the Eastern Time Zone would contain the "-0500" stamp, in the absence of an inaccurate system clock. However, all but one of the 27 purported emails contain the "-0400" time zone stamp for Eastern Daylight Time, including all of the purported emails supposedly sent between October 26, 2003 and April 4, 2004. There is no place in the Continental United States from which an email could have been sent with the "-0400" time zone stamp during this time period using a computer with an accurate and properly set system clock.

Below is an example of a purported email chain between Mr. Zuckerberg and Mr. Ceglia. This email chain purportedly occurred on February 4, 2004, when standard time and not daylight saving time was in effect. If these emails were authentic and, in fact, had been sent on February 4, 2004 during standard time, they would have the "-0500" time zone stamp reflecting Eastern Standard Time. However, these purported emails display the "-0400" time zone stamp reflecting Eastern Daylight Time, which, again, was not in effect on February 4, 2004.



From: paul ceglia <paulceglia@msn.com>
To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
Subject: Re: The site is online!
Date: Wed, 4 Feb 2004 10:30:16 -0400

Congrats Mark! The site looks great. Just wondering if we might think of another title for it without the the, but plenty of time for that. I'll try and think of some names. I looked for weeks to finally find streetfax.com and that is how I named it, backwards from the availability. I'm sure you checked to see if just facebook.com was available? you know another thing i've been thinking of that I perfected in Streetfax is going city to city. If you went city to cityh with this I think it would be far easier than just trying to open it up to all ivy league schools at once, actually get on the ground

in each place, we send a half dozen guys into the city on bikes and within a few weeks we have photos of every intersection in the place, so the same thing could be done onlyh putting up flyers to promote the site, just brainstorming some ideas on how we can start making some money.

>From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>To: paul ceglia <paulceglia@msn.com>
>Subject: The site is online!
>Date: Wed, 4 Feb 2004 08:27:39 -0400
>
>
>Paul,
>"thefacebook.com" opened for students today, when you get a chance take a look at it. I'll let you know how it >goes.
>

**Fig. 7: Screenshot of Purported Emails with -0400 Time Zone Stamp**

Put simply, Mr. Ceglia's purported emails dated between October 26, 2003 and April 4, 2004 display the time zone stamp reflecting Eastern Daylight Time. This would not be possible if the purported emails were authentic, as Eastern Standard Time was in effect at that time.

## C. The Purported Emails Are Inconsistently Formatted

The header information in the purported emails also is inconsistently formatted, which is significant because this information is automatically generated when an email is created, not typed by the user. As such, if the purported emails were authentic, the formatting of the headers should be consistent, since the purported emails were allegedly copied-and-pasted from the same source. The inconsistent formatting indicates that the purported emails were not copied-and-pasted from Mr. Ceglia's webmail, as he has asserted. (Ceglia November 17, 2011 Declaration, Doc. No. 225, at ¶ 7).

For example, the majority of the purported emails in the Word document "mark feb emails.doc" indicate the sender in the header information with a line starting "From: ", with a single space following the colon. This can be seen in the screenshot below, which is a copy of the header information from one of the Purported Emails with the formatting marks revealed:

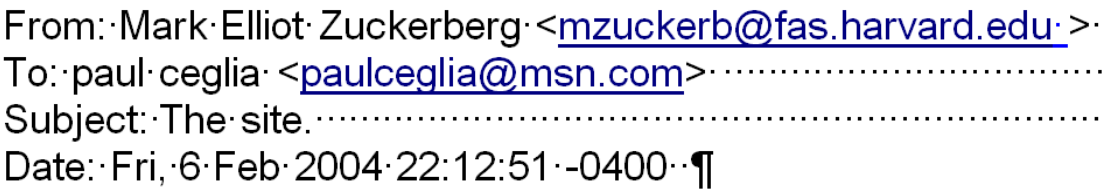



**Fig. 8: Screenshot of Purported Email with One Space After "From:"**

However, three emails in that same Word document indicate their sender with a line starting "From: ", with two spaces after the colon. An example of this can be seen in the screenshot below, which is a copy of the email header information from another one of the Purported Emails with the formatting marks revealed:

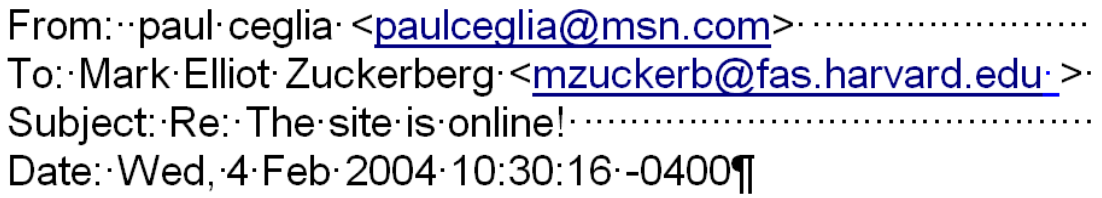



**Fig. 9: Screenshot of Purported Email with Two Spaces After "From:"**

A similar inconsistency appears in the purported emails in regard to the number of spaces after the colon in the "To" field. Various purported emails show one, two, or three spaces after the colon in the "To" field. For instance, in the two screenshots shown above in Figures 8 and 9, there is one space following the

colon in the “To” field. However, in the two purported emails shown below, shown with their header information and formatting remarks revealed, there are two or three spaces following the colon in the “To” field:

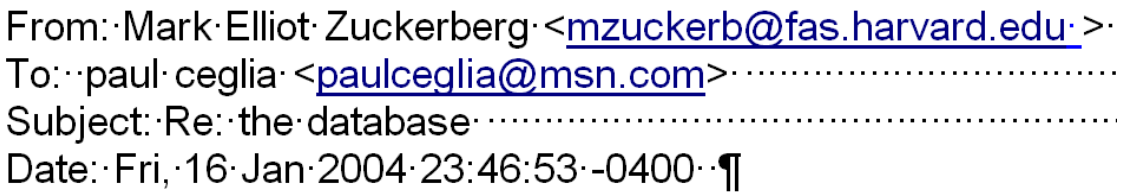



**Fig. 10: Screenshot of Purported Email with Two Spaces After “To:”**


**Fig. 11: Screenshot of Purported Email with Three Spaces After “To:”**

If the purported emails were actually copied-and-pasted from one authentic source, such as Mr. Ceglia’s MSN account, these inconsistencies in spacing in the “From” and “To” fields would not exist.

Similarly, the word “Tuesday” is inconsistently abbreviated in the automatically-generated headers of the purported emails. In some of the purported emails, the word is abbreviated “Tue”. This can be seen in the screenshot below, which is a copy of the header information from one of the Purported Emails with the formatting marks revealed:

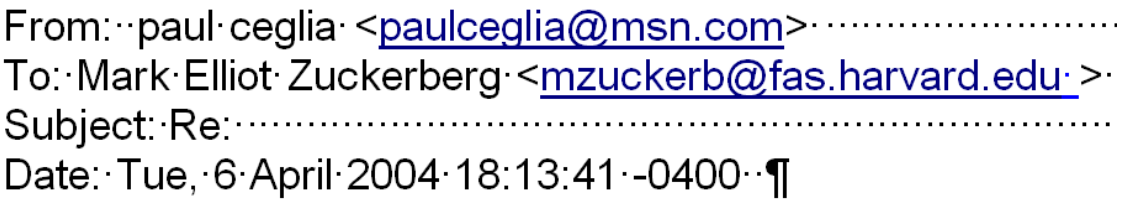



**Fig. 12: Screenshot of Purported Email with the Abbreviation “Tue”**

However, in other purported emails, the word Tuesday is abbreviated “Tues”. This can be seen in the screenshot below, which is a copy of the header information from another one of the Purported Emails with the formatting marks revealed:

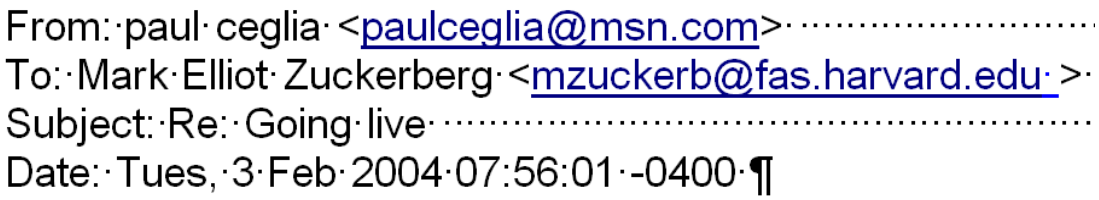



**Fig. 13: Screenshot of Purported Email with the Abbreviation “Tues”**

This internal inconsistency between “Tue” and “Tues” should not exist if the purported emails actually were copied-and-pasted from one authentic source.

Moreover, the “Tues” abbreviation for Tuesday, which appears in the email excerpted in figure 13 above, is inconsistent with the way that MSN actually abbreviates Tuesday. MSN abbreviates “Tuesday” as “Tue”. Therefore, the abbreviation “Tues” should not appear in any emails copied-and-pasted from MSN.

In addition, these screenshots show one other significant and revealing formatting discrepancy. Figure 9 has a paragraph symbol immediately following the time zone indicator (-0400), which would be expected if the purported emails were actually copied-and-pasted from one authentic source. However, Figure 13 shows one space before the paragraph symbol, while Figures 8, 10, and 12 show two spaces before the paragraph symbol. Moreover, Figure 11 has a long series of spaces to the end of the line. These additional spaces before the paragraph symbol are anomalous; moreover, the number of spaces should be consistent among authentic emails copied-and-pasted from one authentic source. This discrepancy is further evidence that these purported emails were either manually typed or edited and were not solely the result of a copy-and-paste operation.

Finally, all four screenshots have an extra space between the end of Mr. Zuckerberg’s email address (mzuckerb@fas.harvard.edu) and the closing angle bracket (“>”). If these purported emails actually were copied-and-pasted, there should not be such a space. Thus, the extra space is additional evidence that the purported emails were not the result of a copy-and-paste operation.

## X. The Purported Emails (Webmail Accounts)

Pursuant to the Court's Orders, subpoenas, and/or Mr. Ceglia's consent, Stroz Friedberg acquired the following webmail accounts for Mr. Ceglia:

(1) paulceglia@msn.com; and
(2) paulceglia@gmail.com.

In addition, the contents of the following webmail accounts were produced to Stroz Friedberg pursuant to Court Orders, subpoenas, and/or Mr. Ceglia's consent:

(1) paulceglia@msn.com;
(2) paulceglia@gmail.com;
(3) getzuck@gmail.com;
(4) alleganypellets@gmail.com; and
(5) landlubber39@yahoo.com.

Stroz Friedberg searched these webmail accounts for copies of the purported emails quoted or otherwise referenced in the Amended Complaint. Stroz Friedberg did not identify any of these messages in native format.

Mr. Ceglia has also been ordered to consent to the acquisition and inspection of the webmail account, paulc@hush.com, the contents of which Stroz Friedberg expects to receive.

# XI. Seven Backdated Versions of the Work for Hire Document

During its analysis of the Ceglia Media, Stroz Friedberg searched for, and did not identify, any exact electronic copies of the Work for Hire Document attached to the Amended Complaint. The absence of an electronic copy is notable because, as described above, Mr. Ceglia claimed in Court to have printed the contract. In addition, Mr. Ceglia emailed the Work for Hire Document on two occasions in the days before filing this lawsuit: once on June 27, 2010 to Paul Argentieri, and once on June 29, 2010 using his Gmail (paulceglia@gmail.com) account to Karin Peterson. Thus, the Work for Hire Document existed in electronic form at some point close in time to the filing of this litigation, and Stroz Friedberg would have expected to find it on one of the electronic assets that Mr. Ceglia was ordered to produce for inspection.

Instead of the Work for Hire Document attached to the Amended Complaint, Stroz Friedberg found on the Ceglia Media seven unsigned versions of the Work for Hire Document that are very similar but not identical to the Work for Hire Document. All seven of those electronic documents contain metadata anomalies indicative of backdating and document manipulation.

## A. All Seven Versions of the Work For Hire Document Are Backdated

All seven versions of the Work for Hire Document found on the Ceglia Media show metadata anomalies indicative of backdating, which is an act of manipulating the system clock to make documents appear to have been created at an earlier time.

### 1. The File Named "SFWebWorkForHireMZ.doc" Has Been Backdated

Both the file system metadata of a file named "SFWebWorkForHireMZ.doc," and its location on the floppy disk on which it was produced by Mr. Ceglia, show evidence of backdating.

As noted previously, the file system metadata indicates, among other things, the dates on which a file was last written to and last accessed. The last written timestamp shows the last time that a user modified, or made a change to, the document. The last accessed timestamp reflects the last time the file was opened, whether any changes were made to the document or not.

It is possible to open a file and update the last accessed date without updating the last written date. However, because a user must open a document to modify it, it is not possible to make changes to a

document and update the last written timestamp, without also updating the last accessed timestamp. For this reason, a file's last written timestamp should not post-date its last accessed timestamp.[16]

The document "SFWebWorkForHireMZ.doc" has the following metadata:

| File Name | File Created | Last Written | Last Accessed |
|---|---|---|---|
| SFWebWorkForHireMZ.doc | 05/02/2003 11:24:26 AM | 04/24/2003 03:06:22 PM | 4/22/2003 |

The fact that the document's last written date (April 24, 2003) is later than its last accessed date (April 22, 2003) indicates that backdating has occurred. Specifically, the document named "SFWebWorkForHireMZ.doc" was last accessed on a computer whose system clock had been backdated to April 22, 2003, the date reflected in the last accessed timestamp.

This evidence of system clock manipulation is not the only evidence of backdating related to the document "SFWebWorkForHireMZ.doc." The location of that file also is significant: "SFWebWorkForHireMZ.doc" is an active file that sits on top of and overwrote two deleted files on a floppy disk. This means that the two deleted files are no longer present on the floppy disk because a new file – "SFWebWorkForHireMZ.doc" – was created on the floppy disk in the same disk space, or physical location, previously occupied by the two deleted files.

When a file is written to a floppy disk, it cannot be written to disk space that currently is occupied by an active file. Instead, the file can only be written to available disk space. Disk space is considered available if it is empty or if the file currently residing in that space has been deleted. If an active file sits on top of and has overwritten a deleted file, the deleted file had to have been deleted before the active file was created on or copied to that disk space. As such, the two overwritten files had to have been deleted prior to the time that the "SFWebWorkForHireMZ.doc" document was created on the floppy disk.

The metadata associated with the "SFWebWorkForHireMZ.doc" and the two deleted files it overwrote is as follows:

| File Name | State | File Created | Last Written | Last Accessed |
|---|---|---|---|---|
| SFWebWorkForHireMZ.doc | Active | 05/02/2003 11:24:26 AM | 04/24/2003 03:06:22 PM | 4/22/2003 |
| Work for Hire ContractMZ.doc | Deleted | 04/25/2003 04:15:35 PM | 04/25/2003 07:38:06 PM | 2/18/2011 |
| Work for hire SF template.doc | Deleted | 04/25/2003 11:49:06 AM | 04/25/2003 01:38:10 PM | 2/18/2011 |

[16] It is possible for systems to be configured so that updates to last accessed timestamps are disabled. However, the close proximity between the last written and last accessed dates of files on floppy disks produced by Mr. Ceglia indicates that this condition does not apply for the documents discussed here.

When a file is deleted, the last accessed date timestamp is generally updated to the time of the deletion. This means that the "Work for Hire ContractMZ.doc" and "Work for hire SF template.doc" files were deleted on or after February 18, 2011. However, based on its creation date, the "SFWebWorkForHireMZ.doc" document was created on the floppy disk years earlier, on May 2, 2003. This active file, purportedly from 2003, cannot sit atop two files deleted in February 2011, absent some sort of system clock manipulation or other fabrication of the files.

Based on all of this metadata evidence, Stroz Friedberg concluded that the "SFWebWorkForHireMZ.doc" file was copied to this floppy disk on or after February 18, 2011, using a computer whose system clock was backdated to May 2, 2003, and then subsequently accessed on a computer whose system clock was backdated to April 22, 2003.

## B. The Six Other Versions of the Work For Hire Document Are Backdated

Stroz Friedberg identified six other modified versions of the Work for Hire Document on a CD produced by Mr. Ceglia in Sarasota, Florida. All of these documents display a similar metadata anomaly to the one described above: the last printed dates are later than their last modified dates, which is impossible absent system clock backdating:

| File Name | Last Modified | Last Printed |
|---|---|---|
| work for hire SF template.doc | 04/25/2003 07:47:58 AM | 2/15/2011 |
| Copy1_work for hire SF template.doc | 04/25/2003 07:50:52 AM | 2/15/2011 |
| Copy1_XWRL0003.TMP | 04/25/2003 07:50:52 AM | 2/15/2011 |
| Work for Hire ContractMZ.doc | 04/25/2003 12:16:12 PM | 2/15/2011 |
| XWRL0004.TMP | 04/25/2003 12:16:12 PM | 2/15/2011 |
| Copy1_Work for Hire ContractMZ.doc | 04/25/2003 03:38:06 PM | 2/15/2011 |

When a Microsoft Word document is printed, the embedded last printed date and time is updated to the current time. However, this updated embedded last printed date and time is only maintained in the file if the file is saved, which is an act that necessarily updates the last modified date and time as well. Absent system clock manipulation, the last printed date of a document cannot be later than the last modified date.

This metadata shows that these versions of the Work for Hire Document were printed on or after February 15, 2011, during the pendency of this litigation. In addition, at some point after February 15, 2011, again during the pendency of this litigation, the documents were accessed and saved on a computer whose

system clock was backdated to April 25, 2003, a date just prior to the supposed date of the contract on which Mr. Ceglia is suing. The backdated documents were then produced to Defendants.

### C. All Seven Versions of the Work For Hire Document Have Significant Formatting Differences Between Page 1 And Page 2

All seven electronic documents are similar to the Work for Hire Document in that they contain significant formatting differences between Page 1 and Page 2. Specifically, all seven versions of the Work for Hire Document contain margins and formatting on Page 1 that has been manipulated through the manual reduction of white space. Thus, more text characters can fit on Page 1 of these documents.

This formatting is evident in an examination of the margin settings of the documents in Microsoft Word. For example, while the margin between the columns on Page 2 of the "Work for Hire ContractMZ.doc" file is set to 0.32 inches, the margin between the columns on the Page 1 of that file is set much more narrowly to 0.03 inches. Furthermore, in this file the right-hand column on Page 1 is indented to the right by 0.13 inches, which increases the number of text characters that could fit on that page. Multiple-column, multiple-page documents do not exhibit such margin formatting discrepancies between page one and page two by default. Rather, such formatting discrepancies in a document likely result from manipulation of the margins by a user.

There also is a difference in the line spacing of the "Work for Hire ContractMZ.doc" file between the left and right columns on Page 1. While the left-hand column is configured to be single-spaced, a custom spacing of .99 spacing is applied to a portion of the right-hand column. This spacing, which is very unusual and is slightly tighter than single-spacing, allows more text to fit on the first page.

These formatting differences between Page 1 and Page 2 of the modified documents can be seen in this screenshot from the document “Work for Hire ContractMZ.doc”:

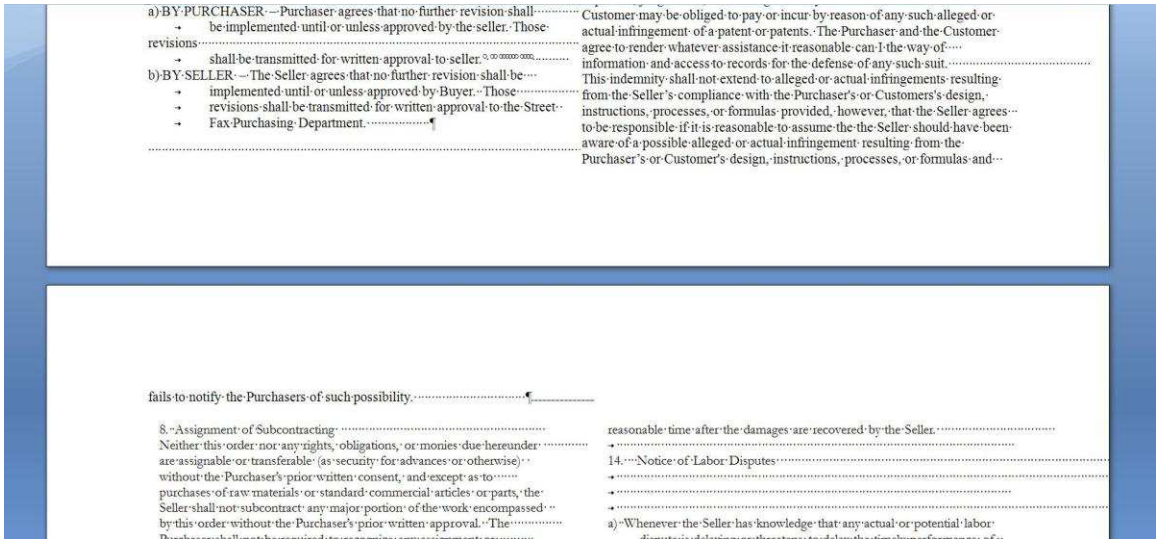



**Fig. 14: Screenshot Showing Document Manipulations**

## D. All Seven Versions of the Work For Hire Document Differ From Other Contracts Between StreetFax and Third-Parties Found on the Ceglia Media

Stroz Friedberg identified three other contracts related to StreetFax on the Ceglia Media, which corroborate the authenticity of the StreetFax Contract and demonstrate the inauthenticity of the Work for Hire Document.

Specifically, Stroz Friedberg found the files REDACTED and “2_work for hire SF template.doc” on the Ceglia Media. REDACTED, while the third document appears to be a template contract document for work on StreetFax by contractors. The contracts with Mr. Kato are dated May 5, 2003 and have file system metadata contemporaneous with this date. The template contract has metadata that is consistent with it being created on April 25, 2003. As such, these contracts are contemporaneous with the April 28, 2003 StreetFax Contract signed by Mr. Zuckerberg and Mr. Ceglia.

REDACTED

In addition, one of these documents, “2_work for hire SF template.doc,” has language that is similar to the StreetFax Contract. Specifically, the language in the “Payment Terms” section of the “2_work for hire SF template.doc” file is similar to the “Payment Terms” section of the StreetFax Contract.

REDACTED

REDACTED

On the other hand, the internal formatting of the Work for Hire Document and the seven versions of that document is unusual, is not consistent, and appears to have been manipulated to permit more text characters to fit on Page 1.

# XII. Other Evidence of Electronic Forgery

Stroz Friedberg found other evidence of electronic forgery on the Ceglia Media.

## A. One of the Versions of the Work for Hire Document Contains Metadata That Reveals Mr. Ceglia's Step-By-Step Construction of the Document

One of the seven versions of the Work for Hire Document previously discussed is the "Work for Hire ContractMZ.doc" file. The "Work for Hire ContractMZ.doc" file is a Microsoft Word file that contains what appears to be an unsigned copy of the Work for Hire Document. The document was produced by Mr. Ceglia on a CD and also was produced by Mr. Ceglia's attorney, Paul Argentieri.[17]

The "Work for Hire ContractMZ.doc" document contains "Last 10 Authors" metadata, which is information automatically preserved by older version of Microsoft Word concerning recent editing of the document. Specifically, this metadata lists the last ten users to edit the document, as well as the names and locations of the file when each user edited it. This metadata reveals who authored or edited a document, whether a document's name has been changed over time, and whether a final document was based on an earlier document.

The Last 10 Authors metadata of the "Work for Hire ContractMZ.doc" appears below:

| Author | Path |
|---|---|
| Computer User | C:\Documents and Settings\GRACE\Desktop\Maybe got it\Page 1\page1feb4threepm.doc |
| Computer User | C:\DOCUME~1\GRACE\Desktop\page1feb4threepm.doc |
| Computer User | C\DOCUME~1\GRACE\LOCALS~1\Temp\AutoRecovery save of MP1.asd |
| Computer User | C\DOCUME~1\GRACE\Desktop\merged\MP1and2.doc |
| Computer User | C:\Documents and Settings\GRACE\Desktop\merged\Zuck Contract.doc |
| Computer User | C:\DOCUME~1\GRACE\LOCALS~1\Temp\AutoRecovery save of Work for Hire Document.asd |
| Computer User | C:\DOCUME~1\GRACE\Desktop\CONTRA~1\Work for Hire Document.doc |
| Paul C | C:\Documents and Settings\GRACE\Desktop\Finished Docs\Work for Hire Document.doc |
| Paul C | C:\DOCUME~1\GRACE\Desktop\Work for Hire ContractMZ.doc |
| Paul C | A:\Work for Hire ContractMZ.doc |

**Fig. 15: Last Ten Authors Metadata of "Work for Hire ContractMZ.doc"**

[17] The file names of the two copies of the document are different. The document produced by Mr. Argentieri is named "Work for Hire ContractMZ.doc," while the document produced by Mr. Ceglia on a CD is named "Copy1_Work for Hire ContractMZ.doc." However, Stroz Friedberg determined that the files were identical based on a hash value comparison.

This Last 10 Authors metadata reveals how the "Work for Hire ContractMZ.doc" file was constructed. The first entry in the Last 10 Authors metadata shows a file called "page1feb4threepm.doc" saved in a folder on the user's desktop called "Maybe got it\Page 1." It then was saved as a new file, "MP1and2.doc," in a new desktop folder called "merged." It then was renamed as "Zuck Contract.doc," moved to a new desktop folder called "Finished Docs," and then renamed again as "Work for Hire Contract.doc." The document then was saved directly to the computer desktop and to a removable media device (e.g., a floppy disk) as "Work for Hire ContractMZ.doc" with an Author "Paul C."

Based on Stroz Friedberg's experience in electronic forgery cases, the names and paths in the Last 10 Authors metadata of the "Work for Hire ContractMZ.doc" file reveal an attempt to construct a fraudulent document. Specifically, this metadata suggests that the user "Paul C." created a two-page modified version of the Work for Hire Document, purportedly dated April 28, 2003, by merging separate pages together. The file name also indicates that the initial document was created or edited at 3:00 p.m. on February 4.[18] The earliest entry in the Last 10 Authors metadata shows the document as a file in a folder called "Maybe got it\Page 1."

Moreover, the last printed date of the document is February 15, 2011, while the document's last modified date is April 25, 2003. As discussed above, absent backdating or manipulation of the system clock, it is not possible for a file's last printed date to post-date its last modification date. Therefore, this document was fabricated on or after February 15, 2011. This date is years after the Work for Hire Document was allegedly signed and months after Mr. Ceglia filed this lawsuit.

Furthermore, an entry in the Last 10 Authors metadata of the "Work for Hire ContractMZ.doc" reveals that the document was prepared on another computer not yet disclosed or in a user folder later deleted. Specifically, the first path present in the Last 10 Authors metadata, "C:\Documents and Settings\GRACE\ Desktop\Maybe got it\Page 1\page1feb4threepm.doc," shows that the file was saved in a folder on the desktop of a user named "GRACE." None of the Ceglia Media, which consist of hundreds of pieces of media, including computers, hard drives, floppy disks, and CDs, contain a profile for a user named "GRACE." Thus, Stroz Friedberg determined that the "Work for Hire ContractMZ.doc" file was edited on a computer that was not produced, or on a computer that was produced but from which the "GRACE" user profile had been deleted.

[18] While the year is not present in the file, the February date reflected in the file name is inconsistent with the file being created in April 2003 and consistent with the file being created in February 2011. Moreover, the last printed date of February 15, 2011 establishes that the document was in use in February 2011.

## B. Use of a Hex Editor

Stroz Friedberg found evidence that a hex editor or similar tool was used on the Ceglia Media to alter electronic documents. A hex editor is a type of program that allows a user to edit the binary contents of a file, which is the raw data that makes up a file, rather than the text of the file. Hex editors often are used to create fraudulent electronic documents because they allow for the manipulation of data at a level that makes traditional digital forensic analysis of the alterations to the document more difficult, if not impossible, to detect.

### 1. Six Documents Created to Test the Effects of Using a Hex Editor

Among the documents Mr. Ceglia produced are six Microsoft Word files that were produced on a CD in Sarasota, Florida. The file names and paths of those documents appear below:

| File Path |
| --- |
| REDACTED |
| |
| |
| |
| |
| |

The file names, content, and metadata associated with these documents indicate that they were used to REDACTED

First, the file names and paths of the six documents suggest that they were created to REDACTED

Second, the contents of the documents indicate that they were created to REDACTED

REDACTED

In Stroz Friedberg's experience, electronic forgers commonly use such test documents to test and/or conceal the effects of manipulating a document with a hex editor or similar tool.

2. "SFWebWorkForHireMZ.doc"

The file "SFWebWorkForHireMZ.doc" – previously discussed as one of the seven backdated versions of the Work for Hire Document – also shows evidence of the use of a hex editor or similar tool. The document's Last 10 Authors metadata, described above with respect to a different document ("Work for Hire ContractMZ.doc"), displays differently when viewed programmatically and manually.

When viewed programmatically using a software utility like Metadata Assistant, which is a common way to view embedded metadata, the Last 10 Authors metadata of the document named "SFWebWorkForHireMZ.doc" appears as follows:

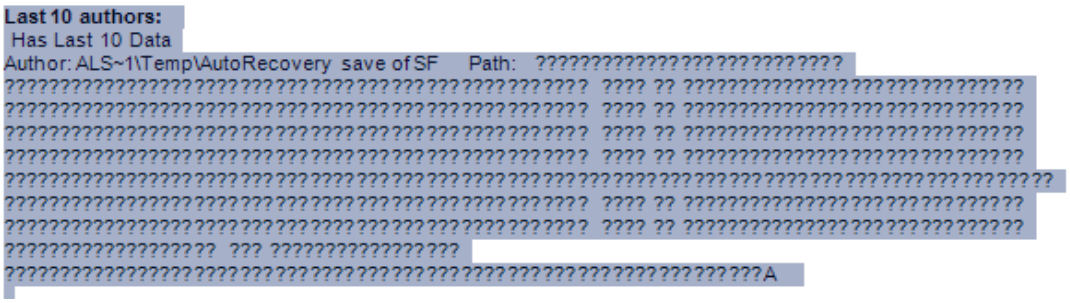



**Fig. 16: Last 10 Authors Metadata for SFWebWorkForHireMZ.doc Viewed with Metadata Assistant**

In contrast, when viewed manually using the tool EnCase Forensic, the embedded metadata shows that that the document named “SFWebWorkForHireMZ.doc” originated as a document in the folder “C:\Documents and Settings\iasia\My Documents\StreetFax\ Contracts\WorkForHires” and was authored by the user “BRENDAN CEGLIA:”

**Fig. 17: Last 10 Authors Metadata for SFWebWorkForHireMZ.doc Viewed with a Forensic Utility**

This shows that embedded metadata about the last ten users to edit the document is available, but only when the document is viewed with the use of a digital forensic tool. However, when viewed through ordinary means, the metadata is misaligned and not fully available. This suggests that changes have been made to the file in such a way that do not preserve its structure, including its metadata fields, which is indicative of the use of a hex editor or similar tool to manipulate the file.

## C. Backdating of the System Clock on the Computer that Contained the Seagate Hard Drive

Stroz Friedberg found evidence that the system clock of the computer that contained the Seagate Hard Drive was backdated between December 30, 2010 and February 11, 2011.[19] As described above, this is the same computer that contained the StreetFax Contract and the StreetFax Emails.

Modern Microsoft Windows operating systems – like those operating on the Ceglia Media – automatically attempt to set the system clock to the correct time by synchronizing the local computer’s system clock with a network time server maintained by Microsoft. If the difference between the local system clock and the Microsoft network time server is more than 54,000 seconds, or fifteen hours, an error message is recorded in the computer’s System Event logs.

[19] Mr. Ceglia did not produce the physical computer that once contained the Seagate Hard Drive. Thus, as explained further below, Stroz Friedberg was unable to examine this computer, which might have contained information about the system clock settings or that otherwise was relevant to authenticity.

Stroz Friedberg analyzed the System Events logs on the Forensic Image Created by Plaintiff's Expert, which is a forensic image of the Seagate Hard Drive made on March 29, 2011. Those logs contain an error message that reveals system clock backdating. Specifically, when the computer's system clock was set to November 9, 2010, it was approximately 8,098,049 seconds, or approximately 94 days, behind the time of the Microsoft network time server.

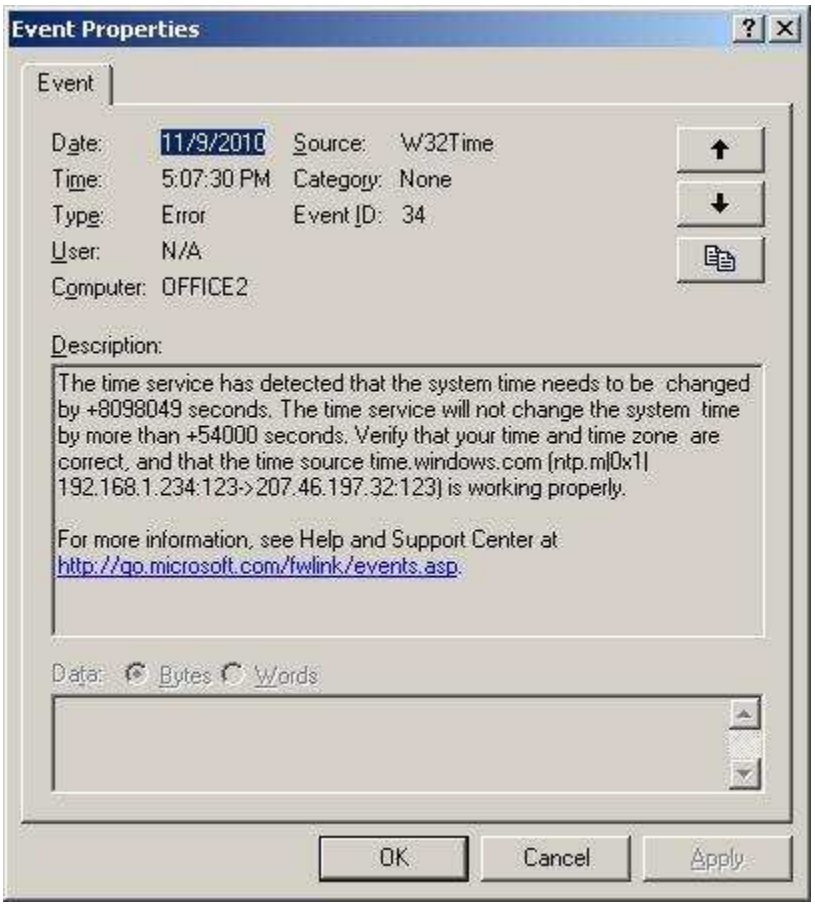



**Fig. 18: System Event Log from Forensic Image Created by Plaintiff's Expert Showing Backdating**

The actual date and time reported by the Microsoft network server was February 11, 2011. This means that, sometime on or before February 11, 2011, this computer's system clock was backdated approximately 94 days to November 9, 2010.

Stroz Friedberg identified additional anomalies concerning the backdating of the system clock on the computer that once contained the Seagate Hard Drive. The Windows XP operating system generates limited system backups called "System Restore Points" upon the occurrence of certain events, including

the installation of applications and the application of updates to the operating system. The operating system sequentially numbers restore points as it adds and removes them from the computer on a first-in, first-out basis. As a result, two sequentially-numbered restore points should have chronologically-sequential timestamps.

Stroz Friedberg analyzed the system restore points found on the Forensic Image Created by Plaintiff's Expert. Those restore points are not sequential:

| System Restore Point Name | Restore Point File System Creation Date |
|---|---|
| RP1 | 12/29/2010 |
| RP2 | 12/30/2010 |
| RP3 | 9/28/2010 |
| RP4 | 11/9/2010 |

This evidence indicates that, at some point after December 30, 2010, the computer's system clock was backdated to September 28, 2010.

Based on this evidence of system clock backdating, Stroz Friedberg determined that between December 30, 2010 and February 11, 2011, during the pendency of this litigation, the system clock of the computer that contained the Seagate Hard Drive was backdated.

# XIII. Evidence of Spoliation

Stroz Friedberg found substantial evidence of spoliation on the Ceglia Media. This evidence includes multiple reinstallations of the Windows operating system on the hard drives that contained the StreetFax Contract. It also includes the deletion of relevant files in February 2011 and the deactivation of an email account in August 2010 – both occurring during the pendency of the litigation.

## A. There Were Multiple Reinstallations of the Windows Operating System on the Seagate Hard Drive During the Pendency of Litigation

The installation date of a Windows operating system is tracked in a computer's registry, which is comprised of a series of files. The reinstallation of an operating system is a destructive action that may have the effect of overwriting existing data on a hard drive. In Stroz Friedberg's experience with electronic forgery cases, the reinstallation of an operating system can be done in an effort to destroy or conceal data.

Stroz Friedberg determined that the Windows operating system on the Seagate Hard Drive and the Forensic Image Created by Plaintiff's Expert of that drive was reinstalled on at least two occasions. Again, the Seagate Hard Drive and forensic image of that drive are the two pieces of Ceglia Media on which the StreetFax Contract was found. Both reinstallations were performed during the pendency of this litigation, and the second reinstallation occurred at a time when the computer's system clock was backdated.[20]

The Forensic Image Created by Plaintiff's Expert has a Windows operating system installation date of December 29, 2010. In addition, the file system metadata of files in the recovery environment on the forensic image of the Seagate Hard Drive, which can be used to reinstall the Windows operating system on a computer, reflect last accessed dates in late December 2010, which is consistent with an attempt to reinstall the operating system at that time. The forensic image of the Seagate Hard Drive was created on March 29, 2011. Thus, as of March 29, 2011, the Seagate Hard Drive itself had a Windows operating system reinstallation date of December 29, 2010.

However, the purported operating system installation date on the actual Seagate Hard Drive at the time it was imaged by Stroz Friedberg is not December 29, 2010. Rather, it is two days earlier, December 27,

[20] The reinstallation of an operating system can be done in a manner that does not delete documents on the hard drive. However, even in these circumstances, potentially valuable information, such as system settings or log files, may be lost or deleted. In addition, the reinstallation process may overwrite deleted documents or files that otherwise would have been recoverable.

2010. This means that the Windows operating system was reinstalled on the Seagate Hard Drive for a second time, sometime after the imaging occurred on March 29, 2011. This reinstallation occurred at a time when the system clock of the computer containing the Seagate Hard Drive was backdated to December 27, 2010.

Stroz Friedberg also found Internet history records on the Ceglia Media that reveal web searches that may be related to this backdating and reinstallation. On December 28, 2010, a user of the Ceglia Media ran a Google search for "when did windows xp release." Then, on January 25, 2011, a user of the Ceglia Media ran a Google search for "look up the date a hp computer was made." These exploratory searches may be indicative of someone conducting research on reinstalling a Windows operating system on a computer in a backdated state. In Stroz Friedberg's experience with electronic forgery cases, such exploratory research efforts may be conducted in an attempt to avoid obvious backdating errors, such as backdating a computer to a date earlier than the date on which the Windows operating system used became available.

Significantly, Mr. Ceglia did not produce the computer that once contained the Seagate Hard Drive. As such, Stroz Friedberg was unable to analyze the date and time of the system clock of the computer containing the Seagate Hard Drive. Dates and times on digital media are set according to the system clock of the computers used to access them. One step in the digital forensic process is to document, whenever possible, the date and time of a computer's system clock. This provides digital forensic examiners the ability to ascertain and account for any discrepancies between the date and time settings of the system clock and the true date and time. Because Mr. Ceglia did not produce the computer containing the Seagate Hard Drive, Stroz Friedberg was unable to determine whether that computer's clock was accurate.

### B. Deletion of Relevant Files in February 2011

As discussed above, floppy disks produced by Mr. Ceglia contain records of deleted files named "mark emails 082903," "Work for Hire ContractMZ.doc," and "Work for hire SF template.doc." Based on the metadata, the deleted files – which in their titles appear relevant to the issues in this case – were last accessed on February 18, 2011. Therefore, the files were deleted on or after that date, during the pendency of the litigation.

## C. Deactivation of Webmail Account in August 2010

As discussed below, Mr. Ceglia failed to disclose several webmail accounts, including the Yahoo! account "landlubber39@yahoo.com," for which he is the registered account holder. This webmail account was closed by Yahoo! on August 4, 2010, at Mr. Ceglia's request. When the account was closed on August 4, 2010 – more than a month after the initial complaint was filed – Mr. Ceglia was notified that Yahoo! would delete the content of the webmail account in 90 days. Although Stroz Friedberg received data from this account from Yahoo!, Stroz Friedberg did not identify any evidence that Mr. Ceglia took action to preserve the email in this account.

## D. Deletion of Data from getzuck@gmail.com Webmail Account

As previously discussed, Stroz Friedberg identified the existence of a webmail account getzuck@gmail.com through an analysis of Internet history on the eMachines computer. Specifically, the Internet history showed that the Ceglia Media was used on April 18, 2011 to read an email related to the activation of a Facebook account for the email address getzuck@gmail.com. Thus, this email address was in use in April 2011 and presumably contained emails from that time period.

Stroz Friedberg received a production of the getzuck@gmail.com webmail account from Google pursuant to Mr. Ceglia's consent. Upon analysis, Stroz Friedberg determined that the earliest email in this account dated from January 28, 2012. This fact, coupled with the fact that the email account was in use well before that date, suggests that the earlier email data was deleted from this account.

# XIV. Evidence of Undisclosed Media

Stroz Friedberg found evidence of several removable storage devices and webmail accounts on the Ceglia Media that Mr. Ceglia did not turn over or identify.

## A. Undisclosed Removable Storage Devices (USBs)

Stroz Friedberg found evidence of six electronic media that were not produced by Mr. Ceglia. The undisclosed media appear to be USB devices, which are removable data storage devices used to save and transport data. At least one of these devices was used as recently as April 4, 2011, and three of the six devices were used during the pendency of this litigation.

When a USB device is plugged into a computer running a modern version of Microsoft Windows, the operating system records the first time the device was connected in both the Windows Registry, which is a database of operating system and user settings, and in log files named "setupapi.log" or "setupapi.dev.log." The Windows Registry files and "setupapi" logs of the Ceglia Media contain evidence that the following six USB devices were connected to those computers or hard drives:

| Device Name | Internal Identifier |
|---|---|
| Gigaware USB Device | 20051942520C8D20CDB2&0 |
| Seagate FreeAgent GoFlex USB Device | NA056T98&0 |
| SanDisk Cruzer Micro USB Device | 200524439016A86122A2&0 |
| USB 2.0 USB Flash Drive USB Device | 76562f5793a65e&0 |
| Ut165 USB2FlashStorage USB Device | 00000000000069&0 |
| Kingston DataTraveler 2.0 USB Device | 5B8407000A4B&0 |

Mr. Ceglia did not produce any of these six USB devices to Stroz Friedberg.

Through an analysis of the "setupapi.log" and "setupapi.dev.log" files, Stroz Friedberg determined that the Seagate FreeAgent GoFlex USB Device, internal identifier NA056T98&0, had been connected to Mr. Ceglia's Toshiba Satellite laptop computer as recently as April 4, 2011. In addition, two other removable devices were connected as recently as June 30, 2010. Below is a chart documenting the connections of the undisclosed devices to the Ceglia Media on or after June 30, 2010:

| Device Name | Internal Identifier | Ceglia Media | Date of Connection |
|---|---|---|---|
| Gigaware USB Device | 20051942520C8D20CDB2&0 | Toshiba Satellite Laptop | 9/16/2010 |
| Gigaware USB Device | 20051942520C8D20CDB2&0 | eMachines Desktop | 8/17/2010 |
| SanDisk Cruzer Micro USB Device | 200524439016A86122A2&0 | Forensic Image Created by Plaintiff's Expert | 12/29/2010 |
| SanDisk Cruzer Micro USB Device | 200524439016A86122A2&0 | Toshiba Satellite Laptop | 12/22/2010 |
| SanDisk Cruzer Micro USB Device | 200524439016A86122A2&0 | eMachines Desktop | 7/28/2010 |
| Seagate FreeAgent GoFlex | NA056T98&0 | Seagate Hard Drive[2] | 12/31/2010 |
| Seagate FreeAgent GoFlex | NA056T98&0 | Toshiba Laptop[1] | 4/4/2011 |

Through an analysis of link files, Stroz Friedberg also determined that the undisclosed USB devices contain relevant electronic documents. Link files are shortcuts to files or folders created so that these files and folders are readily available to a user. When a file is opened or viewed using a Windows operating system, a link file typically is created that points to the file or folder that is being accessed (the "target file" or "target folder"), and multiple link files may target the same file or folder. Although link files may not provide a complete history of every document that is viewed during the lifespan of the computer, they generally provide information about the recent activity performed by each user.

Link files contain embedded information about the files or folder they target. This information includes, among other things, the name and path, or location, of the target file or folder on the hard drive. Link files also record a snapshot of the metadata associated with the target file or folder at the time the link file was created, including the created, last written, and last accessed dates associated with the target file or folder.

On the Toshiba Satellite laptop computer, there were link files to files named "Zuckerberg Contract page1.tif" and "Zuckerberg Contract page2.tif." The embedded metadata of these link files show that they point to target files on a removable device, such as a USB flash device, that are in a folder named "Facebook Files." Moreover, the metadata for the two images embedded within the link files shows that the images were created on July 9, 2010. Thus, there is clear evidence that at least one of the undisclosed pieces of media contained electronic documents that are relevant to this litigation and that were not found anywhere else on the Ceglia Media.

In his August 29, 2011 declaration, Mr. Ceglia stated that these files were contained on the Gigaware USB Device that bore serial number 20051942520C8D20CDB2&O. (Ceglia August 29, 2011 Declaration, Doc. No. 132, at ¶ 132).

In sum, Stroz Friedberg's analysis revealed the existence of six removable devices that were not turned over or identified by Mr. Ceglia. Some of those devices contain or contained relevant electronic documents. One of those devices was used as recently as April 2011.

## B. Undisclosed Webmail Accounts

Stroz Friedberg found evidence of the use of four undisclosed webmail accounts in the Internet history on the Ceglia Media, none of which had been identified by Mr. Ceglia to the Court or the Defendants prior to their discovery by Stroz Friedberg. These accounts were used or appear to be associated with Mr. Ceglia, and some were used as recently as April 2011.

When a user visits a website, the web browsing activity may be logged by the Internet browser in an Internet history file. The Internet history on the Ceglia Media shows four undisclosed email addresses that appear to be associated with Mr. Ceglia: landlubber39@yahoo.com; paulc@hush.com; getzuck@gmail.com; and alleganypellets@gmail.com.

The available information regarding these four undisclosed email accounts is as follows:

- The Internet history records show multiple uses of the email account landlubber39@yahoo.com by a user of the Ceglia Media. Furthermore, an August 4, 2010 email regarding the closing of the account was sent to the registered user of the account at paulceglia@msn.com, an email address that belongs to Mr. Ceglia. The Internet history records also show that the Yahoo! account contains relevant information, as it was used to correspond about this case in July 2010.
- The undisclosed Hushmail account paulc@hush.com appears to have been created on November 1, 2010. Hushmail is a webmail provider that specializes in providing encrypted and secure webmail services to its users.
- The Internet history records on the Ceglia Media show that the email account getzuck@gmail.com was visited by a user of the Ceglia Media on April 18, 2011 to read an email asking for an address confirmation for a Facebook membership.
- Based upon the title of a webpage visit recorded by the Internet history of the Ceglia Media, the alleganypellets@gmail.com webmail account was accessed using the Ceglia Media as recently as July 15, 2010.

These email accounts were not disclosed in Mr. Ceglia's declaration pursuant to the Court's Orders prior to their identification by Stroz Friedberg.

### C. Recovered Deleted Files

Mr. Ceglia produced a CD that contains multiple files with files beginning with "X," such as the file "XWRL004.TMP." This file naming convention suggests that these files are recovered versions of files that had been deleted from one or more other storage devices and burned to this CD.

Microsoft Word can create temporary files with file names of the following convention: "~WRL###.TMP." For example, "~WRL004.TMP" is a file name that would match this convention. However, the file named "XWRL004.TMP" appears to be a Microsoft Word temporary file that does not follow this file naming convention, in that it begins with an "X" rather than a "~."

When files are deleted from storage media that uses the FAT file system, the first character of the file name is overwritten. Since that information is no longer available, it is common for data recovery programs to prompt the user to specify a replacement first character when a recovery attempt is made. Here, multiple files on the floppy disk with names beginning with "X," such as the file named "XWRL004.TMP," suggest that a data recovery was performed and that the user who performed the data recovery chose "X" to replace the overwritten first characters of the file names. Furthermore, the data recovery effort was performed on a device or devices other the CD, as CDs do not have FAT file systems.

The CD containing these files had a volume label of "PAUL_3_23_11." The volume label and the CD metadata indicate that the CD was created on March 23, 2011, during the pendency of this litigation.

No corresponding copy of the recovered file "XWRL004.TMP" was present anywhere else on the Ceglia Media. The existence of a recovered deleted file on a CD created after the litigation was initiated, with no corresponding file on a produced computer or removable storage device, suggests that the source of this recovered deleted file has not been produced.

## XV. Evidence Rebutting Paul Ceglia's Allegations

Based on the totality of the digital forensic evidence, Stroz Friedberg has determined that the StreetFax Emails and the attached StreetFax Contract are authentic. The digital forensic evidence shows that the pages of the StreetFax Contract are scanned images of a paper document, dated April 28, 2003, between Mr. Zuckerberg and StreetFax; that the scanned images were created on the Ceglia Media on March 3, 2004; and that the scanned images were sent as attachments to two emails from ceglia@adelphia.net to jkole@sidley.com on March 3, 2004.

Stroz Friedberg understands that Mr. Ceglia has argued that the StreetFax Contract is fabricated and forged. Specifically, Mr. Ceglia stated that the StreetFax Contract is a "doctored," "photoshopped" image that Mr. Zuckerberg or the Orrick law firm "planted" on his computers. Mr. Ceglia's attorney, Dean Boland, also stated that the StreetFax Contract is "obviously forged." Mr. Ceglia stated that he "[does] not recall authoring or sending the [StreetFax Emails and StreetFax Contract] to Jim Kole." (Ceglia November 17, 2011 Declaration, Doc. No. 230, at ¶ 7). Finally, Mr. Ceglia implied that Mr. Zuckerberg personally sent the StreetFax Contract to Mr. Kole, stating that "Mark Zuckerberg [] had all the credentials necessary to access and to send and receive email via my father's ceglia@adelphia.net email account." (Id. at ¶ 21).

These statements are contradicted by the evidence described in this report, which indicates that Mr. Ceglia sent the StreetFax Emails and the StreetFax Contract to Mr. Kole on March 3, 2004. In addition, Stroz Friedberg found no evidence on the Ceglia Media to support these assertions by Mr. Ceglia and his counsel.

To begin, it would be extraordinarily difficult for an individual, even a person with significant technical expertise, to "plant" the StreetFax Emails on the Ceglia Media or Sidley Austin's servers. And it would be even harder to "plant" the StreetFax Emails in both locations.

Initially, a person attempting to fabricate and "plant" the StreetFax Emails would have to correctly guess numerous authenticating details. For example, the person would have to know or guess about the existing relationship between Mr. Ceglia and Mr. Kole and have Mr. Kole's correct email address at Sidley Austin. He or she also would have had to know or correctly guess the telephone number set forth in the body of the first StreetFax Email.

In addition, the person would have had to create metadata consistent with authentic emails in a way that could not be detected through digital forensic analysis. The person would have had to generate metadata

for both of the StreetFax Emails, including creation dates and last modified dates, that are consistent with the emails having been sent on March 3, 2004.

The person would then have had to insert the StreetFax Emails in the two different container files in which they were found: the "Sent Items.dbx" file on the Ceglia Media and the Microsoft Outlook PST file on a Sidley Austin server, again in a way that could not be detected through digital forensic analysis. These container files were stored on hard drives controlled by Mr. Ceglia and Sidley Austin, respectively. The person would have had to insert the StreetFax Emails in these container files without altering the metadata on those container files as well.

Stroz Friedberg also found separate corrobating evidence, in an application called Google Desktop,[21] that the StreetFax Emails have existed on the Seagate Hard Drive since at least July 2007. Based on the file system metadata of the files associated with the Google Desktop application, it appears that the application was used on the Seagate Hard Drive between October 23, 2006 and July 11, 2007. Thus, there is historical information that establishes that the StreetFax Emails existed on the Seagate Hard Drive since on or before July 11, 2007. The Google Desktop index represents another area in which the references to the StreetFax Emails would have to have been inserted, again in a way that could not be detected through digital forensic analysis.

Even if that could all be accomplished, the person would have had to create fraudulent Internet headers, reflecting the transmission of the StreetFax Emails through the Internet. This would require a significant amount of authenticating detail. For example, the person creating the Internet headers would have had to know or guess that Adelphia was Mr. Ceglia's Internet service provider. The person also would have had to know or guess the names and IP addresses of two different servers at Sidley Austin.

Taken together, to accomplish all of these required steps on multiple machines, without detection, would be extremely difficult.

There is no digital forensic evidence to support the speculation that these files were "planted" on the Ceglia Media and a Sidley Austin server. This explanation for the existence of the StreetFax Contract and StreetFax Emails on the Ceglia Media and on a Sidley Austin server is neither reasonable nor supported by any evidence. Based on the digital forensic evidence, Stroz Friedberg has determined that there is only one plausible explanation for the existence of the StreetFax Contract and StreetFax Emails

[21] The Google Desktop application allows a user to efficiently search a computer for files containing specific keywords and review those documents within the application. The application does so by building a searchable database, or index, of the contents of the files on the computer and allowing a user to search this database through the Google Desktop interface. For purposes of Stroz Friedberg's digital forensic analysis, the Google Desktop index provides historical evidence of what files existed on the Seagate Hard Drive at the point in time when Google Desktop last indexed the files.

on the Ceglia Media and a Sidley Austin server: they were saved to the Seagate Hard Drive and then, within minutes, were sent from an Outlook Express client on the computer containing that hard drive, using the Adelphia email account, to Mr. Kole at Sidley Austin, on March 3, 2004.

Mr. Ceglia also has implied that Mr. Zuckerberg accessed the Adelphia email account and personally sent the StreetFax Contract to Mr. Kole on March 3, 2004. In order to have sent the StreetFax Contract and StreetFax Emails to Mr. Kole, Mr. Zuckerberg would have had to, at the very least, gain physical or remote access to and control over the desktop computer containing the Seagate Hard Drive, which was located in upstate New York. In addition, based on the digital forensic evidence, this activity would have had to occur on March 3, 2004. Stroz Friedberg did not identify any digital forensic evidence that Mr. Zuckerberg accessed the desktop computer containing the Seagate Hard Drive, either physically or remotely, on March 3, 2004. This explanation for the existence of the StreetFax Contract and StreetFax Emails on the Ceglia Media and on a Sidley Austin server is neither reasonable nor supported by the evidence.

## XVI. Conclusion

Stroz Friedberg found direct and compelling digital forensic evidence that the documents relied upon by Mr. Ceglia to support his claim are forged. Stroz Friedberg also found what it believes to be the authentic contract between Mr. Ceglia and Mr. Zuckerberg. That contract contains no references to Facebook.

We declare under penalty of perjury that the foregoing is true and correct.

Bryan J. Rose

Michael F. McGowan

# Exhibit A

C.V. of Eric M. Friedberg

# ERIC M. FRIEDBERG

## CO-PRESIDENT

**PROFESSIONAL EXPERIENCE**

**STROZ FRIEDBERG**
**Co-President**
**New York, NY**
Joined firm January 2001

Responsible for overall management of international consulting and technical services firm with offices in New York, Washington D.C., Los Angeles, London, Boston, Dallas, San Francisco, and Minneapolis, specializing in digital forensics, cyber-crime and data breach response, electronic discovery, and business intelligence and investigations. Led M&A processes for identifying, acquiring, and integrating Docuity, Inc. (an electronic discovery processing and hosting company) and Data Genetics International, L.P. (a U.K. digital forensics firm). Negotiated and structured major private equity investments made in Stroz Friedberg by Green Capital Partners ($30mm, 2007; $7mm follow-on, 2008) and New Mountain Capital ($115mm, 2010).

National leader in responding to all forms of computer crime and abuse, including cyber-extortions, theft of trade secrets, industrial and state-sponsored espionage, leaks of confidential information, hacks and unauthorized access, denial of service attacks, illegal electronic surveillance, domain name hacks, key-logging, and Internet-based harassment.

Has managed numerous digital forensic assignments for major law firms, corporations, and government agencies in criminal, civil, regulatory, and internal corporate matters, including cases involving alleged wiping and mass deletion of data; spoliation, e-forgery, and backdating; computer-enabled theft of trade secrets; and espionage, illicit images, harassment, and hacking.

Leader in electronic discovery consulting; author of book chapters and scholarly articles on eDiscovery strategy and technology. Has managed numerous electronic discovery projects in civil and regulatory proceedings, many of which were global in scope and required the preservation, processing, and production of electronic data from hundreds of computers, servers, cell phones and PDAs, backup tapes, enterprise databases, and removable media.

Court-appointed consultant to the Special Master in *Advanced Micro Devices v Intel Corp.*, No. 05-441-JJF (D. Del.); court-appointed third-party electronic discovery/digital forensics expert in *Four Seasons Hotels v Consorcio Barr,* No. 01-4572-CIV (S.D. Fla.); and *Harvest Court v Nanopierce*, No. 602281-01 (New York Supreme Court).

Significant matters include:

- Led digital forensics team that analyzed the proprietary source code behind Google's WiFi router-mapping software. Lead writer of report to world-wide Data Privacy Authorities, the F.T.C., and the public

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addressing concerns that the source code captured private user communications and data. See:

http://static.googleusercontent.com/external_content/untrusted_dlcp/www.google.com/en//googleblogs/pdfs/friedberg_sourcecode_analysis_060910.pdf

- Led four-year effort to preserve, cull, search, and produce ESI for an insurance company in response to an Attorney General's criminal subpoenas and related civil actions. Oversaw preservation and production of data from hundreds of custodians, servers, and other data sources. Served as company's 30(b)(6) witness in securities class action law suit. Provided strategic advice, affidavits, and testimony regarding reasonableness of preservation and production efforts.

- Solved case in which ex-employees were for six months remotely accessing without authorization the e-mail of the Chairman, legal counsel, and in-house investigator of a public company. Oversaw development and production of evidence, including log analysis; initiated and conducted liaison with U.S. Secret Service, which led to prosecution and conviction of the offender.

- Led digital forensics team in analysis of an investment banker's multiple laptop computers, determining that a critical memorandum accusing another banker of foreign corrupt practices violations was forged. Expert report led investment banker to confess.

- Led digital forensic team in analyzing an intrusion into an FTP server on which protected customer identity data was stored. Concluded that intruder did not access customer data, facilitating decision by company to not report under data breach notification statutes.

- Led investigative team in determining who leaked sensitive internal company e-mails and information to Wall Street analysts covering the company. Oversaw forensic analysis of subjects' computers and matched snail-mailed information received by analysts to data on the computer of a single subject within the corporation. Oversaw linguistic analysis of snail-mailed cover letter to analysts. Matched linguistic anomalies to anomalies in known writings of the subject. Oversaw private investigation which led to a postal clerk who identified the subject's father as the person who snail-mailed the letters in question.

- Led digital forensic examination of two laptop computers belonging to a CFO in an internal investigation into "trading with the enemy" allegations. Established that just before he relinquished his computers to investigators, the CFO deleted folders relating to trading with Iran. Conclusions supported termination for cause.

# ERIC M. FRIEDBERG

## CO-PRESIDENT

- Oversaw preservation, culling, and processing of laptop, desktop, server, PDA, and removable media data from over 60 lawyers and paralegals in six of a major law firm's domestic offices, in response to a threatened malpractice case. Developed a methodology for conducting an electronic discovery project within a law firm environment, where there are unique issues relating to commingled, privileged data.

- Oversaw development of proprietary techniques to conduct key-word search of Korean-language data in an antitrust inquiry. Oversaw the establishment of an on-site laboratory in Seoul to facilitate confidential data processing.

- Oversaw multi-year electronic discovery project for Audit Committee of a public company in an accounting fraud scandal. Gathered and processed data from over 550 custodians for response to regulatory and civil subpoenas. Conducted deep forensic analysis relating to possible illegal destruction of data.

- Led cyber-crime response team in identifying location within a corporate network of illegally installed "sniffer" program that was covertly capturing corporate instant message traffic. Led forensic team in analyzing laptop on which sniffer was running to identify internal employees who installed sniffer and accessed sniffed IMs. Conducted interviews of multiple IT staff members, obtaining confessions from some and exonerating others in illegal scheme.

**UNITED STATES ATTORNEY'S OFFICE, E.D.N.Y.**
**Senior Litigation Counsel,** November 1999 to December 2000
**Computer and Telecommunications Coordinator,** December 1997 to December 2000
**Chief, Narcotics Unit,** December 1994 to November 1997
**Deputy Chief, Narcotics Unit,** January 1993 to November 1994
**Line Assistant,** April 1989 to December 1992
**New York, NY**

As Computer and Telecommunications Coordinator:

- Investigated and prosecuted cases involving computer hacks, denial of service attacks, Internet-related trade secret theft, criminal trademark and copyright infringement, computer hardware and software counterfeiting, telecommunications billing fraud, and illegal electronic surveillance.

- Participated in the establishment of enforcement policy, built relationships with client agencies, and supervised up to five Assistant U.S. Attorneys.

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- Investigated telecommunications fraud case using one of the first government e-mail wiretaps.

As Chief of Narcotics and in other positions:

- Investigated, litigated, and handled appeals of complex cases involving narcotics trafficking, money laundering, drug-related violence, racketeering, securities fraud, and public corruption. Numerous trials, ranging from one to eight weeks in length.

- Participated in the establishment of narcotics and money laundering enforcement policy, built relationships with client agencies, and supervised up to 15 Assistant U.S. Attorneys and two Deputy Chiefs.

- Received 1994 Department of Justice Award for Superior Performance for investigation and prosecution of six accomplices in Cali Cartel-ordered assassination of Manuel de Dios Unanue, the former editor-in-chief of *El Diario*.

**SKADDEN, ARPS, SLATE, MEAGHER & FLOM LLP**
**Associate Attorney, Litigation Department**
**New York, NY**
1983 to 1989

Participated in all phases of intellectual property, takeover, general commercial, and product liability litigation, including two jury trials and several preliminary injunction hearings.

## EDUCATION

**BROOKLYN LAW SCHOOL**
J.D. 1983, *magna cum laude*

**BRANDEIS UNIVERSITY**
B.A. Philosophy, 1978, *cum laude*
Varsity soccer, 1973, 1974, 1975

## PUBLICATIONS

March 2008: *New Electronic Discovery Teams, Roles & Functions*, a white paper published by The Sedona Conference.

October 2006: Co-authored “Lost Back-up Tapes, Stolen Laptops and Other Tales of Data Breach Woe,” an article published in *Computer and Internet Lawyer.*

# ERIC M. FRIEDBERG

## CO-PRESIDENT

September 2005: Co-authored "Electronic Discovery Technology," Chapter Nine in Adam Cohen and David Lender's treatise *Electronic Discovery: Law and Practice.*

July 2005: *To Recycle or Not to Recycle, That Is The Hot Backup Tape Question,* a white paper published in the Practicing Law Institute's Fifth Annual Municipal Law Institute course materials.

May 2004: Co-authored "Your Company's Computer System," Chapter One in the book *E-Discovery: A Guide for Corporate Counsel*, published by Sills Cummis Epstein & Gross P.C.

January 2004: "To Cache a Thief: How Litigants and Lawyers Tamper with Electronic Evidence and Why They Get Caught," an article published in *The American Lawyer* magazine.

November 2003: Co-authored "21st Century Forensics: Searching for the 'Smoking Gun' in Computer Hard Drives," an article published in *The Prosecutor*, the monthly publication of the National District Attorneys Association.

**LECTURES**

July 2010: Led Information Systems Security Association (ISSA) industry webinar entitled "Social Networking Forensics".

January 2009: Presented a lecture entitled "New Electronic Discovery Teams, Roles, & Functions" at the Association of the Bar of the City of New York.

2008: Participated in a panel discussion entitled "Digital Forensics: From Investigation to the Courtroom" at the Cyberlaw: Expanding the Horizons Conference, hosted by the American Bar Association in Washington, DC.

June 2008: Participated in a panel discussion entitled "Data Breach Investigation and Response" at the Practical Privacy Series, hosted by the International Association of Privacy Professionals (IAPP).

May 2008: Led a panel discussion entitled "Barbarians at the Cybergate" at the New York CIO Executive Summit.

May 2008: Participated in a panel discussion entitled "Forensics, an Executive Overview" at the CISO Executive Forum, hosted by the Information Systems Security Association (ISSA).

April 2008: Participated in a panel discussion entitled "E-Discovery in Insurance" at the Electronic Discovery Seminar, hosted by DRI.

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# ERIC M. FRIEDBERG

## CO-PRESIDENT

March 2008: Participated as a Faculty Member for the Sedona Conference Institute event in San Diego, California, entitled "Second Annual Program on Getting Ahead of the e-Discovery Curve: Strategies to Reduce Costs and Meet Judicial Expectations" and as a panel member for presentations entitled "New Roles and New Teams to Meet ESI Production Obligations/ Expectations" and "Effective Preparation by Requesting Party for Rule 26 (f) Conferences."

January 2008: Led a panel discussion entitled "Electronic Discovery: Technology, Strategy & Emerging Standards" at the Association of the Bar of the City of New York.

November 2007: Participated in a panel discussion entitled "Preservation: From Legal Holds to Preservation Methodologies" at the Advance E-Discovery Technology Workshop at Georgetown University Law Center.

September 2007: Led a panel discussion entitled "Cyber-crime: The Insider Threat" for the New York Chapter of the Association of Corporate Counsel of America (ACCA).

June 5, 2007: Delivered a lecture on "The Challenges Confronting the Digital Forensics Community" to The National Academies' Committee on Identifying the Needs of the Forensic Sciences Community.

June 2007: Participated in a panel discussion for The Association of Corporate Counsel of America (ACCA) 2007 Ethics Marathon at Pfizer Corp.

June 2007: Participated in a panel discussion entitled "Computer Forensics and Auditing" for the ABA.

March 29, 2007: Participated as a Faculty Member for the Sedona Conference Institute event in Memphis, Tennessee, entitled "Getting Ahead of the e-Discovery Curve: Strategies for Companies & Their Counsel to Reduce Costs and Meet Judicial Expectations" and as a panel member for a presentation entitled "Changing Corporate Culture: Creating & Managing New Relationships to Effectively Respond to Discovery & Investigations."

February 21, 2007: Led a panel discussion entitled "Compliance: Using Computer Forensics to Ensure Process/Protocol" for the members of the Greater New York Chapter of the ACCA.

December 6, 2006: Participated in a panel discussion entitled "Fundamentals of e-Discovery" for the New York State Bar Association.

December 5, 2006: Participated in a panel discussion entitled "Identity Theft: Understanding the New Laws and Ways to Protect Your Clients and Yourself from Becoming a Victim" at the Association of the Bar of the City of New York.

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# ERIC M. FRIEDBERG

## CO-PRESIDENT

November 29, 2006: Participated in a webinar entitled “Proskauer on Privacy: The Government and Privacy.”

November 10, 2006: Participated in a panel discussion entitled “Forensics in e-Discovery” at Georgetown University Law Center.

November 6, 2006: Delivered a lecture entitled “Data Breach Notification: Technology, Strategy, and Law” to the members of the ACCA of Greater N.Y.

March 16, 2006: Delivered a lecture entitled "Computer Forensics: Technology, Strategy and Law" to the Communications and Media Law Committee of the New York City Bar Association.

February 2, 2006: Delivered a lecture entitled "Computer Forensics: Technology, Strategy and Law" at Brooklyn Law School.

March 16, 2005: Delivered a lecture entitled "Computer Forensics: Technology, Strategy and Law" to the Communications and Media Law Committee of the New York City Bar Association.

October 27, 2005: Participated in a panel discussion on "Electronic Discovery in Litigation and What It Means for the European Company" at the Fall 2005 meeting for the International Section of the American Bar Association.

July 27, 2005: Gave a presentation on "Electronic Discovery" for the Practicing Law Institute's Fifth Annual Municipal Law Institute.

April 6, 2005: Participated in a panel presentation with Hon. Shira A. Scheindlin, U.S. District Judge, Southern District of New York; Hon. Ira Warshawsky, Supreme Court Judge, Nassau County; and David J. Lender, Esq., Weil Gotshal & Manges LLP, on "E-Discovery: The Basics and Beyond" at the New York State Judicial Institute.

February 23, 2005: Delivered a lecture entitled "Computer Forensics in Support of Litigation" to the Association of the Bar of the City of New York

January 12, 2005: Gave a presentation entitled "Handling Child Pornography Discovered During a Forensic Examination" at the Quarterly Meeting for the New York Electronic Crimes Task Force (NYECTF) of the U.S. Secret Service and John Jay College of Criminal Justice.

October 1, 2004: Delivered a lecture entitled “To Cache a Thief: E-Evidence Tampering," which addressed using computer forensics to determine whether electronic documents were tampered with or are authentic, at the Association of Legal Administrators Region 5 Educational Conference.

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# ERIC M. FRIEDBERG

CO-PRESIDENT

## EXPERT TESTIMONY

November 2007: Testified as a 30(b)(6) witness for American International Group in a securities class action.

## PRO BONO

Member, Advisory Committee to the President of Brooklyn Law School. Advise President on strategic issues relating to positioning, marketing, recruiting, retention, and fundraising.

Consultant to the Global Network Initiative (GNI), an international consortium of communication and information providers, human rights groups, and academics committed to upholding global human rights norms, privacy rights, and freedom of expression in the electronic sharing and transmission of information. Assist GNI in developing a practical mechanism to monitor members' compliance with GNI principles without compromising private information, legitimate government requests for information, and efficient business functions. Advise on impact of domestic and foreign privacy laws, including ECPA, FISA, Title III, grand jury secrecy laws, and law enforcement power to compel secrecy, including in connection with search warrants, grand jury subpoenas, criminal and national security wiretaps, and NSLs.

## PROFESSIONAL AFFILIATIONS

- Member, International Association of Privacy Professionals
- Former member, The Sedona Conference Working Group on Electronic Discovery
- Former member, E-Discovery Subcommittee of the New York State Bar Association's Commercial and Federal Litigation Section
- Former Member, Information Technology Law Committee of the New York City Bar Association

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# Exhibit B

C.V. of Bryan J. Rose

STROZ FRIEDBERG

# BRYAN J. ROSE

MANAGING DIRECTOR

## PROFESSIONAL EXPERIENCE

**STROZ FRIEDBERG, LLC**
**Managing Director**
**New York, NY**
2005 to Present

Supervise digital forensic, electronic discovery, and cyber-crime response cases in the firm's New York City office. Head the firm's New York City office and supervise that office's Digital Forensic Examiners. Oversee and work on an active case load of digital forensic, cybercrime response, electronic discovery, and private investigations assignments. Give Continuing Legal Education lectures to law firms and government clients. Significant cases include:

- Oversaw the on-site preservation and harvesting in Mexico of sensitive and confidential electronic data from a server and scores of laptops, desktops, and removable storage devices for a multi-national corporation in a high-stakes civil litigation. Supervised on-site processing to facilitate attorney review and to protect the confidentiality of extremely sensitive client documents.

- Led incident response in a high-profile data breach and computer crime investigation. Helped determine the nature and scope of the attack and identify potentially-compromised customer data. Assisted inside and outside counsel in formulating responses to regulatory and other inquiries.

- Helped lead global electronic discovery consulting project for a Fortune 10 company. Assessed and catalogued the kinds and sources of electronic data maintained by the company and consulted on the proper handling of that electronic data, including compliance with litigation holds and other retention obligations. Prepared litigation-response plans to coordinate consistent disclosures about electronic data in a litigation context and to ensure the proper preservation and production of electronic data in criminal, civil, and regulatory matters.

- Spearheaded a team of digital forensic examiners and private investigators that preserved and analyzed network security logs to identify the source, duration, and extent of an unauthorized access into corporate file servers and, armed with that forensic proof, obtained a confession from an ex-employee of the corporation.

- Provided consulting services to a Fortune 500 company whose confidential data had been lost by a third party due to the theft of a laptop. Reviewed the security procedures used to determine what confidential information had been on the stolen laptop, thereby providing the company with important assurances that it had taken reasonable and adequate steps to identify the lost confidential information.

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- Supervised the examination and analysis of key emails in a high-profile criminal investigation that established that the crucial emails were authentic.

**UNITED STATES ATTORNEY'S OFFICE, E.D.N.Y.**
**Assistant United States Attorney**
**Brooklyn, NY**
2002 to 2005

Investigated, litigated, and handled appeals of complex criminal cases involving narcotics trafficking, money laundering, drug-related violence, racketeering, organized crime, and terrorism as a member of the General Crimes, Narcotics, and Violent Crimes & Terrorism Sections. Conducted numerous trials, ranging from one to six weeks in length.

**SOLICITOR GENERAL, OFFICE OF THE ILLINOIS ATTORNEY GENERAL**
**Assistant Attorney General**
**Chicago, IL**
2000 to 2002

Handled appeals in complex civil cases involving constitutional law, statutory construction, government contracts, and tort liability. Briefed and argued numerous cases before both state and federal courts of appeals.

**THE HONORABLE JOEL M. FLAUM, CHIEF JUDGE, UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT**
**Law Clerk**
**Chicago, IL**
1999 to 2000

Prepared memoranda and assisted in drafting opinions in civil and criminal matters briefed and argued before the United States Court of Appeals for the Seventh Circuit.

## EDUCATION

**UNIVERSITY OF VIRGINIA SCHOOL OF LAW**
J.D. 1999, with High Distinction
Editor-in-Chief, *Virginia Law Review*
Order of the Coif
Hardy Cross Dillard Scholar
Elected to The Raven Society

**INDIANA UNIVERSITY**
M.A. Religious Studies, 1996
Associate Instructor, Afro-American Studies Department
B.A. History and Religious Studies, 1992, *magna cum laude*

STROZ FRIEDBERG

# BRYAN J. ROSE

MANAGING DIRECTOR

## PUBLICATIONS

Fall 2001: Bryan J. Rose and Richard A. Merrill, *FDA Regulation of Human Cloning: Usurpation or Statesmanship?*, HARVARD JOURNAL OF LAW & TECHNOLOGY.

Fall 1999: Bryan J. Rose, *Indian Land, Indian Religion, and the Religion Clauses*, VIRGINIA JOURNAL OF SOCIAL POLICY & THE LAW.

## LECTURES

January 24, 2012: Participate in a panel discussion entitled, "Obtaining Computer Evidence in Trade Secret Litigation" for the New York Bar Association.

December 14, 2011: Participated in a panel discussion entitled, "Understanding the Securities Laws 2011" at the Practising Law Institute.

April 29, 2011: Participated in a panel discussion entitled, "Detecting 'Red Flag' Accounting Issues and 'Cooking the Books' Problems in Corporate and Securities Deals" at Cadwalader, Wickersham & Taft LLP.

September 23, 2010: Gave a lecture entitled, "Using Digital Forensics & Data From Social Networking Sites to Your Client's Best Advantage: Legal, Business & Ethical Issues" for the New York City Bar.

December 8, 2006: Participated in a panel discussion entitled, "Fundamentals of e-Discovery" for the New York State Bar Association.

November 13, 2006: Gave a lecture entitled, "Identifying Relevant Electronic Data: Technical, Strategic & Legal Factors that Drive Effective Electronic Discovery" for the New York City Bar.

October 17, 2006: Gave a lecture entitled, "Computer Forensics: Technology, Law & Strategy" for the New Jersey Security Association.

October 12, 2006: Gave a lecture entitled, "Computer Forensics: Technology, Law & Strategy" for the Society of Investigators of Greater Newark.

September 19, 2006: Gave a lecture entitled, "The Art of the Interview" for the New York City Bar.

## PROFESSIONAL AFFILIATIONS

- Member, The Sedona Conference, Working Group 1 on Electronic Document Retention and Production

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# Exhibit C

C.V. of Michael F. McGowan

STROZ FRIEDBERG

# MICHAEL F. MCGOWAN

## DIRECTOR, DIGITAL FORENSICS

**PROFESSIONAL EXPERIENCE**

**STROZ FRIEDBERG, LLC**
**Director, Digital Forensics**, April 2006 to Present
**Assistant Director of Computer Forensics**, February 2004 to April 2006
**Consultant and Computer Forensic Examiner**, June 2003 to February 2004
**New York, NY**

Responsible for co-managing the firm's digital forensics operations. Conduct cyber-crime investigations, including investigations of network intrusions, anonymous and harassing emails, and thefts of trade secrets. Perform forensic examinations and acquisitions of electronic media, including computer hard drives, backup tapes, and mobile phones. Respond to significant breaches of confidential and personally identifiable information. Lead efforts to investigate and remediate, to the extent possible, lapses in litigation holds. Perform statistical analyses and data analytics of disparate data sets. Provide expert witness testimony in civil and criminal cases. Significant cases include:

- Located, preserved, and forensically analyzed the metadata of a smoking-gun electronic memorandum in the Enron "Barge" investigation. Testified at trial.

- Conducted forensic investigations of several laptop computers. Authored an expert opinion proving that the subject of an internal corporate investigation backdated a key memorandum accusing a rival banker of violations of the Foreign Corrupt Practices Act.

- Participated in the design and implementation of an anti-money laundering transaction monitoring database and data analytics on behalf of an international bank in connection with a criminal investigation by the Department of Justice and Federal Reserve. Performed data analysis and helped develop an automated transaction monitoring system.

- Investigated a lapse in a financial service company's retention of data subject to regulatory retention requirements. Determined the root cause and quantified the extent of the lapse through forensic analysis, review of log files, and interviews of technical representatives. Presented findings to the company's regulator, the Commodity Futures Trading Commission. Led comprehensive risk assessment of other critical data systems. Provided recommendations to guard against future data loss and presented findings to the company's Board of Directors.

- Preserved and analyzed web, event, and domain logs to determine whether a SQL injection attack compromised customer credit card and identity information.

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STROZ FRIEDBERG

# MICHAEL F. MCGOWAN

DIRECTOR, DIGITAL FORENSICS

- Conducted source code review and digital forensic examination pursuant to an adverse-party inspection order in a litigation concerning the alleged theft of high-frequency algorithmic trading code.

- Led efforts to reconstruct and forensically analyze more than two terabytes of data in response to one of the largest potential exposures of personally identifiable information.

- Pioneered a methodology for searching Korean-language documents, emails, and email attachments for a response to a criminal grand jury subpoena in a price-fixing investigation. Conducted on-site processing to facilitate attorney review and to protect the confidentiality of sensitive client documents.

- Performed restoration of data from legacy backup tapes and data analysis in conjunction with a Medicare fraud investigation. Conducted analysis to identify instances in which medical procedures were improperly submitted as separate claims to increase the amount of reimbursement from Medicare.

- Forensically analyzed multiple computers to determine whether proprietary information and customer lists were transferred without authorization. Determined, based on a metadata analysis of the employee's recovered USB drive, that the employee had downloaded hundreds of proprietary documents in the weeks leading up to his resignation and subsequently used that information at his new place of employment. Submitted an affidavit in support of a temporary restraining order, which was corroborated by the defendant's confession under oath.

## EDUCATION

**UNIVERSITY OF CHICAGO**
B.A. Economics and Statistics with General Honors, 2003

## TRAINING

**STROZ FRIEDBERG, LLC**, 2003 to Present
**In-House Training**
Attend and present at regular in-house training presentations on digital forensics, cyber-crime response, computer security, and network digital forensic tools, and relevant legal topics.

**HTCIA INTERNATIONAL CONFERENCE**, 2010
Attended lectures concerning mobile device forensics and incident response.

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STROZ FRIEDBERG

MICHAEL F. MCGOWAN

DIRECTOR, DIGITAL FORENSICS

**DIGITAL FORENSIC RESEARCH WORKSHOP**, 2007
Attended annual conference on current digital forensic research.

**SANS INSTITUTE**, 2007
**Hacker Techniques, Exploits & Incident Handling**
Attended training course on identifying computer vulnerabilities and responding to computer incidents.

**SANS INSTITUTE**, 2005
**System Forensics, Investigation & Response**
Attended training concerning digital forensics and incident response covering file system structures, network response, and malicious code review.

**GUIDANCE SOFTWARE, INC.**, 2003
**EnCase Intermediate Analysis and Reporting**
Attended core training course on general digital forensics issues and the use of Guidance Software's EnCase digital forensic software to analyze electronic data.

## CERTIFICATIONS

EnCase Certified Forensic Examiner (EnCE)

## PUBLICATIONS

November 2007: Co-authored "Electronic Discovery Behind Enemy Lines: Inspection Of An Adversary's Network Pursuant To FRCP 34(a)" in Metropolitan Corporate Counsel.

October 2006: Co-authored "Lost Back-up Tapes, Stolen Laptops and Other Tales of Data Breach Woe" in Computer and Internet Lawyer.

September 2005: Co-authored "Electronic Discovery Technology" in Adam Cohen and David Lender's treatise Electronic Discovery: Law and Practice.

May 2004: Co-authored "Your Company's Computer System" in E-Discovery: A Guide for Corporate Counsel by Sills Cummins Epstein & Gross P.C.

## LECTURES

September 2011: Delivered a lecture titled "Cloud Computing Investigations" at the National Forensic Accounting Conference hosted by the American Institute of Certified Public Accountants.

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# MICHAEL F. MCGOWAN

## DIRECTOR, DIGITAL FORENSICS

September 2010: Delivered a lecture titled “Social Networking Forensics” at the High Technology Crime Investigation Association’s International Conference in Atlanta, GA.

June 2010: Participated in a panel discussion on evidentiary issues regarding social networking websites hosted by the New York City chapter of Women in E-Discovery.

May 2010: Delivered a lecture at the Cyber Security and Applications seminar at Fordham University.

April 2010: Delivered a lecture titled “Web Browsing: Neither Discreet Nor Discrete” at the Computer Forensic Show.

April 2009: Co-presented a lecture titled "Digital Forensics in Business Use: A Case Study in Recovering DNA from a Hard Drive” at the John Jay Center for Cybercrime Studies.

April 2008: Delivered a lecture titled “E-Discovery and IP Theft” to the New York chapter of InfraGard.

May 2007: Co-presented at a seminar for the Business Law Section of the New York State Bar Association titled "Hidden Data: Its Dangers and Traps for the Unwary.”

**TESTIMONY**

February 2012: Provided testimony as a digital forensics expert at a spoliation hearing in Alycia Lane v. CBS Broadcasting, Inc., et al., Ct. Com. Pl., Phila. Co., Sept. Term, 2008, No. 03425.

January 2012: Provided trial testimony as a digital forensics expert in Donald G. Drapkin v. MAFCO Consolidated Group, Inc., 09 Civ. 1285 (PGG) and MacAndrews & Forbes LLC v. Donald G. Drapkin, 09 Civ. 4513 (S.D.N.Y.).

July 2011: Provided deposition testimony as a digital forensics expert in Sartomer USA v. Earl Emerson, et al., CCP, Chester County, No. 10-07708.

May 2010: Provided deposition testimony as a digital forensics expert in Donald G. Drapkin v. MAFCO Consolidated Group, Inc., 09 Civ. 1285 (PGG) and MacAndrews & Forbes LLC v. Donald G. Drapkin, 09 Civ. 4513 (S.D.N.Y.).

December 2009: Testified as a digital forensics expert in Suryawanshi et al. v. UBS AG et al., FINRA Arbitration (FINRA No. 09-02568).

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# MICHAEL F. MCGOWAN

## DIRECTOR, DIGITAL FORENSICS

April 2009: Provided deposition and court testimony as a digital forensics expert in Flying Disc Investments L.P., et al., v. Baker Communications Fund II, L.P., et al., Super. Ct. of Cal. (CGC 05447294).

June 2007: Testified as a digital forensics expert in U.S. v. Zafar, 06-CR-289 (E.D.N.Y.).

July 2005: Testified as a digital forensics expert in Wall Street Network LTD v. The New York Times Co., et al., Super. Ct. of Cal. (BC 304596).

December 2004: Testified as a digital forensics expert in Gerner, et al. v. Applied Indus. Materials Corp., et al., Super. Ct. Conn.

October 2004: Testified as a digital forensics expert in U.S. v. Bayly, et al., H-03-cr-363 (S.D. Tex.).

June 2004: Testified regarding a digital forensics protocol in Adkins v. General Motors Corp., et al., 03 CV 3613 (JS) (E.D.N.Y.).

June 2004: Testified as a digital forensics expert in Philip Morris USA, Inc. v. Otamedia, Ltd., 02 Civ. 7575 (GEL) (S.D.N.Y.).

**PROFESSIONAL AFFILIATIONS**

Member, American Statistical Association

Member, American Society for Information Science and Technology

Member, Association for Computing Machinery

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# Exhibit D

C.V. of Jason A. Novak

STROZ FRIEDBERG

JASON A. NOVAK

ASSISTANT DIRECTOR, DIGITAL FORENSICS

## PROFESSIONAL EXPERIENCE

**STROZ FRIEDBERG**
**Assistant Director, Digital Forensics**, January 2012 to Present
**Senior Digital Forensic Examiner,** September 2011 to January 2012
**Digital Forensic Examiner**, July 2007 to September 2011
**Forensic Intern**, June 2005 to September 2005; June 2006 to September 2006
**Chicago, IL**

Conduct digital forensic acquisitions and analyses of laptops, desktops, servers, and portable devices in civil litigations, criminal matters, and internal investigations. Consult with clients in matters involving spoliation claims, network intrusions, destruction of data, theft of trade secrets, source code review, electronic discovery remediation, and cybercrime response. Develop customized programs for use in the analysis and processing of electronic data. Carry out large-scale electronic discovery involving the preservation, processing, and production of electronic data. Significant cases include:

- Conducted source code review of a 802.11 wireless data capture software that was the focus of national and international governmental inquiries. Collaborated on an independent technical report documenting the software's functionality. Met with domestic and international regulatory authorities to discuss analysis and address questions.

- Preserved and analyzed multiple computers, external hard drives, and server logs to detect spoliation, theft of intellectual property, and unauthorized access of servers by a company's departed employee.

- Participated in the design and implementation of an anti-money laundering transaction monitoring database and data analytics on behalf of an international bank in connection with a criminal investigation by the Department of Justice and Federal Reserve. Performed data analysis and helped develop an automated transaction monitoring system.

- Acted as neutral Consultant to Special Master with regards to spoliation issues in an antitrust litigation.

- Reviewed web event logs to determine the scope of a SQL injection attack and to identify the compromised database records.

- Conducted clean room comparison of C++ and Java source code underlying two high frequency trading platforms in a contentious theft of intellectual property litigation.

- Diagnosed numerous problems in a third party electronic discovery platform used by a client in response to a Foreign Corrupt Practices Act investigation. Led the re-processing efforts in the Stroz Review platform, concluding with successful production of responsive data to the

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Securities and Exchange Commission. Presented Stroz Friedberg methodology to Securities and Exchange Commission as part of the re-processing of the data.

- Developed a program to match electronic stored information as processed by Stroz Discovery to electronic stored information as processed by a third party electronic discovery vendor to move tagging information and attorney work product from the third party electronic discovery vendor's database to the Stroz Discovery database.

## TESTIMONY

July 2008: Provided deposition testimony as s digital forensic expert related to alleged spoliation of electronic data in *Annabelle K. Garrett, LLC v. Axiom International Investors, LLC*, Case No. 3:2007cv01341 (D. Connecticut)

## EDUCATION

**UNIVERSITY OF CHICAGO**
B.A. Political Science, minor in Computer Science, 2007
Computer Science Teaching Assistant, Winter 2007

## CERTIFICATIONS

**Encase Certified Forensic Examiner (EnCE), 2010**
Guidance Software

## TRAINING

**STROZ FRIEDBERG, LLC**
**Internal Training Program**
Attend weekly in-house training presentations on digital forensics, cybercrime response, computer security, desktop and network forensics tools, and relevant legal topics.

**SANS INSTITUTE**
**Reverse-Engineering Malware: Malware Analysis Tools and Techniques, 2010**
Attended training course on reverse engineering of malicious software ("malware"), including both behavior and code analysis of malware.

**GUIDANCE SOFTWARE, INC.**
**EnCase Advanced Computer Forensics, 2007**
Attended training course in digital forensic practices and the use of EnCase forensic software, including analysis of NTFS metadata.

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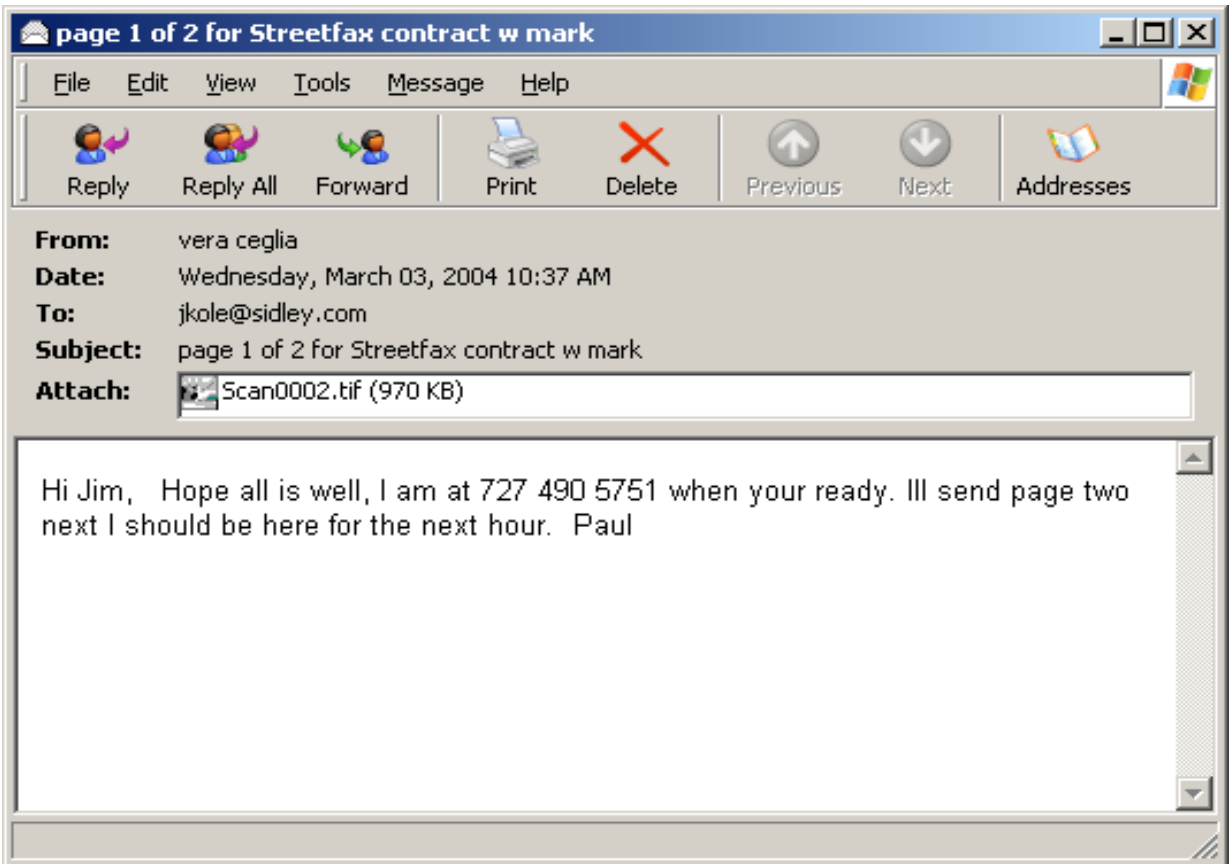
# Exhibit E

First StreetFax Email


page 1 of 2 for Streetfax contract w mark
File Edit View Tools Message Help
Reply
Reply All
Forward
Print
Delete
Previous
Next
Addresses
From: vera ceglia
Date: Wednesday, March 03, 2004 10:37 AM
To: jkole@sidley.com
Subject: page 1 of 2 for Streetfax contract w mark
Attach: Scan0002.tif (970 KB)
Hi Jim, Hope all is well, I am at 727 490 5751 when your ready. Ill send page two next I should be here for the next hour. Paul

# Exhibit F

Second Page of the StreetFax Contract

8. Assignment of Subcontracting
Neither this order nor any rights, obligations, or monies due hereunder are assignable or transferable (as security for advances or otherwise) without the Purchaser's prior written consent, and except as to purchases of raw materials or standard commercial articles or parts, the Seller shall not subcontract any major portion of the work encompassed by this order without the Purchaser's prior written approval. The Purchaser shall not be required to recognize any assignment or subcontract made without its prior written consent.
The buyer accepts that there will be two other subcontractors working on this project their work will be accepted provided a noncompete and "work made for hire agreement" are in place.

9. Proprietary Rights
It is acknowledged that this is a work made for hire agreement and that all Intellectual property rights or patent rights are that of StreetFax Inc. All code in portion or as its complete form remain the property of StreetFax Inc.If the items to be supplied hereunder have been designed in accordance with specifications or data furnished or originated by the Purchaser or its Customer, such items shall not be reproduced except with the approval of the Purchaser and, as applicable, its Customer and all drawings, photographs, data, software, and other written material or information supplied in connection therewith shall at all times remain the property of the Purchaser or its Customer and be returned promptly upon request at the completion, termination or cancellation of this order. In the event that StreetFax defaults on it payment terms rights would be granted to seller.

10. Termination
A. DEFAULT – The Purchaser may terminate this order or any part thereof by written notice if the Seller
a) fails to make deliveries or to complete performance of its obligations hereunder within the time specified or in accordance with the agreed schedules unless such failure is due to acts of God, strike or other causes which are beyond the control of the Seller.
b) Fails to comply with the terms and conditions of the purchase order and does not cure such failure within a period of ten (10) calendar days after written notice thereof.
c) Makes an assignment for the benefit of creditors without prior written consent of the Purchaser, becomes insolvent or subject to proceedings under any law relating to bankruptcy, insolvency, or the relief of debtors.

Should the Purchaser elect to terminate for default, the Purchaser may take possession of all or any of the items to be supplied hereunder which are in the Seller's possession without regard to stage of completion and may complete or cause the work to be completed on such items or may manufacture or procure similar items. Any additional costs or expense incurred by the Purchaser over and above the original purchase price from the Seller plus freight costs shall be for the account of the Seller.
In all events, the Purchaser shall not be or become liable to the Seller or any third party claiming through or under the Seller for any portion of the price of any items that Purchaser elects not to accept following notice of termination for default.

11. Liens
The Seller agrees to deliver the items to be supplied hereunder free and clear of all liens, encumbrances, and claims of laborers or material men and the Purchaser may withhold payment pending receipt of evidence in form and substance satisfactory to it of the absence of such liens, claims and encumbrances.

12. Governing Law
This Purchase Order and any material relating thereto shall be governed by the laws of the state in which the Purchaser's office that issues the order is located.

13. Recovery of Damages
If the Seller should recover any damages as a result of antitrust violations in any manner due to price fixing on the part of another manufacturer or Seller, the Seller shall pay over to the Purchaser any sum Purchaser has suffered as a result of the same price fixing within a reasonable time after the damages are recovered by the Seller.

14. Notice of Labor Disputes
a) Whenever the Seller has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this order, the Seller shall immediately give notice thereof, including all relevant information with respect thereto, to the Purchaser.
b) The Seller shall insert the substance of this clause including this paragraph (b) in any subtier supply agreement hereunder as to which a labor dispute may delay the timely performance of this order except that each such subtier supply agreement shall provide that in the event its timely performance is delayed or threatened by delay by an actual or potential labor dispute, the subtier Seller shall immediately notify its next higher tier Seller or Seller, as the case may be, of all relevant information with respect to such dispute.

15. Indemnity Requirements for Contractors/Seller
Contractor/Vendor shall defend, indemnify and save Street Fax from any and all claims, suits, losses, damages, or expenses, whether caused or contributed to by the negligence of Street Fax, its agents, or employees, or otherwise, on account of injuries to or death of any and all persons whomsoever, including the Contractor/Vendor, subcontractors, employees of Contractor/Vendor, the subcontractors, and of Street Fax and any and all damage to property to whomsoever belonging, including property owned by, rented to, or in the care, custody, or control of the parties hereto arising or growing out of, or in any manner connected with the work performed under this contract, or caused or occasioned, in whole or in part by reason of or arising during the presence of the person or of the property of Contractor/Vendor, subcontractors, their employees, or agents upon or in proximity to the property of Street Fax Notwithstanding the foregoing, nothing herein contained is to be construed as an indemnification against the sole negligence of Street Fax.

16. Publicity
Seller shall not publish photographs or articles, give press releases or make speeches about or otherwise publicize the existence or scope of this Purchase Order, or any generalities or details about this Purchase Order without first obtaining the written consent of Buyer.

17. Seller's Disclosure
Any information relating to the Seller's designs, manufacturing processes or manufactured products which the Seller may disclose to the Buyer in connection with the performance of the contract may be used by the Buyer for any purpose relating to the contract and to its performance without liability therefor to the Seller.

18. General Notes
Seller shall reference this purchase order number on all documents and/or correspondence related to this order.

The signatures below will execute this contract.

Buyer – Paul Ceglia, StreetFax

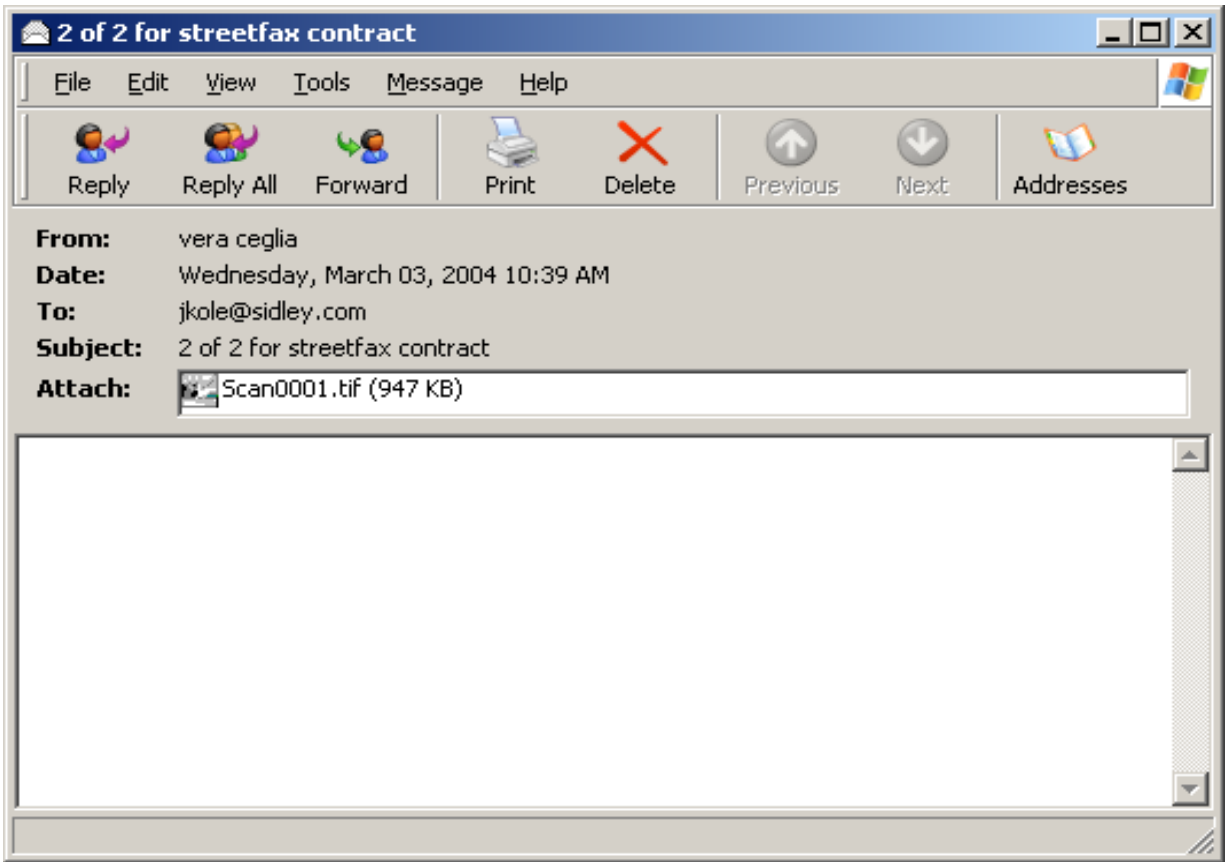
4/28/05

Seller – Mark Zuckerberg

04.28.05

# Exhibit G

Second StreetFax Email


2 of 2 for streetfax contract
File Edit View Tools Message Help
Reply
Reply All
Forward
Print
Delete
Previous
Next
Addresses
From: vera ceglia
Date: Wednesday, March 03, 2004 10:39 AM
To: jkole@sidley.com
Subject: 2 of 2 for streetfax contract
Attach: Scan0001.tif (947 KB)

# Exhibit H

First Page of the StreetFax Contract

General Conditions of Purchase

# STREET FAX

## SECTION 1- GENERAL PROVISIONS

1. Definitions

The following terms have the meaning specified when used herein:

PURCHASER – Street Fax Inc.

CONTRACTOR/SELLER – The entity, its agents, employees, suppliers, or sub-contractors, furnishing materials equipment, or services hereunder, as identified on Purchase Order.

CUSTOMER – the entity contracting for construction or other services from Purchaser or which the goods and/or services provided hereunder are for incorporation into the work or are required to facilitate completion of Purchaser's contract with such entity.

PRIME CONTRACT – The contract between Purchaser and Owner and all provisions, specifications and drawing referenced therein.

2. Entire Agreement

The contract between the Purchaser and Seller shall consist of and be contingent upon the Seller's acceptance of the Purchase Order, the provisions written on the face thereof, all provisions, specifications, and drawings referred to therein and these general terms and conditions with appendixes. In the event of conflict between the provisions written on the face of this Purchase Order and those contained in these printed terms and conditions, the provisions written on the face of the Purchase Order shall prevail. This Purchase Order shall not be modified either orally or by failure of either party to enforce their rights hereunder. It is a condition of this Purchase Order that provisions printed on or otherwise contained in any quotations, order acknowledgement, shipping document, or other instrument of the seller shall be of no force or effect.

3. Payment Terms

No insurance or premium charges or price increases will be allowed unless authorized by Purchaser in writing. No increase in price from that stated on the face hereof will be considered throughout the duration of the order.

The Agreed upon Cost that the Seller and the Buyer have agreed upon are as follows: Buyer agrees to pay seller the Sum of $5,000 at the onset of this contract. The Buyer agrees to pay seller $2,000 on the due date of the project, and upon completion Buyer agrees to pay seller an additional $3,000 US dollars within Thirty days of delivery of the Final approved program. Late fees are agreed to be a 5% deduction for the seller if project is not completed by due date and an additional 1% deduction for each day the project is late thereafter. Buyer agrees to pay a 3.5% late fee per month on the balance owed the seller and further agrees to pay a minimum of $5,000 per month to seller or acknowledges that failure to comply will result in the seller having the right to offline the site Streetfax.com and remove his programs.

The Agreed upon project due date is May 31, 2003

Friendship with Magnet has ended by May 31, 2003

4. Changes

a) BY PURCHASER – Purchaser agrees that no further revisions shall be implemented until or unless approved by seller. Those revisions shall be transmitted for written approval to seller.

b) BY SELLER – The Seller agrees that no further revision shall be implemented until or unless approved by Street Fax. Those revisions shall be transmitted for written approval to the Street Fax Purchasing Department.

5. Purchaser's Property

Does not include the price of renting the server, and registering VeriSign and SSL. The Buyer agrees to incur these expenses in addition to the price of the contract, and will maintain control of these services at all times.

Data, drawings, tooling, patterns, materials, specifications, and any other items or information supplied to Seller under this order are the property of the Purchaser and must be returned upon completion of this order. Such items or information are to be used solely in the performance of the work by the seller and shall not be used or disclosed for any other purpose whatsoever without Purchaser's prior express written consent.

6. Settlement of Controversies

In the event that this purchase order is for materials or equipment which will be incorporated in the Customer's work under the Prime Contract, and in the case of disputes between the Purchaser and the Customer or between the Purchaser and the Seller regarding materials or equipment to be furnished by the seller, the Seller agrees to be bound to the same extent that the Purchaser is bound by the terms of the Prime Contract, and by any and all decisions and determinations made thereunder, provided that the Seller shall have the right to participated in the settlement of any dispute with the customer to the extent that the Seller will be affected thereby.

No interest shall accrue on any payment(s) otherwise due the Seller, which is withheld or delayed as a result of any such dispute except to the extent that the Purchaser is ultimately paid interest on monies due the Seller. The Seller shall not be held liable if the Seller follows instructions of the Purchaser and it is later determined that the Purchaser's instructions were not in compliance with the terms and specifications of the Prime Contract. Pending final disposition of a dispute hereunder, the Seller shall carry on the work unless otherwise agreed in writing by the Purchaser.

In all instances the final authority should rest with the final Specifications.

7. Patent Indemnity

Purchaser hold seller harmless for any infringement seller work may constitute on patents held by any third party that result from the direct request for work made by purchaser in this "work made for hire" agreement.

The Seller hereby agrees to be responsible for all claims against the Purchaser of the Customer for alleged infringement of patents by reason of the Purchaser's or Customer's possession, use, or sale of any materials or equipment furnished hereunder by the Seller or by reason of the performance of any work hereunder by the Seller. The Seller agrees to defend at its sole expense all suits against the Purchaser and/or the Customer and to save and hold harmless the Purchaser and the Customer from and against all costs, expenses, judgments, and damages of any kind which the Purchaser or the Customer may be obliged to pay or incur by reason of any such alleged or actual infringement of a patent or patents. The Purchaser and the Customer agree to render whatever assistance is reasonably can in the way of information and access to records for the defense of any such suit. This indemnity shall not extend to alleged or actual infringements resulting from the Seller's compliance with the Purchaser's or Customer's design, instructions, processes, or formulas provided, however, that the Seller agrees to be responsible if it is reasonable to assume that the Seller should have been aware of a possible alleged or actual infringement resulting from the Purchaser's or Customer's design, instructions, processes, or formulas and fails to notify the Purchaser of such possibility.

# Exhibit I

Mark emails july04.doc

>From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>To: paul ceglia <paulceglia@msn.com>
>Subject:
>Date: Thurs, 22 July 2004 09:22:36 -0700
>
>Paul,
>I am guessing that you don't want to talk to me but I wanted to say happy birthday and that I hope to resolve >our differences. I see that what I did was wrong and I am really sorry that I behaved as I did. Please give me >your address and Iwill mail you back the $2000 for your trouble, more if it will repair our business relationship. >Another summer is here and I still don't have any time to build our site, I understand that I promised I would, but >other things have come up and I am out in California working during break. I just don't want the obligation of >having to answer to you for not following through and I won't be able to. Best,
>Mark

From: paul ceglia <paulceglia@msn.com>
To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
Subject: Re:
Date: Tue, 6 April 2004 18:13:41 -0400

Mark,

You've got some nerve talking about me owing you with the CRIMINAL stunts you've pulled Reasonable people go to court to resolve their differences they don't go stealing things dude,you stole code, not once, not twice but THREE TIMES! Do you have any idea the damage you've done??? Grow up, take a fucking ethics class, choke yourself with that silver spoon of yours.

>From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>To: paul ceglia <paulceglia@msn.com>
>Subject:
>Date: Tue, 6 April 2004 15:44:19 -0400
>
>Paul, I have become too busy to deal with the site and no one wants to pay for it, so I am thinking of just >taking the server down. My parents have a fund that I can tap into for my college expenses and I would just >like to give you your two thousand dollars back and call it even on the rest of the money you owe me for the >extra work. At this point I won't even really be able to work on the facebook until Summer. Best, >
>Mark

# Exhibit J

Mark harvard emails up to Dec.doc

From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
To: paul ceglia <paulceglia@msn.com>
Subject: Re:
Date: Sun, 30 Nov 2003 11:03:27 -0400

Your probably right about just letting them make fools of themselves, I just can't resist the opportunity, it's just too in my lap to pass up. I'm going to just one more time stall them with promises of writing for them and that will be that, I'll only work on our site of course but at least we will know we will be the first ones out.

Mark

>From: paul ceglia <paulceglia@msn.com>
>To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>Subject: Re:
>Date: Sat, 29 Nov 2003 10:36:49 -0400
>Well it is certainly aligned with the heavens that these guys came to you Mark, that story you told on the phone
>the other evening was really funny. I'd just say be careful, I'd like to know what they have under the hood too,
>but  at the same time we can't go too far. I'm not sure if corporate espionage is illegal, as fun as it sounds, but I
>had my run in with the law years ago Mark and believe me you don't want that.  My thought is if they are just a
>couple of dumb jocks then why even concern ourselves over them, I'd say our energy is better spent building
>our own site, which clearly is going to have so much more functionality than theirs that we will be displaying
>their intellect to them in good time.
>
>
> > From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
> > To: paul ceglia <paulceglia@msn.com>
> > Subject:
> > Date: Fri, 28 Nov 2003 18:47:06 -0400
> > I've been using some of Jeffs old code for different parts of the site, I'm hoping he will be able to write
> > something for us.I'm not sure what course of action I should take regarding the upperclassmen. they have
> > given me a bunch  of their code to read and it is really an amateur attempt at best, though there is some
> > functionality I think I'll borrow.  I don't think database functionality has even crossed their underdeveloped
> > minds.  I feel like they are my two dumb ox and I will steer them where ever I please. Since they trust me
> > (and think I'm so grateful to them for including me) I am sure that I can delay them beyond our own sites
> > release. I'm questioning if I should just pull their plug and hack the code I want or just stall them and see how
> > far I can lead them along. Best,
> >
> > Mark

From: paul ceglia <paulceglia@msn.com>
To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
Subject: Re: Urgent! Lets talk
Date: Sat, 22 Nov 2003 17:08:42 -0400
Mark, Sounds as though we are up against it, Do these guys know about our plan? They couldn't possbily have our quality of software.  Still the early bird does catch the worm, I'll fedex you a check overnight so you can get going. Sounds like you are really going to have to push it, call me when you get it, I'd like to figure out how we can stay ahead of the pack. Has Jeff been helping out?

>From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>To: paul ceglia <paulceglia@msn.com>
>Subject: Urgent! Lets Talk

>Date: Sat, 22 Nov 2003 12:36:55 -0400
>
>Paul,
>I have recently met with a couple of upperclassmen here at Harvard that are planning to launch a site very
>similar to ours. If we don't make a move soon, I think we will lose the advantage we would have if we release
>before them. I've stalled them for the time being and with a break if you could send another $1000 for the
>facebook project it would allow me to pay my roommate or Jeff to help integrate the search code and get the
>site live before them. Please give me a call so that we can talk more about this. Best,
>Mark

From: paul ceglia <paulceglia@msn.com>
To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
Subject: Re: Thoughts
Date: Tue, 2 Sep 2003 16:10:24 -0400

Mark,

I like your thinking about funding expansion, I'm not sure a monthly fee is the way to go though, we are having a hard time getting adjusters to pay it and it's their business. I'd be concerned that we wouldnt get enough people on there to keep anyone interested. Maybe we could make it free until it was popular and then start charging?

I wouldn't worry too much about a name if they are both already gone, are any of them due to expire? It took us ages to find Streetfax.com and the minute I did I just knew that is what I was waiting for. Let's talk about it on the phone, call me tonight if you get this in time. I suggest we look into a licencing agreement with harvard, I had one once with Syracuse University and it was pretty easy, then we could have a store on the site and sell sweatshirts, mugs, t shirsts and stuff to alumni and have some money coming in right away.

>From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>To: paul ceglia <paulceglia@msn.com>
>Subject: Thoughts
>Date: Tue, 2 Sep 2003 13:00:36 -0400
>
>Paul,
>I have been away for a few days without internet, during that time I revised the business plan for the Harvard
>site. I would like to talk to you on the phone about it in detail. As you mentioned last week, the issue we must
>resolve is how to produce a revenue stream from the users. My conclusion this past week is to charge Alumni
>$29.95 a month. With this in mind, considering just 300 people, and the projection of a $9000 monthly
>revenue, we could, as you suggested, rapidly expand to other colleges. Further, since the plan involves more
>than one college, the name can't have Harvard in it and remains unresolved. Additionally, both original names
>facebook.com and pagebook.com are unavailable, so there is no actual domain name either. thefacebook.com
>and thepagebook.com are both available but are clearly not a premium quality domain as they are much harder
>to remember.
>
>Mark

>---------- Forwarded message ---------- Date: Wed, 30 Jul 2003 18:27:11 -0400
>From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>To: paul ceglia <paulceglia@msn.com>

>Subject: Re: admin page
>
>The possibility of working in the Carribean coding for you is something to consider, though I would prefer that it >was in the winter. That said, I've been tweaking the search engine today and I'm pleased with its results. I'd like >to use it for the Harvard site, I think it will really help people find each other, even if they spell names incorrectly. >Would it be agreeable with you if I adapt the source code? Thanks!
>Mark

> > ---------- Forwarded message ---------- > Date: Wed, 30 Jul 2003 14:55:49 -0400
> > From: paul ceglia <paulceglia@msn.com </cgi-bin/compose?curmbox=F000000001&a=d6b5d89c635ccd5ee966013dc4cd8d54&mailto=1&to=paulceglia@msn.com&msg=MSG1059604341.35&start=928150&len=7531&src=&type=x>>
> > To: mzuckerb@fas.harvard.edu </cgi-bin/compose?curmbox=F000000001&a=d6b5d89c635ccd5ee966013dc4cd8d54&mailto=1&to=mzuckerb@fas.harvard.edu&msg=MSG1059604341.35&start=928150&len=7531&src=&type=x>
> > Subject: Re: admin page >
> > Mark, I have enterd the test adjusters and test photographers for the
> > testing. Unfortunately due to the zip code issue we can go no further. I
> > think the zip code is a really great idea, i just dont think it is realistic
> > unless the computer automatically assignes the zip code through some
> > software. asking adjusters to defferentiate zips is a real pain in the ass
> > for them and we have three different maps and all of them seem to have
> > variations in the lines, if you can see them. I see the great benifit of
> > having it by zip in the cities and it also makes good organizational sense.
> > Especially if we could track pictures or amounts seperately by them. Unless
> > there is some really handy software we can integrate to give us the zip I
> > think we should continue on with the town name idea of assigning. If it
> > means that during our growth that at some point 2 people needed to be
> > emailed for a city like miami(which seems very unlikely, or at least if we
> > had the market share needed to have to do that , somewhere around 80% ,we
> > would have more money than we knew what to do with and could pay you to take
> > six months off in the carribean to re write that coding.) My thoughts are
> > that we should have a default email that the dispatcher could check so that
> > if a town is missspelled or missing that the computer would know that if it
> > is not on the list for any of the photographers then on to the catchall
> > email.  let me know what you think.
> > On the email issue, does this mean that we get no emails with this server
> > package? or jsut a few, if we dont get any please send me the link to buy
> > the software. thanks Paul
> >

# Exhibit K

mark feb emails.doc

From: paul ceglia <paulceglia@msn.com>
To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
Subject: Grow up.
Date: Sat, 7 Feb 2004 11:37:13 -0400

Mark, all I can think is your parents have handed you everything your entire life and after all this time and energy and MONEY that you think in your head that an Ok way to act is to just say- oh I've changed my mind I don't think it's cool to make money and that that should be that. Then you have the nerve to suggest that I should pay you more money if I get you right, so that you dont have to try to make money on the site we've built?? It's one thing to say you don't want to sell coffee mugs but I don't see why since the margins are excellent and with minimal effort we could generate some decent revenue for us while keeping the site free to students. It's one thing to say "I'd like to discuss with you other ways we could produce revenue for the site, like advertising, we could sell ads locally I am sure and to places that already sell alumni stuff(but we will be losing the margins) angel investors are just con men and until we have some decent revenue we aren't going to get a dime from them without giving up the whole thing and anyway at this point it's just a freaking harvard thing. I need to be able to get on the actual site and see where we can place some ads and we need to get some bike couriers to go around promoting the site so we can get some people using it FIRST! But we need to get some advertising on the site right away if you like that route better so alumni are used to seeing some ads from the beginning. Isn't there a way to count how many people click to their site from ours?

From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
To: paul ceglia <paulceglia@msn.com>
Subject: The site.
Date: Fri, 6 Feb 2004 22:12:51 -0400

Paul,

Sorry it's taken me a few days to respond, Now that the sites live I feel I must take creative control and I just can not risk injuring my sites reputation by cheapening it with your idea of selling college junk, nor do I wish to spend my time shipping out coffee mugs to rich alumni. The site is cool as it is and I don't care about making any money on it right now, I just want to see if people will use it. If I had the rest of the money I was owed by you for all that extra work I did I wouldn't even need to make money at all on this site. That is money I am entitled to and is rightfully mine.

From: paul ceglia <paulceglia@msn.com>
To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
Subject: Re: The site is online!
Date: Wed, 4 Feb 2004 10:30:16 -0400

Congrats Mark! The site looks great, Just wondering if we might think of another title for it without the the, but plenty of time for that, I'll try and think of some names, I looked for weeks to finally find streetfax.com and that is how I named it, backwards from the availability, I'm sure you checked to see if just facebook.com was available? you know another thing i've been thinking of that I perfected in Streetfax is going city to city, If you went city to cityh with this I think it would be far easier than just trying to open it up to all ivy league schools at once, actually get on the ground

in each place, we send a half dozen guys into the city on bikes and within a few weeks we have photos of every intersection in the place, so the same thing could be done onlyh putting up flyers to promote the site, just brainstorming some ideas on how we can start making some money.

>From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>To: paul ceglia <paulceglia@msn.com>
>Subject: The site is online!
>Date: Wed, 4 Feb 2004 08:27:39 -0400
>
>
>Paul,
>“thefacebook.com” opened for students today, when you get a chance take a look at it. I'll let you know how it >goes.
>

From: paul ceglia <paulceglia@msn.com>
To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
Subject: Re: Going live
Date: Tues, 3 Feb 2004 07:56:01 -0400

OK fine Mark 50/50 just as long as we start making some money from this thing. I'm looking forward to hearing how it goes but I am so busy right now with a few other projects that my time is very thin.. Let's get it live and open up the store. Have you had a chance to inquire about getting a merchandizing license? We really will need that soon so we can start bringing in some money, everyone buys t shirts and mugs, especially the parents.. they deserve bragging rights at home with the tuition they have to pay. Also what about putting in something like a Christian corner? I've only been to Harvard a few times but the idea of being able to find other christians online without having to do the un PC thing of asking someone face to face sounds to me like it would have some real value, if only the spiritual kind. :-) and the other thing is links to hotlines, why couldnt we have the rape crisis hotline, the suicide hotline, drug rehab and so on right there so when someone really needs something they could link over to the site they wanted? Same thing for local pizza and chinese or whatever, that way it could really be a resource that a person could use.

>From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>To: paul ceglia <paulceglia@msn.com>
>Subject: Going live
>Date: Mon, 2 Feb 2004 09:18:25 -0400
>
>Paul, I have a rather serious issue to discuss with you, according to our contract I owe you over 30% more of >the business in late penalties which would give you over 80% of the company. First I want to say that I think >that is completely unfair because I did so much extra work for you on your site that caused those delays in the >first place and second I don't even think it is legal to charge such a huge penalty. Mostly though I just won't >even bother putting the site live if you are going to insist on such a large percentage. I'd like to suggest that you >drop the penalty completely and that we officially return to 50/50 ownership

.

From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
To: paul ceglia <paulceglia@msn.com>
Subject: Re: the database
Date: Fri, 16 Jan 2004 23:46:53 -0400

I'll check into it and see how easily we could modify the script, I think you are right though and that it could manage people just as well as it manages street interections. I tried your idea and found a similar result can't get the spelling right for an estimated 30% of my names. I also checked out Myspace and you are correct they do not have any programming to account for mis-spelled names, you simply can't find them!

>From: paul ceglia <paulceglia@msn.com>
>To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>Subject: the database
>Date: Tues, 13 Jan 2004 08:07:28 -0400
>
>Mark, I got to thinking, seems like a fantastic idea to use the database we built already, there is really no way >you could rebuild something that could work as well. Think about it and try this, write down on a piece of paper >20 people you remember from high school and try to spell their names correctly. I tried it and at least half of >them I am wondering if I have the spelling right, I'll have to get out my yearbook sometime to prove it. My point >is, what could be better as an engine than my search engine? I just checked out myspace and if you are even >one letter off, guess what? No result, so we have a search engine even better than theirs! Just seems like if we >modify the script a bit we could easily search for peoples names just as we do for street intersections and >return the highest ranking results using the same algorythm and save us some time!

From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
To: paul ceglia <paulceglia@msn.com>
Subject: Re: an accounting
Date: Tues, 6 Jan 2004 16:14:33 -0400

Threats to call my parents are uncalled for and unprofessional and you would be seriously violating our trust by doing so, I have done what I can with the small amount of money you have invested and I will have something live for you to view soon. Again I want to state that under no circumstances do you have my permission to contact my parents as they have nothing to do with my business and just because I am young doesnt mean I'm afraid of my parents response. Please do not contact them about this issue, they would probably just laugh you off anyway.

>From: paul ceglia <paulceglia@msn.com>
>To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>Subject: an accounting
>Date: Mon, 5 Jan 2004 09:25:48 -0400
>
>Mark, It is well past January 1st and to my knowledge you don't have a single thing done for the site, I gave you >an extra $1k in November so we could rush it ahead of these other guys and as far as I know you don't even >have a domain name or a home page built, let alone the actual

database. For now I suggest you use my search >engine and we work out the details. I'm starting to think you just blew that money Mark. You know perfectly well >that you can't just take a persons investment and then spend it on women and beer or whatever you do up >there in Harvard. I've been stalled long enough on this thing and if I don't see something soon I'll have no >choice but to contact the school and perhaps your parents in Dobbs Ferry and let them know whats been going >on.
>

From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
To: paul ceglia <paulceglia@msn.com>
Subject: Re: Update
Date: Thurs, 1 Jan 2004 17:42:31 -0400

Paul,

I'll just get this site online as quickly as I can...

>From: paul ceglia <paulceglia@msn.com>
>To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
>Subject: Re: Update
>Date: Thurs, 1 Jan 2004 16:26:14 -0400
>
>Mark, Thanks I'll look forward to reviewing the details, just a quick question, we seem to be having an issue >with the backend that has really been causing us some grief, I know that you're position is that you,ve done all >the work in the contract and then some, I guess I am somewhat torn as on one hand in your interest you want >me to consider not enforcing my contract while also then making it clear that more money is owed to you for >things that weren't a part of yours, does that make sense to you? It doesnt to me.. I am wondering if you see >where I am coming from here? You can't have it both ways Mark.
>
>
> > From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
> > To: paul ceglia <paulceglia@msn.com>
> > Subject: Re: Update
> > Date: Thurs, 1 Jan 2004 15:02:43 -0400
> >
> > Paul,
> > I can scan it when I get home this weekend, Harvard's system has not been working properly this week and > > it would be easier if I could wait until then. Thanks!
> > Mark
> >
> > >From: paul ceglia <paulceglia@msn.com>
> > >To: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
> > >Subject: Re: Update
> > >Date: Thurs, 1 Jan 2004 14:21:50 -0400
> > >
> > >Mark, Happy New year to you as well, I think it is going to be a FANTASTIC year for us both. Things are
> > >really looking great for Streetfax and I just believe it that this is our year! Glad to hear about the server > > >side, not really sure what you are talking about in regards to the extra points, I'm down in Florida right now > > >and the contract is back in NY. Do you have a copy of it you can send digitally? > > >
> > >

> > >>From: Mark Elliot Zuckerberg <mzuckerb@fas.harvard.edu >
> > >>To: paul ceglia <paulceglia@msn.com>
> > >>Subject: Update
> > >>Date: Thurs, 1 Jan 2004 11:55:08 -0400
> > >>Paul,
> > >>I just wanted to extend to you a Happy New Year and tell you that all individual parts for the back end of > > >>the site have been completed. The extra $1000 really helped get us further ahead and if there is any > > >>way you can send some additional funding I believe we will be online in a few weeks. I think it is > > >>unnecessary at this point, with all of the extra work I have done for you, to hold me to the original > > >>completion date. I should not be penalized for delays that were out of my control, namely that there have > > >>been so many unspecified requests from the Streetfax project that you wanted to be placed as a priority, > > >>thereby delaying my start on our second project. Thus, I am requesting a written waiver on your part > > >>exempting me from the obligation to give you additional ownership in the project that is outlined in our > > >>original contract.
> > >>Mark