

# Moving Your Practice Into the Cloud: Benefits, Drawbacks and Ethical Issues



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# Virtual Law Office

- **Virtual Law Office:**
  - No central office
  - Dispersed practices
  - Run entirely on cloud-based software and technology
  - Often never meet clients in person
- **Not What I'm Talking About**

# Premise

“Cloud” encompasses many things

I'll try to cover all of it in this seminar



# Cloud Flavors

Software as a Service ("SaaS")



Infrastructure as a Service  
("IaaS")



# Cloud Examples

- Email
- Dropbox/Box/OneDrive/Google Drive
- ShareFile
- QuickBooks Online or Xero
- Web-based case management
- Web-based accounting
- Office 365 or G Suite
- Carbonite or Mozy online backup
- Hosted servers
- Electronic case filing

And the point is:

You can't avoid



# Data Center

## Data Centers (where the cloud is)

- Redundant Internet
- Redundant electric
- Backup generators
- Huge cooling systems
- High security



# Client Portal

- Electronic gateway to a collection of digital files, services, and information, accessible via the Internet
- Sharing mechanism
- Allows clients to view, download, and upload private information

**Online Case Management**  
*Your Immigration Matters!*

Murthy Law Firm  
U.S. IMMIGRATION LAW  
law@murthy.com

### CLIENT LOGIN

#### New Users

User ID :

\* Please enter the User ID

#### Registered Users

User ID :

Password :

Remember my ID and Password  
[Not recommended if this is a shared PC]

Forgot your password? [Click here](#) (AFTER you have entered your User ID above).

NOTE: Individual clients should enter their Client Number (xx-xxxx) and HR Managers should enter the login information they received from the Firm as the User ID.

[Click here](#) for detailed Instructions on how to login to your Online Case Manager



# Encryption Defined

Encryption is **the process of converting data to an unrecognizable or 'encrypted' form**. It is commonly used to protect sensitive information so that only authorized parties can view it. This includes files and storage devices, as well as data transferred over wireless networks and the Internet.

...

**An encrypted file will appear scrambled to anyone who tries to view it. It must be decrypted in order to be recognized.** Some encrypted files require a password to open, while others require a private key, which can be used to unlock files associated with the key.

# Is Cloud All Or Nothing?

- **Absolutely not**
- You can use cloud and on-premises in combination

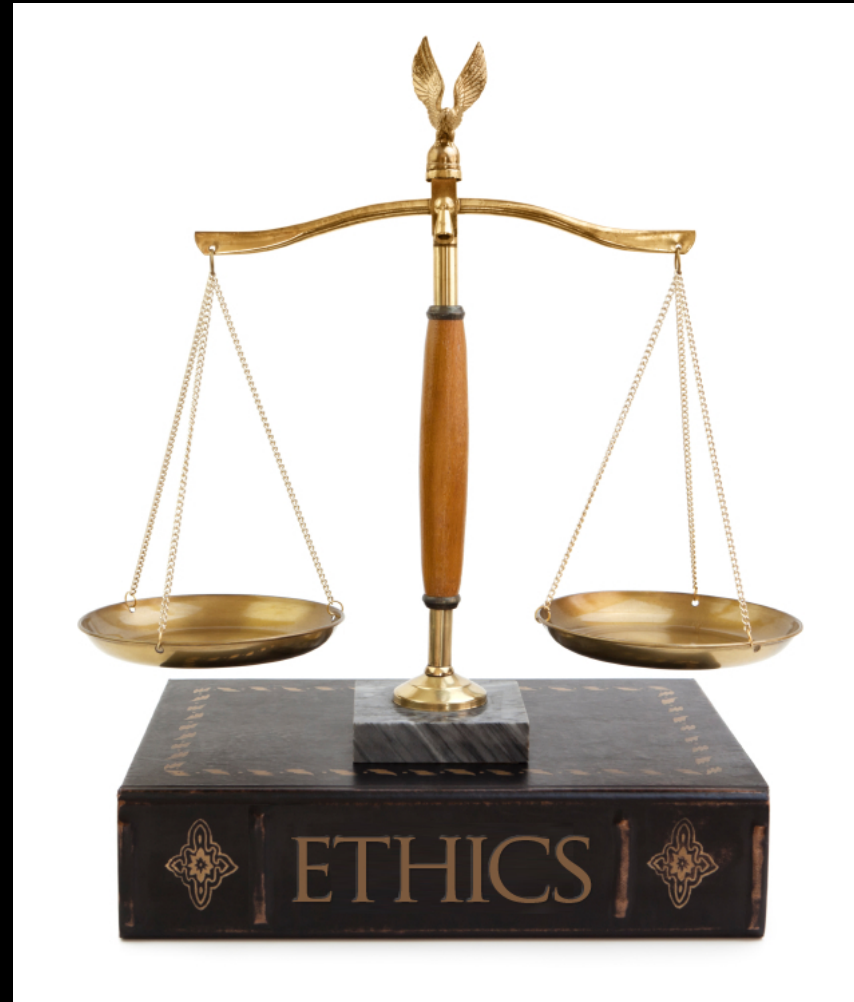


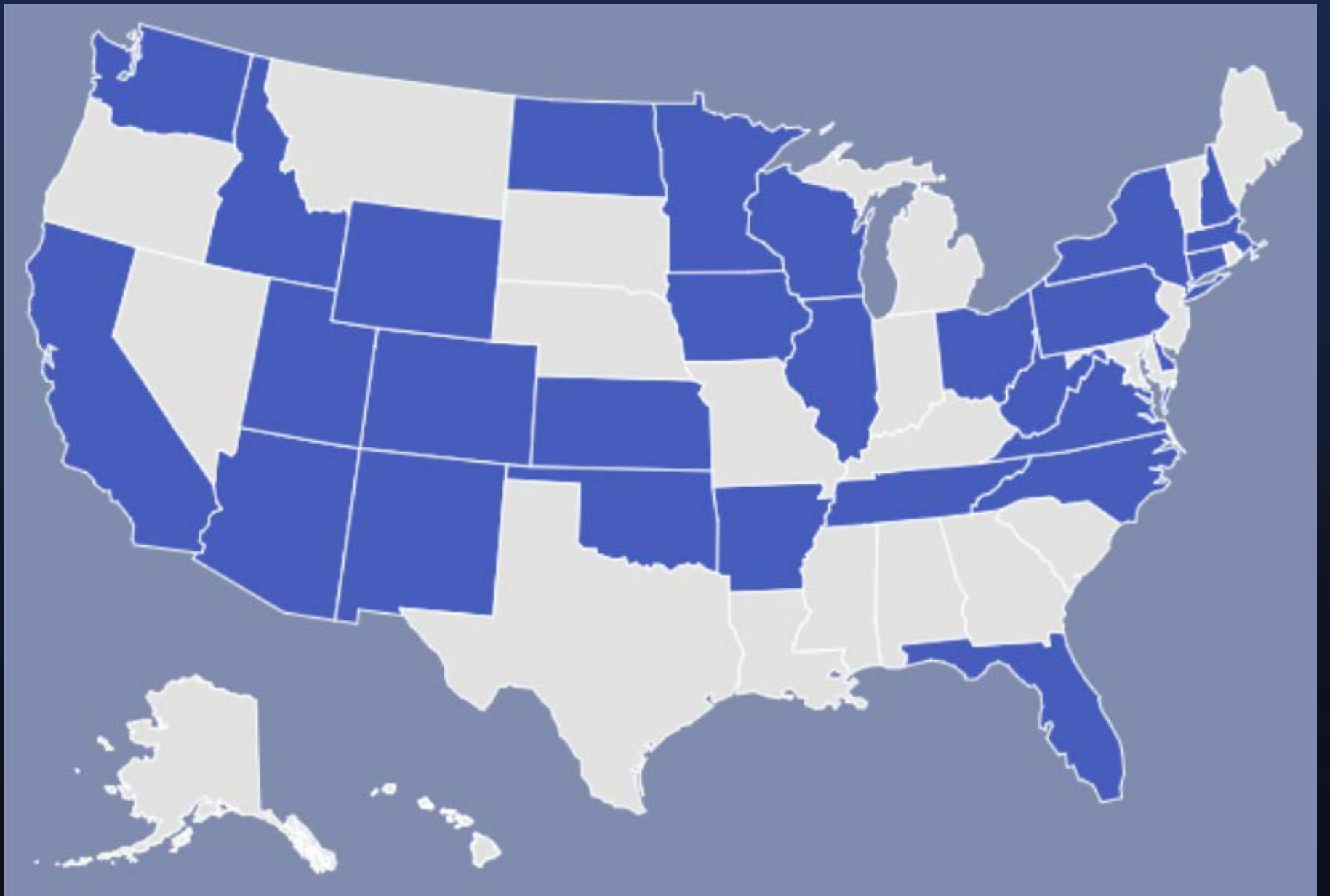
# What If Internet Goes Down?

- Have backup Internet connection
- Wifi smartphone hotspot
- Mifi hotspot
- Go home, drive to Starbucks, etc.



# Relevant Ethics Rules





# Rule 1.1- Competence

A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation.

# Rule 1.1 Comment 8

To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, **including the benefits and risks associated with relevant technology**, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject

# Rule 1.6(a) - Confidentiality

(a) A lawyer shall not reveal information relating to the representation of a client unless the client gives informed consent, the disclosure is impliedly authorized in order to carry out the representation, or the disclosure is permitted by paragraph (b) or required by paragraph (c).



# Rule 1.6(e)

(c) A lawyer shall make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client.

# Rule 1.6 Comment 18

[18] Paragraph (e) requires a lawyer to act competently to safeguard information relating to the representation of a client against unauthorized access by third parties and against inadvertent or unauthorized disclosure by the lawyer or other persons who are participating in the representation of the client or who are subject to the lawyer's supervision.

# Rule 1.6 Comment 18

[18 – cont.] The unauthorized access to, or the inadvertent or unauthorized disclosure of, information relating to the representation of a client **does not constitute a violation of paragraph (e) if the lawyer has made reasonable efforts to prevent the access or disclosure.**

# Rule 1.6 Comment 18

[18 – cont.] **Factors to be considered** in determining the reasonableness of the lawyer's efforts include, but are not limited to, the **sensitivity of the information**, the **likelihood of disclosure** if additional safeguards are not employed, the employment or engagement of persons competent with technology, the **cost** of employing additional safeguards, the **difficulty** of implementing the safeguards, and the extent to which the safeguards adversely affect the lawyer's ability to represent clients.

# Rule 1.6 Comment 18

[18 – cont.] A client may require the lawyer to implement special security measures not required by this Rule or may give informed consent to forgo security measures that would otherwise be required by this Rules...

# Rule 1.6 - Comment 19

[19] When transmitting a communication that includes confidences or secrets of a client, the lawyer must take **reasonable precautions** to prevent the information from coming into the hands of unintended recipients.

# Rule 1.6 - Comment 19

[19 – cont.] This duty, however, **does not require that the lawyer use special security measures if the method of communication affords a reasonable expectation of privacy. Special circumstances, however, may warrant special precautions.**

# Rule 1.6 - Comment 19

[19 – cont.] **Factors to be considered** in determining the **reasonableness** of the lawyer's expectation of confidentiality include the **sensitivity of the information** and the **extent to which the privacy of the communication is protected by law or by a confidentiality agreement.**



# Rule 1.6 - Comment 19

[19 – cont.] A client may require the lawyer to implement special security measures not required by this Rule or may give informed consent to the use of a means of communication that would otherwise be prohibited by this Rule.

# Rule 5.1

(a) A partner in a law firm, and a lawyer who individually or together with other lawyers possesses comparable managerial authority in a law firm, shall make reasonable efforts to ensure that the firm has in effect measures giving reasonable assurance that all lawyers in the firm conform to the Rules of Professional Conduct.

(b) A lawyer having direct supervisory authority over another lawyer shall make reasonable efforts to ensure that the other lawyer conforms to the Rules of Professional Conduct.

# Rule 5.1

(c) A lawyer shall be responsible for another lawyer's violation of the Rules of Professional Conduct if:

(1) the lawyer orders or, with knowledge of the specific conduct, ratifies the conduct involved; or

(2) the lawyer is a partner or has comparable managerial authority in the law firm in which the other lawyer practices, or has direct supervisory authority over the other lawyer, and knows of the conduct at a time when its consequences can be avoided or mitigated but fails to take reasonable remedial action.

# Rule 5.3

With respect to a nonlawyer employed by, retained by, **or associated with** a lawyer, all of the following apply:

(a) a lawyer who individually or together with other lawyers possesses comparable managerial authority in a law firm, **shall make reasonable efforts to ensure that the firm or government agency has in effect measures giving reasonable assurance that the person's conduct is compatible with the professional obligations of the lawyer;**

# Rule 5.3

(b) a lawyer having direct supervisory authority over the nonlawyer **shall make reasonable efforts to ensure that the person's conduct is compatible with the professional obligations of the lawyer; and**

# Rule 5.3

(c) a lawyer shall be responsible for conduct of such a person that would be a violation of the Ohio Rules of Professional Conduct if engaged in by a lawyer if:

(1) the lawyer orders or, with knowledge of the relevant facts and the specific conduct, ratifies the conduct involved;

(2) the lawyer is a partner in the law firm in which the person is employed or has direct supervisory authority over the person and knows of the conduct at a time when its consequences can be avoided or mitigated but fails to take reasonable remedial action.

# Other Rules Implicated

- Rule 1.3 – Diligence
- Rule 1.4 – Communications with Client
- Rule 1.15 – Safeguarding Client Property
- Rule 1.16 – Terminating Representation
- Rule 1.17 – Sale of Practice

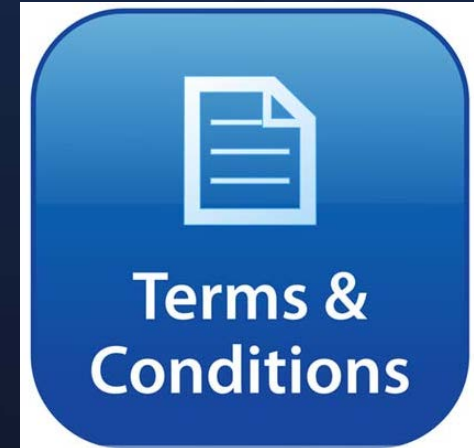
# States With Opinions

- Alabama Ethics 2010-02
- Arizona 09-04
- California 2010-179
- Connecticut Informal Opinion 2013-07
- Florida 12-3
- Iowa 11-01
- Maine 207
- Massachusetts 12-03
- New Hampshire 13/4
- New Jersey 701
- New York 842
- Nevada 33
- North Carolina 2011 Opinion 6
- Oregon 2011-188
- Pennsylvania 2011-200
- Vermont 2010-6
- Virginia 1872
- Washington 2215



# Reasonable Care

- You must read the vendor's terms of service
- Is data encrypted in transit and at rest? You want a "zero knowledge privacy policy."



# Reasonable Care

- If encrypted at rest, can vendor decrypt? Who has access?



- Where is your data stored?



- What is the disaster avoidance plan?

# Reasonable Care

- Backups – where & when



- Tier 4 data center?



- Notice if there's a breach?

# Reasonable Care

- Can you download your data?



- Financial health of vendor?



# Key Takeaways



# You know that confidential electronic data is lost every day – somewhere

## THE WALL STREET JOURNAL.

### Hackers Breach Law Firms, Including Cravath and Weil Gotshal

Investigators explore whether cybercriminals wanted information for insider trading

By [NICOLE HONG](#) and [ROBIN SIDEL](#)

Updated March 29, 2016 9:14 p.m. ET

Hackers broke into the computer networks at some of the country's most prestigious law firms, and federal investigators are exploring whether they stole confidential information for the purpose of insider trading, according to people familiar with the matter.

**QUESTION:** Does **doing nothing** to prevent your client's data from being disclosed constitute:

1. **"Reasonable efforts"**
2. **"Acting competently"** or
3. **"Reasonable precautions"?**



- Confidentiality isn't on a scale of 1 to 10
  - data is either confidential or it isn't

- Lawyers are not qualified to judge:
  - sensitivity of client data
  - likelihood of disclosure



- If lawyers find it too expensive or difficult to protect client data, then they shouldn't be in possession of it

Do you think **email** provides a **reasonable expectation of privacy**?



**Well it doesn't** – regardless of what the case law says



# You might want to ask your clients *beforehand* how they feel about email

**From:** [REDACTED]  
**Sent:** [REDACTED]  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Re: [REDACTED]

First, I am hugely concerned by the total disregard by your office for my confidential personally identifiable information (PII) contained in this document, unsecured, unencrypted and dallied about the Internet in plain text. This is a flagrant disregard for privacy laws and has exposed me to potential identity theft.

I must instruct you to immediately cease and desist. You are not to expose my full contact information, date of birth and social security number to the Internet again for any purpose. You are to immediately take every reasonable commercially available precaution to protect my PII from misuse.

If you do not know or understand your privacy violations in this matter, please contact me separately.

Do not share this document with anyone - including me - via the Internet, including email transmissions, without either 1) removing confidential PII, and/or 2) encrypting these contents to commercially reasonable levels.

[REDACTED]

[REDACTED] First Set of Interrogatories.DOCX>

# Pleading Ignorance Won't Work



## Most States Now Require Tech Competence for Lawyers. What Does That Mean For You?

February 9, 2017 by [Sarah Andropoulos](#)

The constantly evolving world of technology may seem like an overwhelming new frontier, especially as it relates to the already complex ethical rules that attorneys must follow. The challenge of complying with new ethics and technology standards can seem even more difficult given the somewhat general wording of applicable rules. However, and while the discussion above does not provide an exhaustive guide to compliance in this area, the clear takeaway for today's lawyers is that they will be unable to claim ignorance in the event of a technology-related ethical lapse, and must undertake reasonable efforts to use technology in a manner that is consistent with their professional responsibilities.

# Reasonable Steps

- You need to understand the **risks & benefits of relevant technology**
- Example: You're subject to a court rule requiring **redaction** on a PDF file
  - Do you have the **right software**?
  - Does the person doing it **know how**?
  - Are the instructions **written down**?

# Acrobat Alternatives

- Adobe Acrobat DC [x](#)
  - Acrobat DC Pro - **\$449**
  - Acrobat DC Standard - \$299



- Acrobat DC Pro Equivalents:
  - Nuance Power PDF Advanced - **\$150**
  - Foxit PhantomPDF Business - **\$140**
  - Nitro Pro - **\$160**

# Reasonable Steps

If you're a supervising lawyer, you must ensure that:

- All subordinate lawyers are following protocol (Rule 5.1)
- All non lawyers associated with you are following protocol (Rule 5.3)



# Reasonable Steps

Clients often don't understand how to protect their own data



# Reasonable Steps

## Tech Competency Training:

- How to remove **metadata** from a Word file
- How to **redact** something on a PDF
- How to run a **redline**
- How to **e-file**
- How to **Bates number** documents
- How to **edit** complex documents
- How to conduct electronic **legal research**
- How to **look up information** on internal systems

# Relative Risks of the Cloud





# Reality

## Bigger security risks:

- Office **break-in**
- Laptop, tablet or phone **stolen**
- **Disgruntled employee** steals
- Laptops, tablets & phones **unsecured & unencrypted**
- **Email**



# Bigger Risks

- Smartphones not encrypted.
- Laptops not encrypted.
- Tablets not encrypted.
- No email encryption even if content and attachments are extremely confidential.
- Aren't sure if backup system actually works (no one checks it); and/or we don't back up our data every single day.

# Reality

- Backup media not encrypted.
- No physical security for server.
- Passwords on sticky notes attached to monitors; and password policy.
- IT people have full access to everything.
- No disaster avoidance or recovery plan.

# Policies You Should Have



# Required Policies

- **Internet use** - <http://tinyurl.com/6srzvsg> [x](#)
- **Social media** - <http://tinyurl.com/6qeprd2> [x](#)
- **Document retention** - [x](#)  
<http://tinyurl.com/7z8ksye>

# Required Policies

- **Secure password** – 12 characters, mixed case, at least 1 number & 1 symbol
- **Disaster recovery plan** - <http://tinyurl.com/3b7sxdn> x
- **Mobile security**

# Digital & Web Security



# Think Your Password Is Secure?

[www.howsecureismypassword.net](http://www.howsecureismypassword.net)

## HOW SECURE IS MY PASSWORD?

Version 2.0 · [View Release Notes](#)

Created by [Small Hadron Collider](#) · Follow on: [Twitter](#) / [Facebook](#)

Top 10,000 Passwords by [Xato](#) · Icons by [Fam Fam](#) · Typeface by [The League of Movable Type](#)

**Disclaimer:** This site is for educational purposes only · [Privacy Policy](#)



# Email Encryption

- **Protected Trust** –  
[www.protectedtrust.com](http://www.protectedtrust.com)



- **Rpost** - [www.rpost.com](http://www.rpost.com) - registered email service which can prove delivery + encrypted email



prove,  
sign,  
encrypt,  
archive

- **ZixCorp** -  
[www.zixencryption.com](http://www.zixencryption.com)



- **SendItCertified.com**



# File Sync Tools

- DropBox: [www.dropbox.com](http://www.dropbox.com)
- SpiderOak: [www.spideroak.com](http://www.spideroak.com)
- Syncplicity: [www.syncplicity.com](http://www.syncplicity.com)
- Box.com: [www.box.com](http://www.box.com)
- Sugar Sync: [www.sugarsync.com](http://www.sugarsync.com)
- Microsoft OneDrive:  
[www.onedrive.com](http://www.onedrive.com)



# Encrypt Your File Sync

- [www.boxcryptor.com](http://www.boxcryptor.com)



- [www.sookasa.com](http://www.sookasa.com)



# File Sharing Tools

## Secure File Sharing

- ShareFile by Citrix - [www.sharefile.com](http://www.sharefile.com)
- TrueShare - [www.trueshare.com](http://www.trueshare.com)
- FileGenius - [www.filegenius.com](http://www.filegenius.com)



# WiFi Encryption/VPN

- Hide My Ass
- Private Internet Access
- IPVanish
- Cloak (Mac only)
- CyberGhost
- VyprVPN
- PureVPN
- NordVPN
- Hotspot Shield Elite



purevpn





Fri 4/29/2016 11:52 AM

Tina [REDACTED]

To  Barron Henley

1 2 3 4 5 6 7 8

Hey Barron. We've been hit with another malware attack last night. We are scrambling to recover our files and concerned about the next steps to take. Tom Lindemann is doing his best to contain this and recover the files but we are losing confidence. I urgently need a second opinion. Here's what I can tell you so far:

We believe the first attack came in from an email from Amazon. The person that received the email does not recall clicking on the attachment but we believe she must have. That encrypted many of our files in a few hours time. They all were re-named something like this: DDD134979107 (LOCKY)

We are unsure how the second attack came in - possibly from Adobe Flash or email attachment. This time, there was much less damage. The documents are re-named something like this: 189697974.cerber (CERBER FILE)

Obviously, we are very concerned and would love a second opinion on what steps we should be taking immediately. FYI, I have an appointment Tuesday with ProCircus. Should I reach out to them now? I'm sorry to put you in the middle. I appreciate any assistance you can provide.

Tina [REDACTED]

# 10 Critical Fixes Issued for Windows, Java, Flash

FEB 16



## Download Security Update 2016-002 Mavericks

Download

Security Update 2016-002 is recommended for all users and improves the security of OS X.

For detailed information about the security content of this update, please visit: <http://support.apple.com/kb/HT1222>

See <http://support.apple.com/kb/HT5044> article for details on how to verify the authenticity of this download.

Post Date: Mar 21, 2016

File Size: 370.80 MB

IE, Flash for Google Chrome, and Flash for Firefox to completely plug all of these 22 vulnerabilities.” Thankfully, Chrome and IE should auto-install the latest Flash version on browser restart (I had to manually restart Chrome to get the latest Flash version).

# Digital Protection

- You MUST ensure **updates are installed**
- You MUST ensure that you have a **firewall**
- You MUST ensure that all PCs have **anti-malware** & **anti-virus** installed and running
- Consider uninstalling **Java** & disabling **Flash**



# Thank You!

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