

2018 IFA

LEGAL SYMPOSIUM

• May 6-8 | Washington, DC

Ethics and the Cloud

[How Painful Can Colliding with a Cloud Really Be?]

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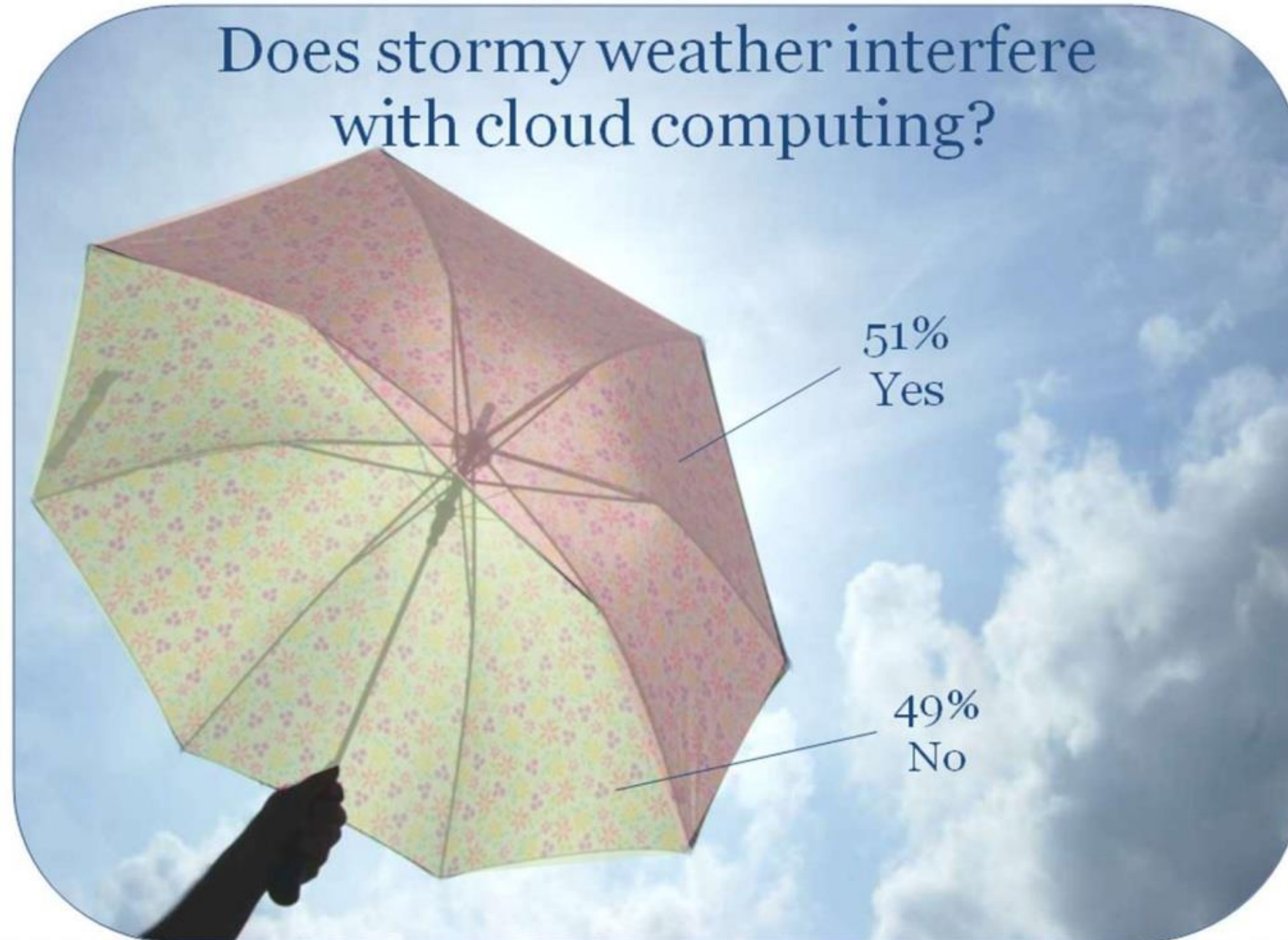
Partner, Cheng Cohen LLC



What is cloud computing?

- Your data is not on your computer. It's on someone else's server or servers – and it could be anywhere
- Your computer is how you get to your data. It provides an interface but it isn't where the magic happens

What is the cloud?



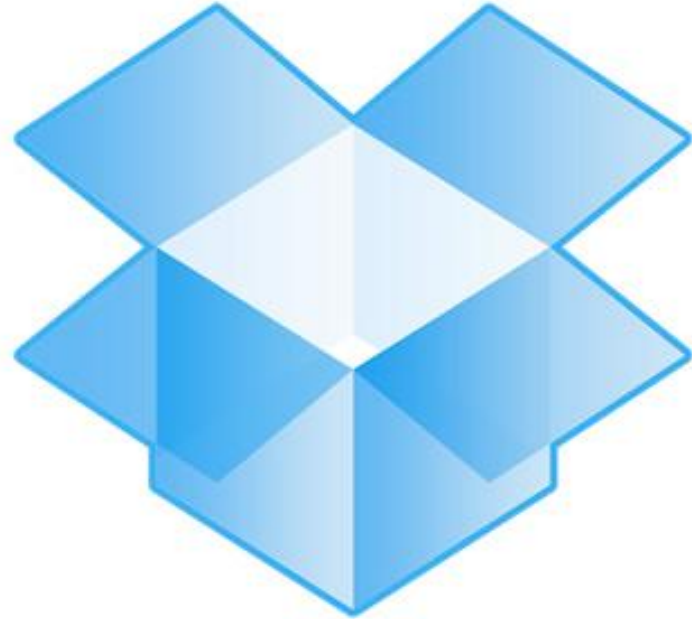
Source: Citrix cloud survey conducted by Wakefield Research

Gmail™
by Google

YAHOO! MAIL

 Outlook.com

Aol Mail. 



Dropbox

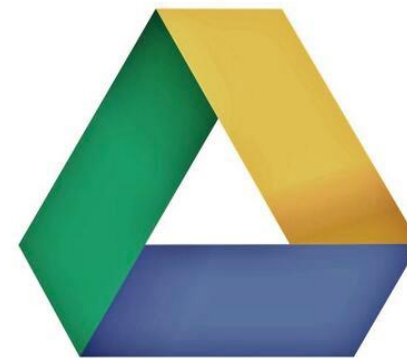


iCloud



OneDrive

box



Google Drive



Where's the Data?



International Server Farms

Public Clouds and Private Clouds

- Public cloud services - computing resources accessed via the Internet offered by a third-party provider
- Private cloud - services that firms or individuals set up for their own use
- Hybrid cloud - a combination of public and private clouds that are managed together



Why are lawyers so scared of the cloud?



Conflicting, confusing info from colleagues, vendors, online resources





Cloud Security Spotlight Report 2017

- Crowd Research partners
- 76% of organizations are piloting, implementing or already operating in the cloud



What role do the ethics rules play?

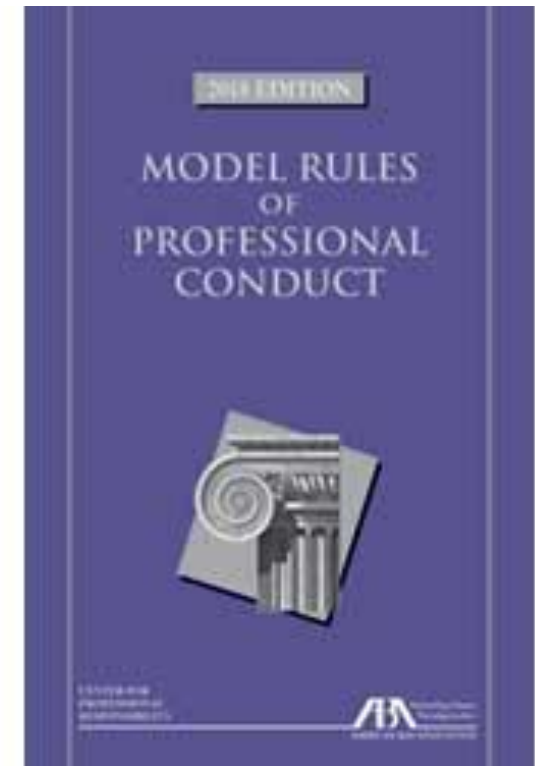


Rule 1.1 - General Duty of Competence

Comment 8 to Rule 1.1

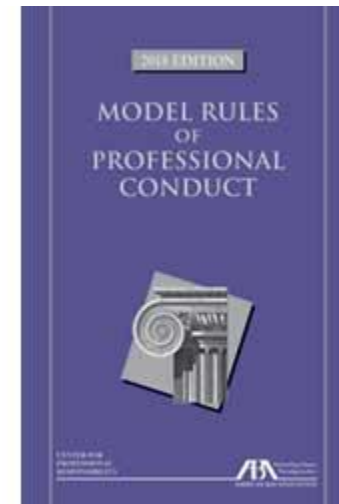
To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice,

including the benefits and risks associated with relevant technology...

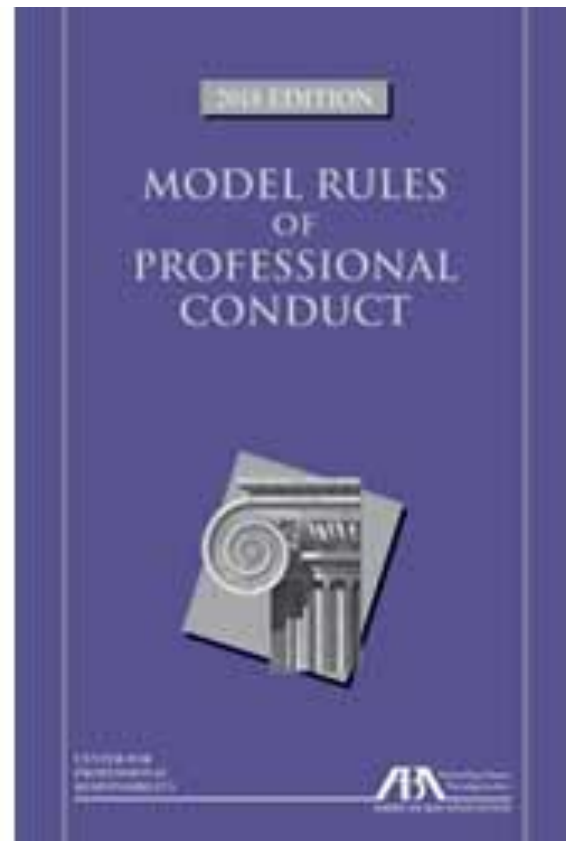


Rule 1.6 Confidentiality of Information

(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.



Communication/Supervision/Client Property



Rule 1.4 Communication

Rule 5.1, 5.2, 5.3

Supervision

Rule 1.15, 1.16(d) Client
Property

“reasonable precautions”
& “reasonable efforts”

=

REASONABLENESS

NOT PERFECTION!!



General Data Protection Regulation (GDPR)

- Effective May 25, 2018
- Applies to any entity offering services to European Union residents
- Also to organizations which control, process or hold personal data of EU residents



General Data Protection Regulation



- Data breach liability
- Data practices liability – collection, storage and usage of protected data
- Fine and penalties up to 20 million Euros or 4% of the total worldwide annual turnover of the preceding financial year

Clarifying Lawful Overseas Use of Data Act

- March 23, 2018 President signed the CLOUD Act
- Requires e-mail service providers served with warrant to disclose e-mails within their “possession, custody, or control,” even when e-mails located outside the U.S. Applies to other forms of communication too
- Microsoft, Facebook and others supported the law

CLOUD Act

- Never reviewed or marked up by any committee
- Never had a hearing
- No standalone vote
- Buried in the spending bill
- A new ethical consideration for law firms



What are the risks of cloud computing?

The **Benefits** of the Cloud



vs.

 The **Risks** of the Cloud

Understand Cloud Technology (or hire an expert)



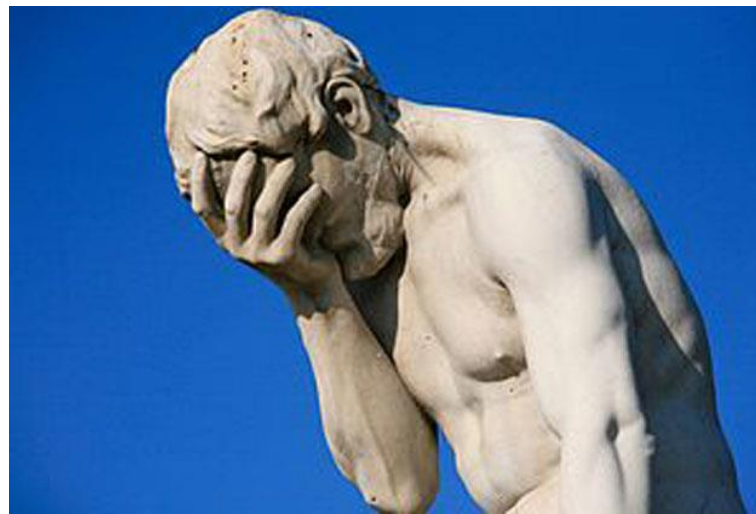
Clouds protect you better than you protect yourself

- They are in the business of security
- Redundant power
- Redundant Internet
- Physical security
- Distributed data
- Encryption in transit and at rest

WOW!

Caveat

- Your agreement will define who is responsible for security measures
- Cloud security is FAR more complicated than traditional security
- Typically, you will want some security control – and will be responsible for it!



Can you negotiate with a cloud provider?



- Not likely with Amazon
- But smaller cloud providers, yes

Famous cloud data breaches

- iCloud
- Dropbox
- Yahoo!
- Box
- Google Drive
- Amazon Web Services
- Facebook
- Twitter
- Gmail



iCloud

Apple's Celebgate

- How did it happen?
- How many lawyers have data in the iCloud or other clouds?



April 6, 2018 - Office 365 down

- Mostly across Europe
- Users couldn't log-in/ U.S. 50% deployment
- *Service is temporarily unavailable. Please retry later.*
- How long can you remain out of business? Who is responsible for getting you back in business?



Gartner

- 95% of cloud security failures are and will be the customer's fault
- You are responsible for the security of the cloud “buckets” (repositories)
Amazon provides



Dropbox 2012 breach

- IDs and passwords compromised by hackers for 68 million accounts
- Weak encryption
- Compromised an employee's password on LinkedIn which he reused on Dropbox



Dropbox

What lawyers have to do - Read the Terms of Service

I Agree

I Have No Idea
What This Says



Physical security

- Multi-tenancy or your own server
- Man-traps to get in
- How do they authenticate? Prox card? Biometrics?
- Video cameras – how long is footage kept? Are they everywhere?
- Locked server cabinets?



Questions to ask

- Redundant power - batteries, then generators?
- Redundant Internet connection?
- 99.999% uptime?
- Compensation if that isn't met?
- Alert if law enforcement comes with warrant?



Questions to ask

- Where is the data stored?
- References from entities similar to yours?
- Employee background checks?
- Are all systems being kept up to date with security patches? How frequently?
- Does the vendor sub-contract any work?



Questions to ask

- Encryption – at rest and in transit?
- Who holds the master decryption key?
- Where is data located? Can you specify?
- What happens if you leave the cloud?
- Legal Cloud Computing Association – Cloud Security Standards

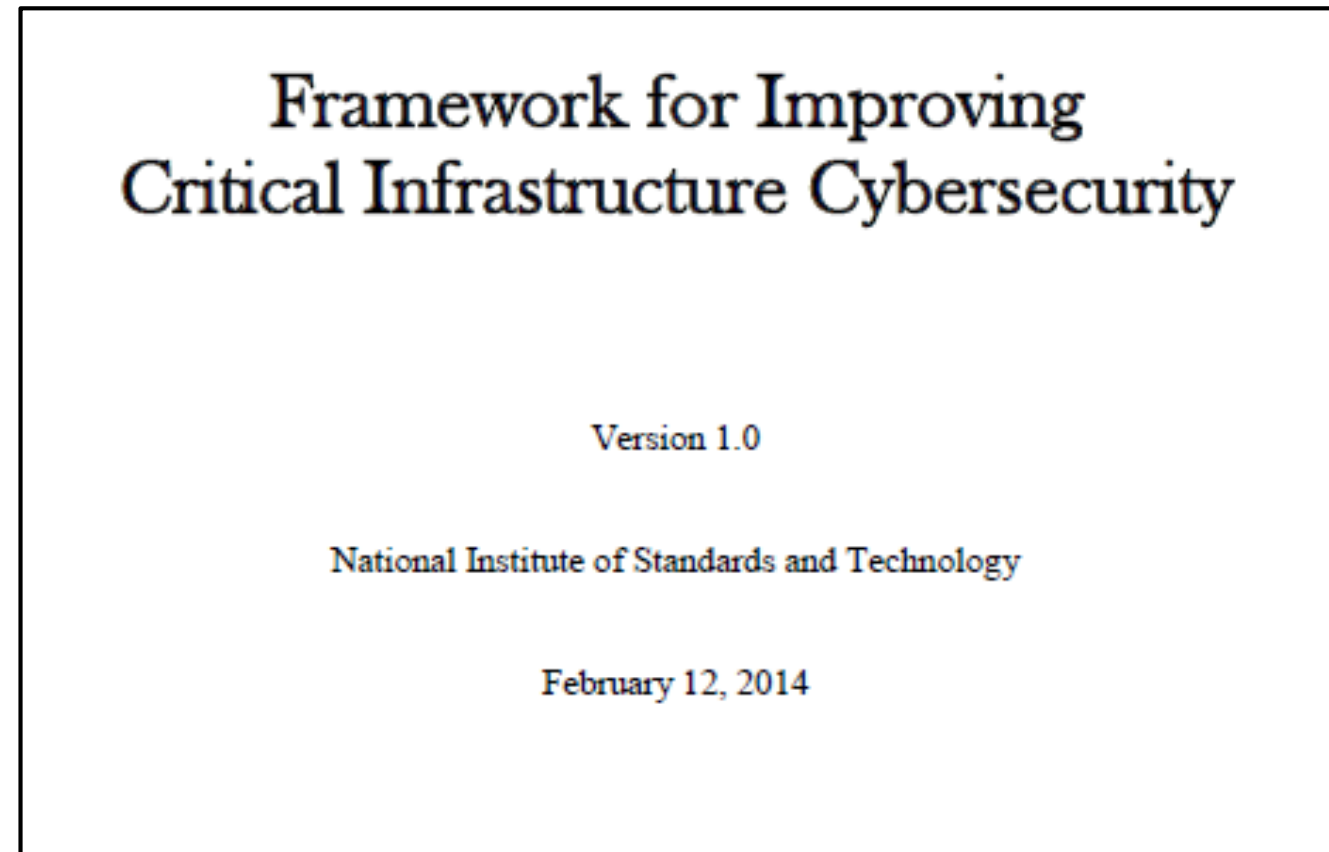


Questions to ask

- How is the company structured? Who is legally liable for security breaches?
- How does the vendor's software integrate with your current suite of tools?
- Does cloud software let you customize security roles for your firm without having to choose from predetermined options?



NIST Cybersecurity Framework: Small Business Information Security: The Fundamentals (30 pages)



NISTIR 7621 Revision 1

Small Business Information Security: The Fundamentals

November 2016 – up to 500 employees

ISO 27001

Version 1.1 released April 16, 2018

Framework for Improving Critical Infrastructure Cybersecurity

Version 1.1

National Institute of Standards and Technology

April 16, 2018

- Details on managing cyber supply chain risks
- Clarifies key terms
- Introduces measurement methods for cybersecurity
- Remains consistent with 2014 document

The Top 20 Controls from CIS



Confidence in the Connected World



CIS Controls


Download the CIS Controls Today

The CIS Controls are a prioritized set of actions to defend against the vast majority of the most common attacks.



Trusted by security leaders in both the private and public sector, the CIS Controls:

- Leverage the battle-tested expertise of the global IT community to defeat over 85% of common attacks
- Focus on proven best practices, not on any one vendor's solution

All 20  CIS Controls

* First Name

* Last Name

* Organization

* Email

* Industry

* Number of Employees Range

[Continue](#) →

Discovery productions via Dropbox?

- Feb. 2017 – W.D. VA , privilege waived by uploading docs to Box site accessible to anyone with the link (**reversed 10/2/17**)
- Equivalent to leaving docs on a public bench
- *Harleysville Insurance Co. v. Holding Funeral Home, Inc. et al*



Reasons for Reversal

- Violation of FRCP 45e(2)(B) - defense counsel refused to return, sequester or destroy info as opposing counsel requested
- Not a “park bench” – not searchable on search engines, needed the specific link of 32 randomly generated characters
- Disclosure was clearly inadvertent



Beware of free public Wi-Fi accessing cloud



If you use public Wi-Fi to access cloud



- You need a Virtual Private Network or other secure connection
- Never connect to Wi-Fi that doesn't require a password

Public computers



Cyberinsurance: Necessary

- To manage enormous risk
- Technology is not a silver bullet
- Cloud computing is another attack surface



Cyberinsurance: Expensive



- Pricing all over the map
- \$10,000 plus is normal for small firms
- Allied Market Research – global market will reach \$14 billion by 2022

Cyberinsurance: Confusing as Heck

- What does your current (non-cyber) policy cover?
- What happen if there is a cloud breach?
- No apples to apples comparison
- Colleagues not reliable source of info
- 2017 Deloitte report – not enough data for reliable predictive models



How to Prepare For/Respond to a Breach



Incident response plan

- Templates are only a start!
- Titles of those responsible for plan functions
- Contact info – FBI regional office
 - <https://www.fbi.gov/contact-us/field-offices>
- Contact info – data breach lawyer
- Contact info – insurance policy (attach policy)
- Attach data breach notification law



Incident response plan

- Contact info – digital forensics company
- Assess data compromised
- PII? HIPAA? Any other regulated data?
- Preserve system logs and DLP or IDS
- Contact info for bank
- Contact info for PR firm
- Informing employees



Incident response plan

- Informing third parties
- Add and subtract issues
- Train on the plan regularly, tabletop exercises, red teams
- Annual review of plan

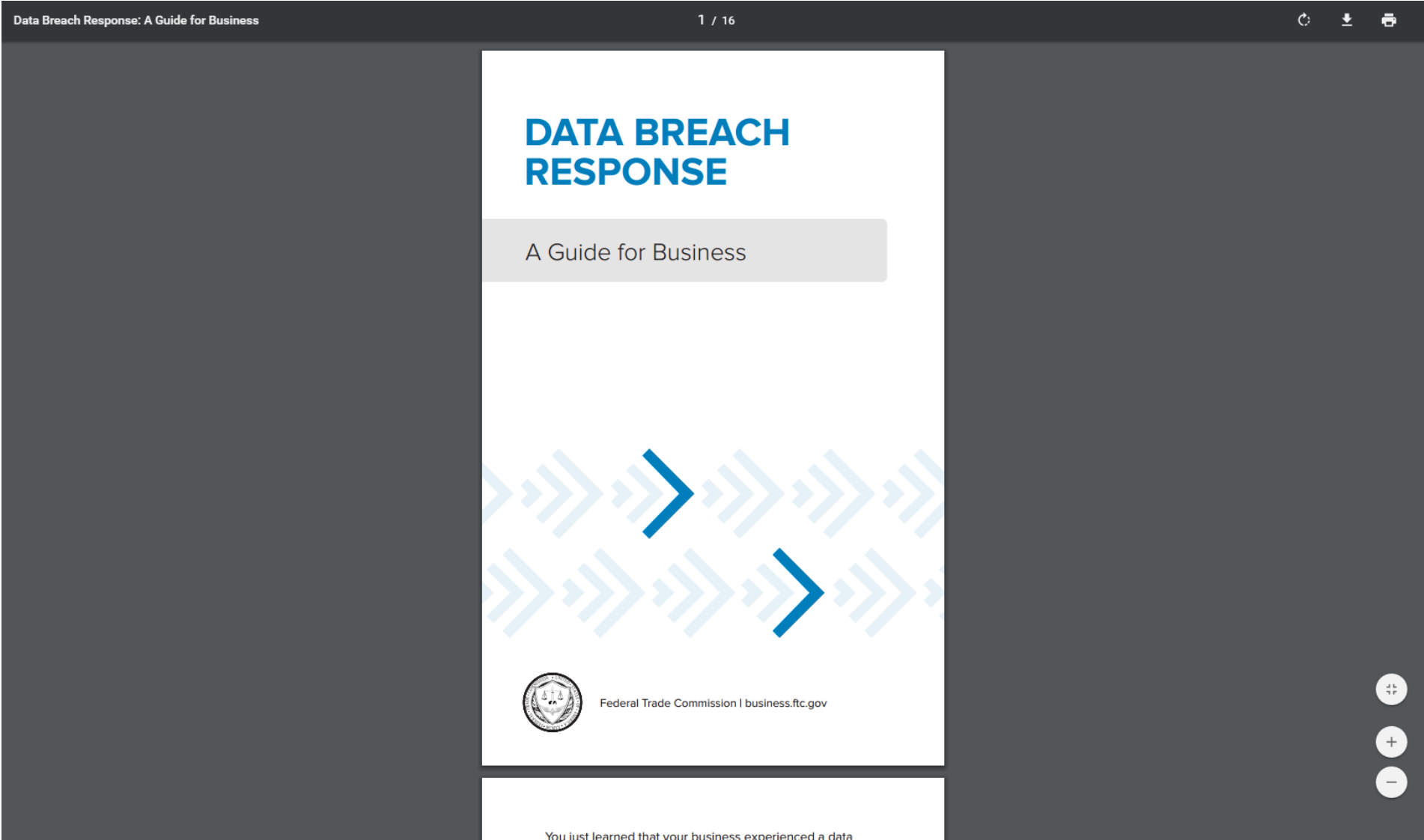


The sad stats



- 2017 – took an average of 9 months to detect/contain a breach (Ponemon 2017 Cost of Data Breach Study) – took 9 minutes for compromised data posted online to be exploited (Federal Trade Commission – May 2017)

FTC Data Breach Response Guide - released October 2016, 16 pages, plain English



How will a disciplinary body react?

- To the firm's cloud selection efforts?
- To the firm's efforts to protect data?
- To the preparation for and response to a breach?



