

COMPUTER & INTERNET UPDATE

FOR THE BUSINESS OWNER AND LAWYER

RONALD L. CHICHESTER, ESQ.

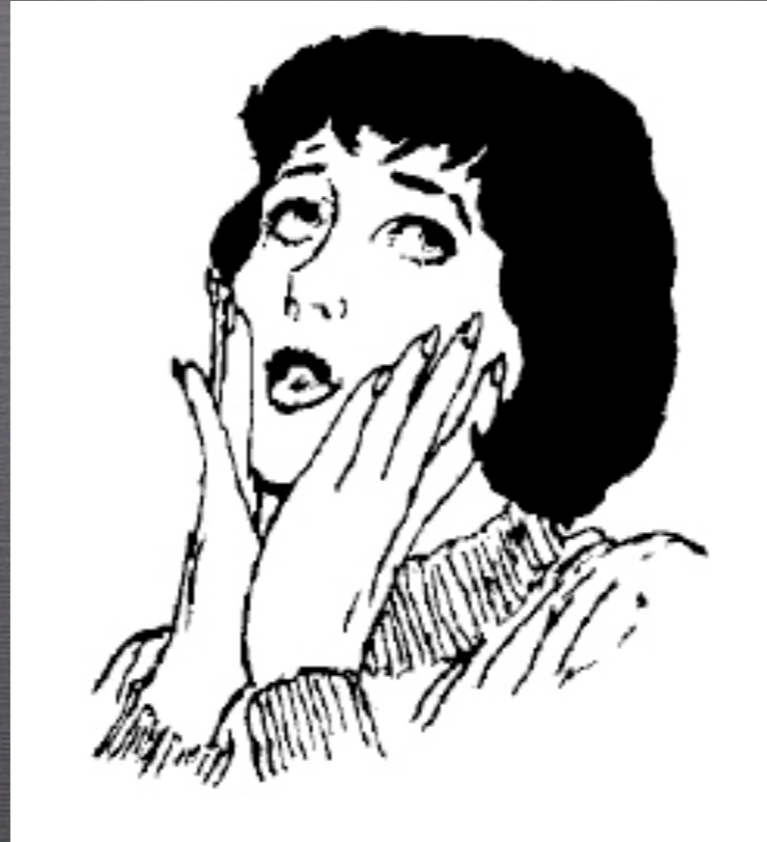
RONALD CHICHESTER, P.C.

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THE ADVANCED BUSINESS LAW SEMINAR

DALLAS, TEXAS

NOVEMBER 6, 2014



OH, BY THE WAY...



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2014 Advanced Business Law CLE

by [TxBiz Law Administrator](#) — last modified Nov 04, 2014 09:33 PM

November 6-7, 2014 in Dallas Texas

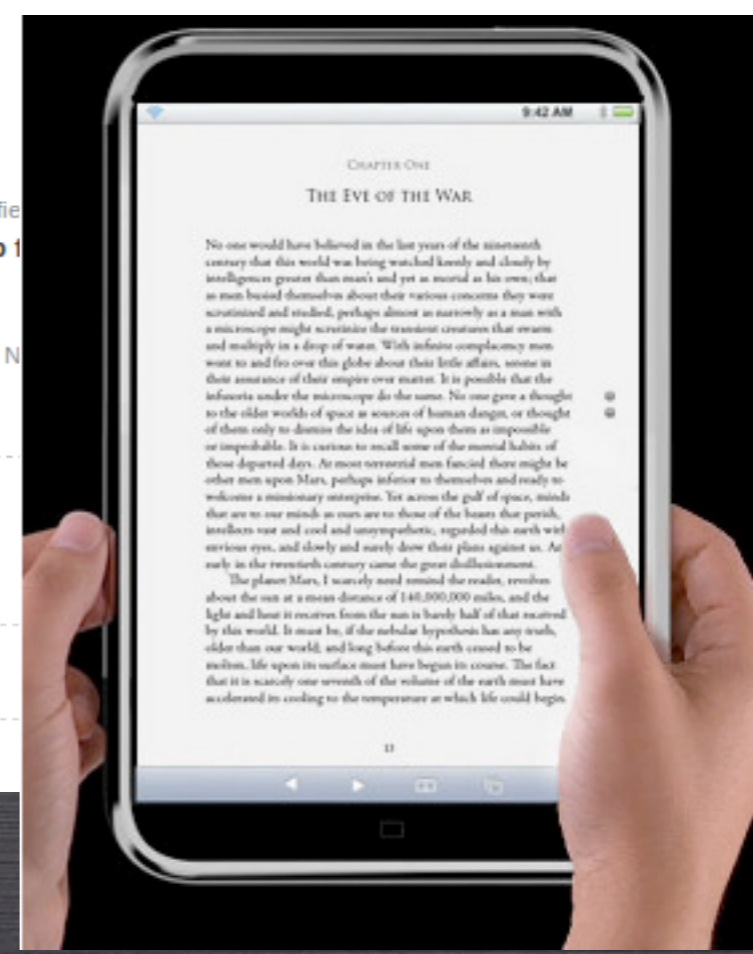
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Upcoming Events

Nov 06, 2014 - Nov 07, 2014 — Hilton Dallas/Park Cities
[Advanced Business Law 2014](#)



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EBOOK VERSIONS



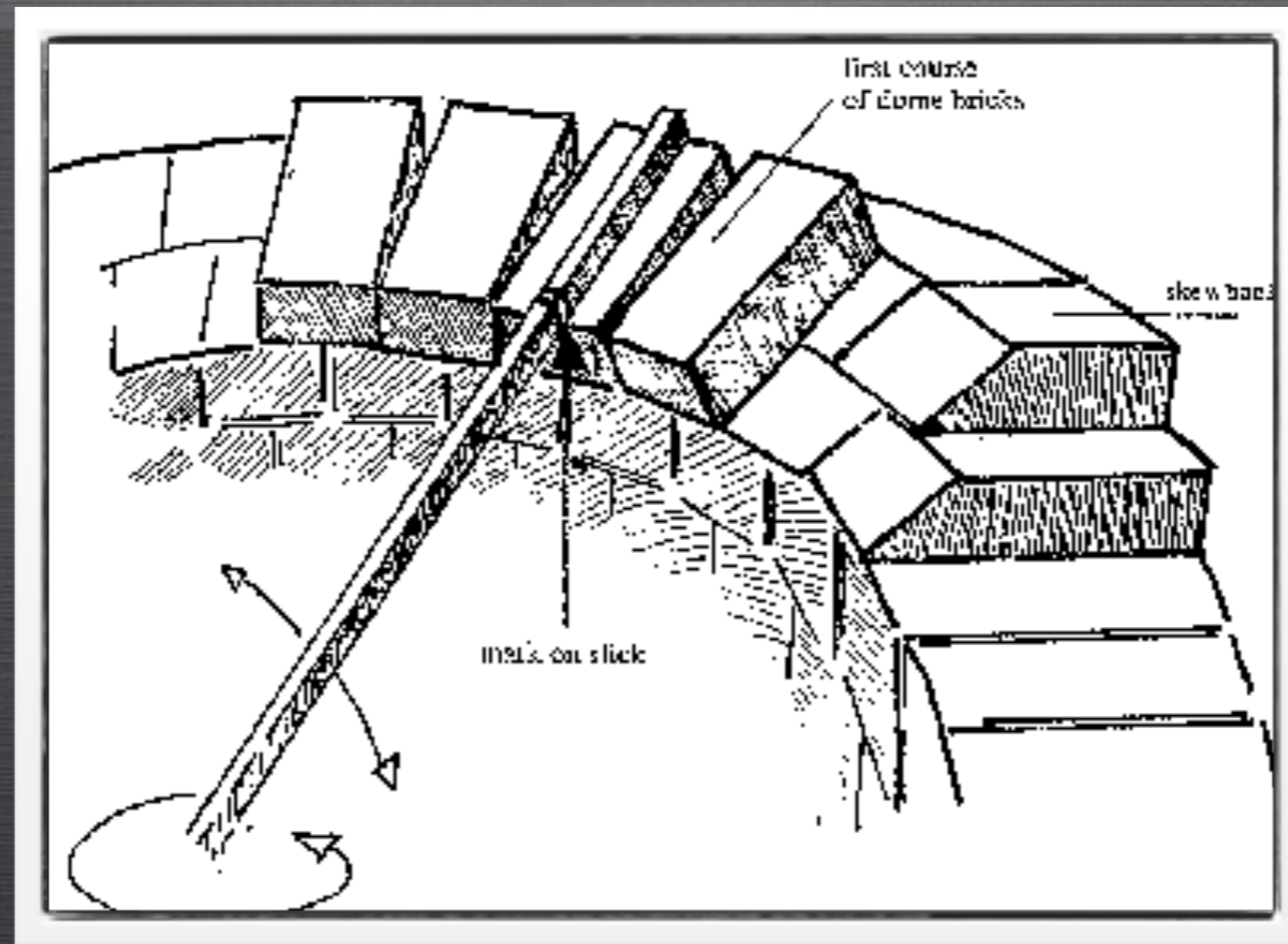
OVERVIEW

SOCIAL MEDIA

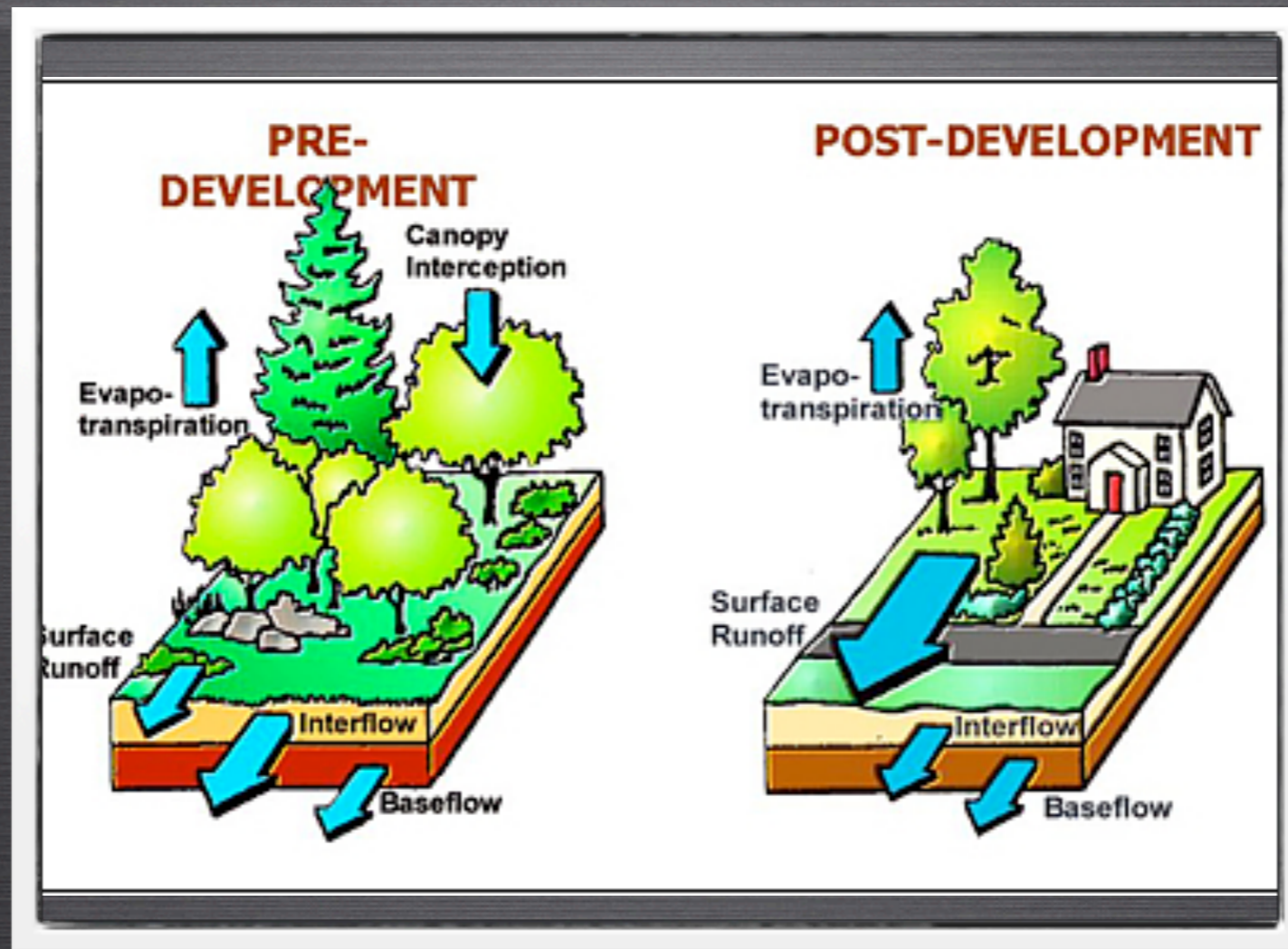
THE CLOUD

ANATOMY OF A
HACK

APPS AND IP

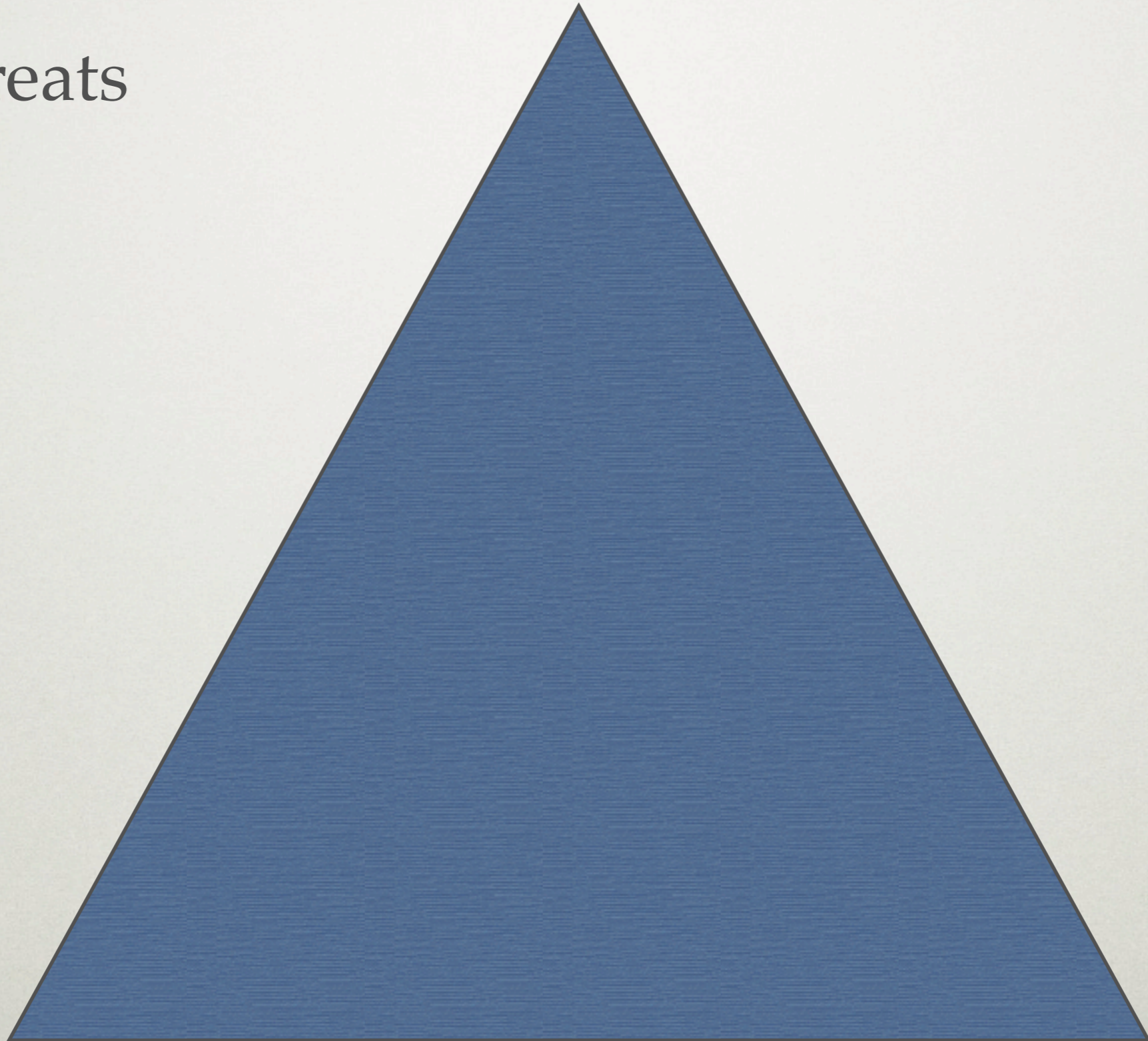


LAYING A FOUNDATION



LANDSCAPE HAS
CHANGED

The Threats



The Threats



The Threats



The Threats



THE CURRENT SITUATION

- Designer worms and malware are prevalent
- Designer botnets already attacking
- Desktop war is lost (a long time ago)
- Smartphone war is in progress
- Employment trends add to pressure
- Gov't/Corp. spying adds more pressure

THE CURRENT SITUATION

- Most businesses require Internet access for critical operations & e-commerce
- Prevalence of Flame, Stuxnet & progeny illustrate inadequacy of corporate and government defenses
- Government has concluded that US is vulnerable to cyberwarfare

WHAT IT LOOKS LIKE

LEGISLATIVE TRENDS

- To reduce vulnerability, government concluded that regulation of the Internet was necessary
- Dilemma: Gov't doesn't own the 'Net
- Solution: Statutory Regulation
- Result: Hasn't Happened!
- Patchwork of Administration Actions

AN EXAMPLE

2011



**SEC DISCLOSURE
GUIDELINES**

<http://www.sec.gov/divisions/corpfin/guidance/cfguidance-topic2.htm>

SEC GUIDELINES

- Affects publicly traded companies
- Must disclose cybersecurity risks...
- ... and cybersecurity incidents...
- ... that investors would consider important to an investment decision
- May need to file reports on Form 6-K or 8-K for costs / consequences of incidents

MORE RISK

MORE ENFORCEMENT

ANOTHER EXAMPLE:

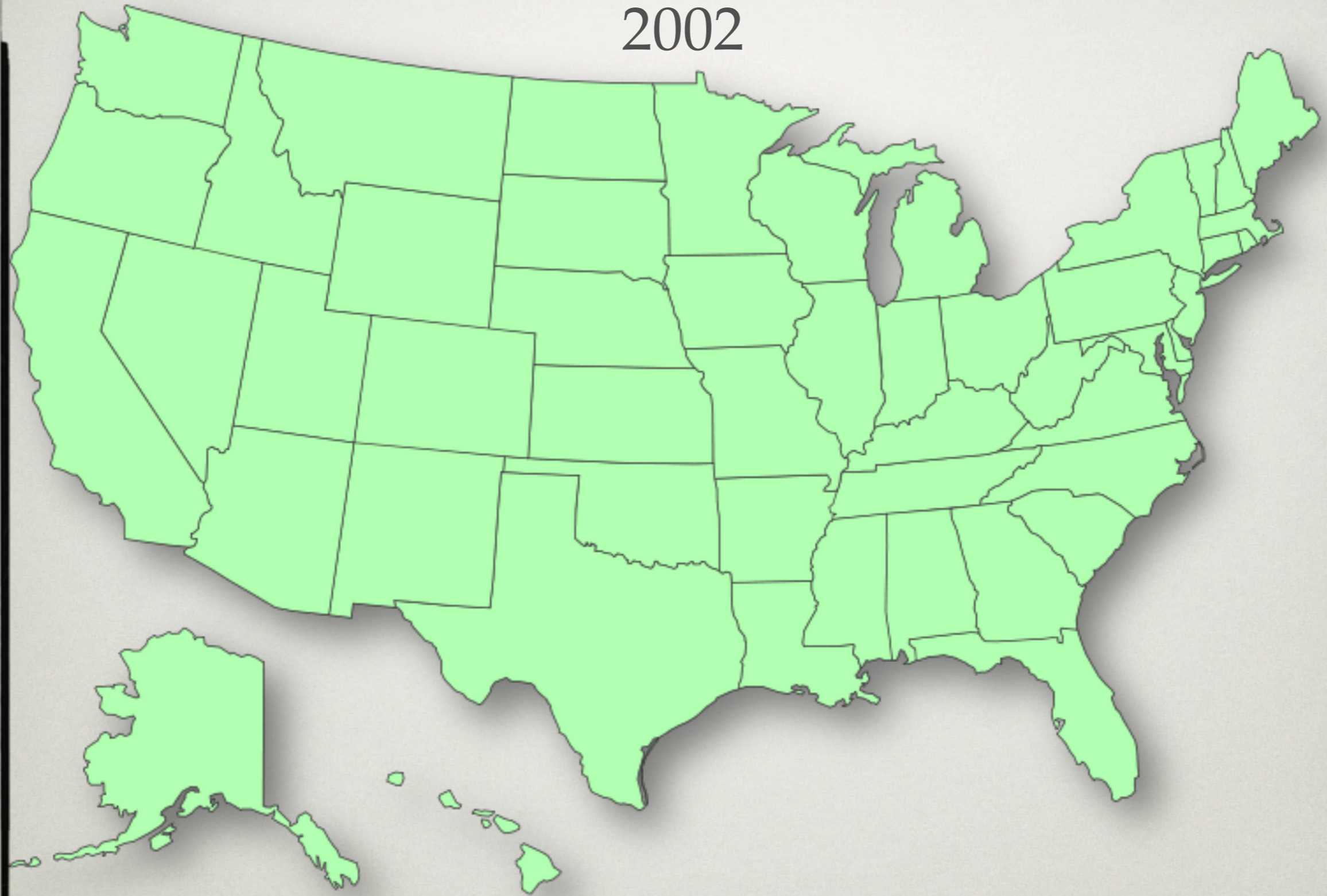
ANOTHER EXAMPLE:

STATE

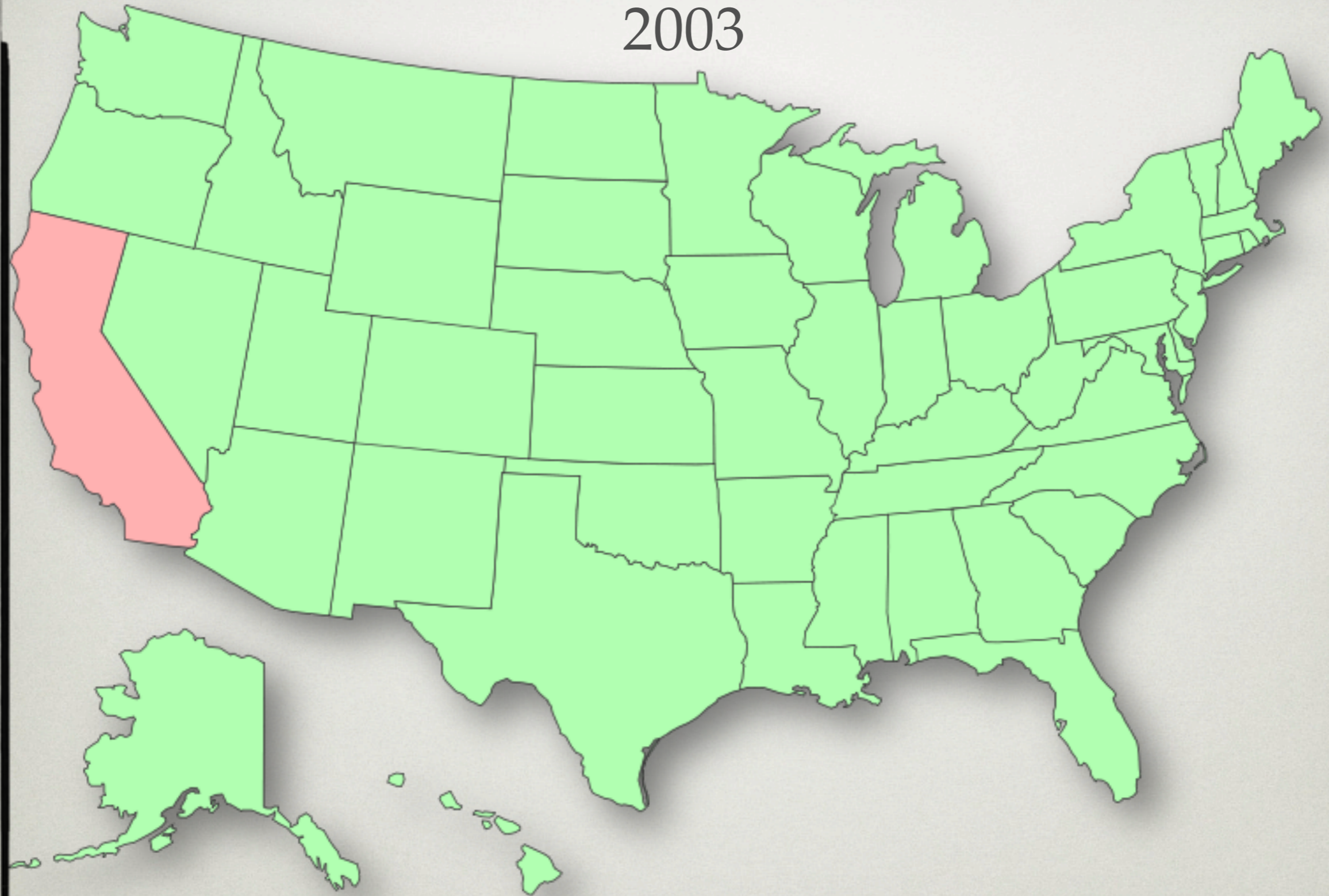
BREACH-NOTIFICATION

LAWS

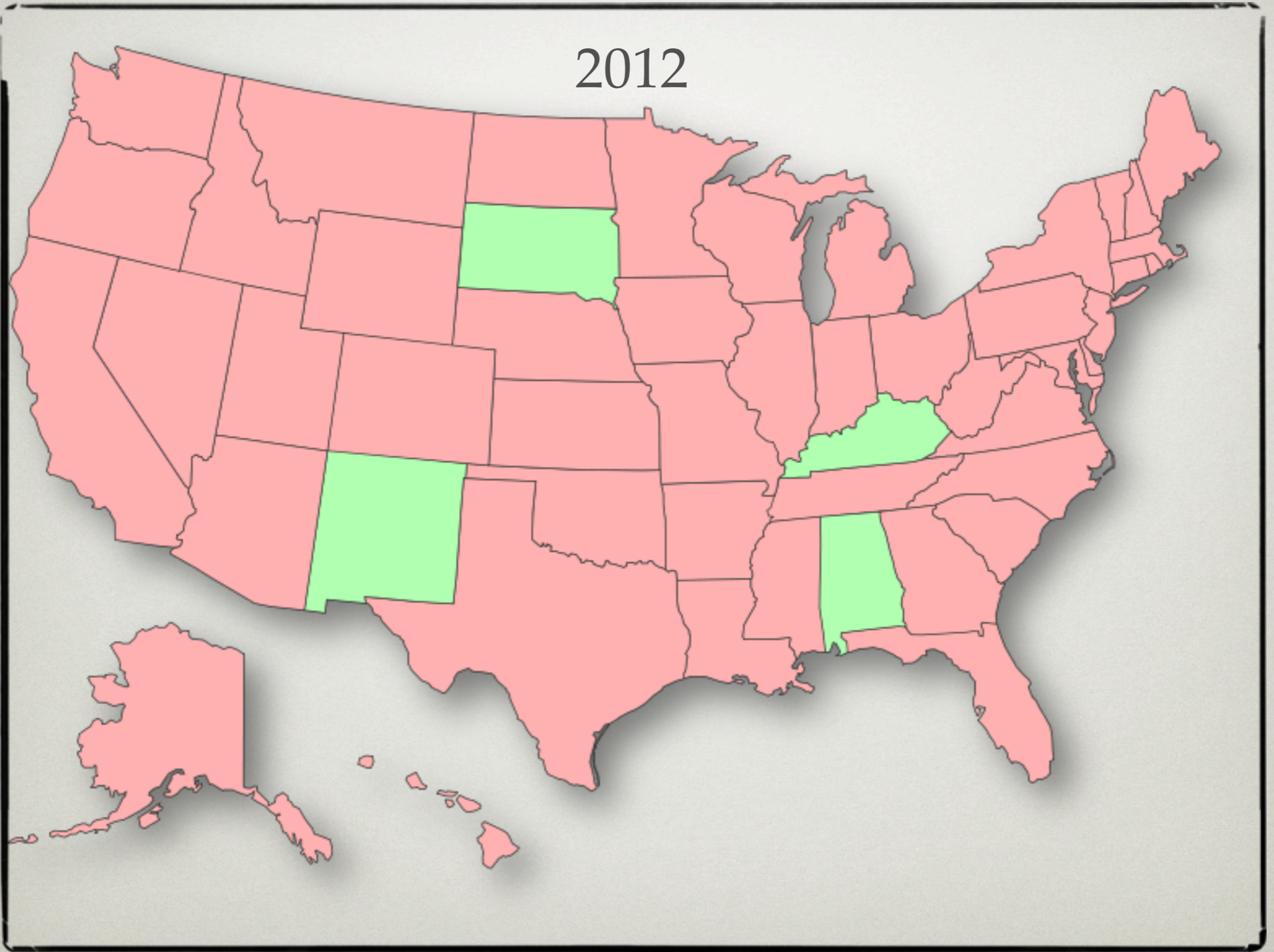
2002



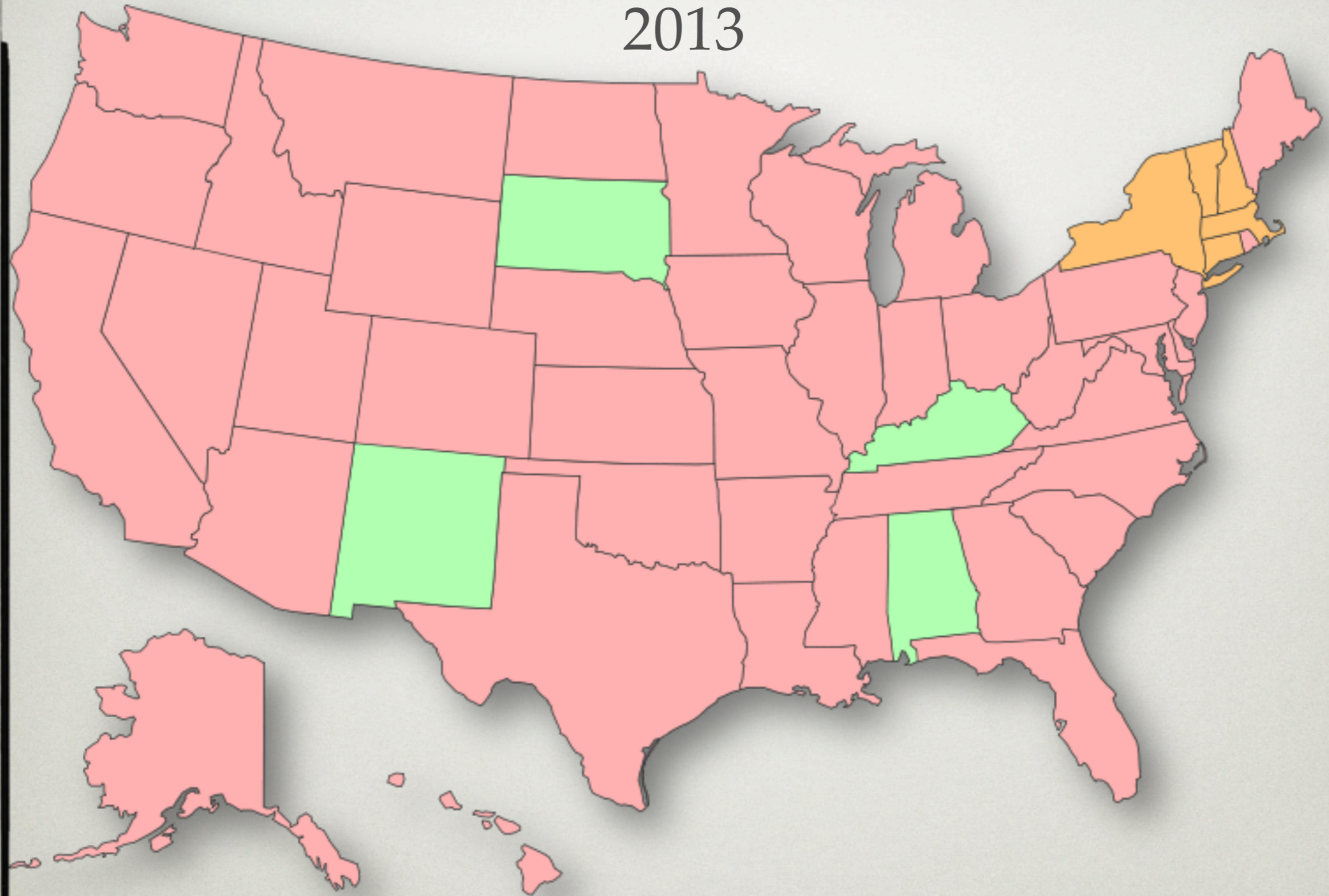
2003



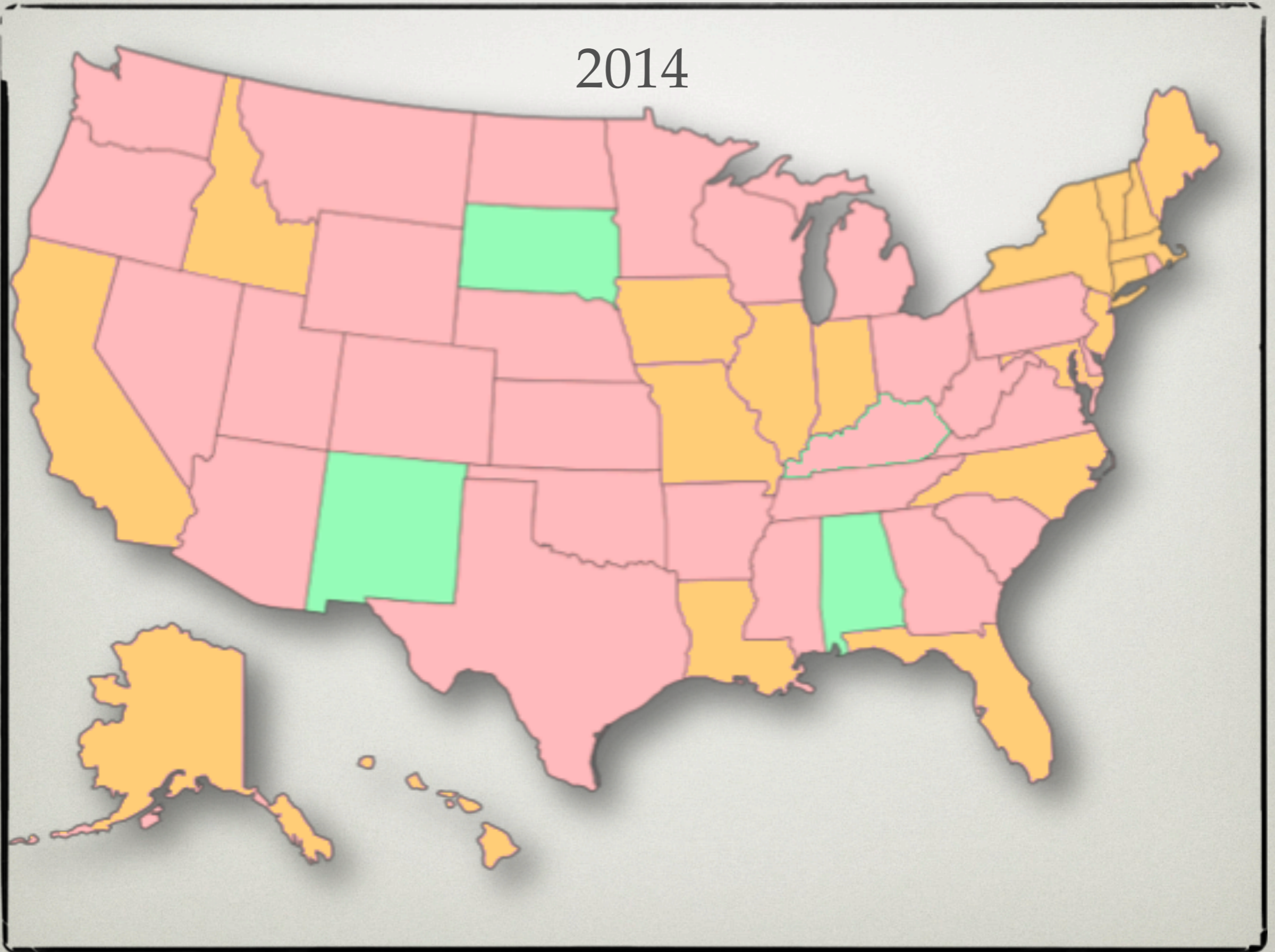
2012



2013



2014



2013



FTC V. CBR SYSTEMS INC.

- 300,000 customer SSN's and credit card information exposed...
- ... via unencrypted backups
- FTC claimed that failure to encrypt the backups was "failure to use reasonable and appropriate procedures"
- Privacy policy thus deceptive under FTC Act (15 U.S.C. § 44)

FTC V. CBR SYSTEMS INC.

- Company agreed to settle, but had to...
- Establish, implement and maintain a “comprehensive security program”
- Designate accountable employees
- Make biennial assessments and reports for 20 years by CISSP, CISA or GIAC professionals

ANOTHER EXAMPLE

FTC V. FRANKLIN TOYOTA

- Because Franklin offered financial products (like loans and leases), the FTC alleged that the dealership was a financial institution under the Gramm-Leach-Bliley Act, 15 U.S.C. § 6809(3)(A)
- Franklin had a privacy policy, but still did not provide customers with annual privacy notice with clear opt-out ability

FTC V. FRANKLIN TOYOTA

- P2P file-sharing software was installed on Franklin's computer network
- Approximately 95,000 customer's SSN's and DLN's, addresses, DoB's available
- FTC contended that having P2P file-sharing on network was evidence of lack of "reasonable measures"

FTC v. FRANKLIN TOYOTA

- Franklin entered into a consent agreement with the FTC
- New in-house measures required
- Biennial audits by CISSP, CISA or similar professionals
- See also *FTC v. Wyndham Worldwide Corp.*, 2:12-cv-01365-SPL (D. Ariz. filed June 26, 2012) (Co. violated own policies)

**ANOTHER
(REALLY GOOD)
EXAMPLE:**

TARGET

- Biggest (known) Breach in US History
- 110 Million Customers
- Vendor had poor security system
- Multi-Billion Exposure
- CEO Resigned



PRELIMINARY CONCLUSIONS

- Cybersecurity can affect:
 - Relations with vendors / contractors / customers
 - The character (and thus the cost and value) of the company infrastructure
 - Investors
 - Law Firms!



SOCIAL MEDIA





Paul Brinkmann

Legal and Environmental Reporter at South Florida Business Journal

Miami/Fort Lauderdale Area | Writing and Editing

Worked at South Florida Business Journal, American City Business Journals

Wrote for Green Bay Press Gazette, Herald & Review, The Telegraph, Star

Education: East Carolina University

Improve your profile

500+

500+

www.linkedin.com/company/southfloridabizjournal

Contact info

ACTIVITY

Paul Brinkmann has added an honor or award: 2013 Sunshine State Awards, Best Place to work, Blogging (Add honor and awards to your profile)

Like · Comment · 3 hours ago

Paul Brinkmann



Greenberg Drawing attorneys in Tallahassee; Business must go on in South

100 views

BACKGROUND



SUMMARY

Twenty years experience in journalism and communications, focused on business and environmental news. Assignments have included coverage of Fortune 500 companies, the 1999 WTO conference in Seattle, the 2000 World Wildlife Fund Exhibition in Havana, Cuba, the PCR cleanup of the Fox River in

PEOPLE YOU MAY KNOW



Roscoe Rogger '84

Contact

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Online Creative Writing Degree from the Writing Professionals. Free info.



Music Property Rights

Get paid. Not work. And receive proceeds for lifetime work.

PROFILE STRENGTH



66.6%

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YOUR NETWORK

Company

Asst. Manager (South) (1)



ATTENTION!

CREDIT BANK

19 9860 1535 9007

R. YOUR NAME HERE

GOOD
THRU

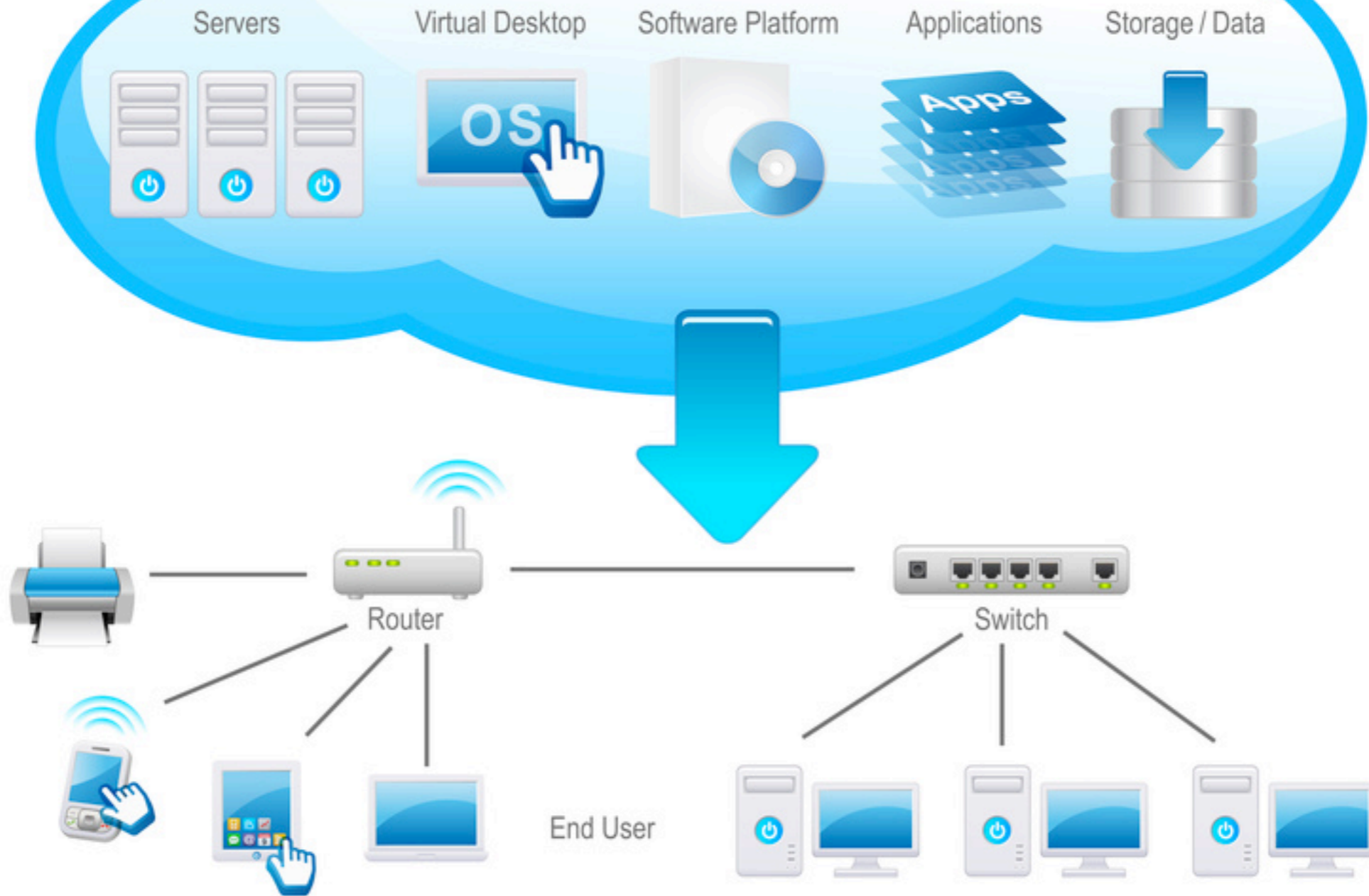
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THE CLOUD

Cloud Computing







KNOLOGY

Hancock Telecom

Shawnee Link



TriCounty Telecom



Lincoln County Telephone System



NET10
PAY AS YOU GO MADE SIMPLE

diversiCOM[®]
Melrose Telephone Company

WRT

Windomnet
CONNECTING OUR COMMUNITY

WWW
Netsearch

SureWest

GTC
OLEWISD TELEPHONE CO.

COMPORIUM[®]
Making Life Easier[®]

Bledsoe Telephone Cooperative Inc.



net nitco

Xenocomm.com

Gaggle.Net



WOW
WIRE OR WIRELESS, INC.



DakotaCom.Net
THE HUMAN TOUCH IN TECHNOLOGY

Omni Internet

GREEN MOUNTAIN ACCESS
INTERNET SERVICES BY
COMMUNITY TELEPHONE SYSTEMS

ACS
Any Communication System

TACONIC

MELODIA
Utah Valley Edition



ETA
ETERNAL TELECOMMUNICATIONS

CASSCOMM



Cyber Mesa

ISLAND WIRE
INTERNET

wisper
HIGH SPEED INTERNET



PGPP.com
VOICE-INTERNET-BASED
COMMUNICATIONS



mohawk Internet

GPC GREAT PLAINS COMMUNICATIONS

ETC

exwire

DIGITAL TV



Blueriver
Networking Services, Inc.



~~THINK~~

WHAT A CONCEPT!

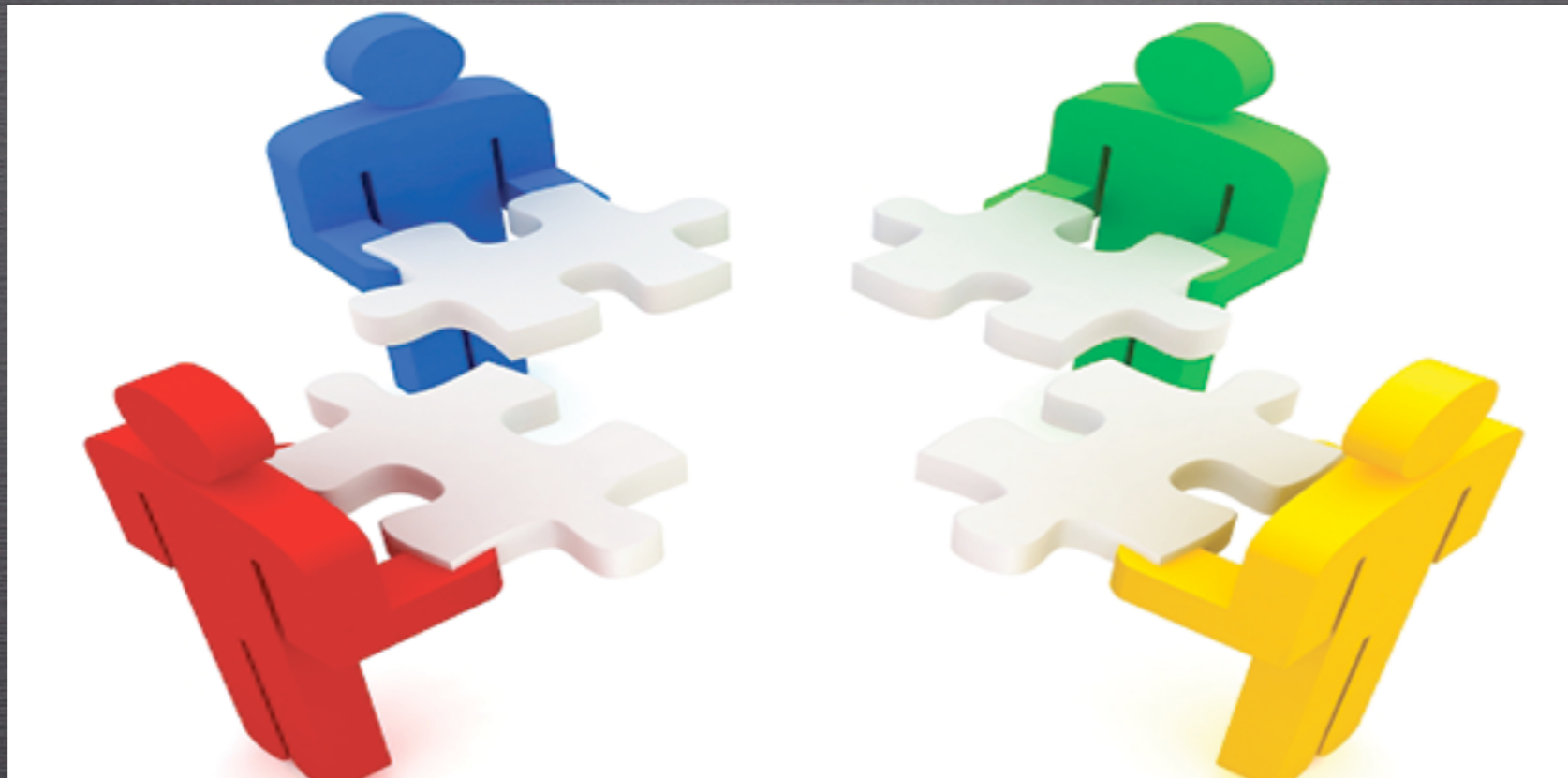
- Put all of your sensitive data where everyone can get at it!



WHERE THERE...

- any security guarantees with that contract?





PUTTING IT ALL
TOGETHER



ANATOMY OF A HACK

STEP 1

- Pick
your
target



STEP 2

- Identify In-house Counsel on Social Media



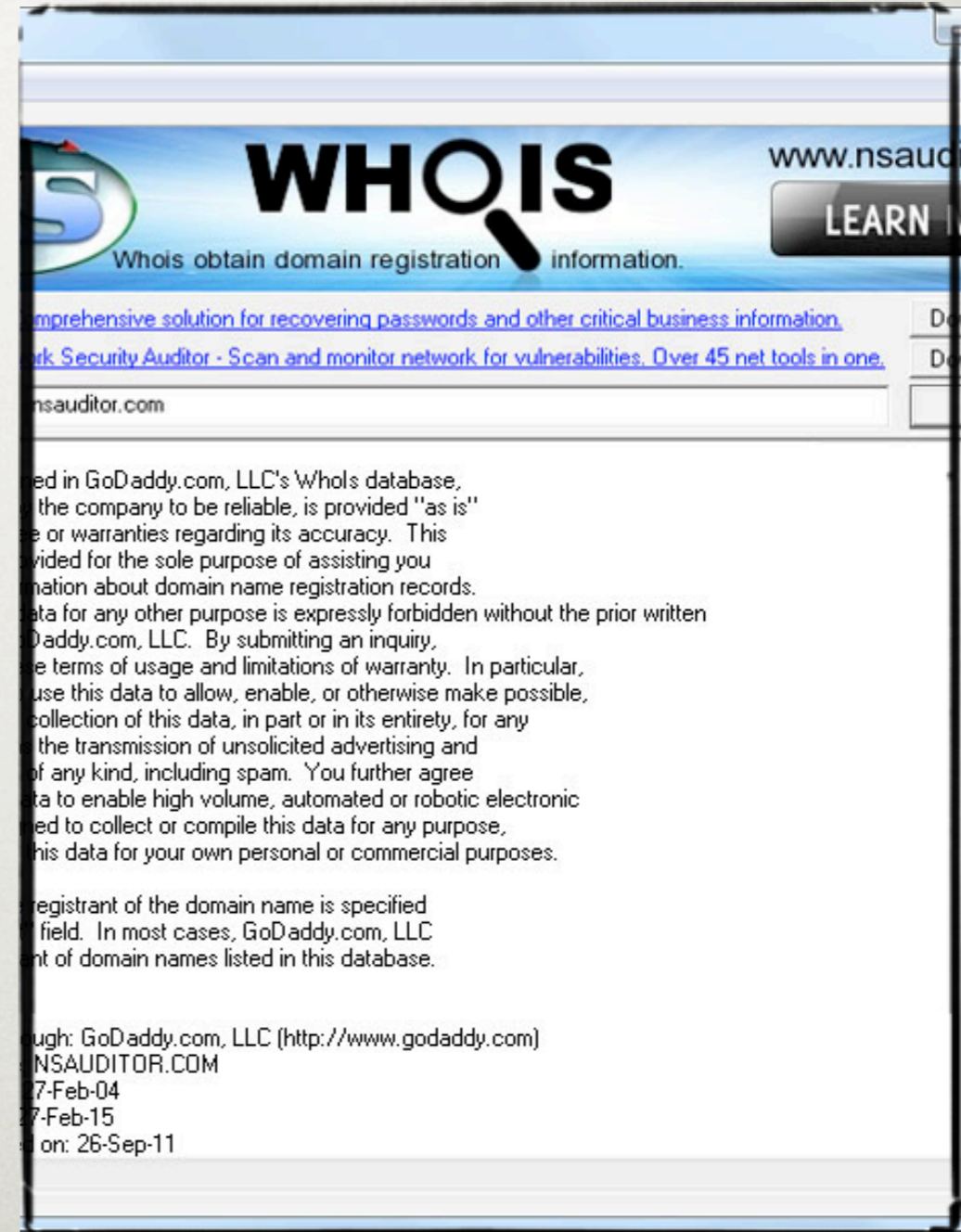
STEP 3

- Identify Outside Counsel via Social Media



STEP 4

- Find IP Address of Outside Law Firm's Cloud Resources

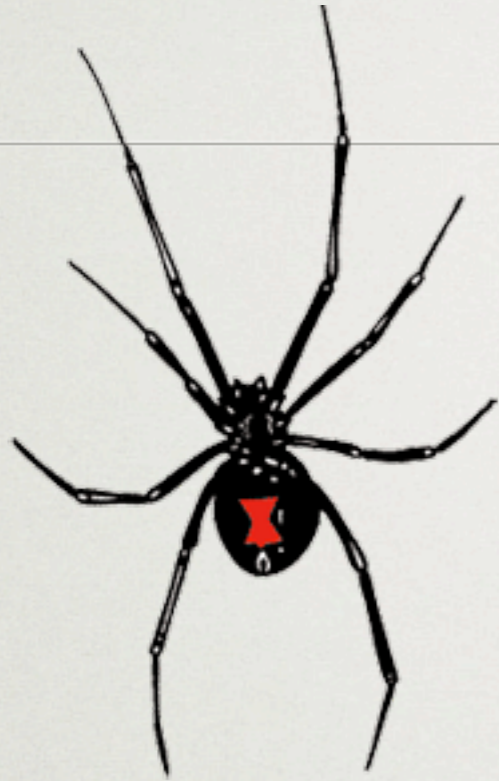


STEP 5

- Footprinting



STEP 5



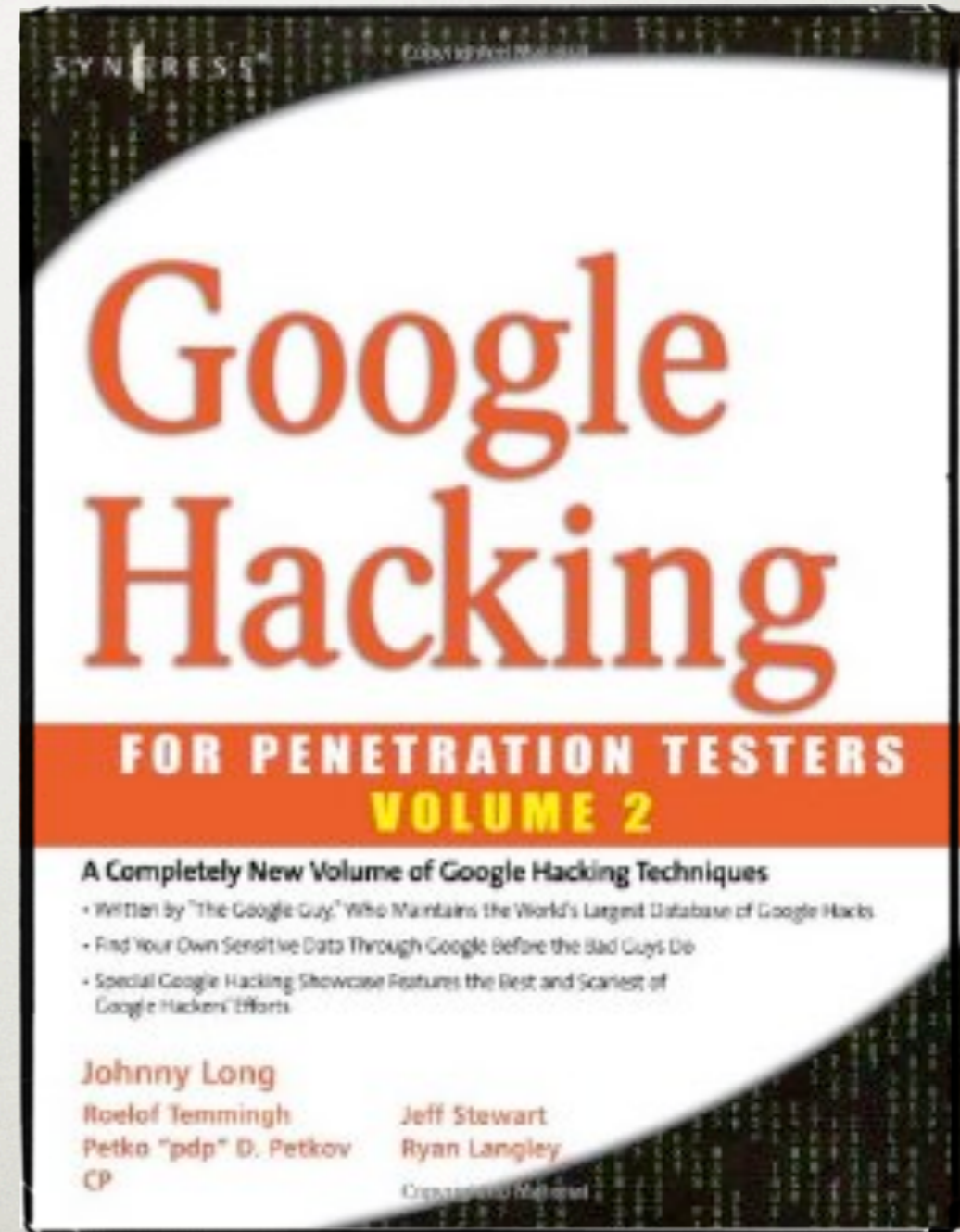
• Footprinting



```
# robots.txt for http://www.example.com/  
  
User-agent: *  
Disallow: /cyberworld/map/ # This is an infinite virtual URL space  
Disallow: /tmp/ # these will soon disappear  
Disallow: /foo.html
```

STEP 5

- Footprinting



STEP 6

- Scanning



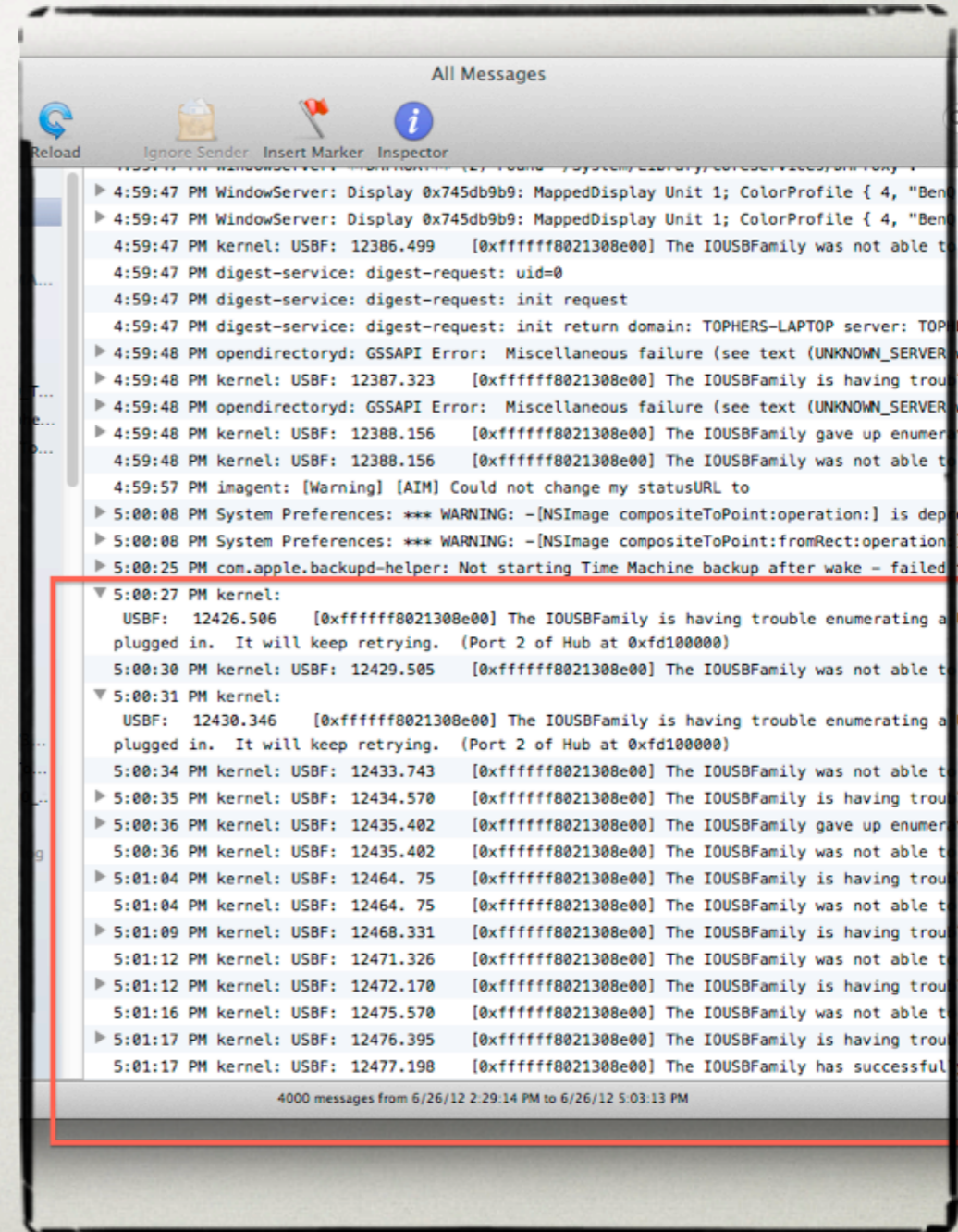
VULNERABILITY SCANNERS

There are more than 250!



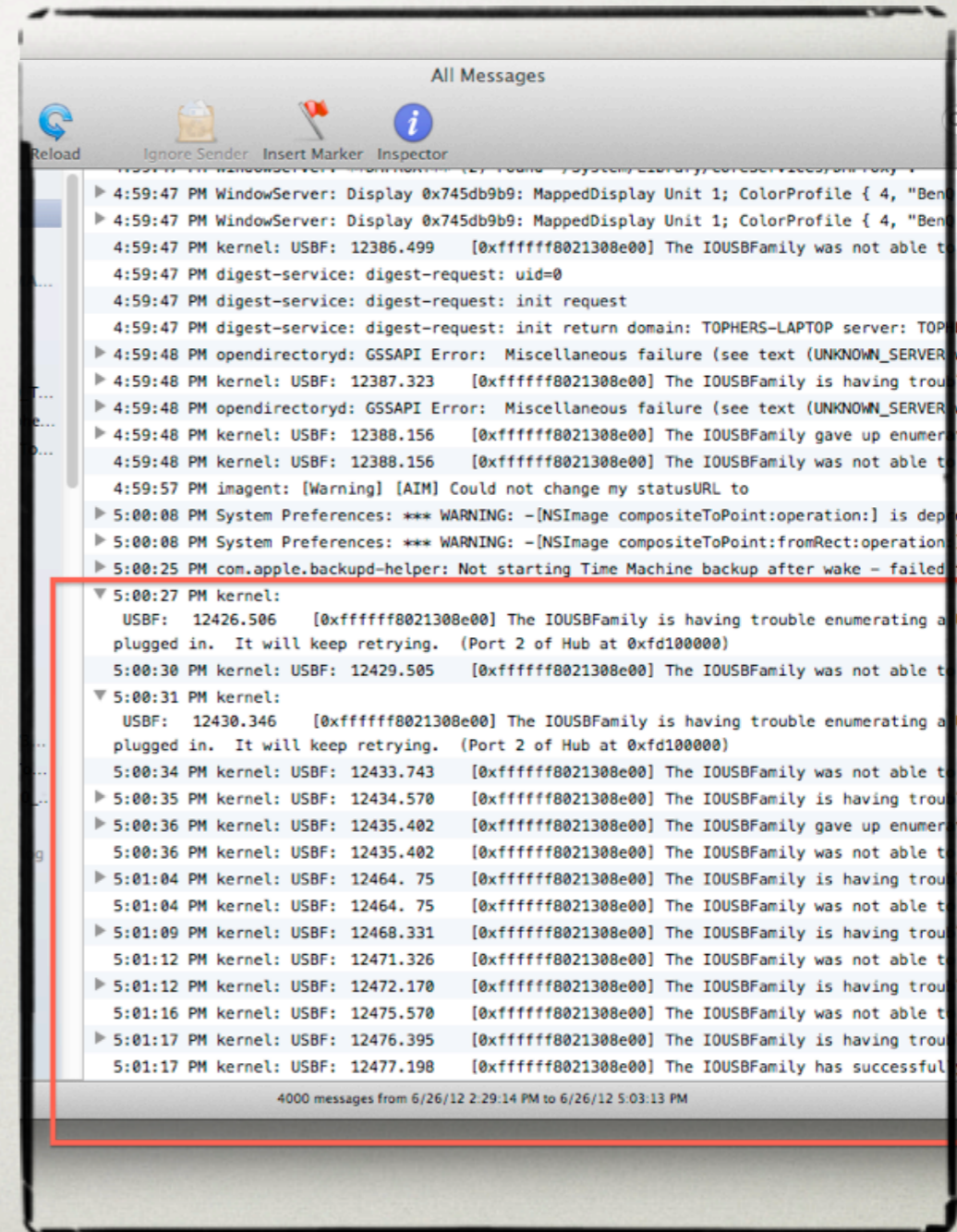
STEP 7

• Enumeration



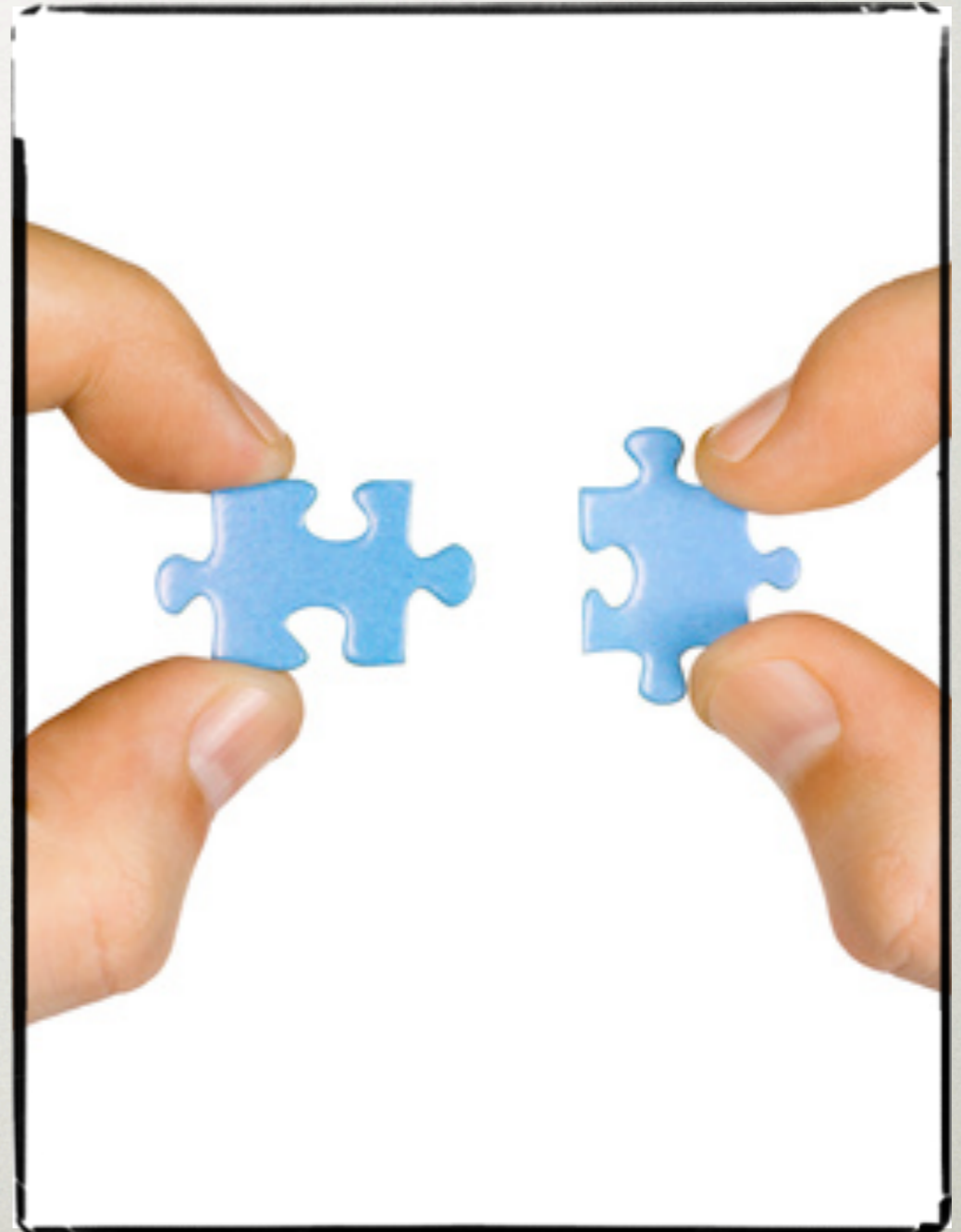
ENUMERATION TOOLS

- NBTscan
- DumpSec
- Legion
- Nat
- SMBScanner
- NBTDump
- NBTEnum
- Netcat



ASSEMBLE PARTS

- Need...
- IP Address
- Payload
- Exploit



STEP 8

- Pick
your
Tool





World's most used penetration testing software

Put your network's defenses to the test

A collaboration of the open source community and Rapid7. Our penetration testing software, Metasploit, helps verify vulnerabilities and manage security assessments.

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LEARN MORE

Get free Nexpose Vulnerability Scanner

Metasploit integrates with Nexpose to verify vulnerabilities

↓ FREE NEXPOSE DOWNLOAD

STEP 8

- Point
- Click
- Exploit!



STEP 8

- You're In!



STEP 9

- Install
Back Door



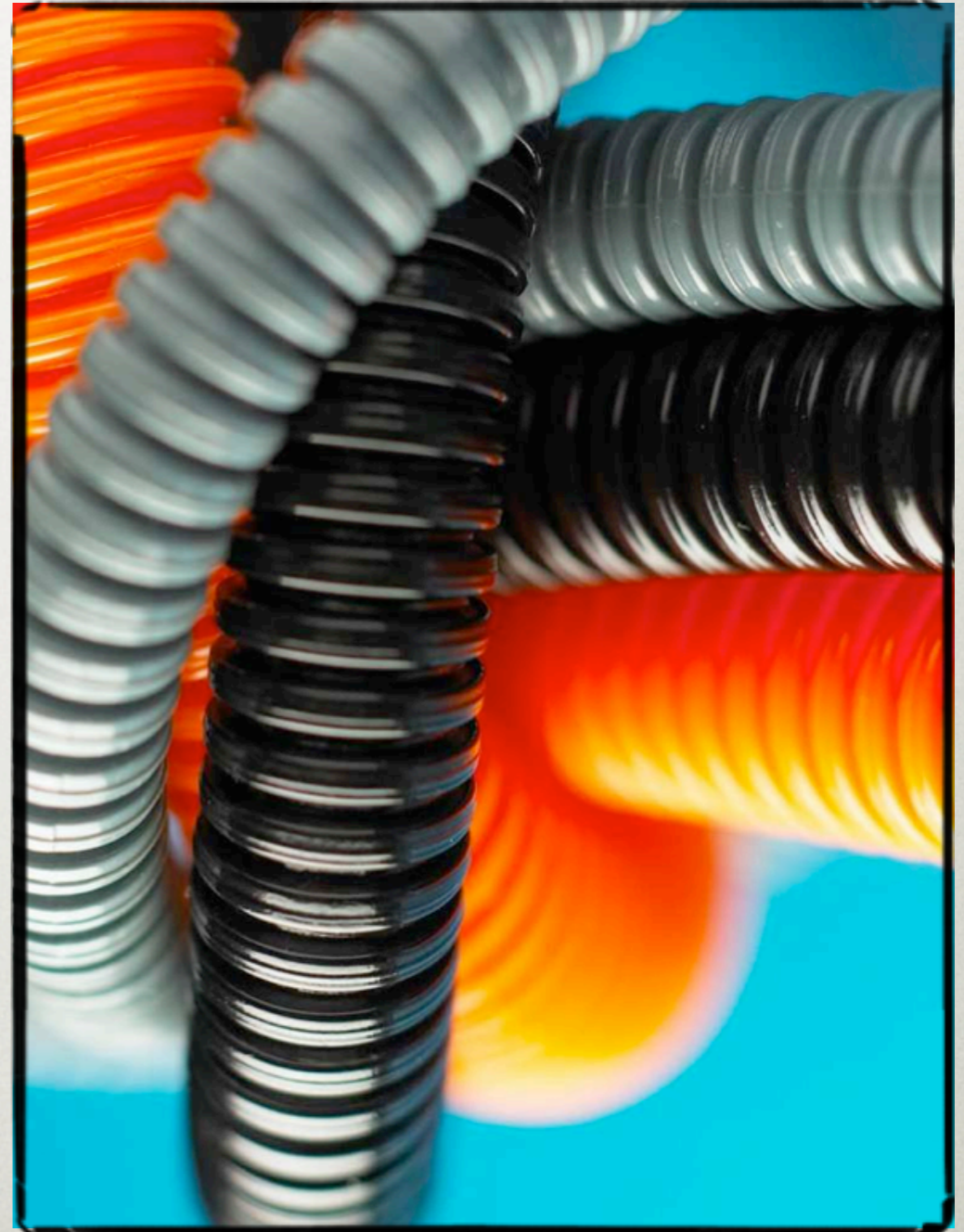
STEP 9

- Data Mining



STEP 9

- Setup
Conduit
to Real
Target



STEP 10

- Piggyback on Counsel Email



STEP 1 1

- Rinse
- Repeat



YIKES!

WHAT TO DO?

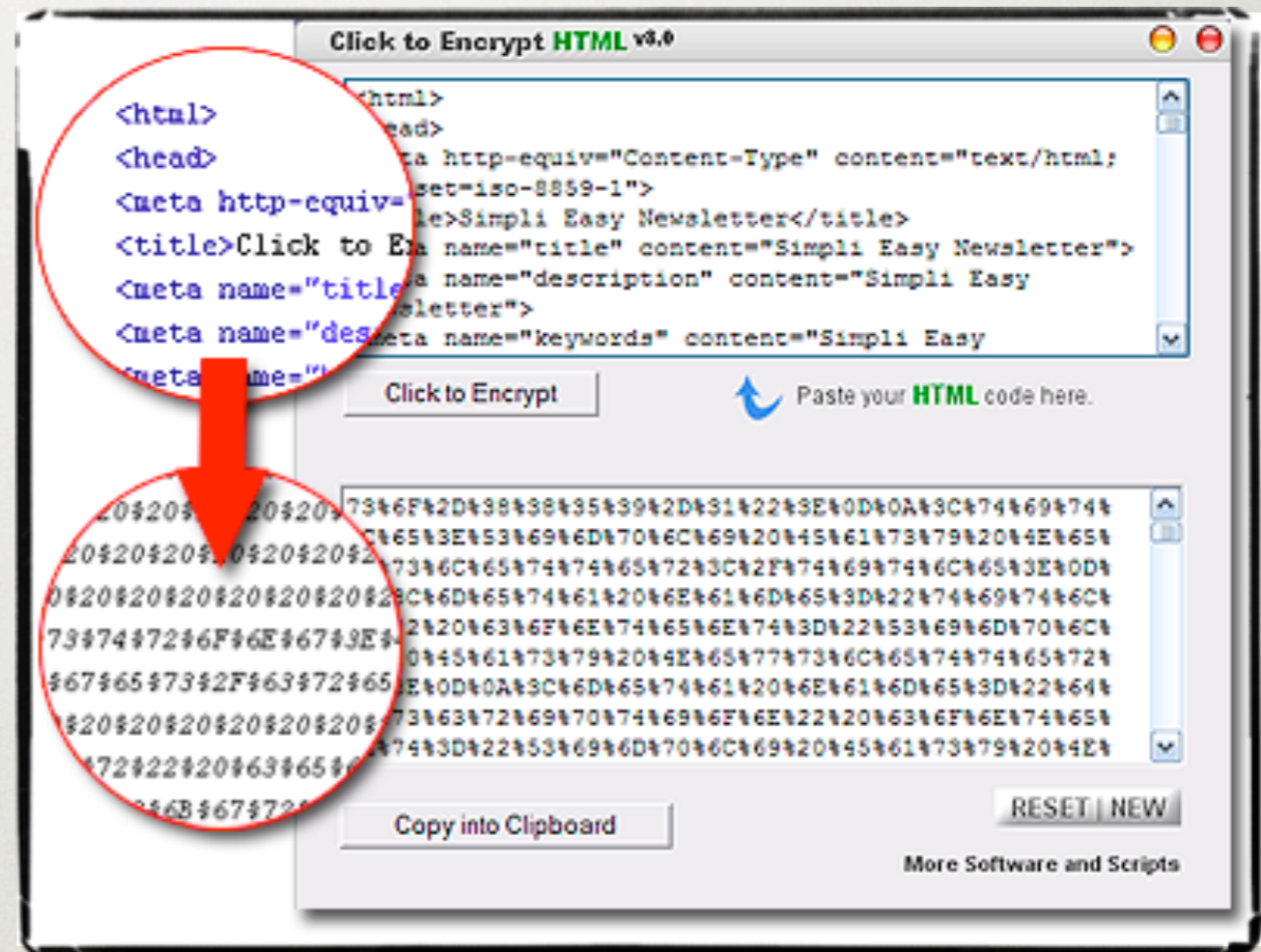
WHAT TO DO?

- Split Web Presence



WHAT TO DO?

- Encrypt!



WHAT TO DO?

- Firewall(s)
- DMZ
- VPN's
- Intrusion Detection
- Honeypots
- Vulnerability Scanners



DOESN'T THAT COST
MONEY?!?

Yes!



BUT
YOU CAN
DO IT!

... 'CAUSE YOU HAVE
TO ANYWAY!

AN EXAMPLE

DIY HONEYPOT

A screenshot of a web browser window. The address bar shows the URL www.honeynet.org/node/1177. Below the address bar is a toolbar with various icons, including "Most Visited", "CP", "TD", "td", "BBC", "g", "SP ON", a bird icon, "BLS", "UH", "Nipper", "NHC", and "Patently-O". The main content area has an orange header with the HoneyNet Project logo (a black square with a yellow honeycomb pattern and "HN/P" below it) and the text "The HoneyNet Project". Below the header is a breadcrumb trail: [Home](#) > [Blogs](#) > [ioannis.koniaris's blog](#). At the bottom, there is a "Navigation" section with a link to "New release of HoneyDrive; the honeypot bundle Linux distro".



APPS AND IP

LAW FIRM APPS

- Lost of firms do it...
- Show Blog Entires
- Papers
- Marketing
- (Specialized) Legal Notes
- Client Portals!



THE PARTIES

- Framework Owner
- App Creator
- Content Creator
- App Store Owner



IT'S ALL ABOUT CONTROL

- Permission from Framemaker
- License or Assignment from App Creator
- Assignment from Content Creator
- Permission from App Store (Google / Apple)



QUESTIONS?

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