



<https://www.guardsight.com/>

GuardSight is an established provider of comprehensive cybersecurity threat detection and response, risk assessments, and professional cybersecurity services since 2009.

"We fight bad guys on the internet!"



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CYBERSECURITY: FOR THE INDIVIDUAL

(my pgp key) → <http://pgp.mit.edu/johnmac@guardsight.com> | <https://www.linkedin.com/in/mcgloughlin> ← (about me)

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CYBERSECURITY: HISTORY OF CYBERCRIME

1900-1949

1903

Maskelyne
(magician) hacks
Marconi's
secure wireless
telegraph

1932

Enigma machine
code broken by
Polish cryptologists

1939

Turing co-develops
the Bombe making
the Enigma machine
vulnerable to brute
force attacks

CYBERSECURITY: HISTORY OF CYBERCRIME

1950-1979

1957

Hackers tie up phone lines between Harvard and MIT and make long-distance calls charged to a local radar installation

Engressia (7 yrs old & blind) discovers that whistling the fourth E > middle C interferes with AT&T's telephone systems (phreaking)

1963

Rosenbaum of Esquire magazine publishes "Secrets of the Little Blue Box" relies on accounts from Draper (Captain Crunch) and a toy whistle

1971

Draper arrested toll fraud (5yrs prob) - catalyst for Wozniak meeting and connection: *Jobs & Wozniak sold phone-phreaking tools*

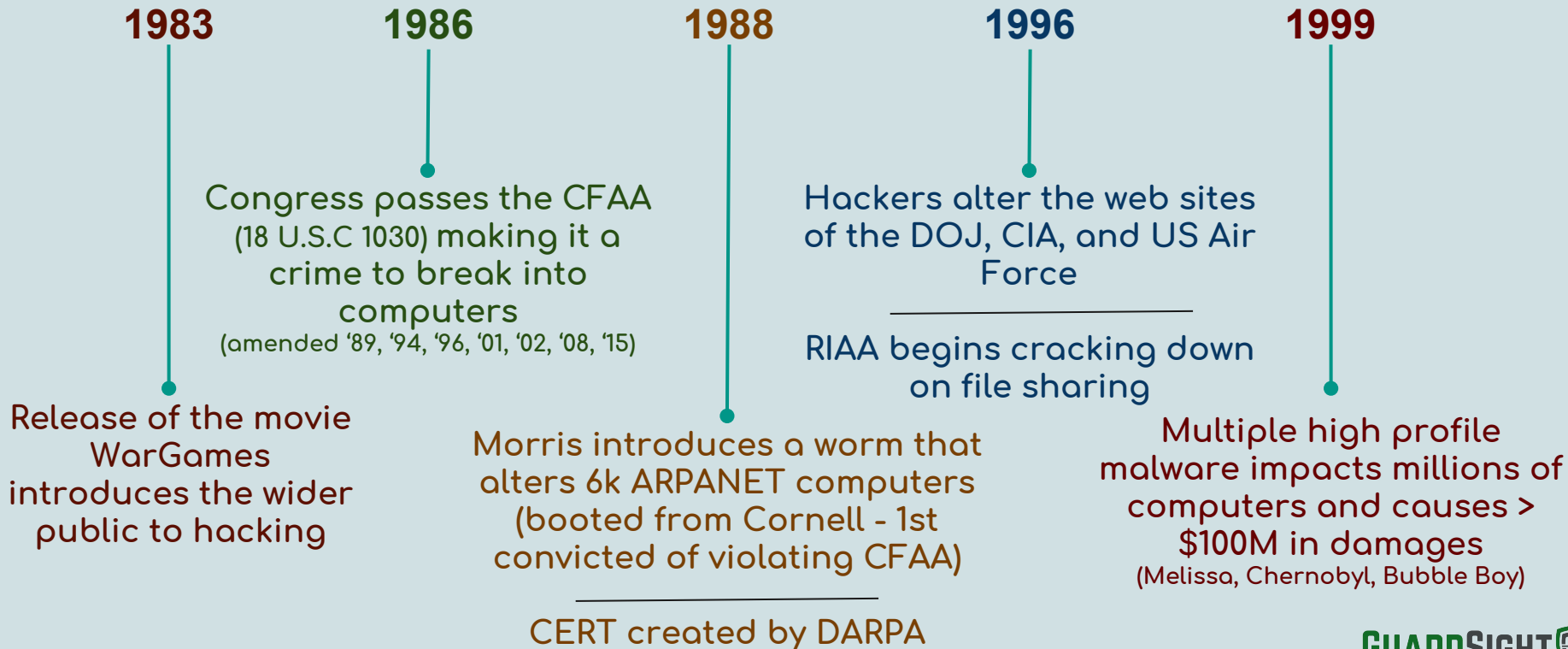
1972

Mitnick (16 yrs old) posing as Chernoff (DEC developer) breaks into the DEC ARK system used to develop the RSTS/E OS

1979

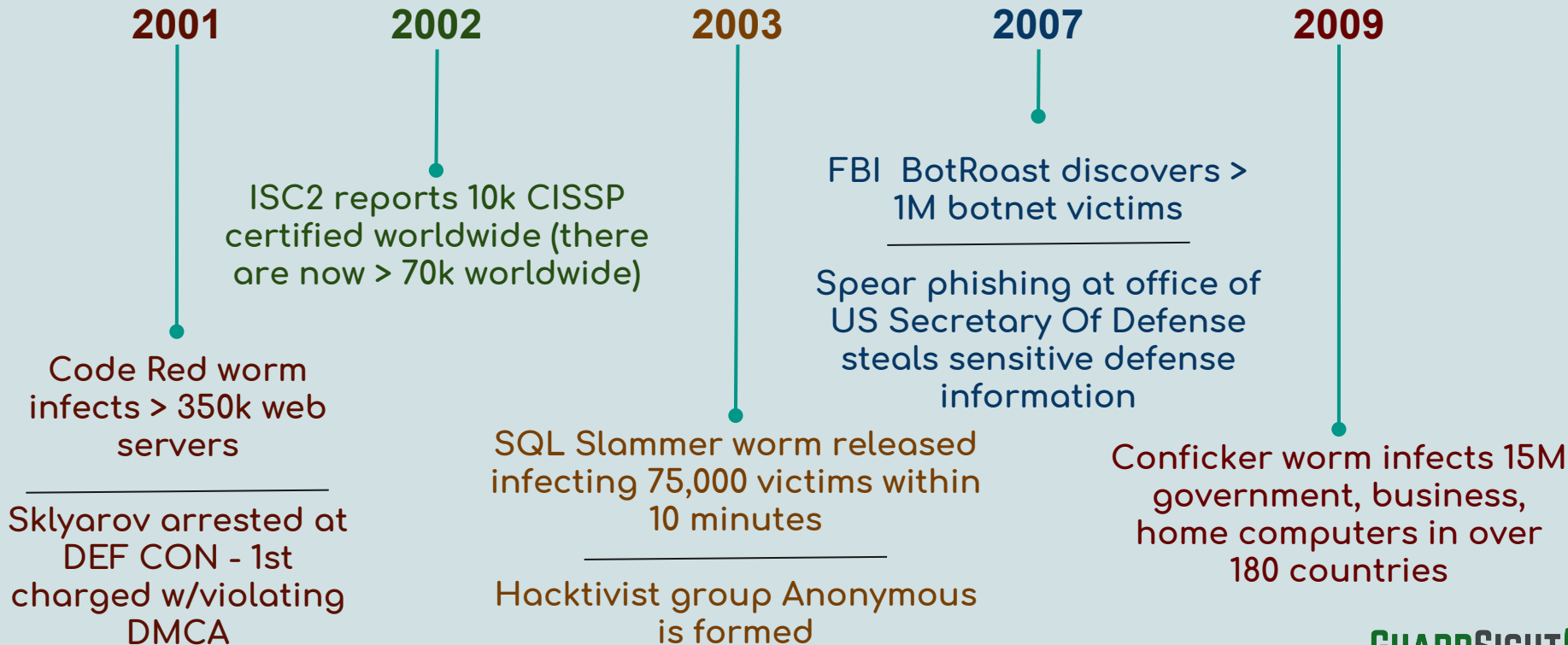
CYBERSECURITY: HISTORY OF CYBERCRIME

1980-1999



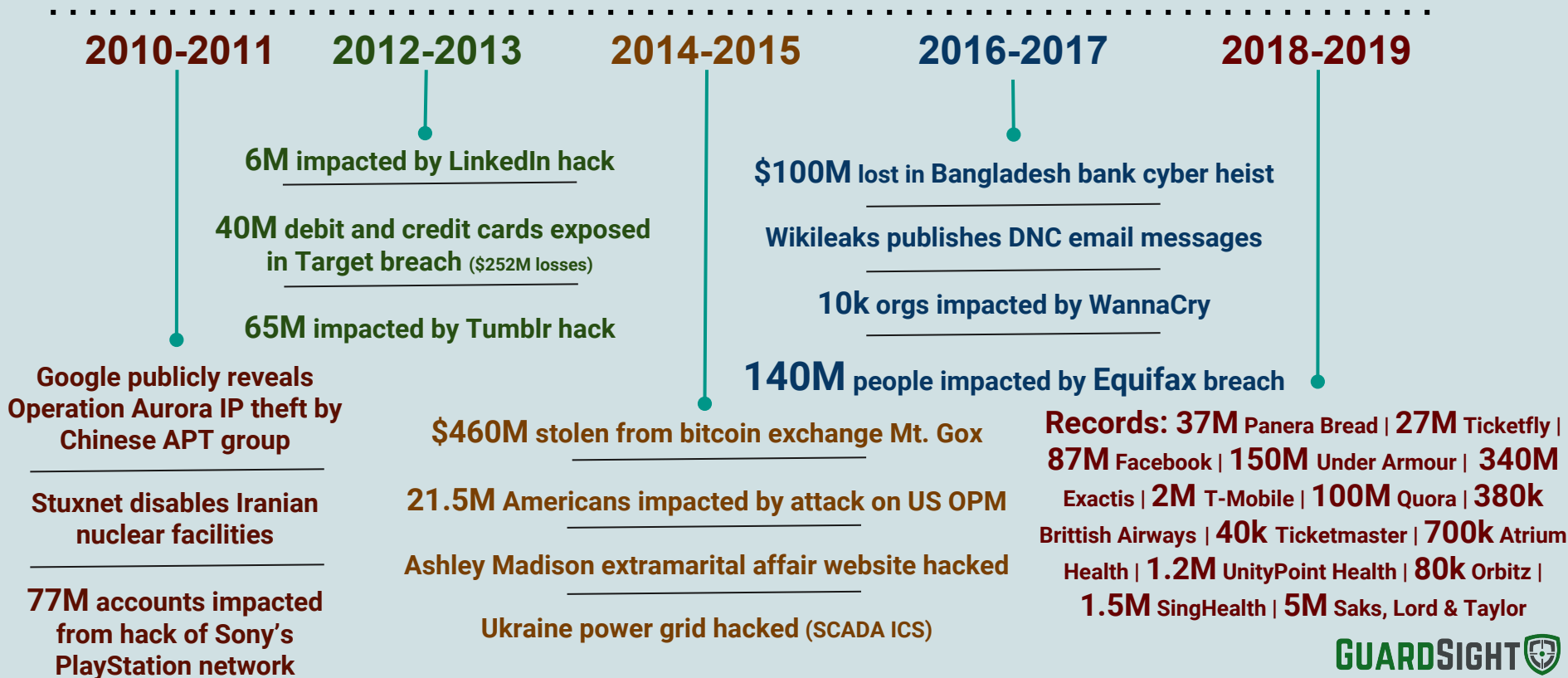
CYBERSECURITY: HISTORY OF CYBERCRIME

2000-2009

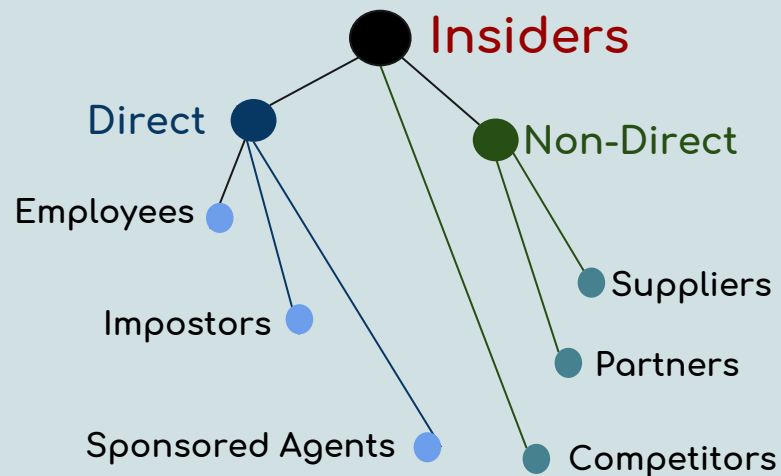
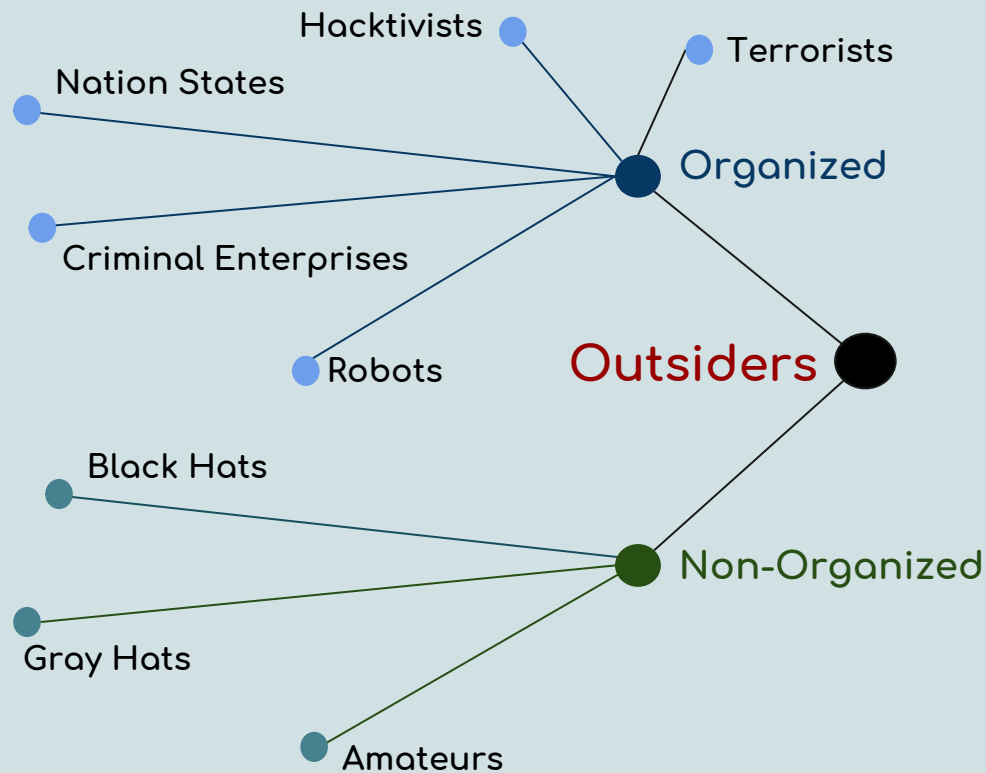


CYBERSECURITY: HISTORY OF CYBERCRIME

2010-2019



CYBERSECURITY: THREAT ACTOR ATTRIBUTION



CYBERSECURITY: THREAT ACTOR INTENT

- Identity Resources (Impersonate)
 - o PII
 - o PHI
 - o Credentials
- Intellectual Resources (Dominate)
 - o Brand
 - o Property
 - o Knowledge
- Physical Resources (Perpetuate)
 - o Energy
 - o Strength
 - o Persistence
- Logical Resources (Violate)
 - o Speech
 - o Reputation
 - o Communication

Motives & Objectives

- Profit
- Wealth
- Prestige
- Assets
- Warfare
- Defense
- Espionage
- Political Mobilization
- Theological Mobilization
- Ideal[ogy | ism]
- Elimination
- Extortion
- Evidence Destruction

CYBERSECURITY: BLACK MARKET LOOT (US BASED)

ONLINE BANKING CREDENTIALS

\$2k-\$20k+ Balance	\$100 - \$1,000+
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PERSONALLY IDENTIFIABLE INFORMATION

SSN, DOB, Histories	\$40 - \$200
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ATM CARD WITH BALANCE & PIN

\$2k-\$10k+ Balance	\$500 - \$1,000+
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PERSONALLY IDENTIFIABLE INFORMATION

Bundle (DL, Green Card, Visa, Passport, Insurance)	\$2000-\$3000
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CREDIT CARD NUMBER "Fullz"

Major Cards	\$7 - \$50
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AIRLINE REWARDS POINTS ACCESS

50k-150k Miles	\$100 - \$200
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SOCIAL MEDIA ACCOUNT ACCESS

1k-10k Accounts	\$15 - \$60
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HOTEL REWARDS POINTS ACCESS

50k-150k Points	\$75 - \$140
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1.4 BILLION

US \$\$ LOSSES EXCEEDED - 2017

214 MILLION

CALIFORNIA \$\$ LOSSES
EXCEEDED - 2017

230 THOUSAND

NEW MALWARE VARIANTS
DETECTED EVERY DAY

24 THOUSAND

MALICIOUS MOBILE APPS
BLOCKED EVERY DAY

66 PERCENT

MALWARE INSTALLED USING
EMAIL ATTACHMENTS

CYBERSECURITY: PROTECT YOUR ASSETS



- Reduce the attack surface
 - ◆ Own your assets & data
 - ◆ Inventory your assets & data
 - ◆ Prune apps not being used often
 - ◆ Prune accounts not being used often
 - ◆ Prune upload / download residue
 - ◆ Unplug it when you're not using it
 - ◆ Beware of the benevolent
 - ◆ Always on location services != friendly
 - ◆ READ the "Terms of Service"
 - ◆ You are the product when it is FREE
 - ◆ FREE == alternative arrangement
- Apply real world protection strategies to your online persona[s]
- If you think something is suspicious and could cause you harm that's your limbic system talking - listen to it!
- The US Congress is not going to fight for you anytime soon - foreign and domestic technology firms own them and lobby the major parties *equally* - own your assets and fight to protect yourself!

- Use multifactor authentication
- Avoid using the same passphrase for multiple services
- Use a pass-[word|phrase] manager
- Update hardware & software regularly
- Use automated security patching
- Use anti-virus / endpoint protection software
- Routinely backup critical assets
- Use content-filtering / white-listing / ad-blocking
- Avoid opening email from unknown senders
- Avoid opening attachments from unknown senders or senders that normally do not send attachments
- Refrain from accessing sensitive online accounts when using public Wifi networks
- Use available alerting from online services
- Think layered defense-in-depth