

Nuts and Bolts Session

RDOS Cyber Attack and other Bits & Bytes

Presented by Danny Francisco

RDOS 2020 Rollercoaster

➤ March 2020

- Covid Restrictions, New IS Manager
- Remote work onboarding
- Board/Corporation video meetings

➤ August 2020

- Cyber attack
- Christy Mountain Wildfire – EOC- Evacuations

➤ December 2020

- RDOS IT Assessment Report to Board

Cyber Attack Wakeup Call

Good Monday Morning...or so we thought



Cyber Attack.... * & ^ %

First Day

➤ Affected systems

- 35% Workstations, 95% Virtual Servers, 90% Onsite Backup Storage, VPN Connected remote sites
- On site local Information systems that were Offline
 - File Shares/Document management, Email, GIS, Remote SCADA Access etc.

➤ Not Affected

- VoIP phones, Network Firewalls and Switching infrastructure
- Could Systems and non-VPN Connected remote sites
 - Public Website, Civic Ready, Employee Timesheet Tracking, etc.

Communication in 2020?

August 13/2020 - Technical Update

Tuesday morning, Information Services Staff were alerted to an attempted Ransomware attack that was unsuccessful.

A Ransomware attack is for the purpose of encrypting data in order to request money to unencrypt.

Information Services is working with Cyber Insurance experts to ensure the integrity and validity of all systems prior to bringing the system out of isolation out of due diligence.

An Information release will go to the media today. Please direct any media calls to Andrea at 250-492-4119.

Once a full report has been received further information will be released.

Thank you for your patience.

- ✓ Paper Comm Letters
- ✓ Handwritten Paychecks
- ✓ “Sneaker Networks”
- ✓ Paper Policy Binders

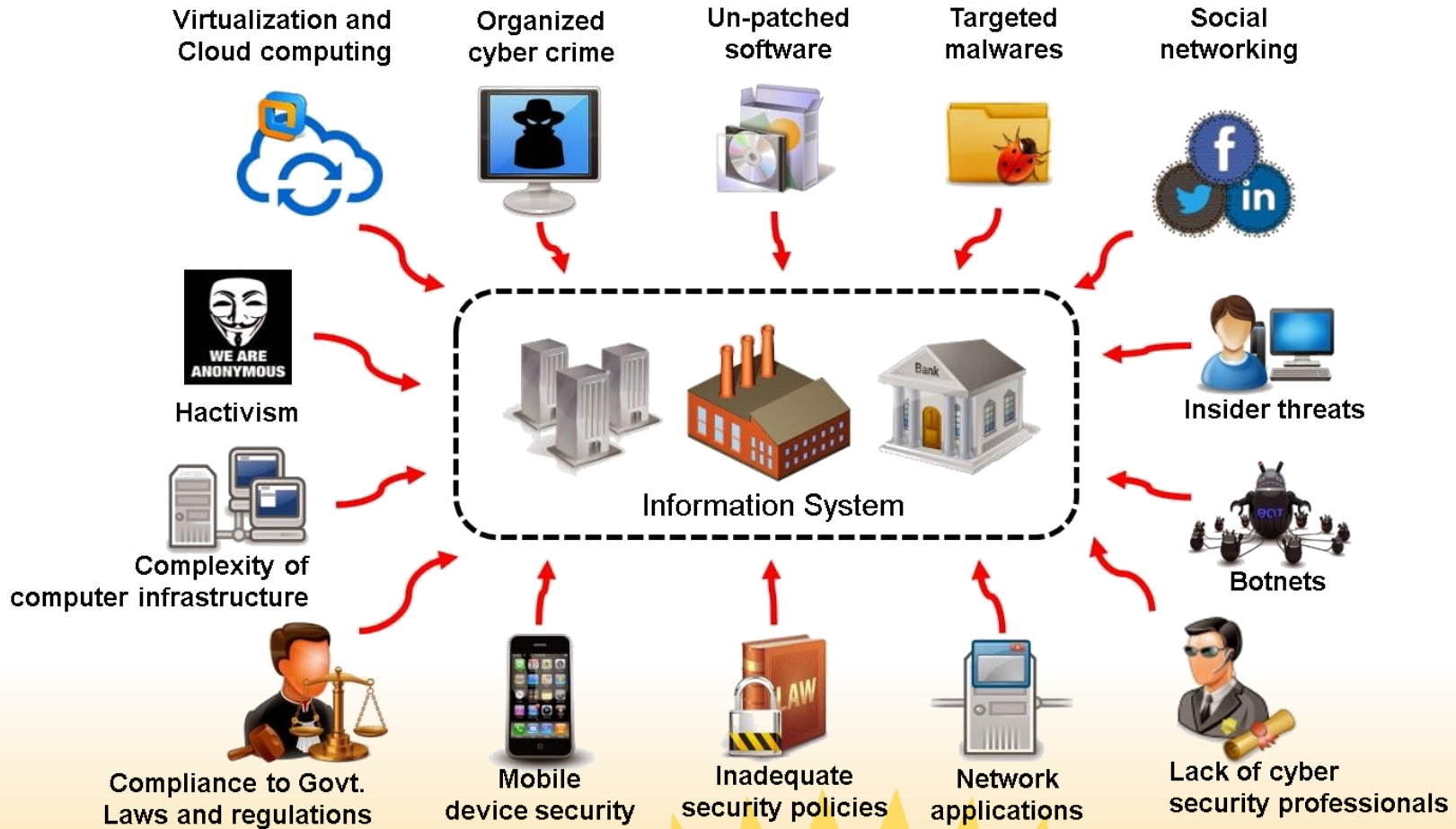
Cyber Attack...Now What?

First Week

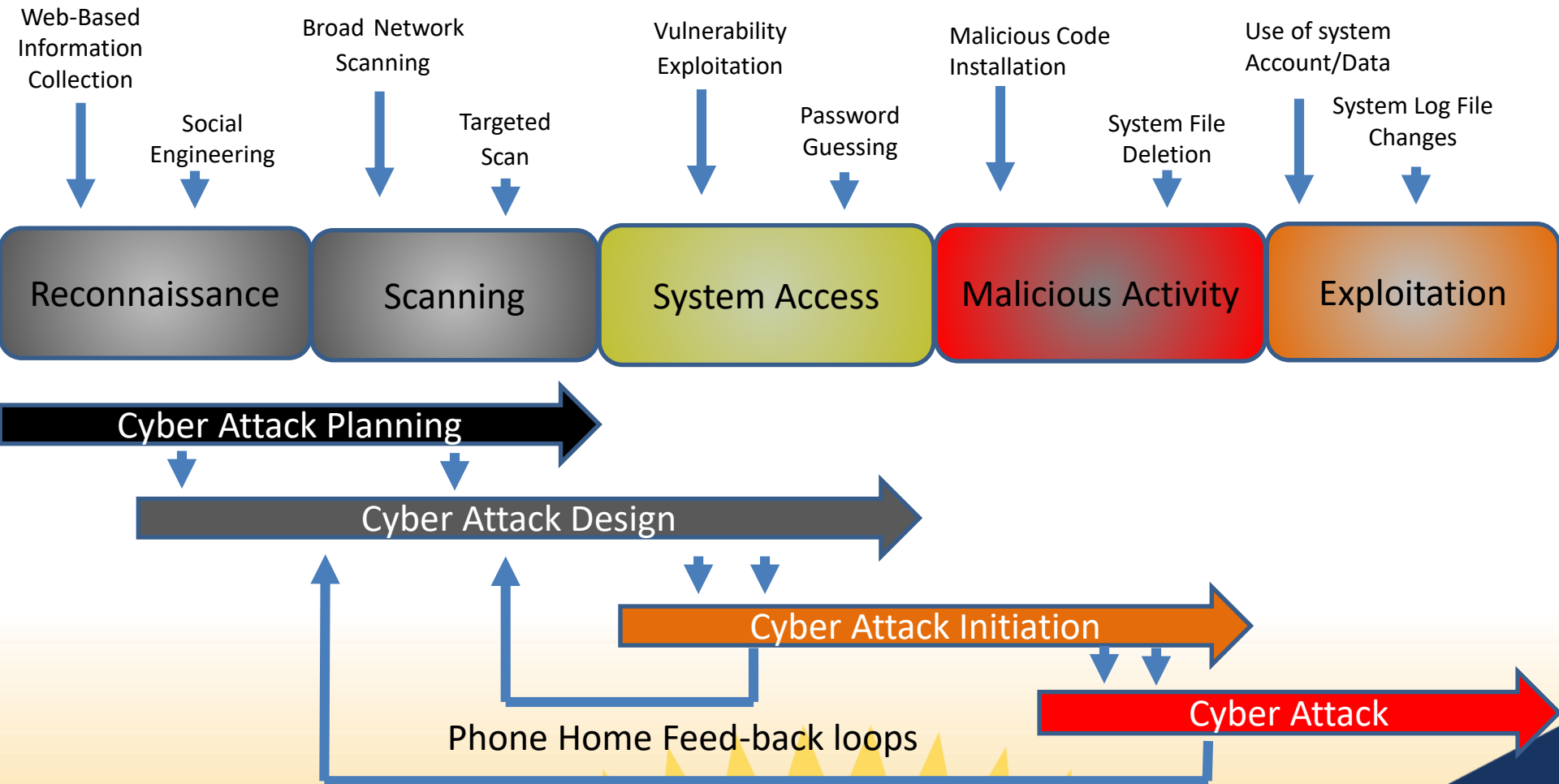
- Cyber Insurance Engagement
- Business Continuity Plan
- Disaster Recovery plan
- People Factor



How did I get attacked?



Cyber Attack Process



Cyber Attack...In a Nutshell



➤ Type of Attack?

- Beta Ransomware (*PowerShell based*)

➤ From?

- European Origin.

➤ Input Vector?

- Compromised Account.

➤ Ransome Paid?

- No, as attackers failed to fully execute.

➤ Recovery Time?

- 5 Months

But we had Protection?

- Firewalls
- Password Policy
- Ransome ware Software
- Encrypted Hard drives
- Antivirus Software
- 2FA – Two Factor Authentication



Cyber World and Dark Web...

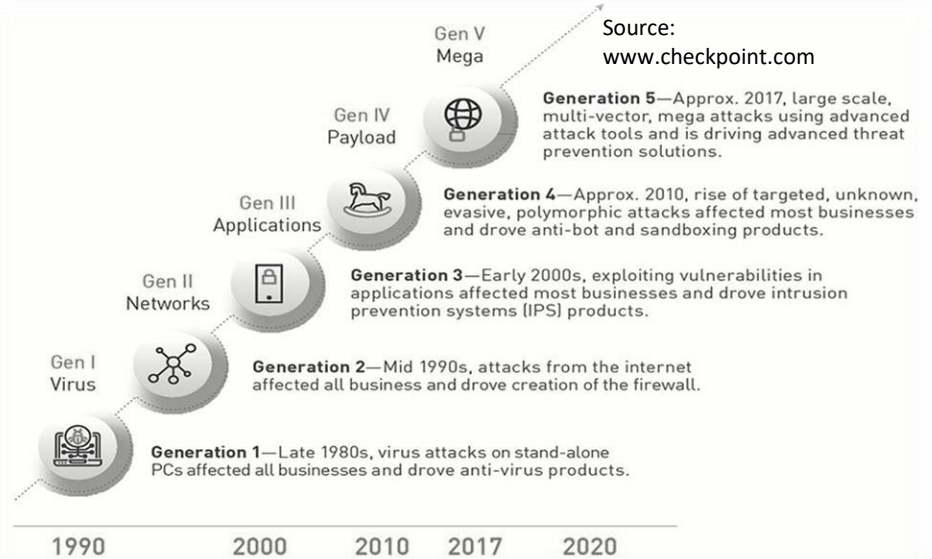
\$1,200
is all you are worth on the dark web

Hacked accounts of these popular brands and stolen personal info are for sale on the dark web. The Dark Web Market Price Index tracks their average sale price, showing fraudsters can buy up someone's entire online identity for just \$1,200.

| | | | |
|---|---|--|--|
| Online Shopping amazon ebay costco Walmart macy's Subtotal \$164.65 | Travel UBER Booking.com Expedia airbnb Subtotal \$45.53 | Entertainment Apple NETFLIX Spotify Subtotal \$28.59 | |
| Personal Finance PayPal Subtotal \$710.65 | Social Media facebook twitter LinkedIn instagram Subtotal \$10.21 | Proof of Identity Subtotal \$92.20 | Communication verizon AT&T T-Mobile Subtotal \$72.17 |
| Delivery DHL ups FedEx Subtotal \$15.59 | Food Delivery GRUBHUB Subtotal \$12.80 | Email Aol. Yahoo! MAIL Subtotal \$9.53 | Dating match.com dating.com Subtotal \$8.82 |

Source: Dark web market listings collected on 5-11 February, 2018. Markets monitored were Dream, Point and Wall Street Market. Prices collected in USD as displayed on listings.

TOIOPVN



Dark Web Prices

| | |
|---|--|
| Social Security \$1 | DDOS as a service -\$7 per hour |
| Medical record \$50 and up | Credit card data \$0.25 to \$60 |
| Bank account info \$1,000 and up depending on the account type and balance | Mobile malware \$150 |
| Spam \$50 for ~500,000 emails | Exploits \$1,000-\$300,000 |
| Malware development \$2,500 (Commercial malware) | Facebook account \$1 for an account with 15 friends |

SOURCE: RSA

RDOS...next Steps?

➤ IT Assessment

Completed in 2020 and implementing Recommendations

- Rebuild core IT datacenter & infrastructure
- Implement Enhanced Security Practices (*Identity Management, IT Processes*)
- Implement server failover capabilities and improve Disaster and Business continuity plans

➤ Cyber Testing

- Internal and External Penetration Testing, 3rd Party Network Audits

➤ Education and Safety

- Cyber Security all staff responsibility, not just IT.
- Phishing and Cyber safety education

➤ Utility Thinking

- IT has become a “Utility Service”

➤ Regional Thinking

- Collaboration
- Cost and Resource Sharing

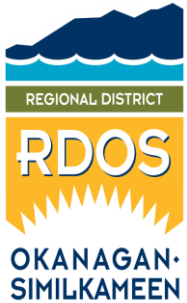


Thank You

QUESTIONS



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