

### UNDERSTANDING CYBER RISK

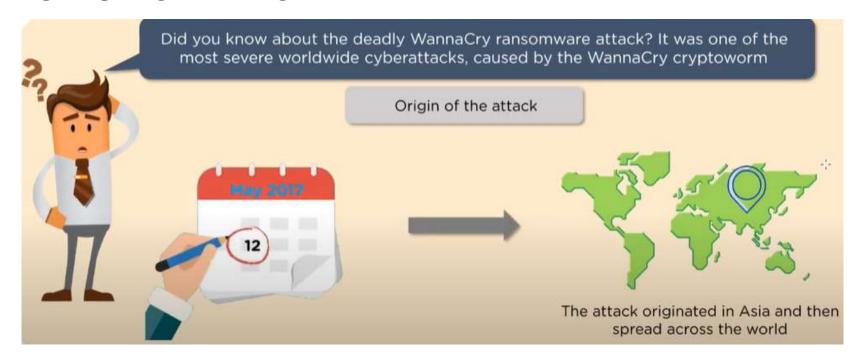
-The most disruptive risk of next decade

Presented by: Harsh Jaitak

### POLL 1: HAVE YOU EVER WORKED ON CYBER INSURANCE PRODUCTS?

- Yes
- No

### RISE OF CYBERCRIME



More than 230,000 computers were affected across 150 countries

### RISE OF CYBERCRIME



Both private and government organizations were hit. Nissan and Renault had to put their business on hold.

### RISE OF CYBERCRIME



Personal Identifiable information stolen.

#### TYPE OF CYBERATTACKS

Malware Attack Denial Of Service Attack Social Engineering Attack

SQL Injection Attack Man in the middle attack

Password Attack

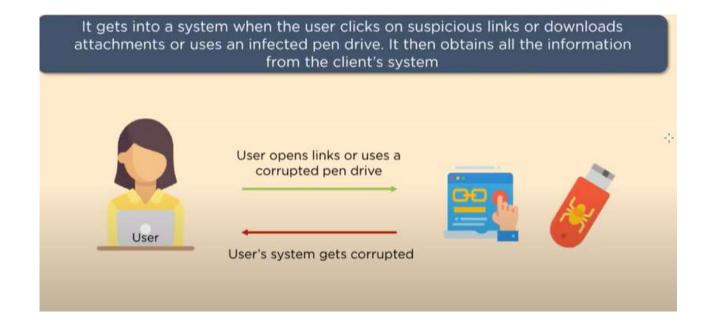
### POLL 3: WHICH OF THE FOLLOWING DO YOU KNOW LEAST ABOUT?

- Malware Attack
- Denial of Service Attack
- Social Engineering Attack
- SQL Injection Attack
- Man in the middle attack
- Password Attack

### MALWARE ATTACK



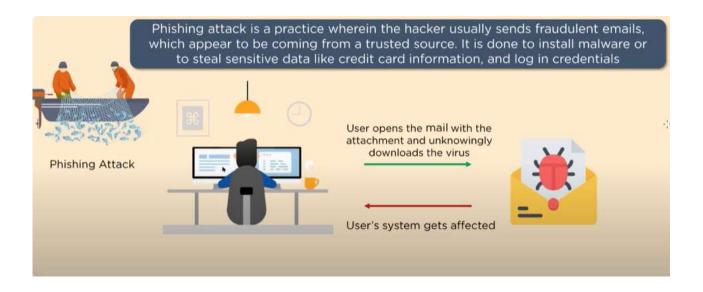
### MALWARE ATTACK



### SOCIAL ENGINEERING ATTACK



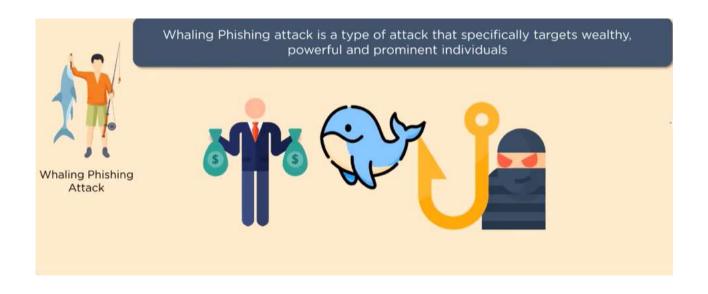
### PHISHING ATTACK



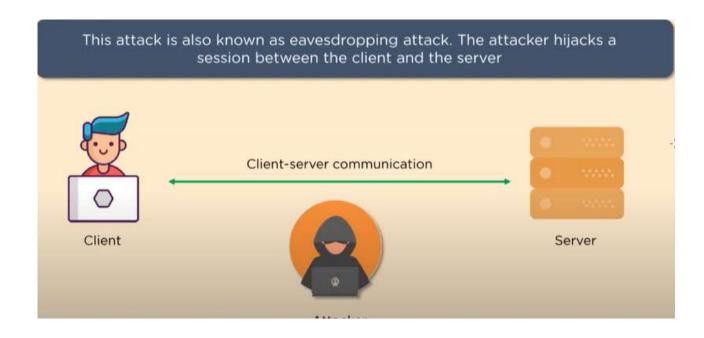
### SPEAR PHISHING ATTACK



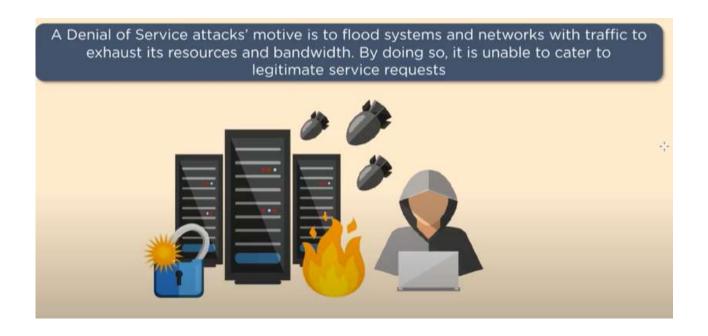
### WHALING PHISHING ATTACK



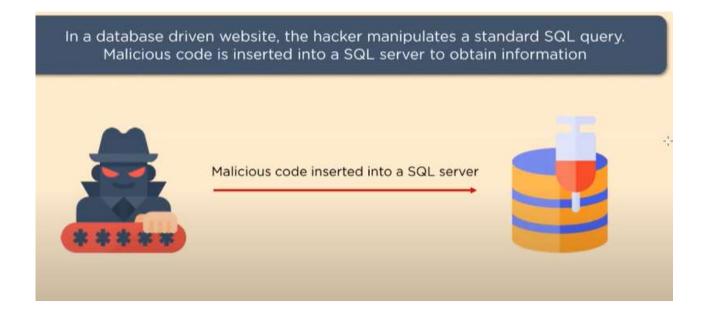
# MAN IN THE MIDDLE ATTACK



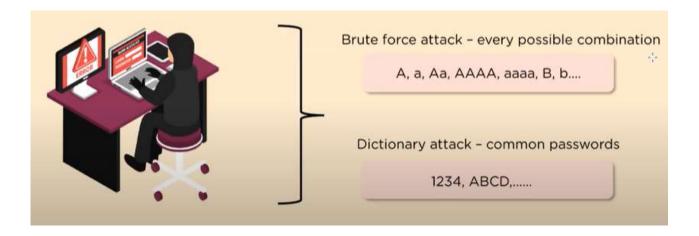
### DENIAL OF SERVICE ATTACK



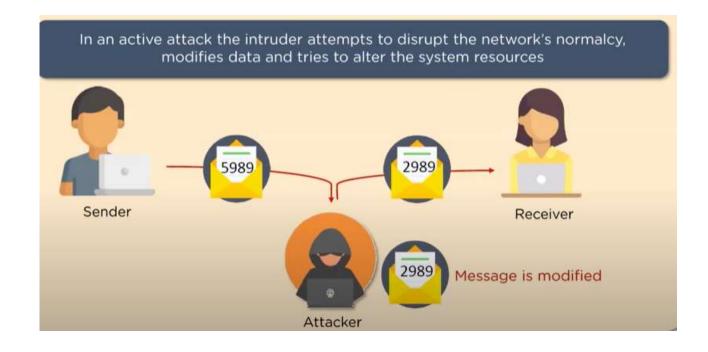
### SQL INJECTION ATTACK



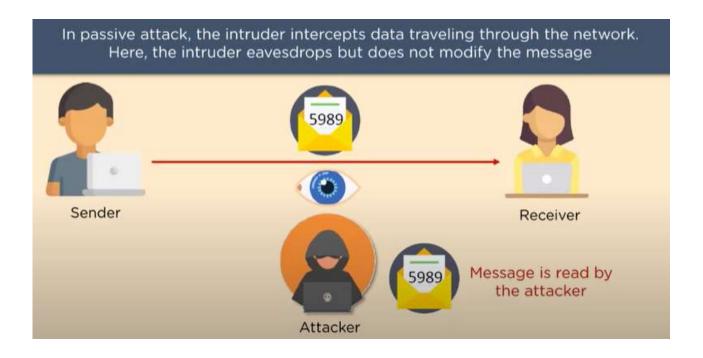
### PASSWORD ATTACK



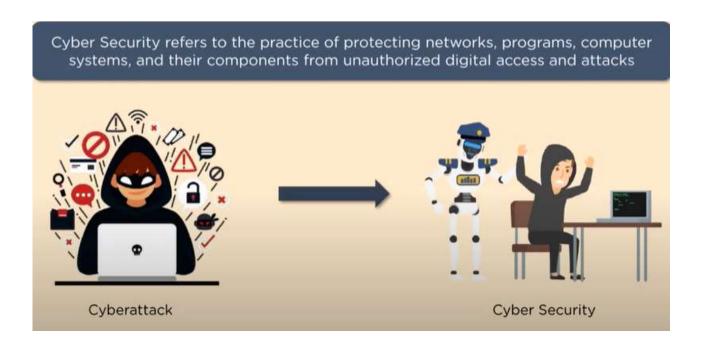
### ACTIVE NETWORK ATTACK



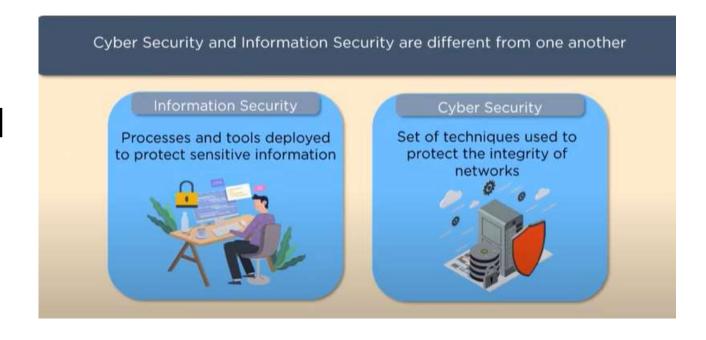
### PASSIVE NETWORK ATTACK



#### **CYBER SECURITY**



CYBER
SECURITY
AND
INFORMATION
SECURITY



# POLL 4: DO YOU KNOW THE VALUE OF YOUR DATA?

- Yes
- No

### POLL 5: DO YOU KNOW WHERE YOUR DATA IS?

- Yes
- No

### POLL 6: DO YOU KNOW WHO HAS THE ACCESS TO YOUR DATA?

- Yes
- No

### POLL 7: DO YOU KNOW WHO IS PROTECTING THE DATA ?

- Yes
- No

### POLL 8: DO YOU KNOW HOW TO RESPOND IN CASE THE DATA IS COMPROMISED?

- Yes
- No

### ANSWER THESE 5 KEY QUESTIONS



Do you know value of your data?



Do you know where your data is?



Do you know who has access to this data?



Do you know who is protecting the data?



Do you know how to respond in case data is compromised?

#### LIFECYCLE OF A DATA BREACH

Forensics / Data **Breach Detected Breach Response Payment Card Industry** Third Party Litigation **Breach Counsel Analysis** First Party Costs **Third Party Costs**  /T detects unusual If consumer notification In certain cases (inter alia, PHI, If credit card information is Following notification, there Company notifies Breach Counsel retains Financial Institutions and compromised, the Payment are attempts by Plaintiffs to obligations are triggered activity. cyber insurer of breach independent computer breaches impacting a certain Card Industry (PCI) investigates file litigation alleging negligent Learn from third party and/or credit monitoring is forensics consultant to and requests magnitude of consumers), and levies fines, penalties and failure to properly protect · Law Enforcement required by applicable law, determine scope and Breach Counsel will also notify assessments against the personal information causing assignment of Breach PCI Breach Counsel retains extent occurrence and applicable federal or state company and mandates third party damages. Defense Media Counsel. Breach vendor to notify impacted regulators. Regulators may remediation. Breach counsel counsel is retained to defend detect evidence of data Consumer class and facilitate credit Counsel facilitates pursue formal regulatory works with payment card the client in privacy litigation. exfiltration / unauthorized · "Grey Hat" monitoring and call center. investigations relating to the processors to defend the \*If appropriate breach counsel communications going access to sensitive data. Some laws require Media occurrence. Counsel is Common Point of and third party defense company's interest in response forward to protect Investigation also must Purchase analysis. Notice. retained. to the PCI brands contractual counsel can be two different analyze any impacted data Attorney-Client \*If appropriate breach counsel actions. law firms. Trigger Incident Some laws require notice to determine whether Be mindful of the Master Apply constitutional standing and third party defense Response set forth in Privilege. to Consumer Reporting Services Agreement analysis as first defense. impacted data triggers counsel can be two different Incident Response Agencies. PCI Forensic Investigator law firms. legal obligations. Planning Document / (PFI). Policy

Source: RSA

### POLL: HAVE YOU EVER HEARD OF NATPETYA ATTACK?

- Yes
- No

#### STANDALONE CYBER POLICY COVERAGE

#### **First Party**

- Incident Response/ Crisis Management Costs
- Forensics / IT / Data Recovery / Systems Restoration / E-Discovery
- Legal
- Notification / Call-center
- Public Relations
- Business Interruption / Contingent Business Interruption
- Digital Extortion

#### **Third Party**

- Broad coverage for failure to protect data
- Vicarious liability coverage for vendors (Business Associates, Tech Providers (Saas, PaaS, etc).
- Regulatory fines & penalties
- Civil & Class Action Defense

#### **Other Benefits**

- "Other Insurance" Clause may make professional liability policy primary
- Preserves Errors & Omissions policy limits for professional Liability claims rather than data breaches
- Cyber policies generally have lower deductibles
- "Primary / noncontributory" language is being added to some cyber policies to avoid coverage disputes

Source: RSA



### CRITERIA FOR EXPOSURE

Simplicity

Auditability

Strength of relationship to losses

Stability

Legal Determinability

### MAJOR COVERAGES



PRIVACY LIABILITY



NETWORK SECURITY LIABILITY



CYBER EVENT RESPONSE

### FOCUS: PRIVACY LIABILITY COVERAGE

1

Losses: Damage, Defense Costs and Fines 2

Bad exposure measures: Harm Caused, Preventive measures 3

Possible Measures: Class Size or related proxy

#### **CLASS SIZE**

01

Two types: Service providers(Employees) and Service receivers(Customers)

02

Customers uniquely identified and those not uniquely identified.

03

Employee vs customer class size

# ACTUARIAL CHALLENGES



Data and standardization issues



No geographical Limitation



Network risk from External Perspective



The Human element

# ACTUARIAL CHALLENGES



Correlation of attacks



Actuarial Paradox



Cyber Catastrophe



Technology Evolution and Silent Coverage

