# WELCOME TO THE CYBER THREAT GALLERY

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# CYBER SECURITY 101 – THE GROWING THREAT



# Cybersecurity has never been more imperative











































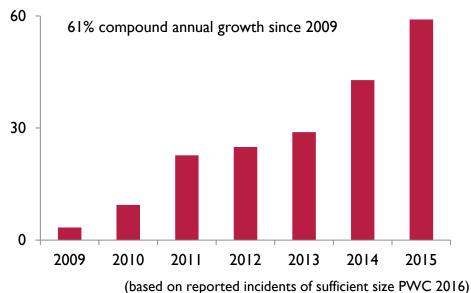


# **Security Threat Landscape**

# Cyber attacks are more:

- Profitable (\$\$\$)
- frequent
- effective
- targeted
- sophisticated
- elusive

#### Global Security Incidents (millions)



## CYBER SECURITY 101 - THE ACTORS HALL





# THE NATION STATE



Motivation
Influence
Espionage
Competitive Advantage

## CYBER TERRORIST



Digital arm of a terrorist org

Motivation
Political agenda
Promote fear and ideology
Raise funds and recruitment
Cause harm

# THE CYBER CRIMINAL / ORGANIZED CRIME



Motivation Fraud

Financial Gain

## THE HACKTIVIST



#### **Motivation**

Notoriety for a cause Embarrassment of Institution

# THE NEWBIE (aka SCRIPT KIDDIE)



Motivation
Curiosity
Build reputation

# THE INSIDER



#### **Motivation**

malicious

Revenge

Espionage for rival company

complacent / ignorant

Do more with less

# CYBER SECURITY 101 - THE IMPACT EXHIBIT



# **Business Impacts**

- direct impact to clients
- financial, value loss
- litigation, regulatory
- data breach and loss
- brand and reputation
- lost/stolen intellectual property
- lost productivity

#### In the news

Cyber attacks cost companies \$400 billion every year

by Stephen Gande

@stephengande

JANUARY 23, 2015, 1:03 PM ES

Last year, the insurance industry took in \$2.5 billion in premiums on policies to protect companies from losses resulting from hacks.

# Why organizations are targeted

- gain economic advantage
- access to personal data (ie. health), fraud
- trusted launch point against others
- law enforcement, justice, court services
- surveillance

#### In the news

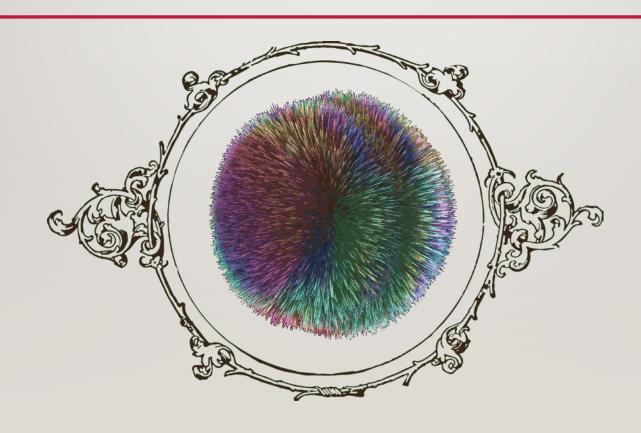
Personal info of 15,000 people accessed in B.C. government database breach



### **Global Context**

- global annual cybercrime will cost the world in excess of \$6 trillion annually by 2021
  - this is an increase from \$400 billion in early 2015
- global spending on cybersecurity defence is projected to exceed \$1 trillion over the next 5 years
- U.S. has declared a national emergency to deal with the cyber threat
- global shortage of cybersecurity professionals is expected to reach 2 million by 2019
  - now expected to be 3.5 million by 2021
  - Canada's share expected to be 62-65,000

# CYBER SECURITY 101 – THE FINALE



# Have a Security Program - Defensible Security

# Security Embedding (DNA) Controls

Info Security Program Info Security Classification Security Awareness Security Governance

#### Security Respiratory Controls

Backup & Retention
Logging & Monitoring
Physical Security & Visible ID
Criminal Record Checks
Vendor Security Requirements
Access Control
"Defence in Depth" for Endpoints &
Networks
VM & Patching



#### **Security Prerequisites**

Executive Support
Roles & Responsibilities
Crown Jewels
Risk Appetite & Register
Risk Assessment
Security Assessment

#### **Security Directives**

Asset Management & Disposal Change Management Incident Management Business Continuity Plan (BCP) Disaster Recovery Plan (DRP) Security Incident Response Info Security Policy

"Covering the organization end-to-end"

# What can "l" do (to not be an easy victim)?

#### **Service Provider**

Know your Software Stack (at all layers) and keep it all

- ✓ base OS hardened Use www.cisecurity.org Standard.
- ✓ patched. Keep the software current.
- ✓ correctly configured (NO Default Accounts/Passwords!)

# **Web Developer**

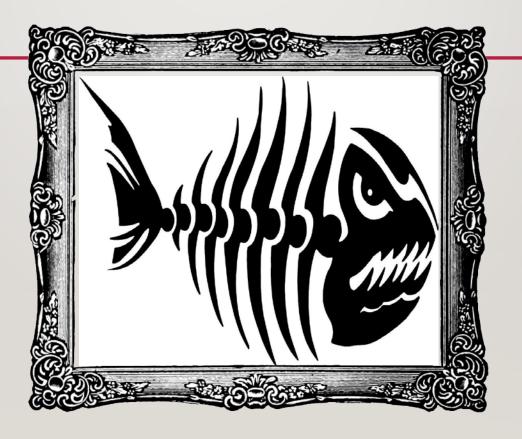
- ✓ Live and breathe the OWASP Top Ten!
- ✓ Consider Web Application Firewall (defense in depth)

# What can "I" do (to not be an easy victim)?

# Online Consumer (do'ya browse, bank, and buy online?)

- ✓ Keep your device's software updated (all of it... OS/Apps)
- ✓ Backups!! (remember Ransomware!)
- ✓ use VPN on less trustworthy wireless networks(Coffee House, Home?) (stop Man-in-the-Middle)
- ✓ Use multifactor authentication for on-line accounts where possible.
- Be \*very\* wary of email with links and attachments. Even from trusted sources. This will avoid...

# THE PHISHING COLLECTION



91% of attacks by sophisticated cybercriminals start through spear phishing emails.\*

\* 2017 Cybercrime Report, Herjavec Group

# Key messages

- Security is not just an IT problem, it's business enterprise risk
- Incidents are increasing in frequency and are more sophisticated and targeted than ever
- No organization globally is immune to attack
- Doing the basics well will stop 80% of the problems
- Organizations will be judged not only on their ability to prevent but detect and respond

# **QUESTIONS?**

