TOP 10 IT SECURITY ACTIONS & BEYOND

ISACA Annual Meeting

June 14th, 2018

CSE's ROLE IN CYBER SECURITY

- CYBER SECURITY LEAD IN CANADA
- ACCESS TO UNIQUE FOREIGN INTELLIGENCE
- AHEAD OF EMERGING THREATS
- MONITOR GC SYSTEMS 24/7 FOR CYBER THREATS
- SAFEGUARDS CANADA'S MOST IMPORTANT INFORMATION

CYBER: WHY IT'S IMPORTANT

Cyber is:

- Integrated into every Canadian's everyday life
- A key part of all aspects of the government agenda: economic prosperity, innovation, defence and security
- Critical to democracy and democratic institutions
- Canada's wealth, innovative business sector, diplomatic relationships and military partnerships make it an attractive target

Successful compromises can:

- Affect Government services to citizens
- Compromise Canadians' personal information
- Harm Canada's economy and national security
- Undermine Canadians' trust and confidence

CYBER TRENDS

2014

JANUARY — **TARGET**
110M financial records stolen

APRIL — **HEARTBLEED**
900 records stolen from CRA

JUNE — **NATIONAL RESEARCH COUNCIL (NRC)**

2015

MAY — **INTERNAL REVENUE SERVICE (IRS)**
330,000 US tax records stolen

JUNE — **OFFICE OF PERSONNEL MANAGEMENT (OPM)**
21.5M records stolen of US government employees

2015

JULY — **GC DDOS ATTACKS**
> 12 websites of federal departments crippled

ASHLEY MADISON
37M user's account information leaked

2016

OCTOBER — **MIRAI BOTNET**
Infected IoT devices worldwide. DDOS attack on DNS provider DYN

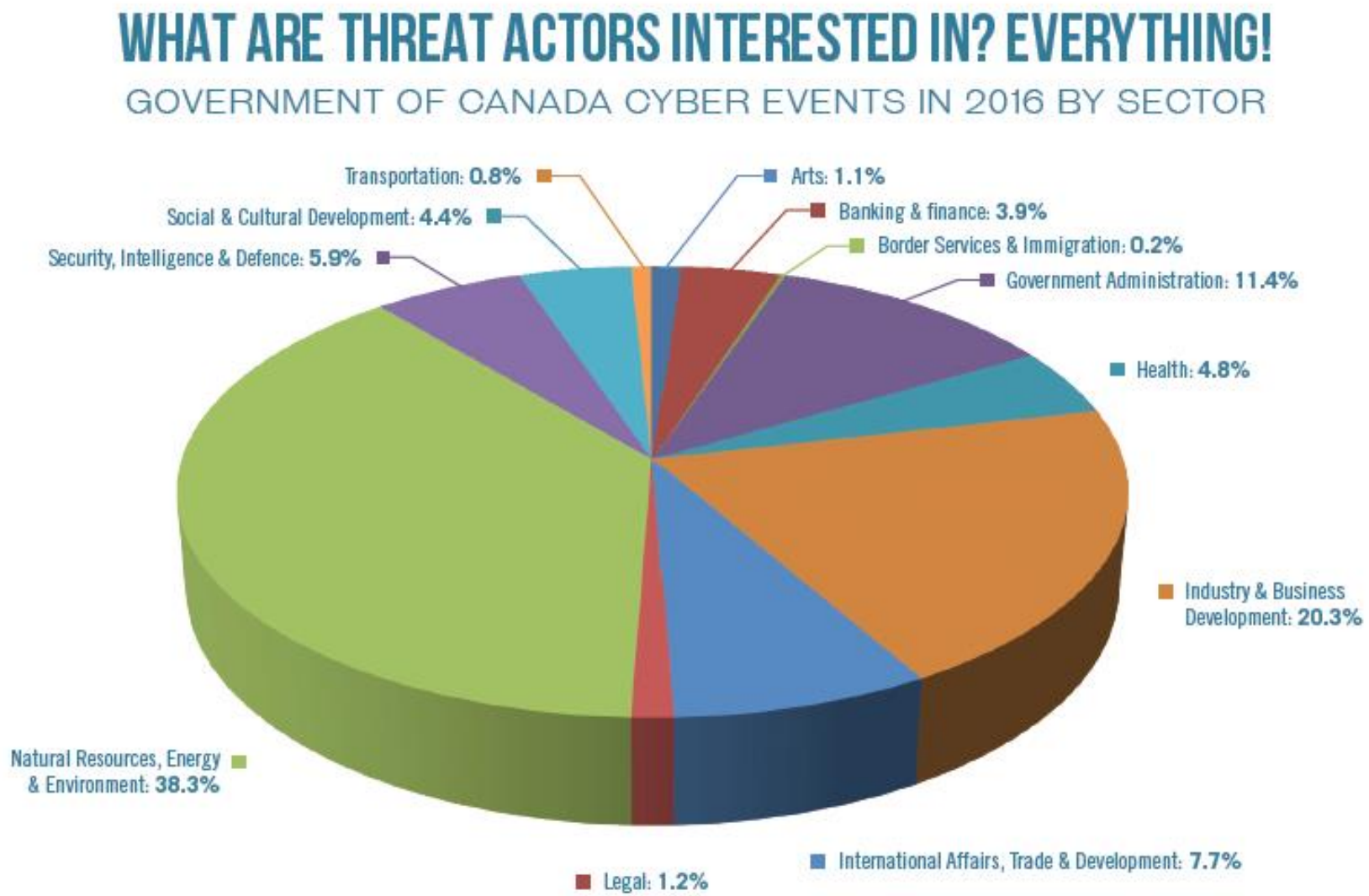
2017

MAY — **WANNACRY (RANSOMWARE)**
>300,000 computer infected

JULY — **EQUIFAX**
145M US personal info leaked

OCTOBER — **YAHOO**
3B user's data compromised

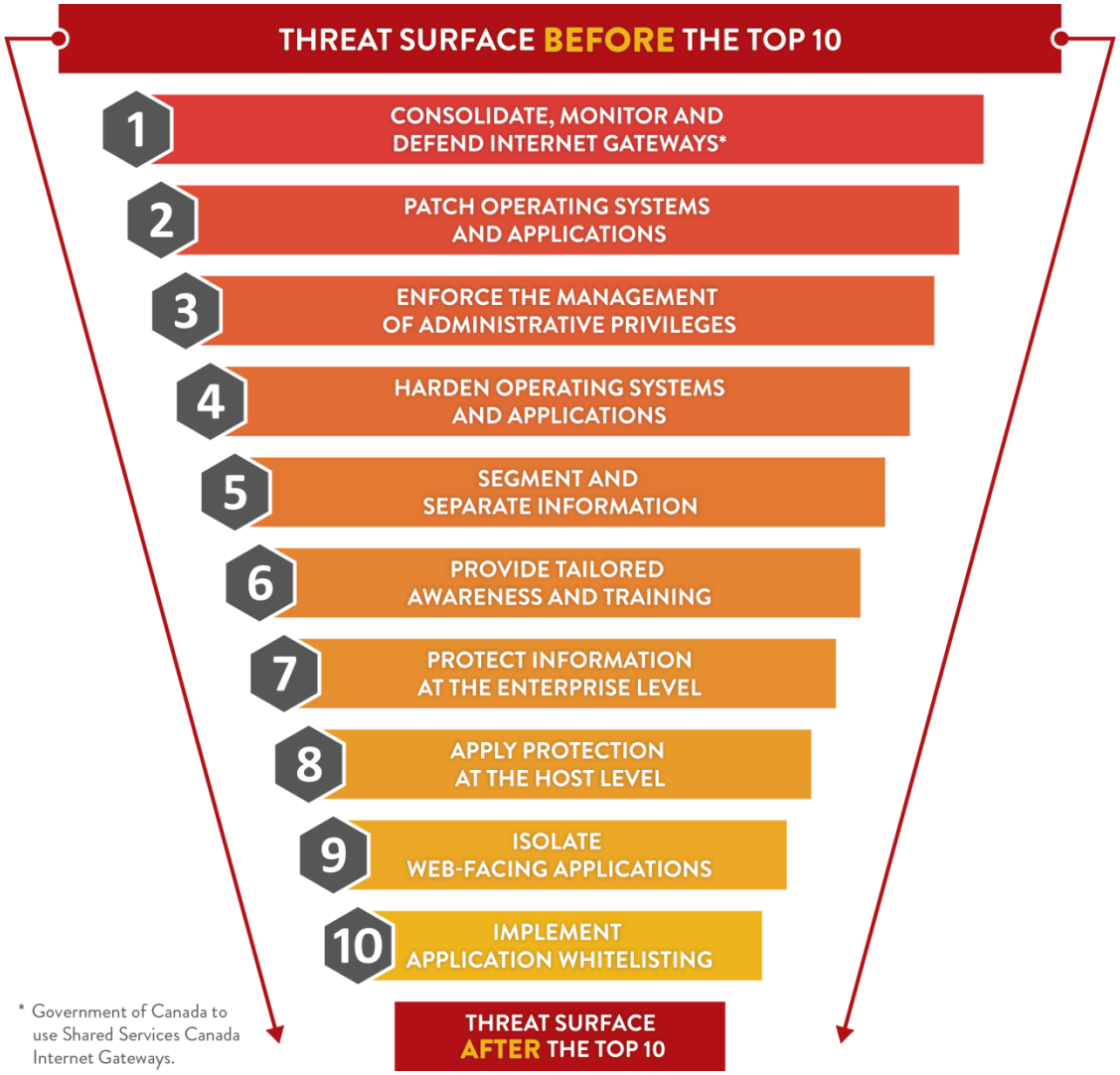
GOVERNMENT OF CANADA CYBER EVENTS IN 2016 BY SECTOR



WHAT IS THE TOP 10 IT SECURITY ACTIONS?

- The Top 10 is a practical list of IT security actions departments can take to be more secure
- Has been condensed from the Top 35 for ease of use and to focus departmental efforts
- Developed based on CSE's analysis of the cyber threat activity trends that impact Government of Canada (GC) Internet-connected network

IMPLEMENT THE TOP 10



* Government of Canada to use Shared Services Canada Internet Gateways.

TOP10
IT SECURITY ACTIONS

OBSERVATIONS

- Since the TBS Security Policy Information Notice (SPIN 2015-01) was issued in 2015:
  - Many GC departments and agencies have incorporated elements into their departmental investment plans and internal IM/IT audit assessment
  - Perception is that it is easier for large departments to implement as they have the dedicated resources
  - For small and medium agencies, there is a lack of resources dedicated to IT security
  - A strong desire for a community wide effort to share best-practices and initiatives
  - Top 10 is an excellent start but security requires continuous improvement and additional guidance is needed

MOVING FORWARD WITH ITSG-33

- ITSG-33 (*IT Security Risk Management: A Lifecycle Approach*) provides guidance pertaining to:
  - IT Security Risk Management Activities
  - Security Implementation Process
  - Security Control Catalogue & Profiles

- How to transition from Top 10 to ITSG-33?
  - Top 10 are only the first steps to increasing a department's security posture
  - Top 10 activities correspond directly to ITSG-33 security controls
  - Your "Business Need for Security" will help determine what security controls are required

KEY TAKEAWAYS

- The environment is complex and the threats are diverse
- CSE has additional tools that can help make your organization more secure moving beyond the Top 10

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WE ARE CYBER SECURITY