

Chapter 1: The Need for Cybersecurity



Introduction to Cybersecurity v2.0



Chapter 1 - Sections & Objectives

- 1.1 Personal Data
 - Explain the characteristics and value of personal data.
- 1.2 Organization Data
 - Explain the characteristics and value of data within an organization.
- 1.3 Attackers and Cybersecurity Professionals
 - Explain the characteristics and motives of cyber attackers and the legal and ethical issues for cybersecurity professionals.
- 1.4 Cyberwarfare
 - Explain the characteristics and purpose of cyberwarfare.

1.1 Personal Data





Personal Data

Introduction to Personal Data

- What is Cybersecurity?
 - Protection of networked system and data
- Your Online and Offline Identity
 - List some examples of your offline identity
 - List some examples of your online identity
- Your Data
 - List some examples of your data
- Where is Your Data?
- Your Computing Devices
 - Data storage and your portal to your online data
 - List some example of your computing devices





Personal Data

Personal Data as a Target

- How do the criminals get your money?

- Online credentials
 - Creative schemes



- Why do they want your identity?

- Long-term profits
 - Medical benefits



1.2 Organization Data





Organization Data

Introduction to Organizational Data

- Types of Organizational Data
 - Traditional Data – personnel, intellectual, financial
 - Internet of Things and Big Data
- Confidentiality, Integrity and Availability
 - Confidentiality - privacy
 - Integrity – accuracy and trustworthiness of the information
 - Availability – information is accessible





Organization Data

The Impact of a Security Breach

■ LastPass and Vtech

- What happened?
- What were taken?
- Consequences?
- What actions should customers take after the breach?



1.3 Attackers and Cybersecurity Professionals





Attackers and Cybersecurity Professionals

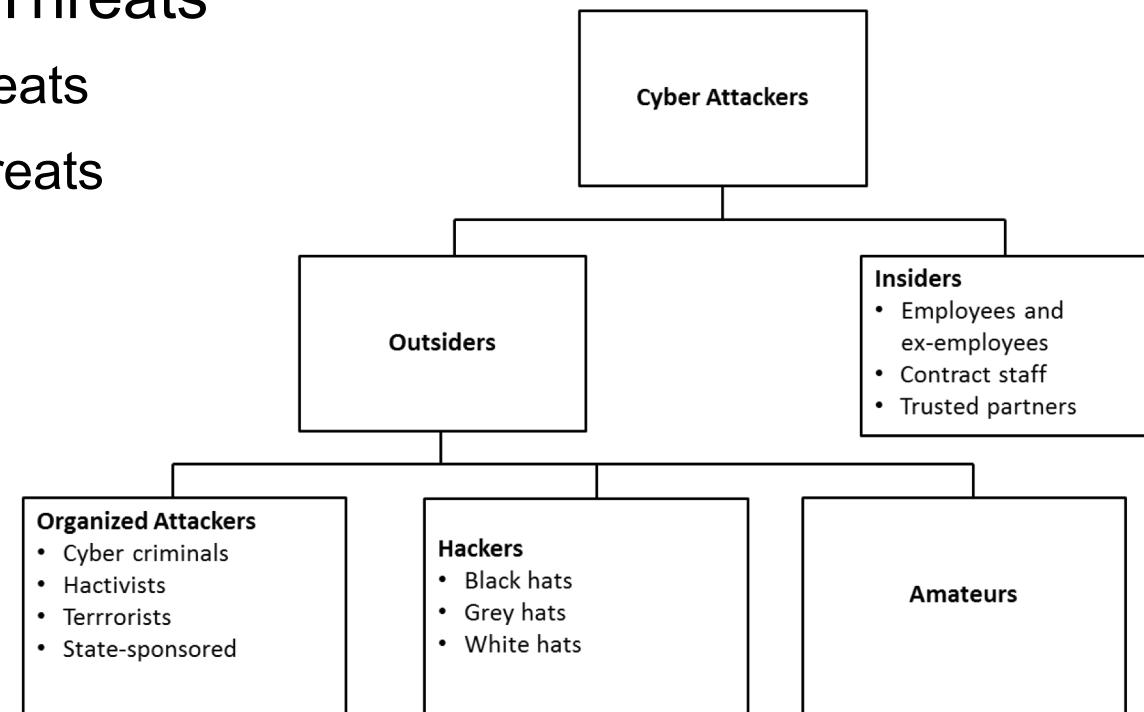
The Profile of a Cyber Attacker

■ Types of Attackers

- White hats
- Gray hats
- Black hats

■ Internal and External Threats

- Examples of internal threats
- Examples of external threats





Attackers and Cybersecurity Professionals

Legal and Ethical Issues in Cybersecurity

■ Legal Issues in Cybersecurity

- Personal
- Corporate
- International

■ Ethical Issues in Cybersecurity

- Personal
- Corporate

The screenshot shows the ITU-IMPACT website. At the top, there's a navigation bar with links for Home, About Us, Services, Countries, Partners, Resource Centre, Media, and Events. A banner headline reads "152 NATIONS HAVE JOINED THE COALITION. ITU-IMPACT IS TODAY, THE LARGEST GLOBAL CYBERSECURITY ALLIANCE". Below this, there are sections for "Upcoming and Past Events" and "112 Countries Have Joined ITU-IMPACT". At the bottom, there's a footer with links for Careers, Contact Information, Site Map, Terms & Conditions, and a copyright notice: "© Copyright 2015, IMPACT. All Rights Reserved. A key partner of the United Nations specialized agency, the International Telecommunication Union (ITU)."/>

1.4 Cyberwarfare





Cyberwarfare

Overview of Cyberwarfare

- What is Cyberwarfare?
 - Conflict using cyberspace
 - Stuxnet example
- The Purpose of Cyberwarfare
 - Gain advantage over adversaries



1.5 Chapter Summary





Chapter Summary

Summary

- Define personal dat.
- Explain the characteristics and value of personal data.
- Explain the characteristics and value of data within an organization.
- Describe the impact of security breach.
- Describe the characteristics and motives of an attacker.
- Describe the legal and ethical issues facing a cybersecurity professional.
- Explain the characteristics and purpose of cyberwarfare.



