

NPCERT in Partnership with One Cover Pvt. Ltd. and ICTFRAME is hosted first Cyber Security Meetup in Kathmandu, Nepal on April 4, 2019 (Chaitra 21, 2075) at Nepal Telecom's Building, Babarmahal, Kathmandu, Nepal.

**NEPAL
Cyber Security
Meetup #1**

**Thursday, 4th April 2019
(2075 Chaitra 21)**

**Venue: Nepal Telecom Building
Babarmahal**

Organizer: Information Security Response Team Nepal

Supported by: ICTFRAME, One Cover, and other partners.

Security Strategic Plan

- “If you know the enemy and know yourself you need not fear the results of a hundred battles.” --- Sun Tzu
- Business Strategy---Know yourself
- Understand the Threats --- Know the enemy
- By understanding the threats, we can improve our defenses and understand where attackers are weak.

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Understanding of Threats

1. Understand threat actors
 - Their motivations and mindset
2. Understand key business assets
 - What is important to the business
3. Analyze threats
 - Understand tactics, techniques, and procedures using Kill Chain Analysis

Understanding Threat Actors

- Learn about the different types of threat actors
- Understand their motivations
- Understand the tactics used by two common threat actors
 - By walking through two cases of real-world attacks

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VERIS Threat Actors

Category	Description	Actor	
External	Threats from sources outside the organization and its partners. This includes criminal groups, lone hackers, former employees, and government entities as well as "Mother Nature" and chance.	<ul style="list-style-type: none"> • Acquaintance • Activist • Auditor • Competitor • Customer • Force majeure 	<ul style="list-style-type: none"> • Former employee • Nation state • Organized crime • State affiliated • Terrorist • Other
Internal	Threats that arise from within the organization. This includes full-time employees, contractors, interns, and other staff.	<ul style="list-style-type: none"> • Auditor • Call center staff • Cashier • Developer • End user • Executive • Finance 	<ul style="list-style-type: none"> • Help desk • HR • Maintenance staff • Manager • Security guard • System admin • Other
Partner	Any third party that has a business relationship with the organization. These business partners usually have some level of trust or privilege.	<ul style="list-style-type: none"> • Supplier • Vendor • Hosting provider • Outsourced IT • Other 	

Simple Threat Actors and Motivations

Threat Actor	Description	Motivation
Hacktivist	Activist groups target organizations because of real or perceived slights. Their goal is to damage the brand and embarrass the organization.	<ul style="list-style-type: none"> • Ideology or protest • Fun, curiosity, or pride • Grudge or personal offense
Organized Crime	Criminals want to make money using stolen data and access to systems. They use malware, phishing, and application attacks to steal data	<ul style="list-style-type: none"> • Financial gain
Nation State	Countries attempting to gain economic or military advantage over their adversaries and economic competitors by stealing data and sabotaging equipment.	<ul style="list-style-type: none"> • Espionage • Competitive advantage • Fear or duress
Competitor	Other organizations in the same or similar industries seeking proprietary information.	<ul style="list-style-type: none"> • Espionage • Competitive advantage
Insider	Employees who put data at risk by violating policies and standards or through negligence.	<ul style="list-style-type: none"> • Espionage • Grudge or personal offense • Convenience or expediency
Partner	Vendors that are relied upon to store and process sensitive information. Partners may have elevated levels of access to sensitive data or systems.	<ul style="list-style-type: none"> • Espionage • Convenience or expediency

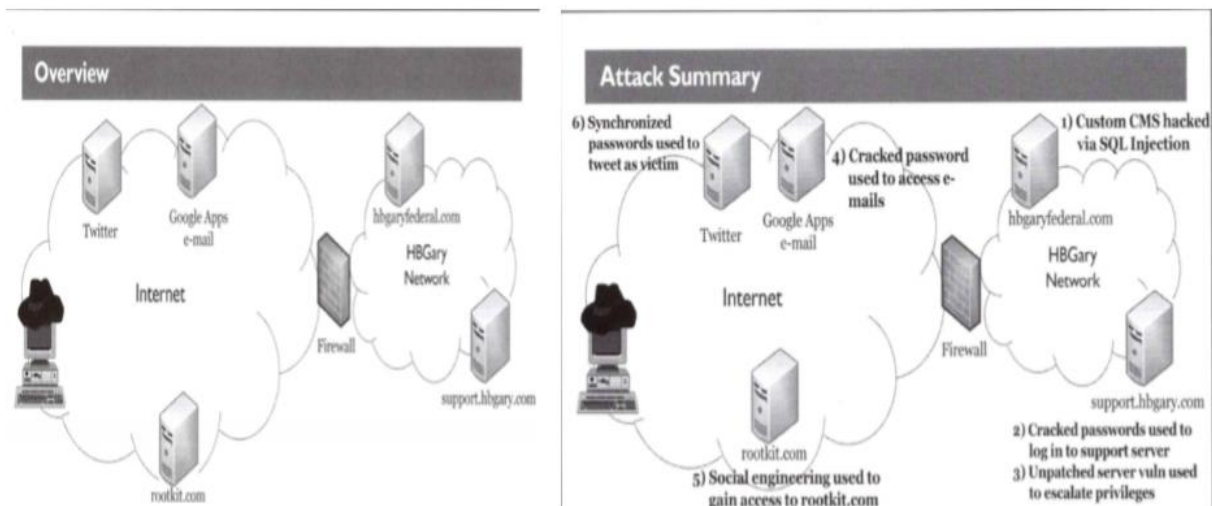
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Hacktivist Cases

Anonymous

- Hacktivist collective
 - Ideological motivated
 - Driven by social and political agendas
 - Seeks publicity to humiliate and embarrass targets
 - Not profit driven
- Some high-profile attacks
 - **Sony PlayStation Network hack:** Sony attacked after it filed suit against PS3 hacker George "GeoHot" Hotz
 - **Operation Payback:** Amazon, Paypal, MasterCard, Visa attacked for anti-WikiLeaks behavior
 - **HBGary Hack:** After announce by Aaron Barr claiming he could unmask Anonymous by using social media and IRC analysis

HBGary System Compromise



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Organized Crime

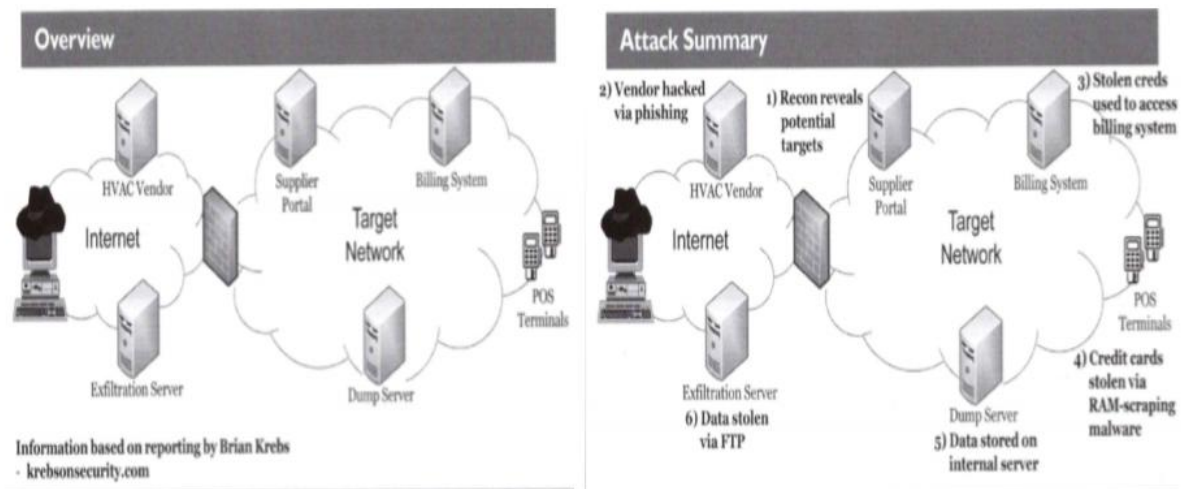
- Criminal Gangs
 - Driven by profit
 - Seek data that can be easily monetized
 - U.S. credit cards are a popular target
 - Magnetic stripe data can be used to create counterfeit cards
 - Run as a business with different specialities
 - Researchers: exploit developer
 - Farmers: maintain botnet and compromised systems
 - Dealers: conduct attacks and steal data
 - Consumers: monetize stolen data, commit fraud, hire money mules

Target Corporation

- One of the largest retail chains in the U.S.
 - Nearly 1,800 stores across the country
- Suffered one of the biggest retail hacks in U.S. history
 - 40 million credit cards stolen
 - 70 million PII(Personally Identifiable Information) records stolen

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Target Corporation Compromise



Assets Analysis

- Different types of assets
 - What is most valuable to your organization?
 - What is most critical to the mission?
 - What is most valuable to the attacker?
 - What does the attacker want to accomplish?

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Policy, Standard and Guideline

Types

- General
- Network
- Server
- Application
- Others

Example

- Workstation Security (For HIPAA) Policy
- Server Security Policy
- Software Installation Policy
- Web Application Security Policy
- Data Breach Response Policy
- Email Policy
- End User Encryption Key Protection Policy



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