Cybersecurity Awareness for Executives

CyberAlberta
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The News Is…

Cybercrime is omnipresent!

The Hill: A hacking group accessed the database of National Public Data, a background check company (Aug 12, 2024)

Reuters: RCMP Says They Were Targeted by Cyberattack (Feb 23, 2024)

FT: North Korean Hackers Use AI For More Sophisticated Scams (Feb 21, 2024)

CBC: AutoCanada investigating cybersecurity breach , as it announces loss from previous incident (Aug 13, 2024)

WP: 'World's Most Harmful' Cybercriminal Group Disrupted in 11-Nation Operation (Feb 19, 2024)

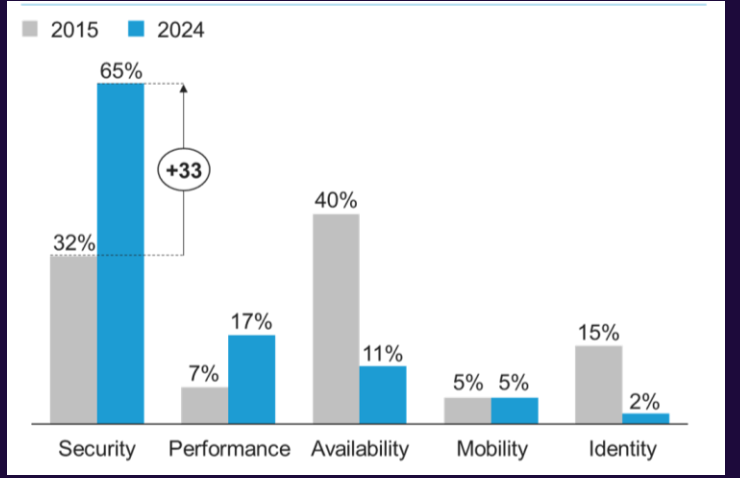
CBC: City of Hamilton says its phone and email systems have been hit by 'cybersecurity incident' (Feb 26, 2024)

Cybercrime is the world's 3rd largest economy!

		GDP $T
1.	United States	$21T
2.	China	$15T
3.	**Cybercriminals**	**$6T**
4.	Japan	$5T
5.	Germany	$3T
6.	United Kingdom	$3T

Source: Worldbank, Reposify

Percentage of respondents who would not deploy an app without…



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The Cyber Threat

In today's highly digital world

Reasons why attacks are increasing in number and in sophistication:

- Organizations are rapidly expanding attack surfaces with their commitment to digital services and mobile users.
- Weak authentication systems continue to be the main vector into our digital environments.
- Vulnerabilities in unsupported legacy products (Cobol, mainframe, etc.) and Supply Chain (Log4J, SolarWind, MOVEit).

The Insiders (unwitty or malicious)

Goal: Accidental or Profit.

Method: We gave them access to the assets they need!!!

Nation States / Terrorists / Hacktivists

Goal: Disrupt services or shame organization.

Method: Highly organized and sophisticated group hacks.

Cyber Criminals and Spies

Goal: Steal secrets and make a quick profit.

Method: Social engineering and systems vulnerabilities.

Natural Disasters

Goal: None (random).

Method: Disastrous events disrupting digital services.

How they get in

- **Social engineering** such as email phishing for credentials, website drive by to upload malware and keyloggers. Put you in a situation where you don't have time to think.
- **Legacy systems** vulnerabilities and third-party software vulnerabilities (e.g., Log4J, TEC Java 1.7 code, MOVEit). Taking advantage of poor computer hygiene.
- **Brute force attacks** of weak passwords or authentication (e.g., password crackers, digital trust established between environments). Creating false accounts and increasing privileges.
- **Application Program Interfaces (API)**. APIs facilitate communication between apps and apps components. Newer, but most effective! (e.g., hacking a car via OnStar).

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Executives are a Target

From an attacker's perspective an executive is a high-value target because they:

- Have access to confidential information and business practices.
- Have access privileges that may be higher than those of a non-executive employee.
- Often have access codes and passwords to the organization's financial information.
- Tend to be very busy and may click on links or provide information without noticing irregularities in targeted communications.

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Spear Phishing Executives

Generative AI complicates phishing detection. Spelling and grammar errors are no longer reliable indicators.

Key signs to watch for:

- Well-formatted messages that appear legitimate.
- AI-generated content may have contextual errors.
- Odd phrasing or repetitive sentences.
- Inconsistencies or irrelevant information.

Safety tips:

- Even if a message looks legitimate, never provide credentials or personal information.
- Verify the sender's email address carefully; cybercriminals often alter one letter or character.
- Check links for spelling errors and avoid clicking unusual ones.
- When in doubt, contact the sender using known, valid contact information.

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Doing Business Outside of the Office

Executives often travel for business, taking their devices and accessing sensitive information.

Protect company devices and information by following best practices for cyber-secure travel.

The following information will help you to limit risk while working away from the office.

Taking Your Devices With You

- Ensure all devices have strong, unique passwords and enable two-factor authentication (2FA) where possible.
- Regularly update operating systems, applications, and antivirus software to protect against vulnerabilities.
- Avoid using public Wi-Fi networks for sensitive activities. If necessary, use a VPN to encrypt your connection.
- Turn off automatic connections to Wi-Fi and Bluetooth to prevent unauthorized access.
- Always lock devices when not in use.

- Only take essential devices and data on the road. Use cloud services for access instead of storing sensitive files on your device.
- Ensure devices can be remotely wiped in case of loss or theft.
- Watch for "shoulder surfers" who may try to see sensitive information on your screen.
- Establish a protocol for reporting lost or stolen devices, including who to contact and what steps to take.

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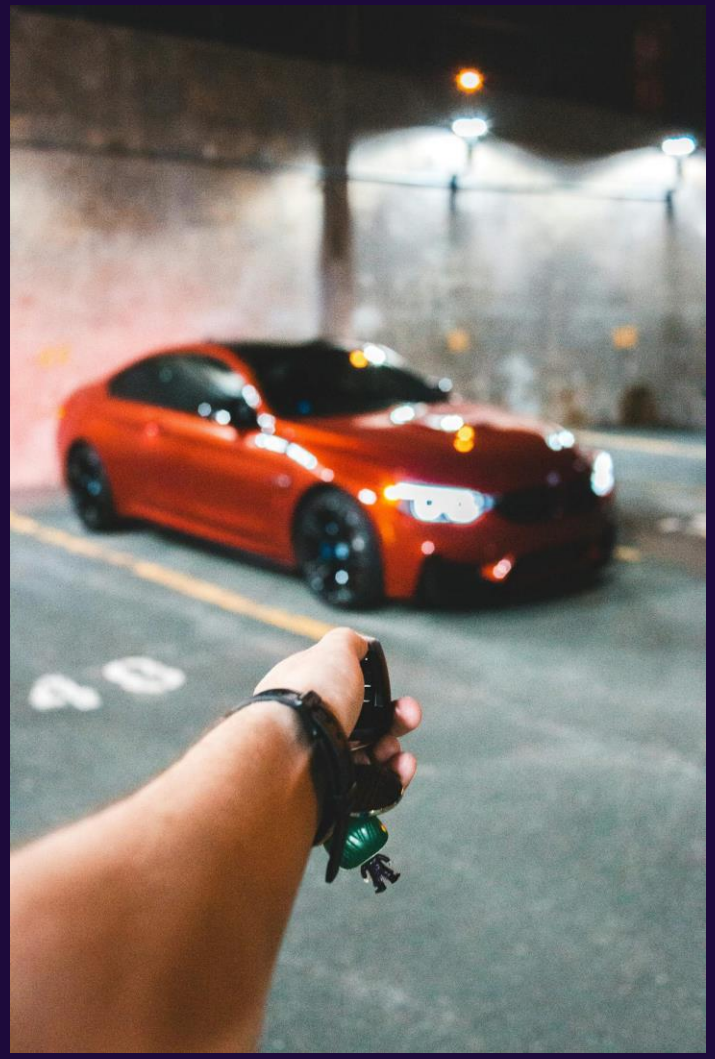
Safe Practices for Using Rental Cars

- Never leave devices in plain sight. Store them in the trunk or a less visible area.
- Avoid using rental car Wi-Fi, as it may not be secure. Use your own mobile hotspot or a VPN if you must connect.
- When using a GPS or infotainment system, be cautious about connecting your device. Disable any features that may share personal data.
- Remove any personal data from the car's system before returning the vehicle.
- Keep your devices with you whenever possible to minimize risk.



Protecting Your Devices from Surveillance

Screen Protectors: Use privacy screen protectors for laptops and smartphones to prevent shoulder surfing and unauthorized viewing of your screen.

Faraday Pouches: Store smartphones in Faraday pouches to block signals and prevent tracking or remote access.

Additional Tips:

Cover Cameras: Use webcam covers or tape to block laptop and smartphone cameras when not in use.

Disable Microphones: Turn off or mute microphones on devices when not needed to prevent eavesdropping.

Strengthen your Organization's Security

To counter threats, organizations should adopt comprehensive security measures including:

- **Robust Authentication and Access Control**: Implement multi-factor authentication and strict access controls to prevent unauthorized access.
- **Advanced Threat Detection**: Use AI-driven threat detection systems to identify and respond to unusual activities and potential intrusions.
- **Regular Security Audits and Penetration Testing**: Continuously assess and test the security of systems to identify and mitigate vulnerabilities.
- **Employee Training and Awareness**: Train personnel to recognize phishing attempts and social engineering tactics to reduce the risk of human error.
- **Network Segmentation**: Isolate critical networks from regular IT networks to limit the spread of malware and other threats.
- **Incident Response Planning**: Develop and regularly update incident response plans to ensure quick and effective action in the event of a security breach.

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CyberAlberta hopes you found this information useful.

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