Present and future of Cybersecurity

Cyberspace

Cybercrime

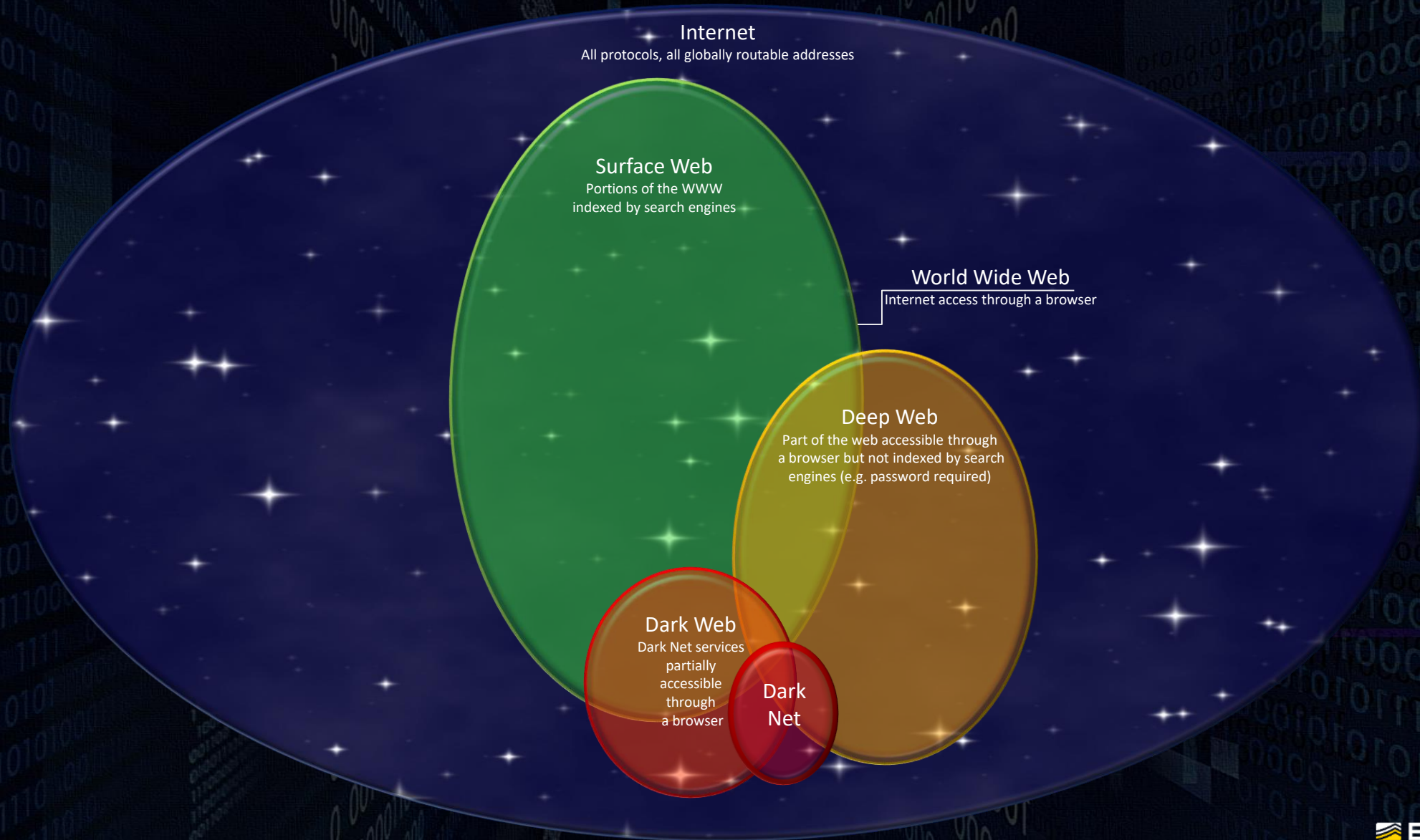**Cyber Safety**

Cyber Awareness

Cyber Responsibility

Cybersecurity

Cyberspace

Internet
All protocols, all globally routable addresses

Surface Web
Portions of the WWW
indexed by search engines

World Wide Web
Internet access through a browser

Deep Web
Part of the web accessible through
a browser but not indexed by search
engines (e.g. password required)

Dark Web
Dark Net services
partially
accessible
through
a browser

Dark Net

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Deep Web

ECB website ·

Registration Forms

ECB Extranet login

Please note that passwords and codes are case sensitive
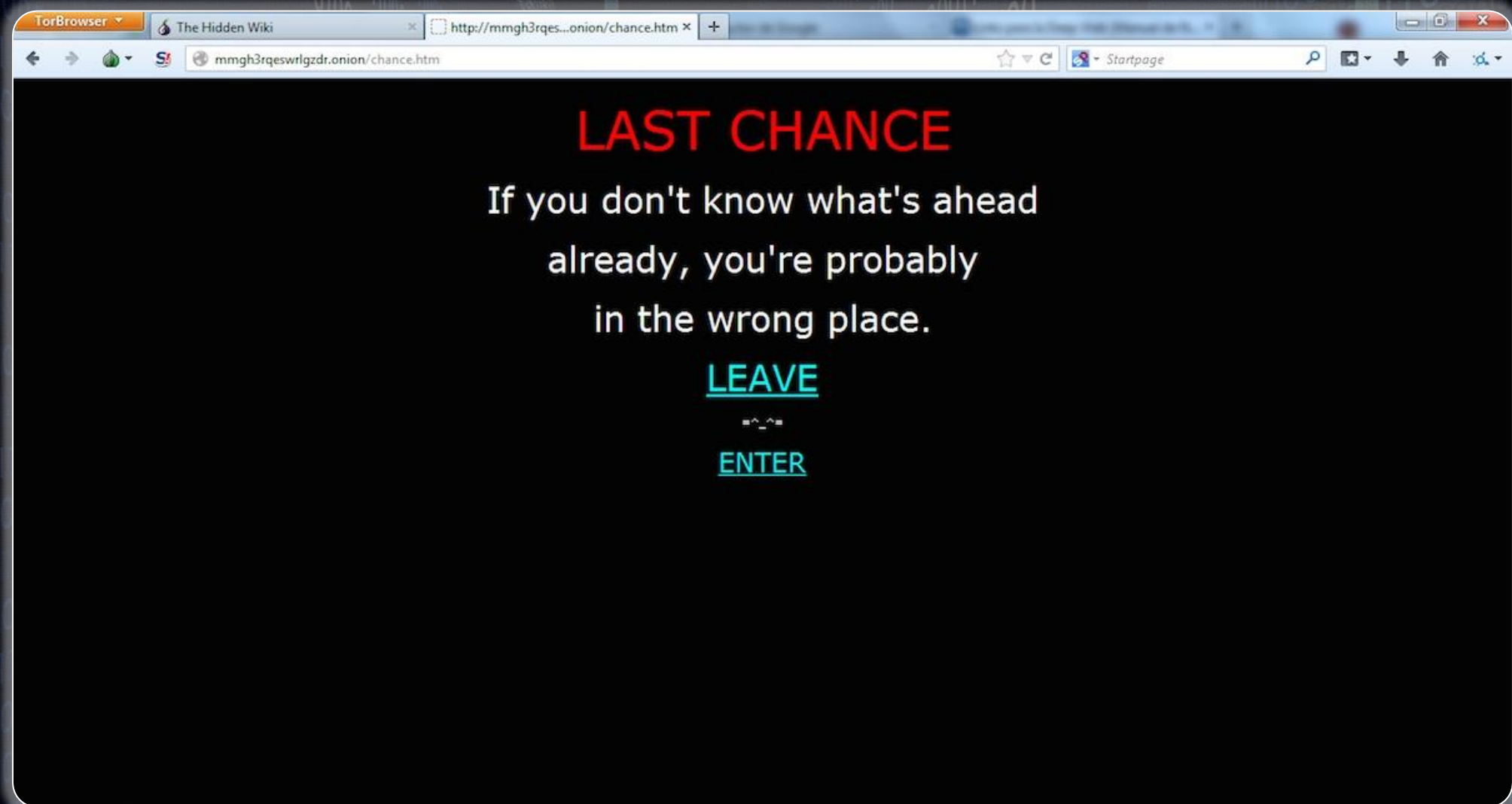
User ID or e-mail address:

Password:

Insert the code shown above

Login   **Already registered and forgot your password?**

Dark Web

Cyberspace

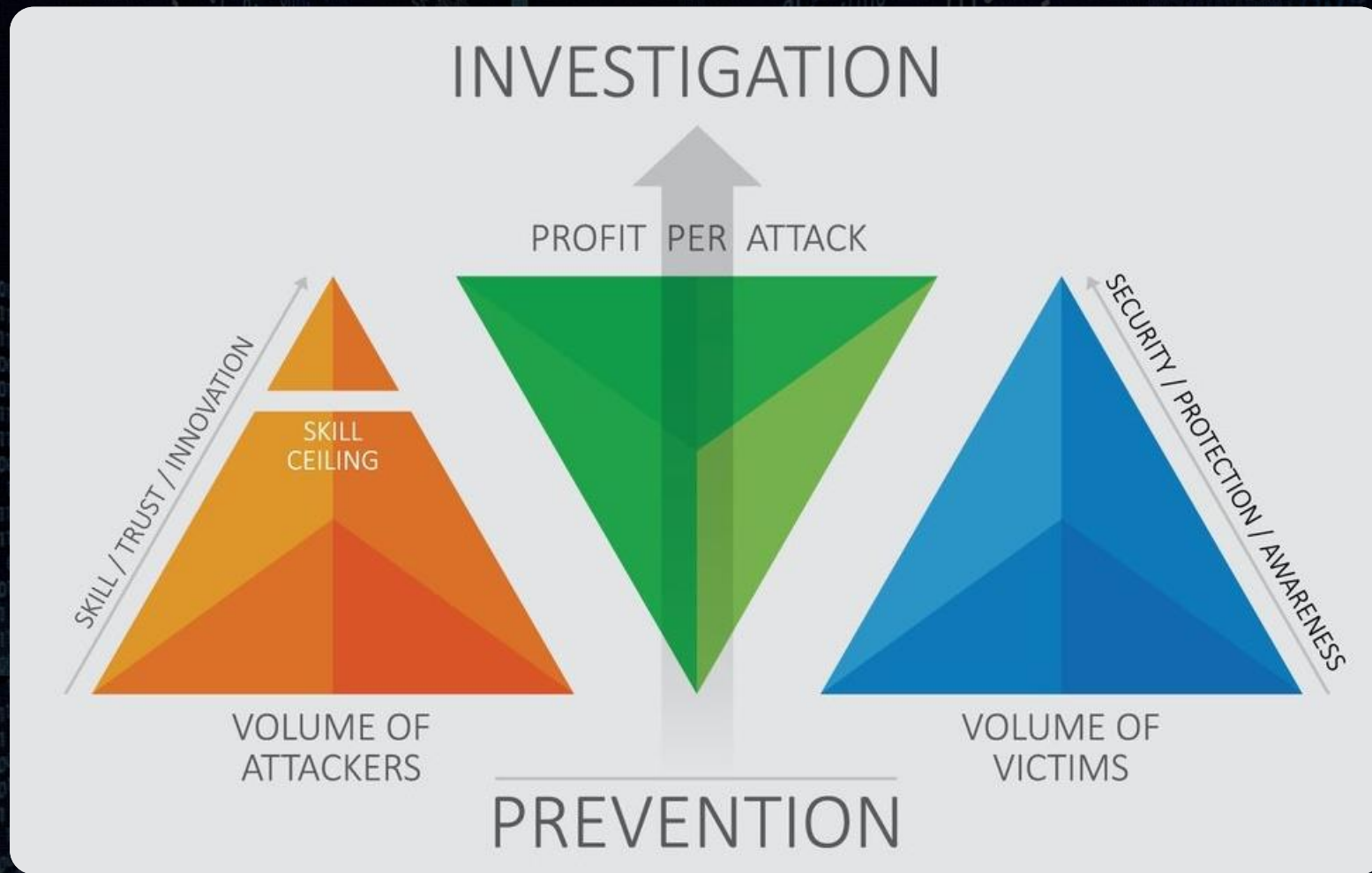**Cybercrime**

Cyber Safety

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Cybercrime

- Cybercrime against persons.

- Cybercrime against property.

- Cybercrime against government.

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Cybercrime Trichotomy

Cybercrime Modus Operandi

Cryptoware/ransomware

Malware attacks

Social engineering

P2P crime

EMV/NFC/CNP/ATM attacks

Spear phishing

DDoS attacks (AaS)

C2C transactions

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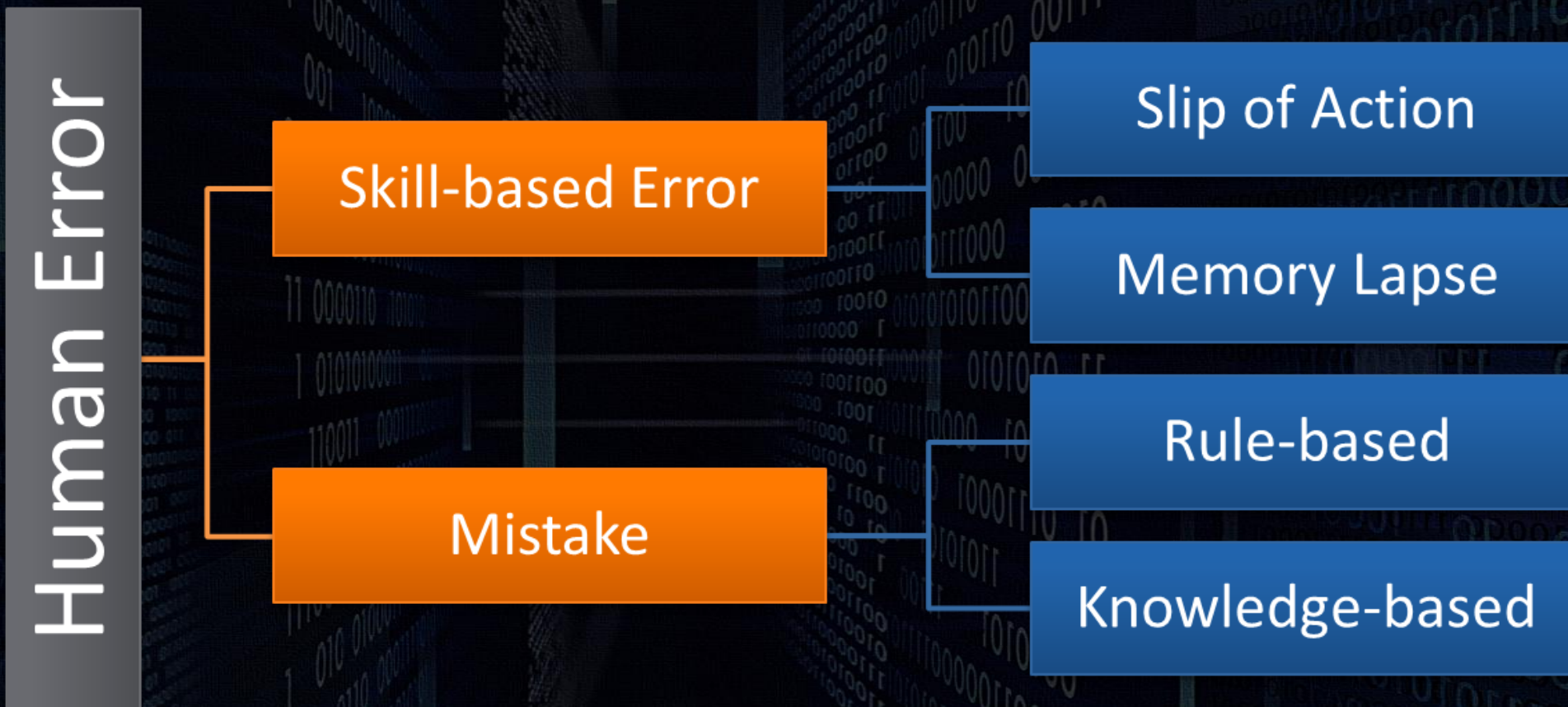
Cyber Responsibility

Cybersecurity

Cyber Awareness

So now you know to avoid SSID "square guest"

Which hotspot did you choose instead?

And who told you that one is safe?

Cyber Awareness

Human Error

- Skill-based Error
  - Slip of Action
  - Memory Lapse
- Mistake
  - Rule-based
  - Knowledge-based

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Cyber Responsibility

- Example: Cloud services are available as free, "fremium" and paid;

  - lack of anti-automation.

  - host malicious domains using legitimate hosting providers.

  - cloud services used for high power & high impact attacks.

  - attackers can obtain processing power, disk space, and network bandwidth <u>for free</u>.

  Automated online theft is utilising the exact same flexibility and freedom you get from having your software and services hosted in the cloud.

Cyber Responsibility

- Ensure (at least) 2FA or MFA to access online (cloud) environments for both employers and customers/clients.

- Ensure the authentication forces the user to be:

  - In a certain location

  - In possession of certain authentication tools:

    - Knowledge factors (something you know)
      - Password/-phrase
    - Possession factors (something you have)
      - Connected tokens
      - Disconnected tokens
    - Inherence factors (something you are)
      - Biometrics

Cyberspace

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Cybersecurity

- Predictive   (intelligence driven defense),

- Proactive   (sustainable security),

- Reactive   (compliant security),

- Preventive/Corrective   (basic security)

- Effectively detect, prevent and respond to cyber threats against technology infrastructure.

- Information security management.

- Collaboration with business information risk management.

- Develop in-house built applications.

- Implement third-party solution.

Cybersecurity

- Ensure positive proofs-of-concept before implemetation.

  - Purpose built, but also purpose functional?

  - Scaleability of the solutions (future proof?).

- Ensure the use of test-driven development technologies.

- Stay up to date in your working areas; developments, new solutions, exposed vulnerabilities and threats.

- And one of the most difficult challenges in the corporate environment:

DARE TO LEARN FROM AND SHARE YOUR OWN AND OTHER'S MISTAKES!

CONTACT

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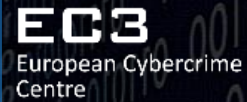
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