



MDBC 2023



Cyber Hygiene And Cyber Resilience

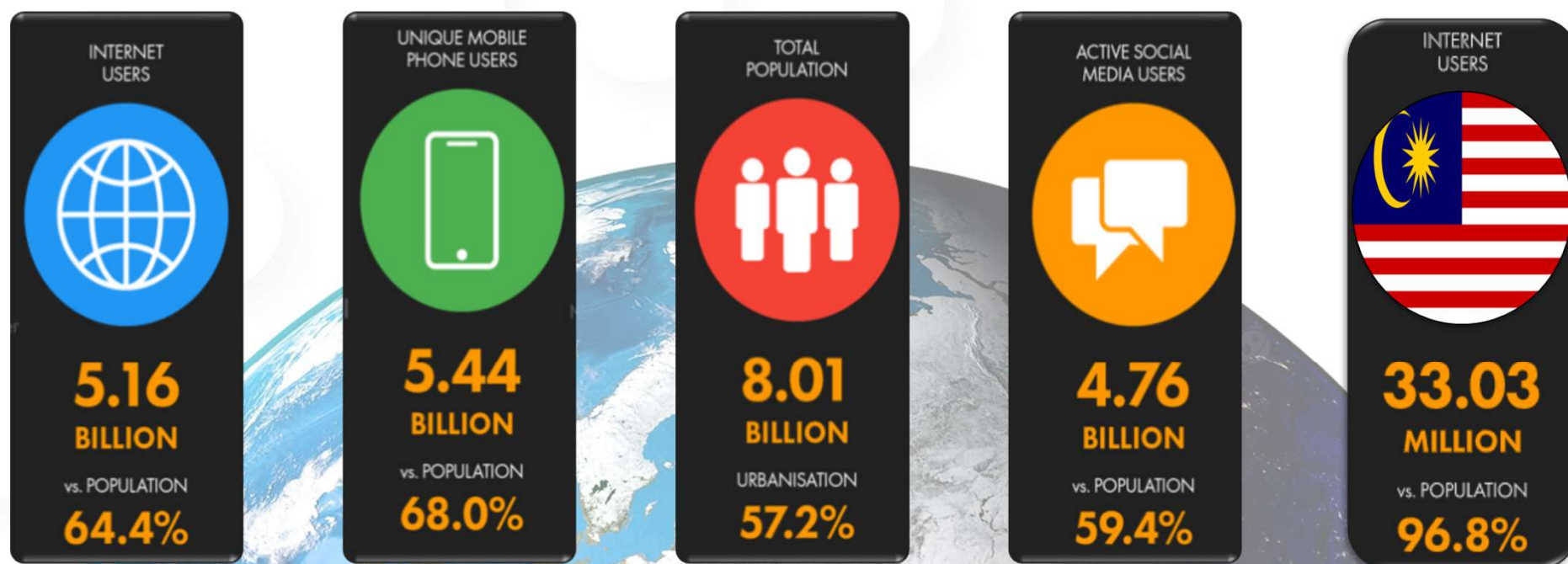
20 JULY 2023

Ts. DR. SOLAHUDDIN BIN SHAMSUDDIN
Chief Technology Officer
Cybersecurity Malaysia



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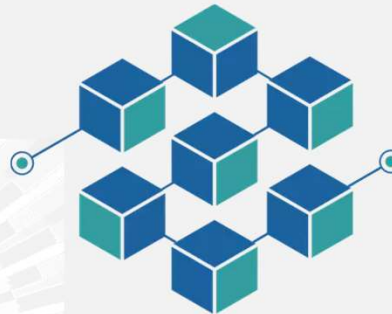
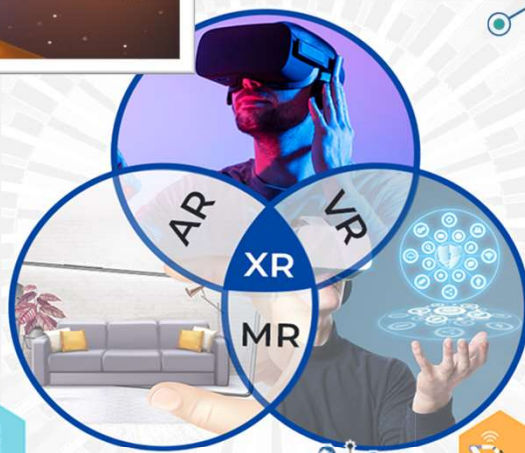
WE ARE MOVING INTO A MORE INTERCONNECTED CYBERSPACE



CONVERGENCE OF TECHNOLOGIES

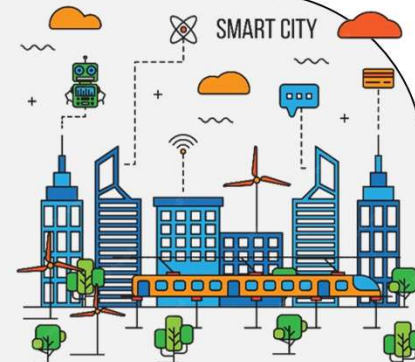
Add More Complexities to Cyber Space

CyberSecurity
MALAYSIA



BLOCKCHAIN

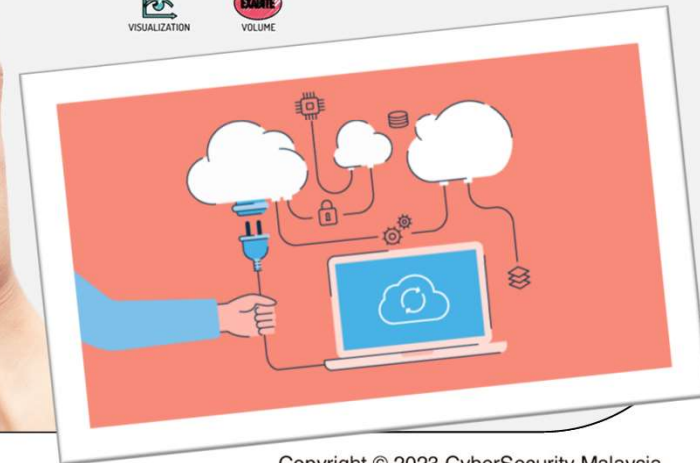
INDUSTRY 4.0



designed by freepik.com

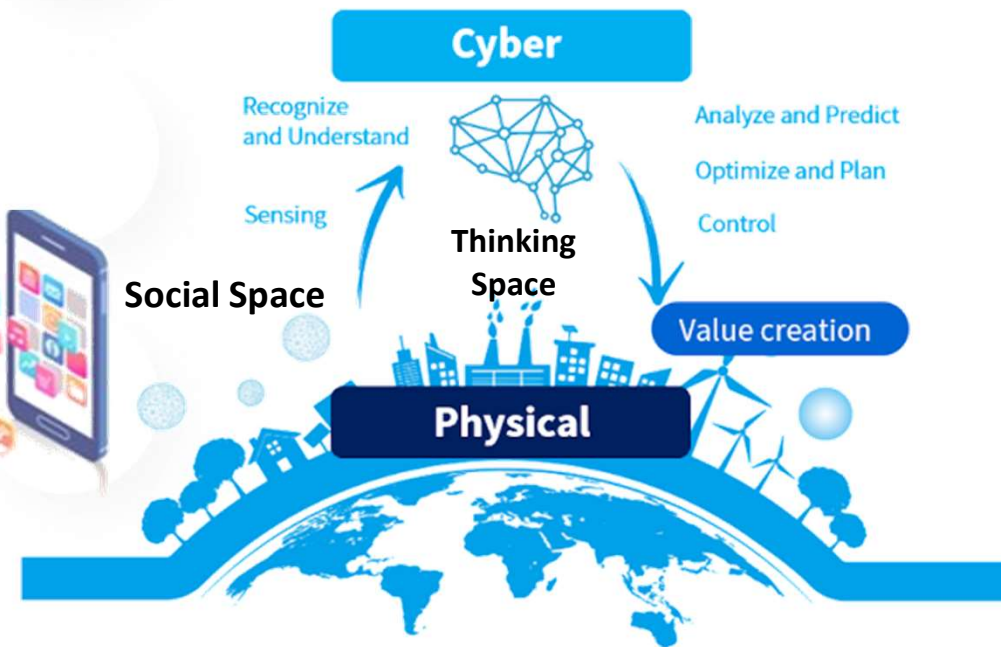
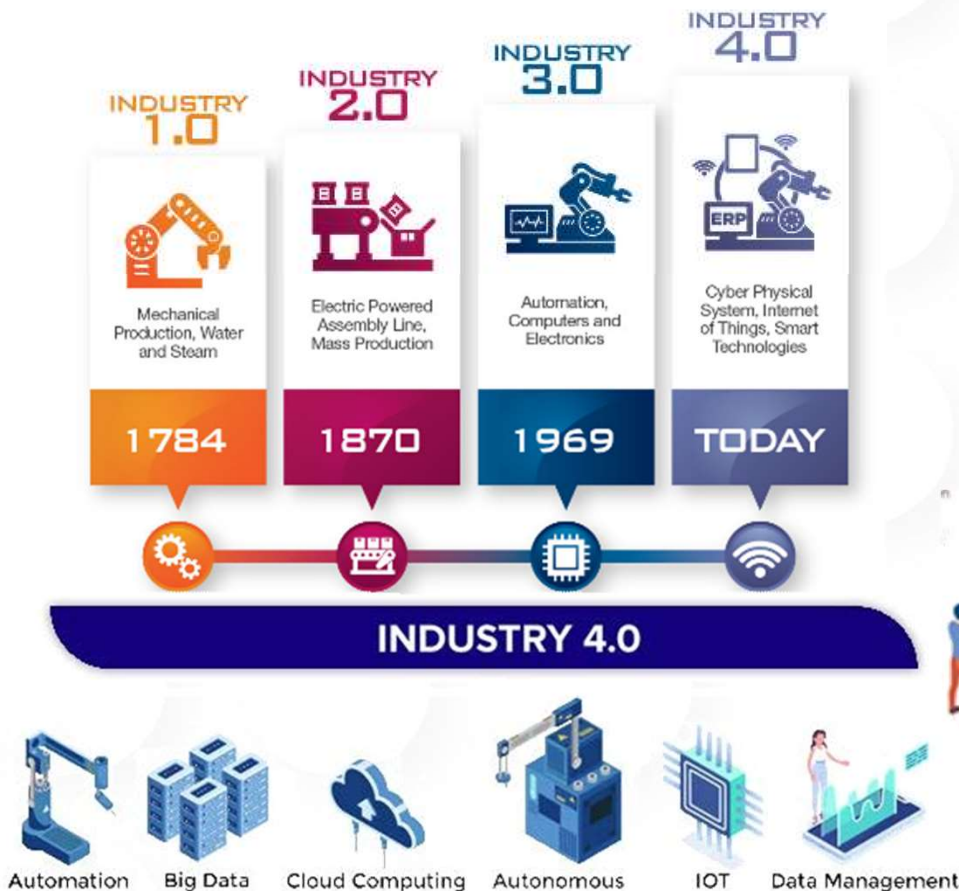


INDUSTRIAL
INTERNET
OF THINGS



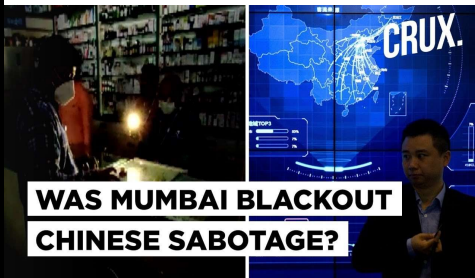
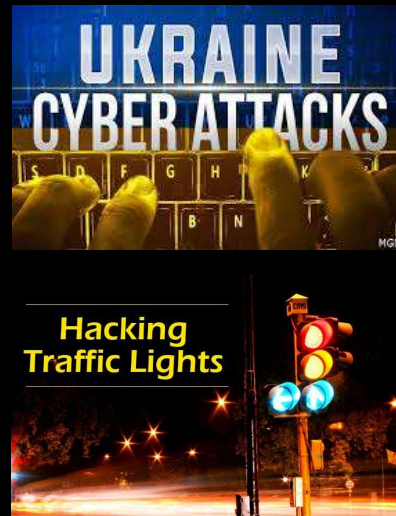
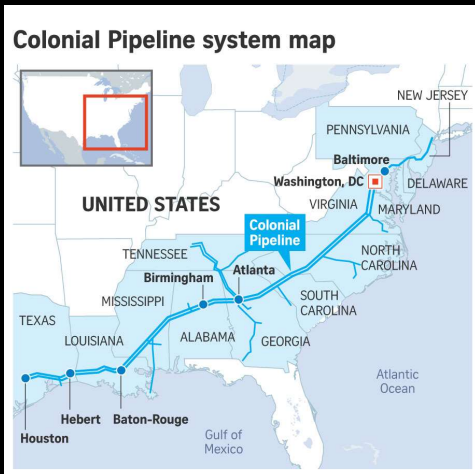
DIGITAL TRANSFORMATION

A Smart World whereby there is deep convergence between the new cyberspace and the traditional ones such as physical, social and also thinking space.



DIGITAL TRANSFORMATION IS NOT WITHOUT ITS **RISK**

CYBER-ATTACKS MAY HAVE PHYSICAL CONSEQUENCES



Technology such as wireless technology has changed the way we conduct business, offering workers with constant access to business-critical applications and data. While this flexibility is convenient and expands productivity, it **introduces complexity and security risk** as these new technology and devices become **new target for hackers** looking to infiltrate a corporate network.

GLOBAL RISK 2023

2 years

- 1 Cost-of-living crisis
- 2 Natural disasters and extreme weather events
- 3 Geoeconomic confrontation
- 4 Failure to mitigate climate change
- 5 Erosion of social cohesion and societal polarization
- 6 Large-scale environmental damage incidents
- 7 Failure of climate change adaptation
- 8 Widespread cybercrime and cyber insecurity
- 9 Natural resource crises
- 10 Large-scale involuntary migration



10 years

- 1 Failure to mitigate climate change
- 2 Failure of climate-change adaptation
- 3 Natural disasters and extreme weather events
- 4 Biodiversity loss and ecosystem collapse
- 5 Large-scale involuntary migration
- 6 Natural resource crises
- 7 Erosion of social cohesion and societal polarization
- 8 Widespread cybercrime and cyber insecurity
- 9 Geoeconomic confrontation
- 10 Large-scale environmental damage incidents

Source: [WEF Global Risks Report 2023.pdf \(weforum.org\)](https://www.weforum.org/reports/global-risks-report-2023)

EVOLUTION OF CYBER THREATS

THE MORE WE'RE
INTERCONNECTED TO ■
THE CYBER SPACE

THE MORE WE ARE AT
RISK TO CYBER THREATS ■

CYBER THREATS BECOMING
MORE **ACTIVE AND EVOLVING**



PAST

Password guessing
Password cracking

GENERAL CYBER ATTACK

- Less complex
- Less sophisticated

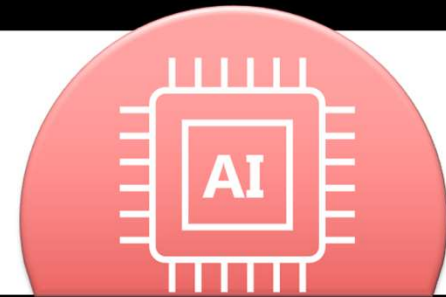


PRESENT

Advance scanning
Denial of service
Packet of spoofing

DIRECTED CYBER ATTACK

- Fairly complex
- Relative sophisticated



FUTURE

Bots
Morphing
Malicious Codes

STRATEGY CYBER ATTACK

- Very complex
- Highly sophisticated

THE MORE WE ARE INTERCONNECTED THE MORE WE ARE EXPOSED

GLOBAL

Possible Cyberattack Disrupts The Philadelphia Inquirer

The Inquirer, citing “anomalous activity” on its computer systems, said it was unable to print its regular Sunday edition and told staff members not to work in the newsroom at least through Tuesday.



3CX's supply chain attack was caused by... another supply chain attack

Carly Page @carlypage_ / 8:00 PM GMT+8 • April 20, 2023



Russian Man Charged for \$200 Million in Ransomware Crimes Involving Crypto

Author: Andrew Throuvalas • Last Updated May 21, 2023 @ 07:30

The hacker was allegedly involved with multiple ransomware strains that attacked police departments, hospitals, and the Colonial Pipeline.

Toyota Japan confirms decade-long security breach affecting more than 2M customers

by **The Gurus** — May 19, 2023 in Featured

Cyberattack On European Spacecraft! How ‘Hackers’ Took Control Of Satellite’s Imaging Sensors & Jeopardized Its Data

EUROPE

EXPERT REVIEWS

By Guest Author | May 21, 2023

By Group Captain Arvind Pandey (Retd)

CYBERCRIME OCCURS EVERYWHERE EVEN IN

MALAYSIA



Varsity lecturer loses RM1.3mil to Macau scam syndicate

Bernama - January 8, 2023 6:29 PM



Fortinet: Malaysia recorded 84 million cyber attacks daily in fourth quarter last year

By Bernama - February 22, 2023 @ 10:16am

Immigration Department Confirms Site Is Down After Alleged Cyberattack By Hacker

In the website description, the hacker stated that they hacked the website "just for fun".

By Aqasha Nur'aiman — 04 Apr 2023, 02:24 PM — Updated about 2 months ago

Most cell phone numbers in Malaysia are leaked and sold to scammers. Are telcos to be blamed?



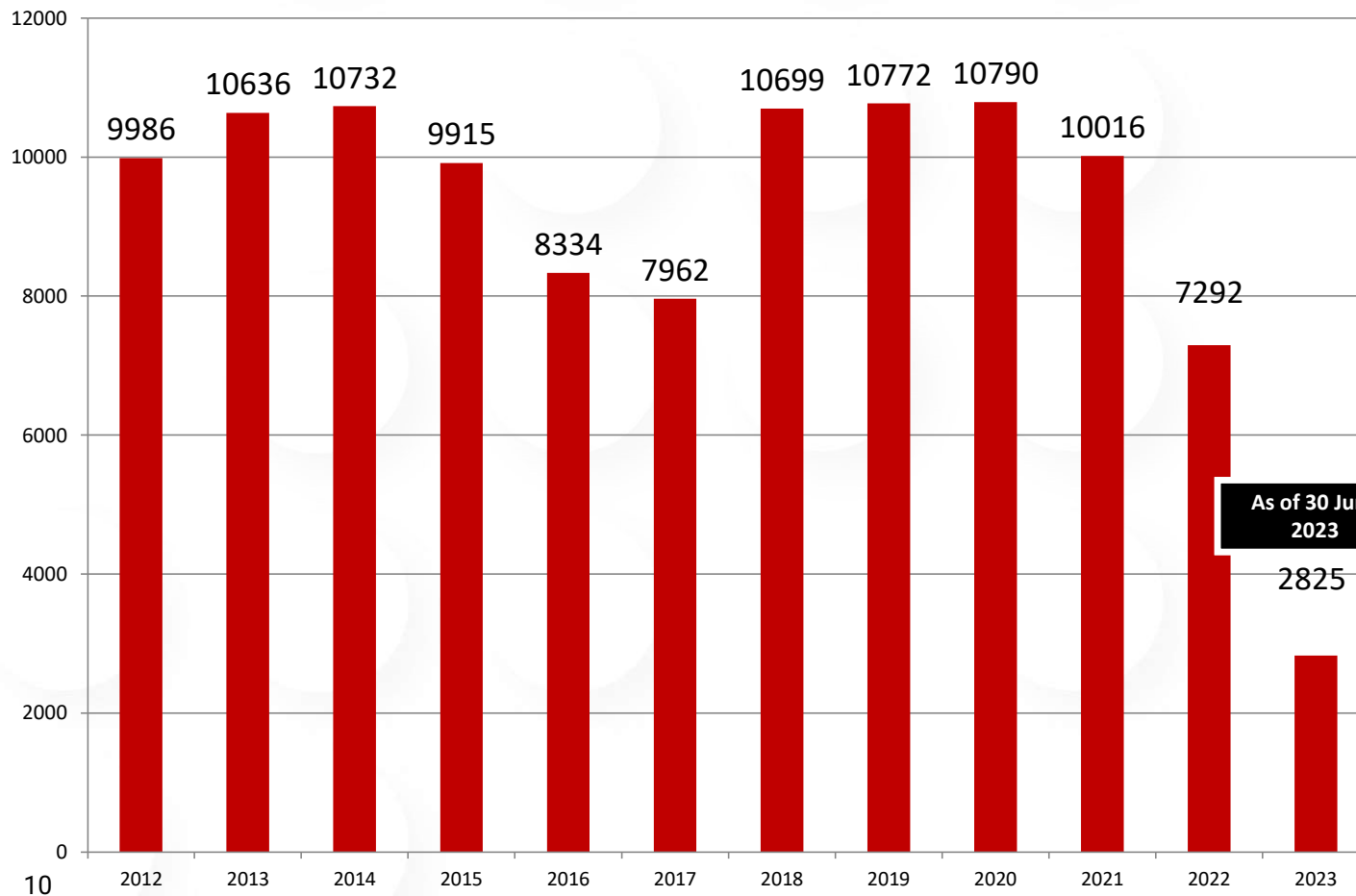
Malaysia Experienced 37% More Ransomware Attacks in 2022, and That's Pretty Worrying

Malaysia has been hit more times than usual.

By Dale John Wong March 22, 2023



CYBER INCIDENTS REFERRED TO CYBERSECURITY MALAYSIA (2012 – 30 June 2023)



MyCERT Incident Statistics

Security Alert

TOP FOUR CYBER INCIDENTS IN MALAYSIA (CYBER999)

1. Fraud
2. Malicious Code
3. Intrusion
4. Content Related

Types of incidents

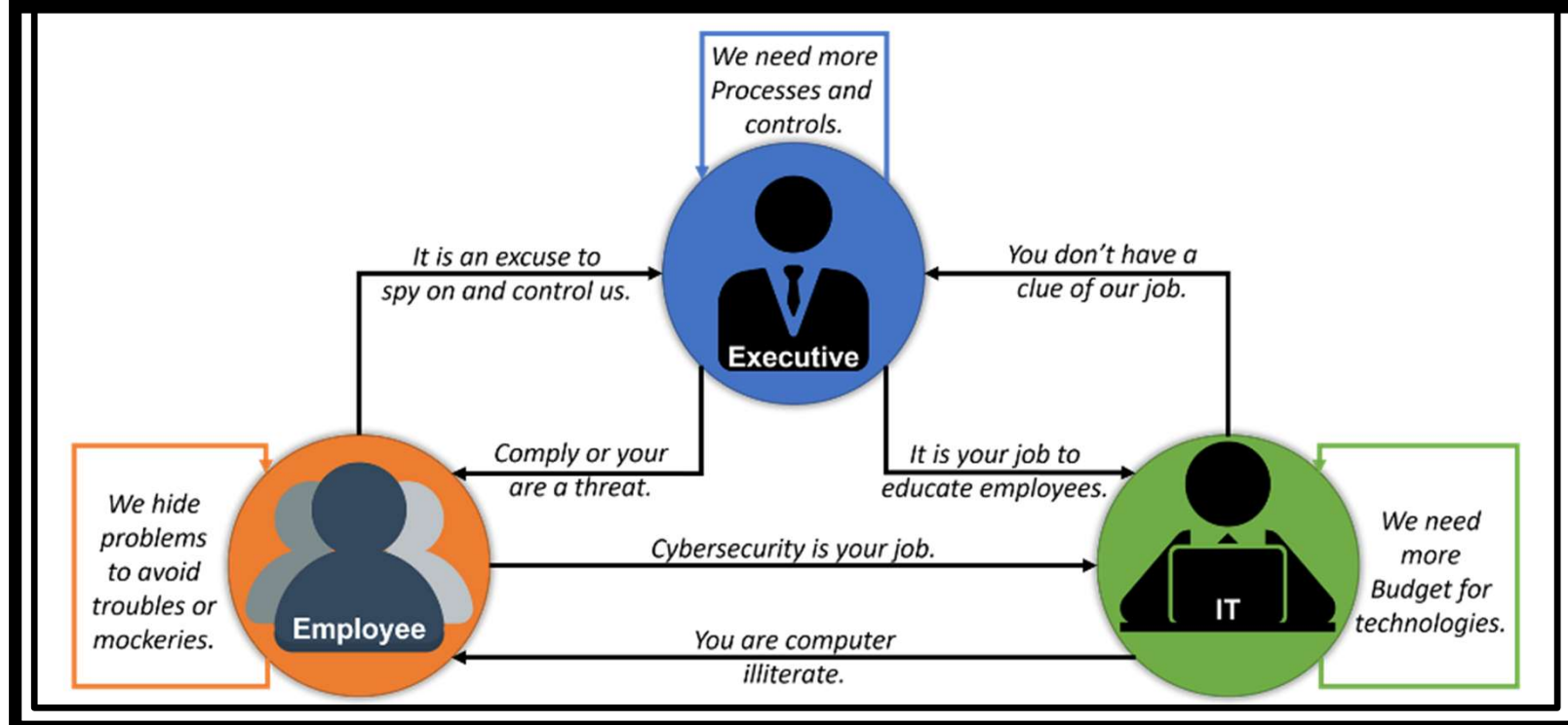
1. Intrusion
2. Intrusion Attempt
3. Denial of Service Attack (DOS)
4. Fraud
5. Spam
6. Content Related
7. Vulnerabilities Report
8. Malicious Codes

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CYBERSECURITY
IS A SHARED
RESPONSIBILITY



CYBERSECURITY AND CYBER RESILIENCE: A SHARED RESPONSIBILITY



CYBER HYGIENE

Refers to fundamental cybersecurity **best practices** that an organization's security practitioners and users can undertake.



SECURITY NONEXPERTS' TOP ONLINE SAFETY PRACTICES		VS	SECURITY EXPERTS' TOP ONLINE SAFETY PRACTICES	
1. USE ANTIVIRUS SOFTWARE				1. INSTALL SOFTWARE UPDATES
2. USE STRONG PASSWORDS				2. USE UNIQUE PASSWORDS
3. CHANGE PASSWORDS FREQUENTLY				3. USE TWO-FACTOR AUTHENTICATION
4. ONLY VISIT WEBSITES THEY KNOW				4. USE STRONG PASSWORDS
5. DON'T SHARE PERSONAL INFORMATION				5. USE A PASSWORD MANAGER

Cyber Resilience – so much more than Cybersecurity

No matter how secure is an organization, there is **no such thing as 100% secure**

It is no longer the question of **how to secure oneself** from being attack

It's just a **matter of time** that a cyber-attack can occur to an organization. Similarly, human error can also affect a business's operations and render it incapable of serving its customers.

Hence, what is more important is that the organisation try their **best to strategize** in order to lessen the impact due to cyber-attacks. It is crucial to know **how to act and recover or bounce back once being attacked**



CYBERSECURITY VS CYBER RESILIENCE

CYBERSECURITY	CYBER RESILIENCE
Definition: procedures followed, or measures taken to ensure the safety of a state or organisation	Definition: the capacity to recover quickly from difficulties; toughness
Technologies and processes are designed to protect an organisation from cybercrime	Technologies and processes designed to keep delivering intended services in spite of cyber incidents
Works to reduce the risk of cyber-attacks and to protect the organisation from cyber theft/ espionage	Works to ensure continuity on a wider scope, comprising cybersecurity and business requirements
Can work effectively without compromising the usability of other systems	Requires organisation-wide culture shift that normalises and embeds security best practices
Includes a business plan to resume operation in the event of a successful attack	Requires the organisation to become agile and adaptable in the face of cyber-attacks and incidents

Action/plan/program in reducing risk and implementing security approach	Action/plan/program upon occurred incidents and what to do next
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Cyber Resilience



– so much more than Cybersecurity

- Traditional security measures are no longer enough to protect a company's data and network security.
- Improve security system, internal process and work culture.
- It provides many benefit to an organization such as to increase their security posture and reducing the risk of exposure to their infrastructure.
- Helps reduce financial loss and reputational damage.
- Inspires trusts in its clients and customers.



CyberSecurity **Malaysia's**

Initiatives





CyberSecurity
MALAYSIA

SiberKASA

OFFICIAL LAUNCH ON 23 MARCH 2021

CSM initiatives aimed at developing, empowering, sustaining and strengthening cybersecurity infrastructure and ecosystem in Malaysia to ensure network security preparedness.

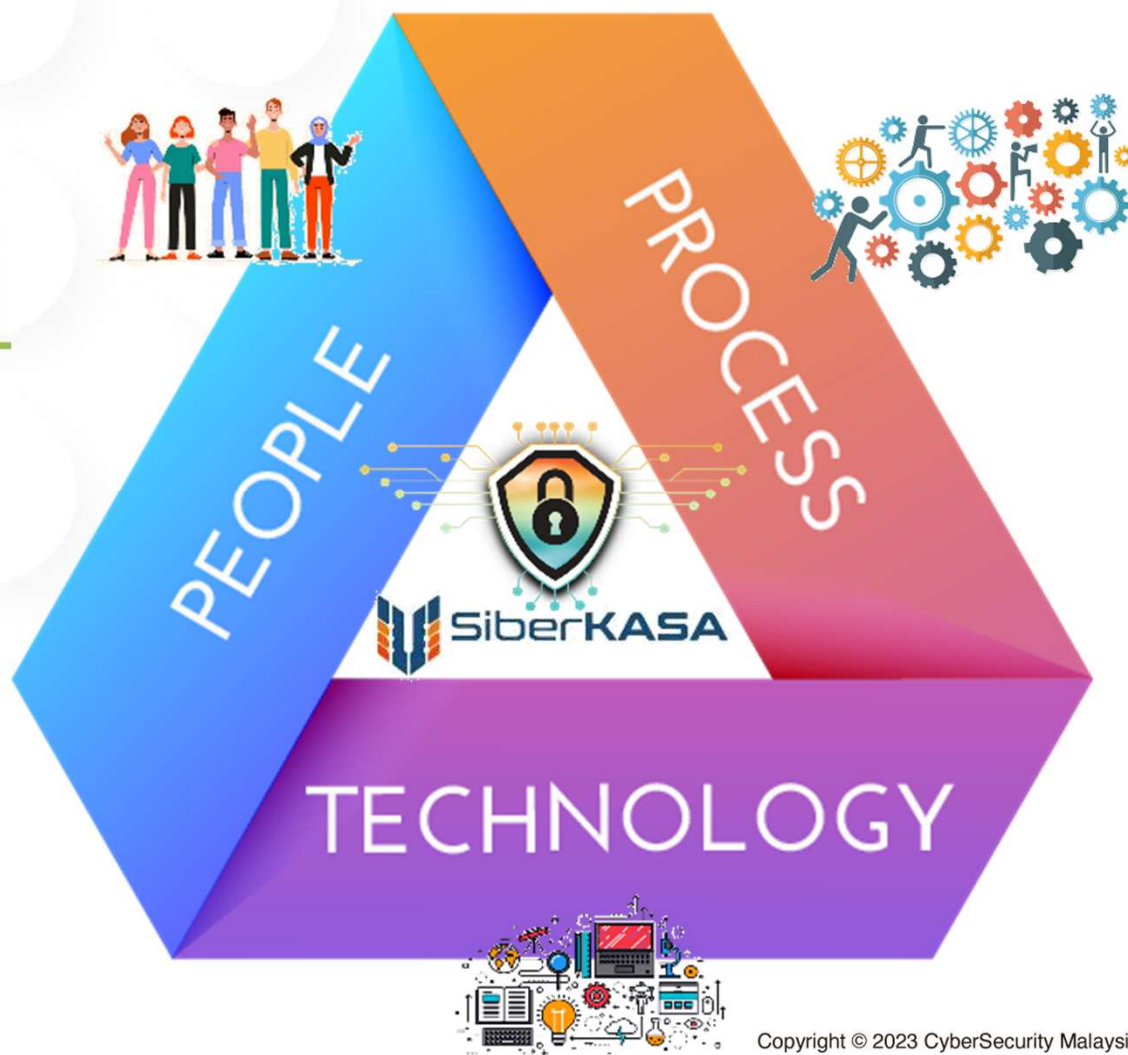


CYBERSECURITY MALAYSIA'S INITIATIVES

HOLISTIC APPROACH

Adoption of approach that identifies potential threats to organization and impacts to the national security & public well-being ; and

Develops the nation to become **cyber resilience** having the capability to safeguard the interests of its stakeholders, reputation, brand and value creating activities.



(Program PemerKASAan Keselamatan Siber)

Objective: Empowering, strengthening and preserving the cyber security infrastructure and ecosystem in Malaysia so that it is always sustainable, protected and resilient.

PEOPLE

Covers aspects of skills, knowledge, ethics, behavior and talent


PROCESS

Covers aspects of policy development, strategy, Standard Operating Procedure (SOP), recognition of international standards

TECHNOLOGY

Involves technology in particular matters related to minimizing vulnerabilities, digital forensic analysis, malicious code (malware) and data

PRODUCTS AND SERVICES

1. Global Accredited Cybersecurity Education (ACE) Scheme
2. CyberSAFE L.I.V.E Gallery 
3. Cybersecurity Competency Training (CyberGuru)

1. CyberDrill Exercise
2. Behavioral Competency Assessment (BCA)
3. Cyber Safety Awareness for Everyone (CyberSAFE)
4. CyberSecurity Malaysia Awards, Conference & Exhibition (CSM-ACE) 

1. Information Security Governance, Risk & Compliance Health Check Assessment (ISGRIC)
2. ISMS Guidance Series
3. Information Security Management System (ISMS)

1. Business Continuity Management System (BCMS) Certification
2. Digital Forensics (DF) Case Management
3. Incident Handling Case Management
4. Cyber Discovery
5. MyTrustSEAL
6. Penetration Testing Service Provider (PTSP) Certification
7. Technology Security Assurance (TSA)
8. ICT Product Security Assessment (IPSA)
9. Security Posture Assessment (SPA)
10. SCADA Security Assessment (SSA)
11. PHP Secure Code Assessment (PSCA)
12. Malaysian Common Criteria Scheme (MyCC)
13. Cybersecurity Strategic and Technical Advisory

1. Crypto Random Test Tool
2. X-Forensics Tools
3. PenDua Tool 
4. Coordinated Malware, Eradication, and Remediation Platform (CMERP)
5. LebahNet
6. CamMuka (Facial Recognition) 

1. MyCyberSecurity Clinic (MyCSC)- Data Recovery and Data Sanitization Services
2. Lab Quality Management
3. Cybersecurity Lab Services
4. CyberSecurity Malaysia Cryptographic Evaluation Lab (MyCEL)
5. CCTV Forensics Service
6. Cyber Threat Intelligence Service
7. Cloud Security Compliance Audit
8. Cloud Security Assessment Audit
9. Cloud Security Audit for ISMS
10. Security Operation Centre Service
11. Red Teaming Service

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CYBERSECURITY CAPACITY BUILDING FRAMEWORK

GLOBAL ACE
Global Accredited Cybersecurity Education (ACE) Scheme
Global ACE Scheme
<https://www.cybereducationscheme.org>

CyberGuru
CYBER SECURITY PROFESSIONAL DEVELOPMENT

Cyberguru
<https://www.cyberguru.my>

CyberSAFE™

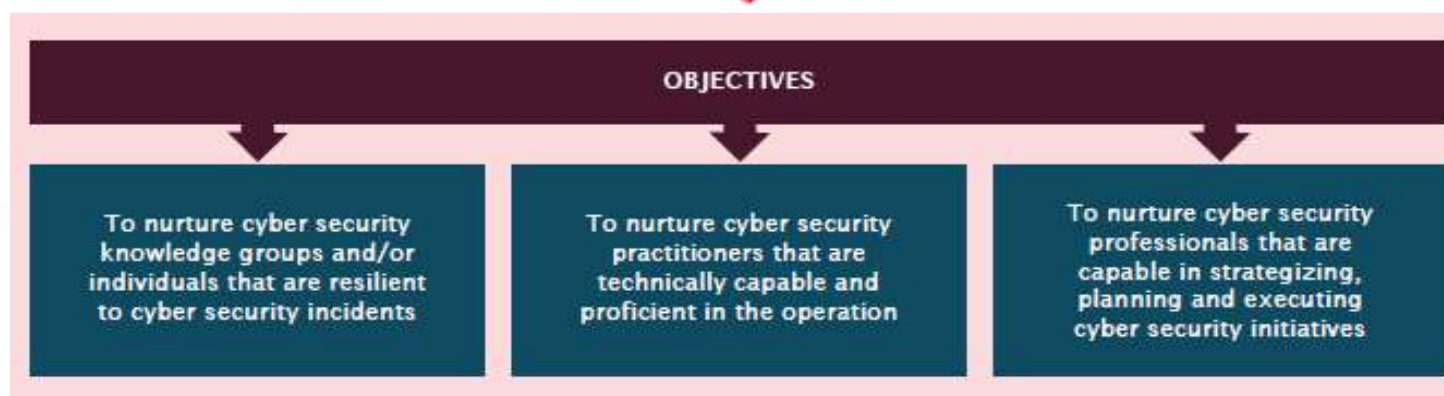
Cybersafe
<https://www.cybersafe.my>



Building cyber security managers, strategists and professionals

Building cyber security practitioners

- Building cyber security awareness and appreciation
- Elevating adoption and adaptation to target groups including their families and communities

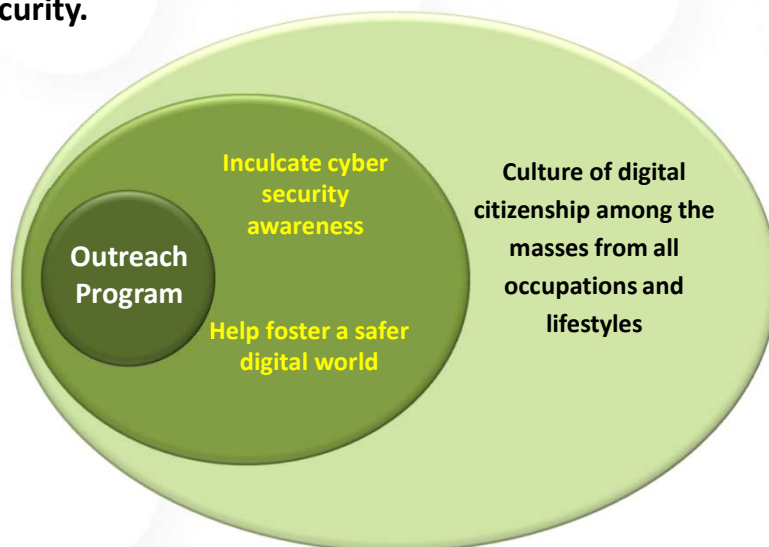


CYBERSECURITY AWARENESS FOR EVERYONE (CyberSAFE)



- CyberSAFE launched YAB Deputy Prime Minister
- Reached out to more than **34,000** students, teachers, adults and more than **190** schools / organisations
- Awareness program referred to by **Australian Communications and Media Authority**

Make it a priority to provide those on the frontlines with the information, tools and resources necessary to increase the national awareness level on the importance of cyber security.



DEVELOP CYBERSECURITY PROFESSIONALS

CyberGuru

Cyber Security Capacity Development Collaboration

Cyber Security Academic Collaboration

CyberSecurity Malaysia bundles its training programs into selected local and international training programs and work closely with industry collaborators to further enhance, deliver and market these services effectively and efficiently.



BUILDING CYBER SECURITY MANAGERS, STRATEGISTS AND PROFESSIONALS



GLOBAL ACE CERTIFICATION



Global ACE Certification was selected as the **Winner of the Category 5: Building Confidence and Security in the Use of ICT at WSIS Prizes 2020**

GOAL & OBJECTIVES

GOAL

To create world class competent work-force in cyber security and promote the development of cyber security professional programmes within the region

OBJECTIVES

1 To establish a professional certification programme that is recognized globally

2 To provide cyber security professionals with the right knowledge, skills, attitude (KSA) and experience

3 To promote the development of cyber security professional programmes globally

4 To ensure accredited personnel has been independently assessed and committed to a consistent and high-quality service level

GLOBAL ACE CERTIFICATION PROGRAMMES

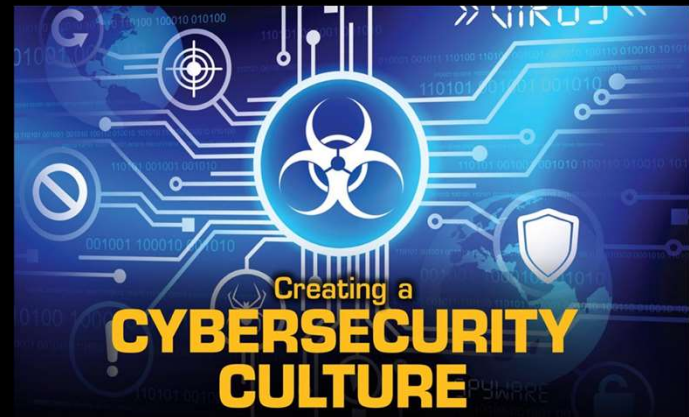
1. Certified Cyber Security Awareness Educator (CCASE)
2. Certified Information Security Awareness Manager (CISAM)
3. Certified Penetration Tester (CPT)
4. Certified Secured Applications Practitioner (CSAP)
5. Certified Security Operations Centre (CSOC)
6. Certified Data Security Analyst (CDSA)
7. Certified Digital Forensics First Responder (CDDFR)
8. Certified Information Security Management System Auditor (CISMSA)
9. Certified MyCC Evaluator
10. Certified Incident Handling and Network Security (CIHNS)
11. Certified IP Associate
12. Certified IT Associate
13. Certified IoT Security Analyst

14. Certified Cybersecurity Data Science Analyst
15. Certified Mobile Security Analyst
16. Certified Cyber Law Practitioner
17. Certified Cybersecurity Risk Manager
18. Certified Industrial Control System Security Analyst
19. Certified Secure Web Application (PHP) Developer
20. Certified Smart Card Reader Analyst
21. Certified Cloud Security Auditor
22. Certified IoT Blockchain Practitioner
23. Certified Cyber Forensics Analyst
24. Certified Web Application Penetration Tester
25. Certified Data Privacy Officer
26. Certified Data Privacy Specialist
27. Certified Chief Data Privacy Officer
28. Certified Cryptocurrency Seizing Officer

BUILDING CYBER SECURITY MANAGERS, STRATEGISTS AND PROFESSIONALS



PROCESS



SHARED PROSPERITY VISION
WAWASAN KEMAKMURAN BERSAMA

2030



**Twelfth Malaysia Plan
(RMK-12)**

- Pillar 1:** Source of Growth
- Pillar 4:** Human Capital Transformation and Market Strengthening Labor:
- Pillar 5:** Inclusivity and People's Well being
- Pillar 6:** Institutional Reform
- Pillar 7:** Social Capital

MCD Strategic Framework

- Strategic Thrust 2:**
Driving the Digital Economy and IT Towards Developed Countries
- Strategic Thrust 3:**
Strengthen the regulation of a reliable and stable communications and multimedia ecosystem



CSM's Role in **Supporting National Cybersecurity Related Policies & Strategic Plans**

National Technical Cybersecurity Agency responsible to **advise & implement** cybersecurity related programs



Malaysia Digital Economy Blueprint (MyDIGITAL)

- Thrust 1:** Drive digital transformation in the public sector
- Thrust 4:** Build agile and competent digital talent
- Thrust 6:** Build trusted, secure and ethical digital environment

Malaysia Cyber Security Strategy



- Pillar 1:** Effective Governance and Management
- Pillar 2:** Strengthening Legislative Framework and Enforcement
- Pillar 3:** Catalysing World Class Innovation, Technology, R&D and Industry
- Pillar 4:** Enhancing Capacity and Capability Building, Awareness and Education
- Pillar 5:** Strengthening Global Collaboration



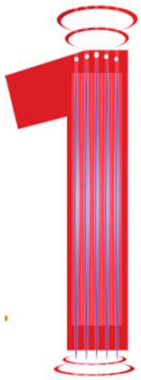
National 4th Industrial Revolution Policy (Industry4WRD)

- Thrust 1:**
Equip the Rakyat with 4IR knowledge and skill sets
- Thrust 3:**
Future-proof regulations to be agile with technological changes

ADDRESSING CYBERSECURITY THROUGH POLICY



5 PILLARS
12 Strategies



Effective Governance and Management

- Enhancing National Cyber Security Governance and Ecosystem
- Improving Organization and Business Operation (Government, CNII and Business)
- Strengthening Cyber Security Incident Management and Active Cyber Defence



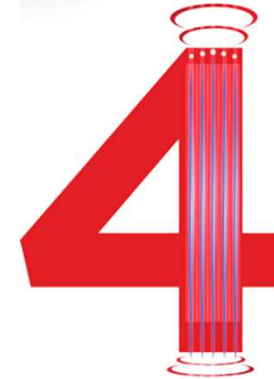
Strengthening Legislative Framework and Enforcement

- Enhancing Malaysia's Cyber Laws to Address Current and Emerging Threats
- Enhancing the Capacity and Capability of Cybercrime Enforcement



Catalyzing World Class Innovation, Technology, R&D and Industry

- Spurring National Cyber Security R&D Programmed
- Promoting a Competitive Local Industry and Technology



Enhancing Capacity & Capability Building, Awareness and Education

- Enhancing National Cyber Security Capacity and Capability Building
- Enhancing Cyber Security Awareness
- Nourishing Cyber Security Knowledge Through Education



Strengthening Global Collaboration

- Strengthening International Collaboration and Cooperation in Cyber Security Affairs
- Demonstrating Malaysia's Commitment in Promoting Secure, Stable and Peaceful Cyberspace to Uphold International Security



MALAYSIA'S DIGITAL ECONOMY BLUEPRINT



**6 STRATEGIC THRUSTS,
22 STRATEGIES,
48 NATIONAL INITIATIVES AND
28 SECTORAL INITIATIVES**

6 THRUSTS

1
Drive digital
transformation in
the public sector

2
Boost economic
competitiveness through
digitalisation

3
Build
enabling digital
infrastructure

4
Build agile
and competent
digital talent

5
Create
an inclusive
digital society

6
Build trusted,
secure and ethical
digital environment

6
Build trusted,
secure and ethical
digital environment

**S1: Strengthening
safety and ethics**
in digital activities
and transactions

**S2: Enhancing
institutions
commitment**
to personal data
protection and
privacy

**S3: Improving
cross-border
data transfer**

**S4: Increasing
cyber security
uptake among
businesses**

SOURCE: <https://27.group/what-is-mydigital-initiative-digital-nasional-berhad-about/>

Personal Data Protection Act 2010 (PDPA)



LAWS OF MALAYSIA

ACT 709

PERSONAL DATA PROTECTION ACT 2010

Date of Royal Assent :

Date of publication in the Gazette :

2 June 2010

10 June 2010

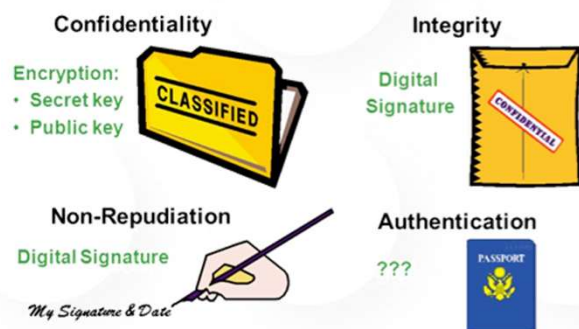
- **Governs Personally Identifiable Information (PII) data collected via commercial transaction.**
- **Malaysia's PDPA is align with the EU's GDPR.**

ADDRESSING CYBERSECURITY THROUGH ENCRYPTION TECHNOLOGY



- **NATIONAL CRYPTOGRAPHY POLICY** approved by The Government In January 2013


- Comprehensive applications of cryptography in Government to Government (G2G), Government to Citizens (G2C), Government to Business (G2B) and Business to Business (B2B) activities towards ensuring a secure and trusted cyber environment.



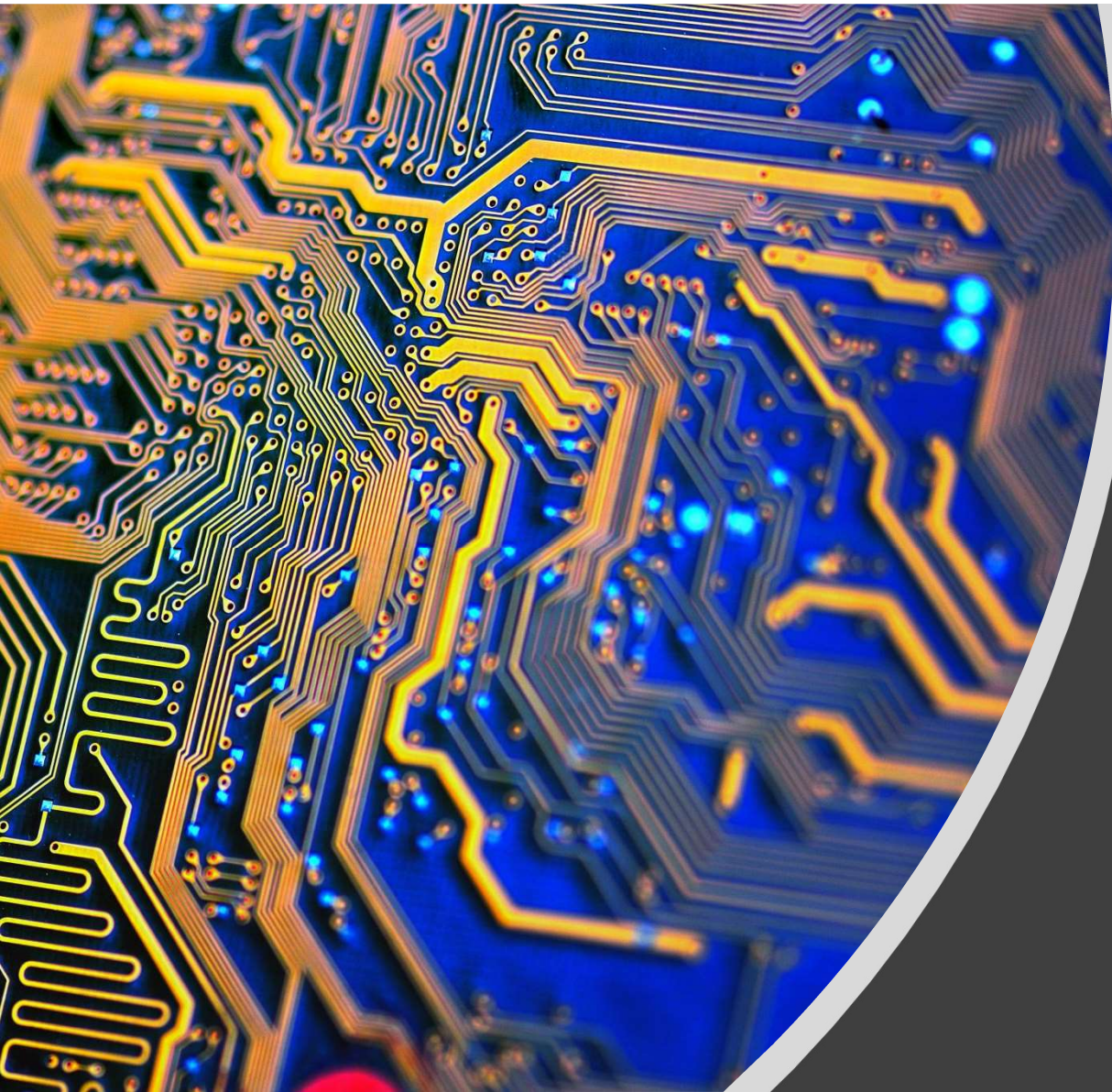
- Cryptography also supports the National Digital Economy and the realization of the National Transformation Agenda to transform Malaysia into becoming an advanced and high-income nation

ADDRESSING CYBERSECURITY THROUGH GUIDELINES

GUIDELINES

- 
1. Cyber Security Guideline for Industrial Control System (ICS)
 2. Cyber Security Guidelines for Secure Software Development Life Cycle (SSDLC)
 3. Cyber Security Guideline for Internet of Things (IoT)
 4. Cyber Security Guideline for Industry 4.0 (I4.0)
 5. Cloud Security Implementation for Cloud Service Subscriber (CSS) Guideline
 6. Guideline for Securing MyKAD EBA Ecosystem
 7. Guideline on the Usage of Recommended AKSA MySEAL Cryptographic Algorithms

CyberSecurity Malaysia products



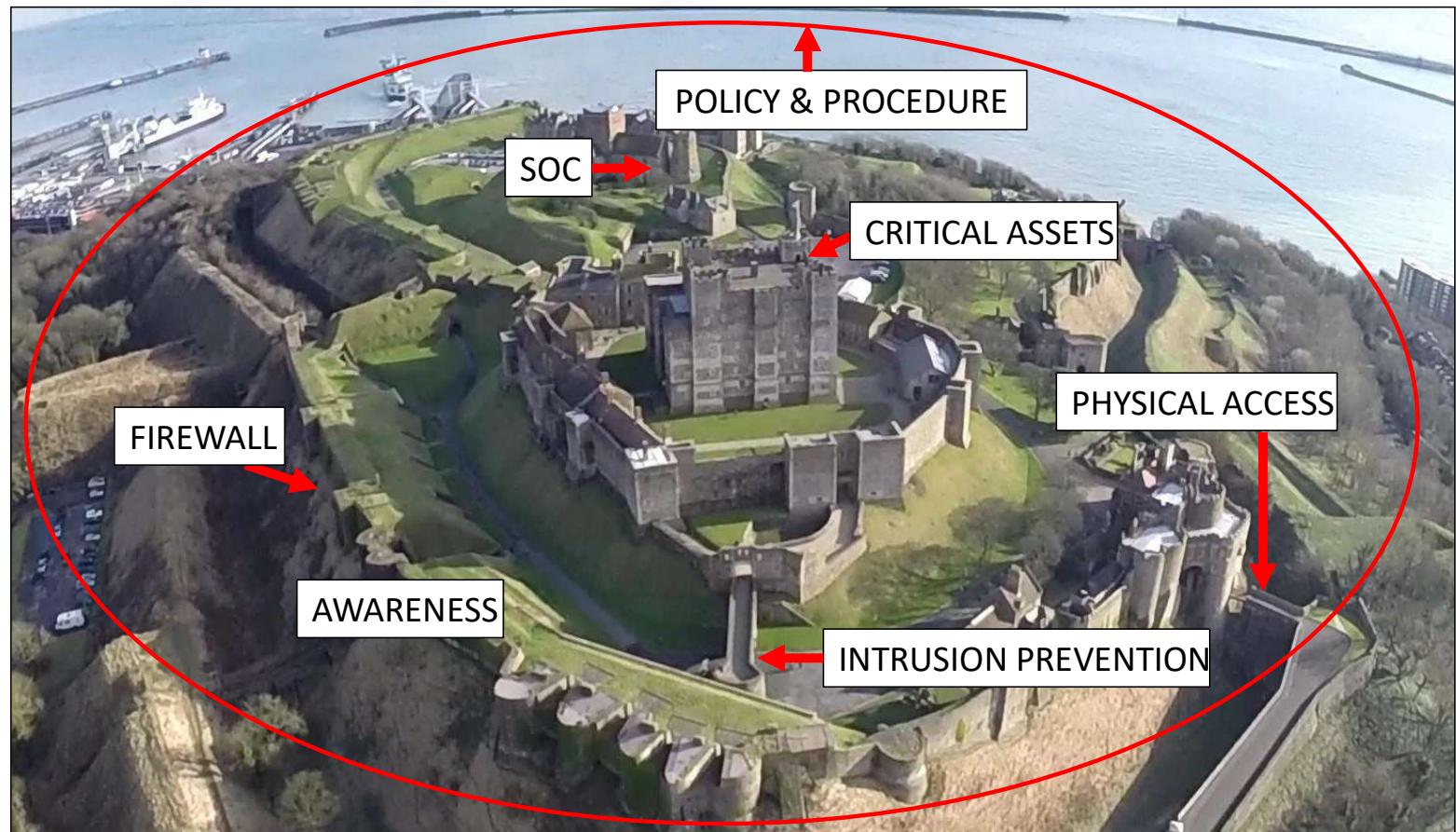
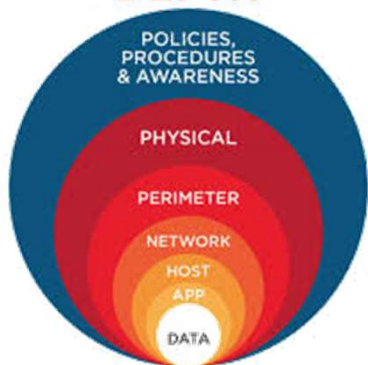
TECHNOLOGY

TRADITIONAL CYBERSECURITY APPROACH

- Not sufficient to deal with smart cyber threats

Protecting networks, data and devices in today's environment requires a multipronged approach that accounts for every possible vulnerability and entry point. We are way beyond firewalls and antivirus here.

DEFENSE IN DEPTH



This is an approach that relies on using a layered and redundant defensive mechanism to protect data and assets from cyber-attacks.

ADDRESSING CYBER SECURITY THROUGH **ADAPTIVE SECURITY**

To be more proactive, dynamic and integrated in cybersecurity approach

Adaptive Security is an approach to cybersecurity that **analyzes behaviors and events** to protect against and **adapt** to threats before they happen. With an Adaptive Security Architecture, an organization can **continuously assess risk and automatically provide proportional enforcement** that can be dialed up or down

PREDICTIVE

- Periodic Vulnerability assessment
- Threat hunting
- Cyber threat intelligence

RESPONSIVE

- Identification of infected devices
- Isolation of compromised devices
- Incident response and reporting



PREVENTIVE

- Server hardening
- Security patching
- Source code review

DETECTIVE

- Perimeter Security devices
- Endpoint security
- Network Security
- Web application security



The cost to organizations comes at each stage of the incident response lifecycle — **detection, notification, responses, post-incidents**, and the **cost of business losses**.

STRENGTHENING CYBERSECURITY THROUGH PREDICTIVE CYBER THREAT INTELLIGENCE (CTI)

Makmal khas tangani serangan siber

Oleh AHMAD ISYAFIQ MAD. DESA



AHMAD FAUZI (dua dari kanan) dan Amiruddin (dua dari kiri)

JOHOR BAHRU – Universiti Teknologi Malaysia (UTM) menubuhkan makmal khas bertujuan melaksanakan kajian mengenai kaedah menangkis serangan siber yang semakin menular kini.

Timbalan Naib Canselor (Penyelidikan dan Inovasi) UTM, Prof. Dr. Ahmad Fauzi Ismail berkata, penubuhan UTM-CSM Cyber Security X Lab yang mencecah kos sebanyak RM100,000 itu merupakan sebahagian daripada komitmen universiti mengekang je-



Beliau berkata, makmal yang ditempatkan di bawah Fakulti Pengkomputeran UTM menempatkan para penyelidik sepenuh masa.

“Fakulti berkenaan mempunyai 170 pensyarah dalam pelbagai bidang berkaitan teknologi siber. Sebanyak 15 penyelidik di UTM-CSM Cyber Security X Lab akan bertindak menangani jumlah serangan siber dan teknik penggodaman yang semakin canggih kini,” katanya.

Beliau berkata demikian pada sidang akhbar selepas Majlis Menandatangani Perjanjian (MoU) antara UTM dan CyberSecurity Malaysia

di sini semalam.

Hadir sama Ketua Pengarah Eksekutif CSM, Dr. Amiruddin Abdul Wahab.

Berdasarkan statistik terkini, kadar jenayah siber sedang meningkat di negara ini dengan purata 10,000 kes dilaporkan setiap tahun.

Ahmad Fauzi menambah, sebagai permulaan, UTM menerima peruntukan sebanyak RM360,000 daripada CSM untuk disalurkan kepada pembangunan projek yang dirancang.

“Pada peringkat awal, kerjasama kita menumpukan tiga bidang iaitu Malware Analitik, risikan ancaman siber dan ancaman berterusan



ADDRESSING CYBERSECURITY THROUGH **RESPONSIVE** TECHNOLOGY & SERVICES



DIGITAL FORENSIC (DF)

CyberCSI
crime scene investigation

CyberDEF
Uncovering Future Threats



Evidence Preservation Facility

CyberDiscovery



Digital Forensic Lab

X-Forensics Tools

PenDua
x-Forensik 2.0

Kloner
x-Forensik 2.0

CamMuka V2.0

Expert Development Lab



Data Recovery Lab

MyCERT

Malaysia Computer Emergency Response Team

CMERP
Detection | Eradication | Remediation

Coordinated Malware Eradication & Remediation Project (CMERP)

LebahNET.MY
Cybersecurity Honeynet Project

Lebahnet (Honeynet Project)



SECURITY THREAT

Cyber Early Warning



Technical Coordination Centre



Cyber Threat Research
Centre (CTRC)



Computer Security
Incident Response
Team (CSIRT)
Consultancy

malware
research centre

Malware Research Center

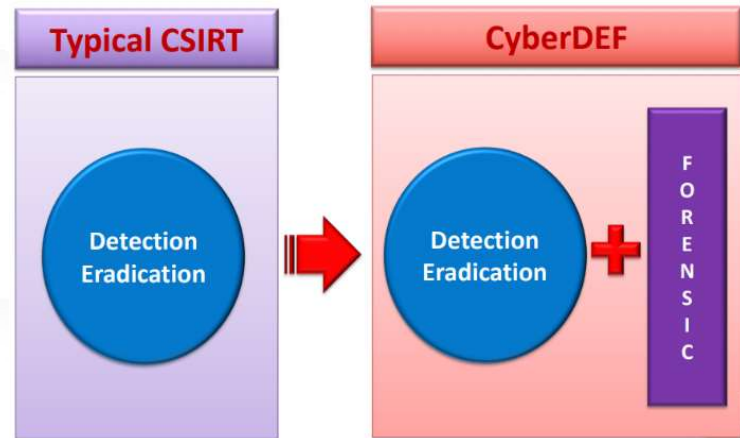
Cyber999

Cyber999 Help Centre

ADDRESSING CYBERSECURITY THROUGH STRENGTHENING DETECTION TECHNOLOGY

CyberD.E.F

- Detection
- Eradication
- Forensic



Detection	Eradication	Forensics
<p>Identify any loopholes, vulnerabilities and existing threats</p> <ol style="list-style-type: none"> 1. Sensors 2. Sandbox 3. Analytics 4. Visualization 	<p>Close loopholes, patch vulnerabilities and neutralize existing threats</p> <p>Perform cyber threats exercise or drill to test the feasibility and resiliency of the new defense / prevention system</p>	<ol style="list-style-type: none"> 1. E-Discovery 2. Root cause analysis 3. Investigation 4. Forensics readiness 5. Forensic compliance



Cyber threats and cyber attacks landscape have changed. Our data and technology are constantly under threat especially with the growth of advance persistent threats (APT). These targeted attacks to organisations are planned, organised and highly-skilled.

Cyber criminals are now more focused and savvy with cyber attacks conducted across multiple stages and mediums. These lead to organisations being exposed and vulnerable to cyber attacks resulting in data theft, breach of trust, denial of service and tarnished reputation.

Thus, organisations need to be responsive, proactive and pre-emptive in tackling cyber security.

Organisations should be equipped with:

1. **Cyber analytics capability**
 - + to identify emerging threat patterns
 - + to anticipate intrusions
 - + assess their capability to handle attacks
2. **Cyber forensic capability**
 - + to analyse the attacks
 - + to prevent future attacks
3. **Computer Security Incident Response Team (CSIRT) and facilities ready.**

These basic building blocks of a cyber intelligence framework not only help an agency continuously monitor its risks, but also create a more dynamic situational awareness that drives better decision-making across a wider range of mission and business activities.

STRENGTHENING CYBERSECURITY **PREVENTION** THROUGH TECHNOLOGY VULNERABILITY ASSESSMENT

Secure Software Development Lifecycle (SSDL) Lab & Services



Internet of Things (IOT) Lab



Robotic Lab (4th Industry Revolution)



CONCLUSION AND WAY FORWARD

- ❖ There is no such thing as 100% security. There is still much improvement to be made. We need to increase and strengthen our cybersecurity manpower and professional skills.
- ❖ There is a need to ensure for a secure, resilient and trusted cyber environment in order to sustain progression and prosperity. In this regard, a more innovative and proactive adaptive security approach is required to address such situations. Adaptive cybersecurity encompasses predictive, detective, responsive and corrective capabilities.
- ❖ In addition, our approach also has to be adaptive, dynamic and innovative covering people, process and technology.
- ❖ Strengthening Public-Private-Academia Partnership and national, bilateral, regional and International Collaboration.
- ❖ Organizations should gear themselves towards cyber resilience as the threat of global cybersecurity breaches continues to pose major risks.





THANK YOU

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