

CYBER SECURITY : THREAT ASSESSMENTS

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4 June 2008

CYBER THREATS ARE REAL, CYBER ATTACKS ARE HAPPENING!

BERITA HARIAN

Waktu solat Kuala Lumpur

SUBUH 5:40
ZUHUR 13:13
ASAR 16:36
MAGHRIB 19:21
ISYAK 20:35

Waktu solat kawasan lain...

Khamis, 22 Mei 2008 | 16 Jumaatlewat 1429

REDAKSI SIAPA KAMI? HUBUNGI KAMI ARKIB SEMINGGU ADTIMES

CARIAN LAMAN

Can Set Semula

Dewan Rakyat

Enjoy up to 75% off hotels worldwide

Book Now

Anugerah Bintang Popular

BERITA HARIAN

2007

lebih dari 300 promosi & restoran hotel

NASIONAL

Kerajaan, rakyat kena perangai jenayah siber

Oleh Abdul Halim Yusoff

Version Akhbar Digital

BERITA HARIAN

Abd. Parman BN sokong PM

Artikel lain:

- Tindakan Dr M keluar parti tak beri manfaat
- Pelajar UTM cipta jam pintar kesan budak hilang
- Peniaga menang peraduan ASEP2007
- UAM perlu jadi universiti pilihan

TANGANI BERSAMA: Abdullah dan Menteri Tenaga, Air dan Komunikasi, Datuk Shamsuddin Abdul Moksin (tengah)

Invest in cyber security, says expert

KUALA LUMPUR: Malaysia needs to continue investing in cyber security if it is to remain an attractive place for foreign business.

According to one of the world's top cyber security experts, the threats facing Malaysia, in terms of cyber security, were the three main ones most of world was also facing.

"One of the biggest threats is organised crime where financial attacks are made to steal credit card information and identity information," said (US-CERT) chief security strategist Howard Schmidt, who was in Malaysia to speak at the National Innovation Conference & Exhibition (NICE).

Schmidt, who is also former MicroSoft Corp director of information security, said the other major risks included being caught in regional cyber conflicts — which he said would affect Malaysia due to the shared telecommunications infrastructure in the region — and the proliferation of Bot networks.

apparent physical control of users but, are actually remotely controlled by hackers.

He said there were about 100 million to 150 million computers worldwide, including those in homes, offices and government agencies, which were controlled by bot networks.

Schmidt said the mischief bot network controllers could create included launching massive denial-of-service attacks, making computer resources unavailable to users.

"They can also be used to steal private information, steal it and forward it to others.

"They can also use bot networks to shut things down. Imagine a country the size of Malaysia having its computer systems hijacked and used for criminal activity," he said.

Schmidt told the *New Straits Times* Malaysia did not suffer from a bad reputation thanks to good work by the government through agencies such as CyberSecurity Malaysia.

From an organisational perspective, he said Malaysia, was far ahead of many other countries in terms of cyber security.

must be part of everyone's life, says PM



Abdullah talking to Penang Chief Minister Tan Sri Dr Koh, Tan Koon on a 3G mobile phone.

create a stronger base to further develop our economy in line with Vision 2020," Abdullah said.

The expansion of the MSC network will be done in stages, beginning with cybercities and cybercentres in certain states.

As of now, we have cybercities in Penang, Cybercity, One and Kulim Hi-Tech Park. Four cybercentres will also be developed, including those in Malacca.

Earlier, he drew applause when he urged members of the media to join him on stage to observe the MITC hall which was filled with people using ICT knowledge on desktop computers.

"Don't just focus on my handsome face. Shoot this amazing sight instead — so many people from different walks of life taking part in ICT. This shows that in Malaysia, ICT really is for everyone," he said.

Also present were Science, Technology and Innovation Minister Datuk Seri Dr Jusha Jusli, Human Resources Minister Datuk Seri Dr Fong Chan Onn and Malacca Chief Minister Datuk Seri Mohd Ali Rustam.

As the second cybercentre after Kuala Lumpur, Seremban, MITC offers a 74.8ha area complete with state-of-the-art ICT infrastructure for companies to come together in networks and collaborate for development.

nggungjawab

Abdullah berkata, beliau telah menyaksikan bagaimana teknologi ICT telah mengubah cara kita berinteraksi. Beliau berkata, beliau telah menyaksikan bagaimana teknologi ICT telah mengubah cara kita berinteraksi. Beliau berkata, beliau telah menyaksikan bagaimana teknologi ICT telah mengubah cara kita berinteraksi.

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Federal Prosecutor: Cybercrime Is Funding Organized Crime

Courtesy of Information Week

JULY 20, 2007 | For months now, the feds have said organized crime was moving into the realm of cybercrime, using hackers to run scams and break into systems.

In Choe Choe and Hamidi Hamid (S&P/CRJ)

As information and communications technology (ICT) is used — from the office to the home — the risks of cybercrime are increasing. The risks of cybercrime are increasing. The risks of cybercrime are increasing.

The risks of cybercrime are increasing. The risks of cybercrime are increasing. The risks of cybercrime are increasing.

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ABOUT : CYBERSECURITY MALAYSIA

MISSION

Creating And Sustaining A Safer Cyberspace To Promote National Sustainability, Social Well-being And Wealth Creation



To Be A Globally Recognised National Cyber Security Reference And Specialist Centre by 2020

VISION



Cyber Security Emergency Services

Malaysian Computer Emergency
Response

Digital Forensics

Information Security Training & Outreach Services

Professional Training

Public Outreach

Information Security Quality Management Services

Security Management & Best Practices

Security Assurance

Strategic Policy & Cyber Media Research Services

Strategic Policy &
Legal Research

Policy Implementation &
Compliance Monitoring

Cyber Media Analysis





TYPES OF THREATS

Types of Threats



THREAT CATERGORIES

Cyber War - Warfare in cyberspace. This includes attacks against a nation's state and forcing critical communications channels and information systems infrastructure and assets to fail or destroy.

Cyber Terrorism - The use of cyberspace to commit terrorist acts. An example might be hacking into a computer system to cause a financial systems to go hay wire, a nuclear power plant to melt down, a dam to open, or two airplanes to collide.

Cyber Crime - Crime in cyberspace. This includes much of what we have already experienced: extortion, intrusion of privacy, Denial of Service attacks, identity theft, fraud, offensive and seditious content, illegal investments and quick rich scheme, etc.



CYBER INCIDENTS IN MALAYSIA

Intrusion

Hacking

Denial Of Service Attack

CYBER
INCIDENTS

Malicious Code

www.dinamo-bg.com

Fraud

Harassment

CYBER CONTENT-RELATED THREATS



**False / Menacing /
Offensive**

Sedition / Defamation

**CYBER
CONTENT-
RELATED
THREATS**

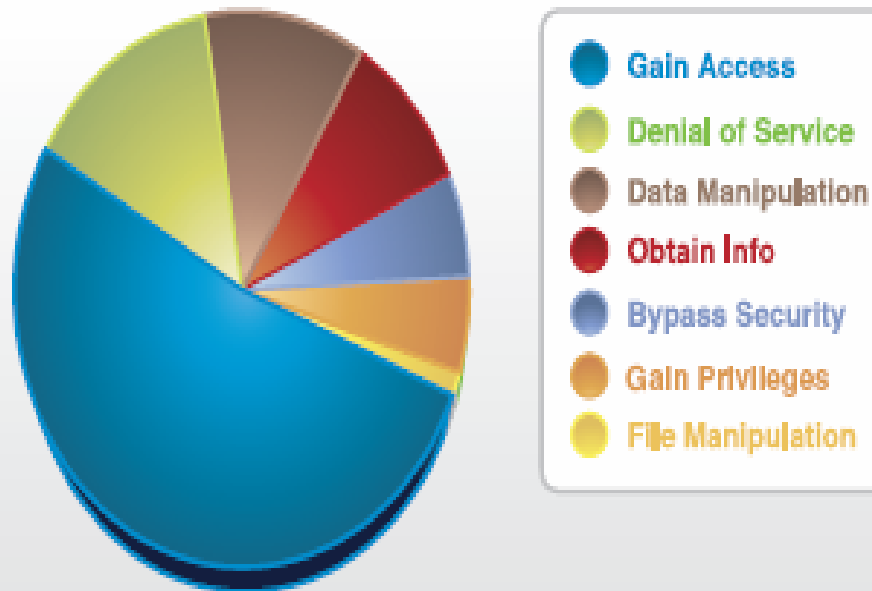
Hate Speech

Online Porn

Securing Our Cyberspace

COMPUTER SECURITY INCIDENTS

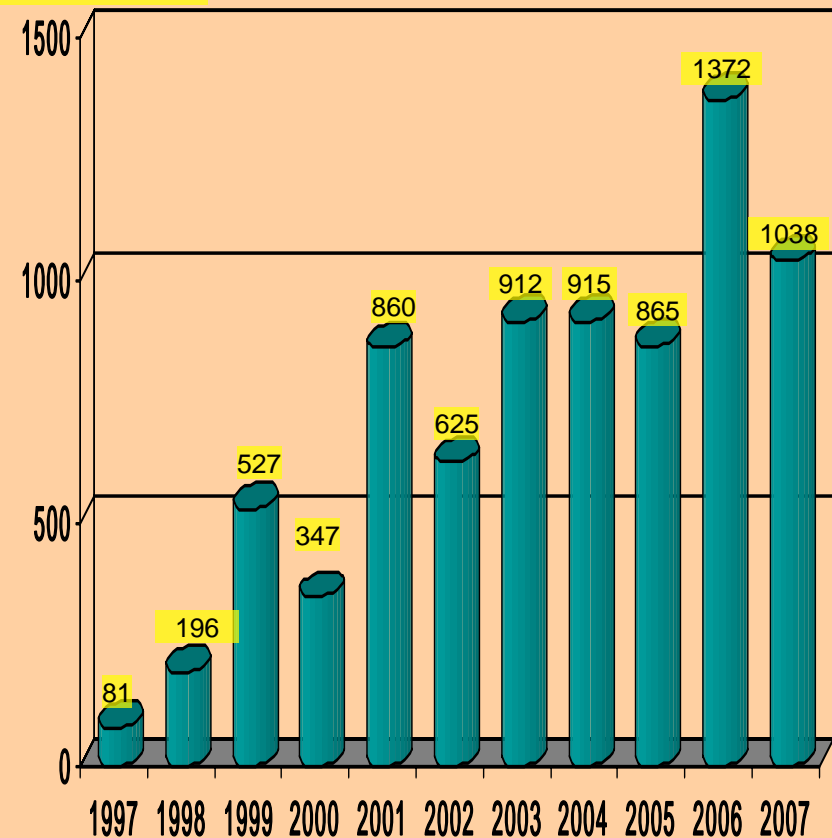
Type of Security Incidents 2007



Gain Access	Denial of Service	Data Manip.	Obtain Info	Bypass Security	Gain Priv.	File Manip.
51.6%	13.4%	11.2%	9.3%	6.0%	5.7%	1.1%

Security Incidents Reported to CyberSecurity Malaysia

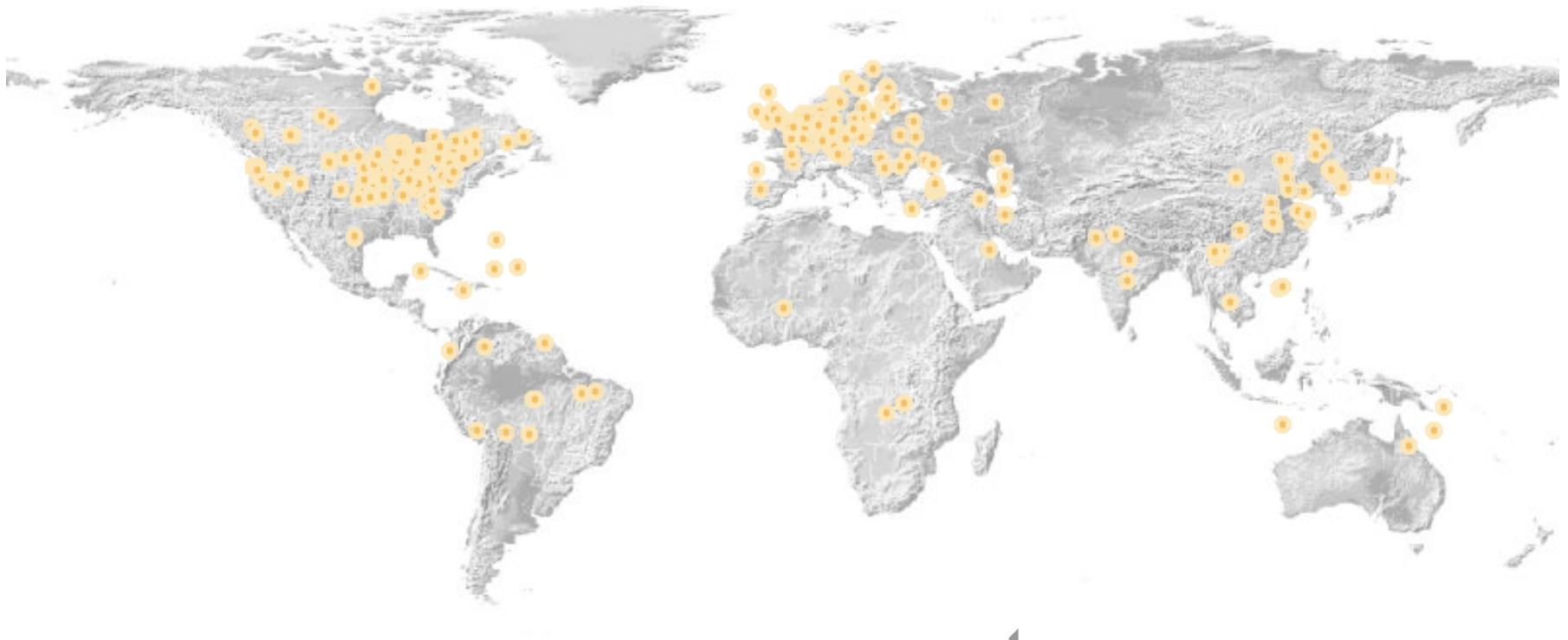
No of Incidents



Source : Cyber Attacks on the Rise : IBM 2007 Midyear Report, August 2007

BOTS : THE LATEST THREAT

BOTNET COMMAND & CONTROL



<http://atlas.arbor.net/worldmap/index>



INCIDENT: CYBER WAR AGAINST A NATION

Cyber Attack on Estonia

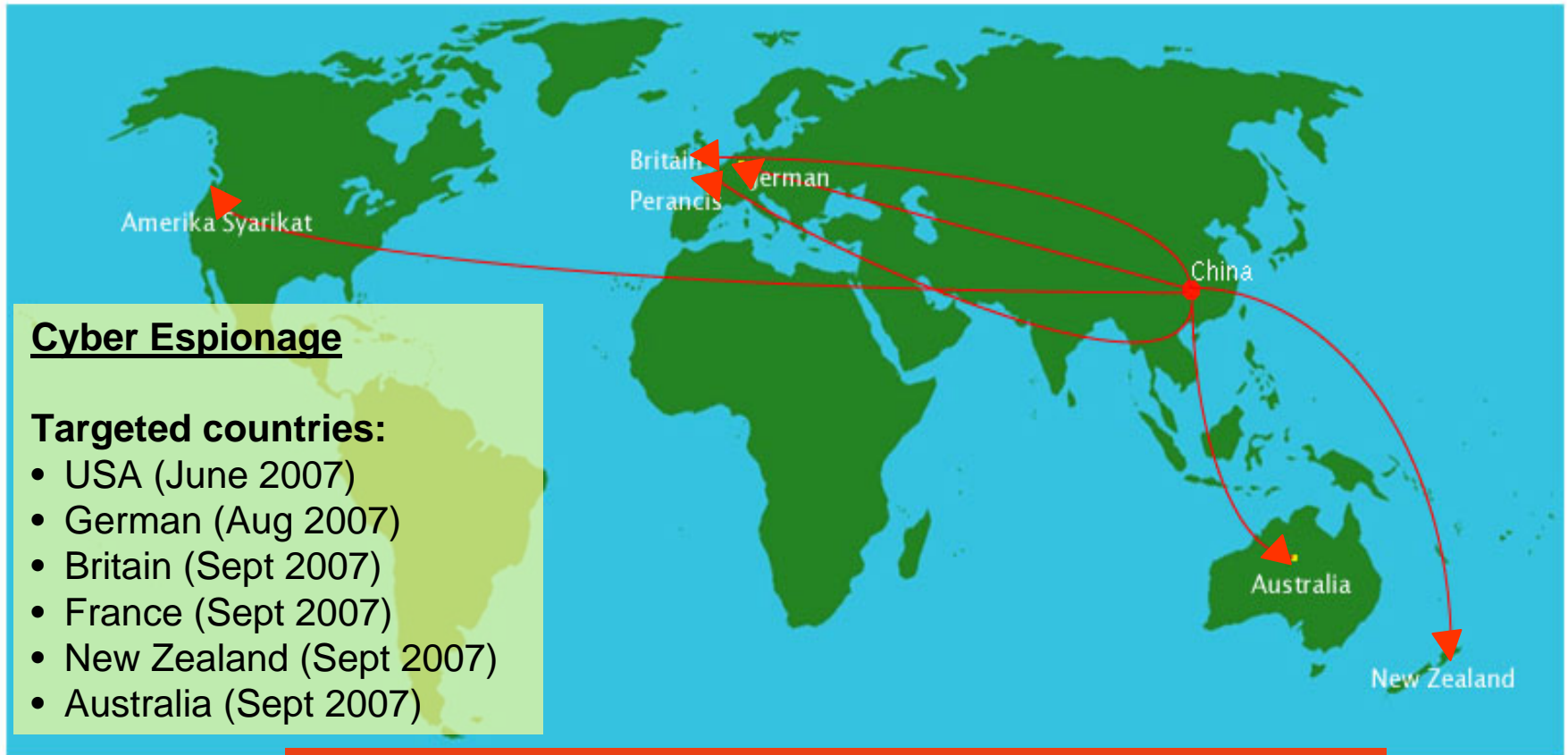
- Occurred in May 2007
- Estonia was under cyber attacks for 3 weeks
- Attack targeted government, banking, media and police websites
- Paralyzed internet communication
- Attacks from 128 sources outside Estonia
- US and European countries aided Estonia in overcoming the cyber attacks



Impact:

Huge economic losses incurred as online based transactions were disrupted





Impact : Lost of critical and sensitive information



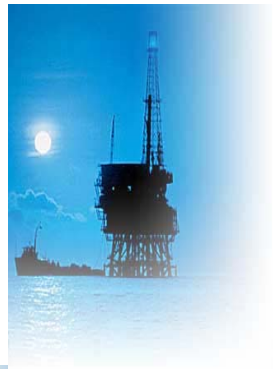
SUPERVISORY CONTROL & DATA ACQUISITION (SCADA)

WHAT IS SCADA?

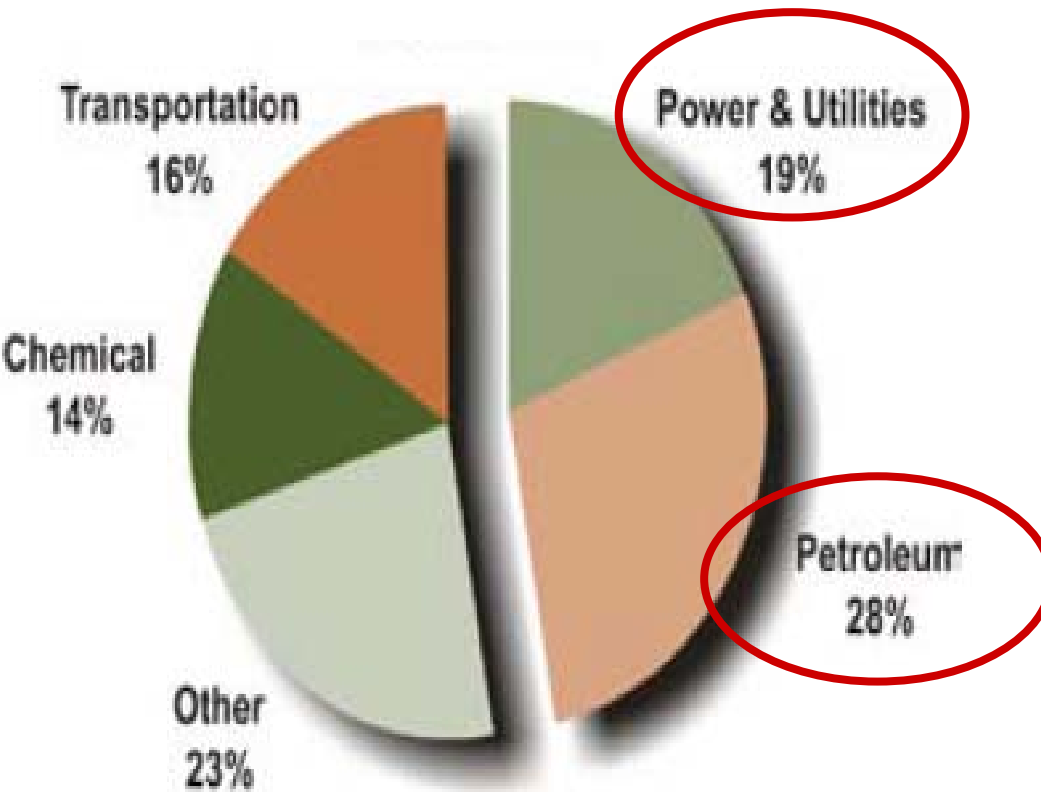
Supervisory Control and Data Acquisition (SCADA)

SCADA systems are used for remote monitoring and control in the delivery of essential services/products such as electricity, oil and natural gas, water, waste treatment, chemical processing and transportation.

This makes SCADA systems an integral part of a nation's critical infrastructure.



ATTACKS : INDUSTRIAL CONTROL SYSTEMS



Industrial Security Incident Database suggested that the **Energy sector** is a common target for control system attacks.



Source: Industrial Security Incident Database (Byres 2005)



Wide Interconnected Network - the interconnection of SCADA systems to corporate networks, rely on common operating platforms, and expose SCADA systems to Internet vulnerabilities.

Legacy Systems - The majority of SCADA systems have useful lifetimes ranging from 15 to 30 years - the underlying protocols were designed without modern security requirements in mind. - change in SCADA network architecture, may introduce new vulnerabilities to legacy systems.

Interdependencies – The high degree of interdependency among our critical infrastructure sectors means failures in one sector can propagate into others.



CONTENT RELATED THREATS

HATE SPEECH/SEDITIONIOUS CONTENT

This involves the sending of hate messages, attacking and threatening people based on race, religion, gender, etc.

Offences in this category may include:

Posting seditious content

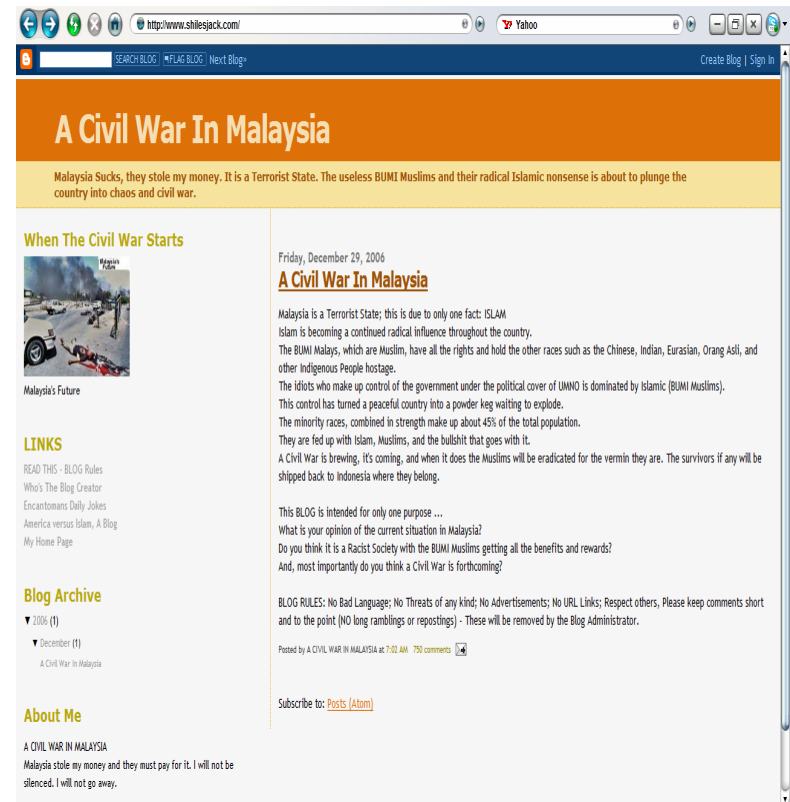
Posting defamatory content



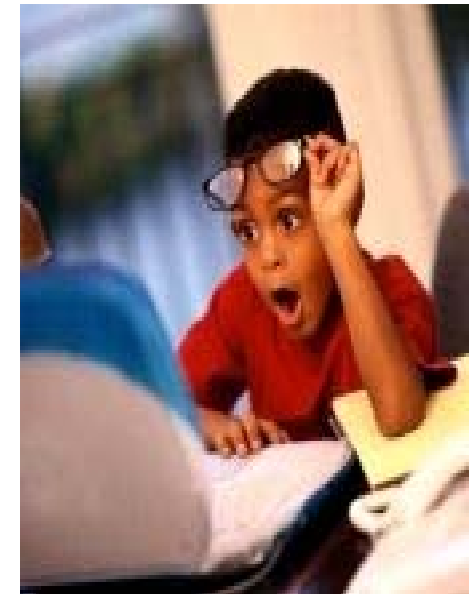
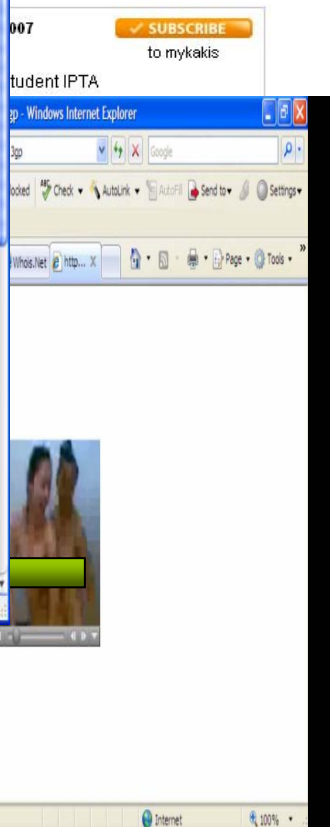
HATE SPEECH/SEDITIONARY CONTENT

This article accused Malaysia as a Terrorist State.

“Malaysia is a Terrorist State; this is due to only one fact: ISLAM. Islam is becoming a continued radical influence throughout the country. The BUMI Malays, which are Muslim, have all the rights and hold the other races such as the Chinese, Indian, Eurasian, Orang Asli, and other Indigenous People hostage”.



Websites containing sexual activity by Malaysian.





CHALLENGES & IMPLICATIONS



Cyberspace must be part of everyone's life, says PM

By Tan Chai Chee and Wan Rosdani Hassan
KUALA LUMPUR, Malaysia — Prime Minister Najib Razak said today that cyberspace must be part of everyone's life, and that the government will ensure that everyone has access to the internet.

Najib said that the government will ensure that everyone has access to the internet, and that the government will ensure that everyone has access to the internet.

Najib said that the government will ensure that everyone has access to the internet, and that the government will ensure that everyone has access to the internet.



Rootkit attacks on the rise



High-tech crimes on the rise



Bebas tapi bertanggungjawab

More than 6,000 computers infected

UTM hit by virus attacks

More than 6,000 computers infected

UTM hit by virus attacks

More than 6,000 computers infected

Geng ceroboh sistem internet bank tumpas

13 lelaki termasuk penuntut IT universiti tempatan ditangkap

Getting ready for cyber-terrorism

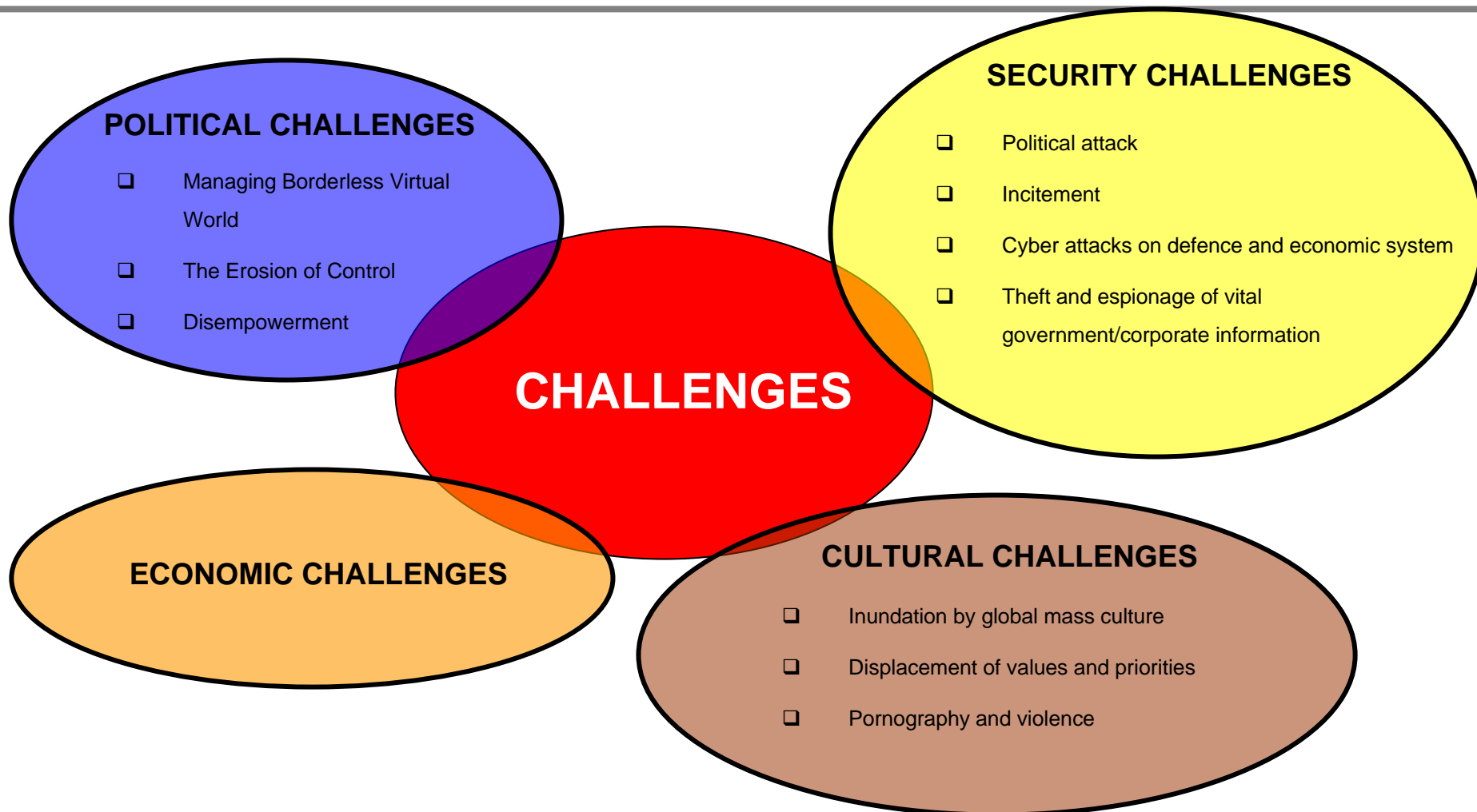
First Byte

Getting ready for cyber-terrorism

Getting ready for cyber-terrorism

1. Cyberspace crime is on the rise
2. Hard to prosecute due to borderless nature of the internet
3. Time is always against the enforcer
4. A need to share cross border evidence both in digital & physical form speedily
5. A need to improve information sharing mechanisms and processes at both national and international level





Safety

- Jeopardising the country's reputation and provocation of racial sentiment
- Information InSecurity

Economy

Chasing away the local and foreign investors

Image

Creating the negative perception about a nation-state to the rest of the world

Socio-Culture

Jurisdictional and cultural differences are difficult to be resolved in the cyberspace. The existence of institutions and processes to resolve dispute are still "immature"

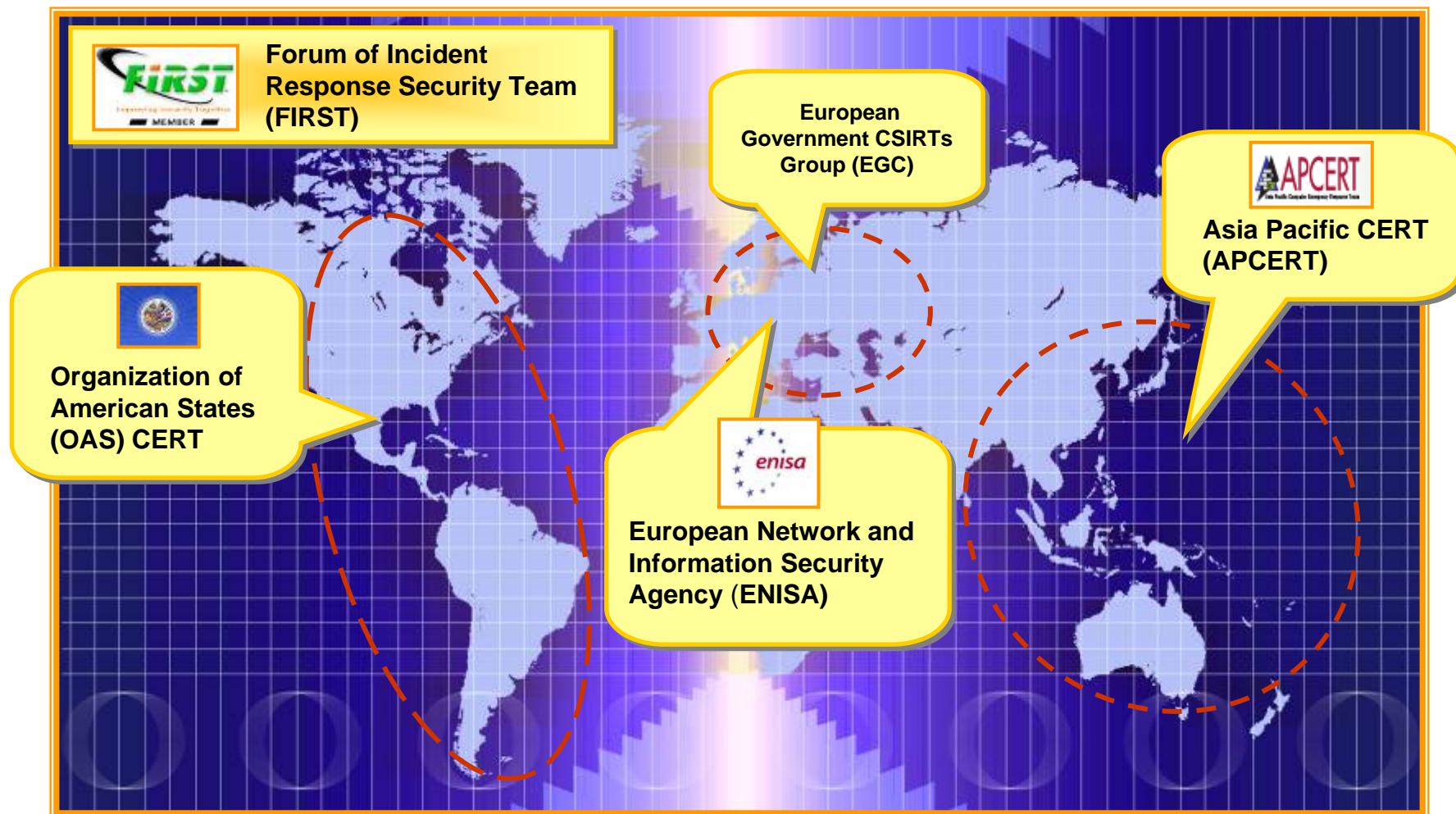




COUNTER MEASURES



INTERNATIONAL COLLABORATION TO MINIMISE BORDERLESS THREATS

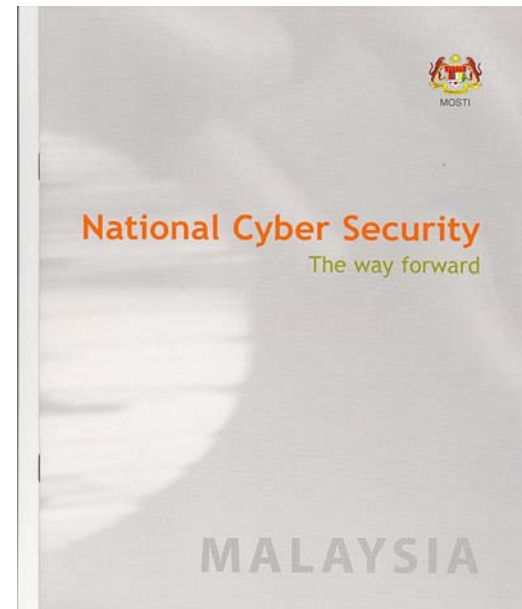


NATIONAL CYBER SECURITY POLICY (NCSP)

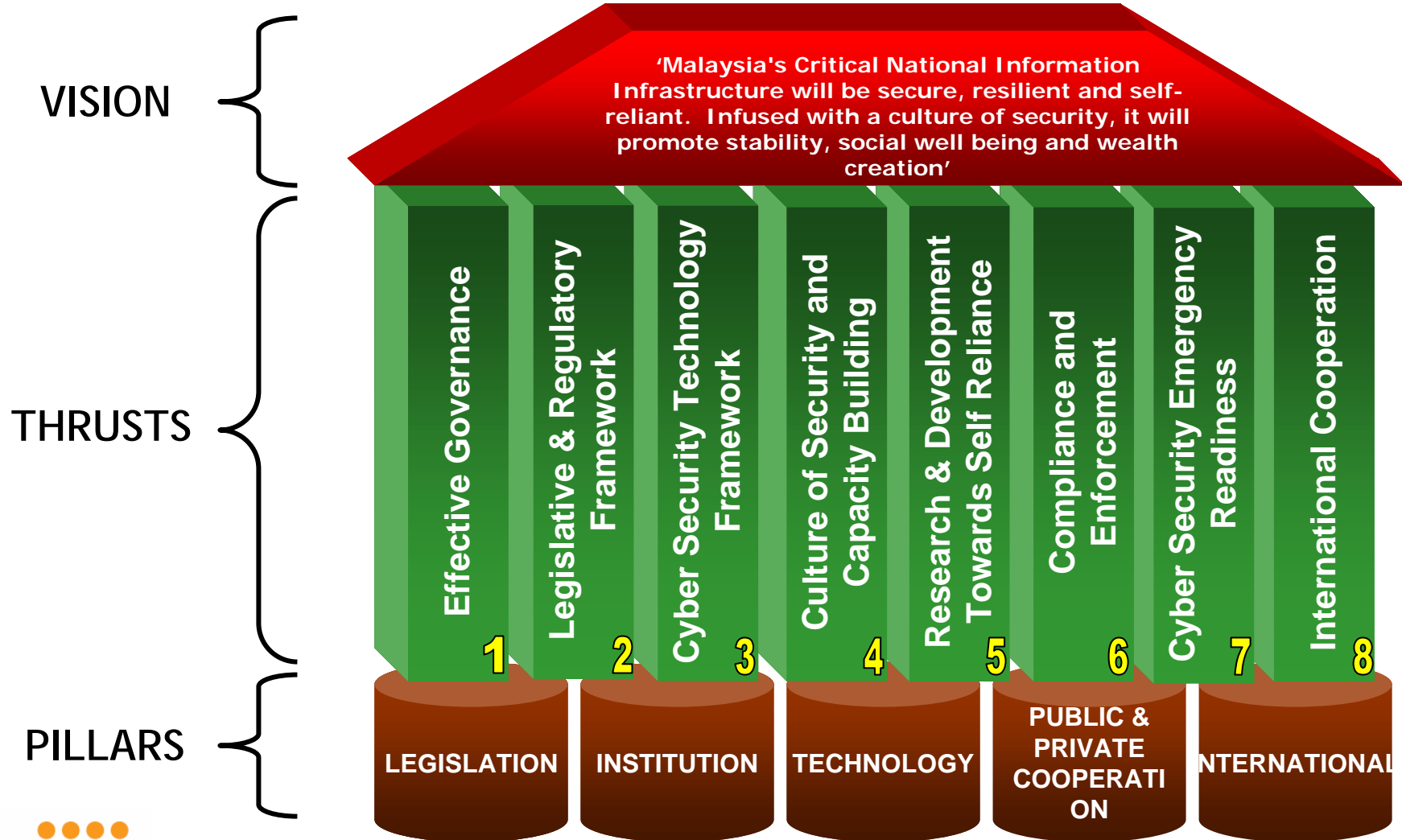
“Malaysia’s Critical National Information Infrastructure shall be secure, resilient and self-reliant. Infused with a culture of security it will promote stability, social well being and wealth creation”

OBJECTIVES

- TO ADDRESS THE RISKS TO THE CRITICAL NATIONAL INFORMATION INFRASTRUCTURE (CNII)
- TO ESTABLISH A COMPREHENSIVE PROGRAM / FRAMEWORK
- TO ENSURE CNII ARE PROTECTED
- PROMOTE STABILITY, SOCIAL WELL BEING & CREATION OF WEALTH



NCSP FRAMEWORK



Securing Our Cyberspace

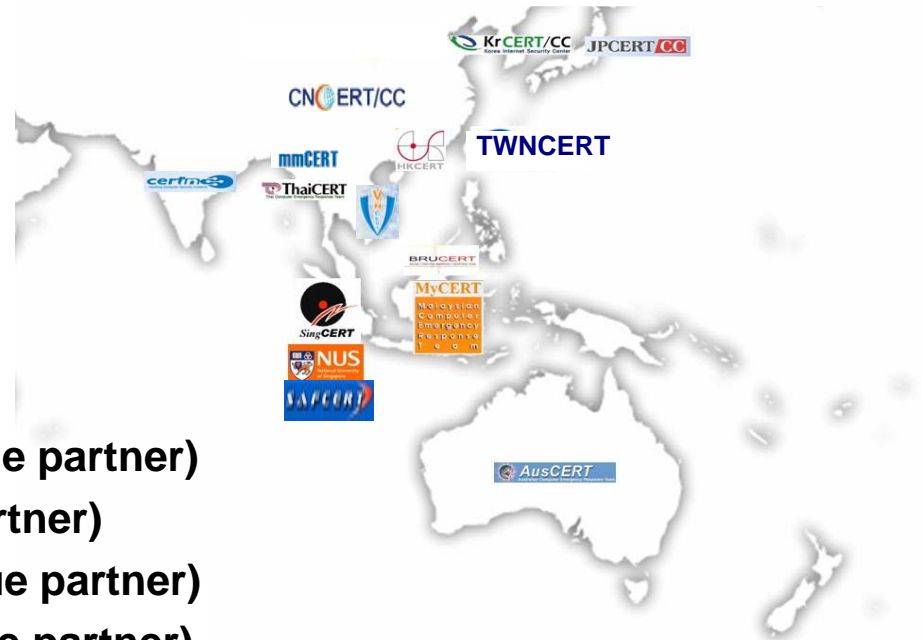
CyberSecurity Malaysia : EFFORTS TO COUNTER CYBER THREAT

INTER-NATION CYBER WARGAME (2007)

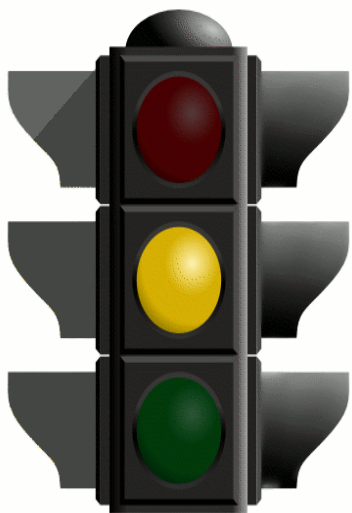
Date : July 16, 2007

Participants:

- ☐ Singapore - SingCERT (coordinator)
+ NUSCERT + SAFCERT
- ☐ Malaysia - MyCERT
- ☐ Brunei - BruCERT
- ☐ Thailand - ThaiCERT
- ☐ Vietnam - VNCERT
- ☐ Myanmar - mmCERT
- ☐ China - CNCERT/CC (ASEAN dialogue partner)
- ☐ India - CERT-IN (ASEAN dialogue partner)
- ☐ Korea - KRCERT/CC (ASEAN dialogue partner)
- ☐ Japan - JPCERT/CC (ASEAN dialogue partner)
- ☐ Norway - NorCERT (representative from Europe)



CYBER EMERGENCY RESPONSE SERVICES



- **Cyber999**
 - Incident Handling of security incidents
 - Log and traffic analysis
 - Malware analysis
- **National Cyber Early Warning**
 - Write/distribute security bulletins, alerts, advisories on a newly discovered malware or vulnerability on the net
 - Alert the constituency on recently discovered malicious activities on the net
 - Vulnerability assessment
- **Technical Coordination Centre**
 - Coordinate/handle security incidents received from other CERTs/ISPs/Institutions from worldwide
 - Facilitate interaction/cooperation with Law Enforcement Agencies



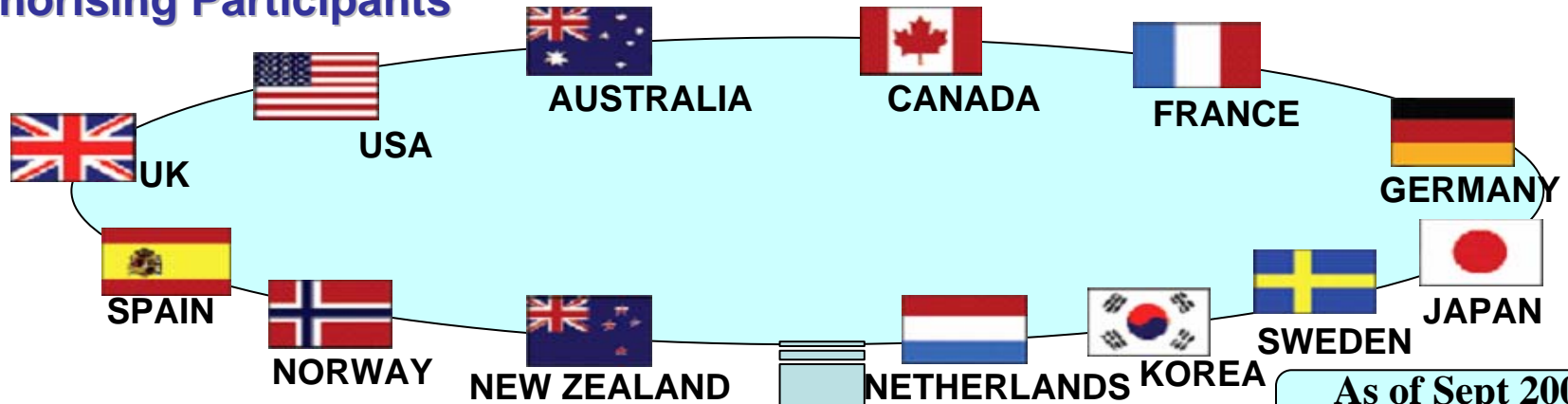
COMMON CRITERIA RECOGNITION AGREEMENT MEMBERSHIP

- Common Criteria Recognition Agreement (CCRA) is an international recognition for Common Criteria Standards

• **Malaysia became a member in March 2007**

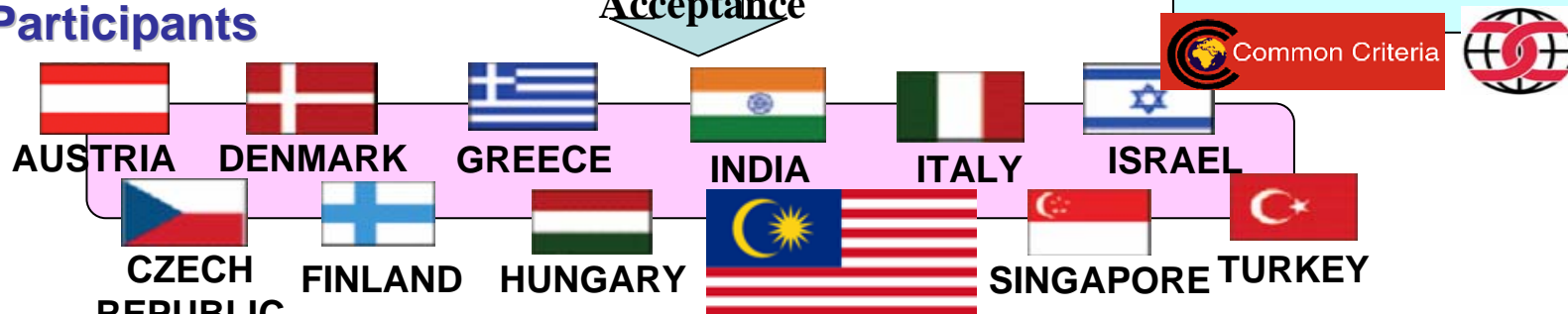
- Promote & Create recognition of Malaysia's ICT Products to CCRA members

Authorising Participants



As of Sept 2007

Consuming Participants



Securing Our Cyberspace

BENEFITS - COMMON CRITERIA CERTIFICATION



CC Certified Products



EAL4



EAL4



EAL4



EAL2



Check Point VPN-1/FireWall-1

EAL4

Local boost in security products evaluation and certification.

Build consumer's confidence towards local security products

Spur local ICT industry to penetrate the growing global security solutions market.

www.commoncriteriaportal.org

Securing Our Cyberspace

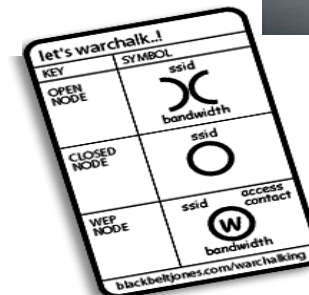
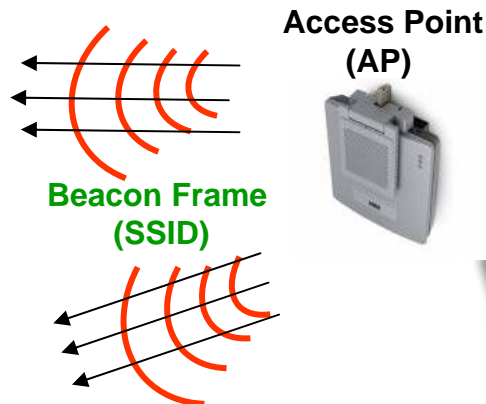
Wireless LAN Discovery Method

To detect vulnerability on wireless LAN i.e open access points

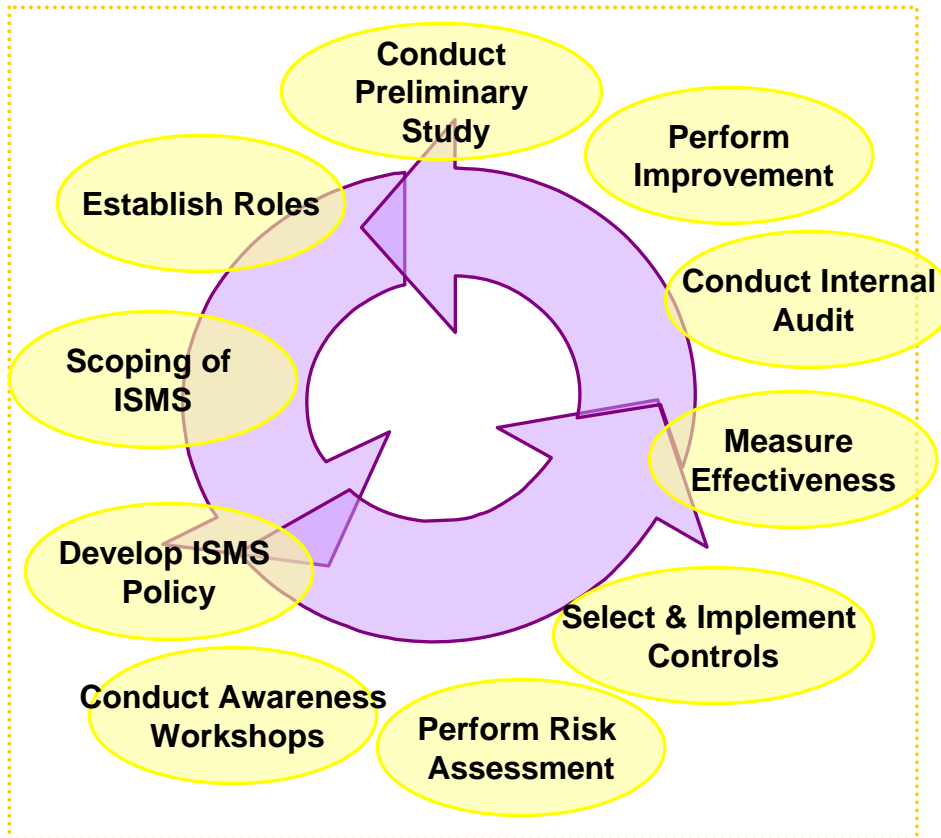


Attacker/Auditor
(monitor mode)

Collects wireless information through listening to the beacons frame



INFORMATION SECURITY MANAGEMENT GOLD STANDARD



ISO/IEC 27000 SERIES ON ISMS

*“Holistic management process that identifies potential **threats** to an organization and the impacts to business operations those threats, if realized, might cause, and which provides a framework for building organizational resilience with the capability for an effective response”*

Source: BS 25999-1

Based on following standards:

BS 25999-1 Code of practice for business continuity management

BS 25999-2 Specification

MS 1970:2007 Business Continuity Management Framework



CYBER SECURITY AWARENESS PROGRAMME

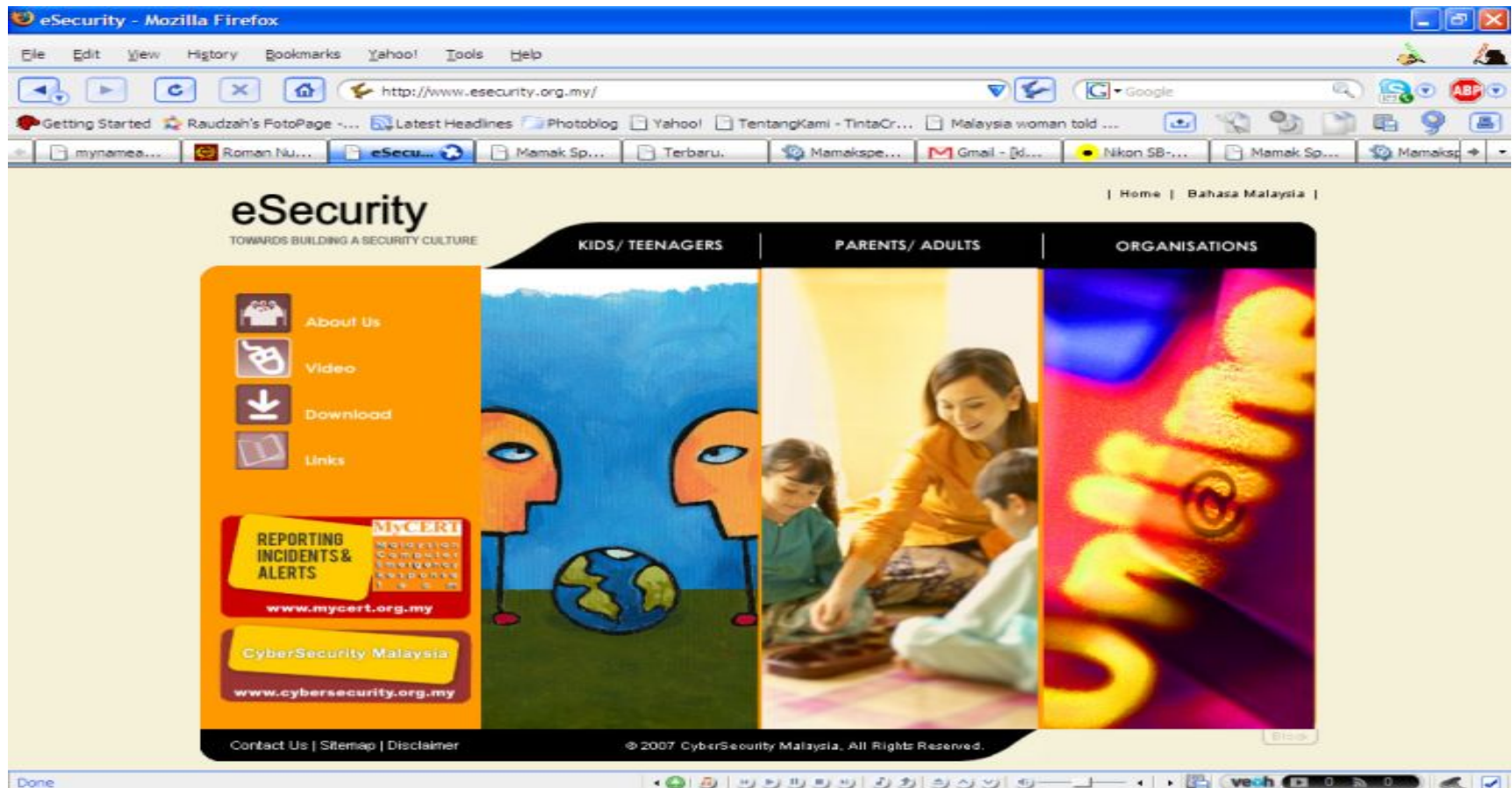
OUTREACH PROGRAM

Let's Make
The Internet
A Safer Place



With Nic & PxL





CyberSecurity
MALAYSIA



http://www...
Online Shopping

SHOP SAFELY ONLINE

- Shop with merchants that you know or trust.
- Check that the shipping website is secured.
- Be wary of unsolicited phone calls or emails from a merchant
- Read merchant's refund and exchange policy before making purchase
- Do not share your password
- Always print and keep the order confirmation document
- Read the privacy statement
- Use an anti-virus, anti-spyware and personal firewall and keep it updated.
- Never enter your personal information in a pop-up screen

Let's Make
The Internet
A Safer Place
www.cybersecurity.gov

CyberSecurity Malaysia
Cyber Security Centre
4088 Jalan Puchong, 47100 Puchong Jaya, Selangor Darul Ehsan
No. +603-89968681 Fax: +603-89968682

MOHAMED
MOSTI



SAFE ONLINE BANKING

- Keep your password/PIN code safe and memorize them
- Check that the Online Banking website is secured
- Log out immediately after you have completed your online transaction
- Use an anti-virus, anti-spyware and personal firewall and keep it updated
- Do not copy or click on any links attached to emails
- Do not respond to emails asking for personal information
- Read privacy and policy information before conducting any transactions
- Check your account statements to ensure that no unauthorized transaction has taken place
- When visiting your online banking site, always check that the Date and Time, matches the date and time when you last signed in

**Let's Make
The Internet
A Safer Place**
www.letsmakeasafepace.org

CyberSecurity Malaysia

For more details on this
issue, contact us at:
Cyber Security Centre, 2, Jalan Djarum, Kuala Lumpur 50002
or call our helpline, Tel: +603 89466448, Fax: +603 89466448
or visit our website, www.csc.gov.my

MOSTI

www.mostim.gov.my

Email & Spam



Safe Chatting



Safe Internet Banking



Cyber Stalking



eSecurity

TOWARDS BUILDING A SECURITY CULTURE

| Home | Bahasa Malaysia |

KIDS/ TEENAGERS

PARENTS/ ADULTS

ORGANISATIONS



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Video



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More

Information Protection

- When you are on the internet
- Don't give out information about yourself to someone you met online.
 - Don't send a picture of yourself to people you met online.
 - Be alert to what the people you met online said. If it worries you, ask your parents.

Virus & Worms

- When you are on the internet
- Protect your computer current with the automatic updates
 - Use an internet firewall
 - Subscribe to industry standard antivirus software and keep it current

Char Safe

- Email, Spam & Scams
- Kids Online Safety
- Malware
- Mobile Device Safety
- Online Banking & Fishing Scams
- Online Auction
- Online Shopping
- P2P File Sharing
- Privacy & Identity Theft
- Safe Computing Tips
- Spyware Watch
- Wireless Access

SECURITY BEST PRACTICES

- Establish backup schedule on daily, weekly and monthly basis to backup all documents. Whenever there is a modification to original content, backups should be created instantly.
- Maintain backups for a period of time to allow for recovery process or fixing issue that is not revealed instantaneously.
- Use automation backups, as creating copies manually can be time consuming and tedious.
- Run a set of tests on the backup process by periodically restoring the contents and verifying its accuracy.

INFORMATION SECURITY MANAGEMENT



SECURITY POLICY

When employees have access to the internet at work, there are serious risks involved. They can download viruses, create legal liabilities, gain unauthorised access to critical information and potentially, leak it. Good technical security and staff training can help. Good staff security policies are also important because they make it very clear what is acceptable and what is not.

- How to prepare and implement a policy
- Sample Security Policies



EXHIBITION & ROAD SHOW



INFORMATION SECURITY NEWSLETTER (QUARTERLY PUBLICATION)



Cyber world offers great opportunity but the emergence of cyber threats brought together a number of repercussions that should not be taken for granted. Hence it is important to address these threats in a comprehensive manner. These include:

- ☐ **To have an integrated policy framework**
- ☐ **To enhance the use of technology to fight the threats**
- ☐ **To inculcate a culture of security through continuous training and awareness programmes**
- ☐ **Strategic collaboration between the public-private community are essential in order to enhance the security of the Malaysia's cyber space**



CyberSecurity Malaysia

English Bahasa Melayu

CONTACT US SITEMAP



Home About Us Services Events Knowledge Bank Community

Home > About Us > **Contact Information**

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(Note: Not operational every Saturday and Sunday)

Phone : +603 - 8992 6888

Fax : +603 - 8945 3250

Email : [info \[at\] cybersecurity.org.my](mailto:info[at]cybersecurity.org.my)

