

# **Enhancing Cyber Security for Government in Thailand**

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**IT Crime Prevention and Suppression Bureau  
Ministry of Information and Communication Technology**

Cyber Security for Government Asia 2013  
29-30 January 2013, Kuala Lumpur, Malaysia

# Statistics Overview



- Population : 67 Mpeople (2012, NSO)
- Domain under TH : 63,705 Domains (2012, NECTEC)
- Internet Users: 24 Musers (2012, NECTEC)
- International Internet bandwidth 471.639 Gbps (2012, NECTEC)
- Broadband Internet Subscribers : 4,230,498 (2012, NBTC)
- Mobile phone subscribers 81,678,795 Msubs (2012, NTBC)

# Security Framework of Thailand



## 1 Objective

- To enhance the capability in order to combat and response to cyber crime threats
- To raise public awareness

## 2 Scope

- Economic stability
- Quality of life
- National Security

## 3 Challenges

- Cooperation for domestic and cross border level

# Thailand Cyber Security Conceptual Framework



Computer Crime Committee

- Policy Formulation
- Law Enforcement Human Resource Capacity Building (Propose to set up under CC)

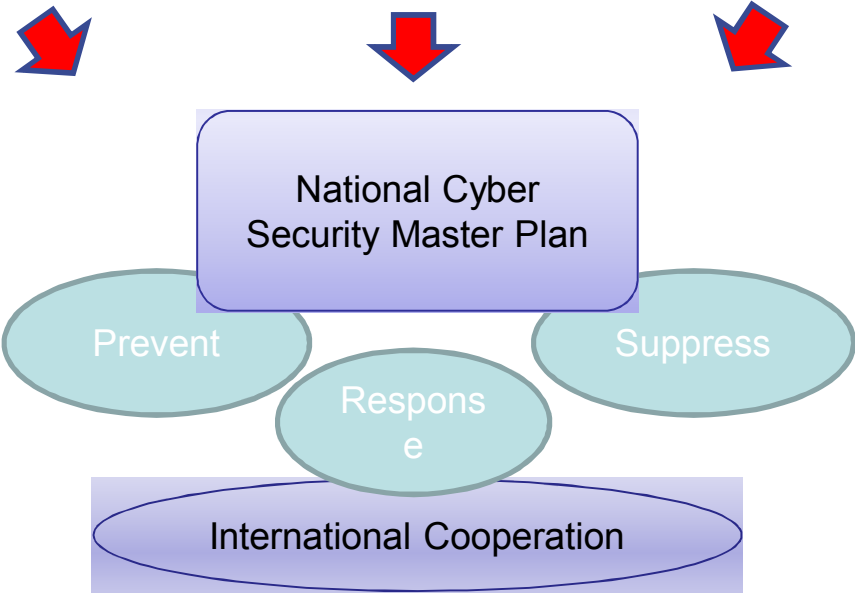
National Information Technology Committee (NITC chaired by Prime Minister)

National Broadcasting and Telecommunication Commission (NBTC already set up under )

Electronic Transactions Committee (ETC already set up under ETA)

National Cyber Security Committee

- Define the minimum cyber security level for organization
- Define the Cyber Security R & D direction
- Define the path for cyber Security human resource development



- Define the Critical Information Technology Infrastructure

Ministry of Defense

ETDA

EGA

The Royal Thai Police & Ministry of Interior





Ministry of Justice

Defense Technology Institute






## Public Sector



- Policy Maker:
  - Ministry of Information and Communication Technology (MICT) 
- Regulator:
  - National Broadcasting and Telecommunication Commission (NBTC) 
- Operators:
  - CAT Telecom Public Company Limited 
  - TOT Public Company Limited 



- Ministry of Defense 
- Royal Thai Police 
- Ministry of Justice 
- Department of Special Investigation (DSI) 

- Royal Thai Police
  - Technology Crime Suppression Division (TCSD)



- Ministry of Justice
  - Department of Special Investigation (DSI)



กรมสอบสวนคดีพิเศษ  
Department of Special Investigation



# Private Sector

- Public & Private Sector Collaboration :
  - Thai Internet Service Provider Association  
<http://www.internet.th.org/ThaiISP.htm>
  - Thailand Information Security Association (TISA)  
<http://www.tisa.or.th/>
  - Thai Webmaster Association  
<http://www.webmaster.or.th/>
  - Thaihotline  
<http://report.thaihotline.org/>
  - IT Watch  
<http://www.thaiitwatch.org/>



# Information Security Organizations

## 1 Ministry of ICT

- Formulate ICT Security Policy
- Cyber Security Operation Center (CSOC)
- Operate and provide Government Information Network (GIN) Services
- Enforce Computer-Related Crime Act 2007, Performs Computer Forensics
- Promote Cyber Security Awareness

## 2 National Security Council

- Coordinate Inter-governmental Intelligent Efforts

## 3 ThaiCERT

- Computer Incident Response Handler
- Provide Security Recommendations



# Laws and Regulations



# Computer Related Crime Act 2007

- Effective 2007
- Defines Computer Offenses and Deterrents
- Describes ISP Responsibilities:
  - Consumer Identification
  - Maintaining Traffic Logs for a Minimum of 90 Days
- Offenses:
  - Cause Computer Malfunction
  - Illegal Access
  - Compromise, Alter, or Damage Computer Data
  - Disseminate False or Pornographic Data

# Network Infrastructure Security



- The National Broadcasting Telecommunications Commission (NBTC) Requires:
  - ISPs to Provide a Network Security and Reliability Plan.

# Privacy Right and Data Protection



- NBTC Issued Regulation Which Requires Service Providers to Put in Place Measures to :
  - Protect Privacy Rights
  - Prevent Data Tap, Interception, or Unauthorized Disclosure.



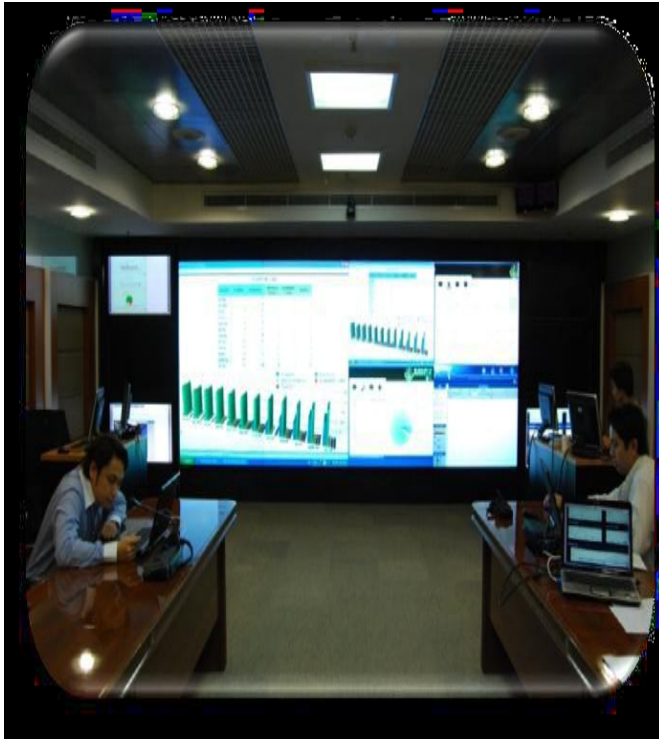
# Security Infrastructure

## Cyber threats and Cyber Crime



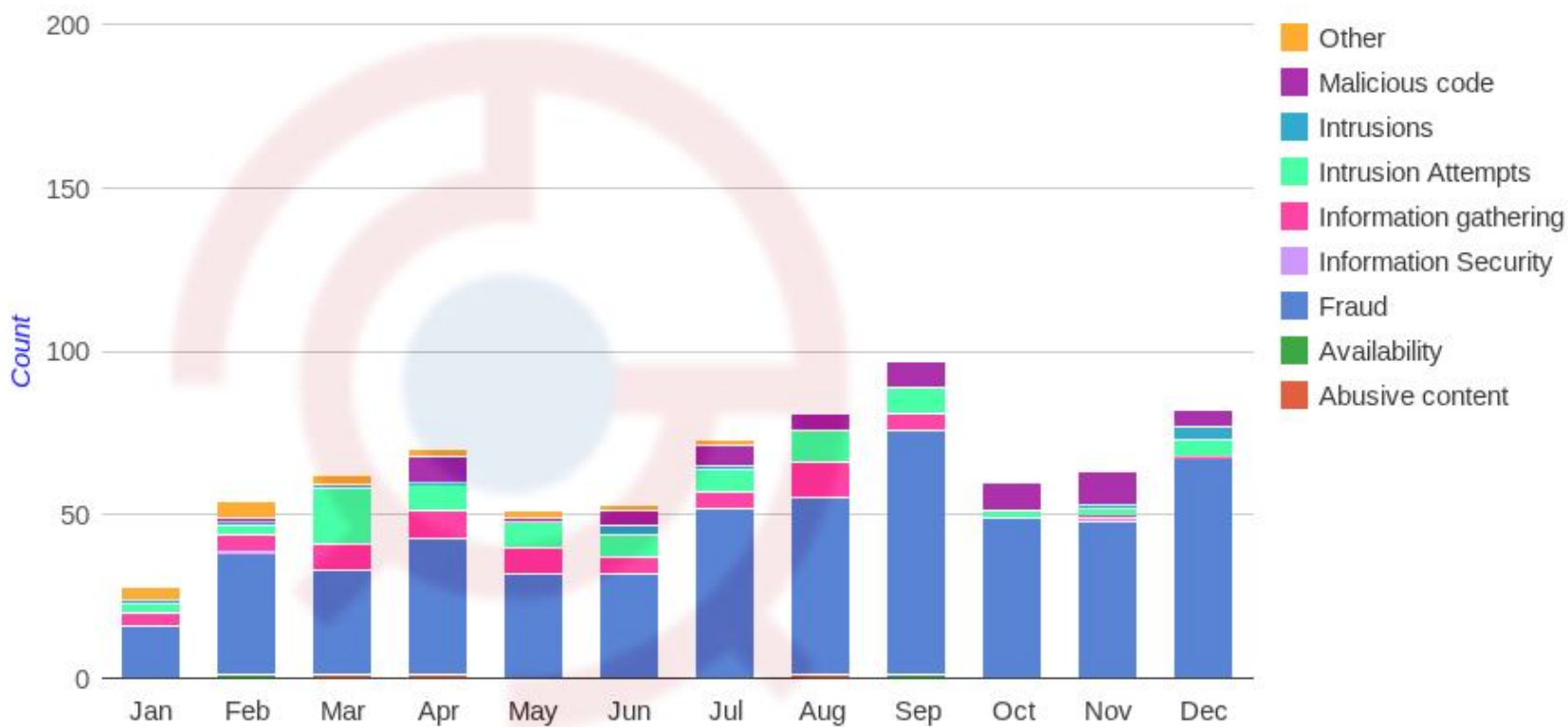
- Cyber Security Operation Center ( CSOC) 24\*7\*365 Days
  - Handle reported website to have inappropriate content and misuse to ensure user's safety
  - Support cyber crime investigation and suppression
- ThaiCERT
  - Cooperate among CERT members
  - To handle report and incidents

# Computer Security Operation Center



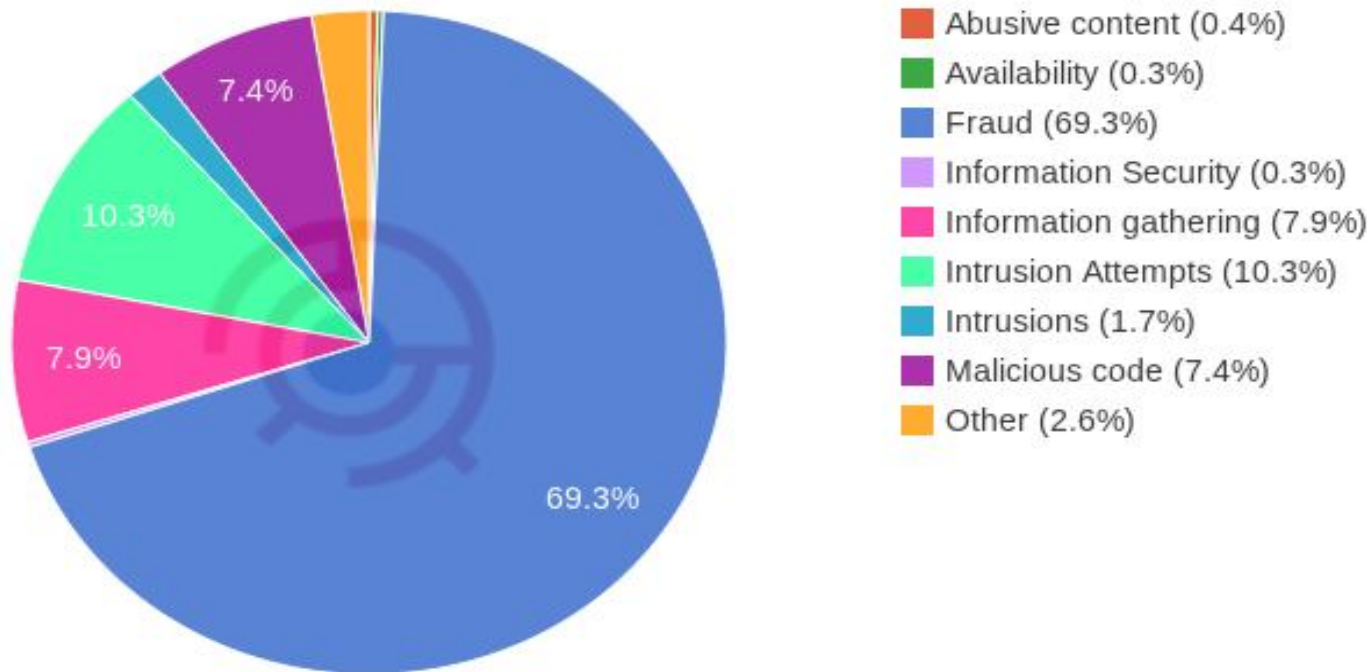
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# Cyber Threats 2012



Source : ThaiCERT <http://www.thaicert.or.th/statistics/statistics.html>

# Type of Threats 2012



Source : ThaiCERT <http://www.thaicert.or.th/statistics/statistics.html>



## Cyber Security Operation Center

- Government Coordination and Command Center
- Point of Contact for Internet-Related Issues and Complaints
- Early Warning Assessment of Potential Cyber Security Issues
- 24/7 Monitoring Team , Hotline #1212
- Monitor Cyber Threats ,Track Illegal Activities
- Coordinate Inter-Governmental Efforts
- Analyze Current Information Security Issues
- Report to Decision-Makers and Executives Management



# Thailand National ICT Security Master Plan

- ❑ Provide security policy guidelines to support the implementation of the Thailand National ICT Master Plan 2009-2013, including:
  - Comprehensive and Integrated National Plan for Securing the Key Resources and Critical Infrastructures
  - Vigilant Surveillance and Immediate Response to Threats or Attacks on Critical Information Systems
- ❑ Five Strategic Areas
  - National Security Operation Center
  - Capacity Development (Including: Chief Security Officer and Security Officer)
  - Security Monitoring and Assessment in the Public Sector
  - ICT Experts and Professionals Development
  - Security R&D



## National ICT Master Plan 2009-2013

- Strategy 1: Develop ICT Professionals and general population to be information literate
- Strategy 2: Strengthen National ICT governance
- Strategy 3: Develop ICT infrastructure
- Strategy 4: Use of ICT to support good governance in public administration and services
- Strategy 5: Upgrade competitive capacity of the ICT industry to add value and increase earnings
- Strategy 6: Use ICT to build sustainable competitiveness for Thai industries



# Information Security Standard for Government



- Comply with Information Security Management System (ISMS)  
Based on ISO/IEC 27000 and ISO/IEC 27001 (Plan-Do-Check-Act)
- Comply with Notification Information Systems Security Standard  
2011 By Office of the Electronic Transactions Commission
- Comply with Notification Types of electronic transactions. And  
guidelines for assessing the impact of Electronic transactions 2011  
By Office of the Electronic Transactions Commission
- Adhere to the National ICT Security Master Plan



# Electronic transaction security and standards



- Certificate Policy
- Certification Practice Statement
- Certification Authority

Source: ETDA

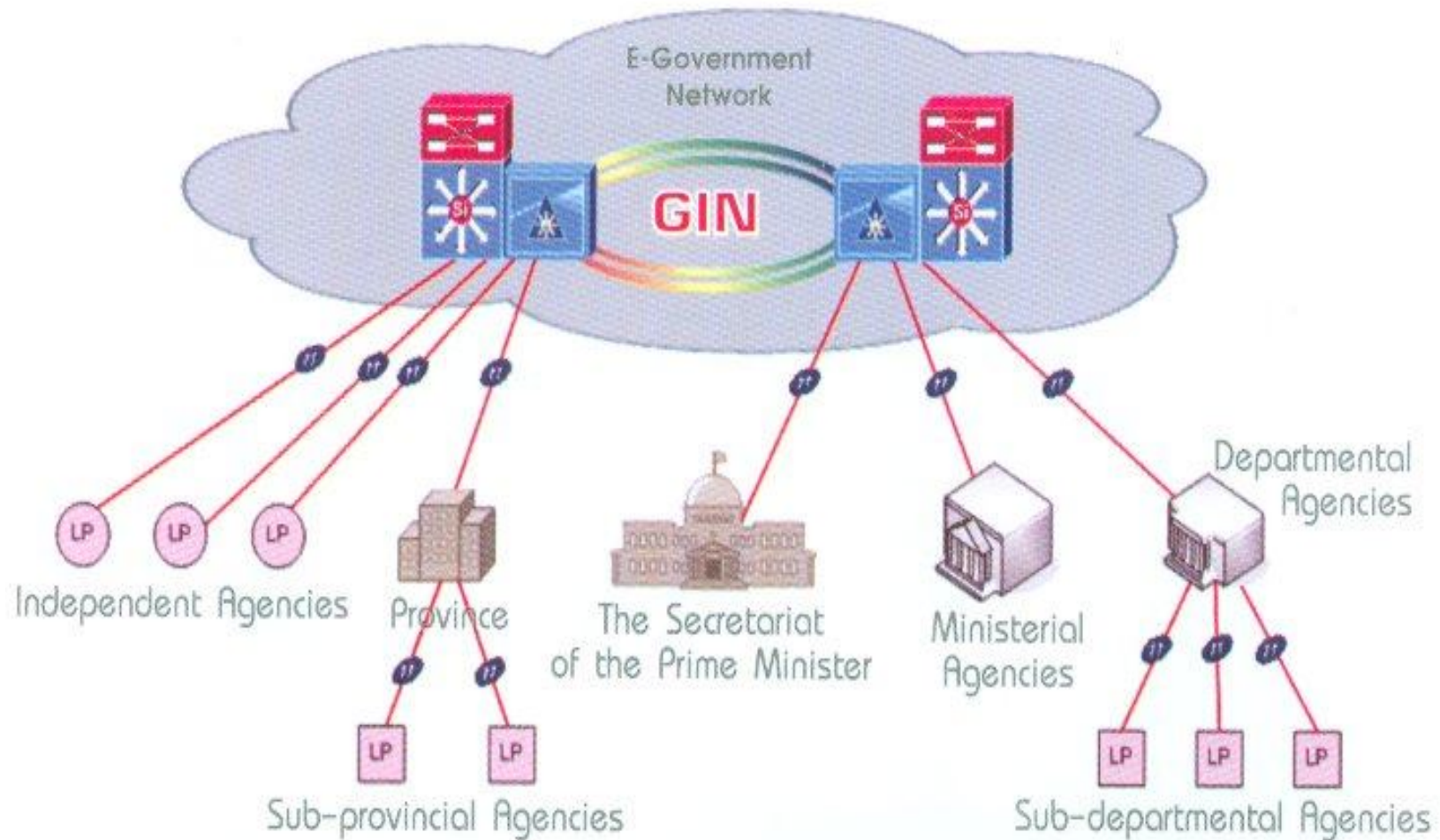


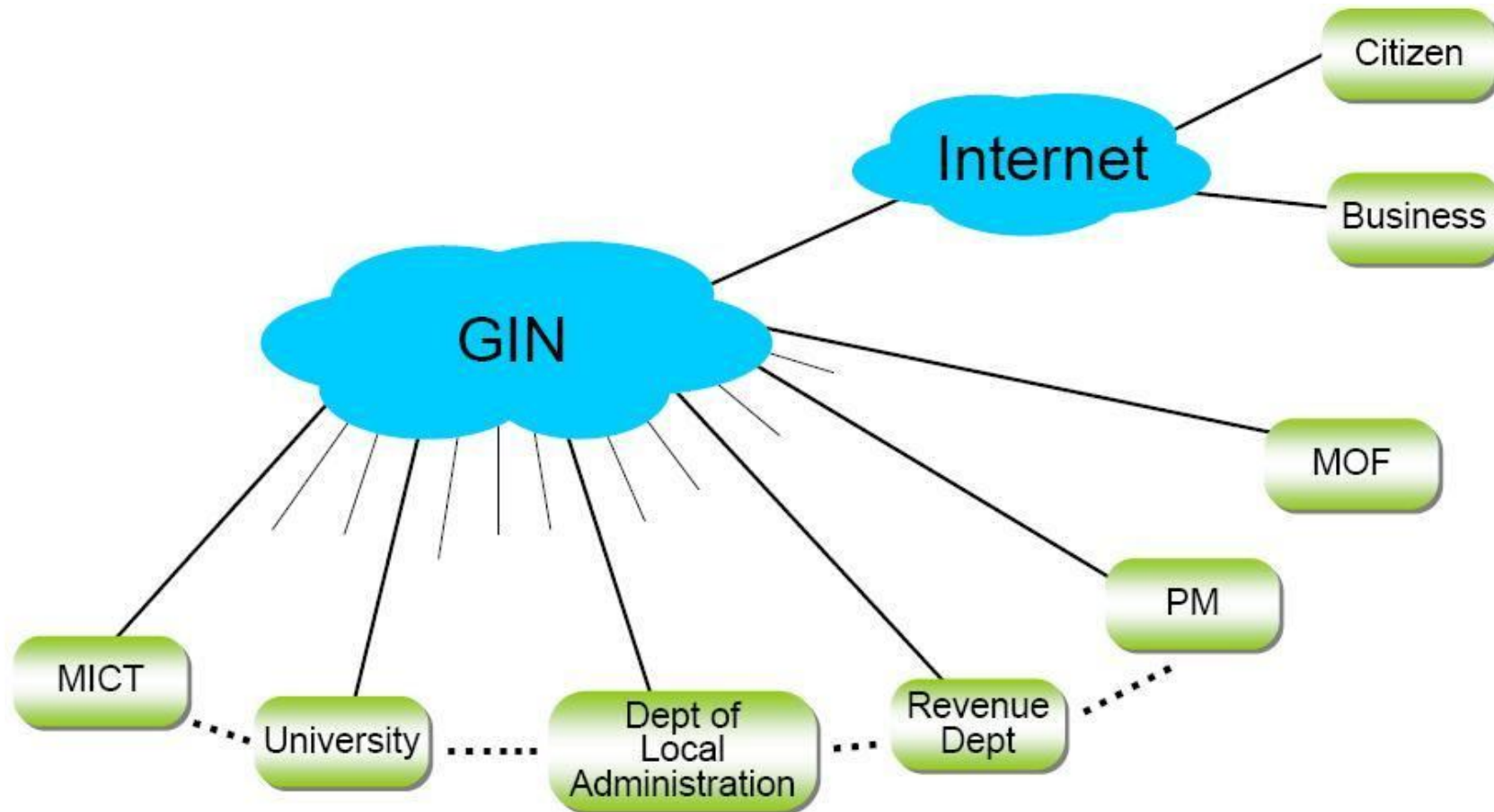
- Document Name and Identification
- PKI Participants
- Publication and Repository Responsibilities ( Security Control, Trade Secret, Access Control)
- Identification and Authentication
- Certificate Life-Cycle Operation Requirements
- Facility, Management, Operational Control
- Technical Security Controls

Source: ETDA



# Government Information Network (GIN)







- ❑ Utilize Secure Government Information Network (GIN) for Inter-agency Communication
  - Connect 6,000 Central and Provincial Government Offices
  - Redundancy Links by TOT and CAT
  - Full Backup Links between Mission-critical Offices
  - VPN for Confidential Data Transmission
  - 24/7 Monitoring by GIN Network Operation Center
- ❑ Use Government-Issued Email Addresses for Official Business

# Government CERT Drill



- ICT Emergency Preparedness in the Public Sector
- Computer Emergency Drill Among Government Agencies
- Emergency Response Training and Drill Exercises Provided by (CAT)



# Secure e-mail

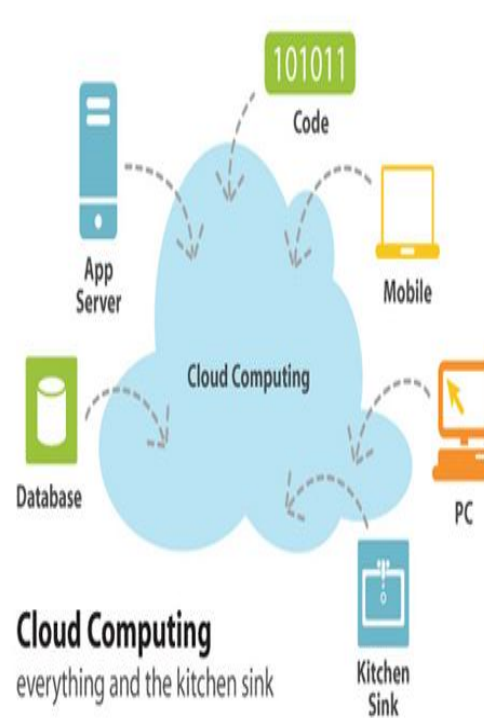
- Enhances Security Practice for e-mail Storage
- Required Use of Government e-mail Services by All Senior Officials
- Internal Civil Service Communications Using Free email Services Prohibited Since 2008





# Government Cloud

Let's Start.....



เปลี่ยน แปลงรูปแบบ  
การให้บริการ IT ภาครัฐ

Source: <http://cloud.ega.or.th/index.php/8-article/12-testa>

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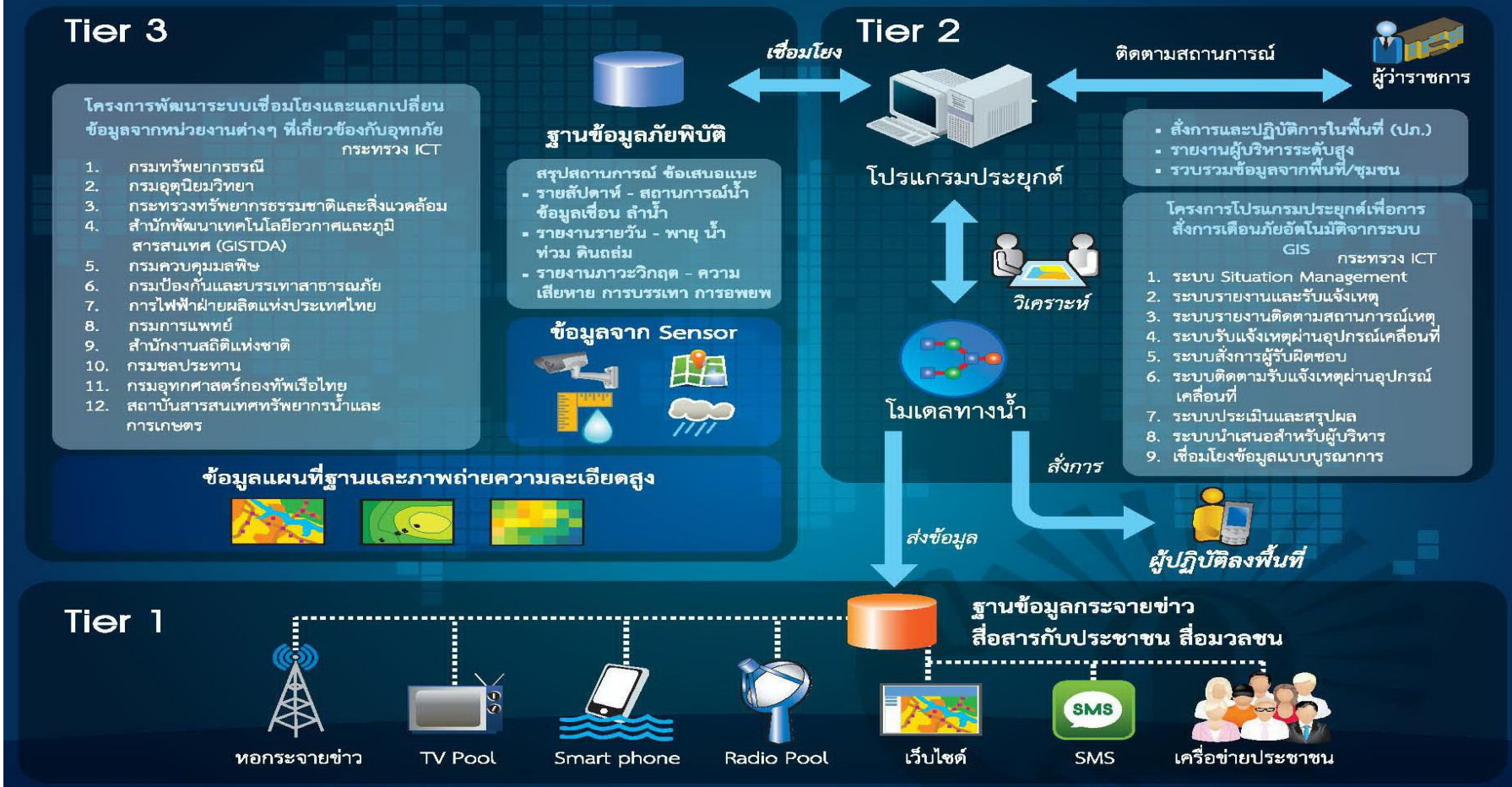




# National Disaster Warning Center



## กระบวนการเตือนภัย ศูนย์เตือนภัยพิบัติแห่งชาติ





# The Way Forward



# Smart Thailand



Anudit Nakornthap  
Minister of ICT  
Thailand

**Ministry of Information and Communication Technology**

# Smart Thailand



Stronger  
Economy

Social  
Equality

Environmental  
Friendly

MICT  
SMART THAILAND 2015

**SMART  
NETWORK**  
to  
connect (all rural)  
communities

**SMART  
GOVERNMENT**  
to  
optimize government  
services / investmen

**SMART  
BUSINESS**  
to  
promote > citizens &  
lct-biz opportunities

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# OTPC



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# โครงการ เติมเต็มพีซีเพื่อการศึกษาไทย (OTPC)

## “เติมปัญญาด้วยเทคโนโลยี”



รัฐบาลได้นำเทคโนโลยีสมัยใหม่ เข้ามาพัฒนาการเรียนการสอน  
ให้เด็กไทยอย่างทั่วถึง และเท่าเทียม



ส่งมอบแท็บเล็ตพีซีให้เด็กนักเรียนชั้นป.1 กว่า 6 แสนคน



พัฒนาสื่อการเรียนการสอนอิเล็กทรอนิกส์ (Soft Ware)



อบรมครูมืออาชีพ 50,000 คน รองรับการใช้สื่อการสอน (People Ware)



พัฒนาระบบเครือข่ายอินเทอร์เน็ตความเร็วสูง (NetWorking)



















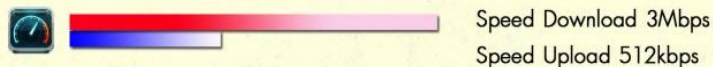


# ICT FREE WiFi

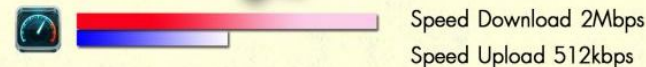


จุด hotspot มากกว่า 20,000 จุดทั่วประเทศ

	โรงเรียน 12,355 จุด	
	พื้นที่สาธารณะ: 10,000 จุด	
	สถานีตำรวจ 8,269 จุด	
	ตำบล 7,355 จุด	
	โรงพยาบาล 1,278 จุด	
	ที่ว่าการอำเภอ 878 จุด	
	ศาลากลางจังหวัด 79 จุด	



เพิ่มจุด hotspot ในบั้นปลาย 1,000 แห่งทั่วประเทศ





# The Way Forward

- Improve the format and methodology of teaching/learning
- Increase the quantity and quality of high-skilled professionals
- Promote the development of
  - ICT teachers
  - ICT personnel for the manufacturing and service sectors
- Promote the use of ICT as tools for teaching/learning
- Develop ICT skills for public sector personnel
- Develop ICT learning for the disadvantaged, people with disabilities, and elderly



# MICT Teacher Camp



# MICT Digital Youth Camp



วันจันทร์ ที่ 22 ตุลาคม 2555  
Auditorium บ้านวิทยาศาสตร์สิรินธร จังหวัด





# MICT Digital Youth Camp



# Cyber Scout



- Cyber Scout Leader Training Courses
- Create Knowledge and abilities of Cyber Scouts on the internet:
- Role of the Cyber Scout Leader
- Statistics and safety of the internet, Kinds of Threats on the internet and how to protect from threats
- Search for Internet registration, Principles and search Techniques.
- Kind of Social Networking, The confidentiality and security of social networking







# ICT HouseKeeper

- Collaborate with KMITL to develop own source code:  
ICT HouseKeeper
- **Functions:**
  - Password-protected setup module
  - Website access control
  - Program/game control
  - Computer time control
- **Services:**
  - Website for update and announcement
  - Webboard and telephone support

# ICT HouseKeeper



- Activities to promote knowledge and understanding of Information Security
  - Awareness raising seminar to the government, public sector, students and children
  - Slogan Contest
  - Poster Design Contest

# How Does It Work?

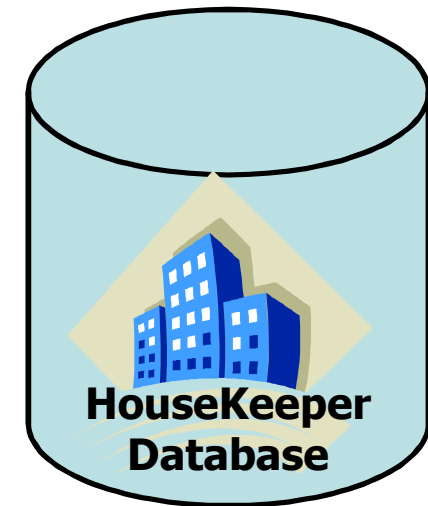
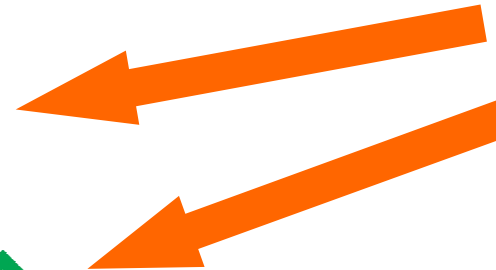
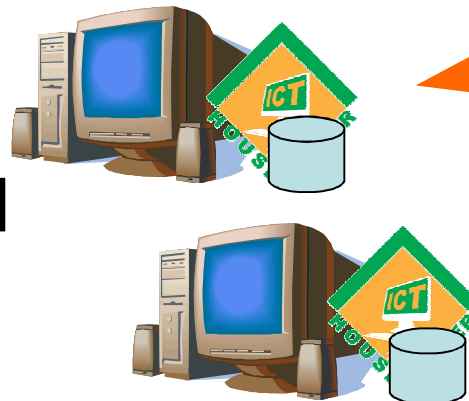


Report  
Inappropriate  
Materials



## Update

- Auto Download
- Manual Entries



Verify  
&  
Update DB



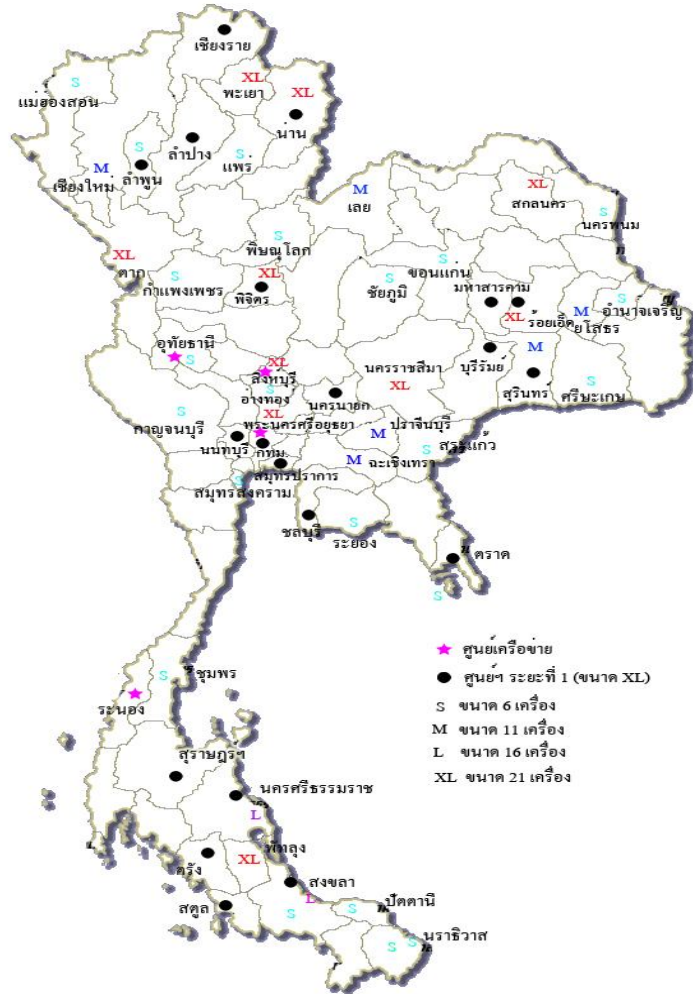
# ICT Tele -Centre



- Reaching Out Rural and underserved Area
- Provide ICT Access to Rural & Underserved Area
- Create ICT Community Trainers & Networks
- Preserve Local Community Wisdom
- Promote e-Earning



# Thai Tele-Centre



Regions	Sites (2007-12)
North	488
South	304
East	75
Central	377
North-East	643
<b>Total</b>	<b>1,887</b>

Source: <http://thaitelecentre.org>

# Equipment and Service



Microcomputers 10-20 unit  
Servers 1 unit  
Multifunction printers 1 unit  
Networks 1 system  
Desks and chairs 11-21 sets  
Projectors 1 unit  
High-Speed Internet 12 months  
Webcams, Digital cameras, Scanners,,



# Courses offer Online

- 1. Basic IT & Open-Office
- 2. IT & Network Management, Basic Fixing & Maintenance
- 3. How to Create your own Website: Joomla
- 4. How to Do Community Accounting
- 5. How to Take and Edit Images (GIMP Program)
- 6. How to be a Professional Trainer
- 7. InkScape Program for Community Product Designs
- 8. Multi-media Design
- 9. Community e-Commerce
- 10. Community e-Book Production (Local Content Mgt)
- 11. Log-file and MIS under Thai Computer Law
- 12. Communicative English



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# Community Learning for Everyone







# Thai Tele-Centre Mall

<http://premium.thaitelecentremall.com>



THAITELECENTRESHOP THAILAND COMMUNITY PRODUCTS

Thaitelecentre Premium Shop Thai

ค้นหาขั้นสูง

Home หน้าหลัก Store หน้าร้าน History ประวัติ Product สินค้าแนะนำ Contact ติดต่อเรา Shop ร้านค้าชุมชนออนไลน์

รายการสินค้าตามหมวดหมู่

- ประเภทของใช้และของประดับตกแต่ง (0)
- ประเภทผ้าและเครื่องแต่งกาย (0)
- ประเภทศิลปประติมากรรมและของที่ระลึก (0)
- ประเภทสมุนไพรที่ไมใช่อาหารและยา (0)
- ประเภทอาหาร (0)
- ประเภทเครื่องเค็ม (0)
- เครื่องจักรสาน (2)

สินค้าล่าสุด

Takit04 Takit04 99.00บาท	Takit03 Takit03 99.00บาท	Takit Takit02 99.00บาท	Takit Takit01 0.00บาท
หวงเตารีด	หวงฟักทอง	หวงกระฉับ	หวงเรือปากแคว

ศูนย์การเรียนรู้ ICT ชุมชน  
www.thaitelecentre.org

ตลาดชุมชน  
Open Market

ตลาดคิดsss  
Developed Market

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# Cybersecurity Cooperation



- Insufficient Law Enforcement Experts
- Necessary Technical Skills
- Inter-governmental Coordination Issues
- Sharing of technical information and best practices



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# Q & A