

Taiwan Needs a Competitive & Capable Information Security Industry to Protect Our Information Society

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Agenda

■ Achievements of Taiwan's Information Society

- Information Security as the 1st Priority to Protect Taiwan's Information Society
 - Taiwan's Information Security Industry: Now & Future
 - Knowledge-based Economy Relies on Accelerating the Development of our Information Security
 - Conclusions & Recommendations
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The 2008-2009 Worldwide Networked Readiness Index Ranked Taiwan 13th

Country	2008-2009 Rank	2007-2008 Rank	Change
丹麥	1	1	0
瑞典	2	2	0
美國	3	4	+1
新加坡	4	5	+1
瑞士	5	3	-2
芬蘭	6	6	0
冰島	7	8	+1
挪威	8	10	+2
荷蘭	9	7	-2
加拿大	10	13	+3
韓國	11	9	-2
香港	12	11	-1
台灣	13	17	+4
澳洲	14	14	0
英國	15	12	-3

The World Economic Forum's (WEF) Latest "Global Information Technology Report 2008-2009" says ...

- Taiwan Ranked 13th World-wide (4th in Asia)
- Taiwan's ranking improved 4 places
- Taiwan's rate of improvement is greatest in the top 15 ranked countries

Taiwan's Information Society Scenario

















- Government implementation of the 12 point “Loving Taiwan” initiative , including the “Intelligent Taiwan Project” aiming integrate and innovate government services by developing wireless broadband and digital convergence networks using ICT
- Future Plans
 - Construction of Intelligent Infrastructure
 - Development of innovative technology services
 - Achievement of high speed, 30Mb/s or faster, convergence networks with 80% coverage by 2012
 - Ensure Taiwan's Information Society remains accessible, safe, and vibrant

Source : Council for Economic Planning and Development

ICT without the “C”...

- Governmental Efforts use ICT to make Taiwan Asia’s Trading, Financial, Logistics, and Design Center
 - Governmental Resources ignited Taiwan’s IT economic miracle
 - 12 Industries enjoy 1st place in Worldwide Market Share; 4 Industries are 2nd
 - Remove the “C” from ICT and you also remove *Communication and Connection!*
 - It’s Safe, but...Restrictive
 - When ERP, SCM, and CRM can’t connect, what then?
 - Keep the “C” and the need for “*Information Security*” is critical
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Taiwan's Impressive Achievements in 12+4

		全球市場占有率	RANK
1	Netbook	99.0%	
2	Motherboard	92.2%	
3	WLAN NIC	90.6%	
4	Server (System & Pure MB)	86.9%	
5	Notebook PC	92.4%	
6	DSL CPE	70.0%	
7	Cable CPE	95.0%	
8	LCD Monitor	69.6%	
9	PDA	69.8%	
10	IP Phone	48.0%	
11	CDT Monitor	52.9%	
12	Large Size LCD Panel	48.1%	
13	DSC	40.0%	
14	Server (System)	35.4%	
15	ODD	25.2%	
16	Desktop PC	33.3%	

Source : III MIC , 3/2009

Taiwan Places High in Global Rankings



In 2009 Taiwan's Internet Economy Passed 300 Billion NTD

- III MIC Analysts Predict
 - In 2009 Taiwan's Internet Economy will reach 311.6 Billion NTD (30.4% year-over-year growth rate)
 - The C2C Market will grow to 142.7 Billion NTD (35.2% year-over-year growth rate); B2C Market will grow to 168.8 Billion NTD (26.5% year-over-year growth rate)
 - III MIC's Analysis of FY2004 shows that Credit Card transactions in Taiwan's Internet Economy are most popular
 - 47.3% of consumers used credit cards
 - 27.5% of consumers used ATMs
 - 25.9% of consumers used Cash-on-Delivery
 - 24% of consumers used payment via convenience stores
 - 51.4% of men used credit cards versus 42.7% of women
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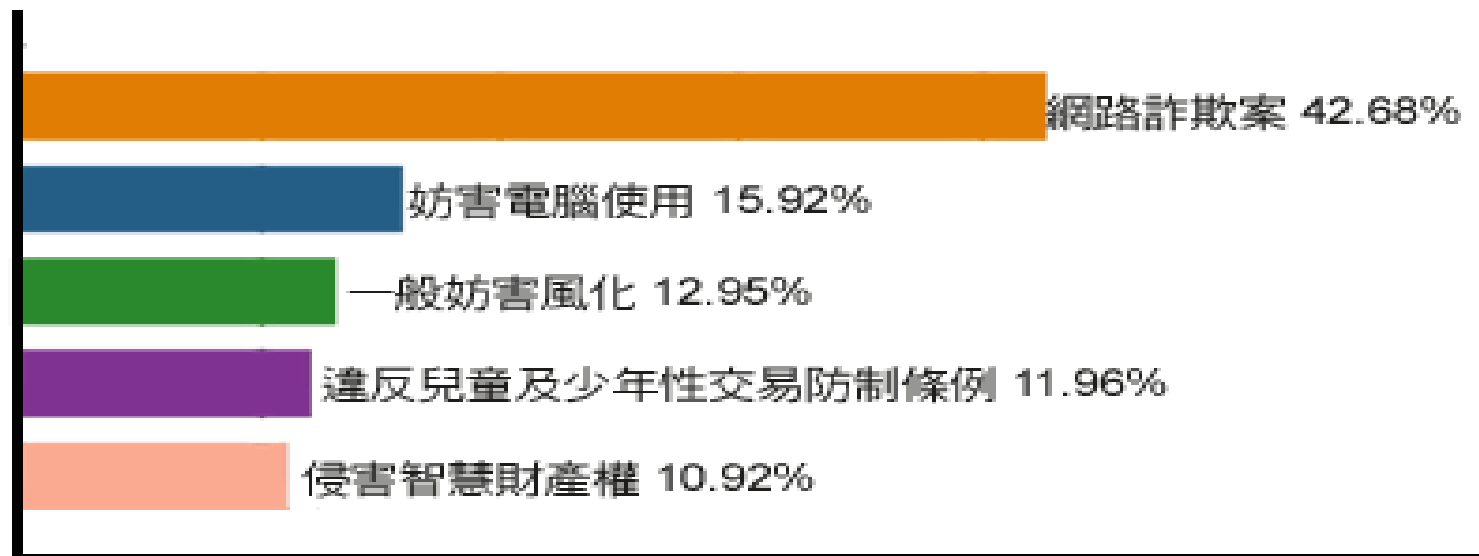
As Computer Popularity Grows so does our need for Information Security

- Over 60% of computers are already infected by Malware and Viruses capable of stealing confidential personal and business information
- Given Taiwan's 115.8 Billion computers, over 7 Million are potentially infected
- 6 of every 10 computers are infected but their users don't know

Source : 98/1/22 NPA

Taiwan's Information Society Challenged by Computer Crime

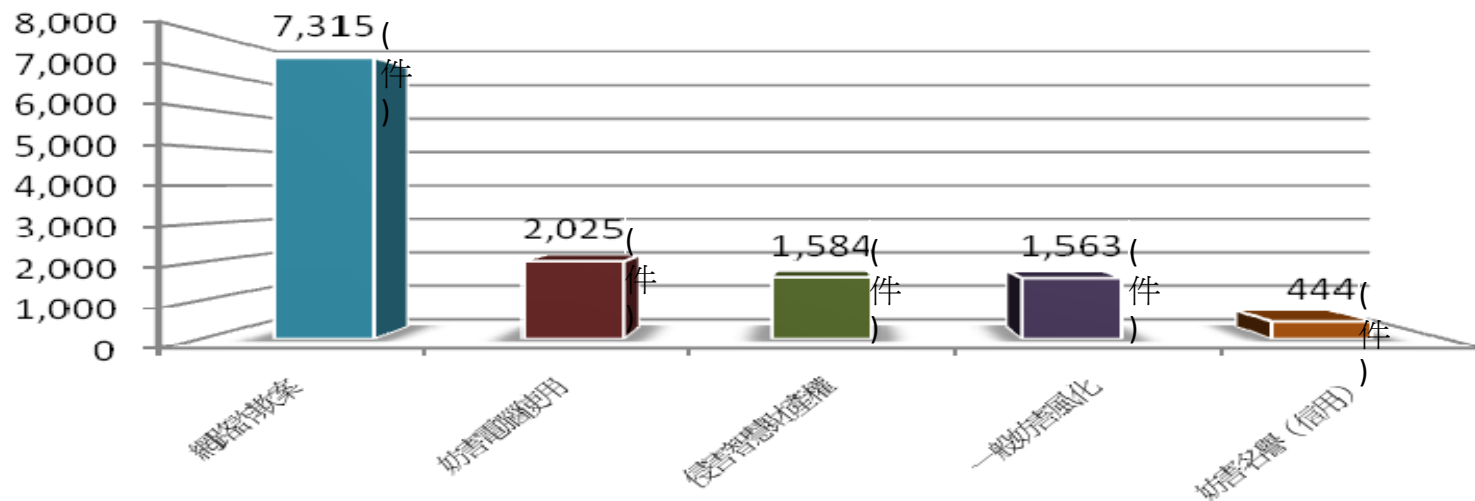
- In the first half of 2008, computer-based crime comprised 42.68% of fraud



NII 產業發展協進會 繪製 / 資料來源：內政部警政署警政統計通報

Internet Crime on the Rise!

- In the first half of 2009, 13,856 Internet crime were reported , this is a increase of 1,967 crimes and a 16.54% year-over-year growth rate
- Four most reported Internet crimes:
 - 1) Fraud (52.79%)
 - 2) Denial of Service Attack (14.61%)
 - 3) Intellectual Property Rights Violation (11.43%)
 - 4) Internet Sex Crime (11.28%)



Barriers to Improving Taiwan's Information Society

Current Information Privacy Laws are Insufficient

- ***Business Privacy Law (Enacted 1996)***

Companies neglecting to comply with this law are the greatest cause of business privacy leaks. These are most often internal leaks due to their own employees.
- ***Electronic Signature Law (Enacted 2001)***

Slack promotion of Business Certificate Authentication and Personal Certificate Authentication results in weaker Internet transaction security.
- ***Literary Property Rights Law - ISP Exemption Clause (Enacted 1999)***

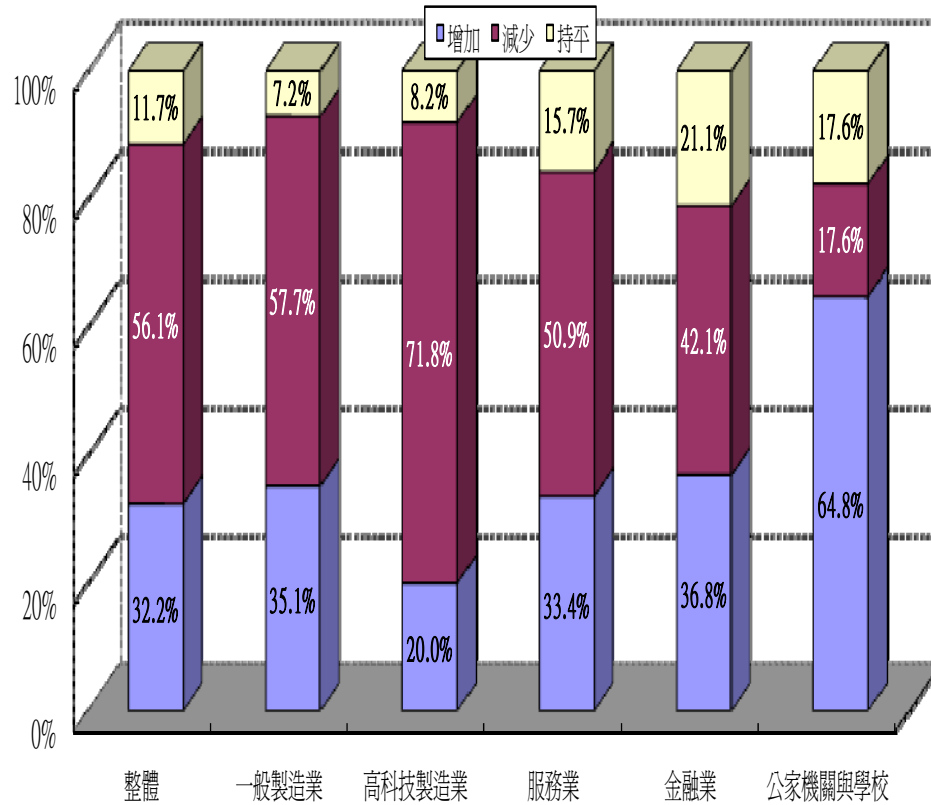
ISPs are granted certain legal protections from the actions of their network customers. ISPs are required to remove illegal content upon request of the legal copyright holder.
- ***Personal Privacy Law (Pending)***

The Personal Privacy Law, currently in draft, will protect personal privacy.
- ***Email SPAM Management Rule (Pending)***

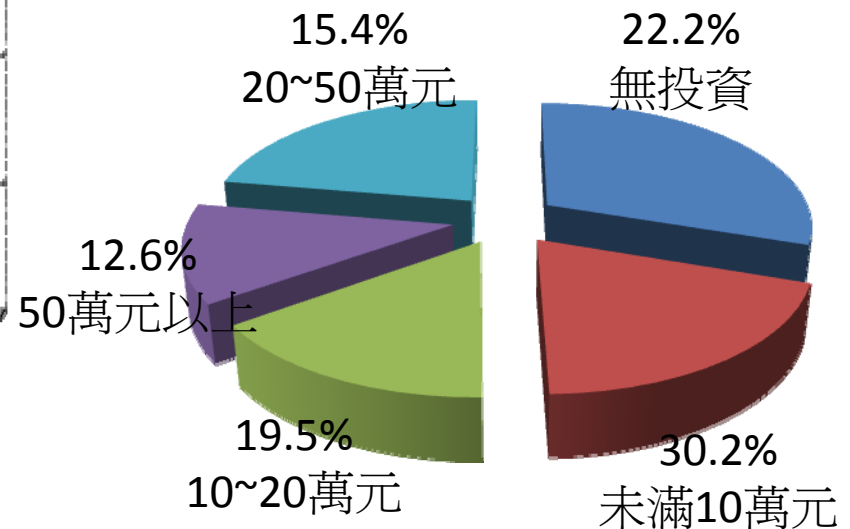
The Email SPAM Management Rule, currently in draft, will reduce SPAM.

Industry Must Increase Information Security Spending

Businesses have cut IT spending, Especially Information Security



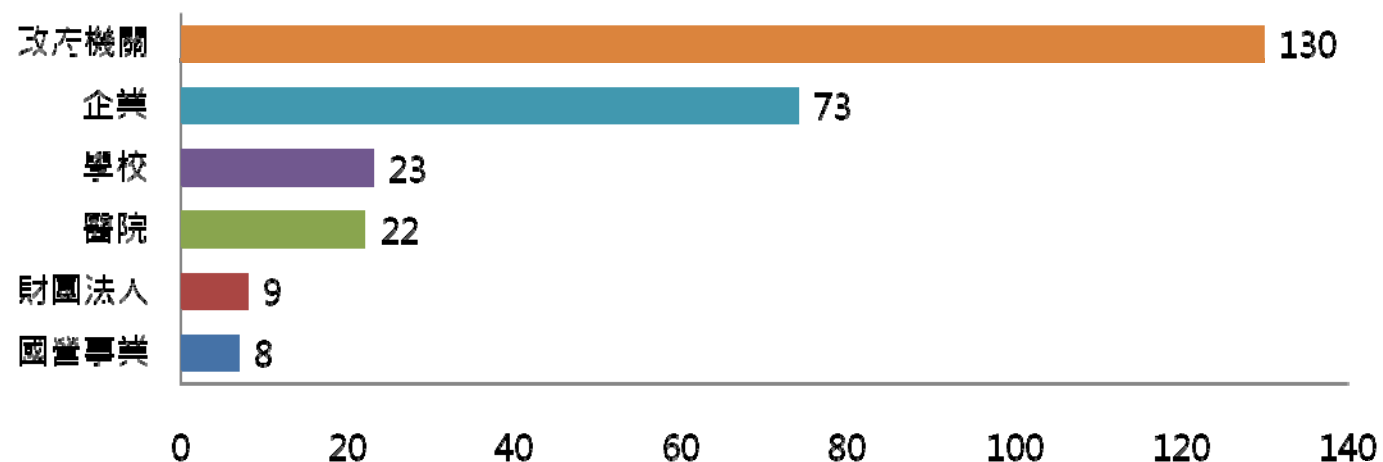
- Taiwan's 900,000 SMEs, employ about 8 million people, but Information Security spending is less than 200,000 NTD
- 22.2% of SMEs have no Information Security spending at all



Government Agencies are Outperforming the Private Sector

- Currently 265 ISO27001 certificates have been issued in these 6 sectors:

Business 73 、 Government 130 、 State-run 8 、
Schools 23 、 Hospitals 22 、 Legal Foundations 9



Source : <http://www.iso27001certificates.com/Taxonomy/CertificateSearch.htm> , CISA, 8/2009

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Taiwan Information Security Industry Overview

- 41 vendors including software and services (excluding accounting agencies)
 - 29 professional information security companies
 - 12 System Integration Companies

Employees	Amt.	%
20 or less	7	17%
21~50	13	32%
51~100	6	15%
101~150	2	5%
151~200	1	2%
200 or more	12	29%
Total	41	100%

Capital (in thousand NTD)	Amt.	%
5,000 or less	3	7%
5,001~15,000	7	17%
15,001~30,000	5	12%
30,001~50,000	3	7%
50,001 or more	23	56%
Total	41	100%

Source : CISA , 8/2009

Taiwan Information Security Industry — Output Value

- Total Value, including TrendMicro, is 36.9 billion NTD (5.6 billion NTD comes from local markets and 31.3 billion NTD comes from exports)
 - 5.6 billion NTD, excluding TrendMicro (4.6 billion NTD comes from local markets and 1 billion NTD comes from exports)
- Market Size, including products and services, is about 14 billion NTD (Domestic companies represent 40%)

Source: III MIC , 6/2009

Taiwan Information Security Industry

Opportunities

- **eCommerce market is mature and Information Security needs are great**
- **Government enactment of related laws will generate new business opportunities**
- **Resale and healthcare industries are both sensitive to and currently under invested in information security**

Threats

- **Only the Financial, Securities, and Telecom Industries have sufficiently invested in their information security; other industries have not**
- **Government has focused in information security, but purchasing regulations do not favor local vendors**
- **Qualified information security human resources are insufficient**

Taiwan Information Security Industry

Advantages

- Most users have insufficient information security resources and technologies, and external support is needed
- Vendors have plenty of qualified engineers with professional certificates
- Many security-based attacks have hardened Taiwan's information security capabilities

Disadvantages

- Most vendors are small and only able to provide superficial service
- Vendors provide project-based services rather than a product solution
- SMEs cannot avoid SOC investments
- Domestic companies are restricted in exporting their solutions

Taiwan Information Security Industry— Policy

- Industry Policies are too focused on R&D and lack comprehensive measures
- R&D quality cannot be enhanced due to the restricted market size
- Vendors have contributed greatly to Taiwan's e-Government achievements yet our citizens are unaware

Taiwan Information Security Industry— Market

- Private sector investment has lagged behind public
- Domestic vendors cannot compete with their international counterparts who have more products
- “You never get into trouble buying well-known information security solutions”
- Joining to GPA of the WTO has generated greater worldwide competition for our domestic vendors
- Taiwan’s smaller-sized vendors are not able to compete with large and well-established brands

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What is the “Knowledge based Economy”?

The “knowledge based economy” is an expression coined to describe trends in advanced economies towards greater dependence on knowledge, information and high skill levels, and the increasing need for ready access to all of these by the business and public sectors.

Source: OECD (Organization for Economic Co-operation and Development) , <http://www.oecd.org>

Information security industry must be developed to further protect the Information Society

--Improving reliability of network infrastructure --

Technology

- Creating a specific government agency for information security that will cooperate with vendors for developing a national security protection network

Management

- Establishment of an approval system for certifying ICT safety and reliability with built-in auditing mechanisms
- Recommend that our government's information security requirements are satisfied by the domestic vendor alliance
- Establish a system where only properly certified vendors may sell information security solutions to the public sector

Legislation

- Government and domestic vendor cooperation is needed to develop criteria for information security products
- Yearly government spending for information security should equal that of our financial industry

Information security industry must be developed to further protect the Information Society

--Establishing a favorable environment for the industry--

Technology

- At least four government agencies should be identified to take part in an initial ICT enhancement project
- Integrate software and hardware technologies to better compete in foreign markets

Management

- Establish a National Information Security Research Institute
- Increase information security human resources and establish a certification system
- 60% of government information security spending should use domestic solutions

Legislation

- Establish inspection and verification criteria for information security products and ensure that only these validated solutions are purchased . A third-party should execute certificate issuing

Information security industry must be developed to further protect the Information Society

--Maintaining Personal Privacy--

Technology

- The challenges of SMEs must be faced when implementing information security measures
- Government agencies that own large amounts of personal and private data must harden the management and protection of it

Management

- Legislation and laws are needed to reduce the responsibility of companies when data is stolen, this will encourage the private sector to invest in information security
- A National Information Security Forum is needed to emphasize its importance

Legislation

- Internal auditing mechanisms must be enhanced
- Passage of the Personal Privacy and SPAM Mail legislation is critical

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Recommendations

- Recommend passage of the two pending legislations, which are “Personal Privacy Law” and “Email SPAM Management Rule”. Encourage better enforcement of the three existing laws.
- Recommend a four year, 2 billion NTD Information Security Industry Plan to enhance domestic R&D, international marketing, and the capability of our information security human resources.
- Recommend government agency's information security budgets be separate from their IT budgets. Information security budgets should be increased by 10% per year.
- Recommend that domestic information security solutions be exclusively considered for purchase by certain government agencies based on national security concerns. These agencies need a classification procedure for identifying these information security procurements.

Conclusions

- **Information security and national security, enterprise competitiveness, and citizens rights are inseparable.**
- **Enhancement of our information security must be shared between government, enterprise and the ICT industry.**
- **CISA wishes to support our government's as it enhances and expands the quality and capability of our information security to guard Taiwan's Information Society.**