



Internet

Cross-Border Collaboration

In Security & Privacy

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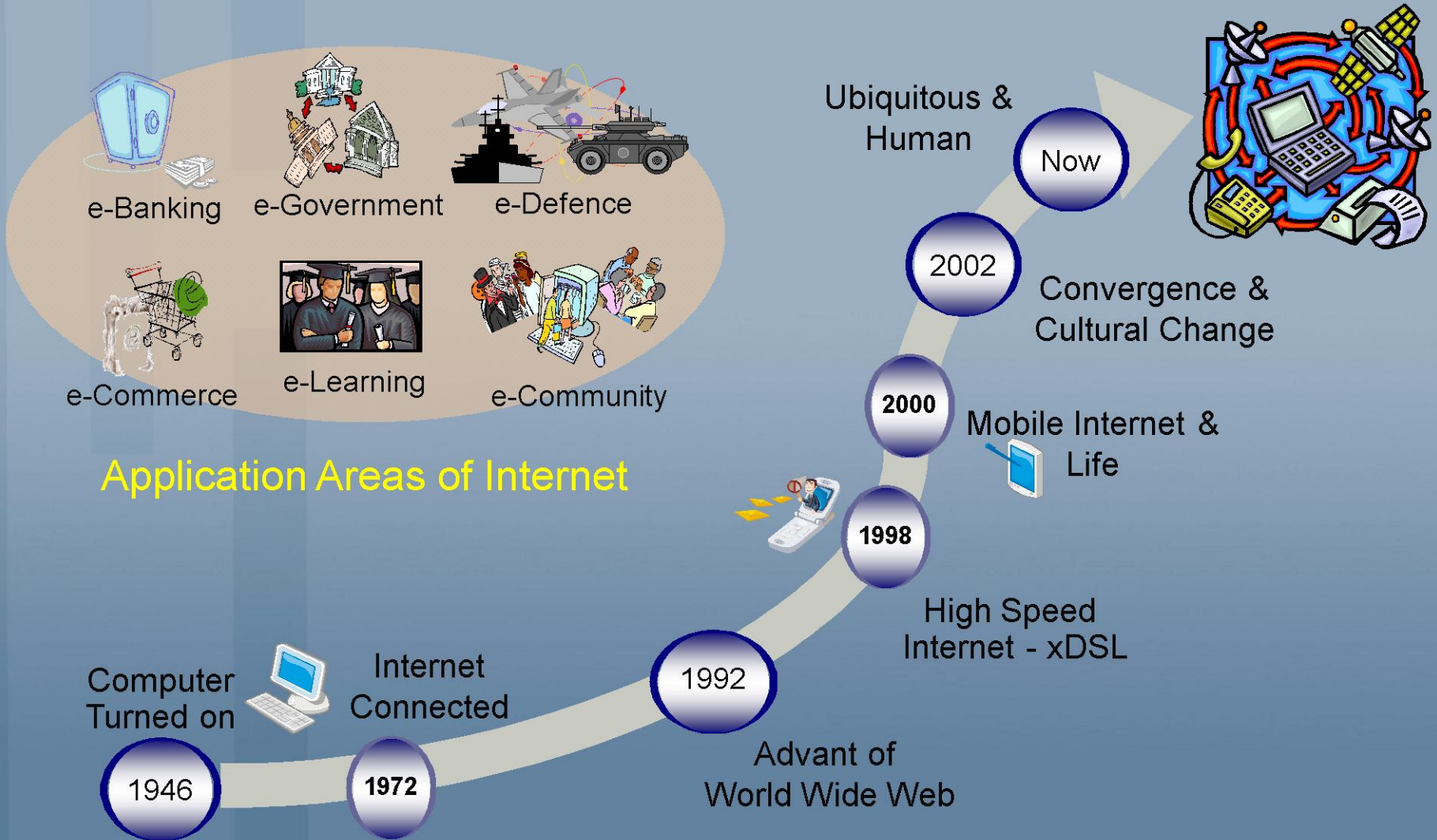
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Evolution of Internet & Society





Internet & Jack's Daily Life



Communication

- receiving e-mails from the clients
- chatting with friends
- video conferencing with managers in the branch offices abroad

Reservation, Banking

- paying his public utility bills
- transferring money to mother
- reserving an airline ticket for a business trip

Business

- updating the company's web page for promotional purpose
- checking the customer's claims
- ordering office supplies

A Day of Jack

Information

- searching the lowest air fare for his business trip

Entertainment

- downloading music videos
- watching movies while moving
- organizing the next week's trip on his blog



How Many Internet User's & Where?

WORLD INTERNET USAGE AND POPULATION STATISTICS

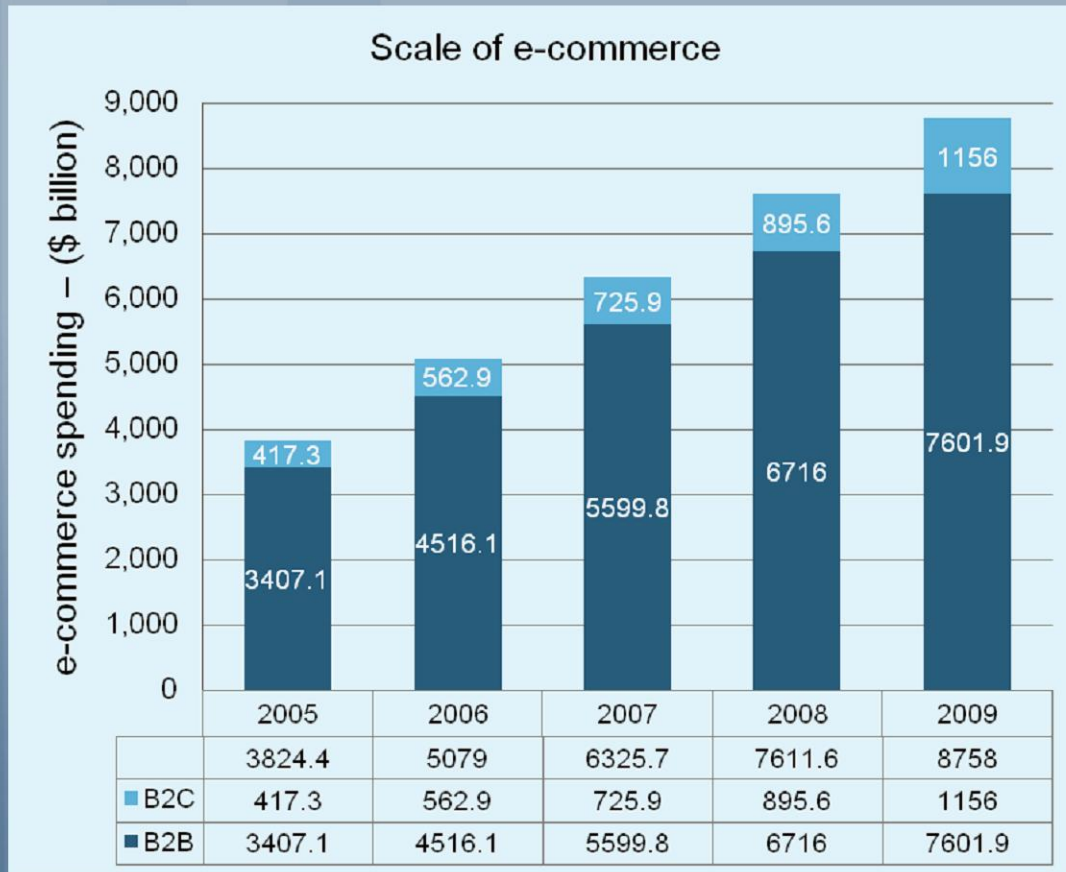
World Regions	Population (2008 Est.)	Internet Users Dec/31, 2000	Internet Users, June/30, 2008	% Population (Penetration)	Usage % of World	Usage Growth 2000-2008
<u>Africa</u>	955,206,348	4,514,400	51,065,630	5.3 %	3.5 %	1,031.2 %
<u>Asia</u>	3,776,181,949	114,304,000	578,538,257	15.3 %	39.5 %	406.1 %
<u>Europe</u>	800,401,065	105,096,093	384,633,765	48.1 %	26.3 %	266.0 %
<u>Middle East</u>	197,090,443	3,284,800	41,939,200	21.3 %	2.9 %	1,176.8 %
<u>North America</u>	337,167,248	108,096,800	248,241,969	73.6 %	17.0 %	129.6 %
<u>Latin America/Caribbean</u>	576,091,673	18,068,919	139,009,209	24.1 %	9.5 %	669.3 %
<u>Oceania / Australia</u>	33,981,562	7,620,480	20,204,331	59.5 %	1.4 %	165.1 %
WORLD TOTAL	6,676,120,288	360,985,492	1,463,632,361	21.9 %	100.0 %	305.5 %

Source: <http://www.internetworldstats.com/stats.htm>

1,463,632,361 'Jack's are in the world !



Constant Growth of e-Commerce



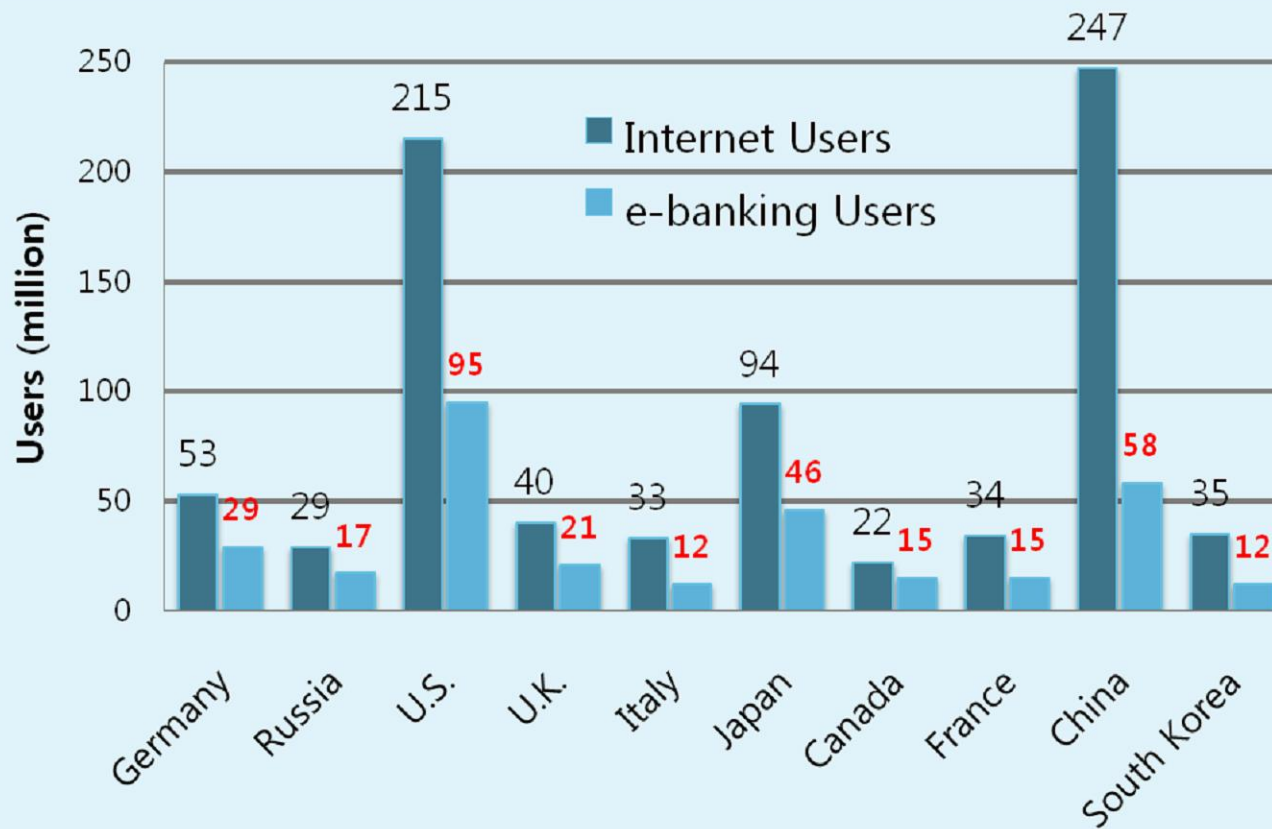
Worldwide e-commerce spending : Projected to grow at CAGR of 23%, exceeding \$8.75 trillion in 2009

Growth of B2B spending : Comparably strong at CAGR of 22%, amounting to \$7.6 trillion by 2009

Source: IDC, Worldwide Internet Usage and Commerce 2005-2009 Forecast update



e-banking Users & Services



- 320 million e-banking service users in G8 countries, China, and South Korea.

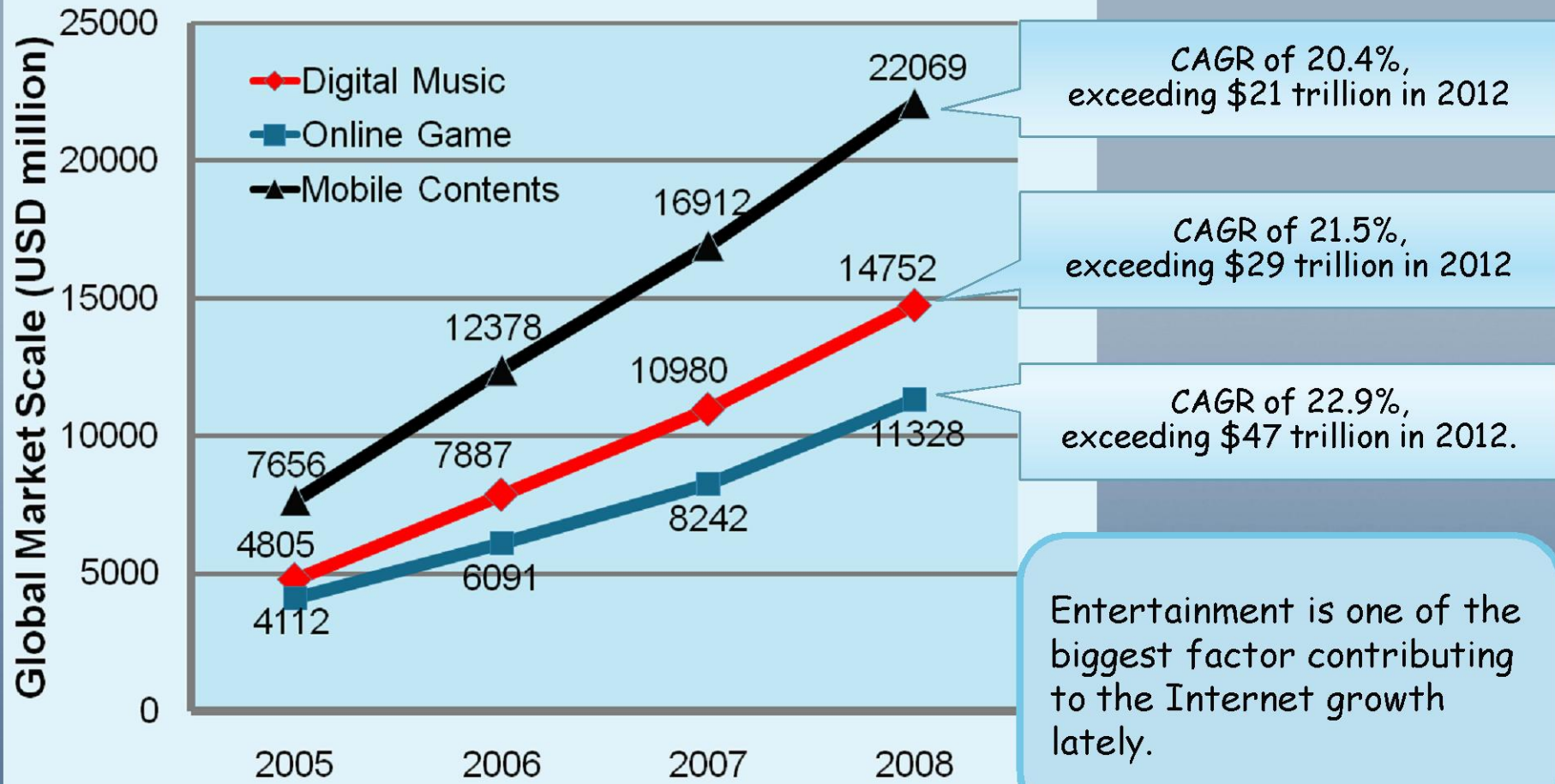
- 67% of Internet users for e-banking service in Canada, most use in the world

- About 1 quarter of Internet users for e-banking service in most countries

Source: Multiple sources on the web



Entertainment Business





Bright side vs. Dark side of Internet

Internet

Accessibility to Information

Easiness of Sharing

By the Internet, we experience

- various communication methods, devices, and services
- vitalized internet economy
- entertaining human life with sharing



*Internet Users increases
for **305.5%** than 2000*

Fast & Wide Spread of Attack

Hard Prevention

By the Internet, we experience

- outflow of privacy information
- diversification of forgery & crime
- increase of security budget due to new kinds of threats arising



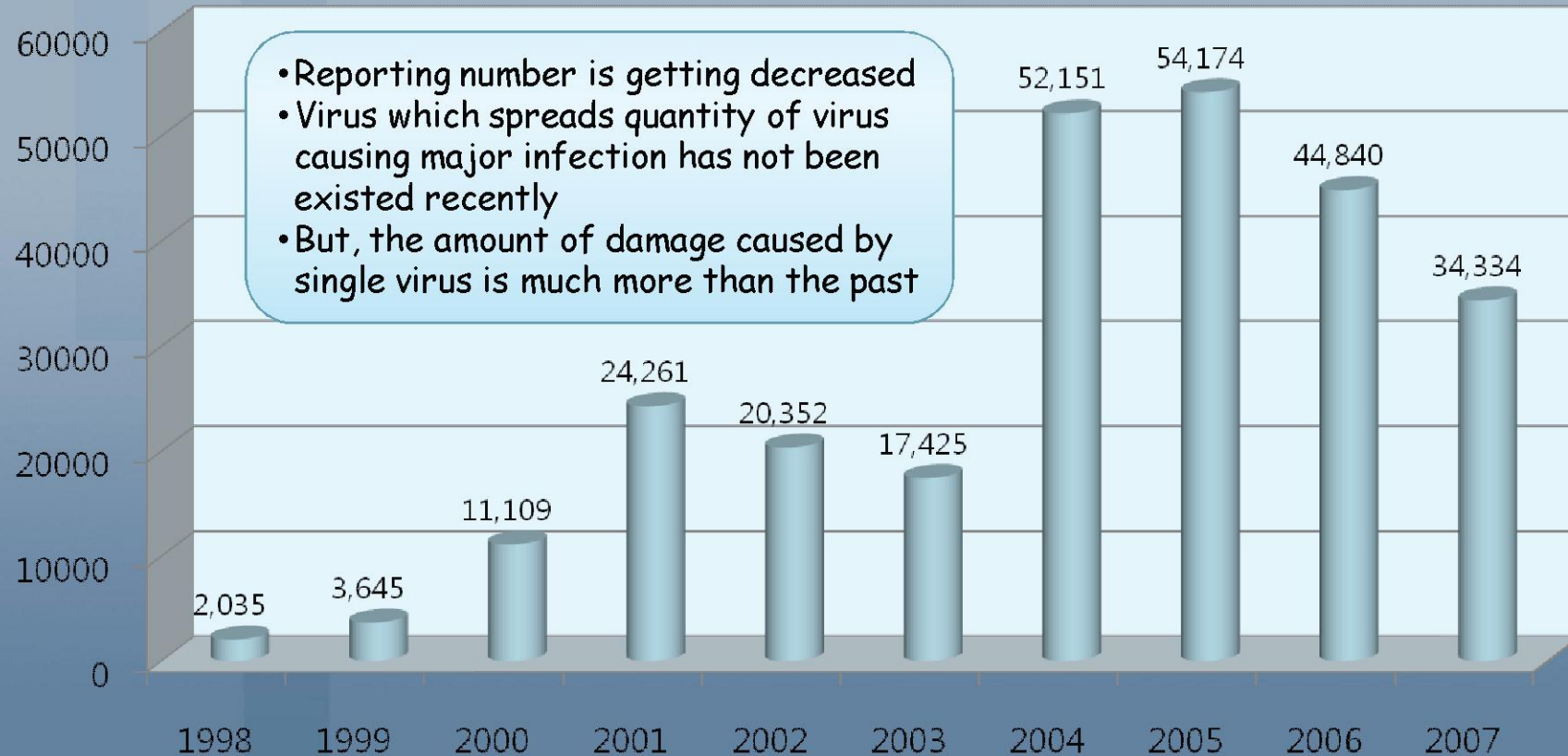
*The amount of damage is
more than **\$200 million** only
in U.S in 2007*

Internet



Major Threats I : Virus & Worm

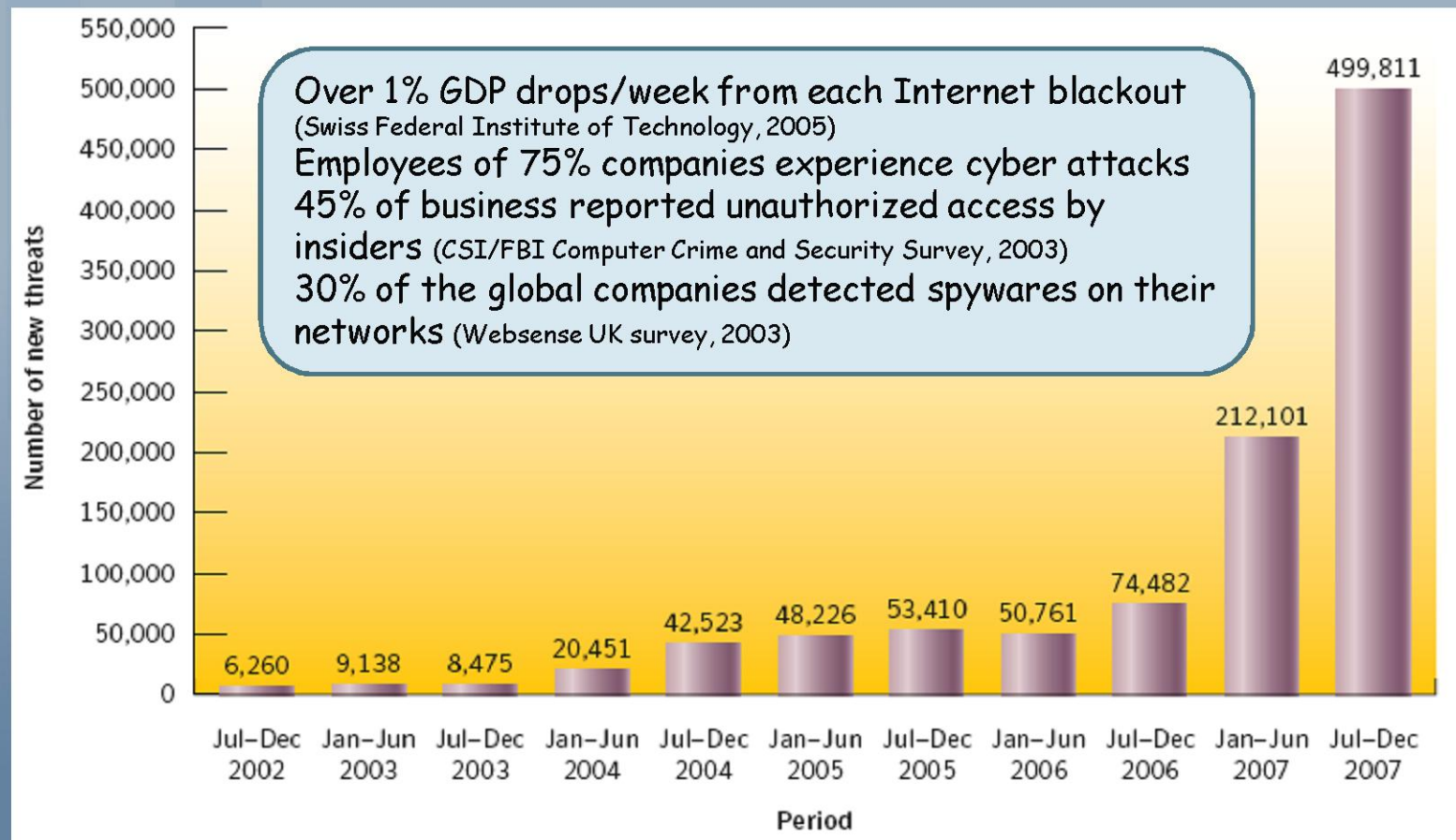
Yearly Reported Number of Virus & Worm



Source: IPA, Virus Report Status for 2007



Major Threat II : Hacking & Malware



Source: Symantec Global Internet Security Threat Report



Major Threats III : Phishing



Customer



Forged
E-mail Server



Attacker

Top 5 identified Phishing targets

Pxxxxx	6,111 Phishes
Jxxxxx xxxxxx & Co.	233 Phishes
Bxxx of xxxxxxxx Corp.	230 Phishes
exxx, Inc.	223 Phishes
Cxxxxx xxx	163 Phishes

eBay - verify your account information - Avant Browser

File Edit View Navigation Groups Favorites Tools Windows Help

Address: http://www.ebay.com@62.94.123.19/verification/index.htm Go Search: Search:Web

Be very, very careful whenever you see the “@” sign in the URL

Verify your identity

Your credit/debit card and bank account information along with your personal information will be verified instantly the industry standard [SSL](#) encryption. All information is required and is kept confidential in accordance with [eBay](#)

- Your credit/debit card and checking account information is used to verify your identity.

Enter Your Account Information

Ebay User ID:

Password:

Email Address:

Enter Your Credit Card/Debit Card Information

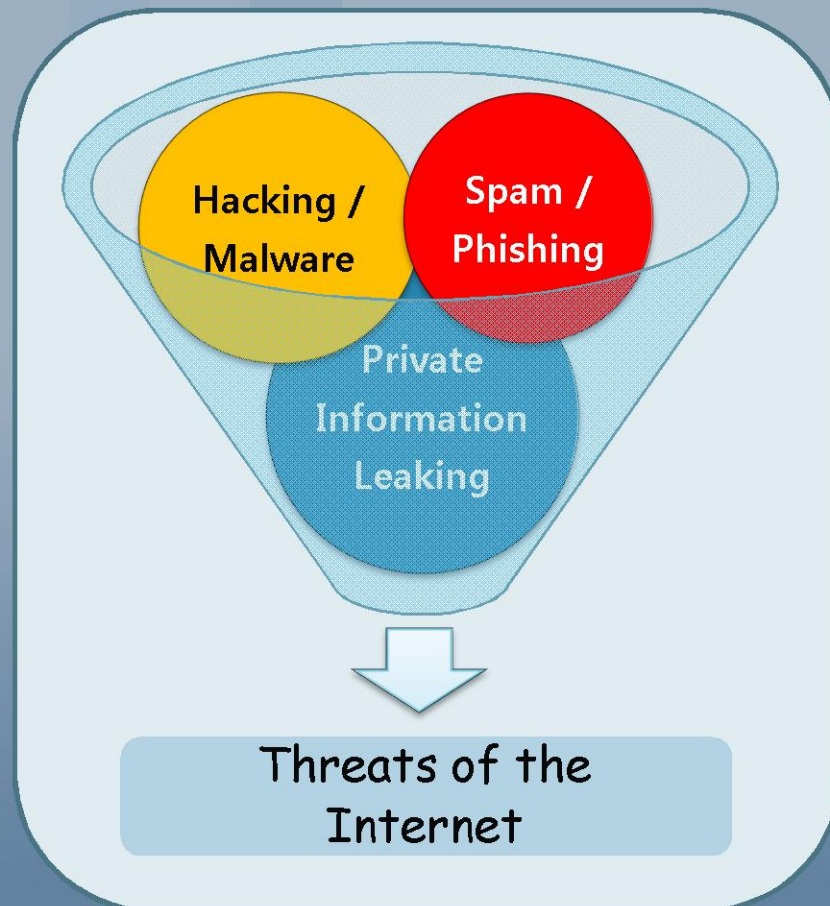
Credit card/debit card number:

Credit Card: Visa, MasterCard, American Express, Discover.
Debit Card: Visa, MasterCard.

eBay Welcomes



New Trends of Threats to Internet



Attack motivation: from curiosity to financial gain and criminal acts, e.g. theft of personal information, digital identities or corporate espionage.

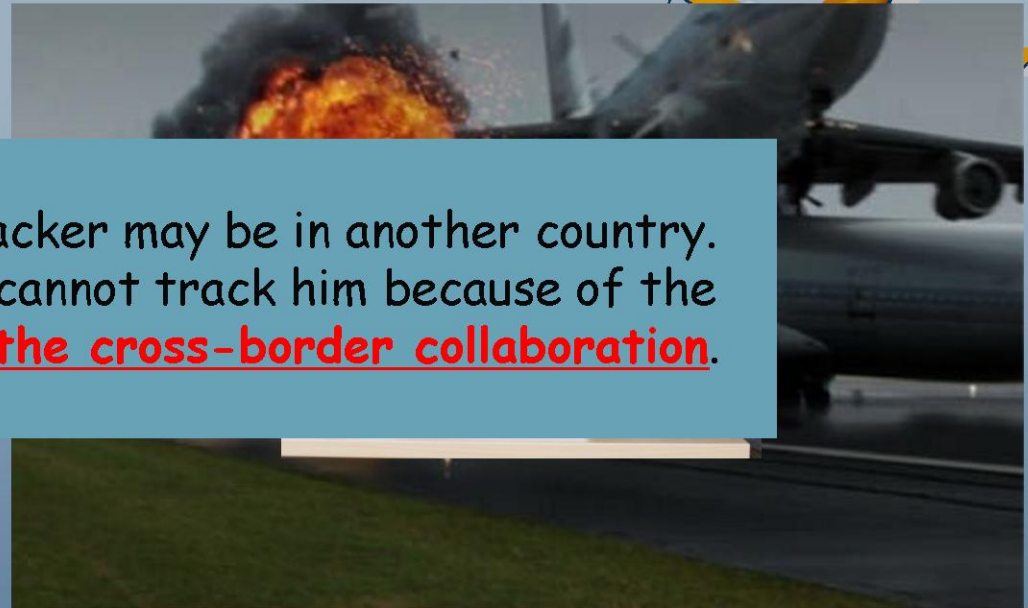
Attack Methods: shifting from high profile massive and random network attacks towards stealthy, targeted application-based combined attacks.

New Malware and the Attack Vectors: In 2005 and 2006 we have seen more malware than in the previous 15 years altogether. In 2006, almost 18% of the malware is now new, never seen before



Disastrous Damage from Cyber Attacks

Hack!! Disturbing Airway!



The attacker may be in another country. But, we cannot track him because of the lack of the cross-border collaboration.





Wide Spread Damage : Worm Virus

Spreading "Storm Worm Virus"



- The Storm Worm virus infected machine become part of the **Storm Worm Botnet**
- Botnets are used as a vehicle to facilitate other **crimes**
- Storm Worm accounted for more than **20 percent** of all spam messages and had infected and was active in **1.4 million** computers simultaneously.
- Total amount of loss caused by Worm & Virus in 2006 is **USD 13.3 billion**



Need for Cross-border Collaboration I

www.a-bank.com
phishing site



100.150.200.25

www.a-bank.com
web site



123.123.123.4

韩国姓名身份证搜索方法_归路 - Micro...

파일(F) 편집(E) 보기(V) 즐겨찾기(A) ...

주소(D) http://www.baidu.com/...

2008-adidas
韩国姓名身份证搜索方法

韩国姓名身份证

作者:蓝波 日期:20...

字体大小:小 中 大

1.首先 进入韩国google: http://www...
 2.在搜索框输入 주민등록번호 xxxxxx
 3.在搜索结果里面寻找所需要的信息,

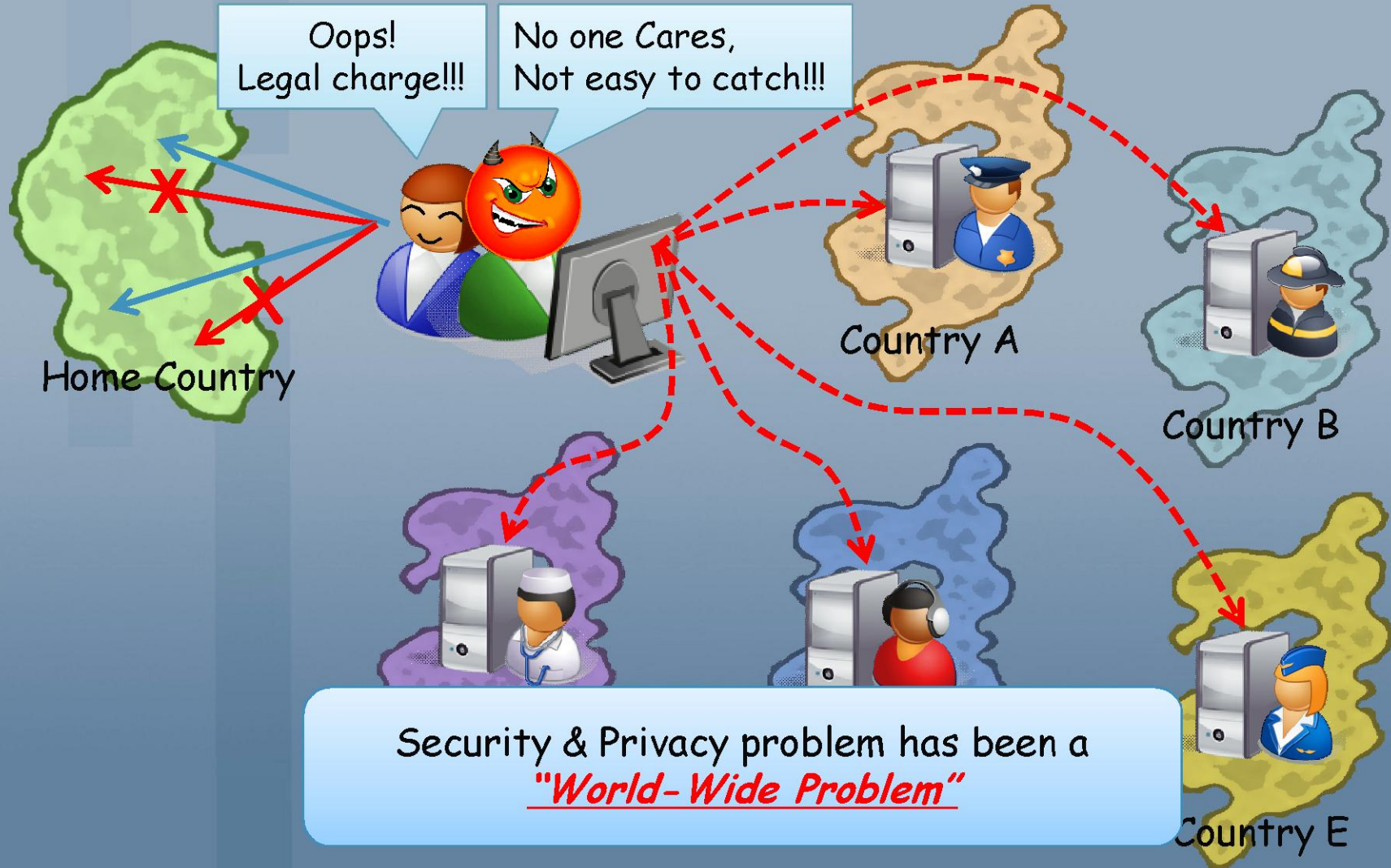
搜索实例: 주민등록번호01111111-V
 得到结果中有一条: 이름, 김민준, 아미...
 이름就是姓名的意思,逗号后面的就是名...的身份证号

영 7812091234567
 박 7810301234567
 신 6404151234567
 지 7111151234567
 영 회 고등부 7408201234567
 문 7206261234567
 신 5801121234567
 이 5802281234567
 신 5902061234567
 일 랑익교회 8105161234567
 이 5105131234567
 박 6302021234567
 장 6610201234567
 생 교회주보 5710011234567
 최 7601271234567
 이 6707051234567
 김 6010041234567
 김 7209111234567
 백 7603141234567
 한 회 6802101234567
 김 7806251234567
 조 5609191234567
 최 7508101234567
 서 제일 7105191234567





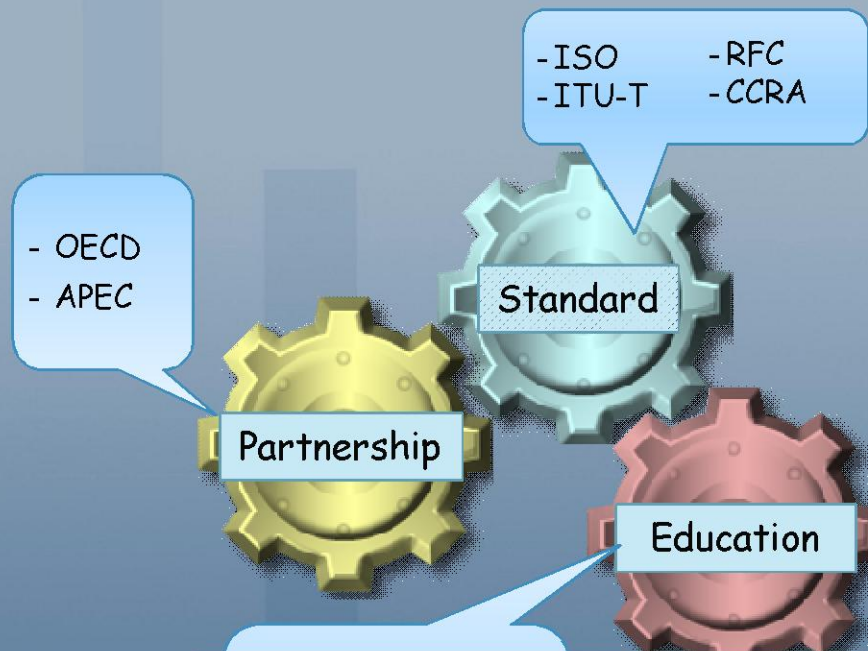
Need for Cross-border Collaboration II





Cross-border collaboration I : Technology

Technology : Sharing and discussion on the latest technology, direction, problems, and requirements in cross-border manner are important



Issues

- Indifferent to security engines & standards for the security products
- Count too much for individual organization's interest

Need for tightly co-working environment to achieve true "Cross-border collaboration" to develop, share and deploy technologies related to the Security & Privacy.

The efficient... process
ity



Cross-border collaboration II : Policy

Regulation & Policy : The effective combating, investigation and prosecution of such crimes require international cooperation between countries

- OECD Security Guidelines
- APEC Cyber-security Strategy

- The Council of Europe's Convention on Cybercrime

Enforcement

Guide Lines

Voluntary Measures

Issues

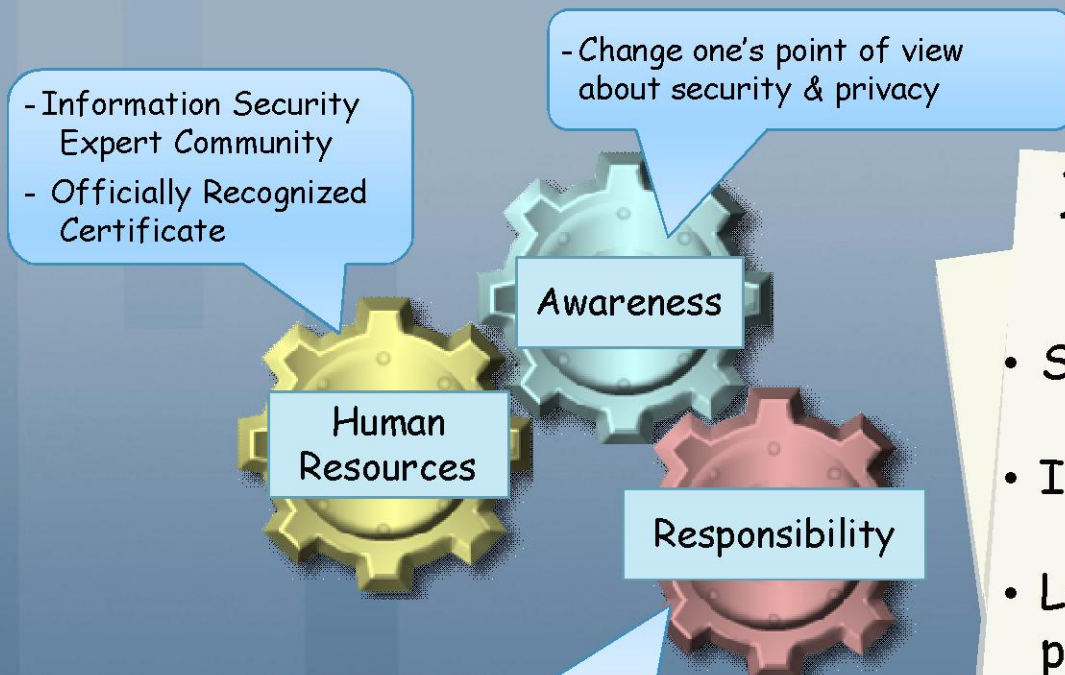
- Not many countries participate in security working parties
- Hard to reach the mutual agreements due to conflicts of interests between countries
- Different regulations & policies try

Need to organize cooperation center or facilities to enhance pre-/post-treatment and balanced enforcement of security & privacy problems via the cross-border collaboration.



Cross-border collaboration III : People

People : Sharing human resource, inspiring the importance of security & privacy with globalized interests



Issues

- Security divide among nations
- Insensitive to foreign problems
- Lack of information sharing & people exchange among the

- [unclear]
- [unclear]
- [unclear]

Need to develop programs to implement better information sharing, resource exchange, and other collaboration works related to security & privacy



Conclusion : A Safe & Secure World

A safe and secure Internet is essential in order to:

- Maximize the social and economic benefits of the Information society
- Assure proper functioning of critical information infrastructures
- Build trust and confidence in e-business and e-government

Given the global and interconnected nature of the Internet:

- International cybercrime policy & law enforcement remains a significant challenge
- International cooperation is multi-layered: legal, policy, and technological
- Governments, civil society, public and private stakeholders should be working together under the auspices of international forums to build a safer and more secure Internet
- Develop collaboration strategies for technology, policy & people in diverse way



Internet

Thank you.

Q&A