

Can Cyber Insurance work out?

Who cares as long as
the enemy don't hit us.

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Profile

- Financial IT and IT Risk Management Expert, working at a Major Bank (10 years)
- Research work at the institute of financial information systems (2 years)
Author of a Security Guideline, and APT Report
- IT development work at property and casualty insurance (7 years)
- Freelance lector and writer since 2000
- [AVTOKYO](#) Speaker (2009, 2010, 2011, 2013.5)
- HITCON Speaker (2012, 2013)
- Author of "Introduction of Information Security"; textbook for colleges/universities (27,000 copies so far)
- Regular writer for "Hacker Japan Magazine " (4 years)
- Regular writer for Web Magazine "[Scan NetSecurity](#)"



Abstract

- In Japan, two insurance companies started to sell Cyber Insurance.
- Rapid growth is expected in the Western countries includes the U.S., but it was not the case in Japan.
- First, I'll explain what are necessary for cyber insurance in order to cover the loss of the company.
- Then, I'll describe the situation in Japan and analyze the fundamental problems which have been preventing the growth.



Agenda

1. Basics of insurance

- History of insurance
- Essentials of insurance scheme
- Anxiousness is the source of revenue

2. Exploring the marketability of Cyber Insurance

- What is Cyber insurance?
- Requirements for Insurance
- What can be insured
- What cannot/hardly-to be insured
- Can Cyber insurance work out?



3. Cyber Insurance in Japan

- History of Cyber Insurance in Japan
- Class of Cyber Insurance in Japan
- Case study 1 :
Cyber Edge sold by AIU insurance
- Case study 2 :
Cyber risk insurance sold by Tokyo Marine
- Summary of Case study
- Status in the US
- Governmental efforts for cyber insurance
- Other insurance companies in Japan
- Real intention of the insurance companies; I got it!

4. What I want to say at end

- Ability of insurance company for investigating cyber attack
- Summary

1 . Basics of insurance



History of insurance

- Modern property and casualty insurance began in Italy in the late 14th Century as marine insurance
- In 1688 in London, Lloyd's Coffee House began to perform the service to issue the latest maritime news, to attract gathering customers. Insurance acceptance traders (underwriter) started gradually fathering there, then **insurance underwriting market** was established.
- Maritime transportation have been with huge profit and risk.
- From the history, there is two categories of property and casualty insurance; **Marine** and **Non-Marine**.



Essentials of insurance scheme

- Property and casualty insurance expires annually.
- $\text{Premium} = \text{net premiums} + \text{commission} - \text{interest}$
- The source of payments and dividends is the premiums after they "deducted" their profits.
- Insurance is **not charity**
- Insurance is **not for justice**
- Insurance is **not for kindness**
- Insurance companies collaborate internationally to handle huge risks.; tanker, luxury liner, aviation, etc).
- Bankruptcy of an insurance companies due to huge accident would be the "existence loss of insurance".
- Insurance is just a money game, same as stock and bond.
- The money game is to mitigate risks by distributing the spreading them all over the world.

Anxiousness is the source of revenue

- As, Insurance Companies want everyone to worry about a lot of various cases, then pay insurance premiums.
 - Hospitalization and surgery
 - injury
 - traffic accident
 - fire, earthquake, tsunami
 - “ extended family” ;
 - insurance for pet illness and injury
 - litigation risk
 - Advanced Medical special contract
- Case of Advanced Medical special contract :
It is limited to the case with no other treatment available.
Do doctor accept the situation? Hurdle for payment is so high.
- When anyone worried about any risk, insurance companies make money
- Anxiety and worries become insurance, even if it is not real.

Anxiousness is the source of revenue

- Everyone is afraid to die with cancer. But with what would you be happy to die?
- Rather than buying insurance, should take complete annual medical check.
- Rather than having payments after getting cancer, should make effort to early detection.
- Advertise says "you'd need money when got sick. Please get insured".
- Such insurance scheme is for their revenue
- Japanese top Insurance company plants mangroves in Malaysia.
- They should invest in eradication of accident or illness than environmental protection, if they really want to save human life.
- Insurance premiums is based on a fair probability and approved by the government. But the fee become benefit of the insurance companies.
- Total loss to bet all the horses to avoid losing horse race.
- If you got insured lot, it certainly bring loss to you.



2. Exploring the marketability of Cyber Insurance



What is Cyber insurance

- The comprehensive compensate loss caused by cyber security incidents
- Based on Business liability insurance
- In short, to compensate the payment to outside

Liability for damages	<ul style="list-style-type: none">• Liability for information leakage• Legal costs
Accident response costs	<ul style="list-style-type: none">• Investigation cost for the accident• Costs for evidence Preservation• Support costs for external consultants• Data recovery costs• Outsourcing expenses such as customer care call center
Profit compensation	<ul style="list-style-type: none">• Profit lost by the business interruption due to the network outage, etc. (include Prevention cost for Revenue decrease)

Requirements for Insurance

- It can be calculated by money
- Enough number of occurrence to make statistical analysis
- war, terrorism, and riots are not covered, as they can "intentionally" occur.
- No moral risk
- Insurance company can assess the amount of damage.
- Not huge damage (regardless single or multiple chained/related)
- In case of huge amounts, and can be re-insured.



Re-insurance

- For huge insurance amount, insurance companies have certain exceeding amount insured.
- Re-insurance is not to undertaken by single company; divided and/or multi-layered globally, to distribute and mitigate such huge risks like natural disasters.
- Typhoons, hurricanes, large earthquakes, industrial complexes, nuclear power plant, luxury liner, LNG (liquefied natural gas) ship, aircraft, etc.
- In Japan, so **the government permits joint action of insurance companies**, to avoid bankrupt by huge amount of Loss. It is called the insurance pool (CALI, ship, cargo, aviation, nuclear power plant).

What can be insured

- Why can Racehorse actress's breast or legs be insured?
- It's topic-oriented case. But basically, use and occupancy insurance scheme can be applied.
- We can hear the News that the insurance amount is hundreds of millions of yen. **But we can't hear the news about the insurance premiums for them.**
- **In short, It's only for advertising!**
- luxury cars are also insured, such as Ferrari or Porsche.
- Insurance premiums are very high!
- However, the maintenance costs for them (overhole or change tires) is also very high, those owner can afford the premiums.
- What is need to be insured, even if hard to do. Ex. Aviation or rocket
- Insurance premiums are also very high. But it's all right! Because, **they're expenses of the companies.**
- When the airline bankrupted by airplane accident, everyone would have trouble.
- It is hard to establish a new airlines. Because hiring excellent pilots and/or, building maintenance schemes are so difficult.

What cannot/hardly-to be insured

- Likely to be criminal case because of the moral risk (disguise the accident, insurance murder)
- Socially unfair, or contains discriminations
- Covers illegal matters
- There's no insurance to cover accidents by drunk driving
- On the other hand, there is a medical insurance for those who have serious illness history. It aims those who are not acceptable for general insurance by increasing the rates.

What cannot/hardly-to be insured

- Insurance which companies do not want to be known
- Sold particular businesses **confidentially**.
- Covering the liability of the doctor for medical accidents
- Covering the liability of executives
- The premiums are pretty high, but hospital or company pay.
- From the victims side, it inflames anger, because insurance take over the responsibility. **Thus subscribers must be confidential!!**
- **But, if there are illegalities, insurance is not payed.**

Can Cyber insurance work out?

Requirements for insurance

- It can be calculated by money
- Enough number of occurrence to make statistical analysis
- war, terrorism, and riots are not covered, as they can "intentionally" occur.
- No moral risk
- Insurance company can assess the amount of damage.
- Not huge damage (regardless single or multiple chained/related)
- In case of huge amounts, and can be re-insured.

Try to evaluate
One by one



Requirements for insurance :

It can be calculated by money

- In Japan, Japan Network Security Association have been issuing statistical survey of the amount of damage for more than 10 years, thus can be calculated by money.
- "Popular" exaggerated damages on the security products pitch is useless.
- In case of PII leakage, popular compensation in Japan like gift certificates and/or, customer support costs can be covered.
- Costs paid to external security companies (ex. such as damage surveys) can be covered..
- For the cases of shopping sites, occupancy insurance would be helpful model.
- Security hardening measures should be done in advance. Not covered.
- Employees workloads to recover and repair through the night is not covered, because there is no objectivity in the amount of money. Ohh!!
- Vulnerability measures should be done at the development phase, thus it is not the loss to pay by insurance.

=>> It will be done.

Requirements for insurance :

Enough number of occurrence to make statistical analysis

- In Japan, We can take the statistic of **the annual attack from China** on particular days
- We can't take the statistic of attacks that triggered remarks of politicians or celebrities.
- **In the case of Sony Pictures Entertainment (Movie about North Korea's leader), it was not in the statistics.**
- For such rare case, "moving premium" could be an option; which provide discount for no accident history and increase upon accident.
- The case of Japan developed space rocket would be model,

=>> A little harsh, It's going to be OK

*Requirements for insurance :
war, terrorism, and riots are not covered,
as they can "intentionally" occur.*

- Everyone and at everywhere even on the internet, TV, newspaper call it **cyber terrorism** or **cyber attacks**.
- Attack from **North Korea** and **ISIL** (Islamic State in Iraq and the Levant) are good example
- They' re called the **5th battle field**.
- **US Generals** attended **DEFCON** for recruitment.

=>> No Way!!

Requirements for insurance :

No moral risk

- There is no case of self-made diene yet, but international crime among many countries may be the case.
- Fraud to have insurance payments by concealing the loss of the company which is facing bankruptcy.
(The CEO of the collapsed Mt. Gox bitcoin exchange claimed to have been stolen by unauthorized access in order to hide his embezzlement)
- Strict inspection is required to prevent crime syndicates from using the insurance for fraud
- It should be all right if corporate social responsibility can be undertaken like generally done by listed companies.
- One little concern is if the suit would require more for because of such cyber insurance.

=>> It will be done.

Requirements for insurance :

Insurance company can assess the amount of damage.

- Can be calculated by money does not always mean that the damage can be assessed. Because taking too much time to assess, means slow payment of insurance.
 - When a large number of companies were attacked at once (like the case of the zero-day attack), it takes long time to assess the damage.
 - It is very difficult for insurance companies to do forensic analysis; few people can do forensic
 - Can the damaged company submit incident logs as evidence?
 - It's difficult to distinguish single accident from series of long period of attacks
 - The amount of external research expenses can be regarded "fair". But as the market becomes larger, new unreliable researchers would come.
 - Insurance companies can't judge fair amount expenses.
- =>> Considerably severe. However, it goes well, if insurance companies choose only good customers**

Requirements for insurance :

*Not huge damage (regardless single or multiple chained/related)
In case of huge amounts, and can be re-insured.*

- Benesse (Japan's largest claim) lost 26 billion yen (7 billion NTD) in July 2014
- Sony Pictures Entertainment lost 12 billion yen (3 billion NTD) in Dec 2014
- Great East Japan Earthquake made 16 trillion and 900 billion yens (4 trillion and 311 billion NTD) loss (as of May 2011)
- Fire of luxury liner (Mitsubishi Heavy Industries) 30 billion yen (8 billion NTD) in Oct 2002
- The maximum amount of damage of typhoon 568 billion yen (145 billion NTD) in 1991
- Case of overseas disaster occurred on Japanese companies, 70 billion yen (18 billion NTD) for Sep. 11 attack to WTC in 2001, 502 billion yen (128 billion NTD) for flood in Thailand in 2011

Requirements for insurance :







*Not huge damage (regardless single or multiple chained/related)
In case of huge amounts, and can be re-insured.*

- Since Japanese insurance companies got bigger after M&As, they can underwrite this insurance.
- But they do not like huge damage, by new insurances.
- If payment reserve capacity would come down, it lowered rating of insurance company. It becomes a matter of life and death.
- It is not suitable to reinsurance, because security vulnerability affects all around the world at same time.
- There are cases that social infrastructure (Large Banks, Broadcasting stations) failed in Korea May 2013.

=>> A little hard

Can Cyber insurance work out?

Requirements for insurance :

- It can be calculated by money 
- Enough number of occurrence to make statistical analysis 
- war, terrorism, and riots are not covered, as they can "intentionally" occur. 
- No moral risk 
- Insurance company can assess the amount of damage. 
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微妙

3. Class of Cyber Insurance in Japan



History of Cyber Insurance in Japan

2000	AIG (USA) released "netAdvantage Suite " (70% of the market share in the world in 2005)
2004	Information security insurance and personal information leakage insurance began to be released in 2004. In many cases, information leakage is sold as special contract with corporate liability insurance.
2005	The personal information protection law put effective
2012	AIU insurance (AIG group) released Cyber insurance(" Cyber Edge ") Premium was 7.6 billion yen (1.9 billion NTD) in the whole Japan
2015	Tokyo Marine insurance released Cyber insurance Premium was 10.6 billion yen (2.7 billion NTD) in the whole Japan

Premium was increased about 10% annually

Class of Cyber Insurance in Japan

- Covered Liability and Data recovery cost
- Cooperation from the outside needs optional fee

Corporate liability for Information Leakage

Liability for damages	Liability for damages obtained by information leakage costs of a lawsuit	○
	Liability for damages obtained by information leakage (abroad) costs of a lawsuit (abroad)	×
Accident response costs	investigation cost of the cause of the accident	×
	investigation cost of the cause of the accident (attempted or doubtful)	×
	Preservation of evidence costs	×
	Support cost of external consultants	△
	Data recovery Cost	○
	Outsourcing costs such as call center installation	△
	Measures costs such as vulnerability response	×
Loss of income caused by business interruption	Profit lost in the business interruption by the network interruption, etc. (Loss of profit, revenue decrease prevention cost)	○



Class of Cyber Insurance in Japan

- Forensic cost was covered
- Cooperation from the outside for damage prevention was covered as standard

Corporate liability for Information Leakage

IT business Liability insurance

Liability for damages	Liability for damages obtained by information leakage costs of a lawsuit	○	○
	Liability for damages obtained by information leakage (abroad) costs of a lawsuit (abroad)	×	×
Accident response costs	investigation cost of the cause of the accident	×	○
	investigation cost of the cause of the accident (attempted or doubtful)	×	×
	Preservation of evidence costs	×	○
	Support cost of external consultants	△	○
	Data recovery Cost	○	○
	Outsourcing costs such as call center installation	△	○
	Measures costs such as vulnerability response	×	×
Loss of income caused by business interruption	Profit lost in the business interruption by the network interruption, etc. (Loss of profit, revenue decrease prevention cost)	○	○



Class of Cyber Insurance in Japan

- Costs of a lawsuit from abroad was covered

Corporate liability for Information Leakage
 IT business Liability insurance
 Cyber Edge(AIU)

Liability for damages	Liability for damages obtained by information leakage costs of a lawsuit	○	○	○
	Liability for damages obtained by information leakage (abroad) costs of a lawsuit (abroad)	×	×	○
Accident response costs	investigation cost of the cause of the accident	×	○	○
	investigation cost of the cause of the accident (attempted or doubtful)	×	×	×
	Preservation of evidence costs	×	○	○
	Support cost of external consultants	△	○	○
	Data recovery Cost	○	○	○
	Outsourcing costs such as call center installation	△	○	○
	Measures costs such as vulnerability response	×	×	×
Loss of income caused by business interruption	Profit lost in the business interruption by the network interruption, etc. (Loss of profit, revenue decrease prevention cost)	○	○	○



Class of Cyber Insurance in Japan

- In the case of attempted or doubtful attack, cost for investigation was covered

Corporate liability for Information Leakage
 IT business Liability insurance
 Cyber Edge(AIU)
 CyberRiskInsurance (Tokyo Marine)

Liability for damages	Liability for damages obtained by information leakage costs of a lawsuit	○	○	○	○
	Liability for damages obtained by information leakage (abroad) costs of a lawsuit (abroad)	×	×	○	○
Accident response costs	investigation cost of the cause of the accident	×	○	○	○
	investigation cost of the cause of the accident (attempted or doubtful)	×	×	×	○
	Preservation of evidence costs	×	○	○	○
	Support cost of external consultants	△	○	○	○
	Data recovery Cost	○	○	○	○
	Outsourcing costs such as call center installation	△	○	○	○
	Measures costs such as vulnerability response	×	×	×	×
Loss of income caused by business interruption	Profit lost in the business interruption by the network interruption, etc. (Loss of profit, revenue decrease prevention cost)	○	○	○	○



Case study 1 : Cyber Edge sold by AIU insurance

Sold in 30 countries from AIG group

- ✓ Only Japanese company can be insured. And overseas facilities are covered
- ✓ When the company got cyber attacks, the damage would compensated in all around the world.
- ✓ Refers the insured to security specialized institutes for rapid initial response.
- ✓ Covers forensics cost to collect and preserve of the evidence and analyze invasion route.
- ✓ Covers reparations required for damages
- ✓ Covers loss of income caused by business interruption (for recovery from unauthorized access ,virus infection etc.)



Case study 1 : Cyber Edge sold by AIU insurance

Although inquired often, it was not sold at all

AIU described as follows:

- ◆ As interest in cyber security grows, we were expecting lot of business. In fact, we can not sell at all.
- ◆ When IT Dept. want to apply the insurance for growing risk of cyber attack. Head Quarters would say
 - "IT Dept. has no confidence in the security measures"
 - "We want IT Dept. to measure firmly before we pay the insurance premium"

Head Quarters worries about cyber attack, but...

IT Dept. is not trusted

IT Dept. is said that they got attack because of lack of management.

No budget for untrusted department. Thus Head Quarters do not budget measure for cyber attack.

Finally, IT Dept. was told

"Resolve it by your guts without money!!"

It's Japanese standard style. You can see everywhere.



Case study 1 : Cyber Edge sold by AIU insurance

- forensics and consulting is done by outsourced professional security companies
- That's too bad!!
- Insurance company could deal even a situation like attack from China in September 18 from the stand point of money amount.
- Personnel number of professional security companies is limited and small. Re-consignment is difficult because of confidentiality matter.
- Insurance companies only collect money from insured and resolved with it, neither more nor less.
- Even selling a lot, it's not possible to increase the personnel number of security companies on insurance company's circumstance.
- For only promotional purposes. It is not considered to sell a lot.
- Quote sample:
For the company with 10 billion yen (3 billion NTD) annual sales,
and the maximum amount of compensation is 500 million yen (128 million NTD),
Annual premium is 4 million yen (1 million NTD)
- In Japan ,supervision of the government is very strict, insurance premiums are very reasonable

Case study 2 : Cyber risk insurance sold by Tokyo Marine

- (1)Comprehensively compensate in one contract for cyber risk surrounding the business activities
 - ①Liability for damages obtained by information leakage
 - ②Covers forensics cost to collect and preserve evidence and to analyze invasion route.
 - ③Data recovery Cost
 - ④Profit lose by the business interruption due to the network interruption

(2) In the case of attempted or doubtful attack, Cost for investigation, incident response and preservation of evidence is compensated.

(3) It will compensate for damages lawsuits abroad

The insurance is arranged from Philadelphia Insurance (USA) and Kiln Ltd.(Lloyds of London) for Japanese market. Both companies are subsidiaries of Tokyo Marine.

Case study 2 : Cyber risk insurance sold by Tokyo Marine

- Liability or Compensation are incurred from loss. Even if the accident had occurred, forensic cost occurred. Cyber insurance can cover the case.
- Good to reduce irresponsible response of companies; only apologized and stop the damage investigation then wait until the public intention goes anywhere else.
- Even if information leakage does not happened yet, it covers the cost of investigation and preservation of evidence. I appreciate it very high!
- Most of company was afraid for reputation risk. Correspondence was often delayed rather want to admit their accident. Cyber insurance can prevents such a situation.
- It's unusual that the prevention of accidents is included,
- Since Tokyo Marine is the representative of Japan, it may be based on instruction from the government to set a good example.

Case study 2 : Cyber risk insurance sold by Tokyo Marine

- Quote sample:
- For the company with 1 billion yen (255 million NTD) annual sales of,
The maximum amount of compensation is 1 billion yen (255 million NTD),
and incident response cost is 100 million yens (26 million NTD),
Annual premium is from 500k yens (128k NTD) to 1,500k yens (383k NTD)
- Although compensation amount is not known, the crisis management cost coverage is 100 million yens (26 million NTD) in maximum,
10 million yens for investigations and consulting,
10 million yens for recovery, then 5 million yens for credit information monitoring.
It is so small!
- The insurer may be in the "trial phase"; minimizing the risk of new insurance.
- Compensation is smaller than AIU. Only small and medium sized companies can be covered.
- It's strange because Tokyo Marine is the top insurer of Japan.
- Even if the top insurance company can't predict exposure risk, it can't receive the insurance of large companies.

Summary of Case study

1. Probably cyber terrorism would not compensated

- Attack by the state or terrorist organization would not compensated
- How should we regard in the hacking case of Sony Pictures Entertainment?
- Undeniable case that nation states were involved would be exceptions?

2. Internal fraud is not compensated

- Information leakage by employees, ex-employees, or outsourced staff should be classified as internal fraud.
- The majority of large amounts of personal information leakage in Japan were classified as internal fraud; Benesse would also be the case.
- Bill for damage that occurred in the outsourced company should be sent to the outsourced company, rather than insurance company.
- damage that occurred in the outsourced company is not compensated because it is regarded to be internal fraud.

Status in the US

According to research by Marsh & McLennan (Major insurance agency in USA)

The number of US companies with cyber insurance increased by 33 percent in 2011-12.

Average of insurance amounts was \$16.8 million in 2012. It increased nearly by 20 percent from 2011 (\$ 14.1 million).

- At a glance, it appeared to have jumped, but the amount increased only among their existing customers.
- When total number or total amount was hidden, you should read with care.
- If you see old statistics frequently in the latest news, it is presumed to be just not profitable continuously.

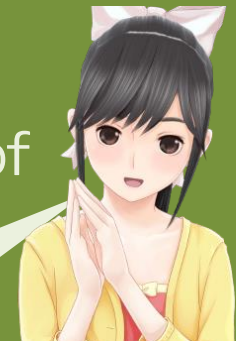


Governmental efforts for cyber insurance

Japan government believes participation rate is lower than the United States.

- ◆ It is necessary to declare the detail of damage in order to receive compensation
- ◆ Most of companies don't easily provide the details of the damage to insurance company, because they concern about the exposure of their confidential information.
- Government focus on building standard scheme for cyber insurance as countermeasures against cyber attack.
- Certification body will be established to evaluate objectively the strength level of the security measures of the company.
- Insurance company figures out the insurance premium by using the evaluation results
- Government will encourage companies to enhance the preparedness for cyber attack by the growth of cyber insurance.

Don't worry. Insurance company can keep firm secret of accident



Governmental efforts for cyber insurance

It's difficult to evaluate objectively the strength level.

- There is a mechanism for measuring the management level like ISO 27001.
- Suppose some company were evaluated as high at some point, the evaluation wouldn't make sense once a serious vulnerability is published in major package software..
- Perhaps someone say Site's strength was the lowest when illegal access was happened. *How does he explain the fact that many illegal accesses were occurred at firm government sites?*
- *Can the criteria of strength be published?*
- Can insurance companies decide the criteria for the strength of the site?
- Insurance companies are good at analyzing the past of accident rate.
- *Insurance companies are not good at predicting accidents that occur in future.*
- *To make matters worse, insurance company is not strong at IT.*

Other insurance companies in Japan

- 2 major companies (Sonpo Japan Nipponkoa, MS&AD) is scheduled to launch cyber insurance this autumn.
- They can afford huge payment because they because of big merger rush in Japan.
- *But they focused on small and medium-sized companies.*
- They determined not to assume the huge risk of large companies.
- the sales performance of overseas is necessary for their sales point as payment history
- As they worry about what other insurance companies do; they'll begin selling the same one like AIU's product.
- *But even if they'll sell the same one as AIU, they won't sell at all.*

Real intention of the insurance companies; I got it!

- When officers heard the news about cyber insurance, they command their subordinates to query insurance company about it.
- But, subordinates can't understand even heard about it.
- They confused in terminology of forensic, DDoS, or trojan that they do not know.
- Cases such as Sony Pictures Entertainment will not be compensated because of disclaimer as war.
- Huge information leakage such as Benesse will not be compensated because of internal fraud.
- Then, nice insurance product will be described from sales representative. Great!!



Real intention of the insurance companies; I got it!

- For such case, directors and officers liability insurance is strongly recommended.
- Loss by war is not covered similarly, but internal fraud can be covered partially; c shareholder lawsuit. That's ok!
- Anyway, it is specialized in compensation claims to directors and effective.
- However, the insurance premium is very high!! The insurance premiums should be paid by companies, not officers themselves!
- Cyber insurance is very useful as bait for selling directors and officers liability insurance.



4. What I want to say at end



Ability of insurance company for investigating cyber attack

- In financial field, Bank need to do illegal remittance measures, Securities need to avoid stop of online trade.
- But insurance company has a low risk of on the internet because of less net services

	Net Service	Investment amount	Business Impact when the service stopped
Bank	Online Banking	Huge amount	Large
Securities	Online Trading	Huge amount	Extra Large
Insurance	Application page	Little	A few

Ability of insurance company for investigating cyber attack

- Insurance companies are most behind in financial field in the use of the Internet
- It's doubtful that insurance company can investigate damage.
- Can insurance company solve by outsourcing about damage investigation?
- The fair damage investigation needs government approval.
- Given there is not enough personnel to prevent damage, the number of personnel for damage investigation is even smaller.
- Finally, it comes to security personnel shortage problem
- When security personnel is not enough against cyber attack and try to cover with insurance, security personnel shortage problem is even more serious at insurance company.

Summary

- To be honest, insurance companies have better to invest in the CM of automobile insurance for its profits. Amount of cyber insurance was very small in insurance market.
- It is better that you make complete medical check than buying expensive life insurance
- You must get the vulnerability check before buying cyber insurance.
- Because there is no confidence in the damage assessment, insurance companies select insured by the social credibility or sales relationship.
- Insured want to cover a huge risk of personal information leakage. But insurance company can't underwrite exposure huge risk that can't be calculated. This contradiction can't be resolved.
- Japanese government planned to strengthen countermeasures and prevent damage of cyber attack including by insurance. But it does not work out.
- Insurance company obtains the probability from the accumulation of past cases. Hackers outwitted foreseeable countermeasures. The two have very bad chemistry.
- Absolutely impossible!!