Cyber Security in Japan

A Real Quick Overview
Major Cyber Attacks
Japan has been a target

Japan Pension Service

- Data from 1.25 million accounts exfiltrated
- Gov’t employee clicked on targeted phishing email attachment
- Employees had been allowed to download and store unencrypted citizen data on desktop PCs
  - Secure data server meaningless in face of lax security practices
- Diet amended Basic Security Law to give NISC jurisdiction over independent agencies such as JPS

DDoS Attacks

- 18 Oct 2015 – Anonymous takes down Narita and Chubu Airport websites for 8 hours
- 10 Dec 2015 – PM Abe’s website down for hours
- 13 Jan – Nissan site taken down
- 22-23 Jan – Narita website taken down
- 10 Feb – Nat’l Tax Agency down; JETRO & Japan Securities Finance Co. attacked
National Security Concerns

- Japan recently suffered numerous DDoS attacks against high profile targets by Anonymous
- South Korea subway system and nuclear plant office LAN penetrated by North Korean military hackers
- Sony America devastated by DPRK hacking attack

GoJ recognizes the serious risk of Cyber attacks and is taking numerous steps to respond to ongoing attacks as well as potential future risks as well

Mitsubishi Heavy Industries Hacked

Tokyo, 2011 -- Japan’s biggest defense maker, involved in sensitive missile, jet & sub production suffers major hack. 45 servers and 38 PCs compromised. At least 8 viruses targeted a shipyard in Nagasaki, sub and nuclear plant factory in Kobe, and missile and rocket facility in Nagoya. China suspected.
GoJ Agencies with Cyber Security Roles

Cabinet Secretariat’s Cyber Security Strategy Headquarters

- NISC National Information Security Center
  - Issue GoJ guidelines
  - Audit GoJ agencies
  - Investigate attacks
  - Promote & Coordinate
- Police Agency
  - Investigate Cyber crime
- Ministry of Internal Affairs and Communications (MIC)
  - Telecom & ISP regulator
- Ministry of Economy, Trade and Industry
  - Internet policy
- Ministry of Defense
  - Defense
  - National Security

- Nov 2014 – Diet passes Cyber Security Basic Law
- Nov 2014 – Cabinet approves Cyber Security Strategy of security with growth
- My Number Law beginning in 2016 – data privacy
- Data Privacy act amended to permit anonymized personal data use for big data

Olympic CSIRT under Cabinet
Japan’s Cyber Security Market
Over USD $9b in 2015

Japan's Cyber Security Market

Cyber Security Sub Sectors
- Comprehensive Security Suites
- Network Threat Security Tools
- Content Threat Security Tools
- Identity & Access Management Tools
- System Security Tools
- Encryption Tools
- Information Security Consulting
- Secure System Architecture Services
- Secure Operations & Management Services
- INFOSEC Training

Bar and Pie Chart illustrating the breakdown of the market by sub-sectors for the years FY 2011 to FY 2015.
Human Resource Gap
Jobs outnumber skilled domestic labor pool

Human Resources

265K INFOSEC industry employees
160K lack required skills

80K positions unfilled

Needs

- High End Training
- Places to use & Refine skill
- More Training

# of IT Personnel

USA
China
India
Japan

IT Firm
End User Firm

IT Personnel by %

USA
Japan

IT Firm
In House

- Keidanren formed 30-company Cybersecurity Working Group
- Diet funded additional technologists for IPA & NISC
- METI introduced Cyber certifications to encourage training
- Brisk sales for some US vendors (SANS, Offensive Security)
Wrap Up

- Japan is a target for Cyber espionage & Cyber crime
- GoJ taking action on multiple levels
- Still needs to catch up, but moving
- G-7, World Rugby Cup 2019, and 2020 Olympics creating pressure
- Cyber talent serious bottleneck – Training needed
- Cyber Security market should near $10b in 2016
Sources

Slide #2

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- http://www.wired.com/2014/12/sony-hack-what-we-know/

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Slide #5


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- METI Industrial Structure Council, Commerce Distribution Information Subcommittee, Information Economy Sub-Subcommittee (First Round of Materials)