Security Study Activities in ITU-T
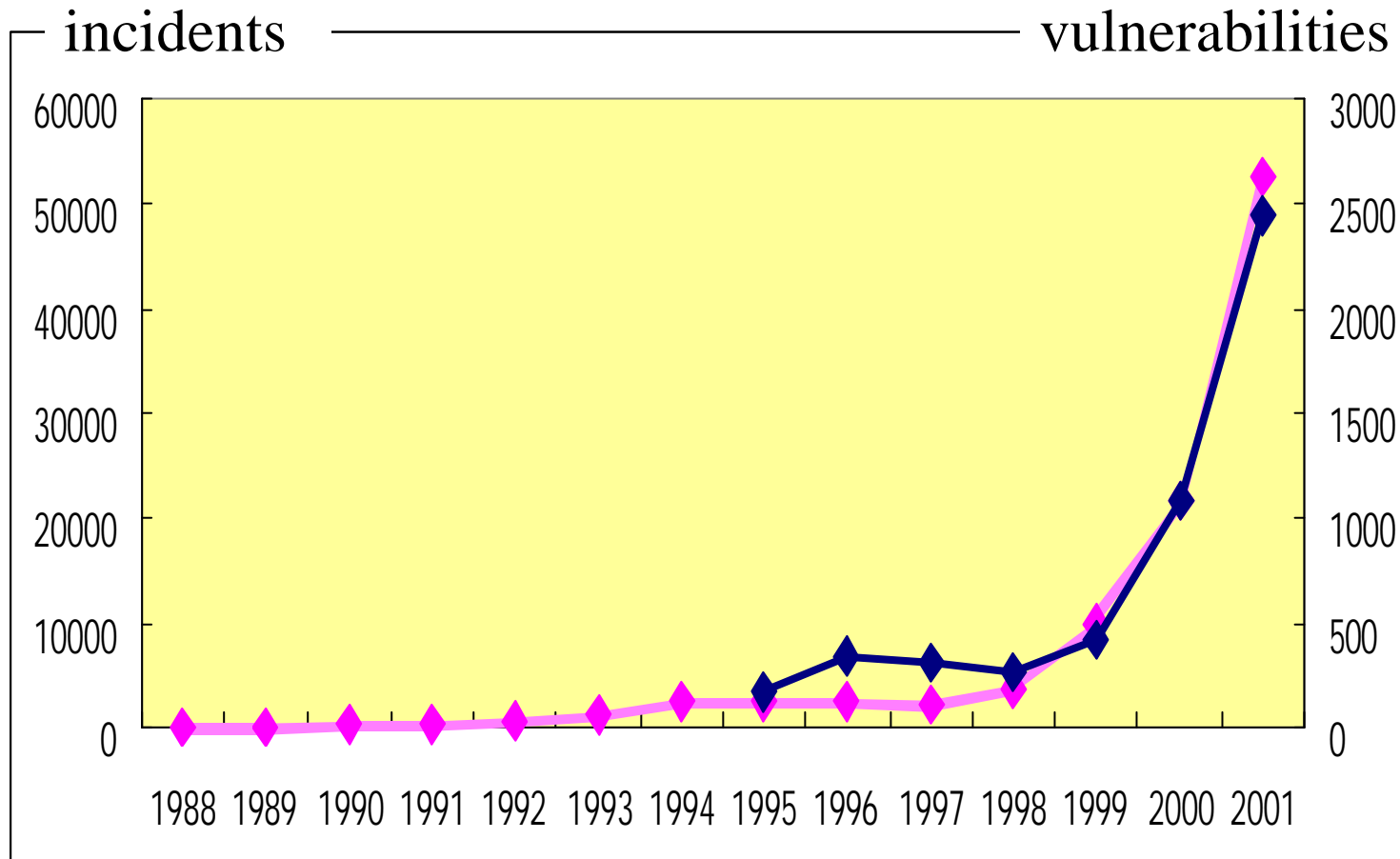
Hiroyuki Ohno, Ph.D.

Q10 / SG17 Rapporteur

Backgrounds

1. Threats and incidents on the Internet are increasing

2. For the purpose of preventing threats and incidents, many people are in the spotlight of the role of communications standardization

3. ITU-T attaches importance to security

Backgrounds
- Threats on the Internet -

http://www.cert.org/stats/cert_stats.html

Backgrounds
- Standardization Organizations -

- **ITU-T** : Question 10/17
- **ISO/IEC** : SC 27
- **IETF** : Security Area
- **W3C** : (XML signature)
- **OECD** : (Security Management Guideline)
- **3GPPs** : (CDMA2000)
- **EU** : (Cyber Crime Treaty) etc.

Backgrounds
- ITU-T Security Activities –

- The lead study group(LSG) of communication system security(CSS) is Study Group 17

- Within SG17 the Rapporteur for Q10/SG17 has been identified as the coordinator for LSG CSS activities.

Backgrounds
- ITU-T Security Activities –

Study Group 17

- X.509: Public Key Infrastructure Certification standard

- Q.9/17: related to X.509 issues

- Q.10/17: Question for security

Backgrounds
- ITU-T Security Activities -

Other Study Groups involved

- SG 2, 4, 9, 11, 13, 16, SSG

Backgrounds
- ITU-T Security Activities

- SG2
  - Operational aspects of service provision, networks and performance

- SG4
  - Telecommunication management, including TMN

- SG9
  - Integrated broadband cable networks and television and sound transmission

- SG11
  - Signaling requirement and protocols

Backgrounds
- ITU-T Security Activities

- SG13
  - Multi-protocol and IP-based networks and their internetworking
- SG16
  - Multimedia service, systems and terminals
- SG17
  - Data Networks and Telecommunication Software
- SSG
  - Special Study Group "IMT-2000 and Beyond"

Q.10/SG17 Activities

Title: "Security requirements, models and guidelines for communication systems and services"

Activities:

- Communication Systems Security
- Security Management
- Mobile Security
- Tele-biometrics

Q.10/SG17 Activities
- Communication Systems Security –

- How should a complete, coherent data communications security solution be defined?

- What are the architectural underpinnings for security?

- How should the upper and lower layer security model Recommendations be modified to adapt them to the changing environment?

Q.10/SG17 Activities
- Communication Systems Security – (cont.)

- How should architectural standards be structured with respect to Recommendation X.800?

- How should the security framework Recommendations be modified to adapt them to emerging technologies?

- How are security services applied to provide security solutions?

Q.10/SG17 Activities
- Security Management -

1. How should security risks in telecommunication systems be identified?

2. How should information assets for telecommunication systems be identified?

3. How should specific management issues for telecommunication carriers be identified?

4. How should information security management system (ISMS) for telecommunication carriers be properly constructed in line with the existing ISMS standards?

Q.10/SG17 Activities
- Mobile Security -

1. What are the security problems derived from restrictions and characteristics in mobile environment?

2. What are the models of secure mobile systems? What is the difference between them and other models of communication systems?

3. What are the considerable points when secure mobile system is constructed?

Q.10/SG17 Activities
- Tele-biometrics -

1. How is authentication process excellently performed through use of telebiometric methods?

2. How should ISO 80000-3 be a suitable model for categorization of telebiometric devices?

3. What should security levels reference system be used for bringing telebiometric solutions in a hierarchical order?

ITU Security Workshop

- Date/Venue: 13-14 May 2002, Seoul, Korea
- Program
  - Session1: Security Requirements and Telecommunication Reliability
  - Session2: Hot Topics on IP-based Network Security
  - Session3: Open Discussion
  - Session4: Security Management
  - Session5: Biometric Authentication
  - Session6: Mobile Security
  - Session7: Panel Discussion

What ITU-T Should Do… (1/3)

- Systems/Requirements analysis to collectively identify the vulnerabilities and security risks

What ITU-T Should Do… (2/3)

- Identify the various individual solutions available or underdevelopment on specific items in the many activities inside and outside ITU-T

What ITU-T Should Do… (3/3)

- Create a telecom security systems description on how the many components fulfill the requirements and deal with the telecom system security vulnerabilities and risks.