Tutorial on Security

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Backgrounds

○ Threats and incidents on the Internet are increasing

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

○ ITU-T attaches importance to security

Many Security Issues

○ Some security topics are very important and already well known.

Many Security Issues

○ We need more consideration of security on telecommunications from many aspects.

◦ Have you ever thought of biometrics technologies and security ?
◦ Have you ever thought of emergency telecommunications and security ?
◦ Have you ever thought of radio wave security ?

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☐ The lead study group of Communication System Security

  ○ Q8 - End-to-end QoS multicast communications
  ○ Q9 - Directory services and systems
  ○ Q10 - Security services, mechanisms and protocols
  ○ Q12 - Abstract Syntax Notation One (ASN.1)

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☐ Q8 - End-to-end QoS multicast communications
  ○ Multicast Security

☐ Q9 - Directory services and systems
  ○ X.509
  ○ PKI

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- Q10 - Security services, mechanisms and protocols
  - (next page)

- Q12 - Abstract Syntax Notation One (ASN.1)
  - ANS.1 Security

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- We have 4 questions.

  - Communication systems security.
  - Security Management.
  - Mobile Security.
  - Tele-biometrics.

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☐ 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 adapt them to the changing environment?

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☐ Communication systems security.

  ○ 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? What security Recommendations are required to describe?

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□ Communication systems security.

    ○ Now we are trying to make security architecture for the next generations

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□ Security Management.

    ○ How should security risks in telecommunications system be identified?

    ○ How should information assets for telecommunications systems be identified?

    ○ How should specified management issues for telecommunications carriers be identified?

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☐ Security Management.

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

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☐ Security Management.

   ○ Now, we are working very hard to focus on Telecom ISMS in relation to ISO/IEC JTC1/SC27
      ◦ SC27 - Information technology - Security techniques
      ◦ SC27 WG1 - Requirements, Security services and Guidelines
      ◦ SC27 WG2 - Security techniques and mechanisms
      ◦ SC27 WG3 - Security Evaluation criteria
   ○ We are starting the discussion on incident handling and related issue (very soon).

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□ Mobile Security.

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

○ What are the models of secure mobile systems? What is the difference between them and other models of communications systems?

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□ Mobile Security.

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

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☐ Mobile Security.

  ○ Mobile security issue using PKI and so on.
  ○ We are also start discussion on ETS security (security
    study for Emergency Telecommunication System)
    jointly with Q.I/SG16.

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☐ Tele-biometrics.

  ○ How is authentication process excellently performed
    through use of telebiometric method?

  ○ How should ISO80000-3 be a suitable model for
    categorization of telebiometric devices?

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

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□Tele-biometrics.

  ○We have started to collaborate with ISO/SC27,37 and some other standardization bodies.