Security Protection of TDR Traffic

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Security Protection of Telecommunications (1)

□ Keywords:
- ○ Trustness (Application)
- ○ Authentication (Transpsort)
- ○ QoS (Transport)
- ○ Confidentiality (Network)
- ○ Integrity (Network)
- ○ Availability (Network)

Security Protection of Telecommunications (2)

☐ Keywords:
- ○ Auditing
- ○ Security Policy
- ○ ...

Security Protection for "TDR Traffic"

☐ Requirement is almost as same as the "normal" situation but...

☐ What do we need for an "emergency" telecommunications ?

Security Protection for "TDR Traffic"

- How should we :
  - organize authenticatoin ?
  - control QoS ?
  - keep availability ?

- We should find/understand the special function requirement for TDR traffic

Case Study: - The IAA System -

The IAA System

□ IAA - Victims information registration and retrieval system.

○ Lifeline WG of the WIDE project started the system developement in 1995. And now the joint project of WIDE project and ECG/CRL

□ Concept:

○ Systems that are not in daily use will not be usable in crisis situations.

○ The internet technology should prove its ability to be very useful in extreme conditions.

Design goals of the IAA system

□ Various types of user interfaces.

□ Scalable and robust distributed database.

□ "Connection less" type of the TDR

□ Open approach
  ○ H/W : IBM/PC compatibles
  ○ S/W : free softwares on FreeBSD

Implementation of the IAA system

☐ User interface portion.

☐ Distributed database portion.

User Interface portion

- PC (Web Browser)
- PDA
- i-mode (cell phone in Japan)
- OMR/OCR interface over FAX
- Telephone keypad interface with voice guide
- (voice recognition)

IAA operations.

March 31, 2000 -

☐ Usu volcano, Hokkaido, Japan

June 27, 2000-

☐ Miyaka Island, Tokyo, Japan

IAA operations.

September 11, 2001-

- The IAA system has been working for the terrorist attack.

- Registration: over 500
- Query: over 15,000

- Crackers Attack: over 300,000

We have learned:

☐ The following standard are at least required to make the IAA-like approach available all over the world.

  ○ Victims information verification mechanism under disaster environment.

  ○ Data structure for victims information exchange

  ○ Data exchange and verification protocol for vistims information exchange.

We have learned:

☐ We need more consideration and understanding of 'multiculturizaiton'

Collaboration

- SG16/ITU-T
  - Q.I
    - Use of public telecommunication services for emergency and disaster relief operations

  - TDR Project

Collaboration

- SG17/ITU-T
  - Q.10
    - Security requirements, models and guidelines for communication systems and services

  - Security Project

Collaboration

- UNHCR

- IFRC

- other organizations

Collaboration

☐ Collaboration of TDR people and Security people has just started.

☐ We also need comments and suggestions from actual users especially for IAA-like approach.

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