

*IAA: victims information registration and
retrieval system.*

Its design, implementation, operation, and the next step

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January 17, 1995...

Huge earthquake hit Kobe (West Japan) area.

- More than 6,400 persons were killed.
- Earthquake is one of the most serious disasters in Japan.

Disasters and Communications

- Huge disasters destroy lifelines.
 - water supply, power supply, telecommunications...

- Several hours after the first impact:
 - People in the disaster area start communicating with people who live in outside the area.
 - They also need to communicate and exchange information within the disaster area.

The IAA System

- IAA - Victims information registration and retrieval system.
 - Lifeline WG of the WIDE project started the system developement. 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 (1)

- Prepare scalable and robust distributed database.
- Various kind of user interfaces.
- Open source approach (Except Monster-IAA)
 - H/W : IBM/PC compatibles
 - S/W : free softwares on FreeBSD

Implementation of the IAA system

- User interface portion.
 - WEB, Smart Cellphone, FAX, Telephone, PDA...
- Distributed database portion.

Variations of the IAA system

- Standard IAA system
- Portable IAA system
 - using notebooks
 - easy to carry to everywhere
- Monster IAA system
 - using Sun E10k
 - more than 3000transactions/sec is acceptable

IAA operations (1)

Many drills

- since 1996

March 31, 2000-

- Usu volcano, Hokkaido, Japan

June 27, 2000-

- Miyaka Island, Tokyo, Japan

IAA operations (2)

September 11, 2001-

- IAA system has been working for the victims of the terrorist attack.
- Registration: over 500
- Query: over 15,000
- Crackers Attack: over 300,000

Research and Development Themes

- M16N: Multiculturization
- I18N: Internationalization
- Interoperability
- Scalability
- Robustness
- Security / Authentication

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