SAHANA
A Case Study of a Disaster Management System

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Agenda

- Problems aftermath of a disaster
- Introduction to Sahana
- Deployements
- CAP/SMS and Messaging Module
- Q&A/Discussion
Problem: Aftermath of Disasters

- Tracking Missing Persons and Internally Displaced Persons
- Coordinating all aid-groups/organizations and helping them to operate effectively as one
- Managing the multitude of requests from the affected region and matching them effectively to the pledges of assistance
- Tracking the location of all temporary shelters, camps etc
Solution: Sahana

- A Disaster Management System
- A Web based portal
  - with sub-applications ...
  - built to address the common disaster coordination and collaboration problems in disasters
  - between civil society, Gov, private sector, volunteers and the victims themselves
- A system to manage Disaster Aftermath
Core Modules

• Organization Registry
  - Helps maintain data (contact, services, region, etc) of organizations, groups and volunteers working in the disaster

• Missing Persons / Disaster Victim Registry
  - Helps track and find missing, deceased, injured and displaced people and families
Core Modules

- Request Management System
  - Tracks all requests and helps match pledges for support, aid and supplies to fulfilment

- Shelter Registry
  - Tracks data on all temporary shelters setup following the Disaster
Technology and Features

- FOSS
- Synchronization
- Web Services
- Messaging
  - XMPP, CAP, SMTP
- Localization
- Spatially enabled (GIS)
- PDA/Mobile Accessibility
- LiveCD, LiveUSB
  - Sahana Live
  - Sahana on a Stick
Sahana-Messaging Module

• Technologies
  – SMS
  – E-Mail
  – Instant Messages
  – Voice SMS/Voice mail
Deployments

• CNO, for Tsunami in **Sri Lanka** – 2005
  – Officially deployed and tracked ~ 26000 families

• NADRA, for Asian Quake in **Pakistan** – 2005
  – Officially deployed and integrated to NADRA (Pakistan Government) to track all victims

• For Guinsaugon Mudslide disaster in **Philippines** – 2005
  – Officially deployment to track all victims, orgs, camps by Government
Deployments ...

• Pre-deployment in Sarvodaya, Sri Lanka
  – Customization for Sahana requirements
• Pre-deployed independently in Australia
• Yogjakarta Earthquake, Indonesia – 2006
  – Deployed by ACS, Indonesian Reliefsource
• Pre-deployment for Red Cross, Sri Lanka
Recognition

• FSF best humanitarian software award for 2007
• User Award from Redhat Summit
• ICTA Awards to contributors
• Software 2006 CA, USA, Good Samaritan Award
• Free Software Foundation (FSF) award for Social Benefit inspired by Sahana
• Sourceforge Project of the Month, June, 20
Conclusion

• SAHANA is a success example of the application of FOSS to build public ICT good in the humanitarian domain

• SAHANA's alerting mechanisms are effective solutions to precaution and prevention of human casualties in disaster situations.
Q&A

http://sahana.lk/
http://sourceforge.net/projects/sahana/