

SAHANA

A Case Study of a Disaster Management System



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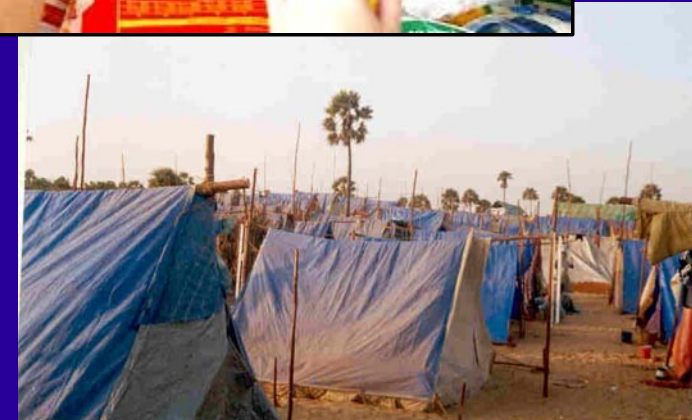
Core Team: Sahana Project,
Lanka Software Foundation

Agenda

- Problems aftermath of a disaster
- Introduction to Sahana
- Deployments
- CAP/SMS and Messaging Module
- Q&A/Discussion

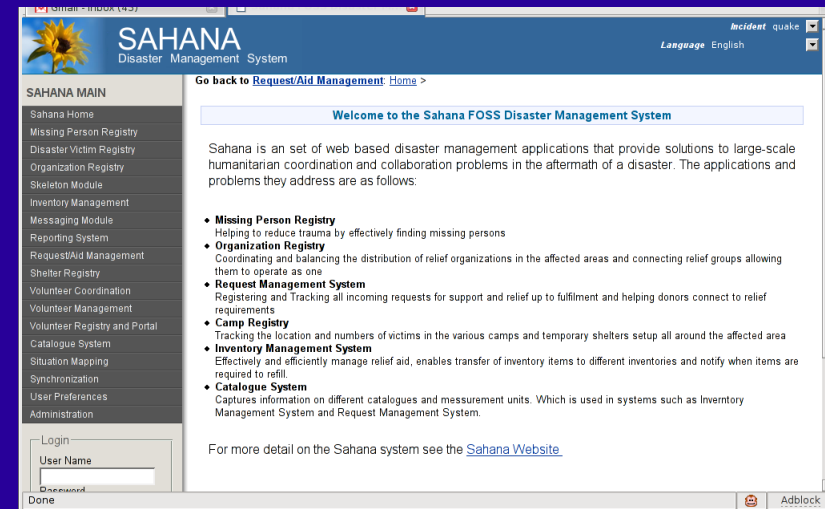
Problem: Aftermath of Disasters

- 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 persons and families

The screenshot shows the 'Organization Registration' form in the SAHANA Disaster Management System. The form is titled 'Organization Registration' and includes a sidebar with navigation links. The main form area contains several fields for registration details.

Organization Registration

Fields marked with * are required (entry is compulsory)

* Organization Name :

* Organization Type :

* Services Provided :

Base Location Information

* Country of Origin :

Registration Number :

* Province :

* District :

The screenshot shows the 'Missing Person Registry' table in the SAHANA Disaster Management System. The table displays a list of missing persons with their details and status.

Missing Person Registry

Key: Fields marked with * are required (entry is compulsory)

Basic Search

Any Card Number :

Any Name :

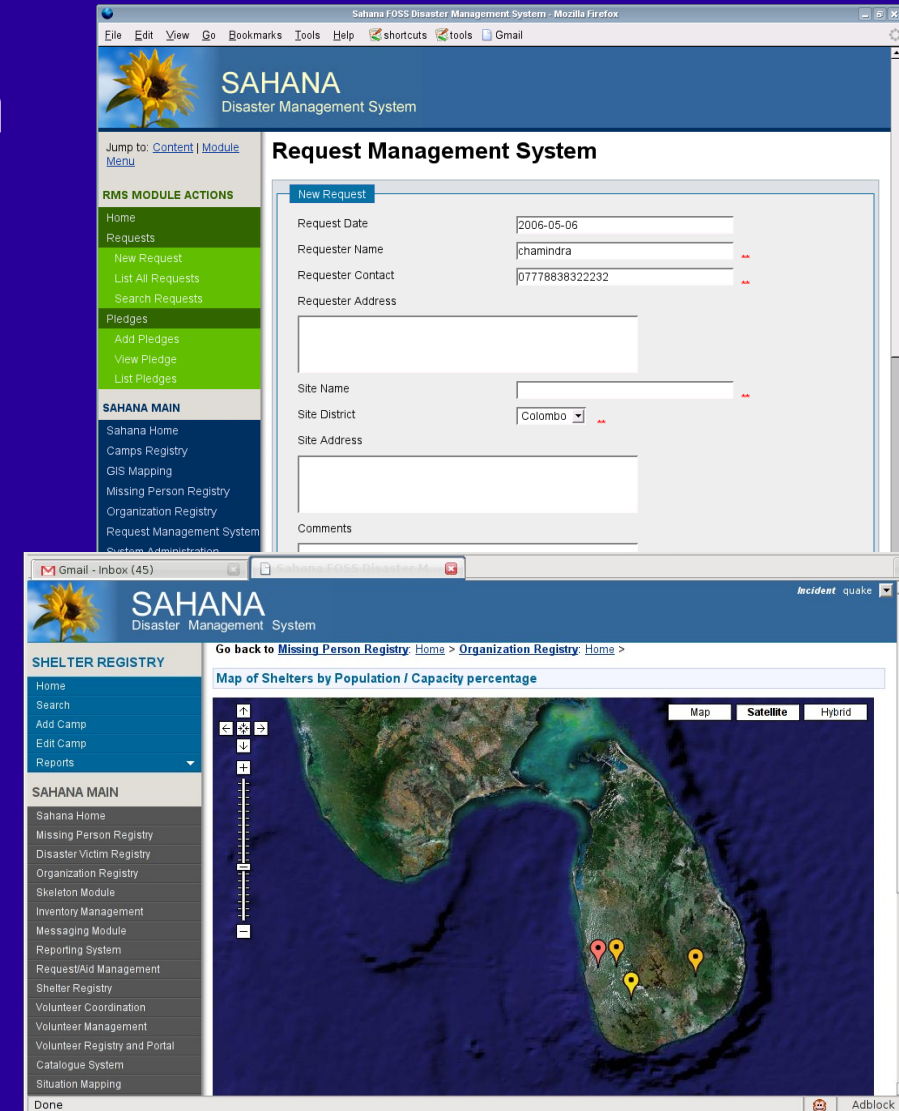
Next

Total 10 Records were found
[Next 5 Records >>](#) [Last 5 Records >>](#)

Picture	Name	Appearance	Missing Details	Status
	Master Yoda Yoda	Height : 66 Meters Weight : unknown	Last Seen : swamp planet of Dagobah	Missing (Click to change to found)
	Yoda Cartman Yo Cartman	Weight : infinity Eye Colour : Black Skin Colour : White Hair Colour : Unknown	Last Seen : south park Comments : Really fat	Missing (Click to change to found)
	Bart Maul Simpson			

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



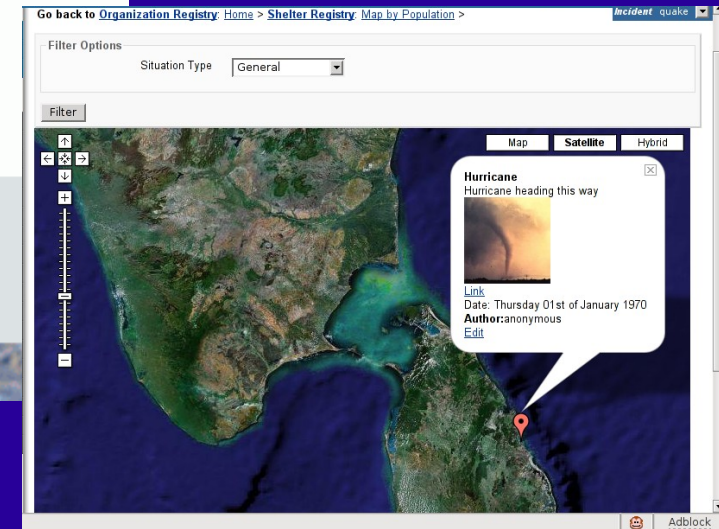
Technology and Features

- FOSS
- Synchronization
- Web Services
- Messaging
 - XMPP, CAP, SMTP
- Localization
- Spatially enabled (GIS)
- PDA/Mobile Accessibility
- LiveCD, LiveUSB

Sarvodaya

- Sahana Live
- Sahana on a Stick

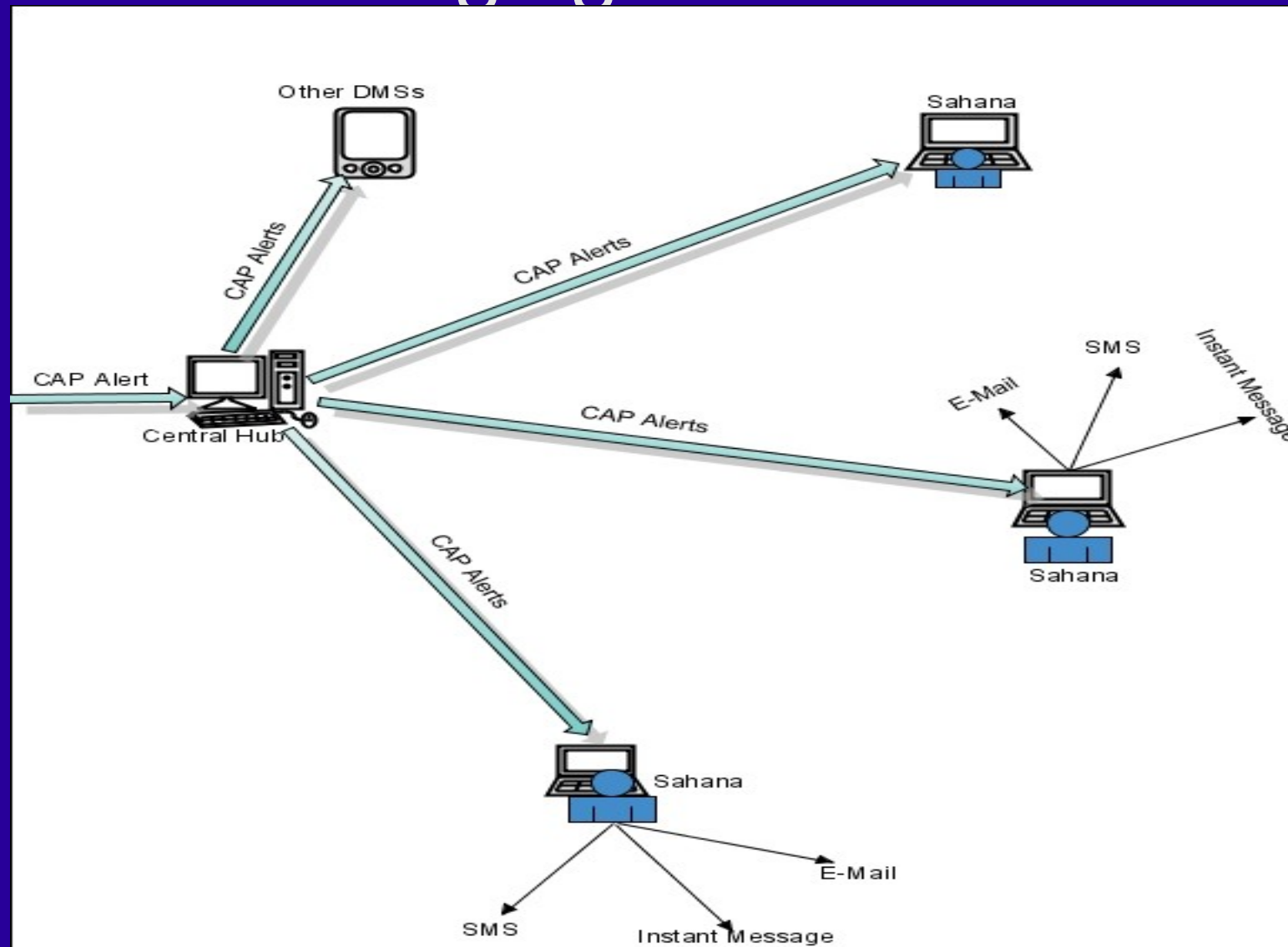
<http://sahana.lk/>



Sahana-Messaging Module

- Technologies
 - SMS
 - E-Mail
 - Instant Messages
 - Voice SMS/Voice mail

Messaging Architecture



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 Guinsaigon 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**
- Yogyakarta Earthquake, **Indonesia** – 2006
 - Deployed by ACS, Indonesian Reliefservice
- 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/>