



The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

Status:

Laureate

Year:

2013

Organization Name:

Sahana Software Foundation

Organization URL:

<http://www.sahanafoundation.org>

Project Name:

Sahana Software Foundation Projects

Please select the category in which you are submitting your entry:

Human Services

Please provide an overview of the nominated project. Describe the problem it was intended to solve, the technology or approach used, how it was innovative and any technical or other challenges that had to be overcome for successful implementation and adoption. (In 300 words or less.)

The Sahana Software Foundation is dedicated to the mission of saving lives by providing information management solutions that enable organizations and communities to better prepare for and respond to disasters. Sahana software was originally developed by members of the Sri Lankan IT community who wanted to find a way to apply their talents towards helping their country recover in the immediate aftermath of the 2004 Indian Ocean earthquake and tsunami. The word "Sahana" means "relief" in Sinhalese, one of the national languages of Sri Lanka. Our community has since grown to include experts in emergency and disaster management as full partners in the software development process. This is extremely unique in the governance of software projects, and a unique strength

of the Sahana Software Foundation. The Sahana Software Foundation is dedicated to the mission of saving lives by providing information management solutions that enable organizations and communities to better prepare for and respond to disasters. We develop free and open source software and provide services that help solve concrete problems and bring efficiencies to disaster response coordination between governments, aid organizations, civil society and the survivors themselves, such as: - Reuniting separated families through registering missing and found persons. - Tracking and managing requests for help from individuals and organizations. - Tracking organizations and programs responding to the disaster, including the coverage and balance in the distribution of aid, providing transparency in the response effort. - Enabling relevant sharing of information across organizations, connecting donors, volunteers, NGOs, and government organizations, enabling them to operate as one.

When was this project implemented or last updated? (Please specify month and year.) Has it incorporated new technologies and/or other innovations since its initial deployment? (In 300 words or less.)

The first iteration of this project was implemented in 2004 in the aftermath of the tsunami. Since then it has been rewritten originally as Sahana-Phase II (later known as Sahana-Krakatoa) and used for many other disasters. The original project was build by the Sri Lankan IT community with the Lanka Software Foundation as the host. In 2009 a new custodian in the form of Sahana Software Foundation took ownership of the project and now hosts multiple unique projects focused on Disaster Management called Sahana-Eden, Sahana-Vesuvius, Sahana Kilauea and Sahana-Mayon. The Sahana Software Foundation is a 501(c)(3) nonprofit organization in the state of California. New technologies that have been incorporated into these projects include GIS features focused towards emergency response and incorporation of new standards such as EDXL.

Is implementation of the project complete? If no, please describe the project's phases and which phase the project is now in. (In 300 words or less.)

The project is a fully functional disaster management system and has been adopted by many governments including New York City, Philippines, Sri Lanka, Pakistan in their disaster response systems and by organizations such as the Red Cross, the Asia Disaster Preparedness Center and the National Library of Medicine. Different projects and customizations of Sahana have been used in each of these instances, and some of the deployed customizations have recycled back as contributions into the project. Examples include Sahana-Versuvius, which was originally built off the original Sahana Krakatoa and now has been contributed back as one of the main branches superseding the Krakatoa version. Another example is the heavy customization that was done for New York City

and used during hurricane Irene and Sandy jointly called SEMS (Sahana Emergency Management System), which is due back as a contribution to Sahana in the first quarter of 2013. Other contributions back make their way through best practices and modules to the main codebases. However, there is always room for improvement, therefore the project continually evolves with inputs and contributions from emergency managers, humanitarian workers, academics and developers.

Please provide at least one example of how the technology project has benefited a specific individual or organization. Feel free to include personal quotes from individuals who have directly benefited from the work. (In 300 words or less.)

Recently Sahana was used for the response to Hurricane Sandy (New York City and New Jersey). However the City's Office of Emergency Management has been relying on Sahana software for its shelter management and registration programs since 2007. Additionally the Sahana Software Foundation is currently assisting community-based organizations with support and services around the management of mutual aid and assistance to populations affected by Hurricane Sandy in the northeastern United States, particularly in New York City and New Jersey. This system has been initially designed to support the collection and aggregation of requests for material assistance and volunteers from the neighborhoods hardest hit by Hurricane Sandy: the Rockaways in Queens, Coney Island and Red Hook in Brooklyn, Staten Island and communities along the New Jersey coast. This will allow organizations, relief drop-off locations and individuals volunteering or donating needed relief items to more effectively prioritize and dispatch needed resources to where they are needed most.

2012 Chilean Wildfires: The Sahana Software Foundation's Eden software, as part of IBM's Smarter Command Center, was used by the Chilean Red Cross (Cruz Roja) for the response to wildfires in Southern Chile. The fires, mainly affecting the communities of Florida and Quillón in the Nuble province of the Bio Bio region of Chile, left one person dead, burned down over 160 homes, displaced hundreds of families and destroyed over 45,000 hectares. Because it can be rapidly adapted, Sahana software has been deployed in response to disasters in: Japan and Columbia (2011); Venezuela, Mexico, Pakistan, Chile, and Haiti (2010); Indonesia and Sri Lanka (2009); China, Myanmar and India (2008); Peru and Bangladesh (2007); Indonesia (2006); the Philippines, Pakistan and Sri Lanka (2005).



Would this project be considered an innovation, a best practice or other notable advancement that could be adopted by or tailored for other organizations and uses? If yes, please describe that here. (In 300 words or less.)

The Sahana system is free and open source software with the purpose of promoting and sharing the information technology based innovations and best practices of disaster management by embodying it in the software built. The fact that Sahana after originally being built for Sri Lanka to support the Sri Lankan government has subsequently spread worldwide to be used in other disasters in countries including China, U.S., Philippines, Pakistan, Peru, Chile, Japan and Haiti for governments and NGOs is a testament that this goal is being delivered through the vehicle of the open source nature of the software and the community that surrounds it. Sahana Foundation has also been a strong proponent of standards in the domain and has worked to adopt open standards such as the EDXL family of standards developed by OASIS and GIS standards developed by mainly the Open Geospatial Consortium and other open source guidelines into our software.

If there are any other details that the judges should know about this project, please note them here. (In 300 words or less.)

Further details on Sahana deployments can be found at <http://sahanafoundation.org/about-us/deployments/>. And the last annual report can be see here. <http://sahanafoundation.org/ssf-2011-annual-report/>.