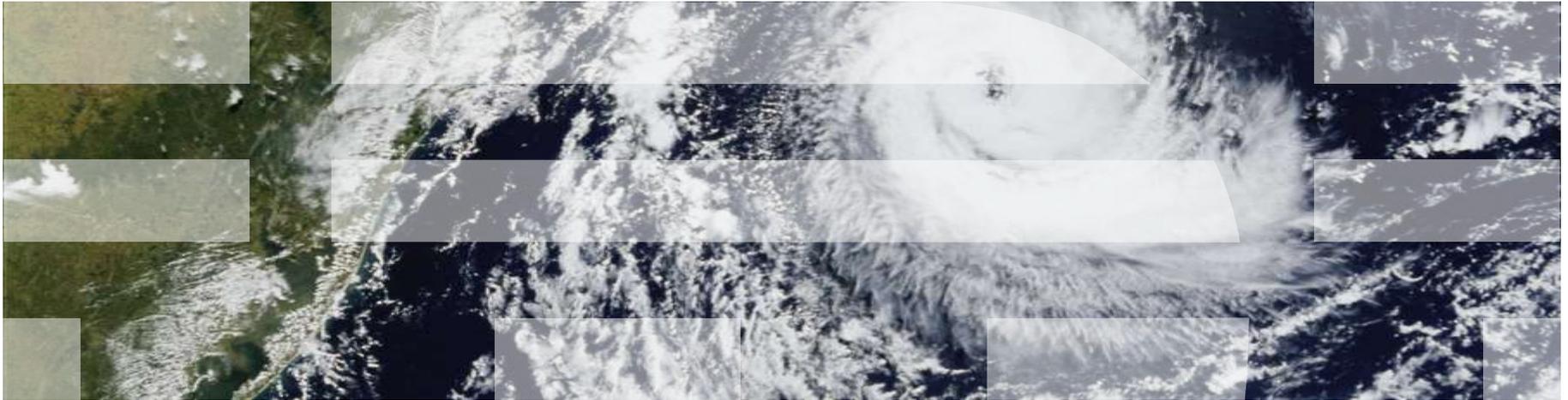


DISASTER & EMERGENCY SERVICE IAVE 23rd World Volunteer Conference

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About Corporate Citizenship at IBM

- IBM's comprehensive approach to corporate citizenship aligns with our values and maximizes the impact we can have as a global enterprise.
- We focus our community engagement and corporate service programs on specific societal issues, including the environment, community economic development, education, health, literacy, disaster, language and culture.
- These are areas of urgent societal needs where we can apply IBM's technology and talent to solve problems.



Citizenship initiatives
Volunteer support
IBM grant programs

Volunteers in action

on demand  community

Our values, your skills, real impact.



Home

FAQs

Volunteer images



The map displays numerous small photo pins across various continents, including North America, Europe, Africa, and Asia. A callout box is open over South Africa, showing a photo of a person on a construction site. The callout text reads: "GBS South Africa Building with Habitat... GBS South Africa Building with Habitat For Humanity. We working hard alongside the community to build a house during the course of a week. The new..."

Disaster Volunteering Activity Kit

Helps any volunteer prepare to become a disaster volunteer.

Many forces shape IBM's work in humanitarian disaster response and recovery



How we activate after disasters strike

- Enabling our executives and corporate citizenship team to listen and lead
- Leveraging local, regional and global relationships to understand how we can help
- Identifying IBM technology, offerings and solutions to address humanitarian needs
- Engaging IBMers with specialized expertise
- Applying our existing corporate citizenship portfolio
- Streamlining employee donations of cash to the relief effort
- Mobilizing IBM volunteers in appropriate and meaningful ways

New technologies and virtual volunteers are changing the way IBM responds

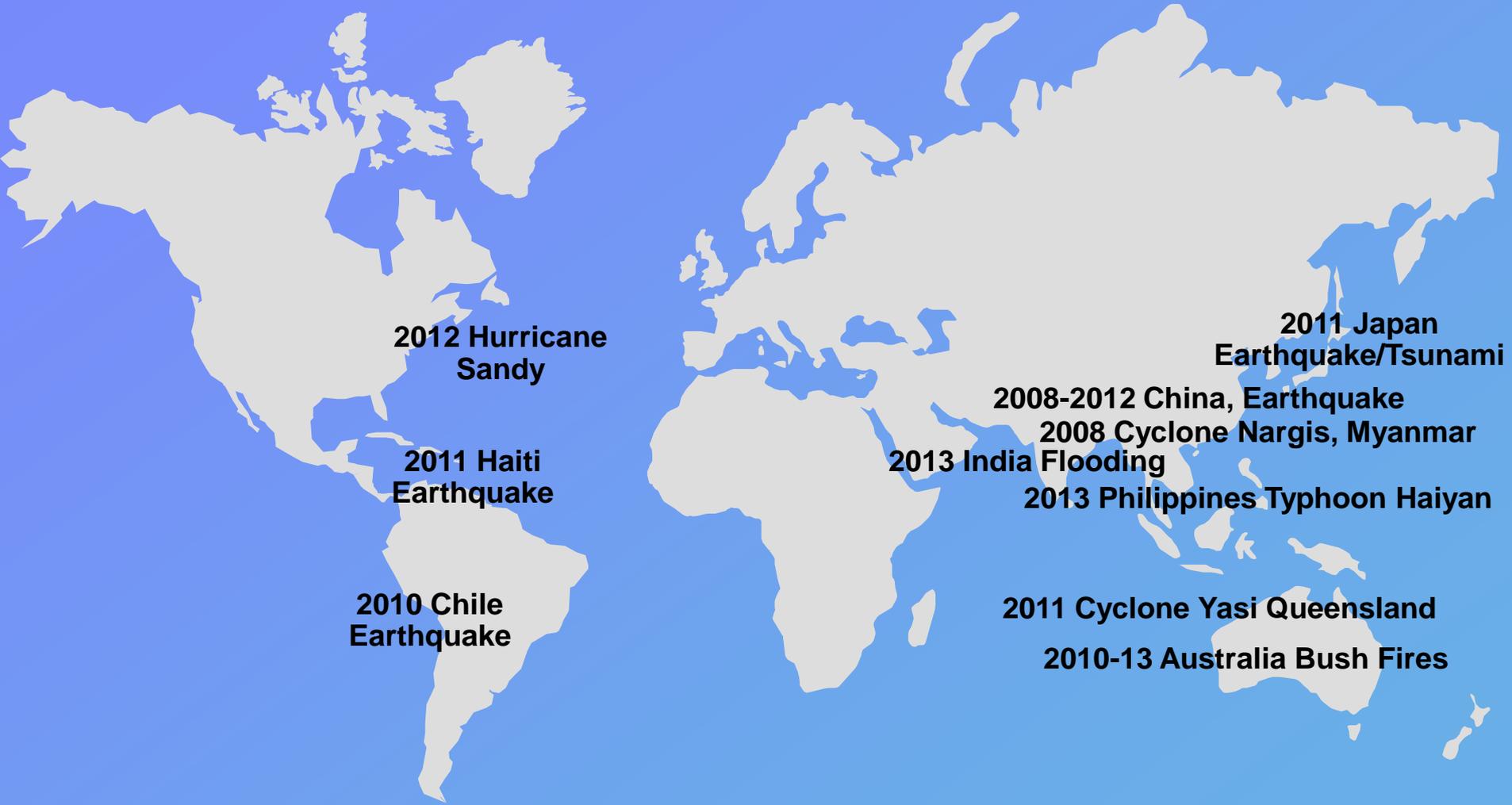
- 9/11 attacks (2001)
- Southeast Asia tsunami (2004)
- Pakistan earthquake (2005)
- U.S. Gulf Coast hurricanes (2005)
- Peru earthquake (2007)
- China earthquake in Sichuan Province (2008)
- India flooding in Bihar State (2008)
- Typhoons in Philippines, Vietnam, Taiwan (2009)
- Indonesia earthquake (2009)
- Haiti earthquake (2010)
- Australian Bush Fires (2010)
- Chile earthquake (2010)
- Japan earthquake and tsunami (2011)
- SuperStorm Sandy (2012)

Our focus: IT solutions to critical challenges

- Infrastructure damaged or destroyed
 - Technologies to re-establish and strengthen operations and communications
- Lack of coordination
 - Systems to facilitate cooperation and communication among multiple governments, NGOs, corporations
- Critical needs
 - Systems to manage logistics, urgent supplies, personnel, funding
- Volumes of data, urgent action
 - Tools to mine data for trends and models



IBM's Presence in Major Humanitarian Disaster Responses Since 2008



Japan Tsunami/earthquake: Tōhoku, March 2011



- Crisis:
 - Magnitude 9.0 quake and destructive tsunami; 23,000 killed or missing, 84K homeless
- Volunteer Activities:
 - Just before the earthquake, Hyogontech launched Sahana Japan, a Japanese language support project for Sahana.
 - When the earthquake hit on March 11, 2011, they had to build a Sahana operating environment amid the crisis situation.
 - IBM partnered with Hyogontech, providing grant support and volunteer assistance.
 - To extend the Sahana deployment, IBMers also helped to set up >300 Android terminals for Sahana use, and helped develop the communication and infrastructure to complete the deployment.
 - Two Executive Service Corps teams in 2011 and three more in 2012 to focus on rebuilding

SuperStorm Sandy: US Mid-Atlantic, October 2012



- Crisis:
 - Hurricane Sandy was the deadliest and most destructive hurricane of the 2012 Atlantic hurricane season, as well as the second-costliest hurricane in United States history. Total fatalities: 285
- Volunteer Activities:
 - Providing advice for impacted citizens on eligibility and process for FEMA
 - An IBM attorney mobilized lawyers to volunteer; a makeshift advice tent grew to five locations
 - After a month, the City Bar Justice Center took over, with volunteers continuing.
 - Later, the IBMer started teaming with Pro Bono Net and facilitated the IBM donation of SmartCloud for Social Business to support collaboration and a virtual forum
 - Pilot project using IBM volunteers to process Twitter feeds about Hurricane Sandy to help harden new IBM social media offering – Crisis Tracker

India Cyclone Phailin and Uttarakhand flooding 2013

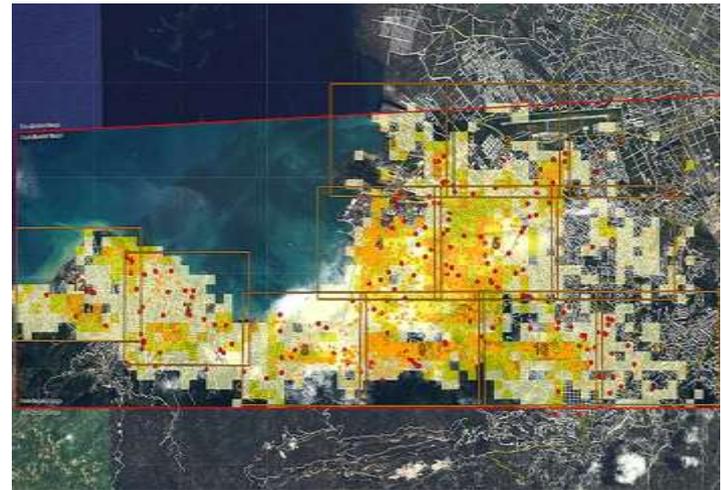
- Crisis:
 - Massive flooding throughout India in 2013
- Volunteer Activities:
 - Cyclone Phailin October 2013:
 - IBMers created a reconstruction program tracker that includes reporting using IBM Cognos and an Android mobile application to capture images of project progress at geographically dispersed sites, and to load them into the centralized monitoring system.
 - Flooding in Uttarakhand 2013
 - IBMers used analytics to consolidate and match missing persons information to assist in family reunification. Volunteers used SPSS Data Modeler to analyze cell phone datasets received from telcos to build a database of last known location of cell phones of missing people. A list of numbers were created which were then traced to the disaster area within a few days of the disaster, and compared to those phones which came eventually came back on line.
 - IBMers helped the government set up websites and kiosks to disseminate information on missing people.

Ya'an Earthquake, China 2013

- Crisis: The Ya'an earthquake occurred at 08:02 Beijing Time April 20, 2013. The epicenter was located in Lushan County, Ya'an, Sichuan, about 116 km (72 mi) from Chengdu in the same province heavily impacted by the 2008 Sichuan earthquake. The magnitude of the earthquake was placed at M 7.0
- Volunteer Activities:
 - Within 24 hours after the Ya'an quake IBM volunteers created a new GIS mobile app to allow persons needing help and/or trapped in the rubble to use their mobile device to show their current location.

Haiti earthquake: January 2010

- Crisis: 7.0 earthquake
- Casualties: 316,000 deaths (government estimate)
- Volunteer activities:
 - IBMer created Facebook Person Finder
 - IBMer helped Colleagues in Care establish a medical best practices system between US and Haitian doctors



Our approach to partnering during disaster responses

- We first listen for the most critical and unmet needs when disaster strikes
- We reach across the entire IBM company globally to find the right mix of expertise and technology
- We act quickly to deploy resources both local and virtual
- We learn from each disaster response, and continue to build on the experience and lessons learned
- We focus on all stages of disaster response especially in helping volunteer groups to become better prepared and more resilient

Major Response: Typhoon Response – IBM IOC to Philippines

The screenshot displays the IBM IOC-EM Operator interface in a Firefox browser window. The browser's address bar shows the URL: https://webiocem.icto.dost.gov.ph/wps/portal/!ut/p/a1/04_Sj9CPykssy0xPLMnMz0vMAfGjzO1DDCxdtWtDLz8nUMNDTz9_F2DJR1NDAwMzEKIoEKDH/. The page title is "IOC-EM Operator: Operations - DOST...".

The interface features a top navigation bar with the following menu items: IOC-EM, DOST, Analytics, Agency Sources, Internet Sources, BI_Portal_Int, Administration, and wps admin. The main header area includes "IOC-EM Operator: Operations" and several action buttons: Notifications, My Activities (with a notification badge), Contacts, and More Actions (with a dropdown menu containing "New Item", "Reset Map", and "Base Maps").

On the left side, there is a "Favorites" panel with a list of filters and their status:

- Date & Time: ✓
- Boundary: ✓
- Online: ■
- Offline: ■
- Army: ■
- Shelters: ■
- Events: ■
- Casualties: ■
- Generators: ■
- p5: ■
- DOH_Rebuild: ■

Below the filters are "Save" and "Clear" buttons, and an "Auto refresh" section set to "1" hour.

The main content area is a map of the Philippines, with tabs for "Map", "Location Map", and "List". The map shows numerous location markers across the country, including Baguio, Urdaneta, Palayan, San Fernando, Manila, Pablo, Iloilo City, Zamboanga City, Cebu City, Surigao, and Davao City. A sidebar on the left of the map contains navigation controls like zoom in (+), zoom out (-), and a compass.

The Windows taskbar at the bottom shows the system clock at 13:47 and the language set to EN.

Sahana as part of IBM disaster response

- .Sahana is a web-based disaster management application that provides management solutions, focusing on large-scale humanitarian disasters.
- It enables enhanced coordination by promoting integrated information gathering. It assists collaboration by providing a number of communication mechanisms in the aftermath of a disasters.
- **Sahana is built from free and open source software and released under OSI licenses, which means all users are free to download and use it**
- Sahana functions both online as well as a stand alone tool for disaster management, depending on the operational considerations. Users can access it via their local machine, from within the network, as part of a corporate intranet or anywhere in world via the Internet.
- 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



Volunteers help deploy Sahana during the Typhoons in Southeast Asia: 2009

- Crisis: Typhoons affecting the Philippines, China, Vietnam, Laos, Cambodia, Thailand
- Volunteer activities:
 - Deployment of Sahana, an open source disaster management system owned by the Sahana Foundation
 - In Philippines, with Philippines Red Cross and National Disaster Coordinating Council
 - In India, new modules compatible with Sahana in Andhra Pradesh where 26,000 homes were destroyed due to severe flooding.
 - In Taiwan, created a Sahana website in traditional Chinese, for use by any agency requiring its functionality; conducted Sahana training to the Central Emergency Operations Center, coordinated by National Fire Agency

SOME CHALLENGES IN RESPONDING TO MAJOR NATURAL DISASTERS

- Access to appropriate Government Response Agency leaders & obtaining official approval to offer assistance
- Identifying the most critical needs of response organisations, especially if the disaster is in a remote area, like the mountains in China, or remote islands in Philippines or Indonesia
- Mobilizing IBM experts for remote responses including Visas, travel arrangements at very short notice, or where there may be government restrictions on travel
- Communicating with employees globally about what we are doing in response to a disaster, especially if the requirements are complex, eg Typhoon Haiyan Philippines which took some time to scope, working with the government agencies involved.

Thank you!

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