THE WHITE HOUSE
Office of Science and Technology Policy

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FACT SHEET: White House Innovation for Disaster Response and Recovery Demo Day

The White House Innovation for Disaster Response and Recovery Initiative was launched by the Administration in the wake of Hurricane Sandy to find the most effective ways technology can empower survivors; first responders; and local, state, tribal, territorial, and Federal governments with critical information and resources.

To help address the challenges that severe weather and other disasters can pose to our communities, today the White House is hosting the Innovation for Disaster Response and Recovery Initiative Demo Day. This event brings together technologists, entrepreneurs, and members of the disaster response community to showcase tools that will make a tangible impact in the lives of survivors of large-scale emergencies. Building on the innovations highlighted as part of the President's Hurricane Briefing in May 2014, these innovations aim to enable, empower, and strengthen these survivors and their communities in the wake of a disaster.

Today, in line with the Administration's goal of better preparing and supporting survivors and communities following a disaster, public and private entities are demonstrating a host of new initiatives, tools, and services at the White House, including the following examples:

Administration Efforts, Tools, and Services

- **National Geospatial-Intelligence Agency (NGA).** NGA is announcing GeoQ, a tool that crowdsources geo-tagged photos of disaster-affected areas to assess damage over large regions. Developed in coordination with NGA, the Presidential Innovation Fellow Program, the Federal Emergency Management Agency (FEMA), and other disaster analysts, GeoQ improves the speed and quality of disaster-related data coordination by using a data crowd-sharing framework. Programmers can use the existing services and add features to customize the GeoQ code for their own community.

- **Environmental Protection Agency (EPA).** EPA is showcasing its I-WASTE tool, a flexible, web-based, planning and decision-making tool to address disaster waste management issues. I-WASTE offers emergency responders, industry representatives, and responsible officials reliable information on waste characterization, treatment, and disposal options, as well as guidance on how to incorporate waste management into planning and response for natural disasters, terrorist attacks and animal disease outbreaks.

- **The U.S. Geological Survey (USGS).** USGS is highlighting ShakeMap and other post-earthquake information tools that offer rapid situational awareness for disaster response and recovery. Using data from seismic monitoring systems maintained by USGS and its state and university partners, ShakeMap provides a rapid graphical estimate of ground shaking in an affected region on the web within minutes of an event. The maps and underlying data, which can be downloaded in numerous formats for use in GIS and other applications, are also the basis for ShakeCast—which enables emergency managers at a growing number of companies, response organizations, and local governments to automatically receive USGS shaking data and generate their own customized impact alerts for their facilities.

- **The U.S. Department of Energy (DOE).** DOE is previewing "Lantern Live," a mobile app that provides helpful information and assistance during a disaster. The mobile app is designed to provide consumers timely disaster preparedness tips and recommendations, allow consumers to report and access information on power outages and fallen power lines, and help users find fuel and report the status of gas stations.

- **The U.S. Department of Homeland Security (DHS).**

  - The DHS Science and Technology Directorate, the Feast, and Intel will host a Hardware Hackathon in New York on October 10-11, 2014. The hackathon will bring together hardware-focused innovators to explore what could be created to help make our cities more resilient, and to prototype solutions in a local context in Red Hook, Brooklyn--an area still recovering from the destruction of Hurricane Sandy. Technologists and entrepreneurs will have the opportunity to pilot their solutions in the Red Hook community and get their hardware into the hands of local stakeholders, gathering insight and feedback in order to refine their prototypes into tools that address pressing needs.

  - DHS is transitioning its Next-Generation Incident Command System (NICS)--a collaborative, online incident-map capability that improves situational awareness for first responders in the field--to a group of more than 200 volunteer organizations. This situational awareness mapping tool is currently operational or being evaluated in 25 states across the country, as well as by international partners. Any credentialed responder can mark up the map, add data, or type a message on the interface. To date, NICS has been used for more than 300 live operational incidents since 2010, including wildland fires, floods, search and rescue, and special events. DHS is transitioning the ongoing operational maintenance of NICS to the NICS Users Group, a California-based group of more than 200 volunteer organizations representing the fire, law, and medical communities.

- DHS and the Zoonotic and Animal Disease Defense Center of Excellence are piloting the AgCONNECT suite of pluggable mobile and web-based desktop applications in 15 states and over 60 laboratories nationwide. To demonstrate how data aggregation and information sharing will support business continuity during animal disease incidents, DHS is piloting AgCONNECT to link agriculture industry and government officials to data sources through user-defined and access-controlled common operating pictures. The applications are demonstrating utility to the animal agriculture sector on a daily basis but have also been developed to assist animal health officials to prepare for and identify novel and emerging disease threats earlier. Free mobile applications are available for validated and accredited first responders.

- **The Federal Emergency Management Agency (FEMA)**. Today FEMA is announcing that the FEMA app has been downloaded more than 225,000 times. Disaster Reporter, a crowd-source feature within the FEMA App, allows citizens to take a photograph in a disaster area and share it, along with a short description of the image--with the goal of allowing survivors, first responders, emergency managers, community response & recovery teams, and others to view and contribute information on a publicly accessible map during a disaster. There are currently 186 photos available on the Disaster Reporter map including photos from Colorado flooding, the Washington mudslide, and other disaster-related events.

- **Department of Health and Human Services (HHS).**

  - The Assistant Secretary for Preparedness and Response (ASPR) at HHS has launched nowtrending.hhs.gov--website created as a result of the challenge competition *Now Trending: #Health in My Community in 2012*. This competition challenged entrants to create a web-based application to search open-source Twitter data for health and natural disaster topics and deliver analysis of those data for both a specified geographic area and at the national level as a result of that contest. The information and analytic charts available on the website will assist local and state health departments and other public health emergency entities by serving as indicators of potential health issues emerging in a population, building a baseline of trend data, engaging the public on trending health or disaster topics, or cross-referencing other data sources.

  - HHS's Office of the Assistant Secretary for Preparedness and Response (ASPR) and Centers for Medicare & Medicaid Services is announcing the forthcoming launch of an HHS *At-Risk Resiliency Interactive Map*, an open data map featuring the number of electricity-dependent Medicare beneficiaries at the U.S. territory, state, county, and zip code level, along with NOAA real-time weather-tracking capabilities to identify areas that may be impacted by severe weather and at risk for prolonged power

outages. Together, these data can assist community partners, such as hospitals, emergency medical services, and emergency managers, to better anticipate, plan for, and rapidly assist electricity-dependent individuals within their communities. The HHS *At-Risk Resiliency Interactive Map* is under development and anticipated to launch on www.phe.gov in September 2014.

- **U.S. Agency for International Development (USAID) and the Department of State.** USAID's Office of U.S. Foreign Disaster Assistance and the U.S. Department of State are collaborating with partner organizations to build tools and platforms for creating and sharing Open Data, and to educate the public about how to use these tools and platforms. Emergency managers can learn more about these initiatives by visiting [MapGive](#) and the [United Nations Office for the Coordination of Humanitarian Affairs – Humanitarian Data Exchange](#).

- **Disasters.data.gov preview.** A preview version of disaster.data.gov will be shown at today's event, featuring tools built by members of the private and public sectors as well as disaster-related datasets. The site will be developed over the coming months, incorporating feedback from emergency managers, first responders, survivors, and the public and private sector with the goal of building a resource for the community to improve preparedness and use in the wake of a disaster.

Private-Sector Responses

Many private-sector entities, including the following, have responded to the Administration's national call to action to improve America's disaster response and recovery. To share your examples or learn more, contact disastertech@ostp.gov.

- **Airbnb.** Airbnb is partnering with the cities of San Francisco and Portland to encourage greater collaboration with regional disaster relief organizations and build city-resilience before, during, and after disasters. The partnerships will pre-identify hosts for displaced persons and service workers when an emergency occurs, facilitate disaster and emergency-preparedness education, provide alerts via mobile and web technology, and cultivate hosts as trained leaders in their neighborhoods through community response training.

- **The American Red Cross.** The American Red Cross' suite of six disaster preparedness apps aim to help deal with first aid emergencies, weather emergencies, and natural disasters. These apps allow users to view information in either English or Spanish, with or without data connectivity, and provide real-time weather alerts from the Federal Government during events such as hurricanes, tornadoes, earthquakes, wildfires, and floods. Users can also use these apps to let loved ones know they are safe and share important emergency information on their social networks.

- **Appallicious.** Appallicious is launching the first demo of its Disaster Assistance and Assessment Dashboard (DAAD) to help communities and economies survive disaster. DAAD was initially developed as an outcome of the White House Office of Science and Technology Policy (OSTP) Safety Datapalooza, in collaboration with FEMA and the OpenFEMA Labs, to empower government and citizens to better assess and improve their pre-disaster resiliency. DAAD visualizes nearby environmental hazards, and allows local government to identify community resources, creating an economy that can better recover from within.

- **Big City Emergency Managers.** Big City Emergency Managers is committing to share the tools presented at this event with emergency mangers and their staff from cities across America. With participation by emergency managers of the 15 largest cities and jurisdictions in the United States, Big Emergency Managers aims to widely share lessons learned and best practice for disaster response and recovery.

- **The City of San Francisco and IDEO.** The City of San Francisco and IDEO are launching the City72 Toolkit, an open-source, turnkey solution to enable communities to customize and build their own preparedness platforms. Modeled after SF72, San Francisco's emergency preparedness hub, the City72 Toolkit launching today is designed for local governments and allows any community to create an effective preparedness platform. The tool includes open source code that offers local governments and web developers universal and free access to the City72 design, and provides universal redistribution of the design, including any improvements made by other communities or developers. The toolkit contains guides to help users create their own City72 site and a City72 content editor, as well as planning tips and resources based on San Francisco's experience developing SF72. Johnson County, Kansas is using the toolkit to launch their own JoCo72 today.

- **Civic Ninjas.** Civic Ninjas is showcasing the Shining Light Project, a wearable device for emergency responder credentialing and disaster access control. The device has color-coded LEDs that indicate whether an emergency responder is allowed into an area based on geo-fenced GPS information. The Shining Light device uses Bluetooth Low Energy to tether to smart devices running a native app for real-time device control. In addition to perimeter access control, the device can also show search grid locations and provide time-based go/no go signaling for personnel needing to cycle back to their Base of Operations.

- **Getaround**. Getaround is launching a disaster assistance policy and web portal to help educate people about how to find or share a vehicle following a disaster.

- **Google.** Google is extending its Crisis Map, an open source and freely available web mapping tool, to include crowd-sourcing capabilities. Google recently updated this tool to enable users to contribute information and updates about a disaster event, such as whether a gas station has fuel available. In addition, a number of electric utilities and technology companies--including Duke Energy,

BGE, ComEd, PECO, SDG&E, Southern California Edison, National Grid, and iFactor Consulting--have agreed to publish power outage and restoration data openly, so Crisis Map and other websites can use and display the information.

- **Humetrix.** Humetrix is providing an ICEBlueButton "In Case of Emergency" App for medical information and emergency contacts. ICEBlueButton is a smartphone "In Case of Emergency" ("ICE") app that lets emergency responders immediately access an individual's important medical information and emergency contacts. ICEBlueButton can also send automatic email alerts to emergency contacts when the QR code is scanned, along with a map of the individual's location.

- **The International Association of Emergency Managers.** The International Association of Emergency Managers, representing more than 6,000 emergency management professionals worldwide, is making a commitment to share the tools presented at today's event with emergency managers around the world.

- **LDLN.** LDLN is releasing Base Station Version 2.0, an open-source repository for data collection and synchronization. LDLN is a communications system providing field agents with inexpensive portable base stations and mobile apps to collect data and synchronize it with the rest of their organization, without relying on Internet, cell service, satellite uplink, or radio. Version 2.0 adds many useful tools for NGO and governmental organizations, including full end-to-end encryption to ensure survivor and employee security; web-socket syncing technology for faster and more consistent communication; and a new form builder tool, allowing agencies to customize the data they collect on-the-fly and in the field.

- **Microsoft.** Microsoft is adding the Yammer survivor network to its disaster-response program's portfolio of rapidly deployable solutions for use in the wake of a disaster. Yammer's deployment in the wake of the Boston Marathon Bombings and Hurricane Sandy aims to connect and provide a support network for survivors and responders as they recover and rebuild.

- **The MITRE Corporation.** The MITRE Corporation is today demonstrating three of its tools for disaster response and recovery operations. The Smart Phone Ad-hoc Networking (SPAN) project creates a framework for communication between individuals and external cell networks when typical infrastructure is unavailable; Sociocultural Analytics for the Global Environment (SAGE) provides near real-time understanding of online and social media sources to support rapid situational awareness and decision making during disaster response and recovery; and "Incident Command Net" enables first responders to share information using the OASIS Emergency Data Exchange Language (EDXL) standards to enhance situational awareness and command and control capabilities.

- **NPR Labs.** NPR Labs developed an emergency-alerting system that could provide timely and potentially life-saving emergency information to the 36 million Americans who are deaf and hard-of-hearing, using a battery-operated radio and Android tablet. The broadcast technology uses secure satellite and over-the-air broadcasts that are available regardless of power outages, Internet, or cellular-service limitations.

- **Riskpulse.** Riskpulse is launching a free weather-tracking application that aggregates and displays risk and weather information to enhance government use and decision making.

- **SeeClickFix.** SeeClickFix is sharing its database of citizen requests for on-the-spot services (such as removal of fallen debris) to help generate clear and actionable data regarding the current state of infrastructure during and immediately after a natural disaster.

- **TaskRabbit.** TaskRabbit is announcing a new mobile web interface, *the TaskRabbit Needs for First Responders,* which provides a safe and efficient marketplace to connect local service providers with those who need assistance. Using the interface, authorized individuals can post requests for help during a disaster and can connect to interested "taskers," pre-vetted volunteers who can assist them in real time, on the ground.

- **Twilio.** Twilio is open-sourcing a framework for developers to stand up effective communications solutions during an emergency response. Without any on-site equipment or telecommunications expertise, Twilio's Rapid Response Kit delivers nine tools that developers can mix, match, and customize to meet the changing communications needs of a response on the ground. Tools such as SMS-powered volunteer signup and survivor surveys, flexible push and pull conference calling, and rapid IVR phone tree configuration can provide developers a foundation for responding to events with effective communication.

- **The Weather Company.** The Weather Company is building a localized alerting platform that will enable state, local, and private authorities to manage and distribute alerts. These alerts will go out via The Weather Channel and existing local distribution points, and incorporate NWS and existing IPAWS alerts. This tool aims to help local emergency managers evaluate if and how a severe weather event or non-weather situation will impact citizens; localize the alert with actionable messages to citizens geo-targeted to specific areas; and communicate the impact to millions of people immediately through websites, mobile devices, TV, radio, and regional locations via an API.

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