PALANTIR HUMANITARIAN RESPONSE PLATFORM

TYPHOON HAIYAN

INTRODUCTION TO PALANTIR

Palantir Technologies is a software company based in Silicon Valley, California, that helps organizations solve their hardest information problems, including those that frequently impact on the effective coordination of large humanitarian operations and the timely delivery of humanitarian aid.

The Palantir platform can be quickly configured to support a virtually limitless range of use cases, including needs and damage assessments, humanitarian coordination, supply chain management, personnel management, protection of aid workers, and even resource mobilization. This document summarizes how our humanitarian partners have utilized just some of these capabilities in the Philippines following Typhoon Haiyan.

PALANTIR'S RESPONSE TO TYPHOON HAIYAN

When Typhoon Haiyan struck the Philippines in November 2013, we deployed Palantir to integrate massive volumes of data for our partners into a single awareness and decision-making platform. Within hours, publicly available data, assessment data, satellite imagery, weather data, geospatial data on key infrastructure and relief resources, as well as reports from news agencies and governments were available in a single unified view for our partners to search, use and explore. This significantly reduced the time and effort required for effective planning and coordination.

Our engineers then worked with our partners in the field to quickly address a range of problems that were hampering effective coordination and the timely delivery of humanitarian assistance. Some examples are summarized in the following pages.

Today, a growing number of relief agencies, aid organizations, and governments are using Palantir to maintain accurate and real-time awareness, prioritize tasks, match resources with needs, identify gaps in the response, and track the location of relief infrastructure and aid workers. Our secure collaboration capabilities facilitate greater coordination and data-sharing between aid organizations, NGO partners, and national governments, strengthening the partnerships between these actors every day.

CHALLENGES & SOLUTIONS

Challenge: Damage to local infrastructure

Typhoon Haiyan significantly damaged power and communications infrastructure in many areas across the Philippines. This made it extremely difficult for some aid organizations to coordinate and quickly direct aid to where it was most needed.

Solution: Palantir's platforms were specifically developed to work across both disconnected and connected environments so partners using our technology were able to work around these difficulties from Day 1. We extended the reach of our platform into the hardest hit areas using Palantir-enabled laptops, mobile phones, and GPS devices that enabled personnel in the field to communicate with coordinators and headquarters even where there was no electricity, cellular coverage or Wi-Fi. We also hosted Palantir in the cloud, meaning that damage assessments submitted in one location were synced across the entire system and visible to all other users instantly. These capabilities enabled responders to direct much-needed aid towards disconnected regions like Carigara while personnel in Tacloban, Manila, and New York tracked their precise movements in real time.

Challenge: Collaboration across organizational boundaries

The scale of the damage caused by Haiyan meant a range of NGOs, including Direct Relief, Team Rubicon, Access Aid Initiative, Philippines Red Cross, and Gawad Kalinga, found themselves working together for the first time. These partners wanted to share data but had significant data protection and privacy concerns that stood in the way of truly effective collaboration.

Solution: Palantir is a global leader in data protection. Our extremely robust access controls enable organizations to share information in a very controlled way. In the Philippines, we leveraged this technology to apply detailed permissions to each organization's individual data sets. Reassured that their most sensitive data would not be shared, organizations were willing to provide full transparency and access to the rest of their data, which significantly enhanced collaboration and coordination.

Challenge: Integrating innovation in real-time

A number of organizations active in the response brought data sets and technologies with them that had never been used in the field before. Integrating new technologies and data into well-established systems is generally laborious, time-consuming and expensive, so much so that during crises there is often no other choice but to leave them out of the picture.

Solution: Palantir is not just a visualization tool. Its core strength lies in its ability to rapidly integrate new technology and data without the need for expensive custom-built integrations. Palantir's extensive library of built-in technologies already includes a variety of data fusion, correlation, and analytic capabilities, which enabled quick integration of datasets collected on the ground and produced by supporting organization like satellite imagery providers and Open Street Map.

DATA INTEGRATION AND COLLECTION CAPABILITIES

Palantir MIMOSA runs on low-cost, satellite-enabled GPS devices and enables humanitarian responders to communicate with headquarters and each other in real time when other forms of telecommunication are offline or non-existent. Seconds after responders carry out humanitarian assessments using MIMOSA, their data can be examined and analyzed in Palantir by coordinators operating from anywhere in the world, significantly improving response times. MIMOSA also enables real-time tracking of personnel at all times.

In the Philippines, we used MIMOSA to rapidly carry out Health Facility Assessments in areas where there was an information "blackout" due to the absence of electricity and cellular coverage. Direct Relief used the data submitted using MIMOSA to quickly direct medicine and medical devices to facilities that could help people in need.

Palantir Mobile is an Android/iOS application that allows for creation of reports and surveys, tracking of personnel in the field, and remote querying of the Palantir system in environments where cellphone coverage is available. Due to the impact of Typhoon Haiyan on cellular towers in hard-hit areas, we used Palantir Mobile lightly in the Philippines.

Palantir Artemis is a simple web-form for entering data into Palantir. It is highly secure, works well on mobile devices, enables the submission of media, and automatically geocodes locations. We have used Artemis for flexible reporting in the Phillipines. Artemis is highly customizable and can be used and accessed without any prior training.
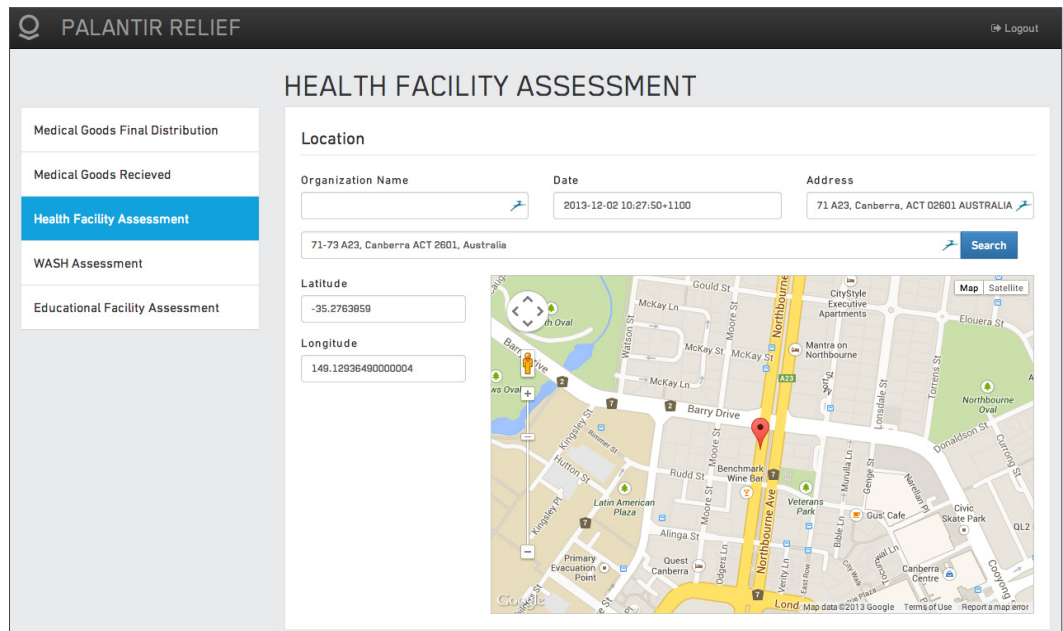
Palantir Artemis web forms automatically geocode data entered from the field.

ANALYTICAL CAPABILITIES

Palantir Executive Dashboard is a web-based tool that senior managers and coordinators can access from their personal devices anywhere in the world in order to rapidly gain complete awareness of a humanitarian response: current needs, gaps, activities, financial data, human resources, inventory, and so on. It displays information from multiple datasets in one integrated view and is fully customized to meet the specific needs of an organization's senior managers and decision-makers. Crucially, all Dashboard graphs, maps, and other visualizations update automatically as underlying data changes, meaning that decision makers have the most up-to-date information on demand at all times. For Haiyan, we use Dashboard to show relief activities by province and type, the number of beneficiaries reached, and the current problem scope, as reflected by relevant assessments. Dashboard can easily be enriched with additional visualizations as required.
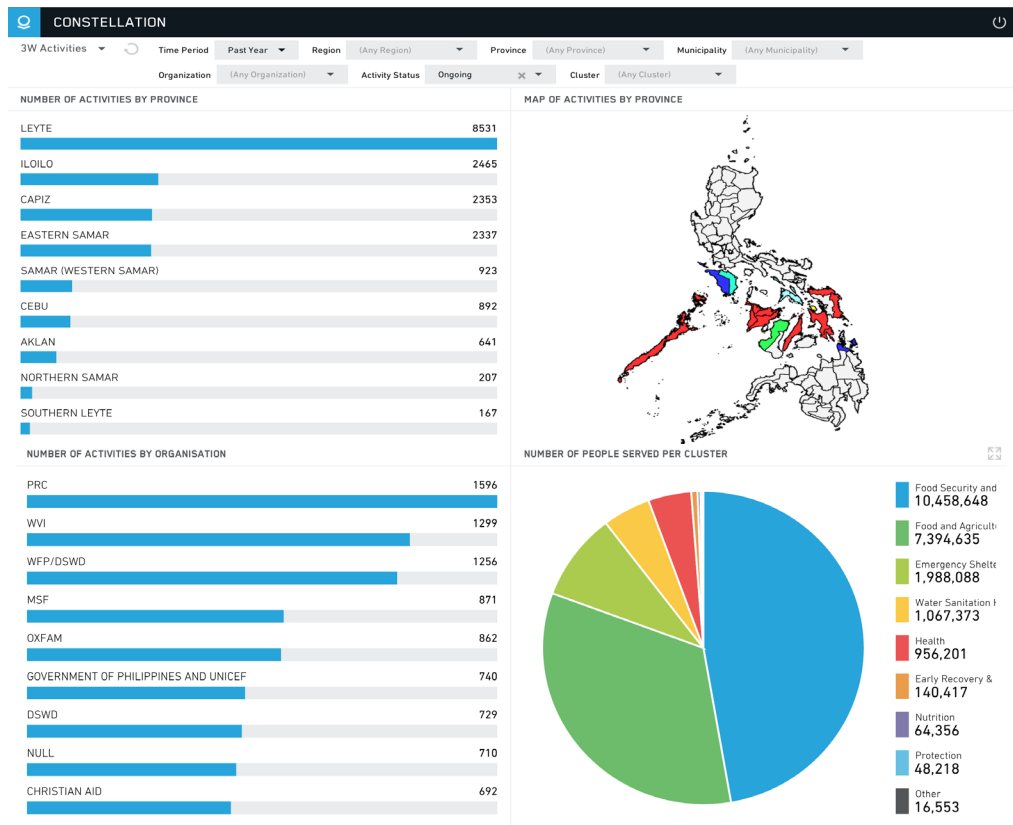

Palantir's customizable Executive Dashboard enables decision makers to see the data of most interest of them in one simplified view.

**ANALYTICAL
CAPABILITIES**

Palantir Raven is a high-performance, user-friendly map application that enables users to search, explore and drill down on millions of geospatial features at sub-second speed. Raven can help improve the timeliness and effectiveness of humanitarian response by giving users the ability to:

- quickly and easily share important findings with senior management, as well as other teams and organizations;
- leverage powerful capabilities such as on-demand satellite imagery to carry out high-level damage assessments on infrastructure like hospitals or airport terminals; and
- track and communicate with MIMOSA-enabled field personnel in real time – all within a single environment.

Raven integrates massive volumes of geospatial data with zero install or load time, and automatically integrates new data, meaning that analysts and decision makers can focus exclusively on high-impact analysis and decision-making.
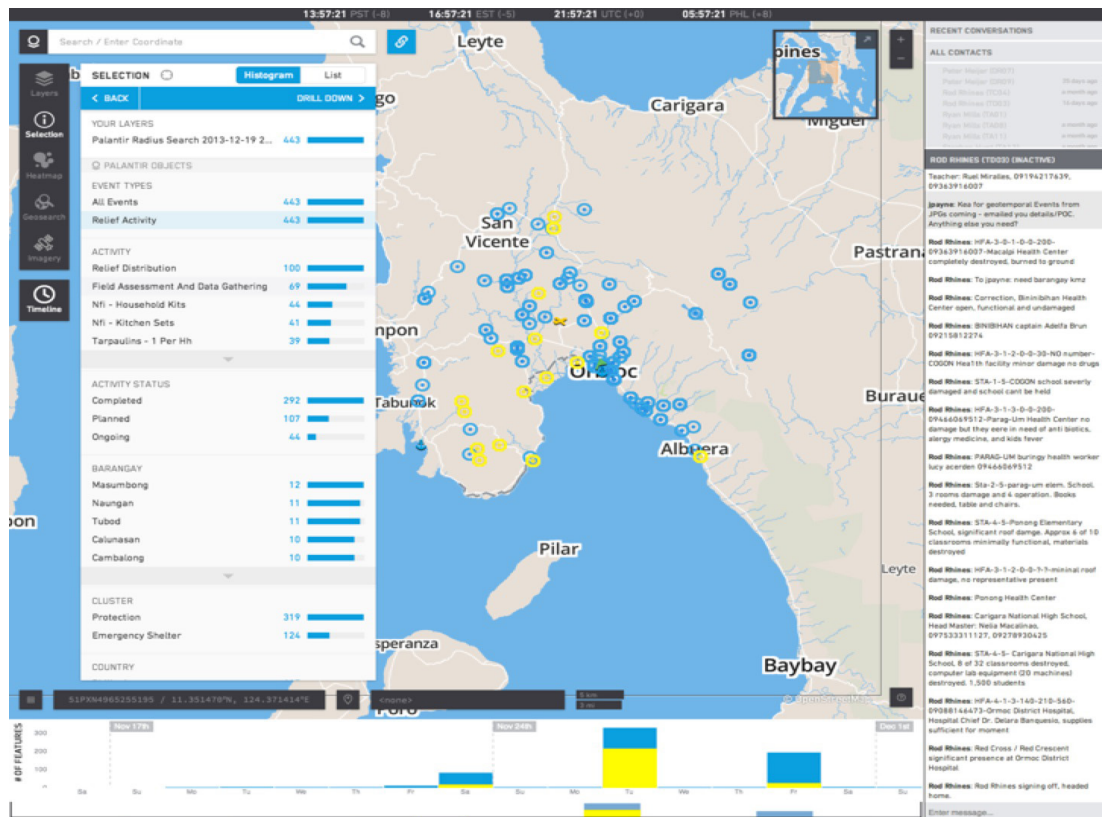
This Raven map highlights ongoing relief activities color-coded by responding organization.

**ANALYTICAL
CAPABILITIES**

Palantir Gotham is a full-fledged analytical solution that combines an array of geospatial, temporal, and network analysis capabilities in a single platform. It is designed to enable subject-matter experts to easily explore and analyze massive volumes of data, and carry out work that would normally take hours or days in just a few minutes. For Haiyan, Gotham was used to generate property-based heatmaps, export KMZ files, and cross reference numerous assessment data sets to identify gaps in the humanitarian response.
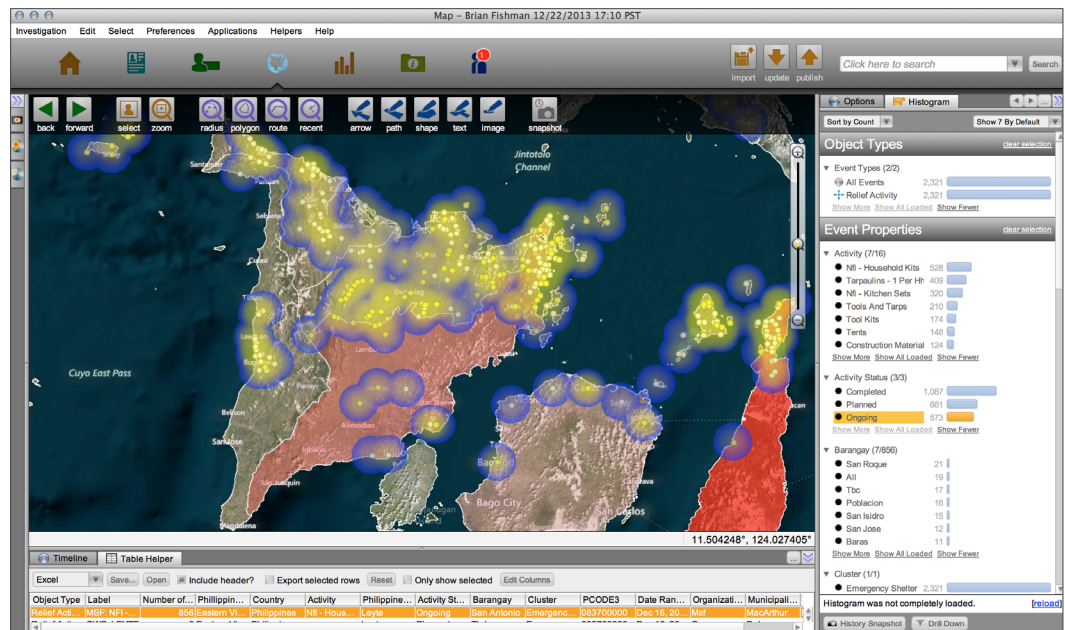
*This Palantir Gotham heatmap gives an overview of emergency shelter activities in selected areas.
In this example, the user can review the location of more than 500 emergency shelters and compare shelter
availability with emergency shelter needs.*

CONCLUSION

As our work in the Philippines and elsewhere shows, we specialize in solving problems and delivering solutions on the timescale that humanitarian actors require: hours and days, not the usual months and years.

We also understand the pressures our humanitarian partners face and take responsibility for delivering what we promise to them. In practice, this means we absorb the risks of implementation, an otherwise unheard-of commitment among major technology providers.

We make this commitment because of our confidence in the power of effective partnerships. By collaborating closely with our humanitarian partners, iterating quickly and welcoming feedback at every step of the way, we are able to deliver transformative outcomes that are in line with our partners' vision and values, every time.

COMPANY BACKGROUND

Palantir Technologies Inc. was founded in 2004 by a handful of PayPal alumni and Stanford University computer scientists. Palantir's software platforms organize massive volumes of data to reflect the way people think, allowing analysts to make connections, draw conclusions, and take action. We ship open, extensible, scalable platforms that can be deployed immediately against the entire class of problems facing organizations in the public, private, and NGO sectors.

Dozens of government and commercial organizations around the world have turned to Palantir to address their most challenging data-related problems. Currently, Palantir has approximately 1,200+ employees worldwide, the majority of whom are engineers. Additional information is available at www.palantir.com.