

## Powering Humanitarian Disaster Response

### Customer

HOT applies the principle of open source and open data sharing to humanitarian response and economic development.

The Humanitarian OpenStreetMap Team (HOT) is one of the world's most technically effective humanitarian groups, specialising in collaborative mapping for disaster preparation, response and recovery. A US based charity, HOT acts as the interface between the OpenStreetMap community and relief organisations, providing remote data creation during crises, collecting and organising existing data sources and supporting deployments to the field.

The OpenStreetMap community is a collection of volunteers that use a variety of freely available geographic data such as aerial photography, satellite imagery and low tech field devices, including GPS, to map features and infrastructure as well as people and events.

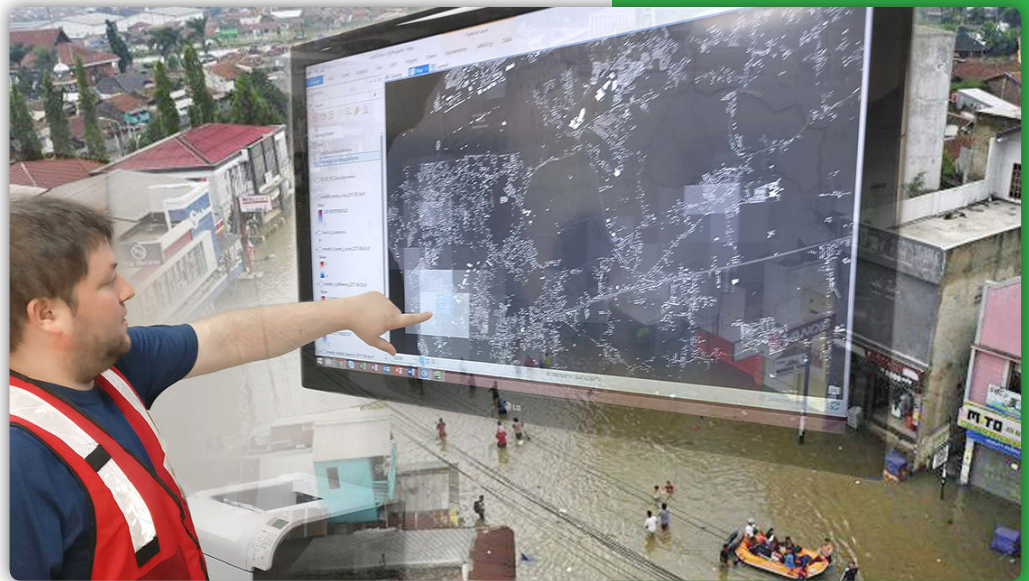
HOT works alongside organisations such as the Red Cross, Médecins Sans Frontières and the World Bank and, as well as post disaster support, HOT is working to improve risk models and grow the OpenStreetMap community in countries such as Tanzania, Uganda, Liberia, Indonesia and Turkey.

### Problem

Coordinating the activities and contributions of more than 60,000 'digital humanitarians' based anywhere in the world, in any time zone, and any language, is a complex task. A previous version of the coordination or Tasking Manager software had already been used by tens of thousands of OSM contributors to map millions of square kilometres around the world. However as projects continued to grow the original software required updating.

The new Tasking Manager was designed and built for the Humanitarian OpenStreetMap Team by thinkWhere with support of the Australian Government, via the Indonesia Disaster Management Innovation programme, the USAID GeoCenter, the World Bank, via the Global Facility for Disaster Reduction and Recovery (GFDRR), the American Red Cross and the George Washington University.

The relationship with HOT arose as a result of thinkWhere's association with its charity partner MapAction, an organisation that gathers crucial data at the scene of emergencies and natural disasters and conveys it visually to first responders and relief organisations.



*“The latest technical developments by thinkWhere will dramatically improve our capability and help speed the delivery of aid to disaster areas.”*

Tyler Radford  
Executive Director  
**HOT**

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## Solution

HOT has significant experience in developing open source programmes and applications to leverage collaborative mapping and the use of new technologies in the field of geographic information for humanitarian aid.

The Tasking Manager is a mapping coordination tool designed and built for HOT by thinkWhere in collaboration with HOT. Using the latest in cloud architectures and open source technologies, the purpose of the tool is to divide up a mapping project into smaller tasks that can be completed rapidly. The Tasking Manager shows which areas need to be mapped and which areas need mapping validated.

The use of the Tasking Manager facilitates the distribution of mapping tasks during a crisis, simultaneously to many mappers, in order to quickly provide base map data to responding organisations. It also permits prioritisation of areas and promotes quality and uniformity of the work to be done for example elements to be covered, specific tags to use, etc.

## In Action

The thinkWhere developed Tasking Manager 3 software contains many new features across four areas targeted for improvement; mapper engagement, validation workflow, project creation and management and scalability and integration. These include more ways to get feedback on mapping with a new Questions and Answers tab, dedicated Validation and Mapping tabs for the identification of new mappers and timely feedback for existing participants and better project organisation of projects and tasks.

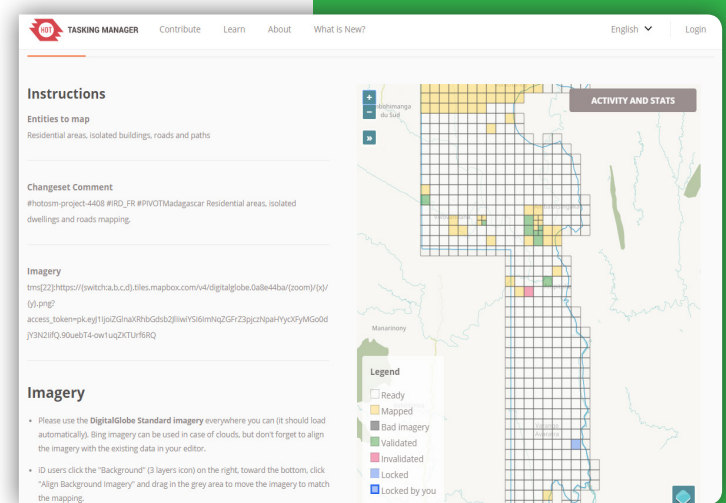
Since launch in Q4 2017 the Tasking Manager has been used for projects around the world including cyclone Gita in Tonga, the Papua New Guinea earthquake response and flooding in South Asia.

## Benefits

- Enhanced mapper engagement with better communication
- Improved work validation process
- Better scalability with advanced project creation and management tools
- Easier third party integration
- Increased registered users by 35,000 to 95,000 global volunteers

## Summary

Working with the Humanitarian OpenStreetMap Team, thinkWhere's development of the Tasking Manager has improved global mapper engagement, project management and validation of mapping for disaster preparation, response and recovery with a future-proof scalable platform.



*“The OSM Tasking Manager enhances mapper engagement with better communication and feedback and easier validation of contributed data.”*

Tyler Radford  
Executive Director  
**HOT**

**thinkWhere** use leading edge cloud, Open Source and GIS technologies, to develop innovative software and solutions, backed by a wide range of GIS implementation, consultancy, support and training services.

They provide an online platform for storing, sharing and using maps and geographic data, and help solve real-world problems using open data and open technology.