

Introduction

The GSS-EM (Georeferenced Support System for Emergency Management – SGA-SCO in Portuguese) is a computer georeferenced system which main objective is to support the agencies such as the FEMA (Federal Emergency Management Agency) in preparation to face emergency situations. Thus, by building a georeferenced mapping, GSS-EM can easily be used to assist in the preparedness and evacuation processes. In addition, the GSS-EM has a powerful user management system, making it possible to customize user groups based on their location. Finally, the GSS-EM also has a complete infrastructure to generate numerous reports on a particular mapping, which may be useful, for example, to list all the residents of an area subject to flooding.

Technology

The GSS-EM is a web system in which all storage and processing is carried out on a high performance cloud-computing infrastructure. Additionally, it takes advantage of state-of-the-art programming techniques.

Potential

Since the GSS-EM is a system based on meta-georeferenced data, one can imagine several other applications that could be implemented with similar concepts and minor tweaks:

- Provide support to the preparation and action of firefighters;
- Inventory management of geographically dispersed assets (with the possibility of simulating their relocation on the map);
- Store georeferenced time series and geographically correlate them;
- Acting on the mapping and prevention of diseases such as the zica virus.



Figure 1 - GSS-EM running on multiple devices.