Map Layers (WMS, KML, Google Earth)

Getting layers to work on Ushahidi is a constant community discussion. This wiki article is to write about what works, what needs work and what to expect. Ushahidi uses Open Layers at the moment. We have some team members playing with Leaflet too.

There are a number of tickets open about layers. The biggest user of layers is the Standby Task Force. The purpose of this page is to help better define the issues and hopefully resolve it.

Old tickets:http://dev.ushahidi.com/issues/show/2240

New tickets on github for Ushahidi platform,   Request for help on Crowdmap (private repo)

Layers and Crowdmap

Crowdmap allows for KML file uploads as "Layers" on our map -- Layers are contextual information available as an overlay to the reports. If organizations are looking to import data points from KML files act active reports within Ushahidi, that is not an option. The CSV format is currently our only option for that.

WMS Layers

What is it?

"A Web Map Service (WMS) is a standard protocol for serving georeferenced map images over the Internet that are generated by a map server using data from a GIS database" http://en.wikipedia.org/wiki/Web_Map_Service

How does it work?

WMS is currently only supported through custom code. There's no UI for add WMS baselayers or overlays in Ushahidi yet.

WMS as alternative to KML: Rather than importing an overly complex KML direct to Ushahidi. If you run a WMS server, such as geonode, you can import the source data (ie. shape files) and convert it to whatever format you need: KML or WMS.

Code
Metacarta example plugin

KML Layers

What is it?

KML is an XML based format for geographic data, most notably used by Google Maps and Google Earth. More info: http://en.wikipedia.org/wiki/Keyhole_Markup_Language

How does it work?

Support for KML layers is built in to Ushahidi core. This allows you to add KML layers from an uploaded file or URL and overlay them on your map. However this is based on Openlayers KML support and so has some limitations.

Problems & troubleshooting:

- KML layers from other domains not loading.
  This could be Issue #231.
  As part of browser security policies, some domains will not allow requests direct from other domains.
  Theres no simple way around this: Try downloading the KML and uploading the file directly into Ushahidi, rather than including it from the URL.
- Invalid KML layers
  Check: Can you load this KML layer in google maps? (goto maps.google.com and paste the url into the search box)
  Can you load this KML layer in google earth?
  If either of these do not work, the layer is unlikely to work in Ushahidi
- Overly complex KML
  For some reason, complex KML files cause issues with Ushahidi. This is probably because all the rendering happen in the browser, and its simply too slow.

If you have a KML with lots of features, one work around is to load this into Google Earth and export the KML layer into multiple different KML layers.
Loading these separately may be more successful.

- There may still be an issue with KML layers in IE Issues #324
- OpenLayers doesn't support GroundOverlay tags in KML files
  See https://github.com/ushahidi/Ushahidi_Web/issues/946 and http://gis.stackexchange.com/questions/16816/does-openlayers-supports-kml-ground-overlays for more info

Code:

KML related plugins

- KML on by default
  Lets you set any KML layers to be displayed by default on the homepage ushahidi map
- KML plugin
  Generate KML output from Ushahidi reports

Google Earth Layers

Plugin