Geo2Tag implementation for Maemo

Mark Zaslavskiy,
Open Source & Linux Lab

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Motivation

- Blog and media content services problems:
  - no support location data
  - no message representation on map
  - each content provider uses own protocol/API

- Current solutions have the same issues:
  - no GPS support
  - or not supported by the most part of the clients
  - missing integration between different services

Project goals

- Create platform for LB services integration with follow features:
  - Creating an association of exist media content services in one place
  - Providing access to the information by single protocol
- Provide multiple clients on different SW platforms

Architecture

Server:

- storage user information with linked location data
- provide web-access to editing information

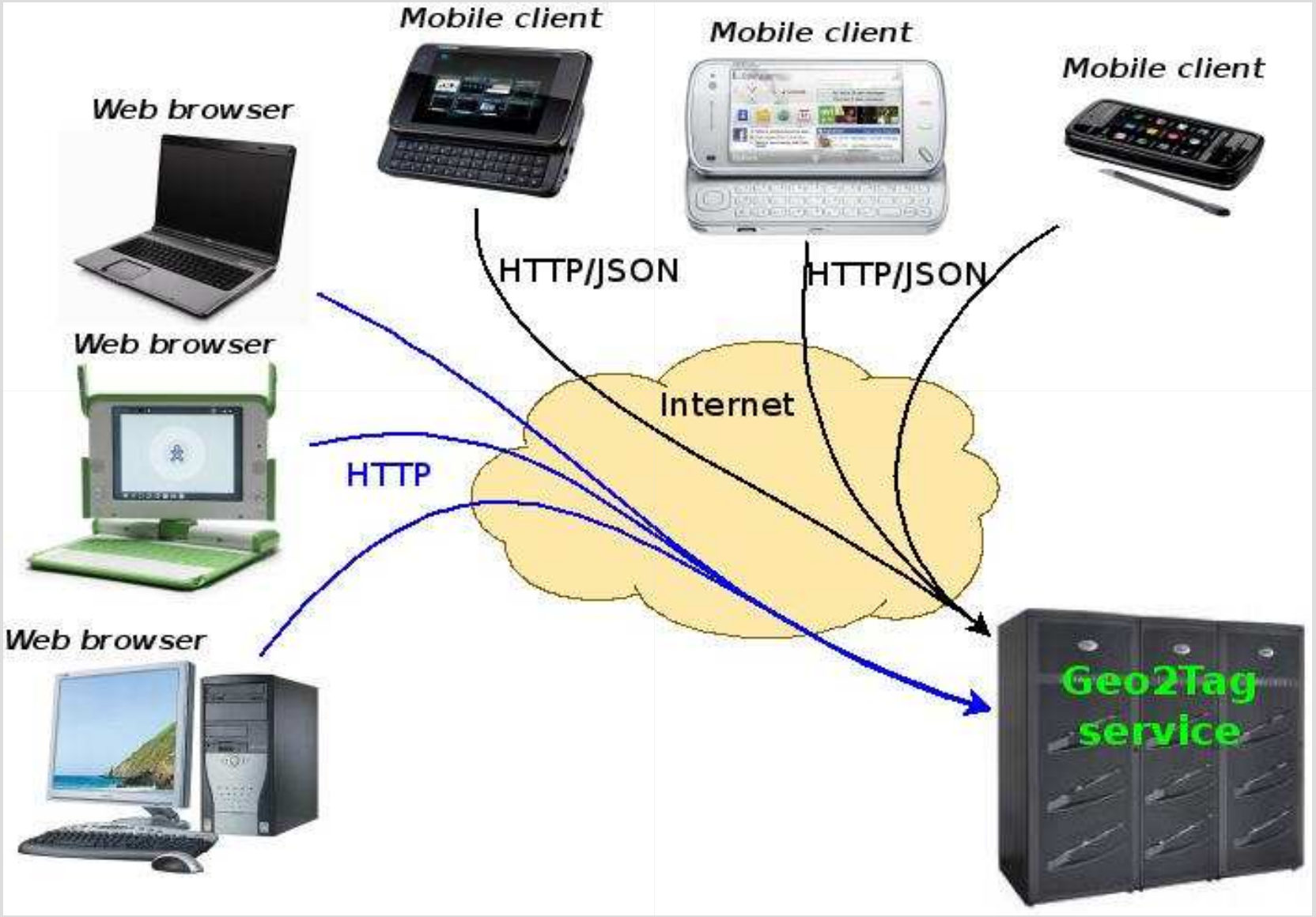
Mobile client:

- add new messages with location data
- view messages on map

Web client:

- edit messages and channels

Architecture 2



Platform - data exchange

SOAP:
+ Has many parsers libraries
- Increase size of a message
- Descrease speed of message processing

XML:
+ Widely spread
- Has the same issues of the SOAP

Data exchange protocol - solution

JSON:

- simple for human understanding;
- supported natively by JavaScript;
- JSON libraries exists for all programming languages;
- messages is less than when using XML;
- has data types support

Data exchange protocol - samples

Request for available channels:

```
{
   "auth_token":"IDDQD",
   "latitude":60,
   "longitude":30,
   "radius":30
}
```

Response(available channels)

```
{
   "channels" :
   [{
       "name" : "Tourist information",
       "description" : "This is  tourist information channel. ",
        "tags" : [""]
   }]
```

Exchange protocol features

Mobile client - features

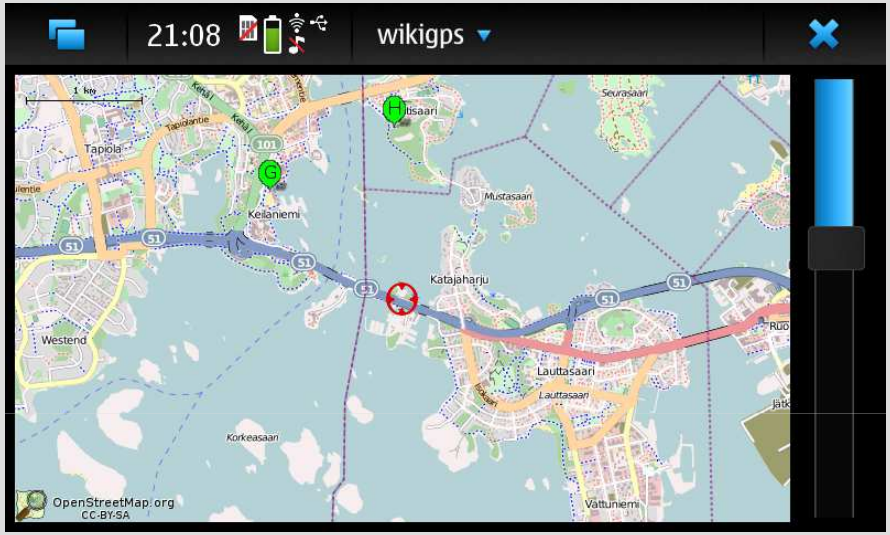
Main features:

- interacting with GPS;
- showing map with marks;
- adding new marks;
- automatic filtering marks with GPS location data;
- secure access to user data

Mobile client – map providers

Map providers:

- GoogleMaps
- OpenStreetMaps



Server part

Server part:

- service – FastCGi(simple, allow integrate any foreign application in web service, for example, C++)
- web-server – lighttpd(fast, lightwieght, provide secure layer with SSL/HTTPS)
- data storage – PostgreSQL(extendable to many hosts in the future)

Web client

Main features:

- allow user manage his channels
  - create
  - subscribe
  - delete
- import his data from another user accounts:
  - Google
  - Twitter
  - Blogs

Development process

- Project site http://osll.spb.ru/projects/show/geo2tag
- Sources http://osll.spb.ru/projects/show/geo2tag
- Team – 4 people
- Process Agile + XP
- Finished eight iterations

Future plans

- Port mobile client to Symbian S60 series
- Add support of another map providers:
  - OVI maps, Yandex maps
  - on-board maps
- Provide uploading different media content

Demo

Demo here

Questions & Answers

Mark Zaslavskiy,
mark.zaslavskiy@gmail.com
Open Source & Linux Lab,
http://osll.furct.org, osll@fruct.org