

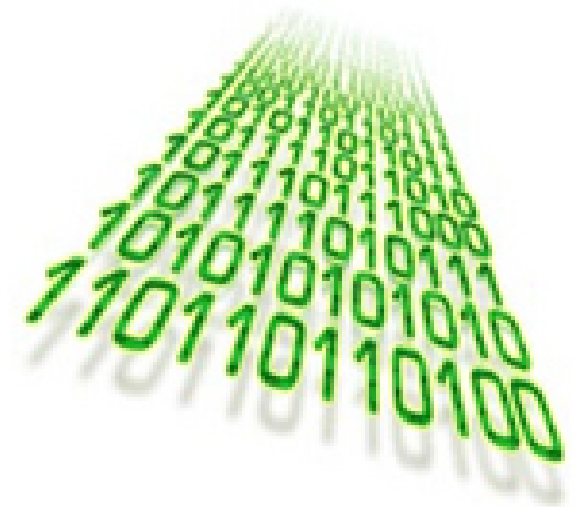
Application Development for Mobile and Ubiquitous Computing

Seminar Task First Presentation

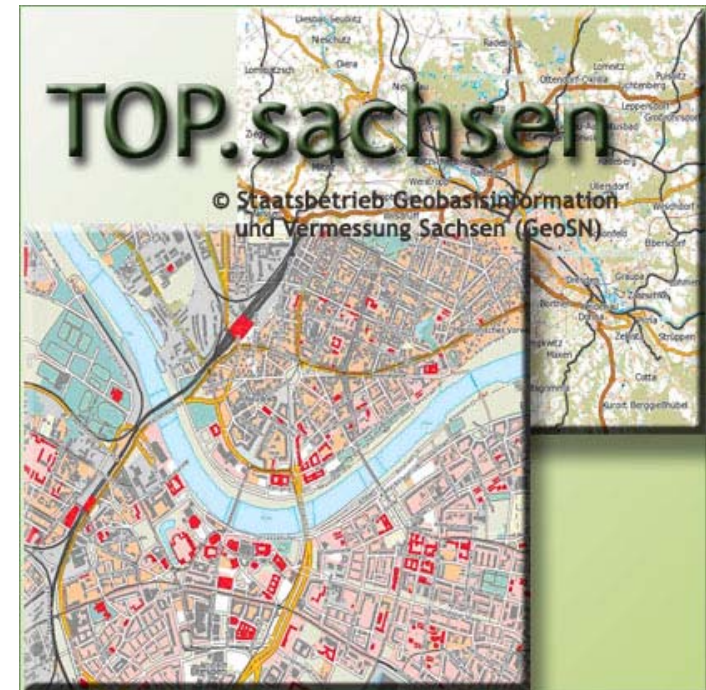
Group No. 15

Team: Andre Müller, Gibran Rios and Rafael Brundo Uriarte

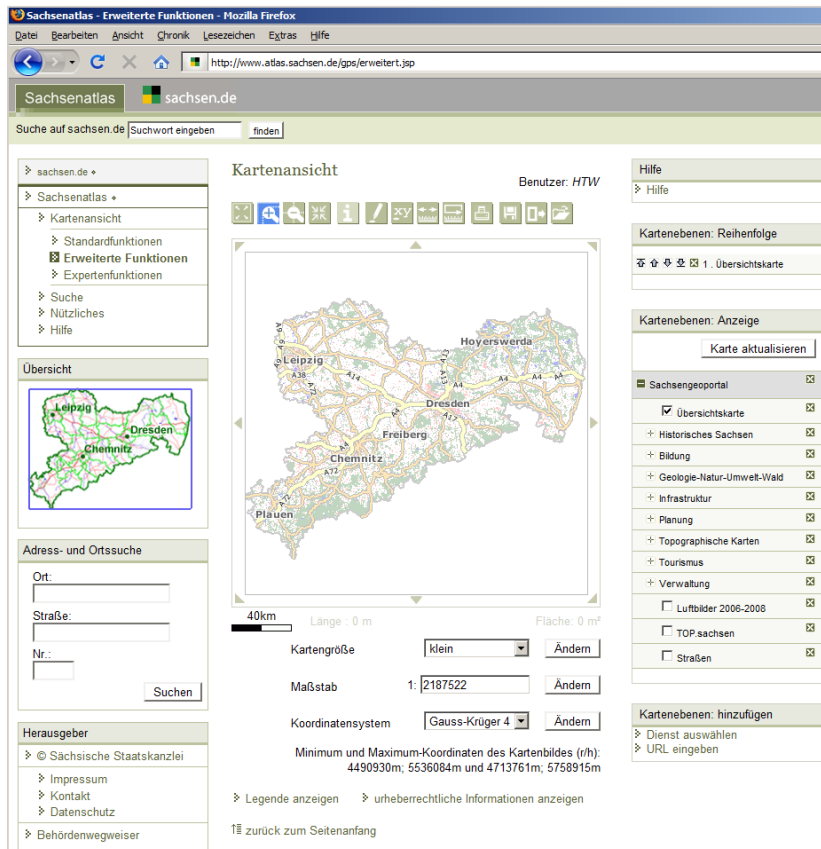
- LBS – Location-based service
- GPS – Global Positioning System
- OGC – Open Geospatial Consortium
 - OWS – OGC Web Services
 - WMS – Web Map Service
 - CSW – Catalogue Service for the Web
- Mysaifu – Java for Windows Mobile



- We propose the implementation of a mobile client for OGC web services (OWS).
- As OGC map service we propose the use of the Atlas Sachsen:
www.atlas.sachsen.de



- Differently from the web client provided by www.atlas.sachsen.de we want to develop a mobile client with LBS functionality.



- **LBS functionality**
 - One of our aims is to implement a service that shows a map centralized in your current position, using a GPS as reference.



- Smartphone
P3600 (HTC)



Mobile
Client

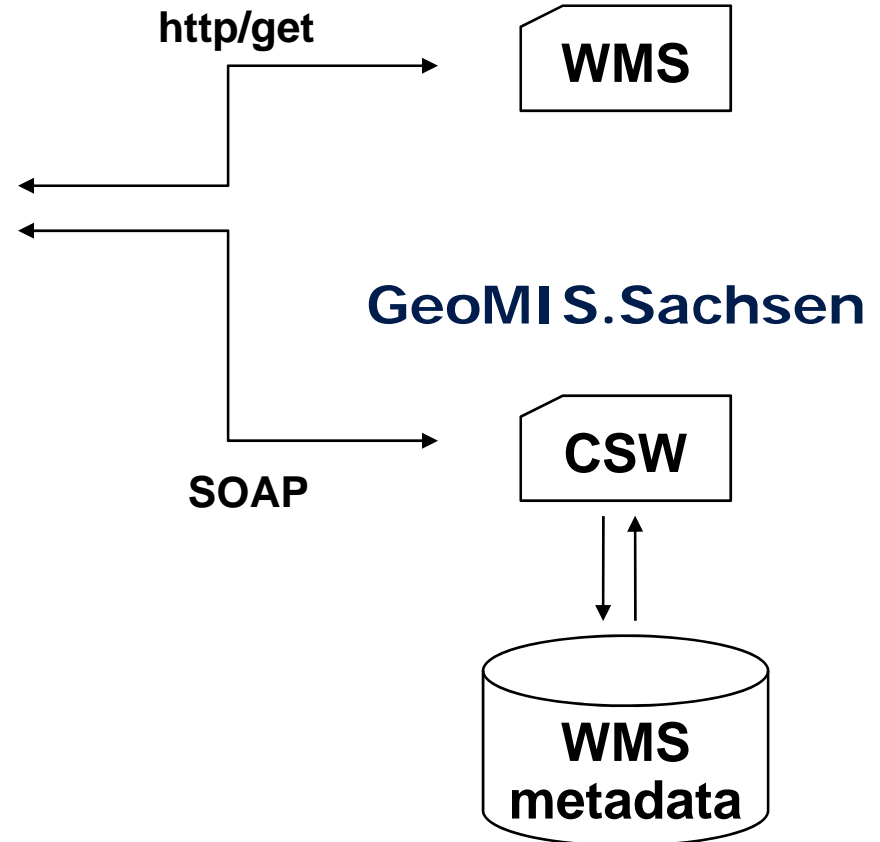
GPS
position



Windows Mobile 5.0
JVM Mynaifu

Java Standard Edition (development)

OGC WMS



- **Specific challenges:**
 - **User-friendly map navigation**
 - **Adaptative Map client for small screens**
 - **Integrating SOAP and GPS using Mysaifu**
 - **Fetching information from the GPS**

General Challenges:

- **Technological challenges for implementing:**
 - Functions for right time (newest geodata) and right place (current position) – LBS
 - Restricted mobile devices capabilities (memory, JAVA Runtime)
- **Customer satisfaction:**
 - Usability
 - Speed
 - Precision
- **Hardware:**
 - Different inputs
 - Touch Screen
 - Keyboards

- **Understand and check the basic client implementation**
- **Connect to the GPS and fetch information from it**
- **Create an interface to display GPS information (position, time, speed, number of satellite)**
- **Combine GPS position and map viewer**
- **Implementation of an automatic map update (tracking)**
- **Implementation of different map views (street, topographic, aerial)**

Questions



