

ABSTRACT

The implementation of GIS into LBS technologies lend to an idea to develop our project entitled "GIS Based Location Information Enquiry System (GISBALIES). GISBALIES to which this project is addressed deliver geographic information and geo-processing power to mobile users via the Internet and wireless network in accordance with current location of mobile user using GPS. The objective of this research is to display special query on the required spatial information within handheld devices using different operating systems such as Windows Pocket PC and Palm OS. Only the related location in the entire map will be downloading to the handheld devices, which gives the economical usage of bandwidth and resources for real time response. This research can be seen as a first step in the development of GISBALIES for the mobile users in Melaka Tengah area. Its numerous mobile users can need online help about the location of the hospital, and how to get there.

How the System Work

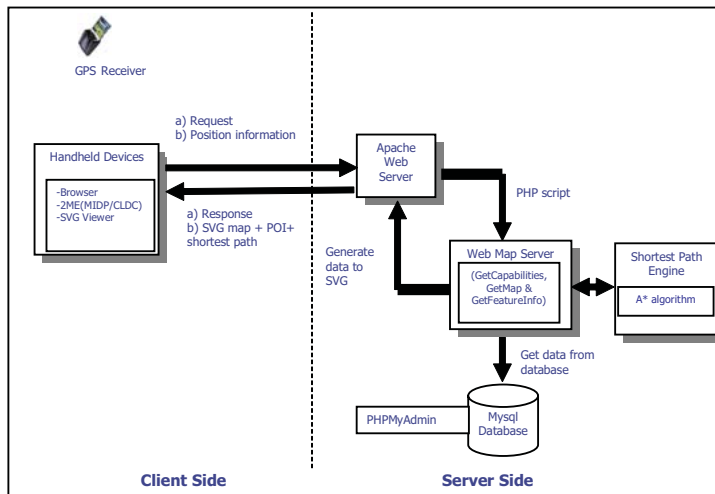


Figure 1: The Architecture of GISBALIES System

~ The architecture – client; application with J2ME & browser; server; web map server, shortest path engine & database.

~ Client side: The client application was developed in J2ME (it can run in all PDAs OS). As a map viewer the TinyLine viewer is used. The main map function provided by the viewer are: display SVG map, zoom, panning

~ Server side:
 a) The server accepts requests from the client as input and invokes the adaptation methods.
 b) The generation of a WFS request or an SQL string for a direct database connection.
 c) The service accesses the WFS or the POI database and retrieves the features.
 d) The features are returned as GML and are transformed to SVG.

~ GPS- to let the user knows their current position.

Implementation in Client Side

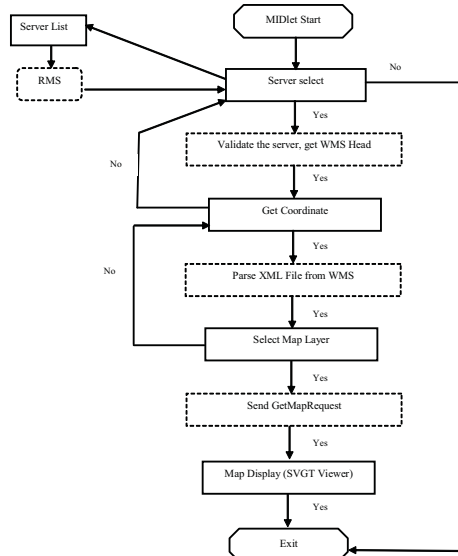


Figure 2: Code Structure of the Client

Implementation in Server Side

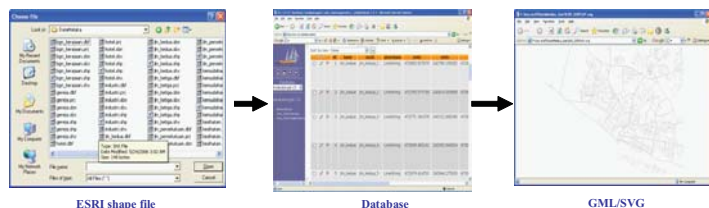


Figure 3 : (SVG Conversion)

Shortest Path

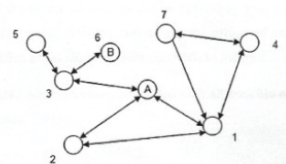


Figure 4 : Shortest Path from Point A to B



Figure 5: GISBALIES interface

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