

ECOPLUS - Mobile Asset Management Platform

The system called Geospatial Inventory of Telekom Austria represents a complete, efficient and extensive mapping of all electrical installations (infrastructure like network, real estate, customer, etc.) in an IT system with spatial correlation. The information for installations is provided in a standardized form and can be retrieved via a desktop or web application. In some circumstances it is necessary to retrieve this information via a mobile phone, smart phone or a PDA, which refers especially for outdoor staff like maintenance technician or customer service. The challenge of this project is to gather and provide information out of the GSPI system via well-defined web services and web applications to a mobile device. In the project a prototype was developed to make use of the Network Information System assisted mobile support fault management in telecommunications. In order to use the application, the field staff agent will navigate with the web browser of the mobile device to a specific URL. Then, he authenticates with username, password and security token and goes to a very simple constructed website, where he can retrieve pending failures and navigate to the switchboard or use the search box to look for a specific switchboard. The search function also allows the use of wildcards. The results provide a preliminary overview of the found control points and their most important attributes. By clicking on the link, the full details of switching points are displayed. The new platform not only relieves the indoor services, but it also would improve the overall service, e.g. faster processing, higher quality of service, etc.

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SWOT ANALYSIS

Strengths:

- Innovative idea for implementing efficiently a Geospatial Inventory system on a mobile device;
- Ability to monitor key physical components for every network operator.
- Creation of added value through combination of local services and flexibility of action in the field;
- The resulting device can be easily used to any geographical region due to its generic concept of operation;
- The system joins the technical and financial domain;
- The platform can be integrated with modern technologies like WCF - Windows Communication Foundation and ASP.Net.

Weaknesses:

- Lack of comparison with similar products;
- Lack of information about the system pricing;

- It is not clear what protocol is used for communication between the management systems and the managed devices;
- The procedures for quality control, validation and verification are not described. The report mentions a tool (ch. 6.2) but does not describe the criteria taken into account;
- The estimation of the potential benefits is not mentioned;
- Continuity is only outlined in general terms;
- There is a lack of mechanism that will guarantee the presence of the device in the market (lacks clear definition of the intended body of users);
- No business plan for entering the market;
- The time schedule of the system development is not presented;
- Functionality of this platform is not proved in practice (functional model exists, but prototype is under evaluation).

Opportunities:

- The extension of the system to other countries is possible due to the used technologies;
- All new mobile communication devices can be integrated in the proposed system (platform);
- Suitable partnerships may offer a good opportunity for a solid marketable product;
- Geospatial technologies combined with incident management can be a powerful springboard to accommodate more applications.

Threats:

- Lack of a strategy for widening the system market;
- Lack of solid guarantee for advancement due to the lack of specific qualifications of the development team;
- During the platform construction, until it becomes marketable, new communication technologies appear. The platform should be adaptable to the new technologies.