Solution of geographic information system infrastructure problems through service-oriented architecture approach

Deniz Herand and Filiz Gürder
Turkish German University, Turkey
Marmara University, Turkey

Geographic Information System (GIS) is a type of system that can help users in decision support processes on the solutions of social, economic and environmental complex problems. Once it is thought that the vast majority of the data that enterprises use in decision-making processes are location-based, there is no need to emphasize the importance of GIS. However, the GIS software which is used on the market brings some technical problems. The first of them is the need for integration of different types and formats of data that are used by GIS software. The other problem is that GIS software has by their functionality strengths and weaknesses in different areas and cannot help each other in improving their weak fields in modular or functional basis. That GIS software structures are not so flexible that they can be adapted to quickly changing market conditions is one of the other problems. For the solution of all these individual problems, the Service Oriented Architecture (SOA Service Oriented Architecture) approach could be used on the necessary GIS. Since SOA is an enterprise architecture approach which can integrate any type of software technologies and can be extremely quickly adapted to the process changes, it can be used in GIS for data integration and communication between the existing GIS software. The main field through that can a GIS be supported by SOA is the ensuring a fast and flexible system restructuring the GIS service oriented.

herand@tau.edu.tr; fgurder@marmara.edu.tr

The influence of information systems on logistics

Hakan Bütlüner
Institute of Industrial Engineers, Turkey

As the world is becoming increasingly connected and dependent, the logistics industry continues to look for strategic information systems solutions to correlate the flow of goods and information. Logistics can be defined as fulfilling a customer request directly or indirectly which includes manufacturers, suppliers, transporters, warehouses, retailers and customers. Within each company, the supply chain includes all functions involved in fulfilling a customer request (product development, marketing, operations, distribution, finance, customer service). The purpose of this paper is to basically indicate the impact of information systems in logistics and also the level of efficiency, productivity and time will be examined in this paper with some company’s examples. Also, to present and describe information system implementation challenges or problems as well as identifying the key issues to achieve successful implementation. Moreover, this research seeks to explain the implementation effects and consequences which impact the organization and its processes.

hakan.butuner@imeco-tr.com