

INTRODUCTION

Geographic Information System (GIS) Performs the functions of capture, management, analysis and Representation of spatial information along with intentions to decrease the cost of geodata management and further increase the return of investment of geodata collection and establishment. Different GIS deals with huge amount of information in different data formats and platforms. With a very limited interoperability, it is difficult to locate and retrieve data from different GIS platforms. For GIS users it hinders spatial data and information sharing. Although rapid development of Internet made spatial data easily available and more accessible, lack of interoperability and compatibility made those data not always usable. To overcome these obstacles, development of clearinghouse and semantic translator are crucial.

OBJECTIVE

This research was conducted to develop a prototype so that one can create abstract models of processes, applications or middleware systems that are independent of any delivery platform.

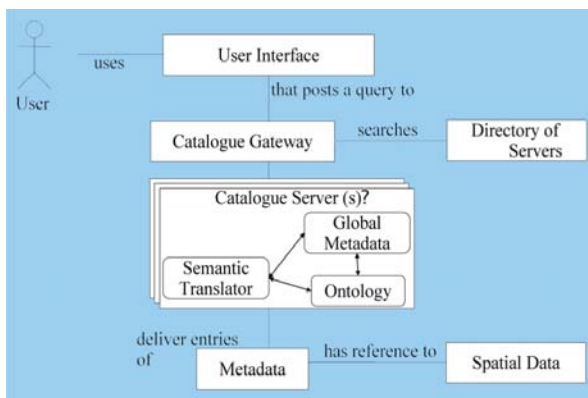


Figure 1: Basic Interaction Among Elements From User Point Of View

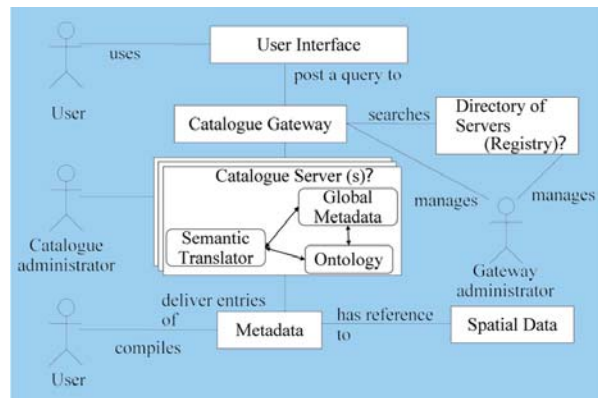


Figure 2: GUI PC Based Software

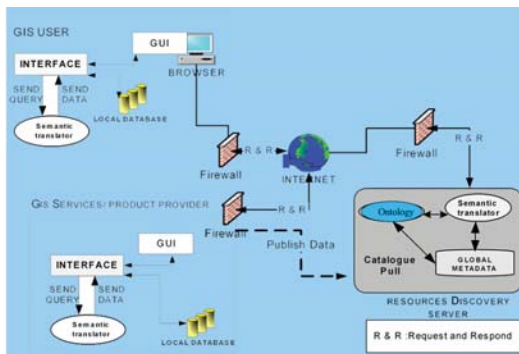


Figure 3: Resources Discover Server Architecture

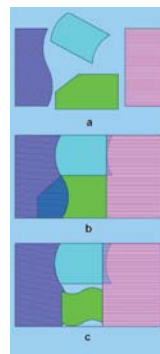


Figure 4: Information Integration
(a) Piece of Information
(b) The ideal situation
(c) The Reality

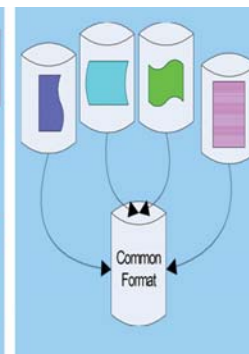


Figure 5: Common Format of Database

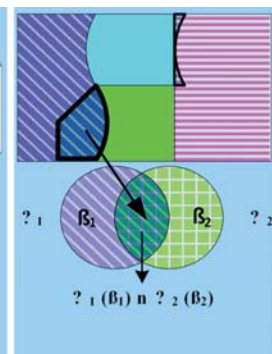


Figure 6: Basic Rules for Merge of Ontology

CONCLUSION

GIS interoperability is becoming increasingly important to a wide range of business and organization as well as educational institutions. Different GIS platforms are needed to be able to work together to make available data more usable and accessible. Our research focuses on clearinghouse that acts as middleware to enable user to search and allocate information they wish with the capability to redirect user to the owner of that information via URL. It also highlights semantic interoperability among GIS application. To solve this problem we propose such a solution by using the Resources Discover Server with semantic interoperability.

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