



## **Using XML database systems and GML in the context of Geospatial Web services**

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Nowadays XML is playing an important and increasing role in share of the data published over the Web. In addition, unique characteristics of XML and its family of technologies, has lead to development of many markup languages for different application domains. Meanwhile the geographic domain has developed an XML-based markup language for modeling, transporting and storing geographic data known as GML. Like XML, GML can be managed and maintained in files or in database systems. In this context, many XML databases have been developed. Since GML is based on XML, the same technology can be used to manage geographic data stored in GML format in XML databases. Using XML databases and access to geographic data as GML in these environments, make it easy to share and exchange geographic data in an interoperable manner. But still there is a need for connecting various geographic data sources which are running on heterogeneous computing platforms and this issue is become more complicated when geographic information sharing is needed over the Web. With this in mind, for fully make use of interoperable geographic data and Geoprocessing services, GIS community have to use the open and non-proprietary platform for publish geographic data over the Web. Besides, this platform must provide ability for processing and sharing geographic data by automated tools as well as by people. For this reason, coupling geographic data which are stored in XML databases with Web services technologies is an efficient solution for achieving this aim. This paper intends to provide a brief overview of XML database technology, Web service technologies and their potential and use in implementation of Geospatial web services over the Web. For this goal, a prototype for access and publish geographic data as GML, using the mentioned technologies is developed and will be illustrated.