

# **GSDI Depends on Widespread Adoption of OGC Standards**

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## **SUMMARY**

OpenGIS<sup>®</sup> Specifications for interfaces and encodings that enable interoperability between geoprocessing systems are an essential part of the GSDI. Just as email and the World Wide Web – based on standards – have revolutionized communications in both developed and developing nations, OGC standards are revolutionizing communication involving geospatial information. Exchanging GIS data between systems has become much easier. It also it is becoming much easier and less expensive to integrate all kinds of spatial data, including GIS, remote sensing, database records, AEC and facilities mapping, navigation and location services, and to integrate this spatial information into applications of all kinds. In the OGC Web Services environment, an application requiring a service such as a coordinate transformation service or a pixel classification service can make use of such a service hosted halfway around the world. The standards platform also provides a level playing field that encourages competition among software providers and among commercial data providers, and this competition benefits users.

Most vendors of geoprocessing software have implemented OpenGIS Specifications in their products, and an increasing number of major procurements require that products comply with OpenGIS Specifications. Open source geoprocessing software developers are providing implementations of the specifications that are useful for commercial providers and also for solution providers who provide the "glue" between various commercial and non-commercial components. Because network access to legacy systems and data is important, most vendors offer upgrades that provide OpenGIS Specification Compliant open interfaces.

The OGC will continue to provide new GSDI-enhancing standards. Strategies using existing OGC specifications enable an unprecedented degree of information interoperability ("semantic translation" between data models), a longstanding user community requirement at the local, regional, national and international levels. Work is ongoing in areas such as intellectual property rights management, sensor webs, and geospatial "fusion" of multimedia data. This progress depends on sufficient participation by users and providers of geospatial technology, and on vendors' and buyers' commitment to implementing and demanding standards.