

## Geologic information systems in recent world

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Due to the current dissemination of WEB-GIS, world countries has changed the way of the transmission and management of information in geological organizations and companies. Comparing the change of geologic information management for recent decade, the major changes are summarized as follows.

1) Centralized and isolated management of geologic information: organizations or companies in countries managed and operated isorately the data and database systems in centralized mechanism. Various kinds of software and database management were widely spreaded. There were not only the difficulty to integrate data in a nation, but also no consideration to cross border interoperability(up to 5 or 6 years ago).

2) Interoperable geologic information management to connect with the internet: The popularization of the internet made the information disclosure gradually. Many countries extended and advanced their clearinghouse with complementary standards using XML. Due to the defact standard systems like as ArcGIS in many countries, the distributed interoperability could be realized practically.

3) The information transmission through WEB-GIS has sometimes destructed the isolated information monopoly by countries or companies, then people accepted the advantage of interoperability of geologic information. The necessary international standards are now discussed and constructed so far.(in recent a few years).

The interoperability of geologic information was not easy by the difficulty of intellectual right or the ownership. Web information dissemination such as WMS easily realizes the interoperable information co-ownership. There are also some disadvantage and problems such as new type of oppressions by international standards in representation that should easily be done, or such as the information monopoly through the limitation of web dissemination sites that introduce the new type of centralized information management.