

## **Spatial Service Oriented GRID Architecture**

Tien-Ying Chou

Feng Chia University, GIS Center, Taiwan

jimmy@gis.tw

The development of internet creates a new world for information. Spatial Service Oriented GRID Architecture evolves from focusing on the mode of desktop in 1980, gradually developing client-server in 1990 to web based system based on the internet technique. SOA makes a wide change in information service for people using. Compared with the transitional web based System, which only shares information, Grid shares computing and other services of resources via internet.

The idea of Grid comes from power grid. Any client just put the plug in the socket, and they don't need to care about which electric stands delivery the electric power. However, the purpose of development of grid is to unite the loose information around the world, idle computer or CPU resources by internet. Therefore, Grid can create a huge opening information environment. Also, the systems can communicate easily and become a super computer virtually. As long as using personal computer, we can gain all resources from the whole Internet.

Grid brings the fresh air for the application of software information. Instead of expensive super computer, Grid provides more economical computing resources. Also, its unlimited feature makes more organizations need it because of their huge computing for science, such as bioinformatics, medical design, astronomy and geography and spatial service, etc. The philosophy of Grid is on sharing resources and taking advantages of it. Personal computers not only can't afford huge computing but also cause indivisible waste of resources.

This article aims at spatial service oriented based on Grid architecture and WMS and WFS protocol based on Open GIS Consortium (OGC) to build up spatial service oriented grid architecture. Under this architecture, the computers which are located in different places assistant each other and offer a faster and steadier spatial service. In the future, spatial service oriented grid architecture would like to build up a newer spatial information service to make it as convenient as electric power. User can gain spatial service resources through internet to apply on such as urban planning or transportation management. Recently, many research territories have been paying a lot of attention on Grid. In shorts, spatial service oriented grid architecture must bring a great contribution to the users who need it in the future.

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