

Brain of a Smart City: a GIS Platform for Sharing 2D and 3D Maps



'Smart City' is a popular concept among modern governments around the world. It is defined as utilising digital technologies to trim costs and resource consumption to engage citizens more effectively in various domains such as transport, healthcare, energy, water, etc. Catching the trend, the Ministry of the Interior, Taiwan, authorised Supergeo to establish the TGOS Cloud Service (Taiwan Geospatial One Stop portal) which provides diverse geospatial data and map APIs for sharing with all sectors and building map websites effortlessly.

The project utilises SuperGIS Server 3.2 and SuperGIS 3D Earth Server 3.2, the enterprise server software, as core system, to integrate and publish distinct GIS services including thematic maps, geographical features query, OGC services, map APIs, etc.

SuperGIS Server offers a scalable structure so that the whole server infrastructure can flexibly distribute services and resources on demand, saving more costs in a technically stable way.

Several public and private sectors have successfully applied the TGOS map services. For example, National Science and Technology Center for Disaster Reduction (NCDR) is an important sector for disaster control and response in Taiwan. By using TGOS maps, NCDR built its own disaster prevention map site, which integrates weather forecasts, flooding, mudslide, tsunami, emergency evacuation location information, etc. The GIS site provides the public with abundant resources to understand their own environment and make disaster prevention plan in advance.

In this year's new development plan, TGOS project successfully develops 3D Map APIs, which not only fit the current TGOS service, such as location service and query, but also demonstrate geospatial data in a realistic way. Users can build their 3D geospatial sites quickly, in which the environment data like weather, transportation, and urban development can be well displayed and understood in real-world-like platform and help decision-makers to access more comprehensive information for future planning.