

Integrated Application of Separately Managed GIS Resources for Land Administration

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SUMMARY

Land administration requires information collected and managed by many independent organizations according to different laws or regulations with different budget. Timing of acquisition of data may be different and size of unit area may be different. Those parameters are optimized to application to specific reason why those data are collected. If so, it is not quite wise way to make those data stored in a single database. It will be easier to get accessibility to those data through network. Nowadays, Geodetic Reference System for each data are unified or at least transformation is established. Once those data are coordinated in the same official coordinate system, we can refer to those data through securely encrypted network.

Cadastral data is the smallest unit for land administration. Here, we will demonstrate land information visualized with GIS where cadastral map seamlessly connected in reference to Fundamental Geospatial Data (FGD) in NSDI as base map and zoning data or valuation data superimposed. For an example, large condominium is planned, we can discuss capacity of utility network, possible acquisition of school space and so on. At the same time, some problems like ownership congested through inheritance process may become visible. GIS itself cannot solve such problem but somehow we can visualize the existence of problem in advance.