The Egyptian Unified Cadastral Data Model

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SUMMARY

The necessity to share data is being realized during last decades due to the high costs of collecting geographic information. In most countries all over the world, the national land survey authority is providing the Information Society with the core data, which is the cadastral data in digital format to enable every authority/organization (private or public) building up its own GIS application. In Egypt, Egyptian Survey Authority, ESA, is the authority which responsible to establish and maintain the cadastral data, and it have to be able to provide the Information society with the cadastral data in the format that it can be easily used. That could increase ESA’s revenues and reduce the duplicated efforts collecting the same data, and reduce the conflicts that may results between different GIS application, and enable data accessibility and communicability among these applications.

In the 80’s of last century most of Egyptian authorities and organizations started building up their own GIS applications, some of them asked ESA to have cadastral data in digital format, but unfortunately ESA was unable to provide them with the data because it was analogue form.

Through international technical cooperation ESA succeeded to digitize most of its cadastral data, but, in the middle of 90th, ESA found that these data is not up to date, in different formats (paradox, oracle, Informix) and still some analogue data. On the same time, ESA have been demanded more and more to provide the society with the digital cadastral data because most authorities and organizations want to enter the electronic government "EG" world.

ESA started to tackle the problems that rises due to the different approaches from different technical cooperation and succeeded to unify its efforts and experiences and investigate the most user needs, using market orientation strategy, within the frames and limitations of the Governmental rules and regulations to implement a proper object oriented database model that could fulfill user current needs and expected near future needs, and enable sustainability of updating of the cadastral data, that will ensure more security of land tenure and improve land administration system in Egypt.