

SERVICE-BASED APPROACH TO GEOPORTALS' ARCHITECTURE

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Abstract.

This paper describes the author's view on service-based designing of geoportals. The above mentioned approach consists in the decomposition of the geoportal on amount of integrated the Web geoservices.

The cloud computing technologies and Web solutions, wick base on such technologies and implement data access and working with the data in the Web, are widely used in recent years in geoinformatics. One of such Web-based solutions are geoportals that aggregate access ways to distributed spatial data and processing tools. In current interpretation the geoportal, as a special case of Web-GIS, should provide users with spatial data and metadata access and also with the processing tools that allow to solve a wide range of tasks, from displaying to analysis. In correspondence with Service Oriented Architecture (SOA) conception the services are the basic parts that compose the geoportal structure and functionality in general.

The technologies of services for the geodata providing are good standardized by Open Geospatial Consortium (OGC) and International Organization for Standardization (ISO). The main problem of its integration into geoportals is the conceptualization problem of any specific geoportal. However, the technologies of spatial data processing and analysis tools are the least developed and standardized at this time. The only WPS (Web Processing Service) international standard specifies how to create spatial data processing Web services.

This paper briefly illuminates the author's experience in geoportals development and highlights the possible technologies of hybrid Web geoprocessing services that allow an analytical processing of spatial data by user's choice, either server-side or client-side.

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