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# Basic technologies of web services framework for research, discovery, and processing the disparate massive Earth observation data from heterogeneous sources

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Abstract. Both development and application of remote sensing involves a considerable expenditure of material and intellectual resources. Therefore, it is important to use high-tech means of distribution of remote sensing data and processing results in order to facilitate access for as much as possible number of researchers. It should be accompanied with creation of capabilities for potentially more thorough and comprehensive, i.e. ultimately deeper, acquisition and complex analysis of information about the state of Earth's natural resources. As well objective need in a higher degree of Earth observation (EO) data assimilation is set by conditions of satellite observations, in which the observed objects are uncontrolled state. Progress in addressing this problem is determined to a large extent by order of the distributed EO information system (IS) functioning. Namely, it is largely dependent on reducing the cost of communication processes (data transfer) between spatially distributed IS nodes and data users. One of the most effective ways to improve the efficiency of data exchange processes is the creation of integrated EO IS optimized for running procedures of distributed data processing. The effective EO IS implementation should be based on specific software architecture.

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