Architecture of integrated system of geospatial data services for climate research

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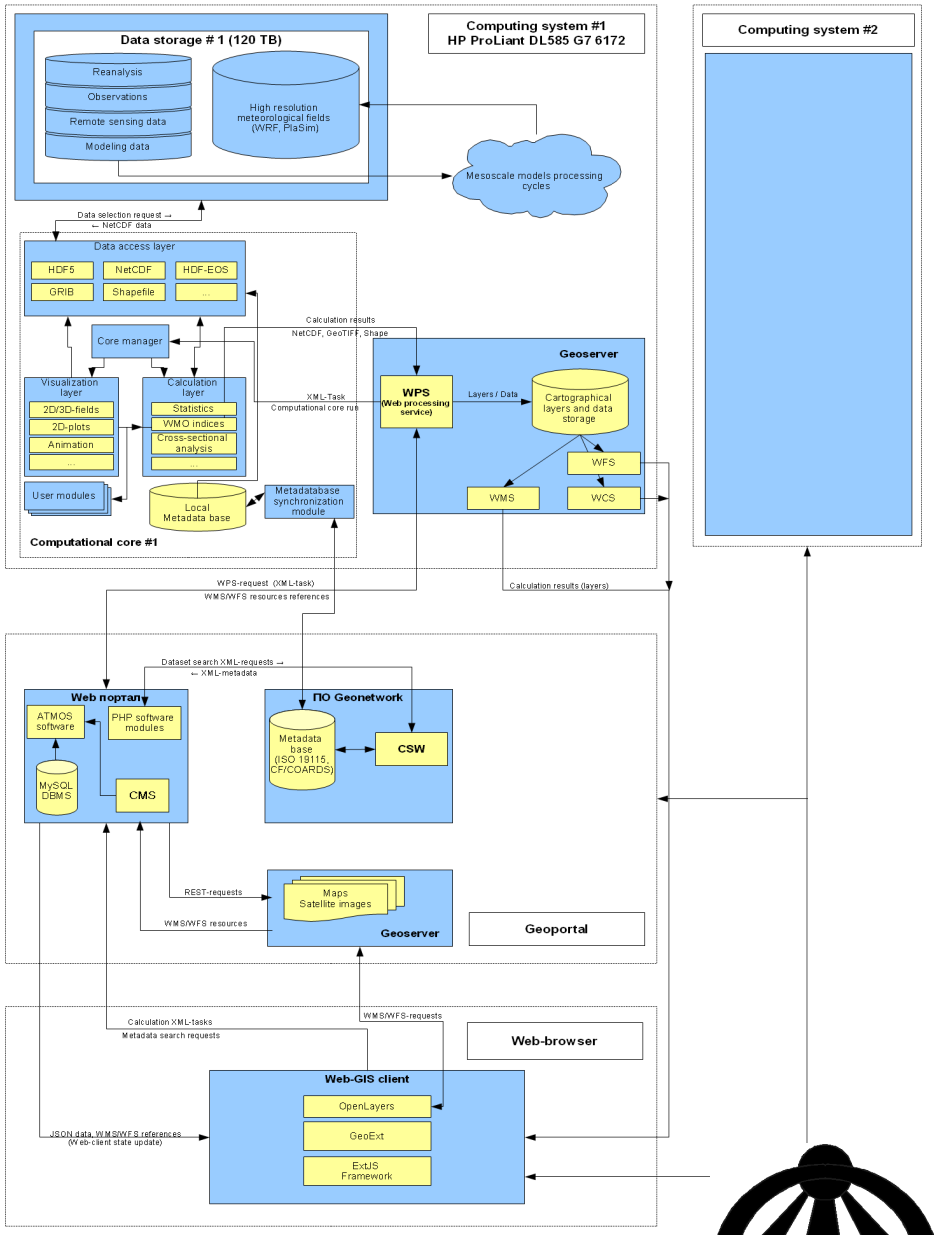
Background & Objectives

- Inherent heterogeneity of geospatial datasets (meteorological databases, modeling and reanalysis results, etc.)
- Growing size which might constitute up to tens terabytes for a single dataset
- Effective software support based on SDI (Spatial Data Infrastructure) approach required
- A dedicated architecture of the integrated system of geospatial data services providing over the web quantitative information for climate change monitoring applications is presented

General architecture

- Model of storing big sets of regional geospatial data providing different temporal views of the datasets
- Modular computational core as a standalone software unit representing computational backend for geoprocessing services
- Metadata catalog describing geoinformation resources
- Computational and mapping Web services to work with geospatial datasets based on OWS (OGC Web Services) standards




Thank you for attention