

# Research on collaborative web mapping system based on grid service

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## **Abstract:**

Grid service is an extension of web service, but a grid service is transient and is able to maintain state information. It allows for stateful interactions between the client and the service whereas a web service is persistent and all clients interact with that web service.

In this paper we describe the design and implementation of a collaborative web mapping system that is based on grid service. A grid map service object pool that contains many grid map service objects from different hosts is built to provide map services. The grid service objects from different hosts provide different kinds of map services and can cooperate with each other to provide map services, such as building a big map of multi layers and rapid spatial analysis for a big region. Load balance is also implemented by dynamic schedule of grid map service objects. The object pool of grid map service is crucial to provide rapid and collaborative map service in our system.

**Keywords :** Grid service, map service, object pool ,load balance

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