

IMPLEMENTATION OF SCALABLE GEO-PROCESSING SERVICES USING AN OPEN SOURCE CLOUD PLATFORM

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ABSTRACT

Recently, more geo-processing functions in software are shifting to web services, and more web based GIS solutions are increasing to provide the GIS functions wide and diverse users.

To implement geo-processing functions as standardized Web Processing Services (WPS), ZOO is one of the best solutions to host various and many functions and provide geo-processing services. However, many concurrent requests from clients are expected issues when services are made publicly available. Therefore, only scaling up server's performance at a single machine would not be enough for serving possible numerous and concurrent requests. This research implement investigates OpenStack, an open source cloud infrastructure, to archive scalable and stable platform for geo-processing services and discusses the advantage of applying cloud based web services.