

Optimizing Availability of Marine Knowledge Repository with Cloud-Based Framework

Authors : Ahmad S. Mohd Noor, Emma A. Sirajudin, Nur F. Mat Zain

Abstract : Reliability is an important property for knowledge repository system. National Marine Bioinformatics System or NABTICS is a marine knowledge repository portal aimed to provide a baseline for marine biodiversity and a tool for researchers and developers. It is intended to be a large and growing online database and also a metadata system for inputs of research analysis. The trends of present large distributed systems such as Cloud computing are the delivery of computing as a service rather than a product. The goal of this research is to make NABTICS a system of greater availability by integrating it with Cloud based Neighbor Replication and Failure Recovery (NRFR). This can be achieved by implementation of NABTICS into distributed environment. As a result, the user can experience minimum downtime while using the system should the server is having a failure. Consequently the online database application is said to be highly available.

Keywords : cloud, availability, distributed system, marine repository, database replication

Conference Title : ICCSSE 2014 : International Conference on Computer Science and Software Engineering

Conference Location : Sydney, Australia

Conference Dates : December 15-16, 2014