Abstract

auto-scaling is a method to optimize the resource usage in a server on cloud computing. One of method that can implemented in auto-scaling is predictive system. There are many kind of predictive system, one of them is based on time series method that have characteristic that use past data as a reference for prediction. This research implemented, tested and analyzed performance of service availability and prediction accuracy of auto-scaling in clouf computing which use prediction system based on time series. Simple Moving Average(SMA) is one of time series methods, that have characteristic simple in computation depend on the other time series methods. The result of performance system analyis of service availability and prediction accuracy with testing parameter Mean Time Between Failure(MTBF), Mean Time To Repair(MTTR), Availability Operational(AO), Down Time and Up Time, and also prediction accuracy give results that system performance is good because AO greater than 96%, on the other hand prediction accuracy of resource usage with auto-scaling greater than 96% too.

Keywords: *cloud computing, auto-scaling, predictive system , simple moving average*