

## Abstract

Call center is one of the services of a provider that is generally based on telephone network to handle problems and answer questions about product information or service from customer. The call center is still using PSTN. Though PSTN service is not more economical, in the sense more expensive when compared with VoIP service. In addition, one of the main problems often faced by call centers is the number of calls that go into the call center within a certain time that can cause a very high traffic flood. As a result, there will be calls that cannot be missed by the call center, because the capacity of the PSTN channel cannot serve all calls. Unlike the VoIP service, where the channel used can be based on Cloud, In addition, the use of a *server*-based gateway, which, when placed in a *cloud* infrastructure, may occasionally create additional *server* functions for the system to service all calls. For example by doing auto scaling. In addition to adding or reducing the *server* automatically, auto scaling can reduce the burden of costs incurred and can maintain the quality of the service to remain good. In this research will be implemented auto scaling with *Real Workload History* method so call center *server* will be able to have flexible scalability and can reduce expense.

**Keywords:** VoIP, *Auto scaling*, real workload, AWS *Cloud*