

TWO WEEKLY REPORT

Group No : 6

Name : Rohan Tiwari

Email : tiwari.rohan-brijesh@stud.fra-uas.de

Matriculation Number : 1428131

- **What have I accomplished since the last Daily Standup?**

Since the last Daily Stand-up I found some virtual machine migration softwares, one of which is CloudSim, so that I could understand how the software works like and if it can monitor any kind of services or not. CloudSim can be used to simulate a VM migration. I also looked into the Azure migration package, which monitors the network utilization during the migration. It also monitors the health of the VM being migrated. I found some related research work which used ML algorithms to predict if the migration would be feasible or not. One such research is mentioned in the paper – “A prediction-Based VM consolidation approach in IaaS Cloud Data Centers- Tarek Mahdhi, Haithem Mezni”. This gave me an idea towards the framework that we want to design and the metrics that should be monitored and how can they be used to predict the service quality while migration.

- **What will I accomplish until the next Daily Standup?**

Until the next stand-up I will do intense research on the approach that should be followed to predict service quality during a VM migration. I have a partial framework laid out for which I am trying to setup a mock VM environment and a target VM on which the service has to be migrated. I will try to figure out a way to monitor the states of the target VM, the network parameters which have to be monitored and also the utilization of CPU and RAM in the target machine. I will also look into how can I achieve this with CloudSim, if possible.

- **Do I anticipate any obstacles and can the team help me with them**

Yes, there are a few obstacles that I find are important. Deciding upon which type of migration should we use for our purpose is the major one. Yes, one of the team member is already working upon it and based on their input it would be helpful to further decide the type of framework which we want to create and will help in narrowing down the performance metrics which has to be monitored during migration.