Two-weekly Report

Group number: **Group 6**
Project: **3**
Student: **Minh Trang Nguyen**
Matricalation Number: **1306981**
Email: **minh.nguyen5@stud.fra-uas.de**

After the group discussion, our group roughly specified the metrics that would be needed for the hardware evaluation before the service migration. The parameters are CPU, RAM, bandwidth between target and destination host, and there are several other parameters that are also important to the assessment of whether to start the migration, such as workload size, latency, estimated migration time and total migration time.

I was working on getting the hardware information from the Windows and Linux host, which is easily done by running the built-in command. As bandwidth is also a critical factor in the migration assessment, I found a tool that does this. It is called iperf. Iperf can measure network performance between systems running different operating systems and is easy to set up. For experimenting, I measured the bandwidth between a Windows server and a Linux client and the result can be seen in figure 1.

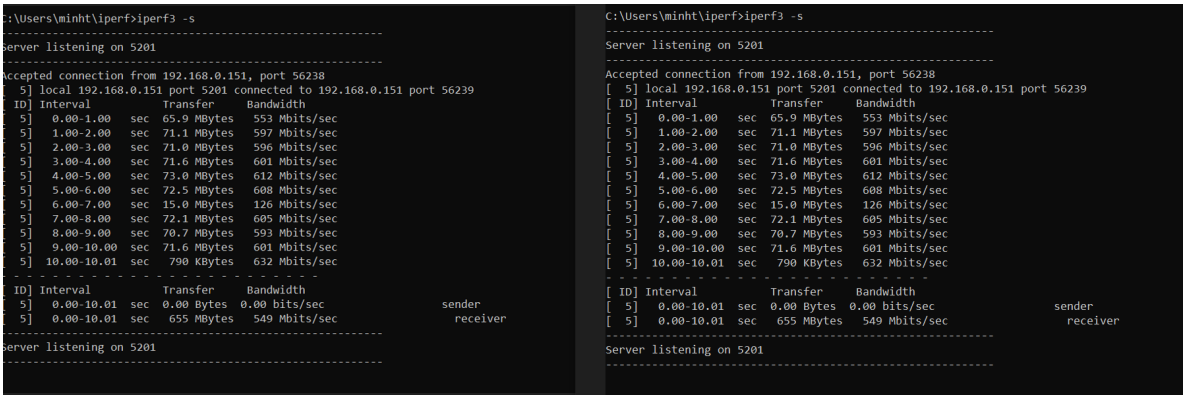

Figure 1: Bandwidth between Windows and Linux hosts

The following week, our group decided to find out how we could work with Prometheus, a continuous monitoring tool. I experimented with using the tool in Linux to retrieve metrics such as CPU, memory, disk usage, etc. Since the Prometheus tool returns all information in the form of a list, which I find quite difficult to follow, I additionally use the tool Grafana to illustrate the output of Prometheus in a more graphical way. Figure 2 shows the output from Prometheus in Grafana.

Prometheus returns many metrics and I am currently struggling to understand and evaluate them all. Therefore, my next tasks in the coming weeks will be to share the experiment results with other team members and to clarify all the necessary metrics.

Figure 2: Metrics presentation in Grafana