**Status Report # 2 (Comparison of Virtual Machines inside and Outside)**

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**Goals in mind**

This week we have focused on finding out what benchmarks we are going to use and how they can contribute to our project. We went through various reports and articles to find out how and what benchmarks we can use on Linux systems. Benchmarking basic purpose is to measure the speed and performance of a computer system when it performs or executes a given task or a set of tasks. It has to do more with facts and figures rather than approximations or hypothesis. It will help us to answer the questions like how can the performance be maximized with the given resources, how can the overheads and cost be minimized, how and what would be the optimum performance/cost ratio.

We have decided that we are going to use comparative benchmarking, as undoubtedly it is more explanatory than absolute benchmarking. We learned that there are basically two kinds of benchmarks: Synthetic and application benchmarks. Synthetic benchmarks provide a fair idea of individual components of a computer system. One such benchmark we have in mind is***Whetstone*** that would measure the pure floating point performance. It is a multi-threaded and is supported on Unix. The results are obtained after careful measurement of time it consumes to carry sequences of floating point instructions. Likewise, ***BYTEmark benchmark*** is a great measure of CPU performance. However, this has to be kept in mind that this benchmark would not give us any idea about the video, disk or network throughput. *BYTE benchmark* can give us a good measure of processor, cache. It can help us analyze problems with the processor subsystem if there are any. Furthermore, it has an added advantage as it allows one to compare computers having different processors and operating systems.