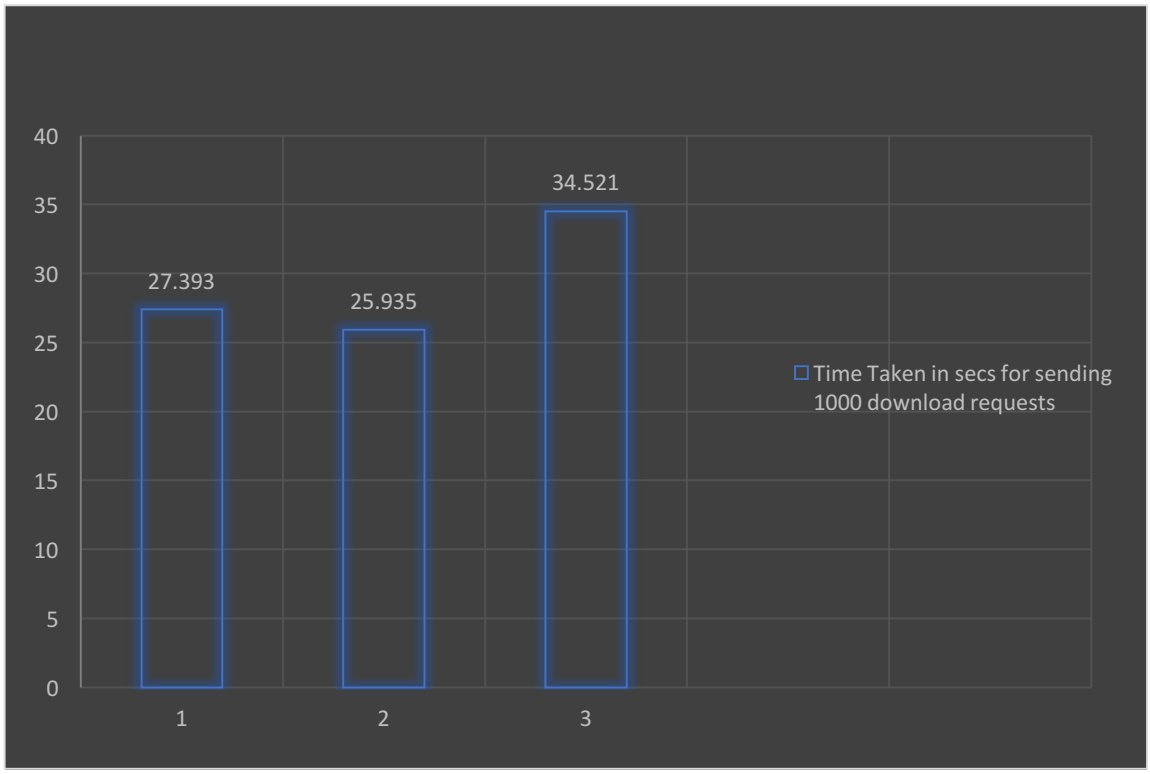
Concurrency Performance Measure

(File size = 5KB, 1000 requests)

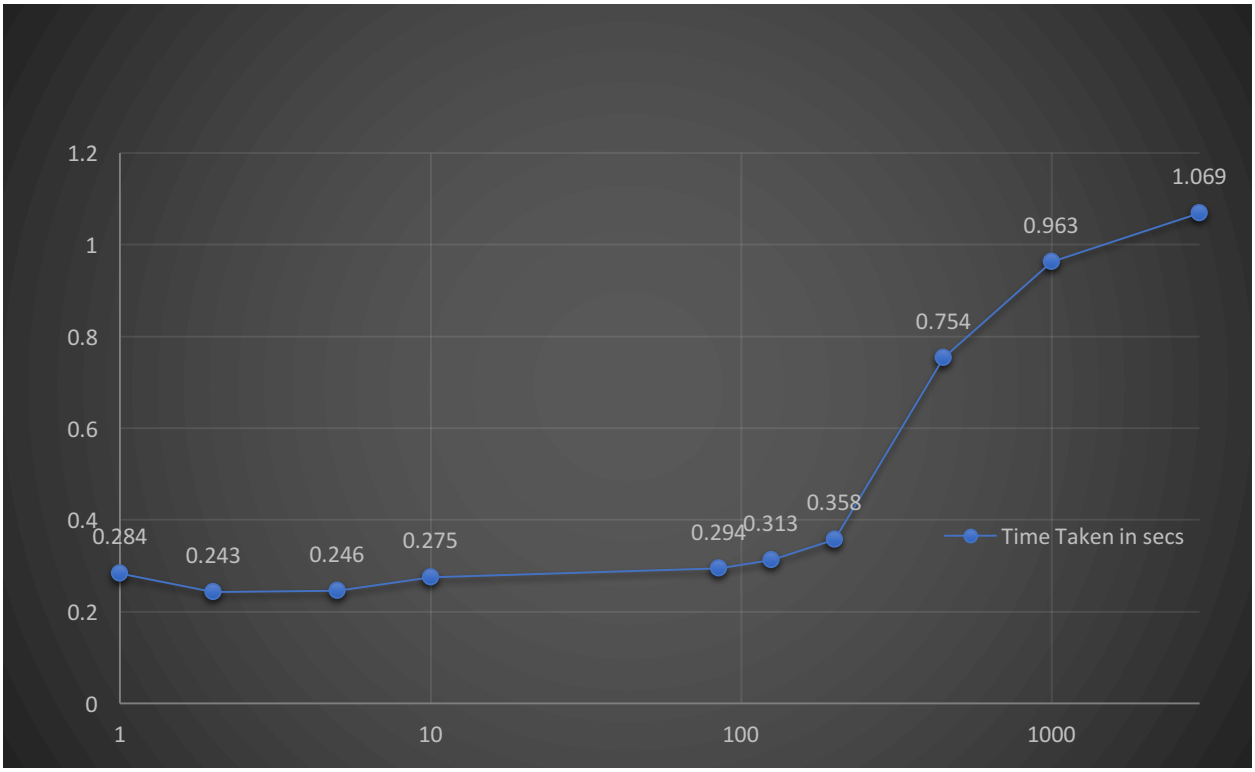
No of connections	Time Taken in secs for sending 1000 download requests
1	27.393
2	25.935
3	34.521



The above graph indicates the time in seconds required to send and download a 5KB file, a 1000 times. We can see from graph that this depends on number of peer clients connected. With only one server providing the services, as the concurrency increases, the network bandwidth gets divided and hence we can see a slight variation in the time taken for the download requests.

Different File Sizes Download

File size in kb	Time Taken in secs
1	0.284
2	0.243
5	0.246
10	0.275
85	0.294
125	0.313
200	0.358
450	0.754
1000	0.963
3000	1.069



The above graph shows the plot of file size in KB (X-axis) vs the time taken to request and download the file in seconds (Y-axis). We can clearly see here that the time required to download the file increases linearly with the increase in the file size because more time is spent on fetching the large file from the disk and then getting it over network and saving it back on the disk after download. Larger the file, more time is required to download the file.