ANALYSIS DOCUMENT

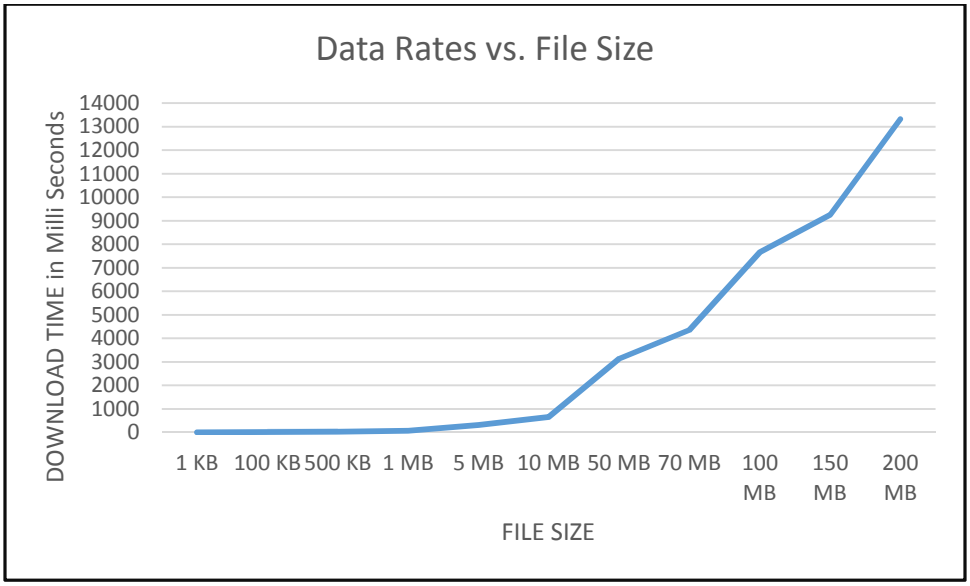
CSE 589 Project 1

4.1 DATA RATES vs. FILE SIZE

Kept the packet size constant at 1000 bytes and downloaded files of different size from peers. I have used chunk Size as 1000 Bytes

Data Rates vs. File Size		
File Size	**Download time in milli seconds**	**Download time seconds**
1 KB	0.589	-
100 KB	19.461	0.019
500 KB	28.979	0.028
1 MB	68.419	0.068
5 MB	313.742	0.3
10 MB	657.955	0.6
50 MB	3127.721	3.1
70 MB	4356.342	4.3
100 MB	7668.527	7.6
150 MB	9251.791	9.2
200 MB	13326.601	13.3

Having kept the packet size at a constant 1000 Bytes I knew that downloading larger files is going to take more time. Which is exactly what I observed in the data recorded



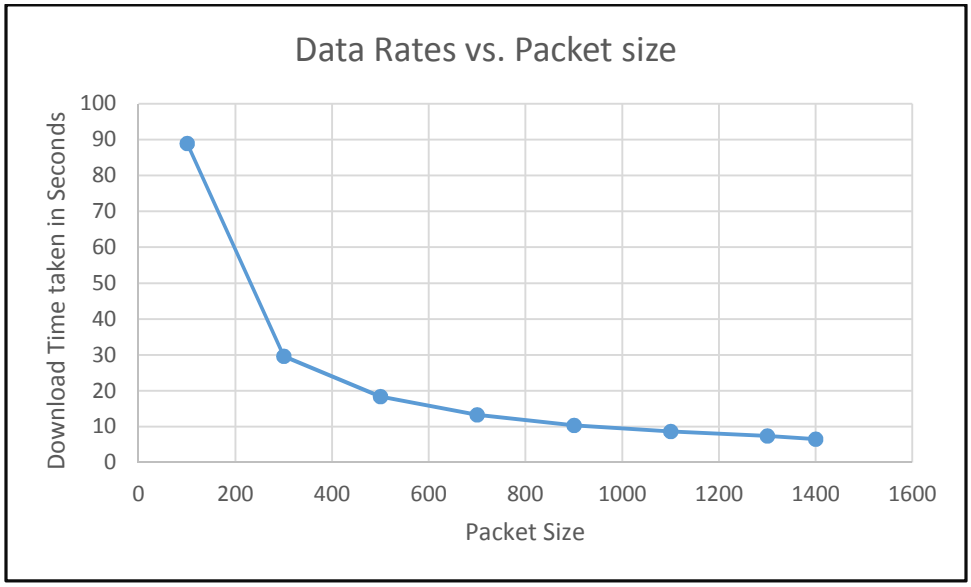
4.2 DATA RATES vs. PACKET SIZE

Kept the file size constant at 150 MB and varied the packet size from 100 to 1400 in steps of 200. I expect the time to decrease.

I have varied the chunk size as per the packet size. They are one and the same.

Data Rates vs. Packet Size	
Packet Size in Bytes	**Download Time in seconds**
100	88.952
300	29.616
500	18.376
700	13.29
900	10.37
1100	8.611
1300	7.411
1400	6.554

The results are in-line with my expectations. The download time decreases with increasing packet size.



4.3 Data Rates vs. Load Variation

I expect that with lesser transfers being done on the network shall lead to faster download times.

4.4 Data Rates vs. Number of Hosts

I expect that with increase in the number of hosts sharing the same file the load on the network should be eased out.