Decentralized Peer to Peer File Sharing System

CS550 – Advanced Operating System
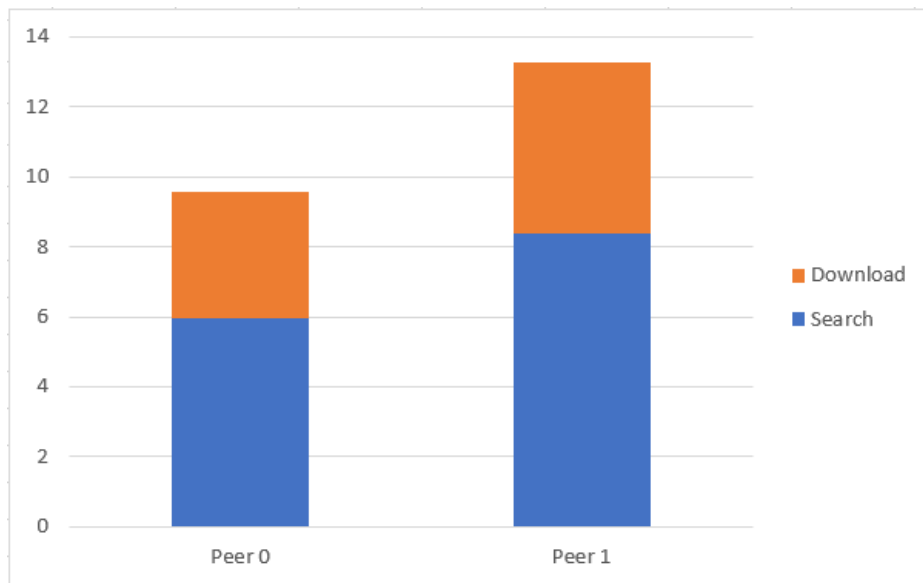
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Case 1: Single peer **Search** and **Download** Operation in ms.
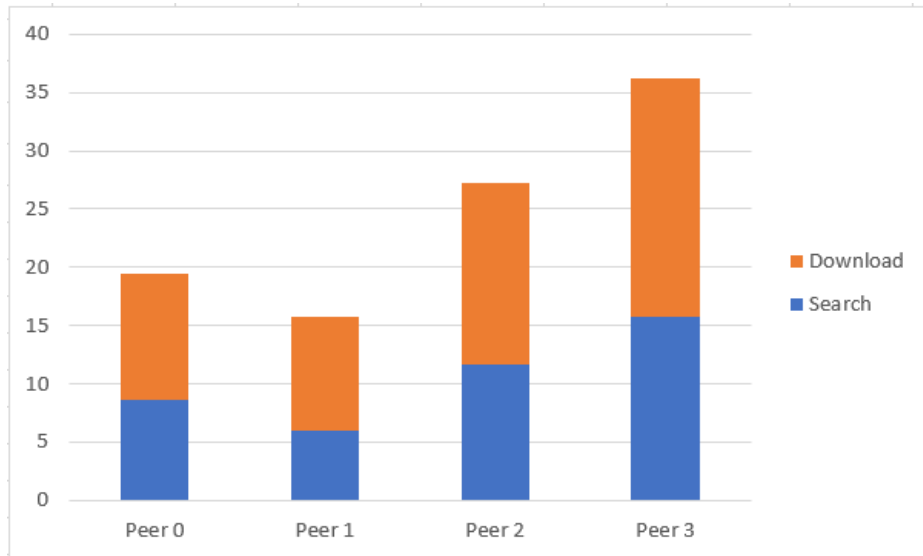
Peers	Search	Download
Peer 0	6.965	4.852

Case 2: Two Peers **Search** and **Download** Operation

Peers	Search	Download
Peer 1	5.976	3.582
Peer 2	8.394	4.852
Average	7.185	4.217

Case 3: Four Peers **Search** and **Download** Operation in ms

Peers	Search	Download
Peer 1	8.653	10.849
Peer 2	5.968	9.754
Peer 3	11.721	15.496
Peer 4	15.759	20.463
Average	10.525	14.140

Case 4: Eight Peers Search and Download Operation in ms

Peers	Search	Download
Peer 0	29.759	35.276
Peer 1	27.346	34.760
Peer 2	30.491	37.25
Peer 3	31.496	35.294
Peer 4	35.168	40.514
Peer 5	35.184	40.75
Peer 6	37.862	42.873
Peer 7	39.419	45.78
Average	33.340	39.06
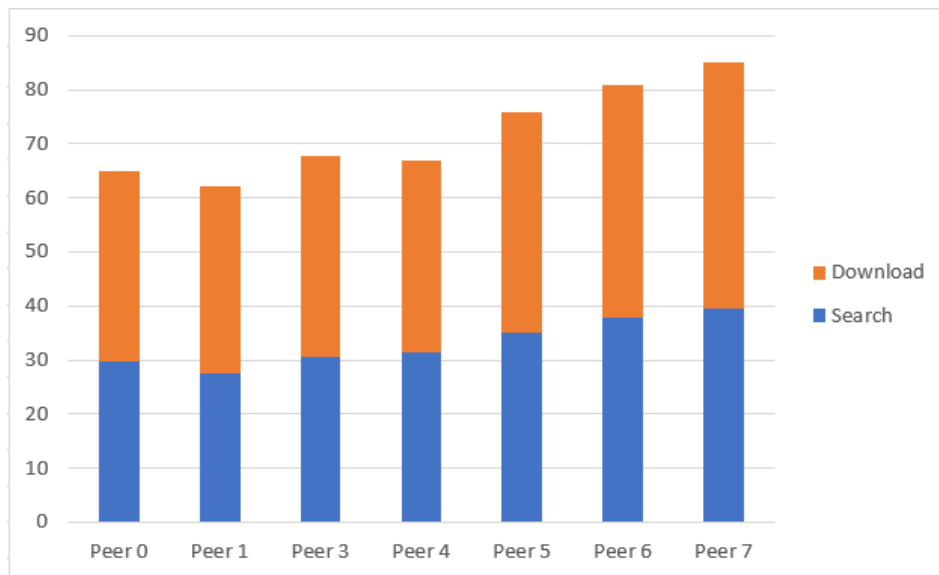
No of Peers	Search	Download
1	5.24	15.84
2	8.59	15.67
4	13.43	40.46
8	34.51	70.82

Average Response Time
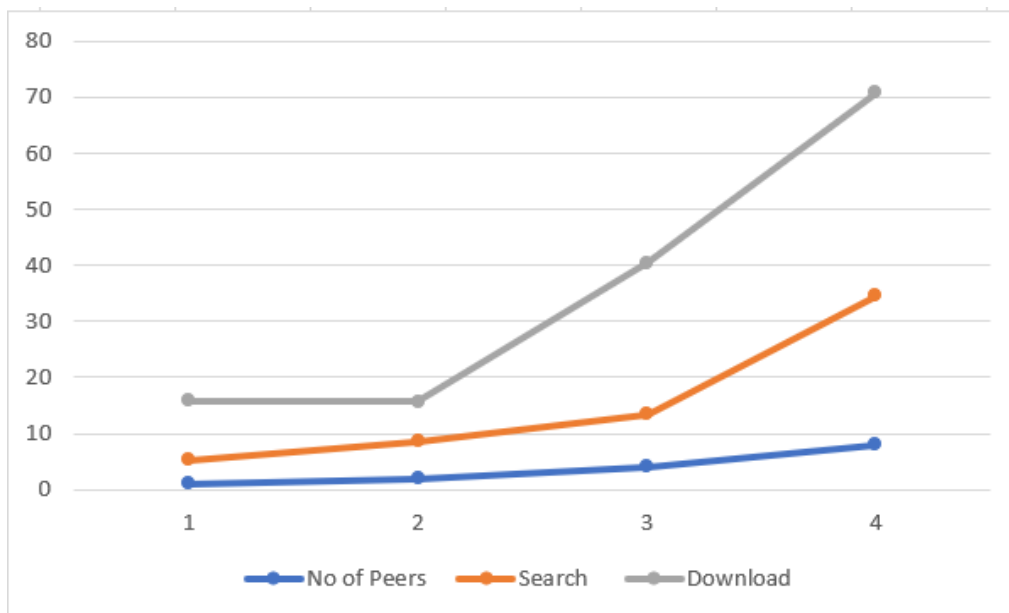
Evaluation- The performance of decentralized server on single machine is not very effective under high load if compared with multiple machines or systems. But the performance of decentralized server is better than centralized server on single machine. However, peers running on different machines get response earlier than that of the single machine. Response time is drastically reduced which can be seen from above diagram.