

Main Software Architect Responsibilities

Non-Functional Requirements of The System

Examples :

Latency

The Time Needed By The System To Do Single Operation

Ex : User Must Be Can Publish Post On Facebook With Time Less Than One Sec At Max

Throughput

The Total Number Of Operations That The System Can Do At The Same Time

Ex :
Throughput : System Can Handle 100,000,000 Posts At One Sec

Bandwidth

The Total Size Of Data That System Can Transfer or Process At The Same Time

Ex : Total Bandwidth = 200,000,000 Megabytes
So 100,000,000 Users Can Publish Posts With Max Size For Every Post Equal 2 Megabyte.

Capacity

The Total Size Of Data That The System Can Stored

Ex :
Active Users : 100,000,000 User
Max Post Size : 2 Megabyte
Max Number Of Posts By User Per Day : 10
Total Capacity Needed By The System For Every One Month = $100,000,000 * 2 * 10 * 30 = 60,000,000,000$ Megabytes

Scalability

How The Systems Can Be Scale To Serve More Active Users ?
Current Total Active Users = 100,000,000
New Users Per Day = 10,000
Total Active Users After One Month = $100,000,000 + (30 * 100,000) = 103,000,000$ Users

How The Systems Can Be Scale To Store More Data (capacity) ?