Rejoinder: Typical Distributed Systems Design Goals

- Common Goals:

  - Heterogeneity – can the system handle a large variety of types of PCs and devices?

  - Robustness – is the system resilient to host crashes and failures, and to the network dropping messages?

  - Availability – are data+services always there for clients?

  - Transparency – can the system hide its internal workings from the users?

  - Concurrency – can the server handle multiple clients simultaneously?

  - Efficiency – is the service fast enough? Does it utilize 100% of all resources?

  - Scalability – can it handle 100 million nodes without degrading service? (nodes=clients and/or servers) How about 6 B? More?

  - Security – can the system withstand hacker attacks?

  - Openness – is the system extensible?

  - (Also: consistency, CAP, partition-tolerance, ACID, BASE, and others …)

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