

# Distributed Systems

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COMP90015 2019 Semester 1  
Tutorial 02

## Q1. Define and briefly explain each of the following distributed system challenges:

- Concurrency
- Heterogeneity
- Failure Handling
- Openness
- Security
- Scalability
- Transparency

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Confidentiality: plaintext  $\rightarrow$  (encryption) cipher text

integrity DDoS

Availability

Authentication passwords, public key authentication

Authorization access control lists

openness

documentation publishing key interface

scalability

handle growth number of the client

Access Trans. : access the file remote and local

Location Trans.

Failure Trans.

Q2. Briefly explain the difference between a client-server architecture and a peer-to-peer architecture.

Q3. Briefly explain each of the following distributed system architecture variations, giving also a reason or a benefit of its use:

- Services provided by multiple servers
- Proxy servers and caches
- Mobile code and Mobile Agents
- Network computers
- Thin clients
- Tiered Architecture

mobile code JS  
Mobile agent travel

Questions?