Universität Zürich[UZH]

Communication Systems Group (CSG)

Prof. Dr. Burkhard Stiller, Universität Zürich, Binzmühlestrasse 14, CH-8050 Zürich
Telefon: +41 44 635 6710, Fax: +41 44 635 6809, stiller@ifi.uzh.ch
Sina Rafati, Telefon: +41 44 635 6702, rafati@ifi.uzh.ch

Exercises in SSDS

Introduction to Distributed Systems

Handout: April 21, 2020
discussion: April 23, 2020 08:15

1: What is the role of middleware in the distributed systems?

2: What is the meaning of transparency in distributed systems? Bring some examples of the different transparency types.

3: How a distributed Operating System (OS) architecture is different from a Network OS architecture?

4: Considering the degree of transparency in a distributed Operation System (OS), Network OS and Middleware-based OS, which OS type has the highest and lowest transparency levels? Justify your answer.

5: Define openness of Operating Systems in distributed systems. Compare OS types (as named in the question 4) regarding openness.

6: Define scalability of Operating Systems in distributed systems.

7: What are the challenges and solutions for improving scalability in distributed systems?

8: Provide some examples for the scalability solutions of question 7.

9: How can you compare the scalability of the three OS types as named in question 4?

10: Define 1) Code Mobility, 2) Thin Clients, and 3) Overlay networks in network interactions as introduced in the slide M10-46.