

Introduction

Reading Questions 1

Due: Oct 21, 2016

Readings:

Chapter 1. Distributed systems: principles and paradigms, Andrew S. Tanenbaum, Maarten Van Steen

Questions:

1. An alternative definition for a distributed system is that of a collection of independent computers providing the view of being a single system, that is, it is completely hidden from users that there even exist multiple computers. Give an example where this view would come in very handy.
2. What is the role of middleware in a distributed system?
3. Explain what is meant by (distribution) transparency, and give examples of different types of transparency.
4. Why is it sometimes so hard to hide the occurrence of and recovery from failures in a distributed system?
5. Why is it not always a good idea to aim at implementing the highest degree of transparency possible?
6. What is an open distributed system and what benefits does openness provide?
7. Describe precisely what is meant by a scalable system.
8. Scalability can be achieved by applying different techniques. What are suitable techniques for size and geographical scaling? And for administrative scaling?
9. We argued that distribution transparency may not be adequate for pervasive systems. This statement is not true for all types of transparencies. Give an example.