

PAC 3

The solution should be written in PDF, DOC or ODT format and it should be delivered before the deadline date.

NOTE: This PAC requires additional search of materials in the Internet. Each answer should occupy maximum 2 pages.

Deadline: 09/12/2015

1. Explain what spatial and temporal coupling mean. Classify in the matrix of spatial/temporal coupling: RMI, JMS, JGroups, IP Multicast, mailbox, and Linda Tuple Space.
2. Explain the differences between the four models of indirect communication: group communication, publish/subscribe, message queues and shared memory systems. Give real examples of each model.
3. Compare the Chord routing scheme with the Kademlia routing scheme using an example. What similarities do Tapestry and Pastry routing mechanisms present?
4. Briefly describe the main design feature of BitTorrent. How does BitTorrent incentive the cooperation?
5. Briefly explain the MapReduce model and how Google uses it.