



TK1: Distributed Systems - Programming & Algorithms

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By handing in a solution you confirm that you are the exclusive author(s) of all the materials. Additional information can be found here: <https://www.informatik.tu-darmstadt.de/de/sonstiges/plagiarismus/>

Task 1: Routing with Advertisements (6 P.)

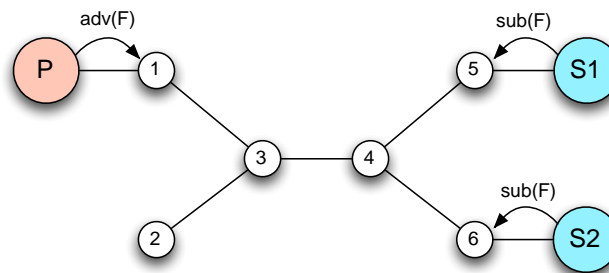


Illustration 1: Router network

Apply the algorithm “Routing with Advertisements” on the router network in illustration 1. Write down which messages are flowing step-by-step (similar to the presented method in the lecture).

- 1) Publisher P sends an advertisement to router 1.
- 2) Subscriber S1 sends a subscription to router 5.
Later, S2 sends a subscription to router 6.
- 3) Publisher P sends a notification to router 1.

Task 2: Routing in Publish/Subscribe Systems (4P)

- 1) Discuss the pros and cons about “Routing with Advertisements” and “Routing with Subscriptions” in the context of a matchmaking system of a video game (i.e., publishers provide information on currently running gaming sessions to the clients).
- 2) In general, which type of routing is more suitable for which type of application? Explain your decision.