

1. Multicast application examples. Multicast vs. unicast reliability. Basic principles of network layer multicast. Multicast scoping. Role and operation of the IGMP protocol. MOSPF. DVMRP.
2. Basic principle of the PIM-SM protocol – shared tree. Basic idea of the SSM model – (S,G) multicast channel, source-specific tree. What does source filtering mean, why do we need it?
3. Advantages and drawbacks of IP multicast – economic and technical.
4. Basic principle of Xcast
5. Basic principle of Application Layer Multicast.
6. Basic principles of UDP. To what kind of applications it is used? What happens if checksum wrong? UDP and fragmentation – how and why?
7. Basic principles of TCP. Acknowledgements. Difference between sequence number and ack number. Building a TCP connection. Difference between Stop-and-wait and the TCP flow control. Role of the advertised window size. How to handle a fast sender? Sliding window.