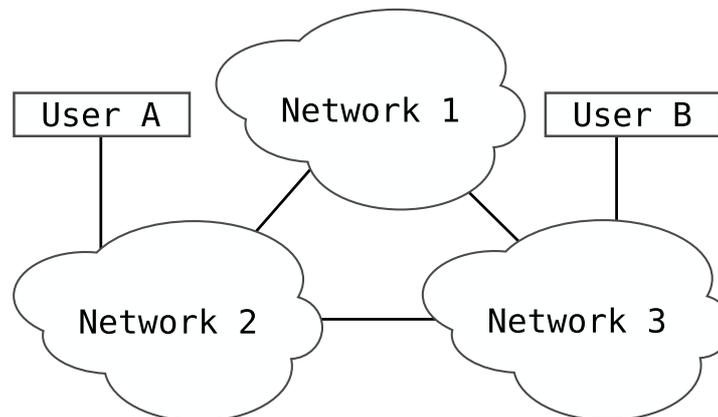


13th Assignment: Network Protocols and Architectures WS 10/11

Question 1: (10 + 10 + 15 + 15 = 50 points) *Infrastructure Virtualization*

Briefly answer (in a few sentences) the following questions:

- Explain the main reasons for host virtualization and how it is related to cloud services.
- Explain the main reasons for network virtualization and how it could be used for cloud services.
- Discuss the benefits and drawbacks of host virtualization.
- Assume you have remote access to a host. What would be a way to determine whether this host is virtualized or not?



Question 2: (10 + 10 + 10 + 20 = 50 points) *IP Mobility*

Figure 1 shows two users A and B in different but interconnected networks. User A is a mobile end-host and moves from *network 2* to *network 1*. Answer the following questions:

- Why is IP mobility necessary in today's Internet?
- What challenges does this pose on Internet Protocol (IP)?
- Assume that user A gets a new IP address when roaming to a new network. What applications are affected by this and why?
- User A is maintaining a on-going connection to user B while roaming to a new Network. What strategies can be used to maintain the connection? Explain briefly.

Due Date: Thursday, February, 10th 2011 only until 13:55 h s. t.

- **As PDF files (no MS Office or OpenOffice files):** Uploaded via ISIS (<https://www.isis.tu-berlin.de/course/view.php?id=3584>)
- **On paper:** Postbox in the Telefunkenhochhaus (basement, behind the doorman right)
- Put your name, StudentID number (Matrikelnummer) **and** the name of your tutor on your solution.