

FIT1005

Networks and Data Communications

Tutorial – Week 3

Objective of this tutorial:

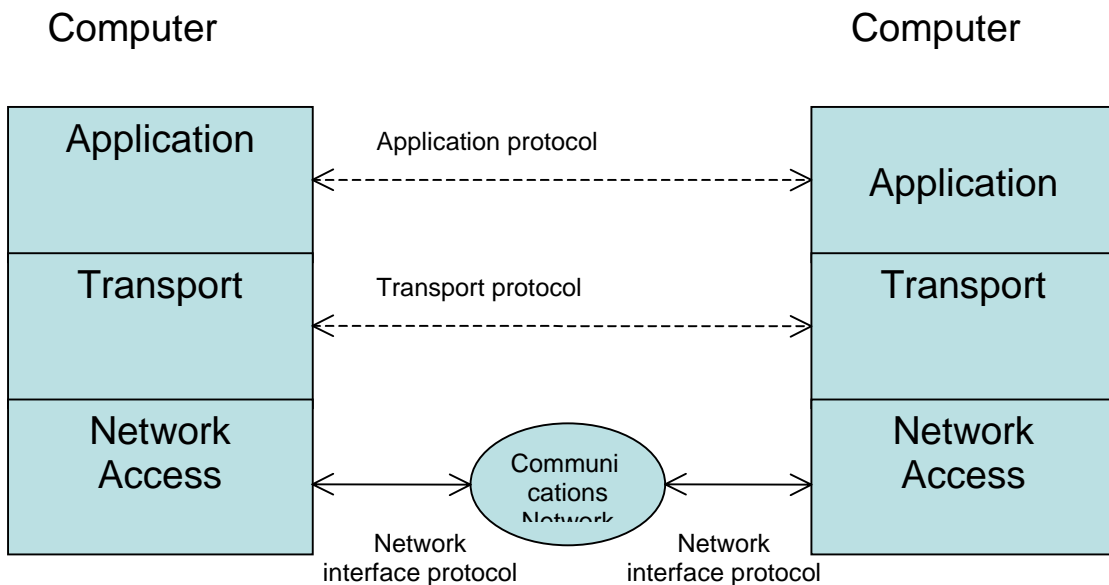
The objective of this tutorial is to strengthen the conceptual understanding of the material covered in the week two lecture by reflecting on them in small groups. The tutor will provide feedback to enhance your understanding and diminish misunderstandings, if any.

How to participate in the tutorial:

Form groups of four students in each and discuss the answers for the following reflective questions with the group members. After spending about fifteen minutes for each question, discussing with group members, discuss your solutions with the tutor and other groups. The tutor will provide feedback on your solutions.

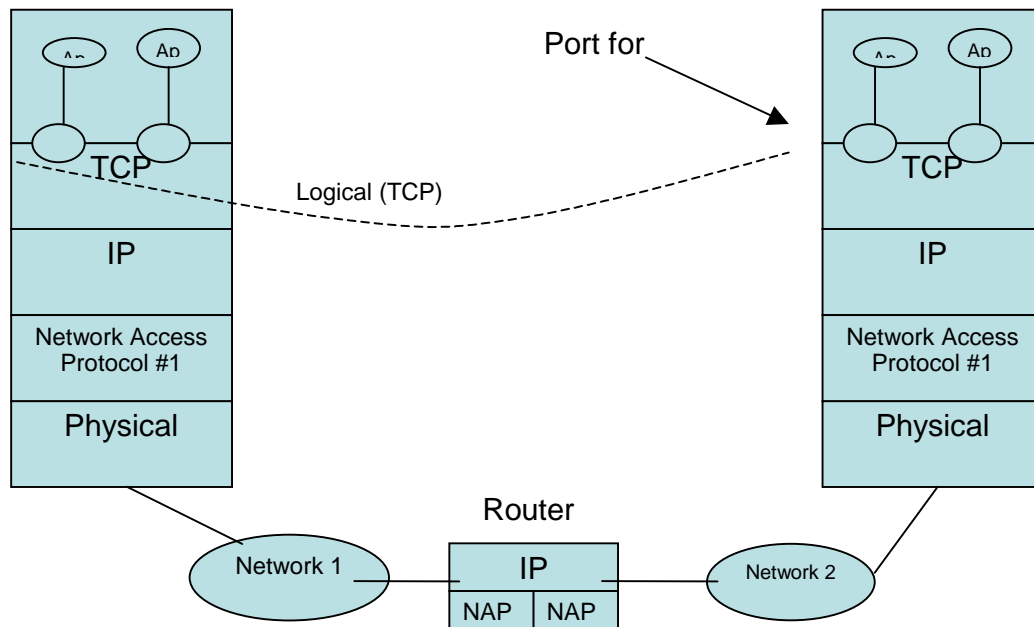
Reflective questions:

1. Discuss the need for a protocol architecture to accomplish data communications across computers.
2. A simple protocol architecture can be demonstrated by using the following three-layer model.



- Discuss the significance of each layer of this model.
- Also compare it with the TCP/IP architecture.

3. Discuss the factors that could be considered when defining layers of a protocol architecture.
4. The following diagram shows communication between two computers attached to two networks that use TCP/IP architecture.



- Discuss how the data transmission takes place from one computer to the other.
- Also discuss the differences when data transmission takes place between two computers attached to the same network.
- When data are transmitted between two computers, control information is also exchanged between them, in addition to data. How does this happen in this example?