

Write your name below and indicate your role,

Project Manager (PM), Recorder (R)

Name _____ Role _____

Name _____ Role _____

Packets and Making a Reliable Internet

Your Tasks

- ☐ Discover the issues with Sending Information over the Internet
- ☐ Reflect on the Simulation
- ☐ Have Ms. Pluska check of Reflect on the Simulation
- ☐ Watch the video: Packets, Routing, & Reliability
- ☐ Define Key Vocabulary
- ☐ Receive credit for the group portion of this lab

☐ Discover the issues with Sending Information over the Internet

In this introductory activity you will discover some issues with sending information over the Internet.

- ☐ To complete this activity do the following,
- ☐ Obtain an IP address from Ms. Pluska
- ☐ Obtain a 3x5 card from Ms. Pluska
- ☐ When instructed to do so, locate the IP address of another student in the class who you would like to send a message to
- ☐ On your 3x5 card create a message. This can be a word, or a picture, anything you want. But it should not take more than 2 minutes to create.
- ☐ Cut your message up into 6 to 8 pieces
- ☐ On the back of each piece write the IP address of the student who you are sending your message to.
- ☐ When instructed to do so, begin passing the pieces of your message around the room. When you pass your pieces you must consider the following rules
 - You can only send one piece at a time
 - You cannot get out of your seat
 - You can only send your message to a person within an arms reach
 - If you receive a piece with your IP address, keep it
 - If you receive a piece that is not your IP address, continue to pass it to another person
- ☐ Continue to pass pieces around the room, until all pieces make it to their intended recipient

☐ Reflect on the Simulation

Did the pieces of your message come to you in order? Why not?

How did you know how to reconstruct the message or image? (if it was a drawing, the correct order was probably pretty obvious, but what if your message was a word like “dear”, which could also be reconstructed as “read”? How do you know which word the sender intended?)

In this lesson you probably noticed that not all the packets were received by either you or a classmate. Why did this happen? How might you improve upon the protocol to ensure that you could receive the complete message. For example, what if you knew how many packets you were supposed to receive as they were being delivered – 1 of 8, 3 of 8, 6 of 8, etc. Or, what if you knew who the sender was so you could inform them of what’s missing and needs to be re-sent?

Write your protocol below. Your protocol should include as much detail as possible to ensure an entire message could be sent.

□ Have Ms. Pluska check off Reflect on the Simulation



Before you continue have Ms. Pluska check off Reflect on the Simulation before you continue
Do not continue until you have Ms. Pluska's (or her designated TA's) signature _____

□ Watch the Video: Packets, Routing, & Reliability

Navigate to <https://www.youtube.com/watch?v=AYdF7b3nMto&feature=youtu.be> and watch the video on Packets, Routing, & Reliability

□ Define Key Vocabulary

Write definitions for the following

Packets
TCP

□ Receive Credit for the group portion of this lab



- Indicate the names of all group members.
- Have Ms. Pluska check your Number Systems lab.
- Submit your lab to the needs to be graded folder to receive credit for the group portion of this lab.

Do not submit your lab until you have Ms. Pluska's (or her designated TA's) signature _____