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Final Project Announcement

Outline

- The Topics of Final Project
- Some Examples
- The Presentation of Proposal
- The Presentation of Demonstration
- Grading Policy
- Other Rules

The Topics of the Final Project

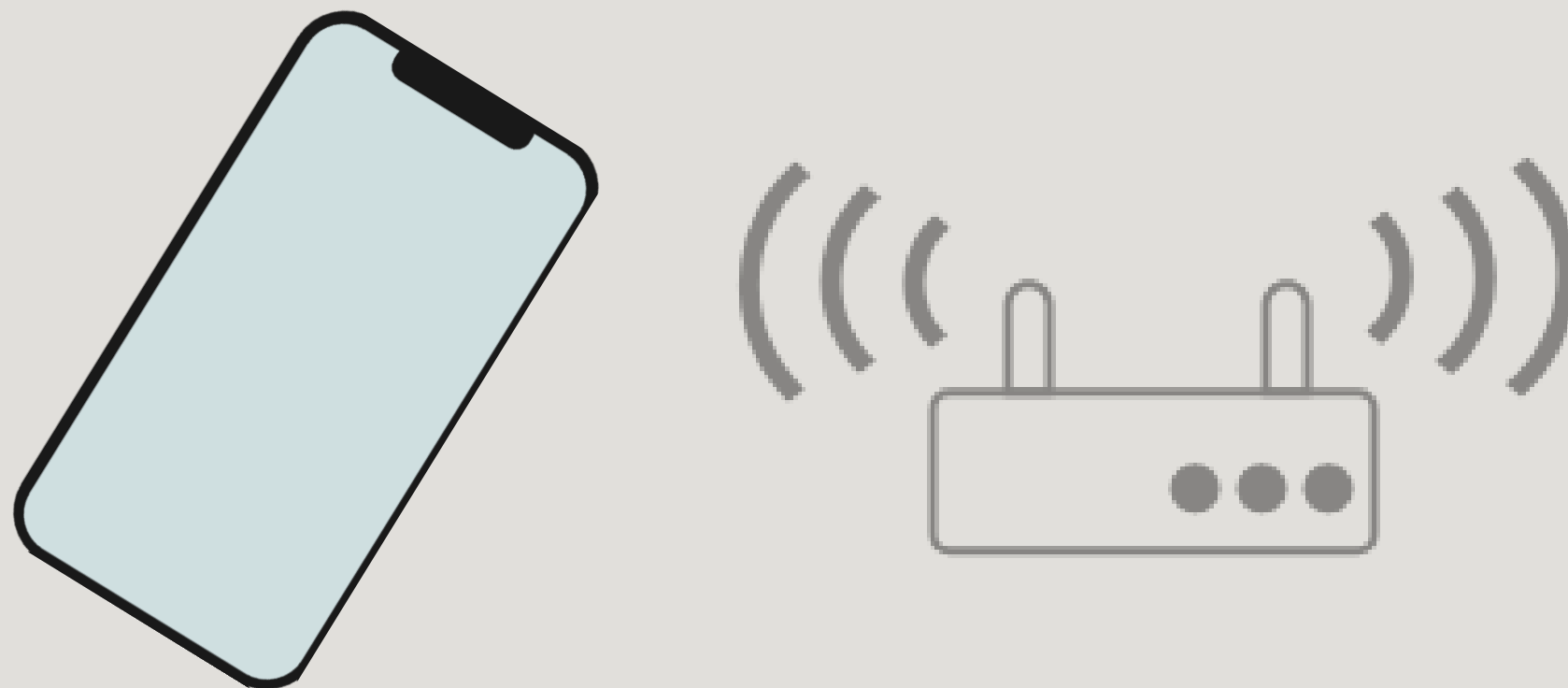
- Some Implementations on Transport Layer or lower
- Application of Network Cards
- Software-Defined Networking

Some Examples

- Write some socket program to attack on or protect some well-known software or hardware
 - E.g., attack on VNC or a printer
 - E.g., attack or defense on certain network protocol
- Implementation of some services on Application layer
 - FTP server
 - VPN server or Proxy
 - Mail server
 - No Chatroom (It's too easy!)

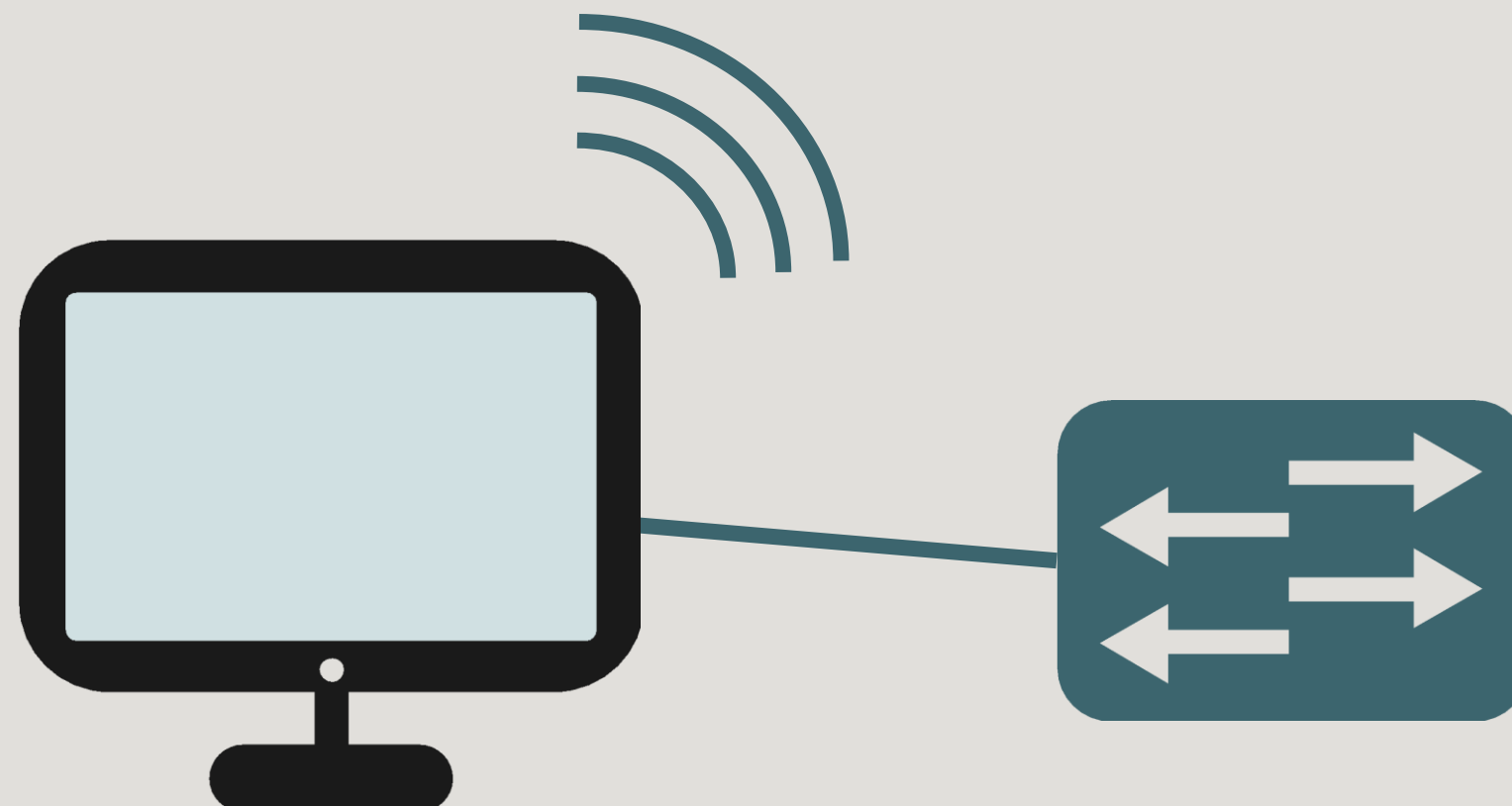
Some Examples

- Detect the speed of Wi-Fi APs and choose the best one to transmit data.



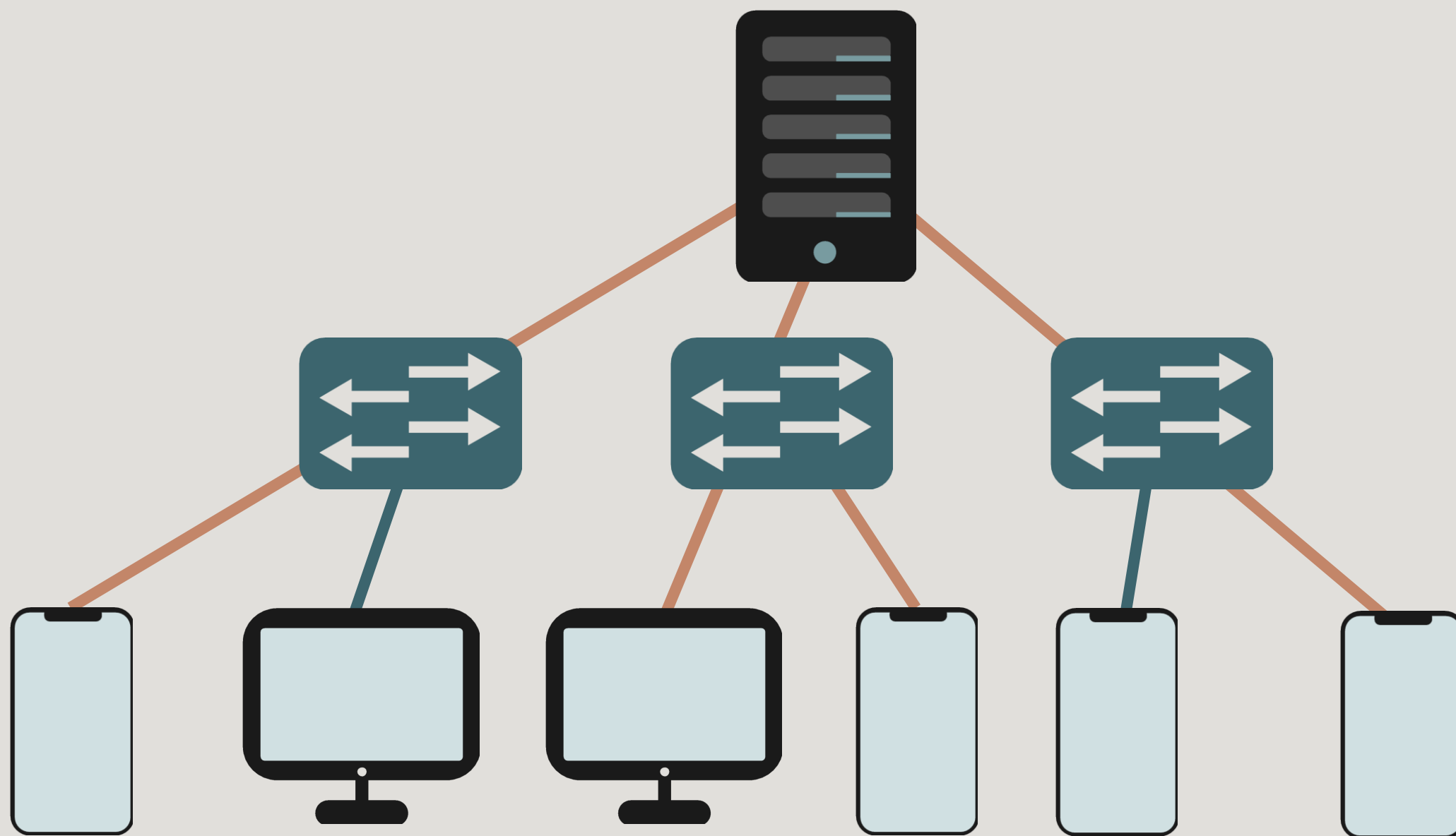
Some Examples

- Use two network cards to speed up the communication.



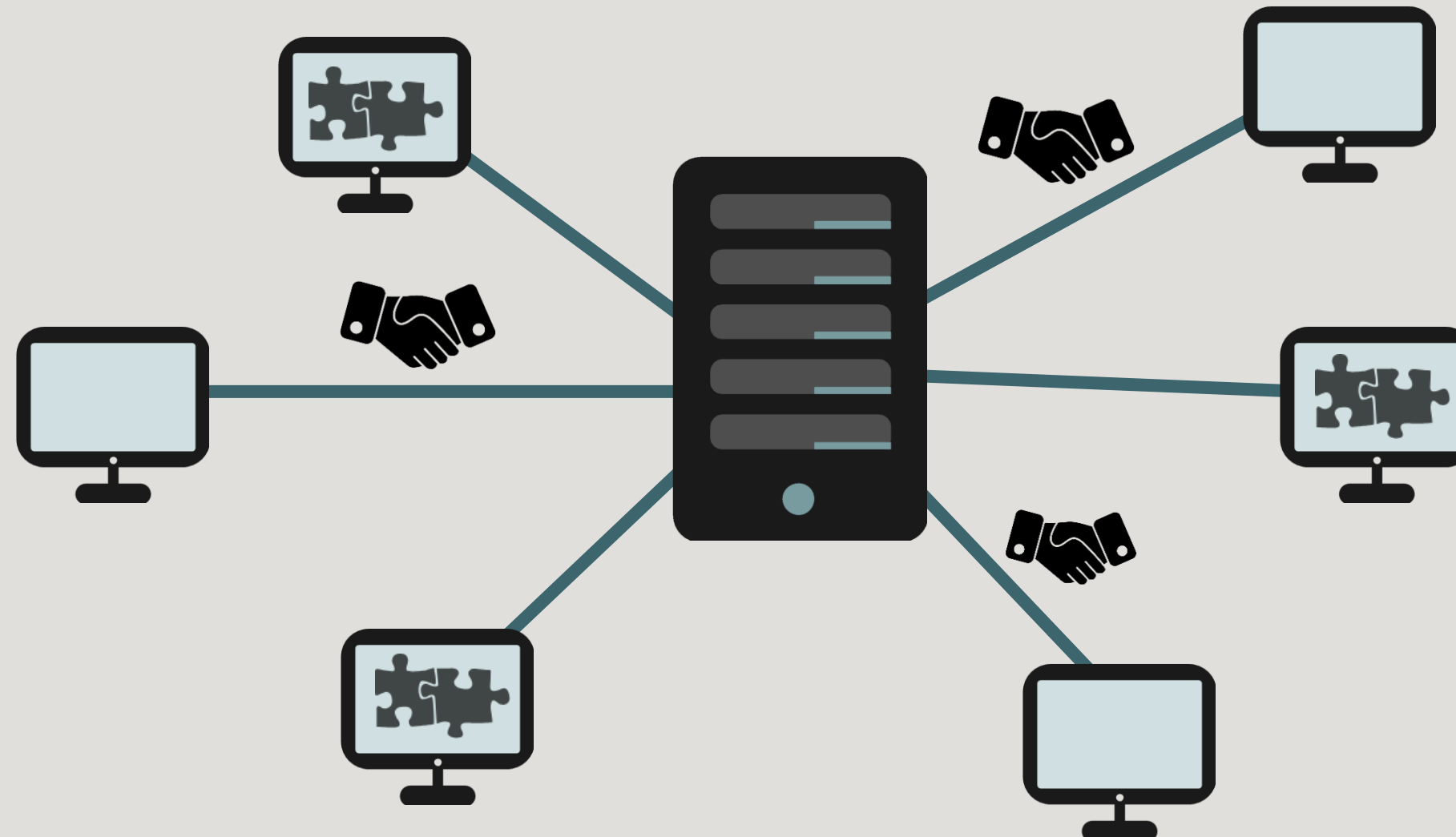
Some Examples

- Detect (basic) or protect (advanced) the DDOS attacks via SDN
- The QoS guarantee issues
- Optimize the communication of multicast tasks



Some Examples

- Transport Layer Client Puzzle for DoS resistance



Waters, Brent, et al. "New client puzzle outsourcing techniques for DoS resistance." *Proceedings of the 11th ACM conference on Computer and communications security*. ACM, 2004.

The Presentation of proposal

- It will be held on 5/20 (Thu.) **1:30 PM**
- 3~5 minutes for presentation with slides and 2 minutes for Q&A.
- Your presentation must contain:
 - motivation
 - functions of the projects
 - system structure
 - expected results
- You need to upload your slides to NTU cool before 5/20 (Thu.) 11:59 AM.

The Presentation of demonstration

- It will be held on 6/17 and 6/24 (Thu.)
- 10~12 minutes for presentation with slides and 3 minutes for Q&A.
- Your presentation must contain:
 - How it works
 - The functions you achieved (show it directly)
 - Your final results
- You need to send your slides to NTU cool before 11:59 AM of 6/17 (Thu.) or 6/24 (Thu.) if you want to use our laptop to present.

Grading Policy

- The proposal accounts for 10% of the total score in this course
- The project result accounts for 30% of the total score in this course
 - You will get at least 60% of this part if you achieve all the functions of your proposal.
 - The difficulty accounts for 20% of this part, and
 - the innovation accounts for 15%
 - Anything special accounts for 5%.

Mutual Evaluation

- Inter-Group:
 - During the demo, there will be a mutual evaluation form.
- Intra-Group:
 - After the demo, there will be a mutual evaluation form.
 - If your contribution to the homework and final project were too little, you would get some penalties.

Other Rules

- On 5/20 (Thu.), we will use draw lots to decide the order of presentation of proposals
- For Demonstration, you need to fill a form to choose the prefer date you want to present your final project
 - First submit, first present.
 - You should fill the form before 6/10 (Thu.) 11:59 A.M.