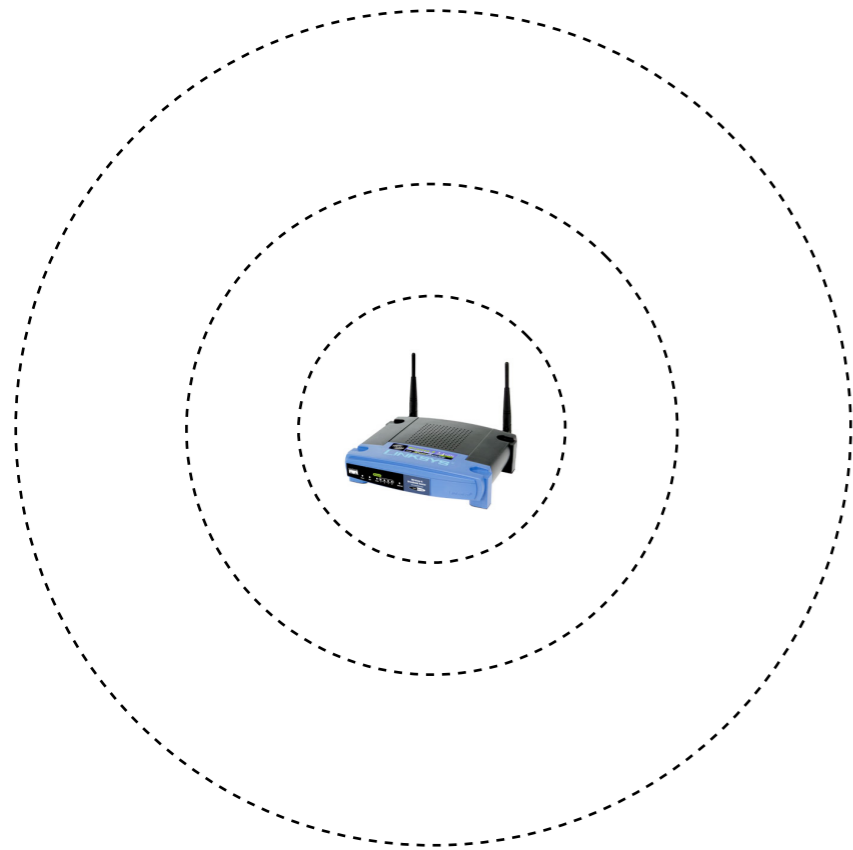


# Enable wireless on the router



```
$ uci set wireless.wl0.disabled=0
```

```
$ uci commit wireless && wifi
```

- Then use wl0 as the device for capturing packets in project 2, part 3

# Project 3

cse461

# Tunneling Broadcast Packets

- Motivation
- Set up
- Steps
- Step 1 details

# Motivation

- Friend has an iTunes library that I would like to access, but unless we are on the same network, I can't "see" her shares.



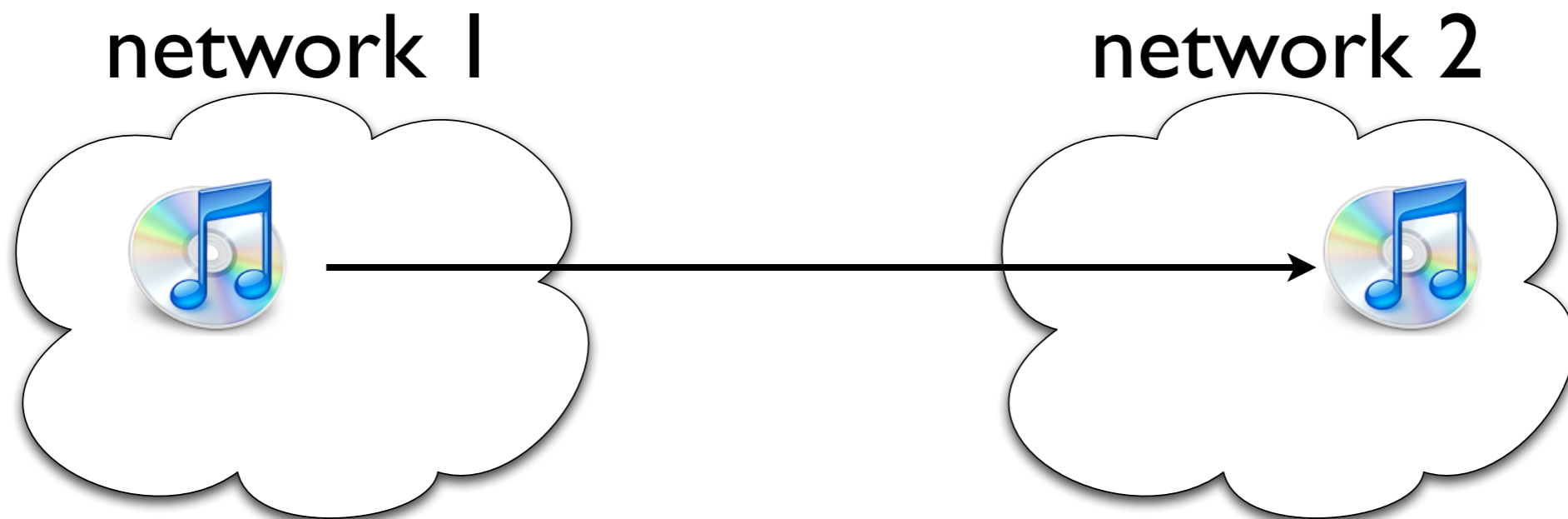
# Motivation

- Friend has an iTunes library that I would like to access, but unless we are on the same network, I can't "see" her shares.



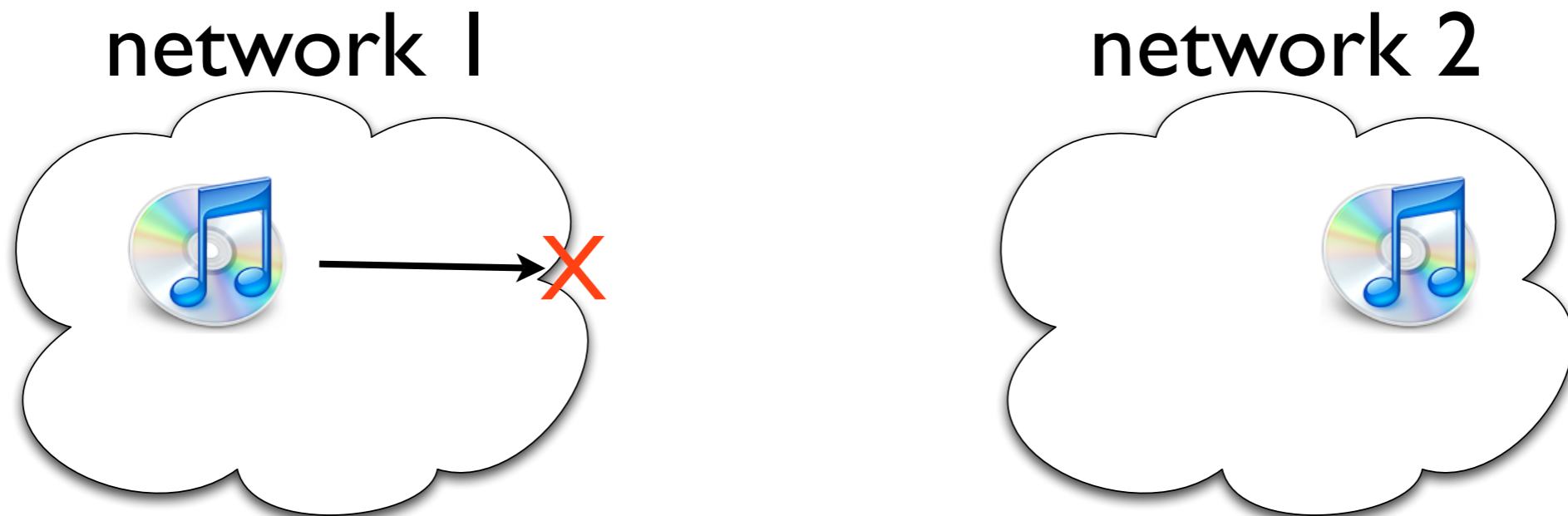
# Motivation

- Friend has an iTunes library that I would like to access, but unless we are on the same network, I can't "see" her shares.



# Motivation

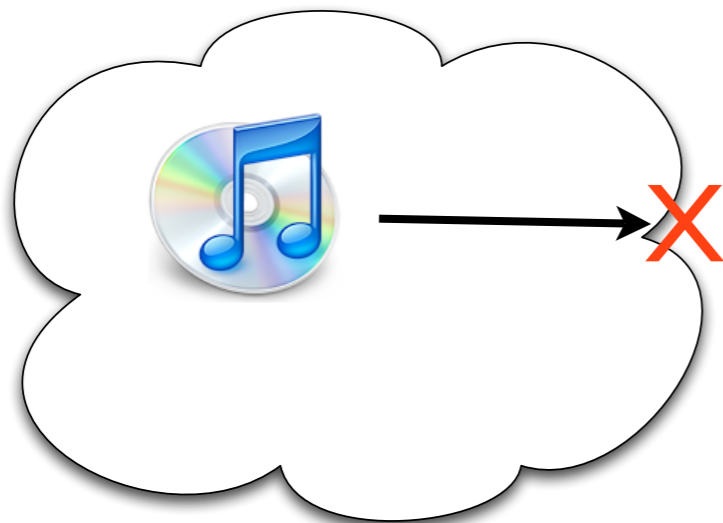
- Friend has an iTunes library that I would like to access, but unless we are on the same network, I can't "see" her shares.



# Set up

- In this project, you will explore a **centralized** solution to this problem

network 1



network 2

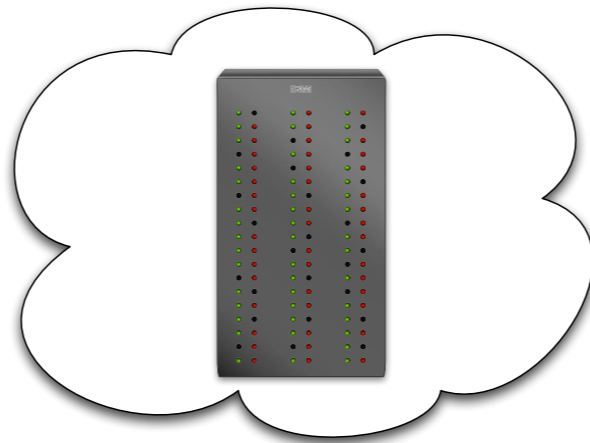




# Set up

- In this project, you will explore a **centralized** solution to this problem

server



network 1



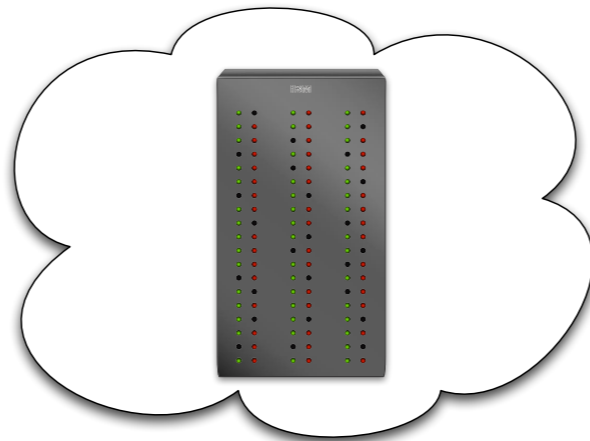
network 2



# Set up

- In this project, you will explore a **centralized** solution to this problem

server



network 1

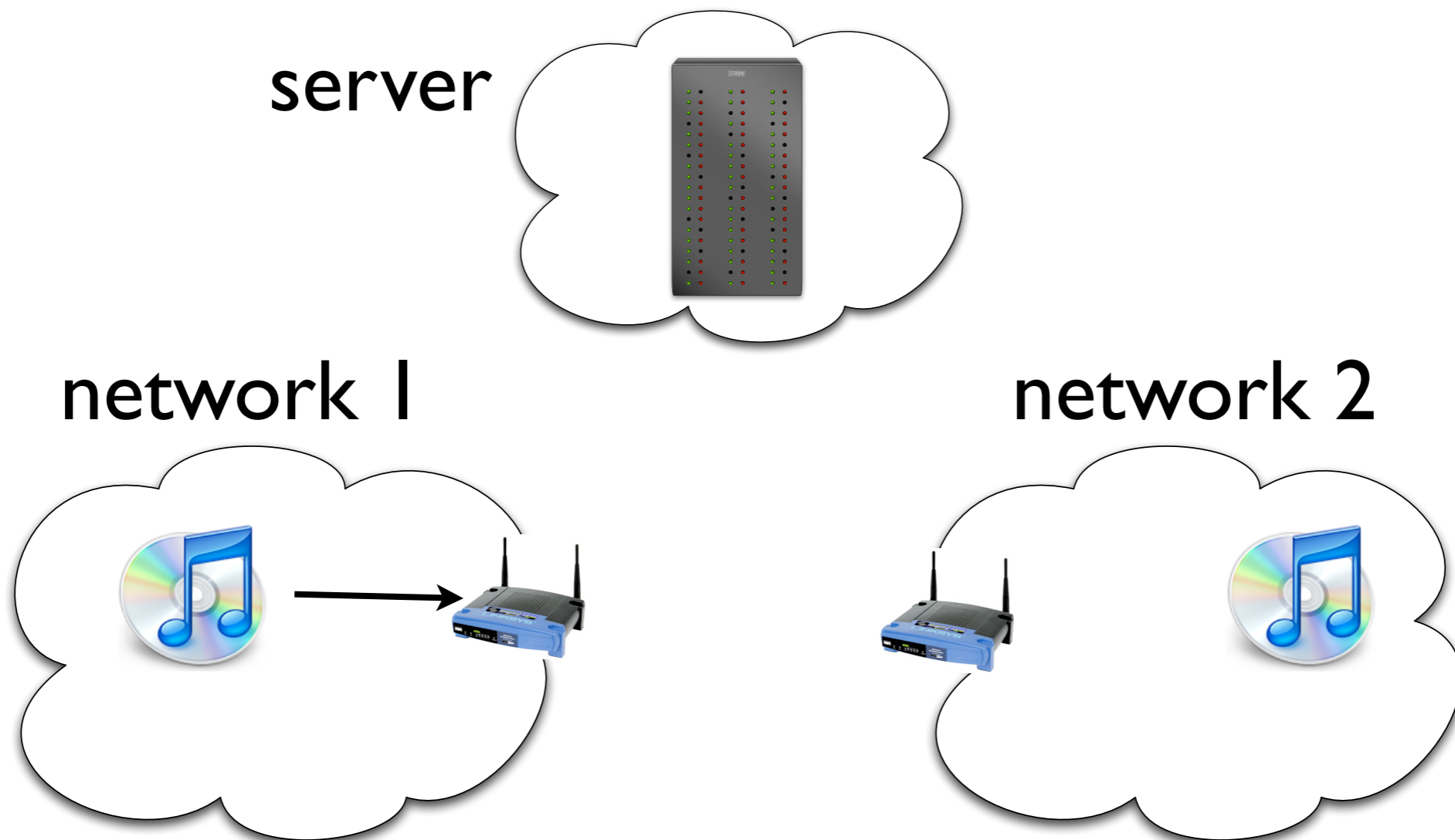


network 2



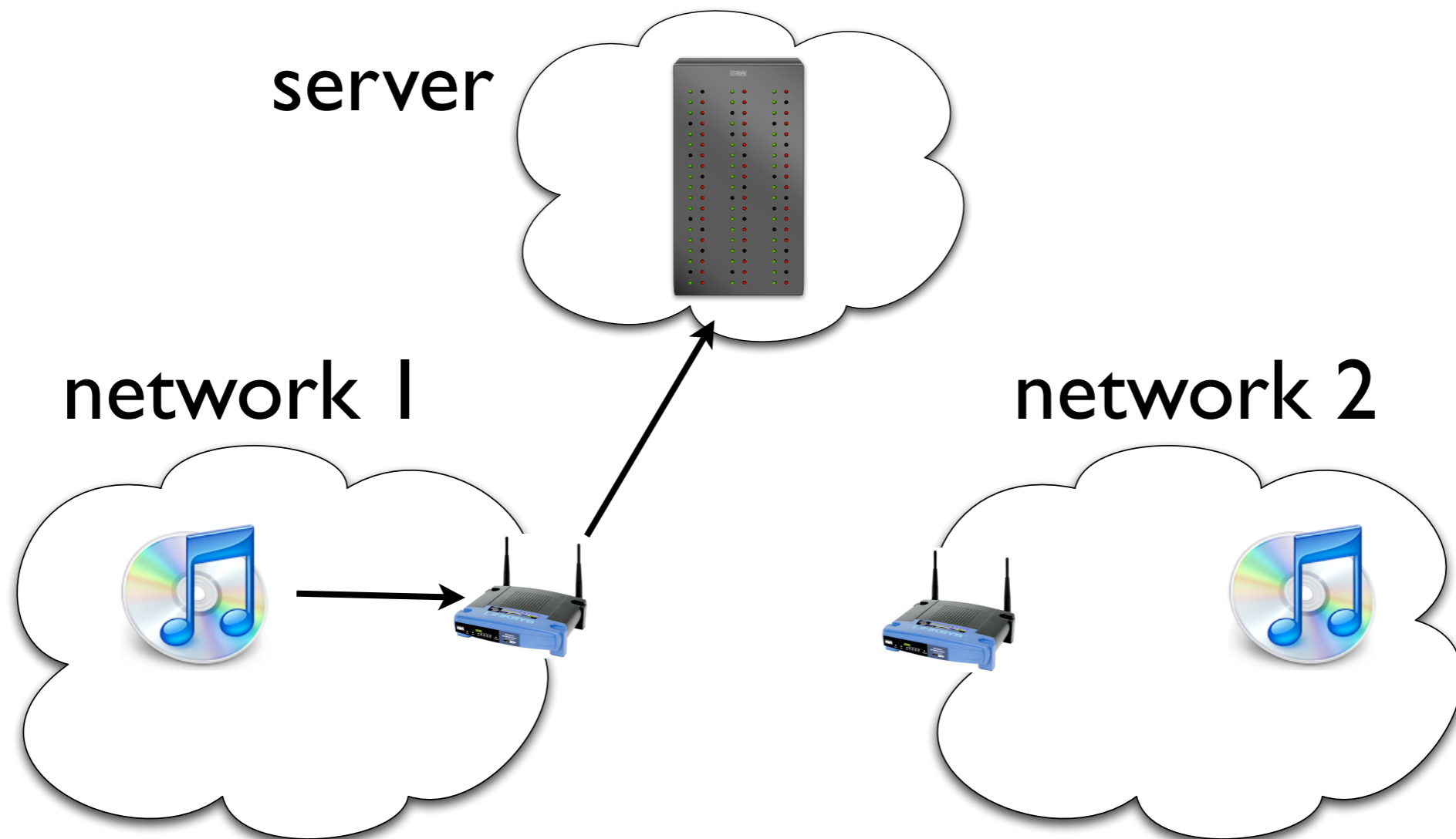
# Set up

- In this project, you will explore a **centralized** solution to this problem



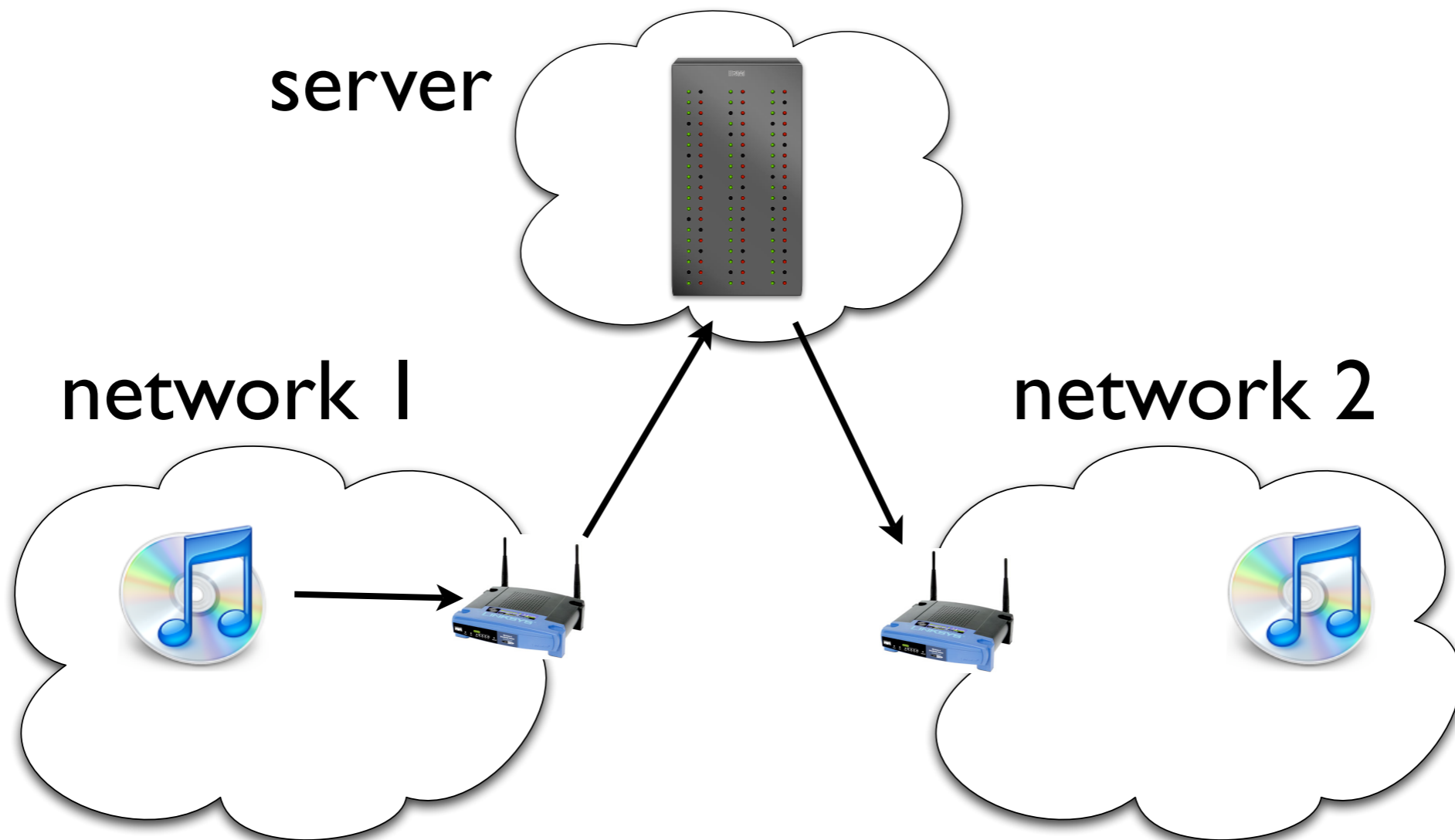
# Set up

- In this project, you will explore a **centralized** solution to this problem



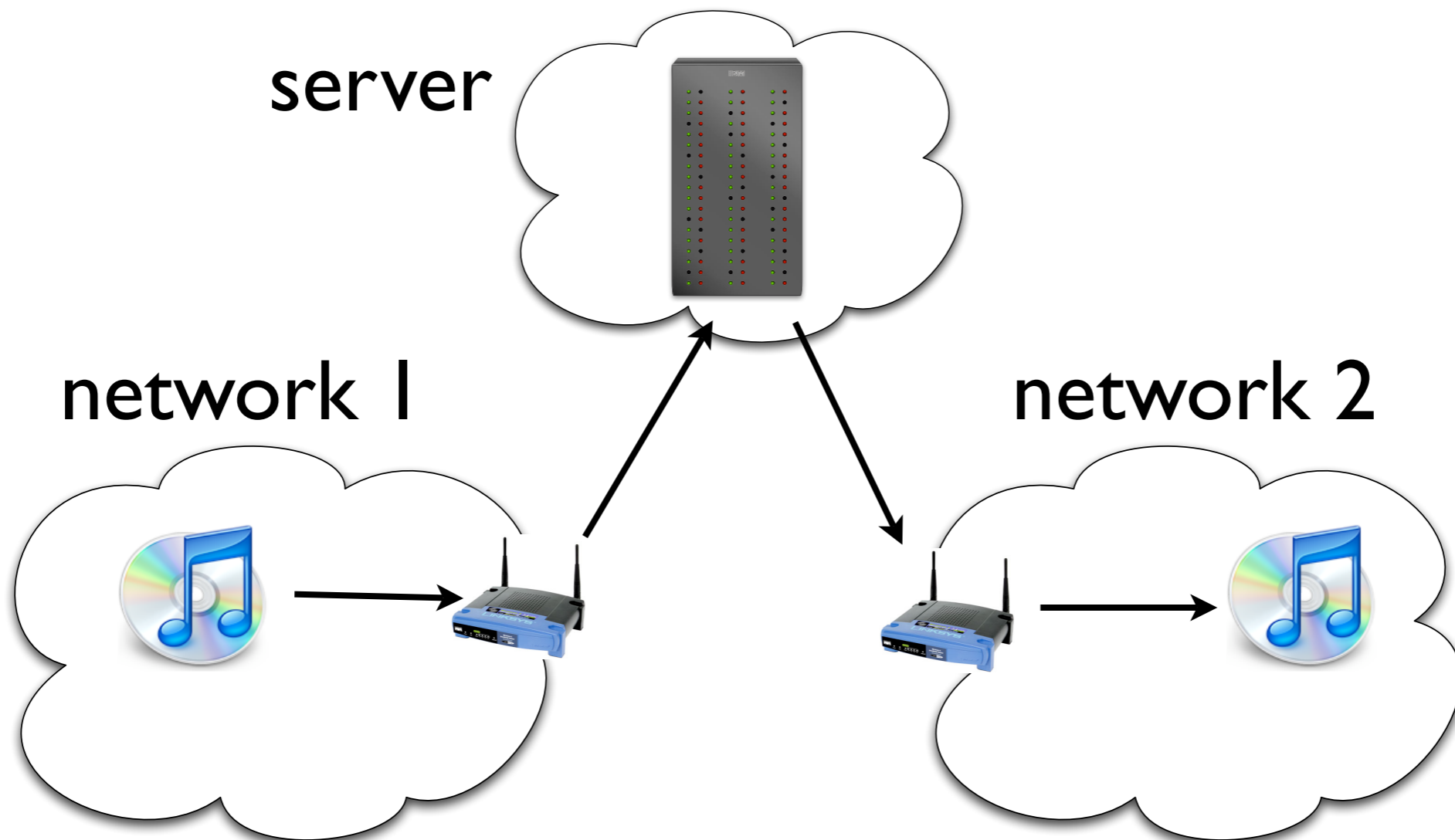
# Set up

- In this project, you will explore a **centralized** solution to this problem

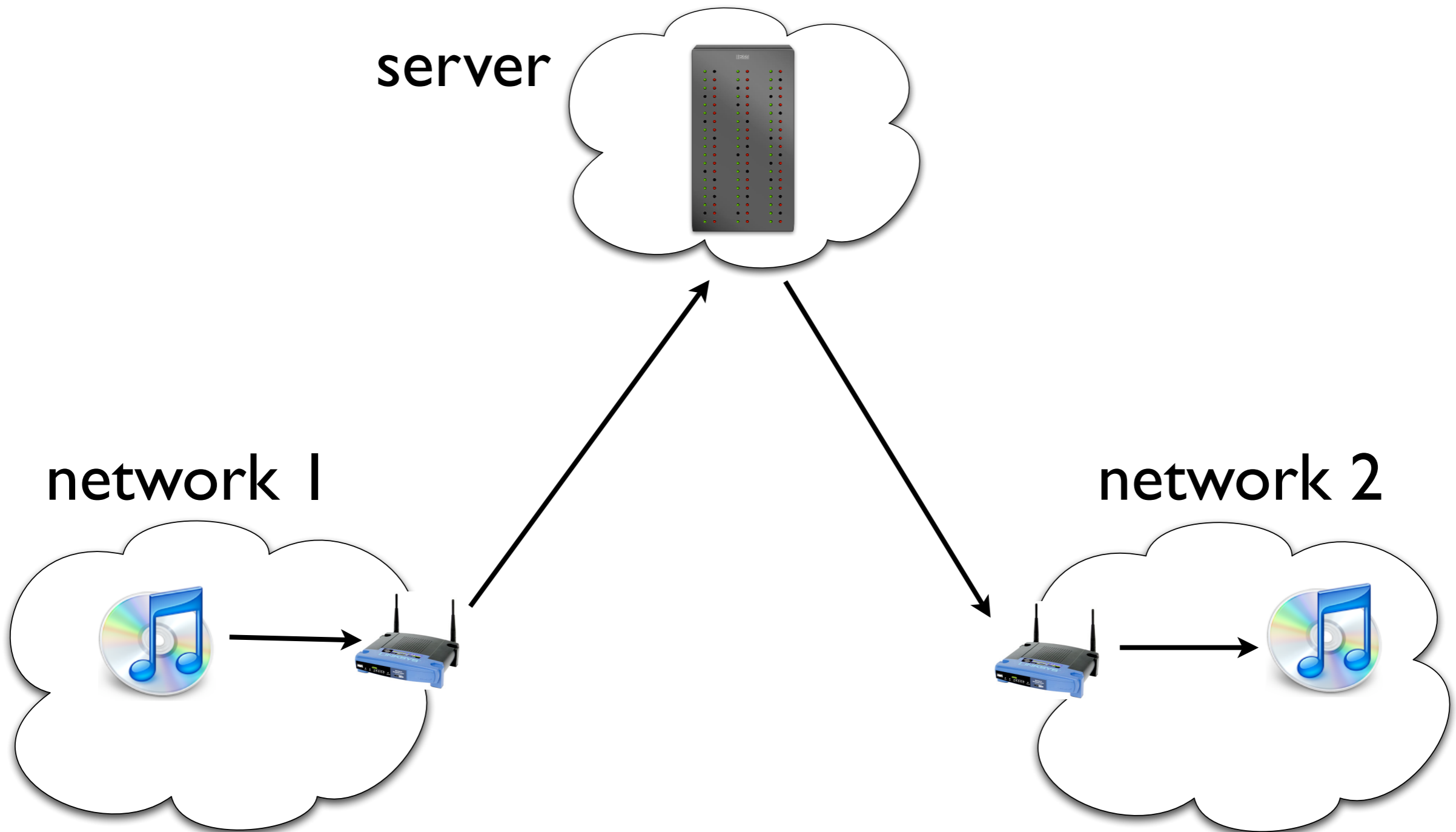


# Set up

- In this project, you will explore a **centralized** solution to this problem

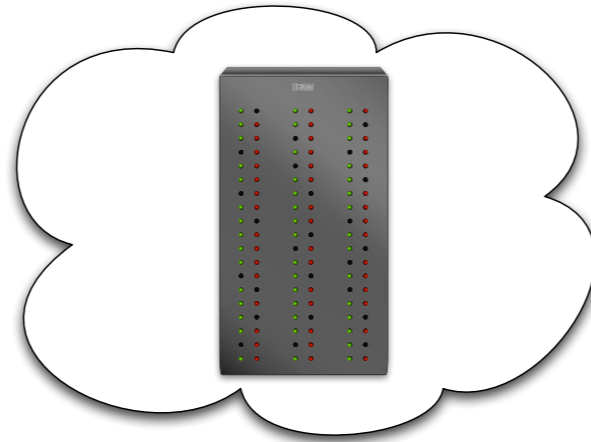


# Steps



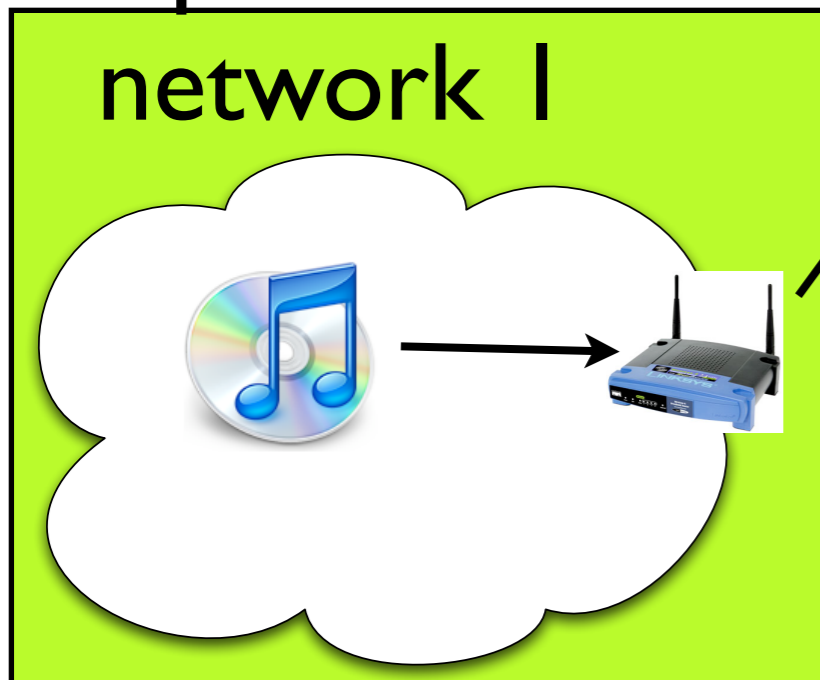
# Steps

server

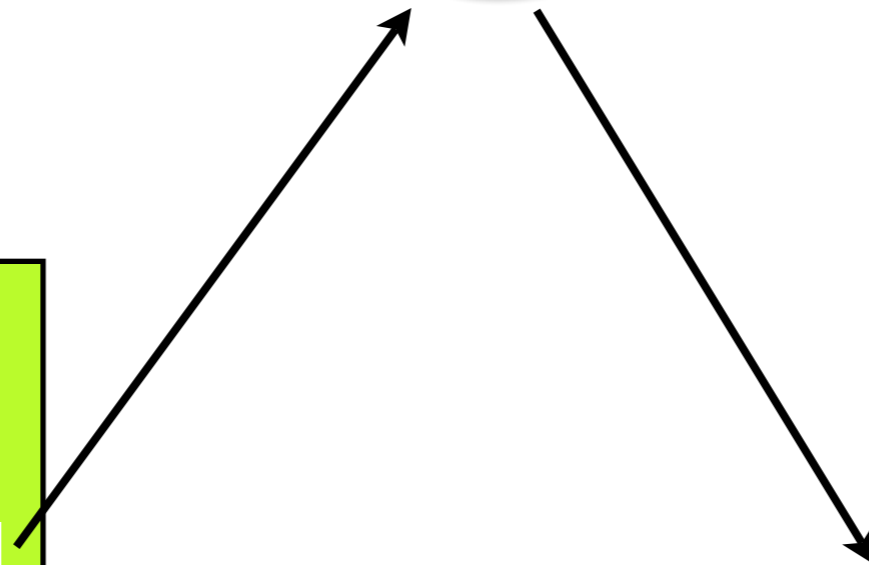
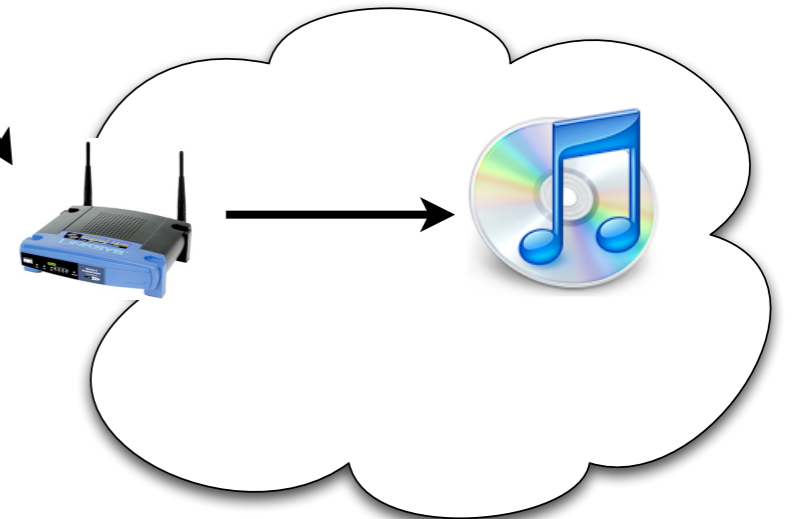


Step 1

network 1



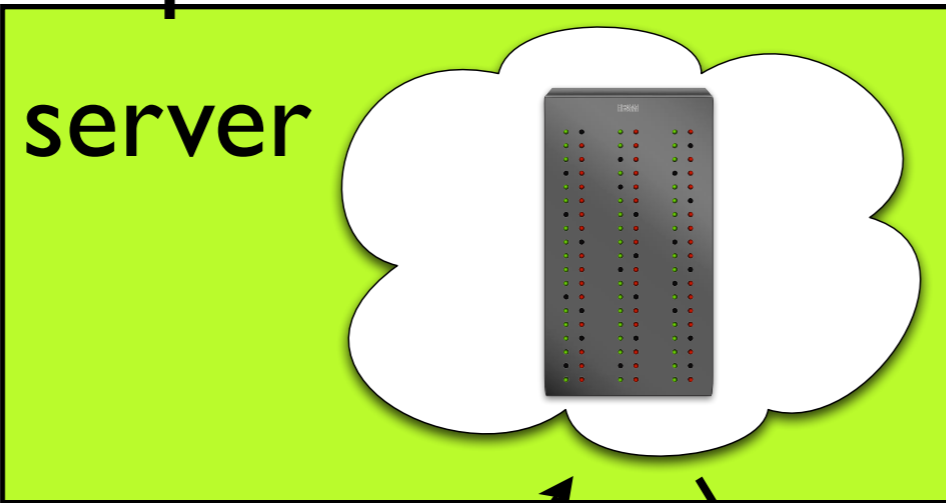
network 2



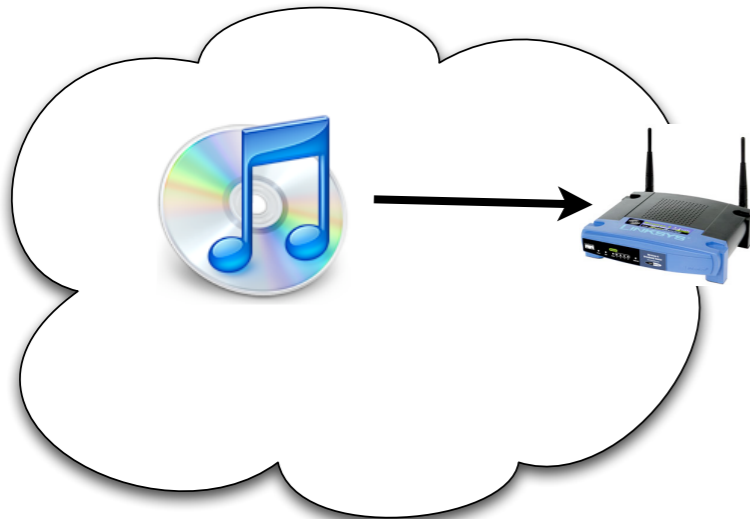


# Steps

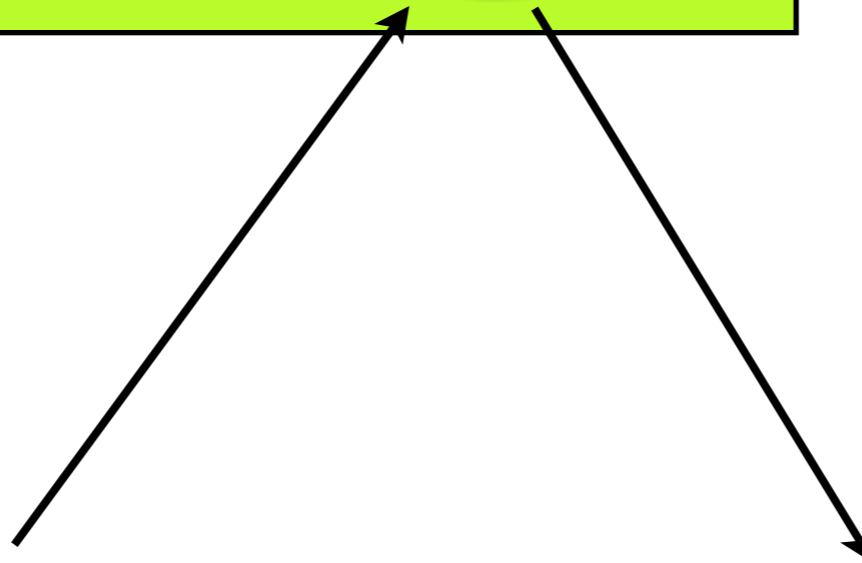
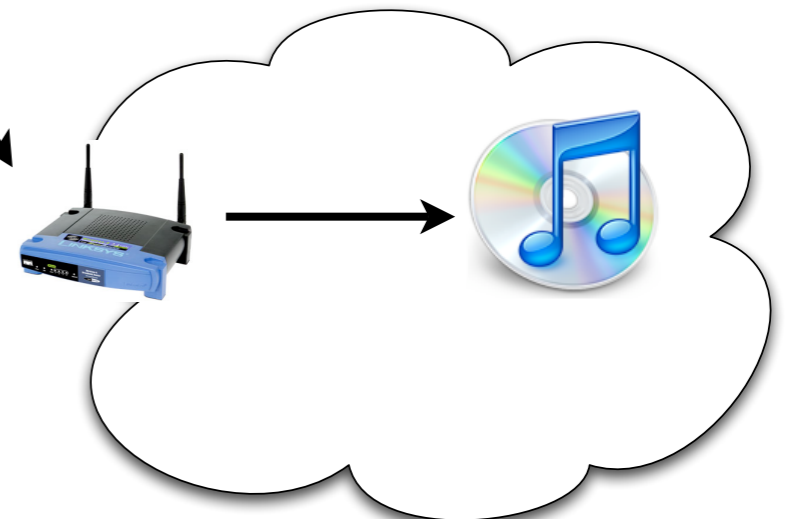
Step 2



network 1

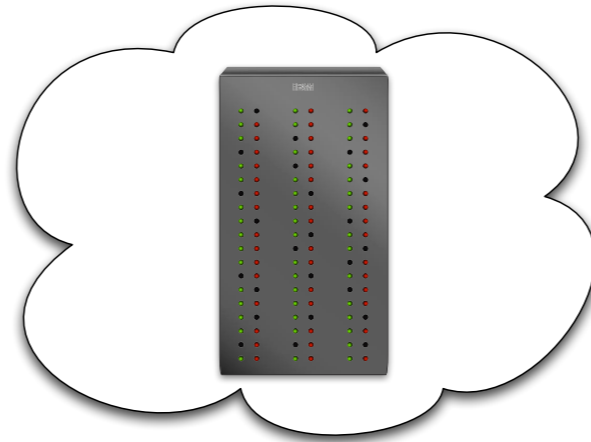


network 2

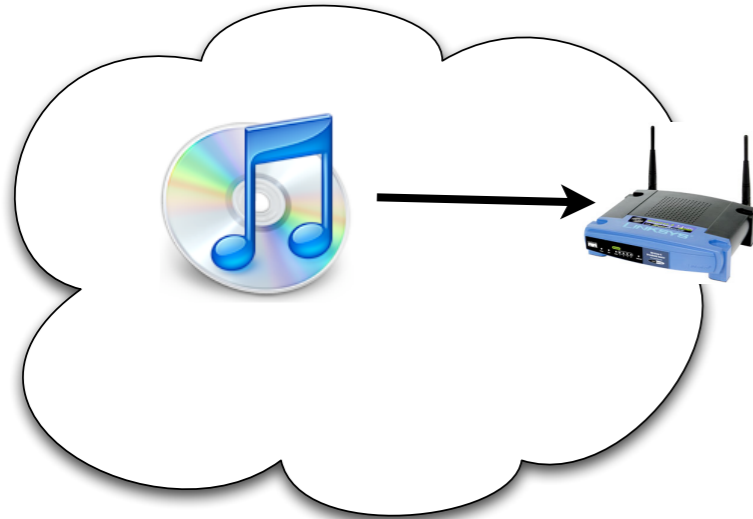


# Steps

server

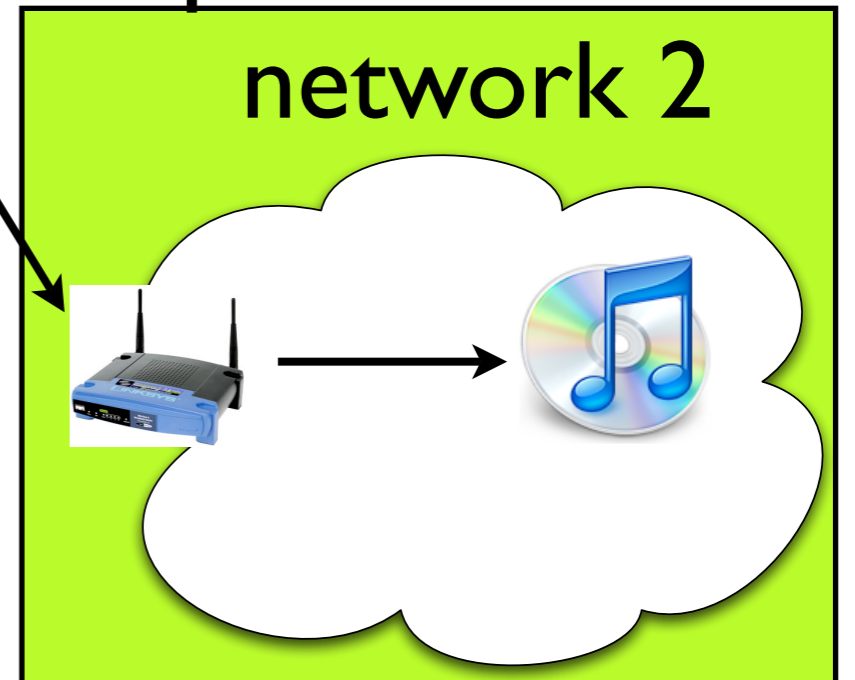


network 1



Step 3

network 2



# Project 3, Step 1

- Capture **IP broadcast** packets on your router using pcap (as you did in Project 2, Step 3)
- Forward captured, unmodified, packets over TCP to a listening server (running on bicycle.cs)

# Project 3, Step 2 & 3

- Implement full protocol for communicating with server
- Receive packets from the server (on `bicycle.cs`) over TCP connection
- Broadcast received packets on the local area network

# Due dates

- Part I due **next Friday**, November 21, 2008
- Server code, that you can run from `attu.cs` will be made available
- If you need to connect your router to the Internet, a room with ethernet jacks you can use will be provided