

*Each 6.1800 lecture will come with an outline. You can fill this in during lecture, after lecture, or not at all — it's entirely up to you how you use it. The goal of these outlines is to help you understand the main points that you should be taking away from each lecture. In some cases we will also include examples of things you should be able to do after each lecture.*

*In the past, these outlines have proved to be an effective tool for studying for the exams. Note that the outlines are **not exhaustive**; there will be topics and nuances in lecture that aren't captured by the outline.*

## **Lecture 14: Datacenters and Clouds**

- What is “the cloud”? What are some things we do with the cloud?
- What is the physical infrastructure of a datacenter network like? Specifically:
  - What is a “rack”?
  - What is the network topology like?
  - How do we route?
    - What is “multi-path routing”?
    - What are examples of some issues that multi-path routing protocols have to deal with that single-path routing protocols (such as link-state or distance-vector) don't?
  - What is the centralized controller in a datacenter responsible for?
- How do datacenter networks compare to CDNs?
- How do datacenter networks compare to the Internet?
- What concerns are there in a datacenter network in each of the following areas?
  - Performance
  - Scalability
  - Fault tolerance
  - Security