Software Defined Networking

Announcements
- No class on Monday, Dec 9
- Lab 5 is due Wednesday, Dec 4

First a bit about network applications
- This is IMPORTANT: basically the main thing this class talks about.

Protocol: What the client and server send to each other?
What happens when they send unexpected things?
Now SDN

Control Plane

Data Plane

\[\text{Config} \rightarrow \text{Admin}\]

\[0 \rightarrow 1 \rightarrow 2 \rightarrow 3\]

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<th>In Port</th>
<th>Action</th>
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What we did so far

- Distributed Control Planes
  - Each switch has its own control plane

Pros

- Admin separation
- Fake sharing

Cons

- Difficult to get
- New Info hard to utilize
- Complications

Alternative

![Control Plane Diagram]

Old/Plane

Served
Pros
- Easy to program

Cons
- Scaling

Where Used?
Things Enabled

Virtual networking

UPN

10.0.0.1
10.0.0.1
Security?

Controller

Server

 VPN SSH

C

WS

Amazon

C

C

C

C

∅ → WS