**Routers and Gateways**

**Routers**

Core component to a network

* Routes data packets to their correct destination
* Higher than switches: routes to switches

When a packet hits a router, its also called a hop

* Switches don’t get shown in hop traces, but routers do

They often contain a set of rules that allow traffic to move based on certain parameters

If a router doesn’t know where to send a packet AND it has a gateway setup, then it’ll send the packet to the upstream gateway

**Gateways**

**The upstream network device**

A router can be a gateway to another router

The gateway is sent data because the doesn’t know where to send it

* Eventually going through enough gateways, the data packet should know where it’s going
* E.g., your workstation has a gateway of your router at home