

# Multi-protocol routing

CSE 599N1

Autumn 2019

# Nodes run multiple protocols

## Different routing protocols

- BGP, OSPF, IS-IS
- Static and connected routes are also “routing” protocols

## Multiple processes of the same protocol

## Multiple virtual routers (VRFs)

# Interaction between protocols

For the most part, each protocols has its own domain

- Populates its own routing table (RIB)

*Admin distance* breaks ties when the same destination is available via multiple protocols

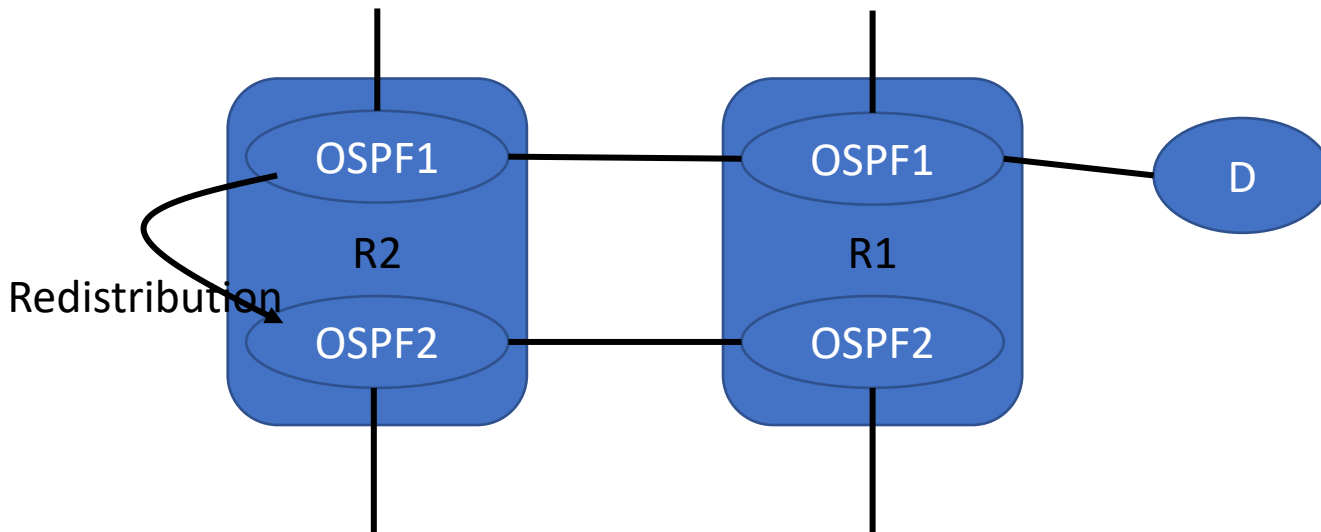
*Redistribution* leaks destinations from one protocol to another

# Additional complexity

Single-protocol networks are a lot simpler

- E.g., never have to worry about loops

All kinds of bad things can happen with multiple protocols



What happens if the admin distance of OSPF2 is lower than OSPF1 at R1?

What happens if we start redistributing OSPF2 into OSPF1 at R1?