

# Ingress Filtering for Asymmetric Routing

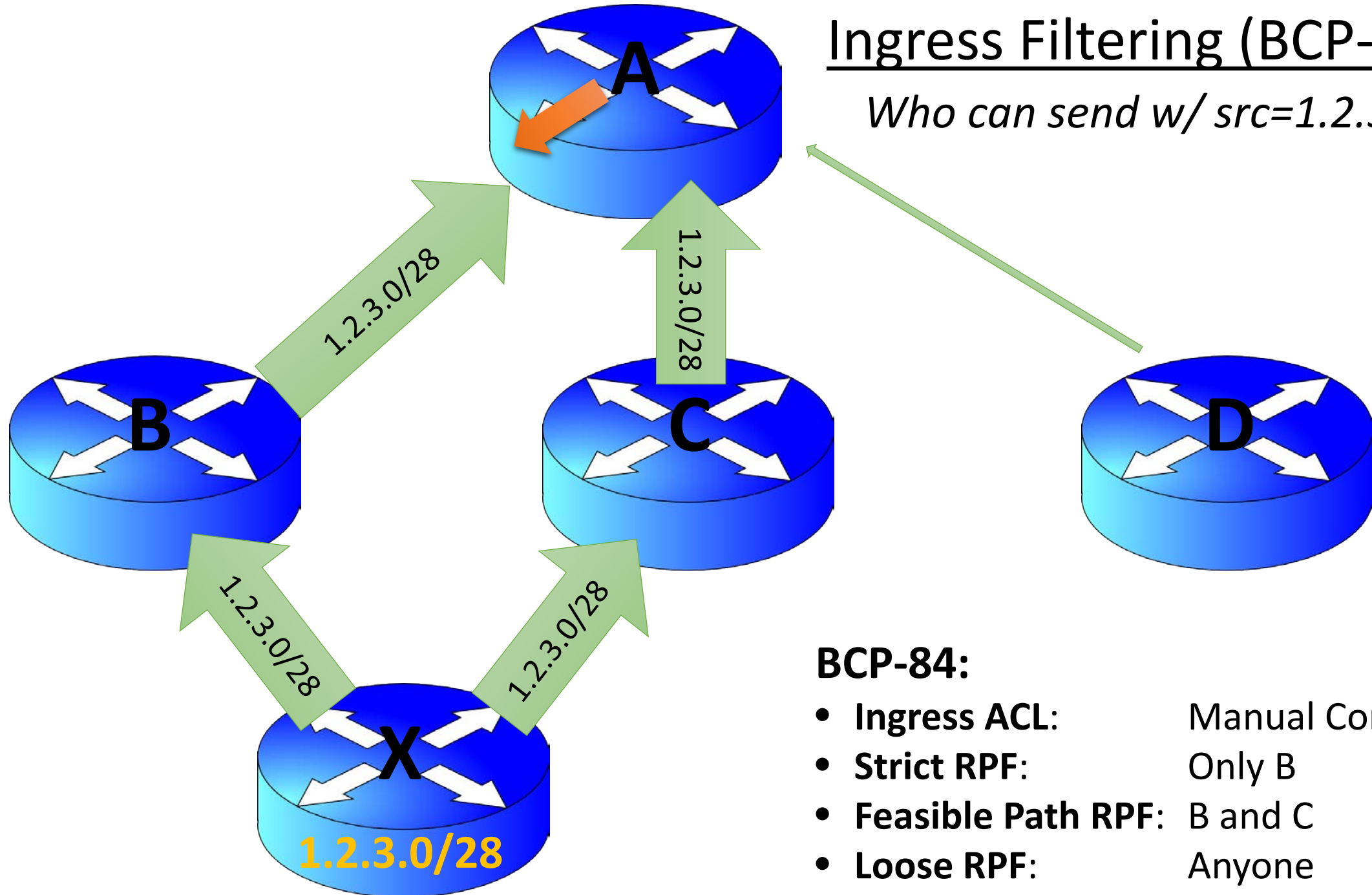
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## Acronym Soup

- BGP
- BCP-38
- BCP-84

# Ingress Filtering (BCP-38)

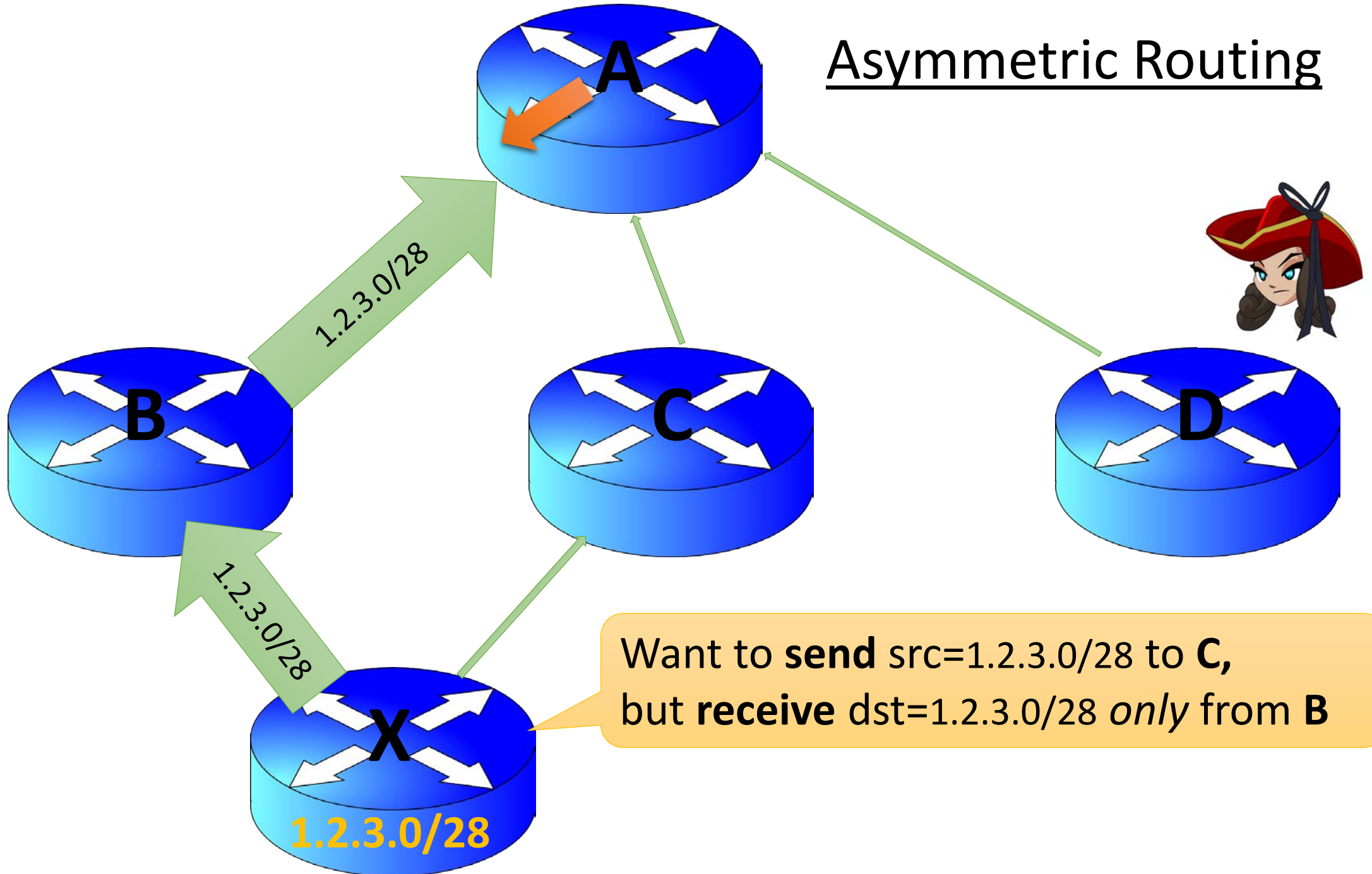
*Who can send w/ src=1.2.3.4?*



## **BCP-84:**

- |                      |               |
|----------------------|---------------|
| • Ingress ACL:       | Manual Config |
| • Strict RPF:        | Only B        |
| • Feasible Path RPF: | B and C       |
| • Loose RPF:         | Anyone        |

# Asymmetric Routing



# Why solve Ingress Filtering for Asymmetric Routing?

- Ingress Filtering Working for more people:

- Fewer operator headaches

- Wider Ingress Filtering deployment:

- *Improved Internet Security*



## *Interested?*

Let's talk: [ilubashe@akamai.com](mailto:ilubashe@akamai.com)

# Proposal: “Ingress Only” SAFI (AFI/SAFI)

- Announce “Ingress Only” paths using MP\_REACH\_NLRI with a new “Ingress Only” SAFI
  - AS\_PATH should be empty
  - MP\_UNREACH\_NLRI can be used to withdraw these paths
- “Ingress Only” paths are never installed in FIB
  - They are *only* used in “Feasible Path Reverse Path Forwarding” calculation
- Only routers that support the new SAFI will get the announcement
- If a covering route (with the same or a shorter prefix) is announced to a peer, the “Ingress Only” route is not announced to that peer