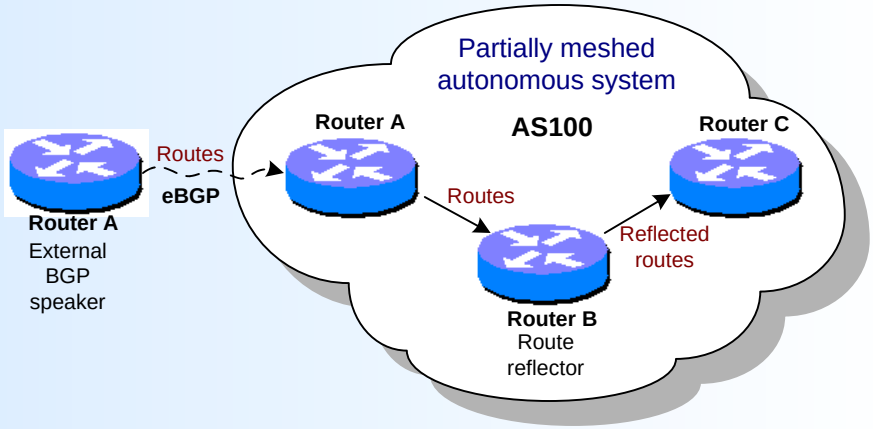
BGPv4 - Cisco's Advanced Routing Topics

Filters, Private AS numbers (ASNs), Peer Groups, Confederations, Route Reflectors



When the **route reflector** receives routes advertised from **Router A**,
it advertises them to **Router C**, and vice versa.
This scheme eliminates the need for the IBGP session between Routers A and C.

The route reflector and its client peers form a **cluster**

Configure the local router as a BGP route reflector
and the specified neighbor as a client.

```
>router bgp 100
>neighbor 172.16.31.251 remote-as 100
>neighbor 172.16.31.251 route-reflector-client  (router A)
>neighbor 172.16.32.251 remote-as 100
>neighbor 172.16.32.251 route-reflector-client  (router C)
```

Confederations allows you to divide an AS
into sub-ASs running eBGP between them.

```
>router bgp 5
>bgp confederation identifier 2110
>bgp confederation peers 6 7
>neighbor 172.16.31.251 remote-as 6
>neighbor 172.16.32.251 remote-as 7

>router bgp 6
>bgp confederation identifier 2110
>bgp confederation peers 5 7
>neighbor 172.16.33.251 re
```

Multi-homing is the proc
two or more service p
network - to provid
Via static route
metric (1-2

Peer G
sh

Access list filter to permit a path

```
>neighbor 172.16.41.11 filter-list 11 in
>ip as-path access-list 11 permit ^300$
```

*allow only routes that do not originate
AS 300 to be sent.*

Every time a route is adverti
the ASN of the router doi
As a route moves fro
System (network t
Each route sta
by the regu
as they
acc

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