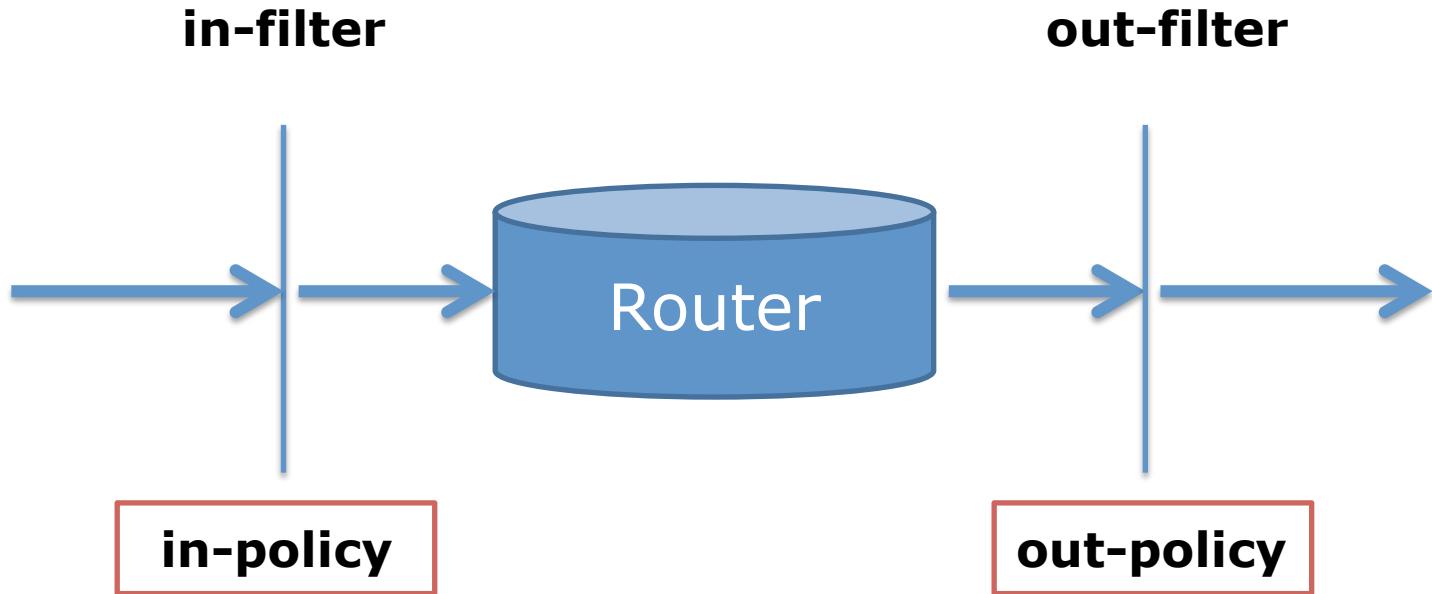

Impacts for Routing

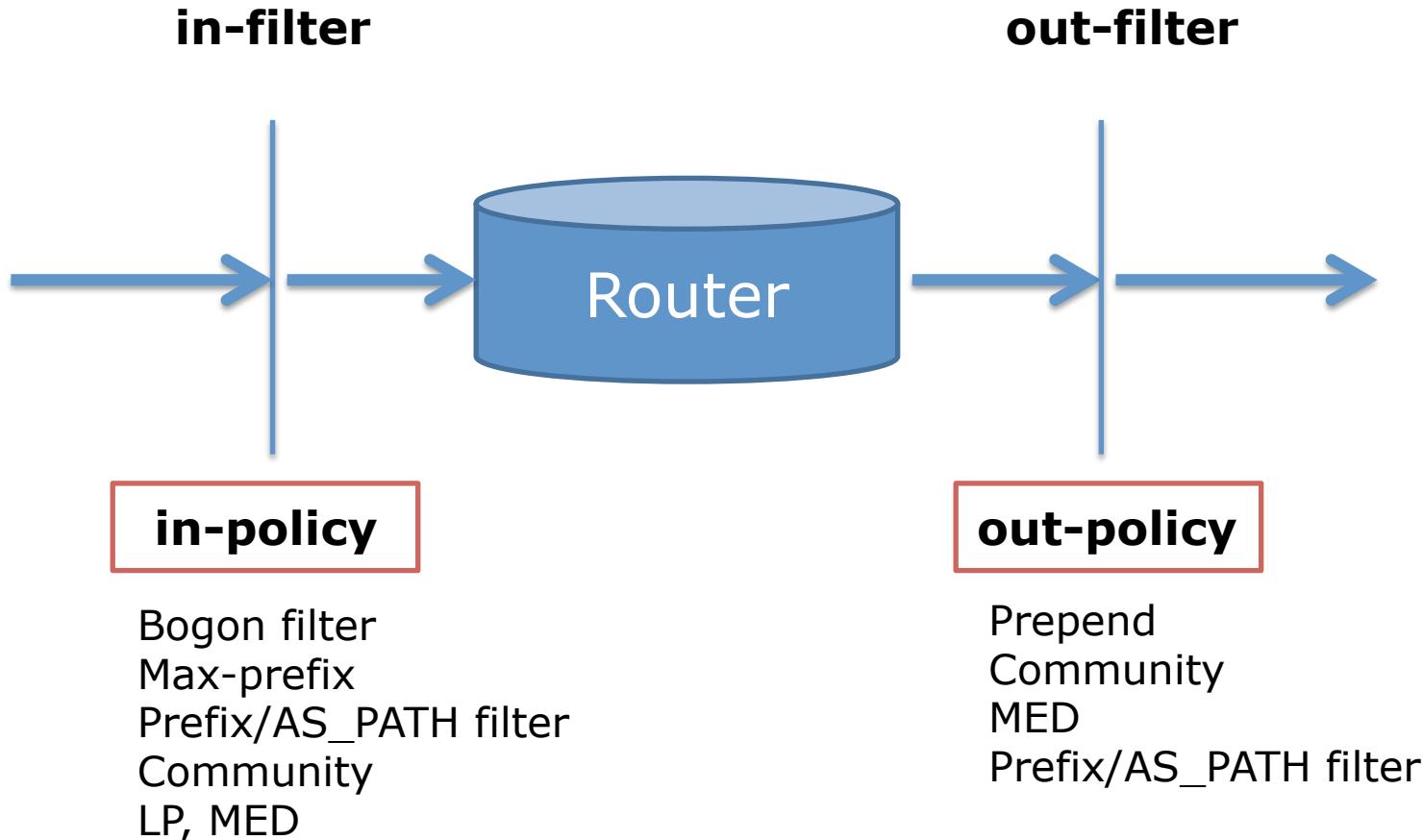
(RPKI panel@APNIC36)

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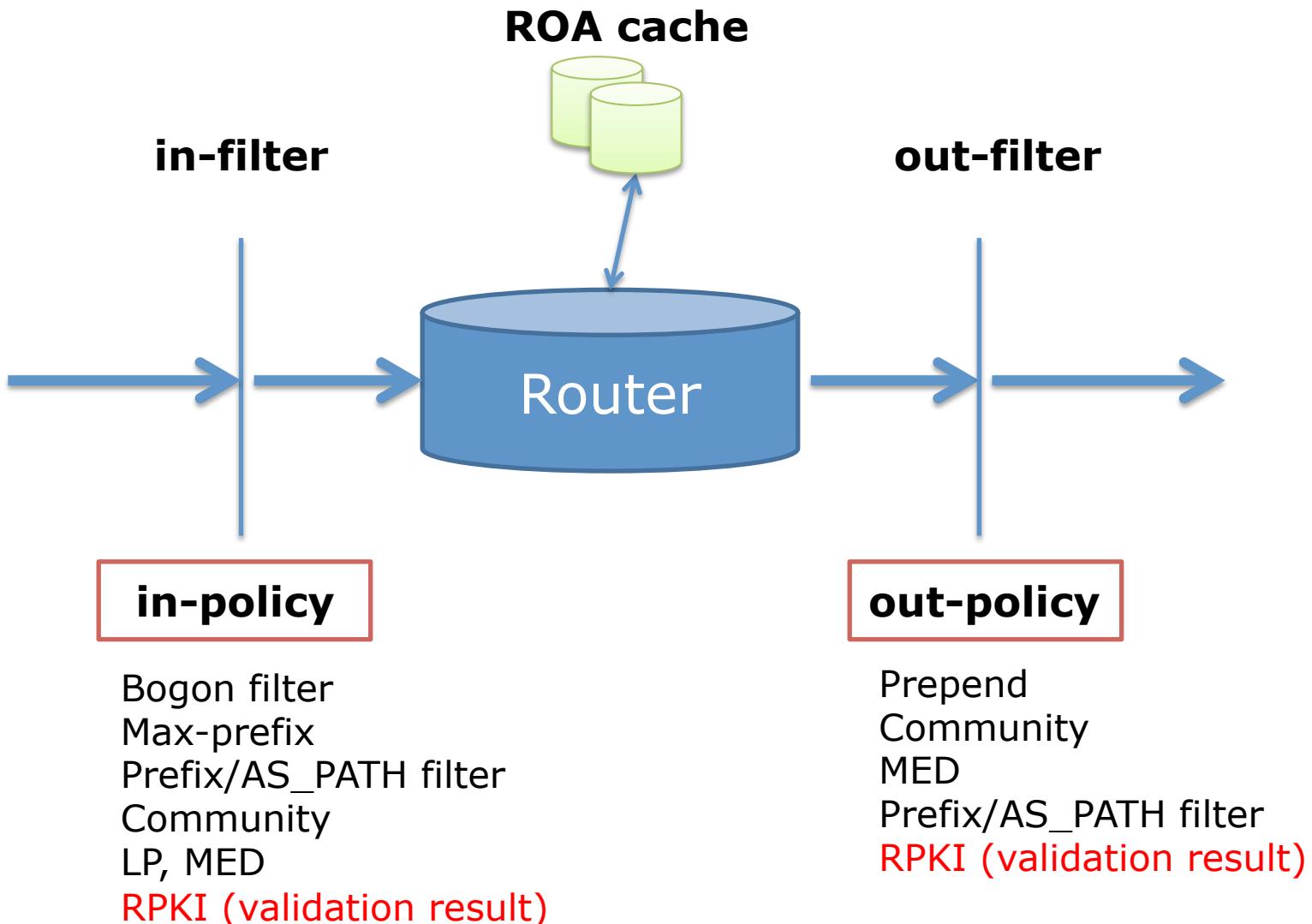
Filter of Router



Filter of Router

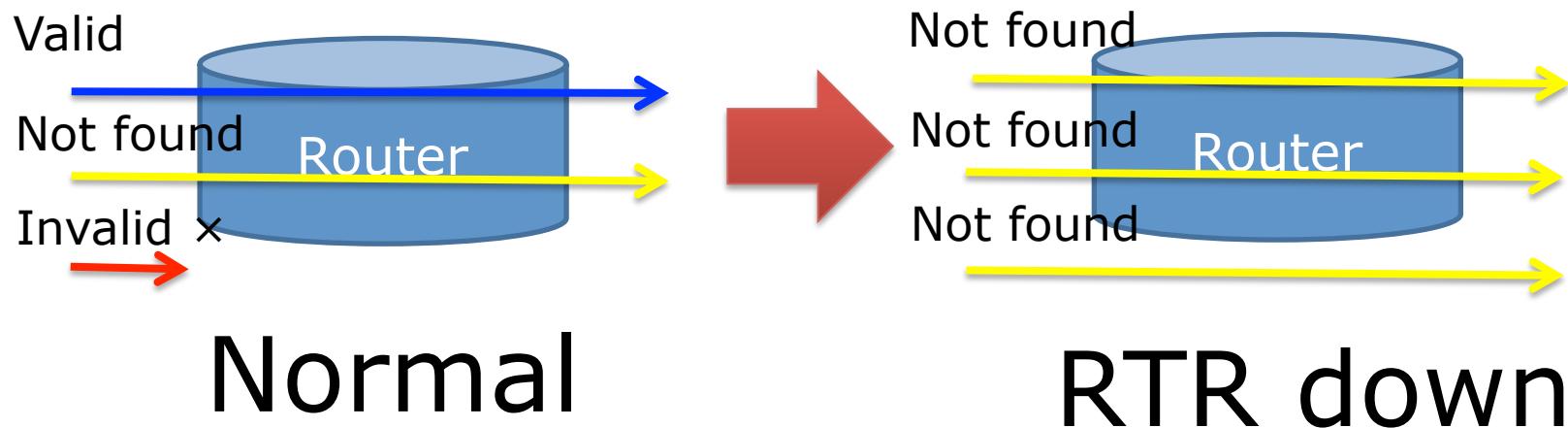


Filter of Router (w/RPKI)



Impact for Routing (1)

- When RTR session goes down accidentally, validation result may be “not found” on the settings depending on the cache timer on your router
 - This means the routes which you would like to reject using the RPKI validation result cannot be rejected temporary

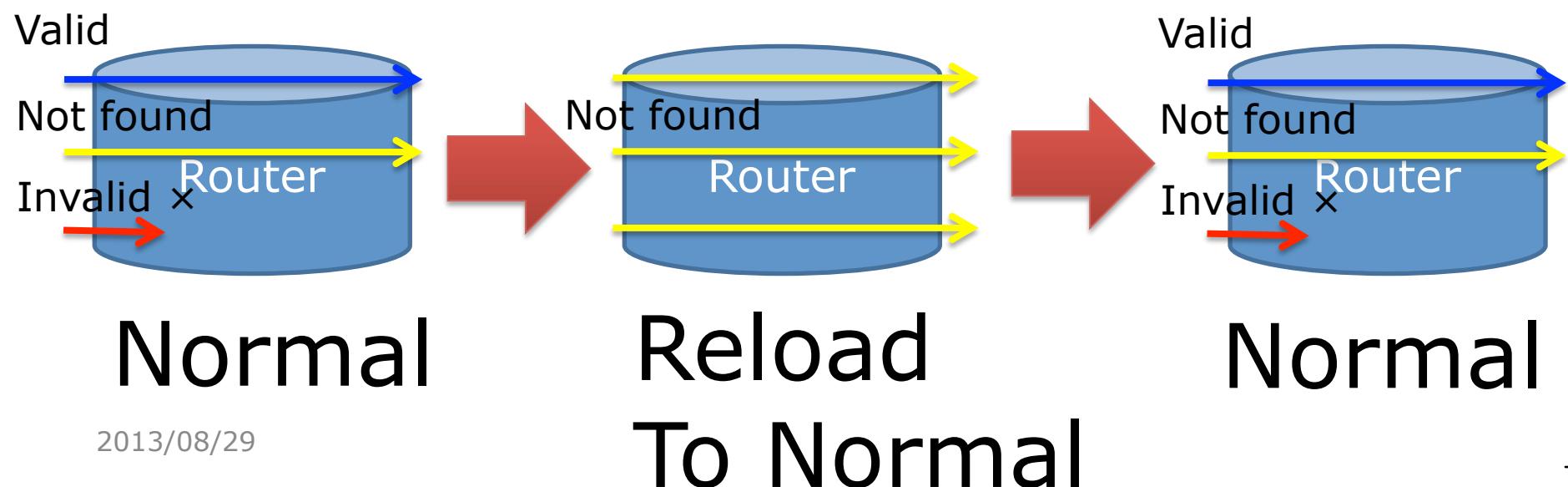


Impact for Routing (1)

- Redundancy for RTR session
 - Like a redundancy of Route Reflector
- Preparation even if the session goes down
 - ROA cache timer of the router
 - Policy rule
 - I don't recommend to reject "not found"

Impact for Routing (2)

- When your router reboot accidentally, need to care the convergence time of RIB/FIB route and RTR
 - This means also the routes which you would like to reject using the RPKI validation result cannot be rejected temporary
 - Static filtering will not be influenced as of the RPKI

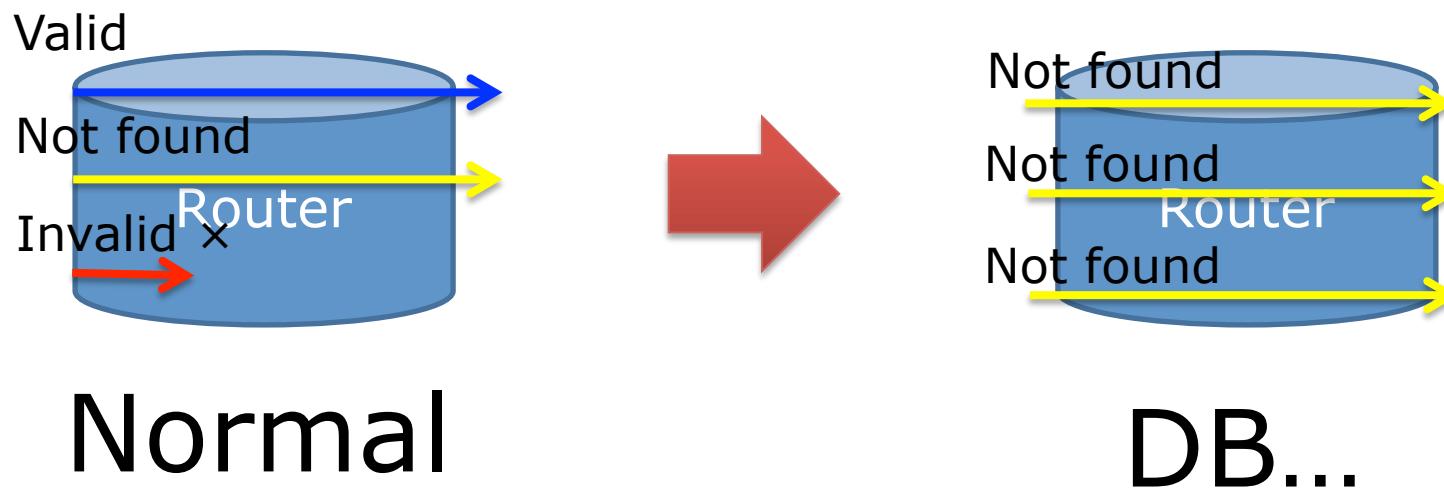


Impact for Routing (2)

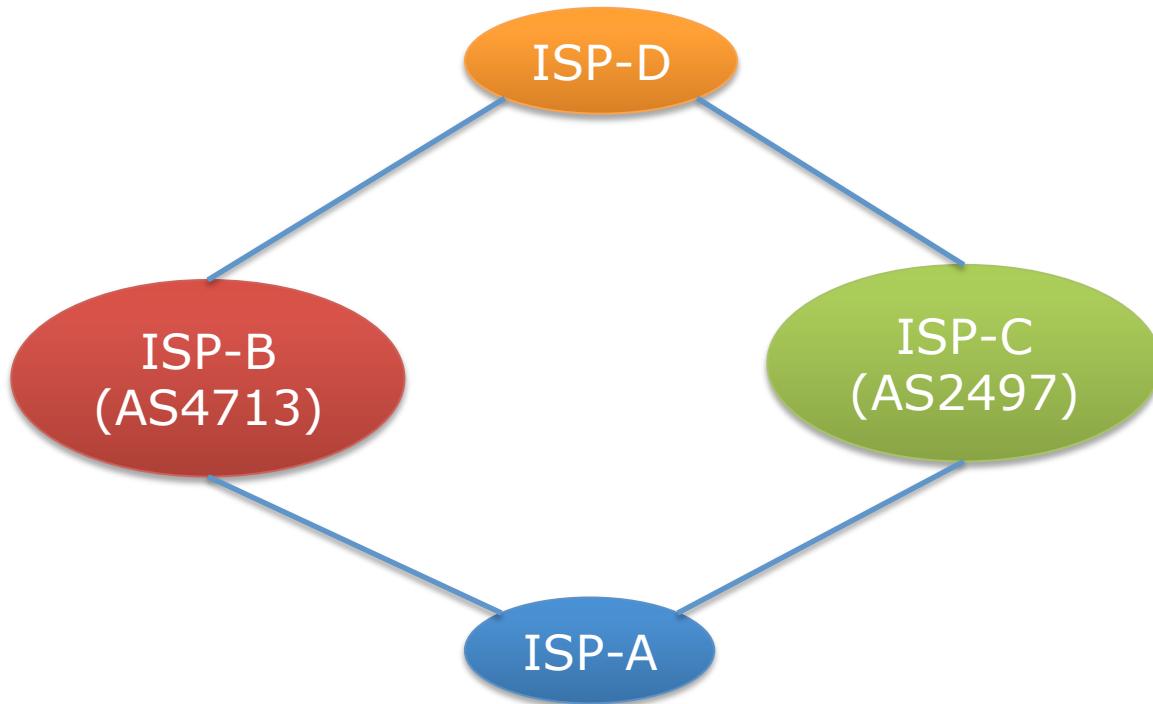
- wait-for-bgp (Ref: RFC3137) like implementation may be needed
 - At the hierarchy of router ospf, you can configure “wait-for-bgp” : The router set the ospf cost “max-metric 65535” till the finishing of receiving the fullroute
- **Proposal of wait-for-rpki(roa)**
 - Waiting to go back to normal ospf cost till the rtr session goes back and ready to validate

Impact for Routing (3)

- If the cache DB's contents accidentally be withdrawn or cannot to be seen correctly, the result of RPKI validation may be "Not found"

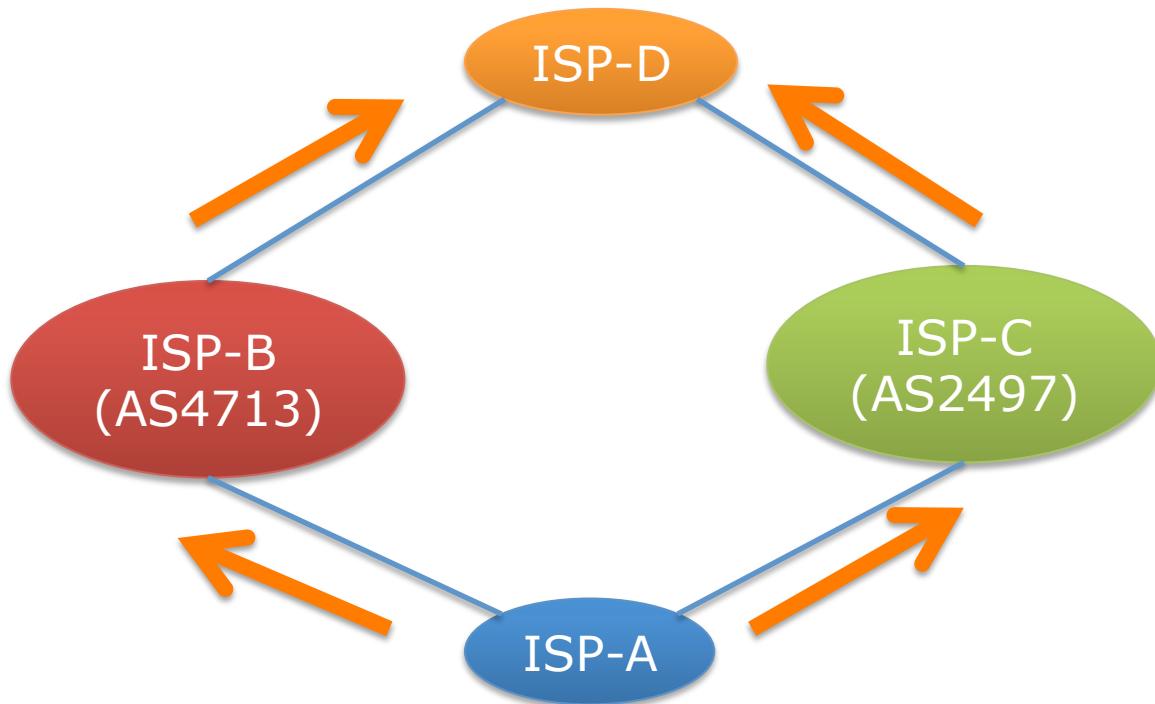


Some case(multiple origin)



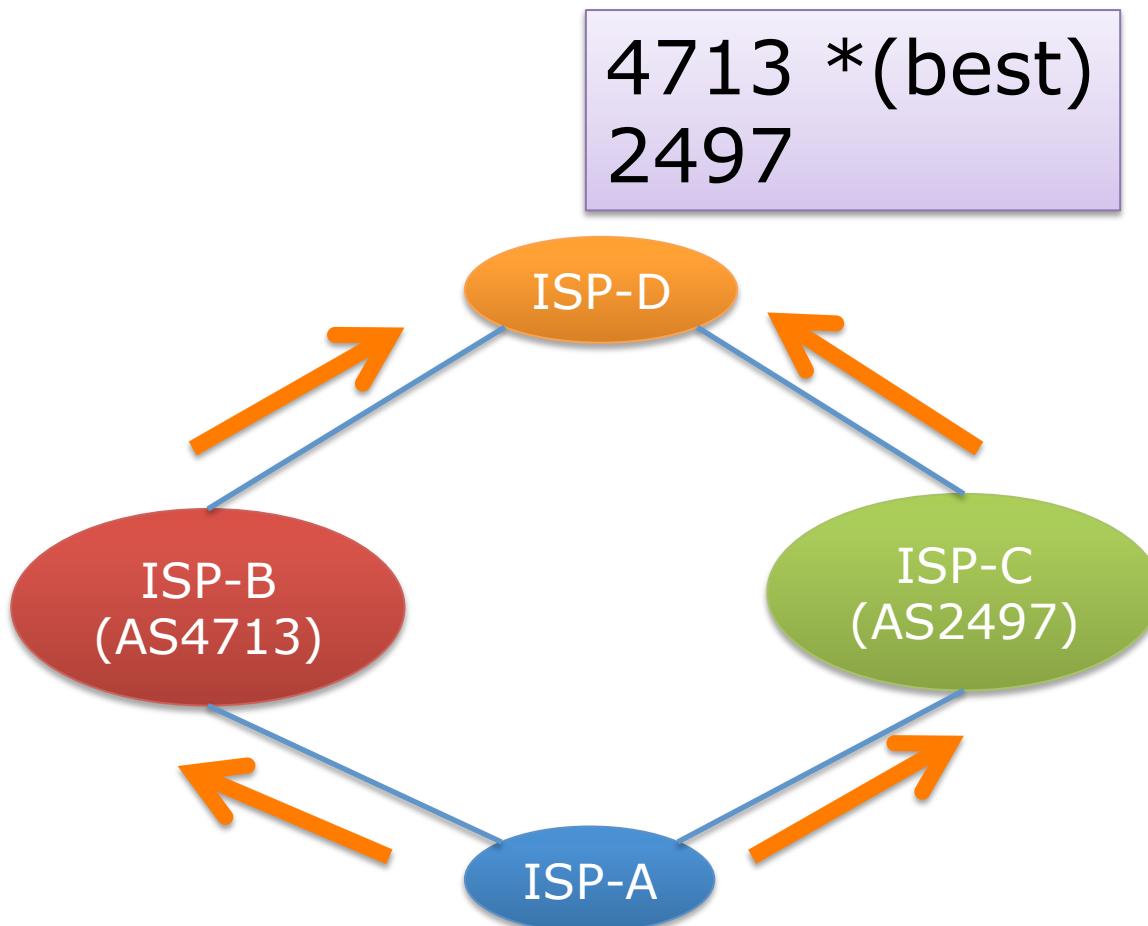
65000
(private)

Some case(multiple origin)



65000
(private)

Some case(multiple origin)

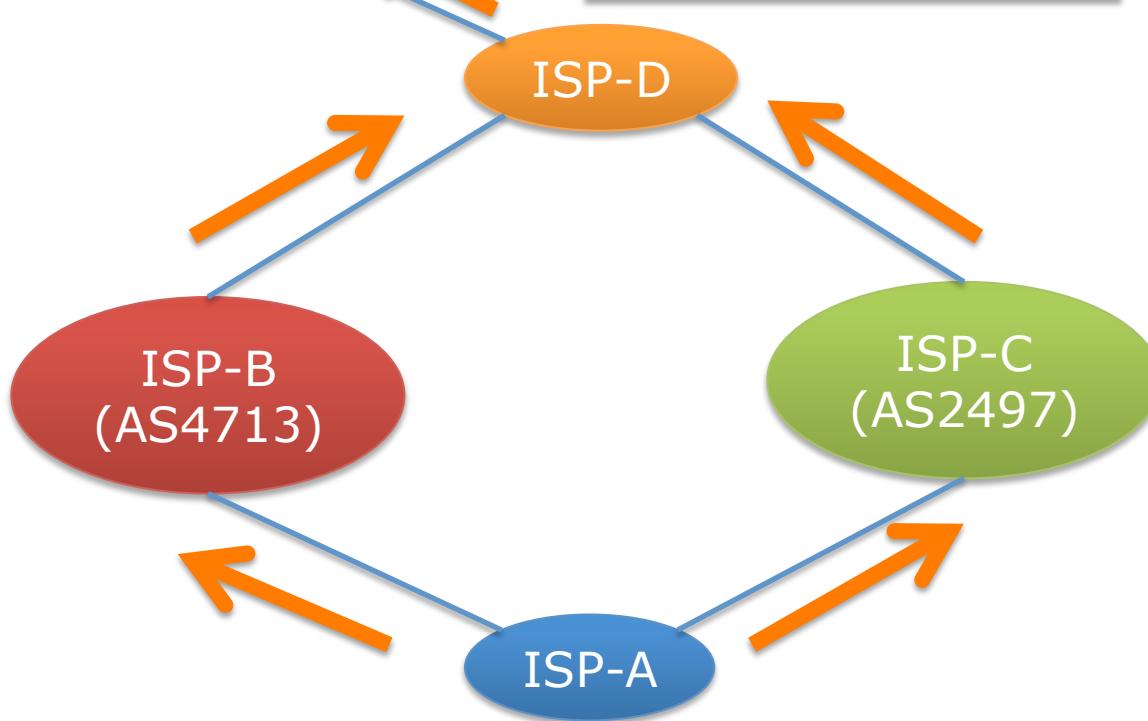


Some case(multiple origin)

4713 *(best)

ISP-E

4713 *(best)
2497



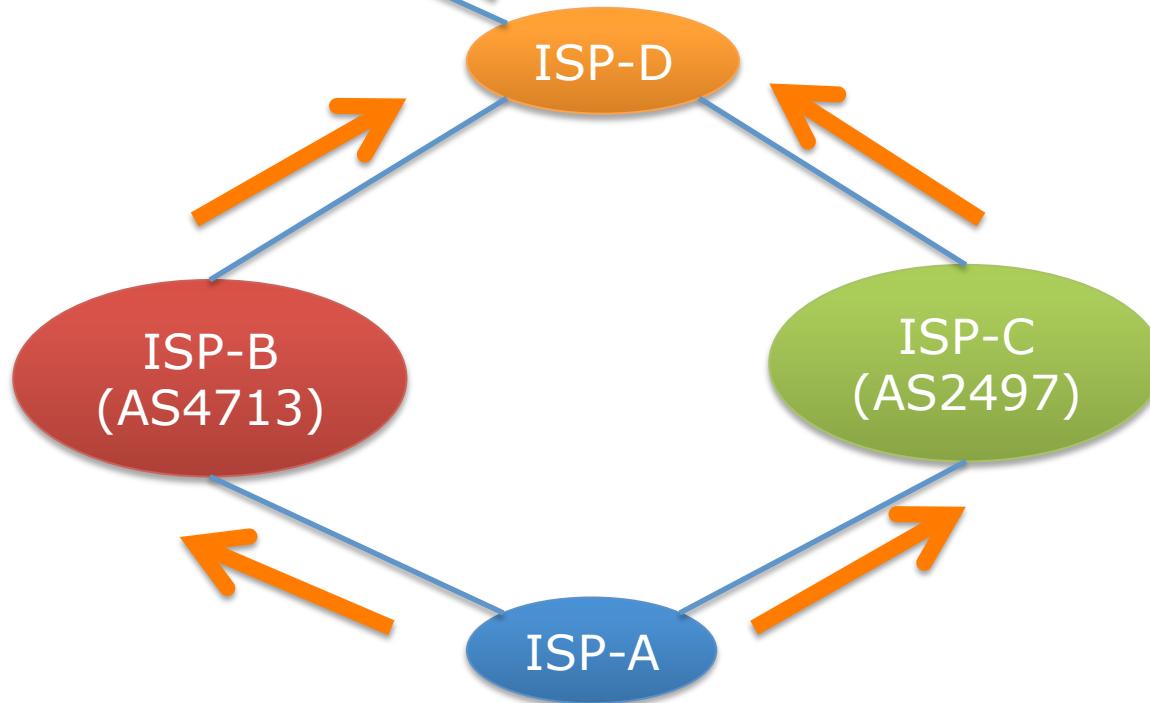
65000
(private)

Some case(multiple origin)

4713 *(best)



4713 *(best)
2497



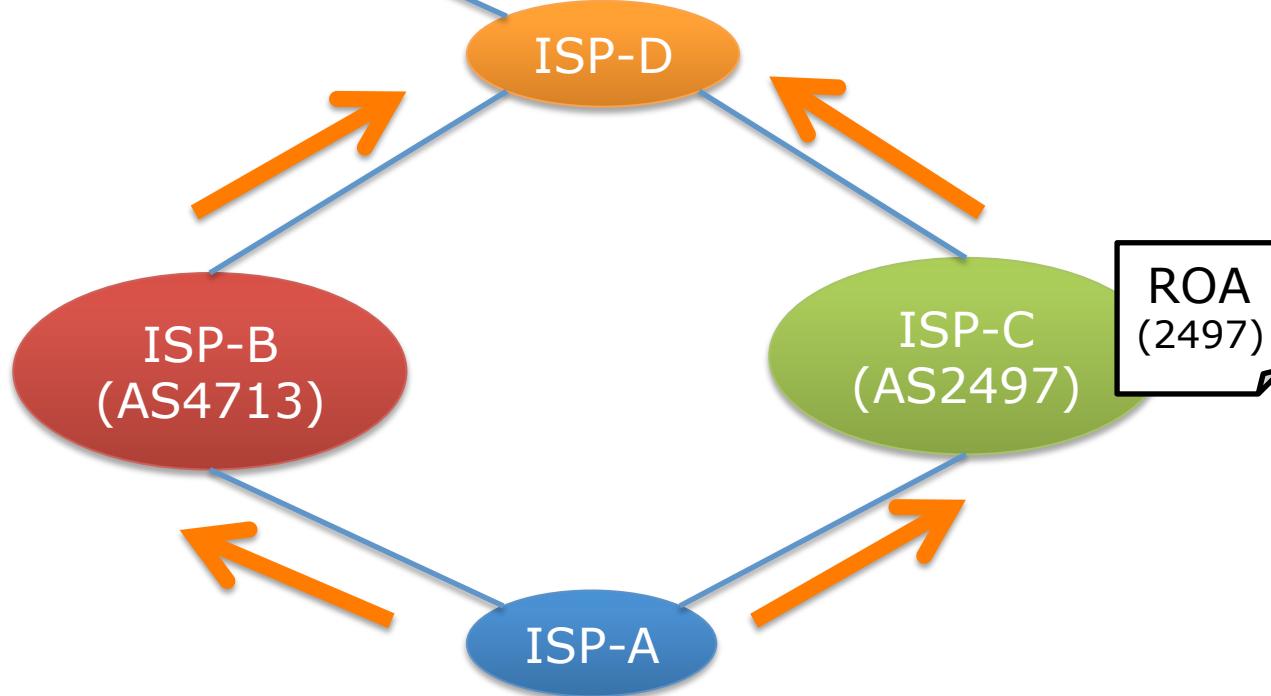
65000
(private)

Some case(multiple origin)

4713 *(best)



4713 *(best)
2497

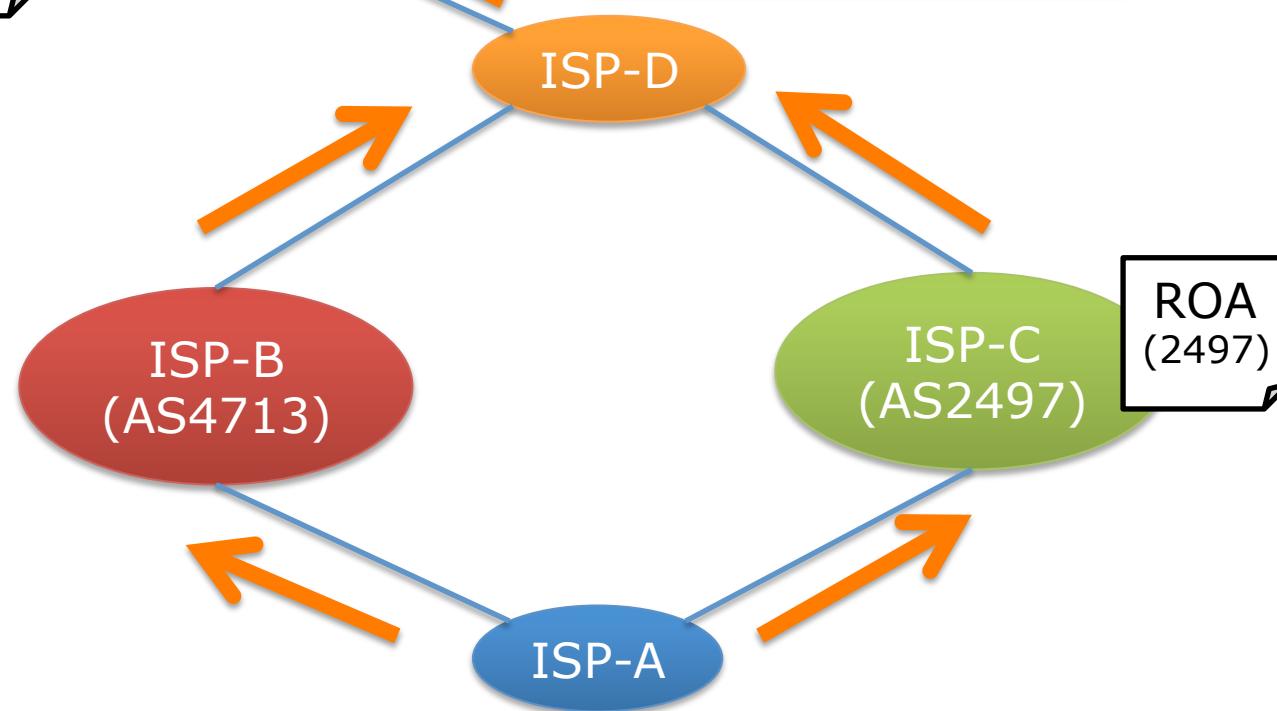


Some case(multiple origin)

4713 *(best)



4713 *(best)
2497

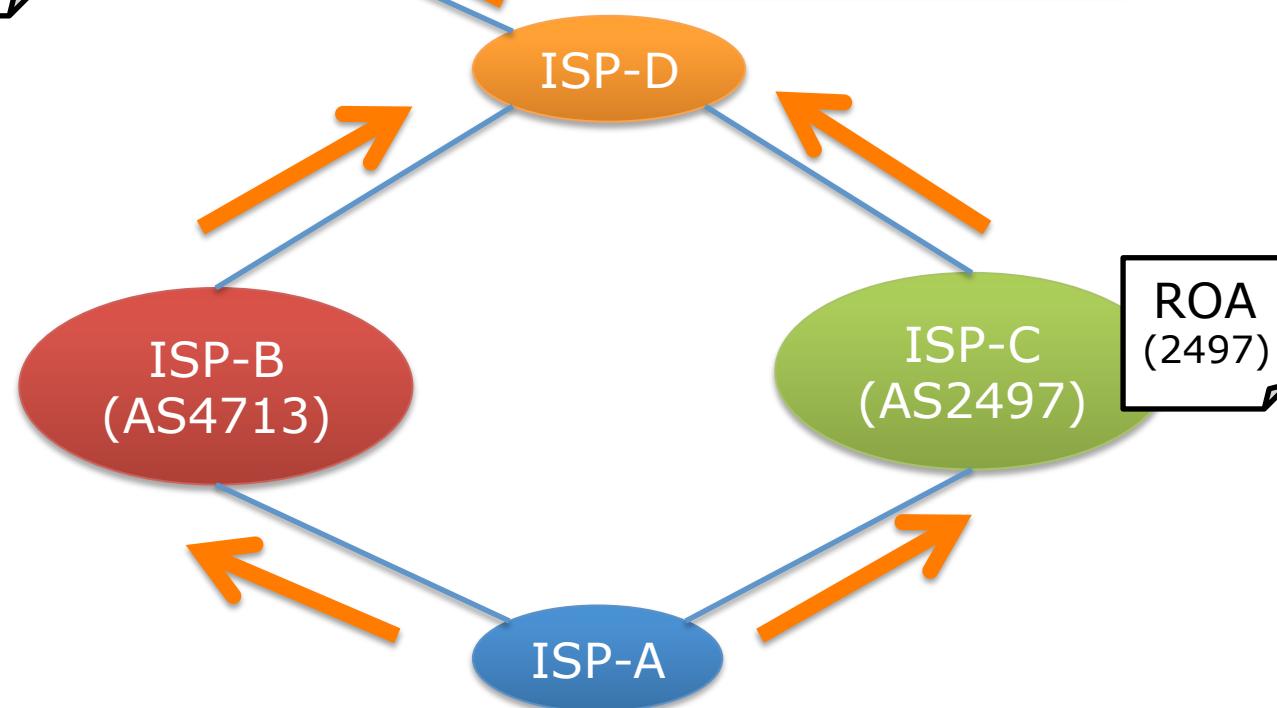


Some case(multiple origin)

4713 *(best)



4713 *(best)
2497



Some case(multiple origin)

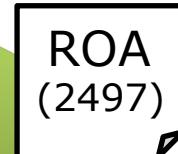
4713 *(best)



4713 *(best)
2497



ISP-B
(AS4713)



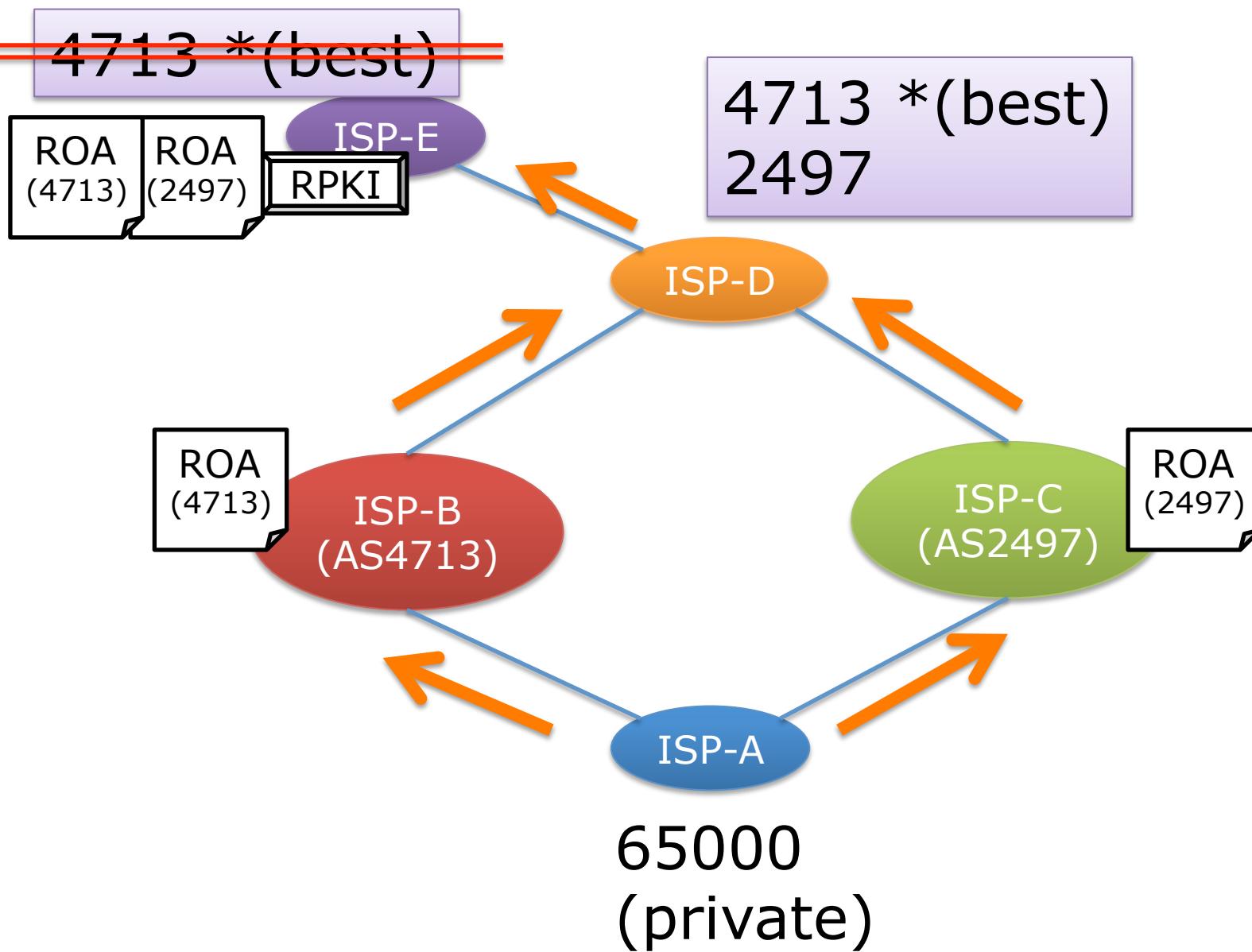
ISP-C
(AS2497)

ISP-D

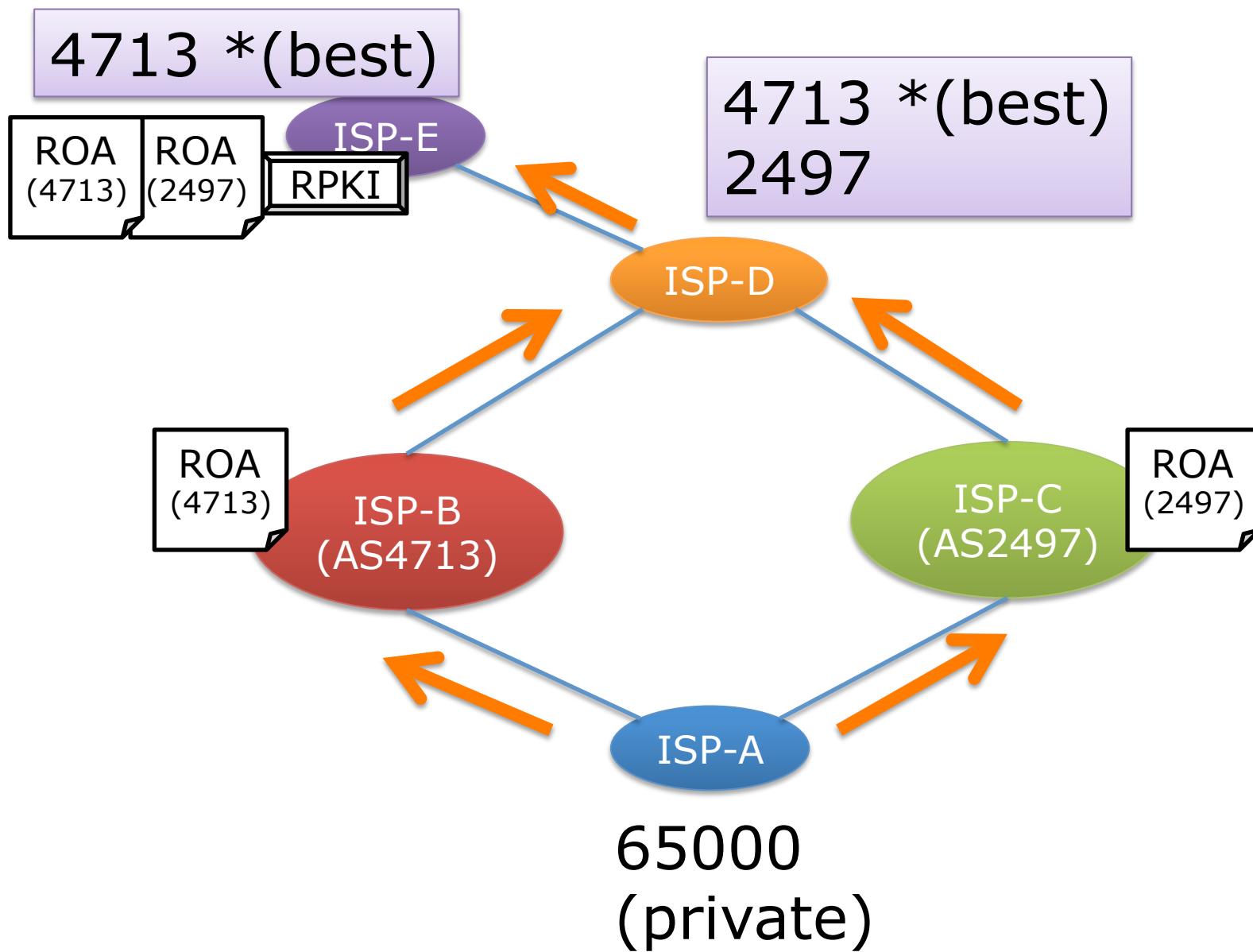
ISP-A

65000
(private)

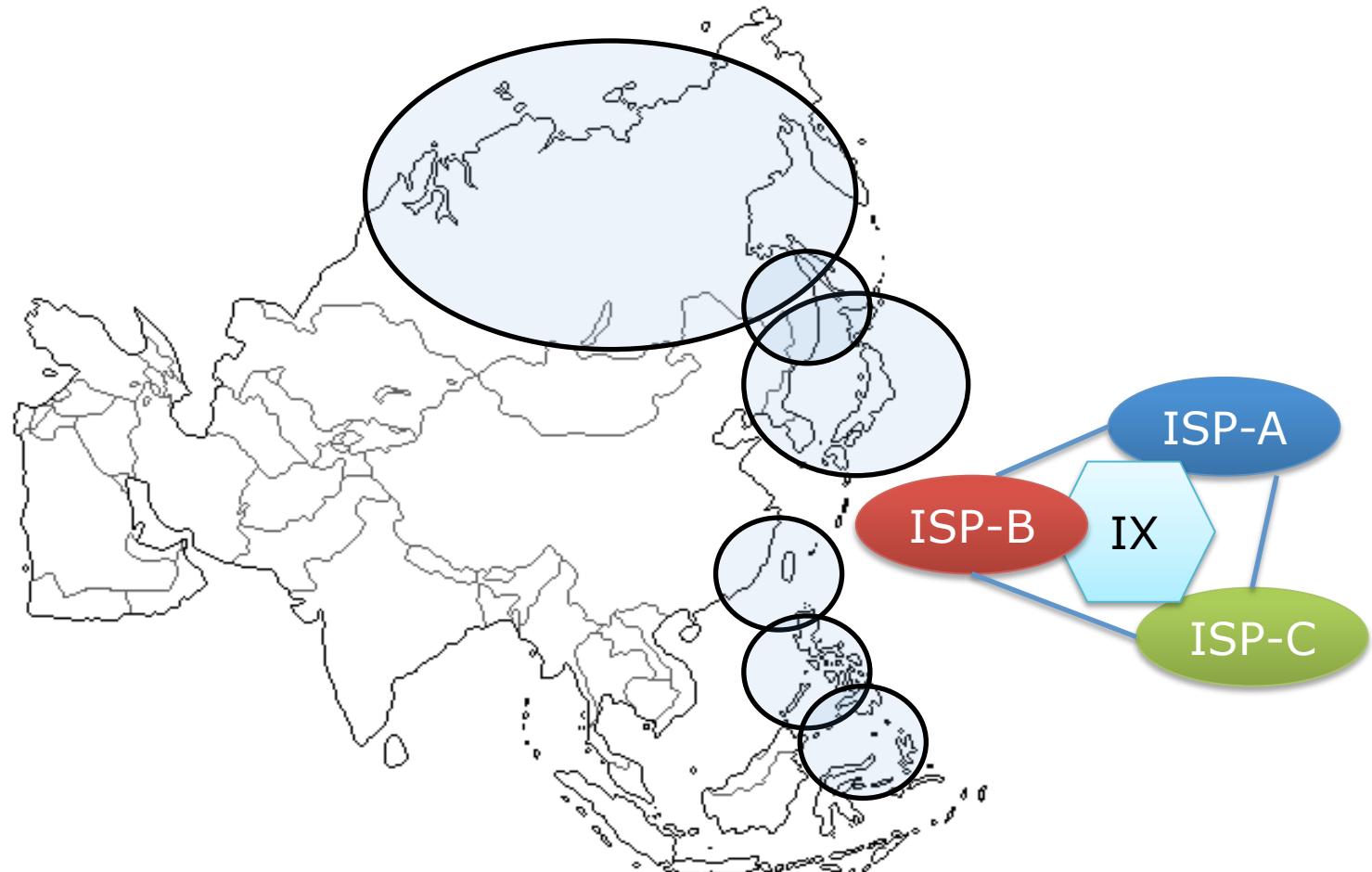
Some case(multiple origin)



Some case(multiple origin)



Deployment for RPKI world



Deployment for RPKI world

