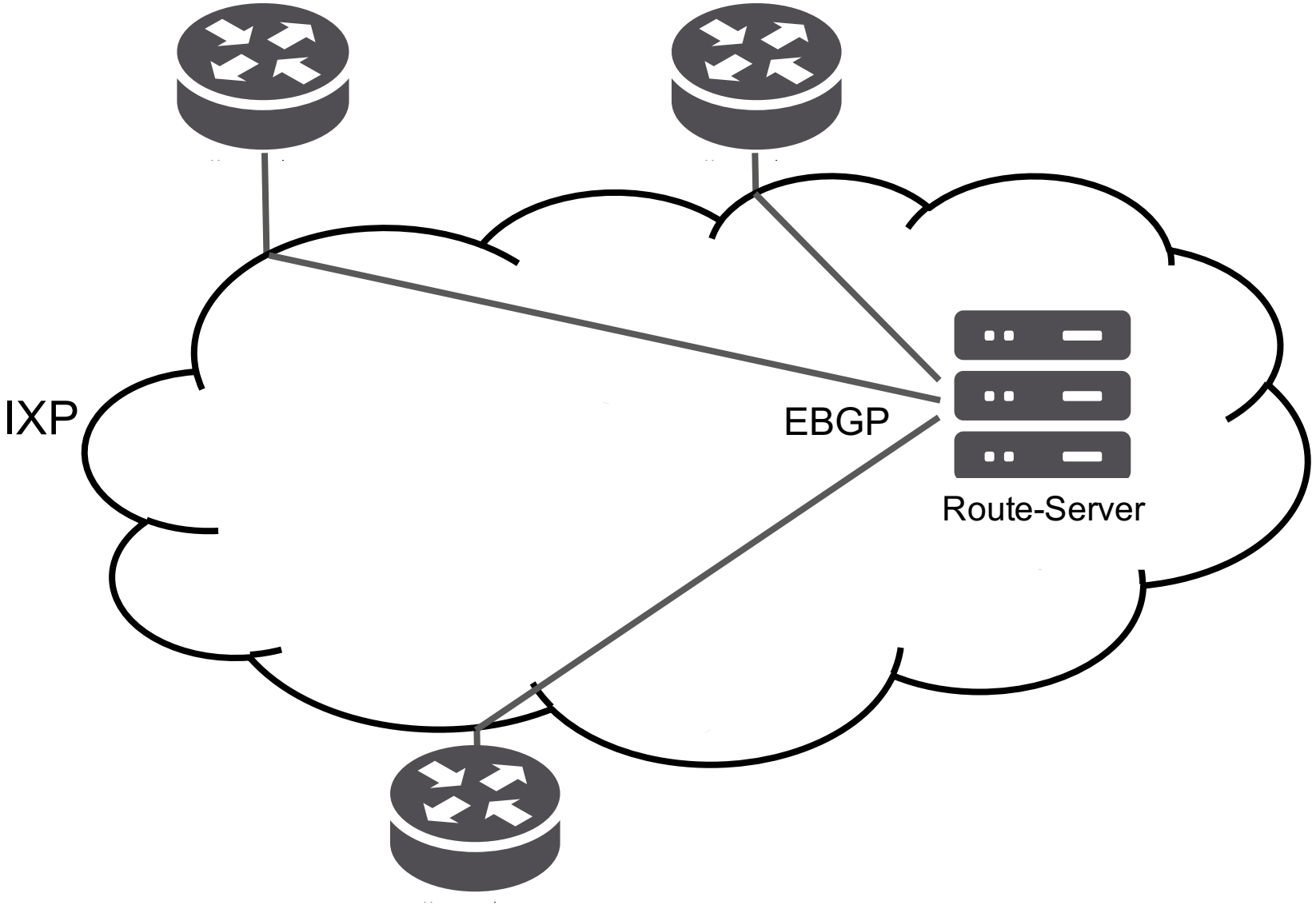
Signaling Prefix Origin Validation Results from a Route-Server to Peers

T. King, D. Kopp
A. Lambrianisdis, A. Fenioux

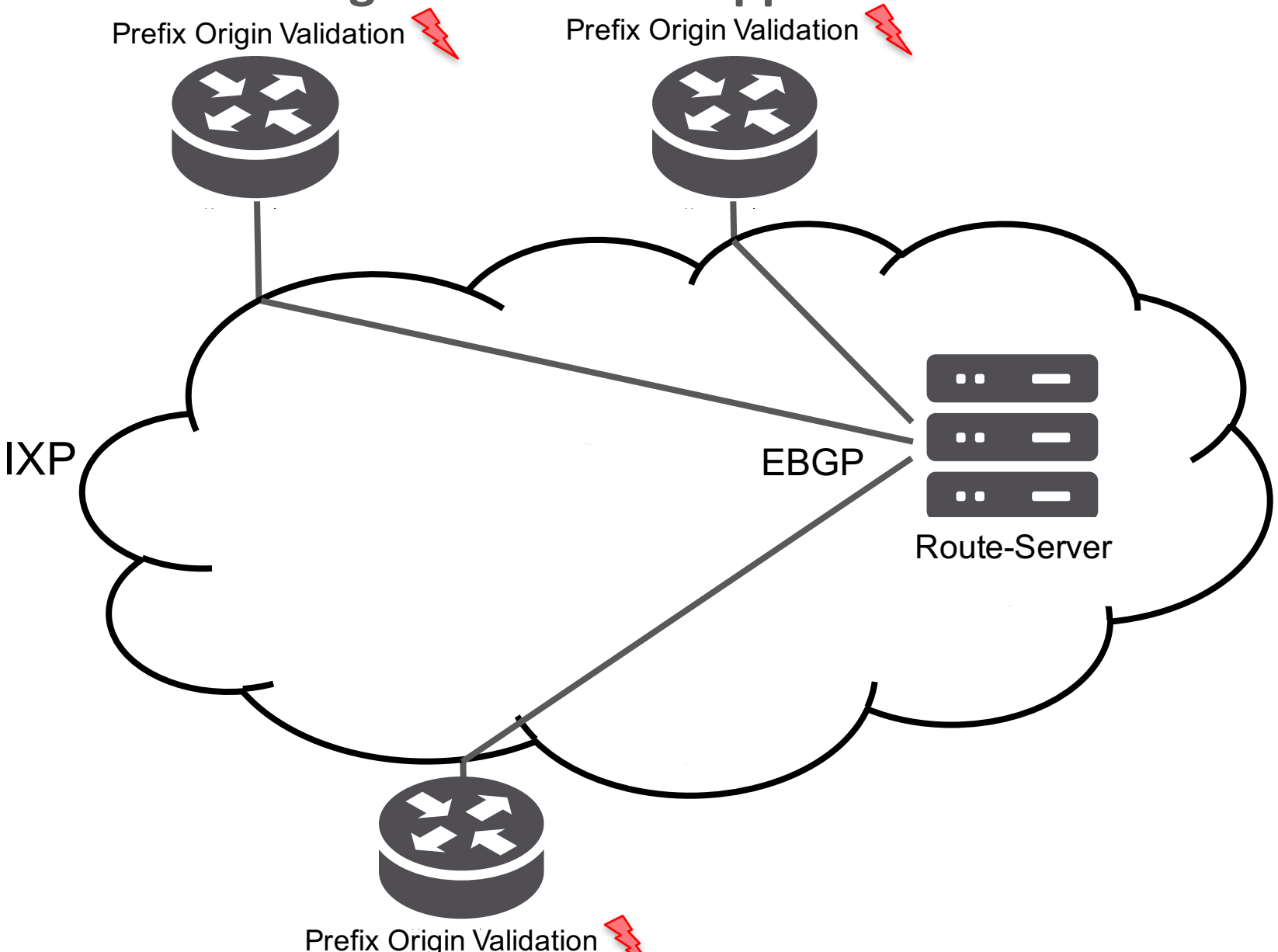
Motivation

- Boost acceptance and usage of RPKI-based prefix origin validation
- Increase the security of the Internet routing system
- Increase data quality at IXP's route-servers

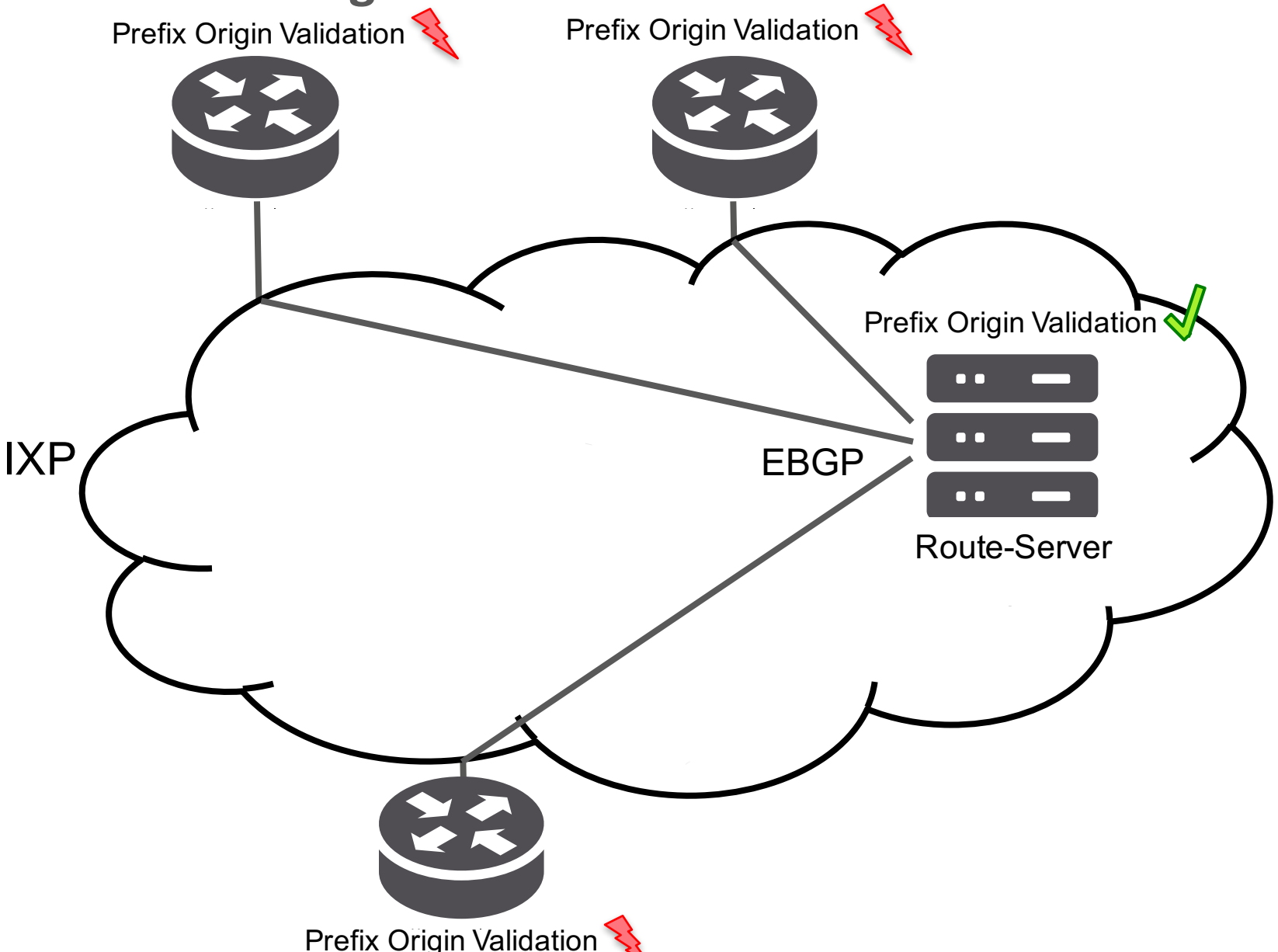
IXP – Route-Server Architecture



IXP – Prefix Origin Validation Support



IXP – Prefix Origin Validation at the Route-Server



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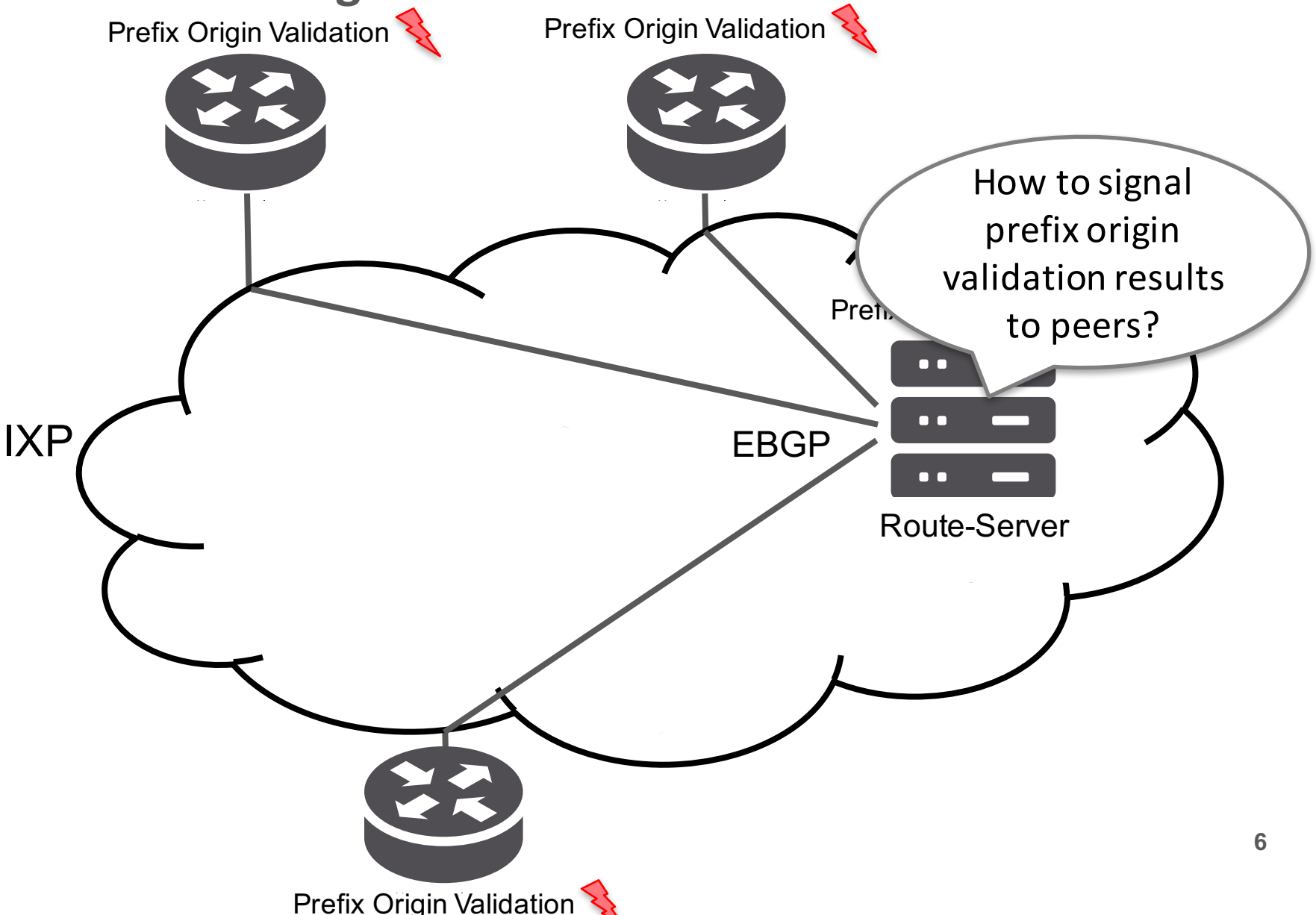
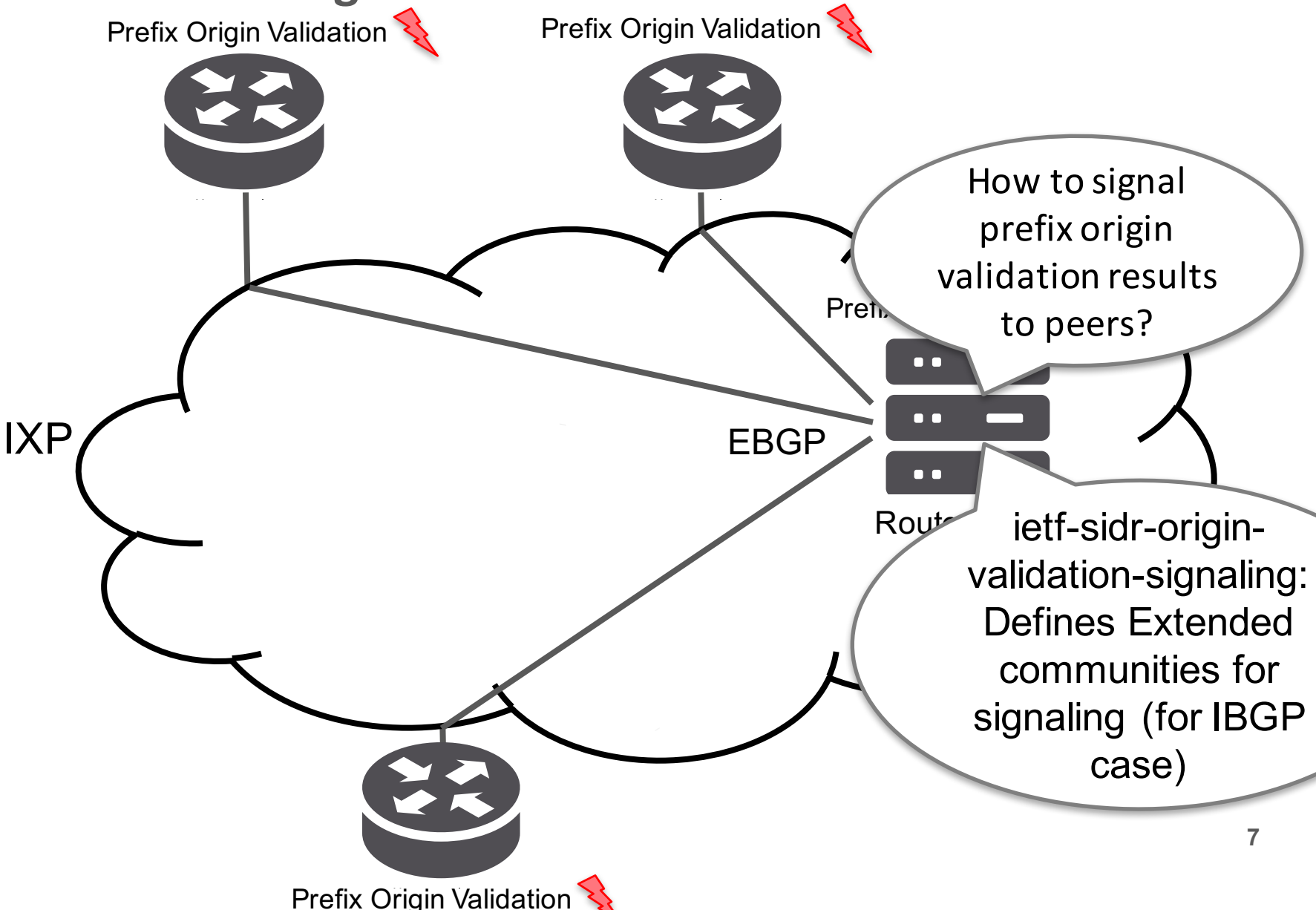
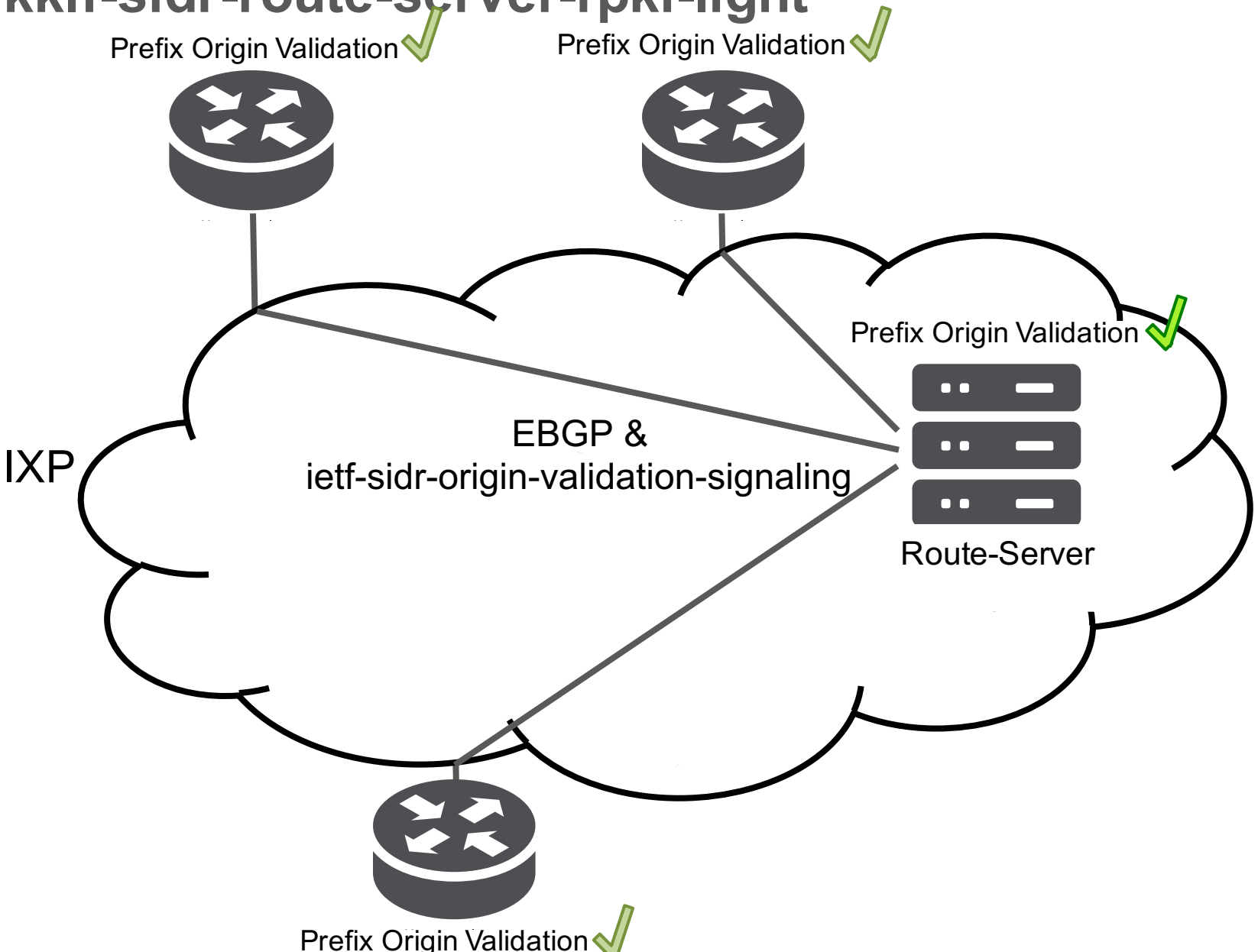


IXP – Prefix Origin Validation at the Route-Server



kklf-sidr-route-server-rpki-light



Evolution

2015:

- DE-CIX, AMS-IX, France-IX and other IXPs discussed (during Euro-IX meetings) the idea of enabling route-servers of prefix origin validation and signaling results to peers
- Discussion started with the authors of ietf-sidr-origin-validation-signaling
- Change on ietf-sidr-origin-validation-signaling required to support the EBGP case. Change is available in version 8 of the document.
- ”Internet Draft” version 00 submitted to the IETF SIDR working group covering the case of IXP’s route-servers
- Discussion on the SIDR mailing list (thanks Sriram)

Current Status

SIDR WG:

- Requests from mailing list:
  1. Naming: Replace “RPKI validation” with “prefix origin validation”.
     Fixed.
  2. References: Use RFC 6811 instead of ietf-sidr-rpki-validation-reconsidered for RPKI validation algorithm.
     Fixed.
  3. Operation: What happens if the route-server sends out updates that do not carry the POVS community anymore?
     Discussion is on-going.
- Working group adaption? -> Mailing list?

Feedback / Comments / Questions