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

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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

Prefix Origin Validation

Prefix Origin Validation

Prefix Origin Validation

EBGP

Route-Server
IXP – Prefix Origin Validation at the Route-Server
IXP – Prefix Origin Validation at the Route-Server

How to signal prefix origin validation results to peers?
IXP – Prefix Origin Validation at the Route-Server

How to signal prefix origin validation results to peers?

ietf-sidr-origin-validation-signaling: Defines Extended communities for signaling (for IBGP case)
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