

# **ORIGIN VALIDATION SIGNALING DISCUSSION IN IDR**

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## **IDR CROSS-WG REVIEW**

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Review request sent to IDR June 10

- Observation that the draft updates the BGP decision process:  
“When comparing a pair of routes for a BGP destination, the route with the lowest "validation state" value is preferred.”

Lively discussion through June 14.

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## EMAIL THREAD [1]

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Why not use draft-ietf-idr-custom-decision instead of hardcoding the decision process change?

- Keyur: We'll remove S. 3 (this is the section that updates the decision process)

What if more than one Origin Validation State Extended Community is present?

- Keyur: There SHOULD NOT be more than one, we'll update the draft.
- Bruno: Fine to say that – but what if there is anyway?

What if the value encoded is not one of those specified?

RFC 6811 should be normative. [OK]

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## EMAIL THREAD [2]

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Although the community is non-transitive, draft should still consider what happens if received over EBGP.

- Randy: RFC 7115 says don't accept the community if received over EBGP.
- Robert: How about adding not to support setting it in policy for EBGP?
- Bruno: Very nice, but how do I configure this on my router? The draft should mandate sender-side stripping of the community.
- Keyur: By default, let's drop the community if received over EBGP.
- Wes: For multiple AS networks, it's important to have the ability to propagate across AS borders.

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## **EMAIL THREAD [3]**

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Editorial suggestion for deployment considerations section – make language stronger. [OK]

Suggestion that feature **MUST** default off (instead of **SHOULD**).

- Moot if S. 3 is removed

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## REMOVING S. 3, CHANGES TO THE BGP DECISION PROCESS

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What's left?

- Validation state is exported into IBGP, and imported from IBGP.
- So, routers don't have to run validation against IBGP routes – they can trust their IBGP neighbor to have done it for them.
- However, the decision process is left alone. The validation state can be used in policy to influence the decision.

S. 4 (deployment) becomes almost, but not quite, vestigial

- If some routers can't automatically import the validation state, and if the network policy cares about validation state, then have to use a regular community to do it (or LocalPref, etc).

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## OPEN ISSUES

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What to do if there's more than one Origin Validation State Extended Community? (With different values.) Options include:

- Use the “worst” value.
- Use the first community encountered.
- Give up on the whole idea. 😊/2

What if the value encoded isn't in-range (i.e., greater than two)? Options include:

- Import the value anyway (“worse than invalid”). Assumes implementation encodes it as at least a byte.
- Import it as  $\text{MIN}(\text{value}, 2)$ .
- Give up on the whole idea. 😊/2

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## OPEN ISSUES

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### What about EBGP?

- Rough consensus to require implementations to drop on receipt
- Presumably noncompliant implementations aren't an issue since if they receive it they won't do anything with it anyway.
- But, allow drop-on-receipt to be relaxed by configuration for multi-AS networks?
- Likewise, allow send-to-EBGP to be enabled by configuration for multi-AS networks?

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## SUMMARY

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Draft -05 needed, to

- Drop S. 3
- Clean out the stuff that refers to S. 3
- Cover EBGp question
- Make editorial changes