

# IS-IS Route Preference for Extended IP and IPv6 Reachability

draft-ietf-isis-route-preference-00.txt

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# Changes since Honolulu

**NONE!!**

**No comments**

**Last call needs to be done in conjunction with isis-prefix-attributes draft.**

# What prompted us to write this draft?

[draft-litkowski-isis-ip-route-preference-issue-00](#)

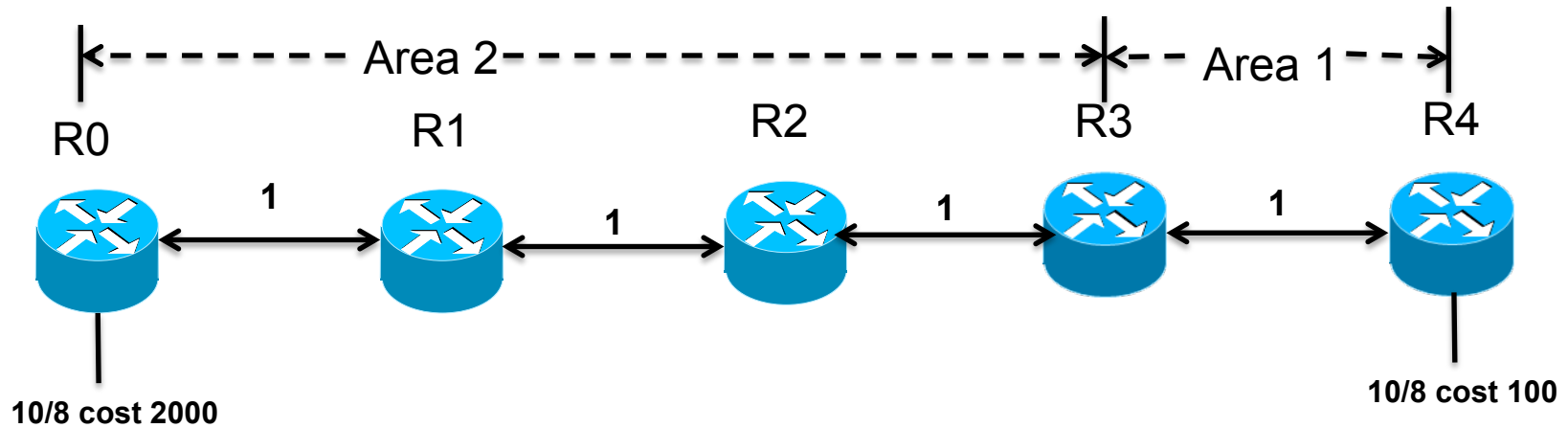
documented an interoperability issue with the Up/Down bit in L2 LSPs – requested revision of existing RFCs (5302, 5305, 5308) to resolve this issue

This draft defines a solution to this interoperability issue by clarifying the preference rules for extended Reachability TLVs and correcting one inconsistency in RFC 5308.

Stephane joined as co-author

The relevant content from Stephane's draft has been merged into this draft (see Appendix).

# Multi-Vendor Interoperability Issue



All routers are L2

R3 runs two instances:

R3- Area 1 redistributes into R3- Area 2

R0 advertises 10/8 cost 2000

R3-Area2 advertises 10/8 cost 101 Up/Down bit set

R1 prefers path w lowest cost – sends traffic ->R2

R2 prefers path w Up/Down bit = 0 – sends traffic ->R1

## **Impact on existing RFCs**

**Positioned as clarification (update) of RFC 5302/5305.  
Correction of RFC 5308.**

# Route Preference

## **TLVs 135/235**

- 1. L1 intra-area routes; L1 external routes**
- 2. L2 intra-area routes; L2 external routes; L1->L2 inter-area routes; L2->L2 inter-area routes**
- 3. L2->L1 inter-area routes; L1->L1 inter-area routes**

## **TLVs 236/237**

- 1. L1 intra-area routes; L1 external routes**
- 2. L2 intra-area routes; L2 external routes; L1->L2 inter-area routes; L1->L2 external routes; L2-L2 inter-area routes; L2-L2 inter-area external routes**
- 3. L2->L1 inter-area routes; L2->L1 external routes; L1->L1 inter-area routes; L1->L1 inter-area external routes**