# BGP SR Policy Extension for Metric

draft-ietf-idr-sr-policy-metric-04

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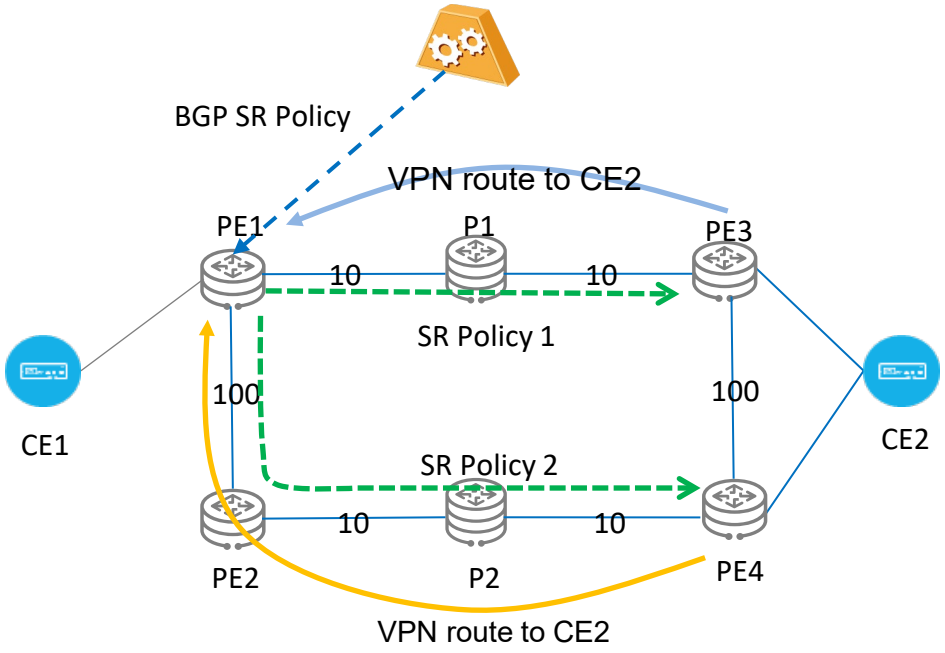
# BGP SR Policy Extensions: Metric Sub-TLV

- Add metric information to BGP SR Policy
- The Metric of SR Policy can be used for next-hop selection (e.g. PE3 vs PE4)
- The Metric Sub-TLV is under the Segment List TLV

SR Policy SAFI NLRI:
  <Distinguisher, Policy-Color, Endpoint>
Attributes:
  Tunnel Encaps Attribute (23)
    Tunnel Type: SR Policy
      Binding SID
      SRv6 Binding SID
      Preference
      Priority
      Policy Name
      Policy Candidate Path Name
      Explicit NULL Label Policy (ENLP)
      Segment List
        Weight
        Metric
        Segment
        Segment
        ...
      ...



# Response to the Comments Received

- Thanks for Ketan Talaulikar's Comments

- **Comments**
  - The draft proposes a new Metric Type registry under BGP Tunnel Encapsulation. An identical BGP-LS SR Policy Metric Types registry already exists (RFC 9857).
  - Suggest reusing the existing registry for BGP SR Policy SAFI.
- **Response**
  - The BGP-LS SR Policy Metric Type registry can be reused for BGP SR Policy Metric Types
    - All the code points are aligned
  - Question: does it require to rename the registry as BGP/BGP-LS SR Policy Metric Type registry?

# Response to the Comments Received（2）

- Thanks for Amanda Baber ’s IANA review Comments

- **Comments：**
  - Section 7.1: Unclear whether registration or new registry is required.
  - Section 7.2: Correct “BGP Tunnel Encapsulation registry” to “BGP Tunnel Encapsulation registry group”.
  - Naming Suggestion: Use a more descriptive registry name (instead of “Metric Type”) for better discoverability.
- **Response：**
  - Section 7.1: Will clarify that a new sub-TLV registration (not a new registry) is required under SR Policy Segment List Sub-TLVs registry.
  - Section 7.2: Will update to reference “BGP Tunnel Encapsulation registry group” as requested.
  - As in the response to Ketan’s comments, a new registry for metric-type would not be needed

# Response to the Comments Received (3)

- Thanks for Zhenqiang Li's Comments

- **Comment #1:** Is the Metric be a per-candidate path attribute or a per-SID list attribute?
- **Response:**
  - The Segment List represents the actual data path, and the metric can vary for different data paths
  - Therefore, we propose the Metric is a **per-Segment List** attribute.
  - This has been **aligned and agreed** offline.

- **Comment #2:** Clarify the usage of the SR Policy Metric in path selection
- **Response:**
  - The usage of the Metric is illustrated by an example in the document
  - We will **further refine and elaborate** on the usage of SR Policy metric in next-hop selection of BGP routes.

# Response to the Comments Received (4)

- Thanks for Susan Hares' Comments

- **Technical Issues**

  **Issue #1:** Correct Registry for SR Policy Segment List Sub-TLVs.

  **Response:** We will update the registry reference to the correct name: "SR Policy Segment List Sub-TLVs registry" in the next revision.

  **Issue #2:** Update reference from draft-ietf-idr-sr-policy-safi to RFC9830.

  **Response:** We will update the draft to reference RFC9830 in the next revision.

  **Issue #3:** Enhance security considerations in Section 8 regarding metric access control.

  **Response:** We will add text to emphasize the need for operators to carefully restrict access to metric information in the next revision.

- **Editorial Issues**

  **Issue:** Fix the table format for code point 5 in Section 7.2.

  **Response:** We will correct the table format in Section 7.2 in the next revision.

# Next Steps

- Fix all the technical and editorial issues
- Finish the code point early allocation
- WG last call

# Thank you!