Traffic Steering using BGP Flowspec with SRv6 Policy

draft-jiang-idr-ts-flowspec-srv6-policy

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History and Updates

- Presented at IETF#108/109 and got good feedback from WG
  - Thanks people below for their comments and suggestions
    - Jeffrey Haas, Kaliraj Vairavakkalai, Acee Lindem, John Scudder, Gunter Van De Velde and Improvement suggestions received during implementation and interoperability.
  - All comments have been addressed.

- Change Intended status from Standards Track to Informational

- Add one section for implementation and interoperability report
Overview - Use Flowspec to steering traffic

- Basic idea: Flowspec NLRI + Redirect IP Action + Policy Color + PrefixSID (Optional); Using Nexthop from Redirect IP Action and Policy Color to associate with the SRv6 Policy (C, N).
- This work discusses the matching of global routing table prefixes;
- Only support the usage of one Redirect IP extended community + one Color extended community;
- Support both the cases of intra-AS and inter-AS traffic steering using this method;
- If the last SRv6 SID of the TailEnd device in the SRv6 Policy segment list is USD-flavored, then we can apply Option 2;
- Both 2 Options had been supported by multiple vendors.
Running Codes and Successful Interop-Test

- Has been implemented on the following hardware devices, software implementations and SDN controllers.
- Multiple vendors had also successfully participated in the series of joint interoperability testing events hosted by China Mobile.
- The following hardware devices and software implementations had successfully passed the interoperability testing.

### Controllers:

<table>
<thead>
<tr>
<th>Vendors</th>
<th>Device Model</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Unitechs</td>
<td>I-T-E SC</td>
<td>V1.3.6P3</td>
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<tr>
<td>Huawei</td>
<td>NCE-IP</td>
<td>V100R021C00</td>
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<tr>
<td>Ruijie</td>
<td>RG-ONC-A10-H</td>
<td>RG-ION-WAN-CLOUD_2.00T1</td>
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<tr>
<td>ZTE</td>
<td>ZENIC ONE</td>
<td>R22V16.21.20</td>
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### Routers:

<table>
<thead>
<tr>
<th>Vendors</th>
<th>Device Model</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huawei</td>
<td>NE40-X8A</td>
<td>NE40E V800R021C00SPC091T</td>
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<td>New H3C</td>
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Next Steps

- Update the implementation report to the IDR wiki
- Any questions or comments are Welcomed
- Request WG Adoption

Thank you!