Some YANG Updates

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OSPF and ISIS Base YANG

- After five years, both in RFC Ed Queue!
- Gone through multiple revisions during LC to address comments
- One major change: flags changed from type bits to identity.

Active Contributors

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https://datatracker.ietf.org/doc/draft-ietf-ospf-yang/
Flags: bits to identity

```
leaf informational-flags {
  type bits {
    bit graceful-restart-capability {
      description
        "When set, the router is capable of restarting gracefully.";
      reference "RFC 3623: Graceful OSPF Restart
          RFC 5187: OSPFv3 Graceful Restart";
    }
  }
}
```

```
identity information-capability {
  description
    "Base identity for router informational capabilities.";
}

identity graceful-restart {
  base informational-capability;
  description
    "When set, the router is capable of restarting gracefully.";
  reference "RFC 3623: Graceful OSPF Restart
          RFC 5187: OSPFv3 Graceful Restart";
}
```

```
container router-informational-capabilities {
  leaf-list informational-capabilities {
    type identityref {
      base informational-capability;
    }
    description
      "Informational capability list. This list will contains the identities for the informational capabilities supported by router.";
  }
  description
    "OSPF Router Informational Flag Definitions.";
```

OSPF/ISIS YANG Data Model for Segment Routing

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OSPF and ISIS SR YANG

- Minor changes in OSPF SR YANG due to changes in the base model
- Expect to do one more revision before LC
- Please review and comment

New WG Documents

- YANG Model for OSPFv3 Extended LSAs: draft-ietf-lsr-ospfv3-extended-lsa-yang
  - Flags type changed from bits to identity

- OSPF YANG Model Augmentations for Additional Features - Version 1: draft-ietf-lsr-ospf-yang-augmentation-v1
  - New module ietf-ospfv3-te: Traffic Engineering extensions to OSPFv3 [RFC5329]
  - ietf-ospf-two-part-metric [RFC8042]: added TE support
  - Minor fixes due to base model changes
OSPFv3 SR YANG

- New draft to support OSPFv3 Extensions for SR-MPLS (draft-ietf-ospf-ospfv3-segment-routing-extensions in RFC editor queue).
- Augmenting OSPF SR YANG.
- Including the following TLVs:
  - sr-algorithm-tlv
  - sid-range-tlv
  - local-block-tlv
  - srms-preference-tlv
  - ospfv3-extended-prefix-range-tlv
  - prefix-sid-sub-tlv
  - adj-sid-sub-tlv
  - lan-adj-sid-sub-tlv

https://datatracker.ietf.org/doc/draft-acee-lsr-ospfv3-sr-yang/
IS-IS YANG Model Augmentations for Additional Features - Version 1

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# ISIS RFCs Published since 2016

<table>
<thead>
<tr>
<th>RFC</th>
<th>Title</th>
<th>YANG Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>7775</td>
<td>IS-IS Route Preference for Extended IP and IPv6 Reachability</td>
<td>No YANG support needed</td>
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<tr>
<td>7794</td>
<td>IS-IS Prefix Attributes for Extended IPv4 and IPv6 Reachability</td>
<td>Included in base model</td>
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<tr>
<td>7813</td>
<td>IS-IS Path Control and Reservation</td>
<td>No plan to support yet</td>
</tr>
<tr>
<td>7883</td>
<td>Advertising Seamless Bidirectional Forwarding Detection (S-BFD)</td>
<td>Dependency on S-BFD Yang support</td>
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<tr>
<td></td>
<td>Discriminators in IS-IS</td>
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<tr>
<td>7917</td>
<td>Advertising Node Administrative Tags in IS-IS</td>
<td>Included in base model</td>
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<tr>
<td>7981</td>
<td>IS-IS Extensions for Advertising Router Information</td>
<td>Included in base model</td>
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<tr>
<td>7987</td>
<td><strong>IS-IS Minimum Remaining Lifetime</strong></td>
<td>Included in this draft</td>
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<tr>
<td>8196</td>
<td>IS-IS Autoconfiguration</td>
<td>No plan yet</td>
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<tr>
<td>8202</td>
<td>IS-IS Multi-Instance</td>
<td>No plan yet</td>
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<td>8401</td>
<td>Bit Index Explicit Replication (BIER) Support via IS-IS</td>
<td>draft-ietf-bier-bier-yang</td>
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<td>8405</td>
<td>Shortest Path First (SPF) Back-off Delay Algorithm for Link-State IGPs</td>
<td>Included in base model</td>
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<tr>
<td>8491</td>
<td>Signaling Maximum SID Depth (MSD) Using IS-IS</td>
<td>Included in ISIS SR YANG</td>
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<tr>
<td>8500</td>
<td>IS-IS Routing with Reverse Metric</td>
<td>draft-hopps-lsr-yang-isis-reverse-metric</td>
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<tr>
<td>8570</td>
<td>IS-IS Traffic Engineering (TE) Metric Extensions.</td>
<td>Included in base model</td>
</tr>
</tbody>
</table>
IS-IS YANG Model Augmentations for Additional Features - Version 1

- IS-IS Minimum Remaining Life Time [RFC7987]


module: ietf-isis-remaining-lifetime

notifications:
  +---n corrupt-remaining-lifetime
    +--ro routing-protocol-name? -> /rt:routing
      /control-plane-protocols
      /control-plane-protocol/name
    +--ro isis-level? level
    +--ro lsp-id? isis:lsp-id
YANG Data Model for IS-IS SRv6

draft-hu-isis-srv6-yang-02

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IETF 106
IS-IS SRv6 YANG Requirement

- IS-IS SRv6 Extensions published in draft-ietf-lsr-isis-srv6-extensions-03
- Not included in ietf-isis-sr YANG model
- IS-IS SRv6 YANG requirements:
  1: SRv6 activation
  2: Locator setting
  3: SRv6 fast rerouting
IS-IS SRv6 YANG Next Steps

- Please review and comment
- Request WG Adoption
THANKS