

OSPF/ISIS YANG Data Model for Segment Routing IETF 105, Montreal

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Updates since last IETF

- Added Adj-sid configuration under interface

+--rw segment-routing

+--rw adjacency-sid

+--rw adj-sids* [value]

| +--rw value-type? enumeration

| +--rw value uint32

| +--rw protected? boolean

+--rw advertise-adj-group-sid* [group-id]

| +--rw group-id uint32

+--rw advertise-protection? enumeration

- The drafts have been stable

Next Steps

- Collect/address comments
- Request/Start YANG Doctor review
- In pipe line for WG LC

YANG Model for OSPFv3 Extended LSAs

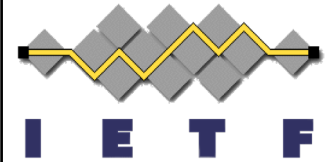
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Updates since last IETF

- Version -02 to -05.
- Editorial changes
 - Fixed references
 - Model description
- Removed Type (identityref) in TLV, to be consistent with base OSPF and ISIS model.

Next Steps

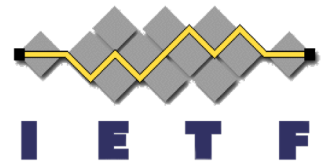
- Collect/address comments
- Request WG adoption

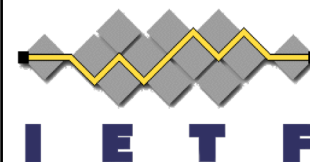
OSPF YANG Model Augmentations for Additional Features – Version 1

IETF 105, Montreal

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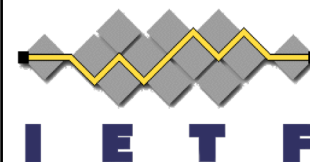
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OSPF RFCs Published since 2016

RFC	Title	Yang status
7770	Extensions to OSPF for Advertising Optional Router Capabilities	In base model
7777	Advertising Node Administrative Tags in OSPF	In base model
7884	OSPF Extensions to Advertise Seamless Bidirectional Forwarding Detection (S-BFD) Target Discriminators	Dependency on S-BFD Yang support
7949	OSPFv3 over IPv4 for IPv6 Transition	Will support when needed
8042	OSPF Two-Part Metric	INCLUDED in this draft
8099	OSPF Topology-Transparent Zone	TBD later
8330	OSPF Traffic Engineering (OSPF-TE) Link Availability Extension for Links with Variable Discrete Bandwidth	Part of GMPLS , will support when needed
8362	OSPFv3 Link State Advertisement (LSA) Extensibility	draft-acee-lsr-ospfv3-extended-lsa-yang
8379	OSPF Graceful Link Shutdown	INCLUDED in this draft
8444	OSPFv2 Extensions for Bit Index Explicit Replication (BIER)	draft-ietf-bier-bier-yang
8476	Signaling Maximum SID Depth (MSD) Using OSPF	Included in OSPF SR YANG
8510	OSPF Link-Local Signaling (LLS) Extensions for Local Interface ID Advertisement	INCLUDED in this draft



RFC 8042

OSPF Two-Part Metric

module: ietf-ospf-two-part-metric

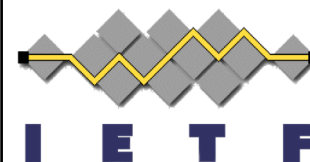
```
augment /rt:routing/rt:control-plane-protocols
  /rt:control-plane-protocol/ospf:ospf/ospf:areas
    /ospf:area/ospf:interfaces/ospf:interface:
      +--rw two-part-metric
        +--rw enable?      boolean
        +--rw int-input-cost? uint16
```

Configuration

```
augment /rt:routing/rt:control-plane-protocols
  /rt:control-plane-protocol/ospf:ospf/ospf:areas
    /ospf:area/ospf:database/ospf:area-scope-lsa-type
      /ospf:area-scope-lsas/ospf:area-scope-lsa/ospf:version
        /ospf:ospfv2/ospf:ospfv2/ospf:body/ospf:opaque
          /ospf:extended-link-tlvs/ospf:extended-link-tlv:
            +--ro network-to-router-metric-sub-tlvs
              +--ro net-to-rtr-sub-tlv*
                +--ro mt-id?      uint8
                +--ro mt-metric?  uint16
```

OSPFv2 database

This feature was included in the base model, but not complete, Will be removed from the base model



RFC 8379

OSPF Graceful Link Shutdown -1/2

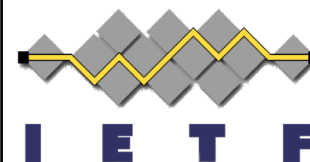
module: ietf-ospf-graceful-link-shutdown

```
augment /rt:routing/rt:control-plane-protocols
  /rt:control-plane-protocol/ospf:ospf/ospf:areas
  /ospf:area/ospf:interfaces/ospf:interface:
+--rw graceful-link-shutdown
+--rw enable?  boolean
```

```
augment /rt:routing/rt:control-plane-protocols
  /rt:control-plane-protocol/ospf:ospf/ospf:areas
  /ospf:area/ospf:database/ospf:area-scope-lsa-type
  /ospf:area-scope-lsas/ospf:area-scope-lsa/ospf:version
  /ospf:ospfv2/ospf:ospfv2/ospf:body/ospf:opaque
  /ospf:extended-link-tlvs/ospf:extended-link-tlv:
+--ro grace-link-shut-sub-tlv!
+--ro remote-address-sub-tlv
| +--ro remote-address?  inet:ipv4-address
+--ro local-remote-int-id-sub-tlv
  +--ro local-int-id?  uint32
  +--ro remote-int-id?  uint32
```

Configuration

OSPFv2 database



RFC 8379

OSPF Graceful Link Shutdown -2/2

```
augment /rt:routing/rt:control-plane-protocols
  /rt:control-plane-protocol/ospf:ospf/ospf:areas
  /ospf:area/ospf:database/ospf:area-scope-lsa-type
  /ospf:area-scope-lsas/ospf:area-scope-lsa/ospf:version
  /ospf:ospfv3/ospf:ospfv3/ospf:body/ospfv3-e-lsa:e-router
  /ospfv3-e-lsa:e-router-tlvs/ospfv3-e-lsa:link-tlv:
+--ro grace-link-shut-sub-tlv!
augment /rt:routing/rt:control-plane-protocols
  /rt:control-plane-protocol/ospf:ospf/ospf:database
  /ospf:as-scope-lsa-type/ospf:as-scope-lsas
  /ospf:as-scope-lsa/ospf:version/ospf:ospfv3/ospf:ospfv3
  /ospf:body/ospfv3-e-lsa:e-router
  /ospfv3-e-lsa:e-router-tlvs/ospfv3-e-lsa:link-tlv:
+--ro grace-link-shut-sub-tlv!
```

OSPFv3 database



RFC 8510

OSPF Link-Local Signaling (LLS) Extensions for Local Interface Id Advertisement

module: ietf-ospf-lls-local-id

```
augment /rt:routing/rt:control-plane-protocols
  /rt:control-plane-protocol/ospf:ospf:
    +--rw lls-int-id
    +--rw enable?  boolean
```

Configuration

Next Steps

- Collect/address comments
- Request WG adoption