SCOPE

• REDUCE NODE SPECIFIC MUNDANE CONFIG
• SCOPED FOR LAYER-3 SINGLE HOP
  • LINK & LOOPBACK BASED PEER
• ADVERTISE TRANSPORT PARAMETERS
PROTOCOL OPERATION

- **BUILD TOP OF UDP USING LINK LOCAL MULTICAST TO AVOID LINK MEDIA DEPENDENCY.**
- **TLV BASED AND TLVS ARE GROUPED WITH MESSAGE.**
- **PERIODICALLY ADVERTISE TRANSPORT INFORMATION WITH LIFE TIME.**
- **SUPPORT ON THE FLY LIFE TIME CHANGE BY SENDER.**
- **REFRESHES INTERESTING EVENT SUCH AS NEW ADVERTISER/REQUEST FOR FAST DISCOVERY.**
- **LOOSELY COUPLED WITH BGP**
PDU LAYERS

- **PDU-HEADER[MESSAGES[TLVS, ... ] ...]**

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+----------------+----------------+----------------+----------------+----------------+
| Version        | PDU Length     | Reserved       |
+----------------+----------------+----------------+
| Identifier.     |
+----------------+----------------+----------------+----------------+----------------+
| Messages        |

- **IDENTIFIER:** UNIQUELY IDENTIFIES PDU SENDER [BGP-ID].

- **DRAFT VERSION 00 DEFINE 2 MESSAGES**
  - **SA BASE - FOR PROTOCOL OPERATION**
  - **BGP ADVERTISEMENT - BGP PARAMETERS.**
PDU LAYERS

• MESSAGE

```
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-----------------+-----------------+-----------------+
| message Type | Length          | Reserved        |
+-----------------+-----------------+-----------------+
| message ID      |                 |                 |
+-----------------+-----------------+-----------------+
| TLVs            |
+-----
```

message Type: This 1-octet value identifies type of message.
Message Length: Specifies the length in octets of the Message ID and TLVs.
Message ID: 32-bit value used to identify this message. Used for logging purpose.
PDU LAYERS

TLV format.

Type: 1-octet value to interpret the value within the message. The same type value could be reused in different messages.
CHANGES IN VERSION 1 DRAFT

SA BASE

- THE SA BASE MESSAGE IS MANDATORY MESSAGE AND MAINLY USED FOR THE PROTOCOL OPERATION.

- NEW TLV

  - REFRESH REQUEST - TO SUPPORT FASTER DISCOVERY AFTER RESTART.

- EXISTING TLVS

  - REMAINING LIFETIME
    - SENDER DRIVEN LIFETIME
  
  - CONFIG SEQUENCE
  
  - AUTHENTICATION
CHANGES IN VERSION 1 DRAFT BGP ADVERTISEMENT MESSAGE

• THE BGP ADVERTISEMENT MESSAGE DESCRIBES TRANSPORT PARAMETERS.

• CHANGES IN TLVS
  • LOCAL ADDRESS
    • FROM SINGLE ADDRESS TO ADDRESS LIST WITH FLAG AND PREFERENCE.
    • V4 & V6 GET DIFFERENT TLV TYPE
    • PREFERENCE FILED REMOVES ADDRESS FAMILY PREFERENCE TLV
  • LINK ADDRESS
    • ADD SUPPORT TO MAC ADDRESS ALONG WITH IPV4/V6
  • SECURITY TTL
  • SECURITY AUTHENTICATION
  • TCP MSS
  • TRANSPORT-PREFERENCE
THANK YOU 😊

- DRAFT HTTPS://WWW.IETF.ORG/ID/DRAFT-MINTO-IDR-BGP-AUTODISCOVERY-01.HTML
- PLEASE REACH OUT TO US AT MINTO@JUNIPER.NET AND VENKATASHIVA@JUNIPER.NET