

DS-Lite Management Information Base (MIB)

draft-fu-softwire-dslite-mib-03

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Background

- **As this draft has been presented and discussed at the IETF 82th softwire meeting, the WG would like to add DS-lite multicast mib to the DS-lite mib.**
- **However, after a few days discussion and consideration, we think it is better to have two independent drafts because there are so many different objects for DS-lite multicast.**
- **So we are now working on a new DS-lite multicast draft.**

Why we need DS-Lite MIB

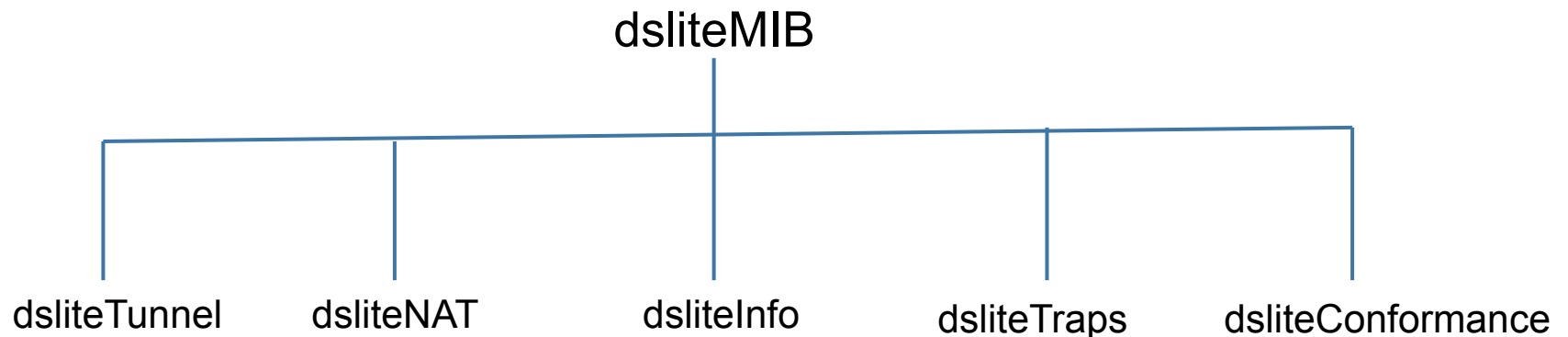
The NAT-MIB [RFC4008] is designed to carry translation from any address family to any address family, therefore supports IPv4 to IPv4 translation.

The tunnel MIB [RFC4087] is designed for managing tunnels of any type over IPv4 and IPv6 networks, therefore supports IP in IP tunnels. So why we need DS-Lite MIB?

However, In DS-Lite scenario, the AFTR is not only the tunnel end concentrator, but also a 4-4 translator. **Within the AFTR, tunnel information and translation information MUST be mapped each other. Moreover, we also need a mib to monitor and statistic the number of session, port , tunnel connected , IPv4 and IPv6 packets etc. for the DS-Lite instance.**

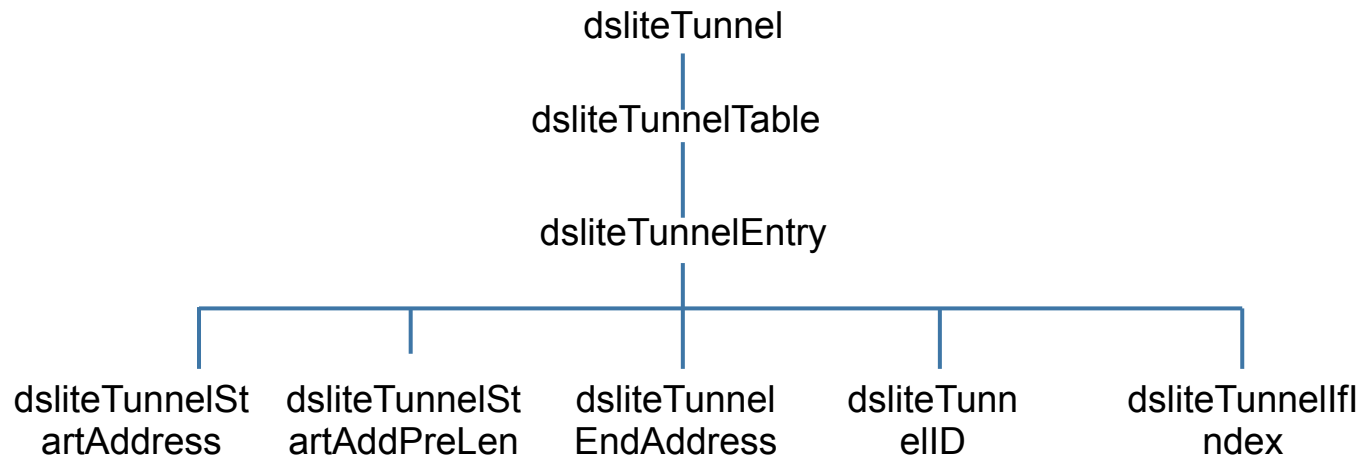
Subtree of DS-Lite MIB

- **Position of DS-Lite MIB:** `dsliteMIB ::= {transmission xxx}`
- **dsliteTunnel:** Information about Tunnel
- **dsliteNAT:** Information about NAT
- **dsliteInfo:** statistical information in the DS-Lite instance
- **dsliteTraps:** the alarm information
- **dsliteConformance**



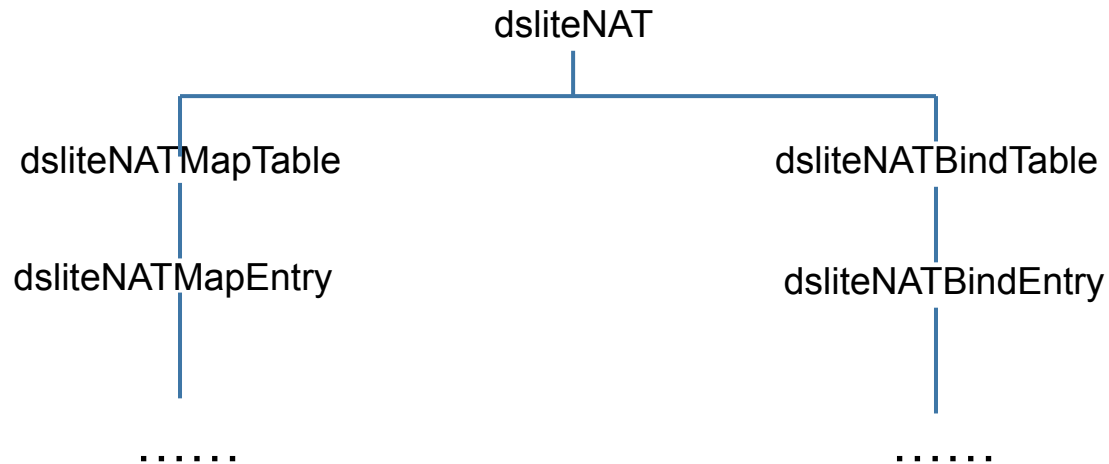
dsliteTunnel ::= {dsliteMIB 1}

- **DS-Lite Tunnel parameters are defined in this object**



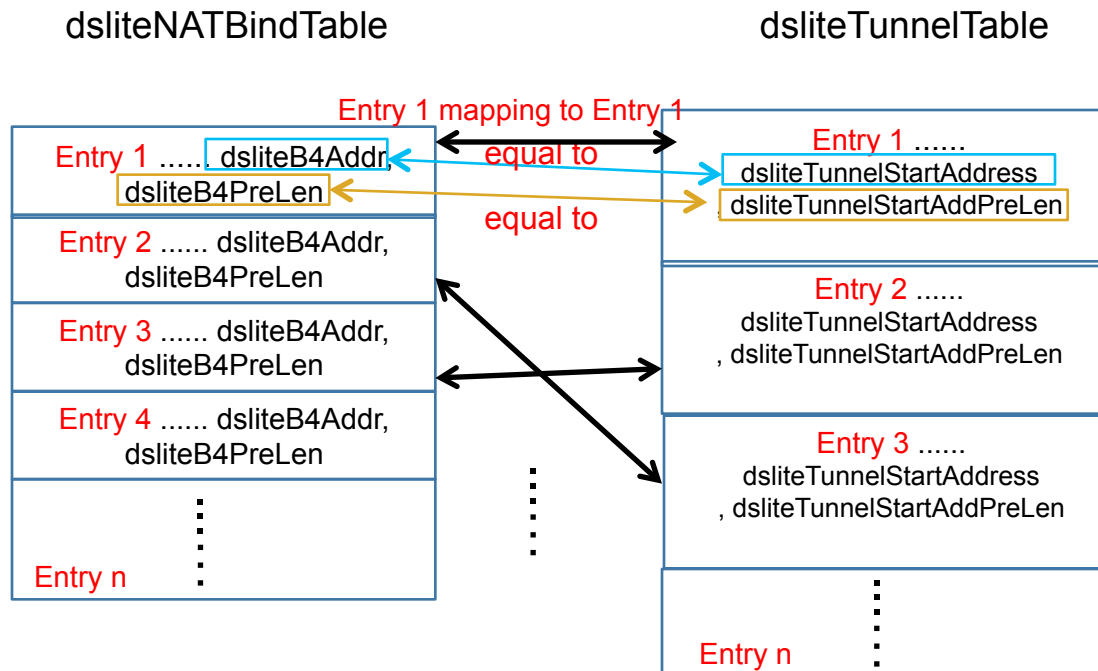
dsliteNAT ::= {dsliteMIB 2}

- **DS-Lite NAT parameters are defined in this object**



Mapping information for Tunnel and NAT

- We define `dsliteTunnelStartAddress`, `dsliteTunnelStartAddPreLen` in `dsliteTunnel` subtree to present the Ipv6 address and prefix for B4. These two objects can be used to identify the tunnel entry. So the `dsliteB4Addr`, `dsliteB4PreLen` in `dsliteNATBindTable` entry are equalled to the these two objects to map the `dsliteTunnelTable` entry



Comments and suggestions are welcome!

Adopt as software WG item?

Thank you !