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 aboute 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

```
 dsliteTunnelTable
   dsliteTunnelEntry
     dsliteTunnelStartAddress
     dsliteTunnelStartAddPreLen
     dsliteTunnelEndAddress
     dsliteTunnelElID
     dsliteTunnelElIndex
```
ds-liteNAT::={ds-liteMIB 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 these two objects to map the dsliteTunnelTable entry.
Comments and suggestions are welcome!

Adopt as softwire WG item?

Thank you!