APN Header & IPv6 Encapsulation


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APN Framework

- Application-aware Networking (APN) is a new framework, where
  - application-aware information (i.e. APN attribute) including APN identification (ID) and/or APN parameters (e.g. network performance requirements) is encapsulated at network edge devices and carried along with the tunnel encapsulation for the packet traversing an APN domain
  - to facilitate service provisioning, perform fine-granularity traffic steering and network resource adjustment

APN Header and IPv6 Encapsulation

Two types of APN ID:
- Short APN ID: it is 32 bits
- Long APN ID: it is 128 bits

Intent: A 32-bit identifier, represents a set of service requirements to the network.

APN-Para-Type: A 16-bit identifier, specifies which APN parameters are specified for the APN ID. The APN-Para-Type value is a bitmap.

APN-Para: A variable field including APN parameters

IPv6 Encapsulation: APN Option
- Hop-by-Hop Options Header (HBH)
- Destination Options Header (DOH)

Figure 1. APN Header with Short APN ID

Figure 1. APN Option
Next Step

• Request early allocation of codepoints for the possible implementation and interop test
• Solicit comments and refine the draft
Thank you!