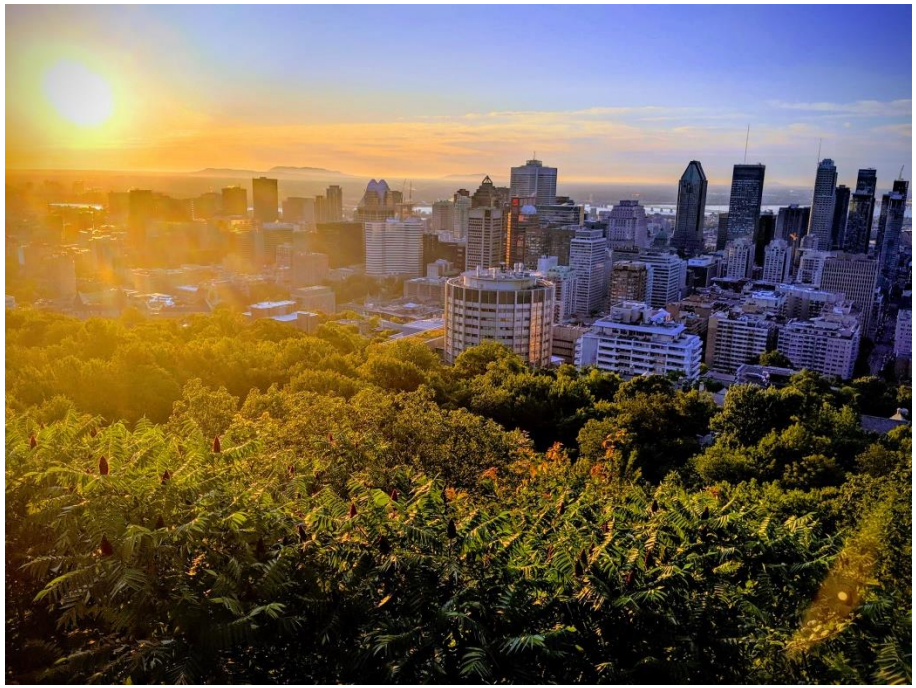
Application-aware Networking (APN) Side Meeting

IETF 108, Online Session

July 30, 2020



Welcome to APN

Housekeeping

- Chairing Today's Discussion
  - Daniel King (daniel@olddog.co.uk) & Zhenbin Li (lizhenbin@huawei.com)
- Note Well
- Blue Sheet
  - Please fill in the blue sheet at:
  - https://etherpad.wikimedia.org/p/v108-apn-side-meeting
- WebEx Chat for Question Queue:
  - Type "+q" to enter the queue when want to speak
  - Please state your name before speaking
- Minute takers & Etherpad:
  - https://etherpad.wikimedia.org/p/v108-apn-side-meeting
- Online Agenda and Slides at:
  - https://github.com/APN-Community/IETF108-Side-Meeting-APN

Note Well

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

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Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

- BCP 9 (Internet Standards Process)
- BCP 25 (Working Group processes)
- BCP 25 (Anti-Harassment Procedures)
- BCP 54 (Code of Conduct)
- BCP 78 (Copyright)
- BCP 79 (Patents, Participation)
- https://www.ietf.org/privacy-policy/ (Privacy Policy)

Agenda

1. **Introduction & Agenda Bashing (5 mins)**
2. **Attempts in IETF History [Brian Trammell] (15 mins)**
   - What attempts (SPUD and PLUS proposals)? What lessons were learned?
3. **Requirements on Application-awareness in Networks (20 mins, 5 mins each)**
   - Operators present use cases to make clear that they have the Requirements on Application-awareness in their Networks

3.1 Service/Application aware [Daniel Bernier, Bell Canada] (5 mins)

3.2 CDN [Luis Murillo, Telefonica] (5 mins)

3.3 MEC [Peng Liu, China Mobile] (5mins)

3.4 Game Acceleration [Shuai Zhang, China Unicom] (5 mins)

4. **APN Framework [Shuping Peng, Huawei] (5 mins)**
   - Introduce APN Framework, functional components, and requirements
5. **Acquisition, Encapsulation and Conveying of Application-related Information (30 mins)**

5.1 Network Tokens [Yiannis Yiakoumis, Selfie Networks] (10mins)

5.2 FAST [Tom Herbert, Intel] (10mins)

5.3 APN6 [Xing Li, Tsinghua University] (10mins)

6. **Discussions & Clarifications [Shuping Peng, Huawei] – Collecting views (10 mins)**

6.1 Whether it will bring privacy issue? If yes, how to overcome?

6.2 Whether it will bring security issue? If yes, how to overcome?

7. **Conclusion – the way forward. (5 mins)**

Presenters, please respect timings

Shaping the APN Discussion

- What is Application-aware Networking (APN)?

"Application-aware Networking in a mechanism whereby traffic flows can be steered and routed within the network to ensure that the specific service levels needed by applications, can be delivered."

- Are the right use cases for identified?
- What techniques are available to achieve the use case goals?
- Can we ensure the scope of work to focus on a limited number of domains, and the network layers?
- How can we can address security and privacy issues?
- If there is interest in continuing the work? If so, where would we do this work, RTG Area, or?
  - Encapsulation of application related information in MPLS, IPv6, SRv6, VXLAN, etc.
  - Distribute application related information through IGP/BGP/PCEP extensions.