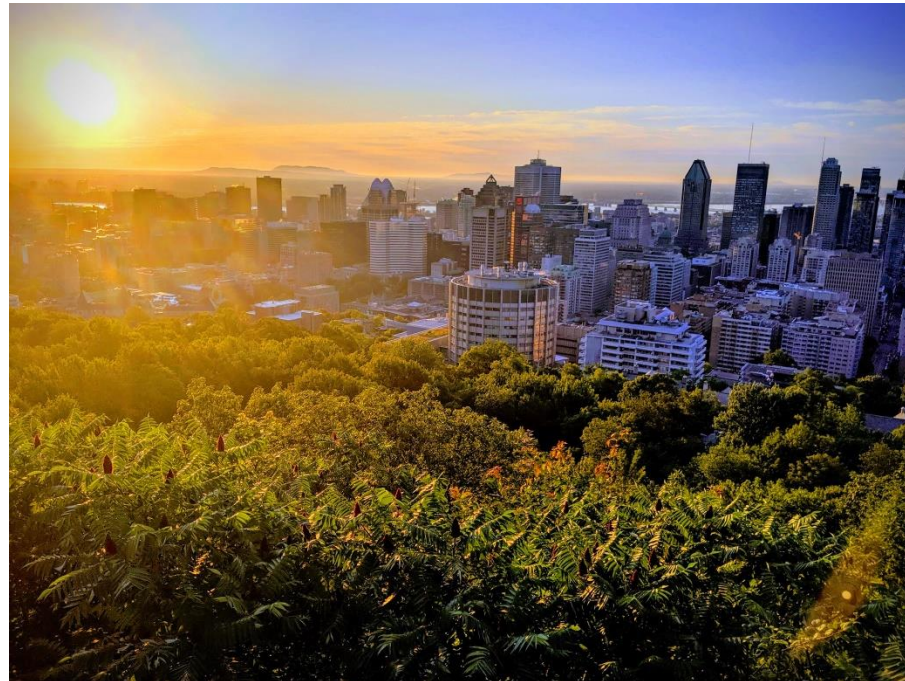# Application-aware Networking (APN) Side Meeting

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

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• 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 is 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 identified?

- What techniques are available to achieve the goals of the use cases?

- Can we ensure the scope of work to focus on a limited number of domains, and the network layer?

- 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.