Computing First Network (CFN) Side Meeting

IETF 106, Singapore

21 November, 2019

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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)

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NOTE on side meetings

- Open to all
- Meeting minutes will be publicly posted
- Not under NDA of any form
- Please sign the blue sheet
- Discussions at the end of all presentations
- During presentations only clarification questions are welcomed

Agenda

1. Admin (chairs) [3 min]

2. Problem statement, scenario and requirements: Liang Geng (China Mobile) [8 min]
    –   draft-geng-rtgwg-cfn-req-00

3. Framework of Compute First Networking (CFN): Yizhou Li [8 min]
    –   draft-li-rtgwg-cfn-framework-00

4. A Report on Compute First Networking (CFN) Field Trial: Shuheng Gu [8 min]
    –   draft-gu-rtgwg-cfn-field-trial-00

5. Related Work: Distributed function chaining with anycast: Luigi I. Annone (Telecom ParisTech) (8 min]

6. Questions to shape our work (chairs and discussion) [35 min]

7. Wrap up (chairs) [5 min]

Summaries

- Use cases show principles and requirements:
  - Principles:
    - 1. Service equivalency, 2.Service dynamics
  - Requirements:
    - 1. Explicit Service Identification, 2. Network&Computing Joint Optimization , 3. Flow Affinity, 4. Minimized OAM Overhead

- Framework supports Two-D (Dynamic & Distributed):
  - Dynamic anycast:
    - Anycast based service identification
    - Computing load information
    - Service dispatch on the fly
    - Ensure flow affinity
- PoC Field Trial:
  - showing performance gains from service dynamics, e.g., job completion time for different traffic patterns and status update frequencies
- Distributed function chaining with anycast:

Any questions?

Wrap-up Discussions and Next Steps

- Is the problem space clearly defined?

- Should this work be done in IETF?

- Is there interest to participate in this work?

- Set up mailing list for discussion (cfn@ietf.org?)