Network Slicing (netslicing) BoF

IETF-99
Prague

Monday, July 17th, 2017
1.30pm-3.30pm

Chairs:
Gonzalo Camarillo : Gonzalo.Camarillo@ericsson.com
Adrian Farrel : afarrel@juniper.net

Note Well

- Any submission to the IETF intended by the Contributor for publication as all or part of an IETF Internet-Draft or RFC and any statement made within the context of an IETF activity is considered an "IETF Contribution". Such statements include oral statements in IETF sessions, as well as written and electronic communications made at any time or place, which are addressed to:
    - The IETF plenary session
    - The IESG, or any member thereof on behalf of the IESG
    - Any IETF mailing list, including the IETF list itself, any working group or design team list, or any other list functioning under IETF auspices
    - Any IETF working group or portion thereof
    - **Any Birds of a Feather (BOF) session**
    - The IAB or any member thereof on behalf of the IAB
    - The RFC Editor or the Internet-Drafts function
- All IETF Contributions are subject to the rules of RFC 5378 and RFC 8179.
- Statements made outside of an IETF session, mailing list or other function, that are clearly not intended to be input to an IETF activity, group or function, are not IETF Contributions in the context of this notice. Please consult RFC 5378 and RFC 8179 for details.
- A participant in any IETF activity is deemed to accept all IETF rules of process, as documented in Best Current Practices RFCs and IESG Statements.
- A participant in any IETF activity acknowledges that written, audio and video records of meetings may be made and may be available to the public.

Administrivia

- This is a non-WG-Forming BoF
  - More on that in a moment
- Minute Takers: Sue Hares
                   Kiran Makhijani
                   Ignas Bagdonas

- Jabber Scribe:

- Blue Sheets
  - Please fill them in and circulate
  - They are now scanned and published online
- State your name clearly and slowly at the mic

Reminders

- Agenda:
  - https://datatracker.ietf.org/meeting/99/agenda/netslicing
- Meeting materials, slides, audio streams
  - http://tools.ietf.org/agenda/99/
- Minutes Takers (Etherpad):
  - http://etherpad.tools.ietf.org:9000/p/notes-ietf-99-netslicing
- Jabber room
  - netslicing@jabber.ietf.org
- Mailing List:
  - https://www.ietf.org/mailman/listinfo/netslices

Agenda

1. Administrivia (chairs) [5 : 5/120]
2. Purpose of BoF (chairs/AD) [5 : 10/120]
3. How the IETF would approach this space (and what we won't do) (chairs) [5 : 15/120]
4. 3GPP viewpoint (Georg Mayer) [10 : 25/120]
5. Understanding what different people mean by Network Slicing
   Addressing the following questions:
   – What do I mean by network slicing?
   – What are my main use cases?
   – What IETF work is in progress/needed?
   – What non-IETF work is relevant?
   a) BoF proponents' view of network slicing
      i. Terms and Systems (Alex Galis) [10 : 35/120]
         – IETF problems to solve / needing work
         – draft-galis-netslices-revised-problem-statement
         – draft-geng-netslices-architecture
      ii. Requirements and Gap Analysis (Cristina Qiang) [10: 45/120]
         – draft-netslices-usecases
         – draft-qiang-netslices-gap-analysis
   b) Network virtualization and network slicing (Daniel King) [10 : 55/120]
      • draft-king-teas-applicability-actn-slicing
   c) Applicability of network slicing to IoT (Jari Arkko) [10 : 65/120]
   d) Routing and Forwarding in support of Networking Slicing (Stewart Bryant) [10 : 75/120]
   e) Network slice management and orchestration (Hannu Flinck) [10 : 85/120]
      • draft-flinck-slicing-management
6. Open discussion (chairs) [20 : 105/120]
7. Answering the RFC 5434 questions (chairs) [5 : 110/120]
8. Conclusions and next steps (chairs and ADs) [10 : 120/120]

Purpose of this BoF

- Not aiming to form a Working Group
- Trying to gather information, to educate, and to focus discussion
- Four main questions
  - What do we mean by "*network slicing*"?
  - What are the main use cases?
  - What IETF work is in progress/needed?
  - What non-IETF work is relevant?
- Draw <u>no</u> conclusions from this being in the OPS area

How the IETF Would Approach This Space

- The IETF works on the Internet and its protocols
- The IETF works best with focused working groups
  - Clearly defined problems
  - Achievable deliverables
  - Don't look for a WG that spans Areas and has a wide scope
- The IETF is not a research organization
  - We want tractable problems
  - For imminent implementation and deployment
- The IETF is not good at "all-embracing" architectures
  - We are best at on-the-wire protocols
  - Internal APIs are out of scope
  - Not a good history with external APIs
    - Although… YANG models

How To Conduct Yourself in this BoF

- Be civil (please)
- Listen carefully
  - Someone may use the same terminology as you, but with different meanings
    - You are both right!
- Stick to your time limit
  - We will 'gong' you out!
- Save all questions for the discussion
  - Except maybe questions for clarification

Questions to Have in Mind During the BoF

We will return to these questions at the end

- What is "*network slicing*"?
  - Do we have a common view?
  - Can we identify distinct views?
  - Is the definition clear?
- What are the main use cases?
  - Do we have a core set of use cases:
    - For the Internet
    - That a body of people want solved
- What IETF work is in progress?
  - Does it need encouragement or modification?
- What other IETF work is needed?
- Is there non-IETF work that we can utilize?
  - Should proponents divert their efforts outside of the IETF?

RFC 5434(ish)
Questions We Need to Answer

We will also return to these questions

- Is there a problem that needs solving?
    - Is the IETF the right group to attempt solving it?
- Is there a critical mass of participants willing to work on the problem (e.g., write drafts, review drafts, etc.)?
- Is the scope of the problem well defined and understood. That is, do people generally understand what could be worked on (and what not!)
    - Is it clear what the deliverables would be?
- Is there a reasonable probability of success tackling this problem and producing these deliverables?