Satellite networks @ IETF

Side meeting. 2023-07-26

Before we start

IETF Note well applies

This meeting is going to be recorded

Let's try to keep the agenda allocated time

Agenda

1. Intro, motivation and goals (Carlos, 10 mins)
   (15:10)
2. Topics of interest
   - 2.1. An IETF Update on NTN and Satellite LEO Constellations Challenges (Dan King, 15 mins)
     (15:25)
   - 2.2. Transport for a Satellite Internet (Gorry Fairhust, 10 mins)
     (15:35)
   - 2.3. NTN Side Meeting, Use Cases and food for thoughts… (Marco Liebsch, 10 mins)
     (15:45)
   - 2.4. Time variance and latency issues in satellites (Dirk Trossen, 10 mins)
     (15:55)
   - 2.5. Low TEF Orbits (Diego López, 10 mins)
     (16:05)
   - 2.6. LISP for the Satellite Network (Dino Farinacci, 10 mins)
     (16:15)
3. Next steps (all, 15 mins)
   (16:30)

1. Intro, motivation and goals

- Satellite networks/NTN gaining a lot of momentum (e.g., 3GPP efforts)
  - Lots of examples of use cases / technologies benefiting from NTN
- Some efforts ongoing at the IETF on different WGs:
  - TVR (Time-Variant Routing) Use cases: https://datatracker.ietf.org/doc/draft-ietf-tvr-use-cases/
  - TVR (Time-Variant Routing) Requirements: https://datatracker.ietf.org/doc/draft-kcs-tvr-requirements/
  - Time Variant Challenges for Non-Terrestrial Networks: https://datatracker.ietf.org/doc/draft-king-tvr-ntn-challanges/
  - Routing and Addressing Challenges Introduced by New Satellite Constellations: https://datatracker.ietf.org/doc/draft-kw-rtgwg-satellite-rtg-add-challanges/
  - Side meeting @ IETF 116: https://github.com/lh95129/IETF-116-satellite-network-side-meeting/tree/main/Materials
  - …

1. Intro, motivation and goals

- Identify potential work for the IETF/IRTF to be done in the area of satellite networks / NTN
    - Research and engineering work
    - Identify existing work at the IETF/IRTF (e.g., at TVR)
- Have a first discussion on some of the identified topics
- Assess community interest
- Evaluate feasibility of a proposed RG that serves as fora to discuss topics, develop a research agenda and identify shorter term engineering items that can then be brought to the IETF (preferably to existing WGs)

2. Topics of interest

- An IETF Update on NTN and Satellite LEO Constellations Challenges (Dan King, 15 mins) (15:25)
- Transport for a Satellite Internet (Gorry Fairhust, 10 mins) (15:35)
- NTN Side Meeting, Use Cases and food for thoughts… (Marco Liebsch, 10 mins) (15:45)
- Time variance and latency issues in satellites (Dirk Trossen, 10 mins) (15:55)
- Low TEF Orbits (Diego López, 10 mins) (16:05)
- LISP for the Satellite Network (Dino Farinacci, 10 mins) (16:15)

3. Next steps

- GitHub repo to collect materials: https://github.com/cjbc/ietf-ntn/
- Should we create a non-WG mailing list?
- Evaluate possibility of "proposed RG"?