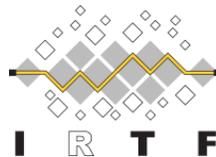# 63rd NMRG Meeting
IETF 111, Online

Chairs: Laurent Ciavaglia, Jérôme François

Secretaries: Jéferson Campos Nobre, Pedro Martinez-Julia

Note Well – Audio and Video Recordings

- The IRTF routinely makes recordings of online and in-person meetings, including audio, video and photographs, and publishes those recordings online

- If you participate in person and choose not to wear a red "do-not-photograph" lanyard, then you consent to appear in such recordings, and if you speak at a microphone, appear on a panel, or carry out an official duty as a member of IRTF leadership then you consent to appearing in recordings of you at that time

- **If you participate online, and turn on your camera and/or microphone, then you consent to appear in such recordings**

Note Well – Privacy & Code of Conduct

- As a participant in, or attendee to, any IRTF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public

- Personal information that you provide to IRTF will be handled in accordance with the Privacy Policy at https://www.ietf.org/privacy-policy/

- As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (https://www.ietf.org/contact/ombudsteam/) if you have questions or concerns about this

- See RFC 7154 (Code of Conduct) and RFC 7776 (Anti-Harassment Procedures), which also apply to IRTF

Goals of the IRTF

The IRTF conducts research; it is not a standards development organization

The Internet Research Task Force (IRTF) focuses on longer term research issues related to the Internet while the parallel organization, the IETF, focuses on shorter term issues of engineering and standards making.

While the IRTF can publish informational or experimental documents in the RFC series, its primary goal is to promote development of research collaboration and teamwork in exploring research issues related to Internet protocols, applications, architecture, and technology.

See "An IRTF Primer for IETF Participants" – RFC 7418

Online meeting etiquette

- **The session is being recorded.**

- Please keep your audio muted and video off when not presenting/speaking.

- When speaking, please start by stating your name and any affiliation

- **Useful links:**

  - Materials: https://datatracker.ietf.org/meeting/111/session/nmrg

  - Notes: https://codimd.ietf.org/notes-ietf-111-nmrg

  - Meetecho: https://meetings.conf.meetecho.com/ietf111/?group=nmrg&short=&item=1

  - Video recording: https://www.youtube.com/user/ietf/playlists

Agenda (UTC)

- 23:00 Introduction, RG Chairs, 5 min.

- Digital Twins
    - 23:05-23:15 - Concepts of Digital Twin Network, Cheng Zhou, https://datatracker.ietf.org/doc/draft-zhou-nmrg-digitaltwin-network-concepts/
    - 23:15 - 23:35 - A practical application of monitoring data and AI in supporting an industrial environment (a robotic digital twin), Diego Lopez, Ignacio Dominguez, Daniel Gonzalez,
    - 23:35 - 23:50 - An Efficient Data collection method for Digital Twin Network, Danyang Chen, 10 min + 5 min (Q&A), https://datatracker.ietf.org/doc/draft-zhu-nmrg-digitaltwin-data-collection/

- 23:50-00:10 Towards Building a Context-Aware Data Aggregation Framework for Network Monitoring, Diego Lopez, Ignacio Dominguez, Daniel Gonzalez

- 00:10 - 00:25 Status of the AI research challenges document, Jérôme François, https://docs.google.com/document/d/1I9Z3MiwqdY_CkQI5yWpyKRTvIYjeDqWM5fDIZQ_K63o/edit

- IBN
    - 00:25-00:35 - Network measurement intent, Danyang Chen or Kehan Yao, https://datatracker.ietf.org/doc/draft-yang-nmrg-network-measurement-intent/
    - 00:35-00:45 - Status of RG documents, RG chairs
        - https://datatracker.ietf.org/doc/draft-irtf-nmrg-ibn-concepts-definitions/
        - https://datatracker.ietf.org/doc/draft-irtf-nmrg-ibn-intent-classification/

- 00:45-00:50, RG status, RG chairs, 5min.

- If time allows
    - VEGA: A Genetic Method for Planning Virtual Network Embedding Configurations, Pedro Martinez-Julia,
      https://datatracker.ietf.org/doc/draft-pedro-nmrg-vega-network-embedding/
    - Reinforcement Learning-Based Virtual Network Embedding: Problem Statement, Ihsan Ullah https://datatracker.ietf.org/doc/draft-ihsan-nmrg-rl-vne-ps/

Status of RG documents

- **Intent-Based Networking - Concepts and Definitions**

  - https://datatracker.ietf.org/doc/draft-irtf-nmrg-ibn-concepts-definitions/
  - Shepherd (Jérôme François)
  - RG last call (from October 7 to October 28, 2020)
    - **Positive expressions of support** (18+ different sources)
    - 6 relatively detailed reviews

  - v3 submitted in Feb 2021
    - Almost all comment addressed
    - Some remaining minor comments
      - to be addressed in a P2P manner with the shepherd before submission to IRSG review

Status of RG documents

- **Intent classification**

  - https://datatracker.ietf.org/doc/draft-irtf-nmrg-ibn-intent-classification/
  - Shepherd (Laurent Ciavaglia)
  - RG last call (from February 23 to March 17, 2021)
    - **Positive expressions of support** (12+ different sources)
    - 5 relatively detailed reviews

  - v3 submitted in March 2021
    - All pending comments addressed
    - Minor editorial fixes needed to comply with RFC 5743 guidelines

Future meetings

Until further notice, the default mode of operation will increasingly rely on:

- Monthly Virtual Meetings

- Mailing list

- Collaborative platforms (e.g. Github, Google Docs, etc.)

Next virtual meetings (September / October)

- Virtual Network Embeeding

- AI Research Challenges

November, IETF 112, Madrid

Do not hesitate to share your questions, ideas or needs with the groups or chairs !

AoB…?