

59th NMRG Meeting

IETF 109, Online

Chairs: Laurent Ciavaglia, Jérôme François
Secretaries: Jéferson Campos Nobre, Pedro Martinez-Julia



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](#)

IRTF follows IETF policies

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct.

It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

As a reminder:

- By participating in the IETF, you agree to follow IETF processes and policies.
- If you are aware that any IETF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion.
- As a participant in or attendee to any IETF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public.
- Personal information that you provide to IETF will be handled in accordance with the IETF Privacy Statement.
- 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.

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)
- <https://www.ietf.org/privacy-policy/> (Privacy Policy)

Online meeting etiquette

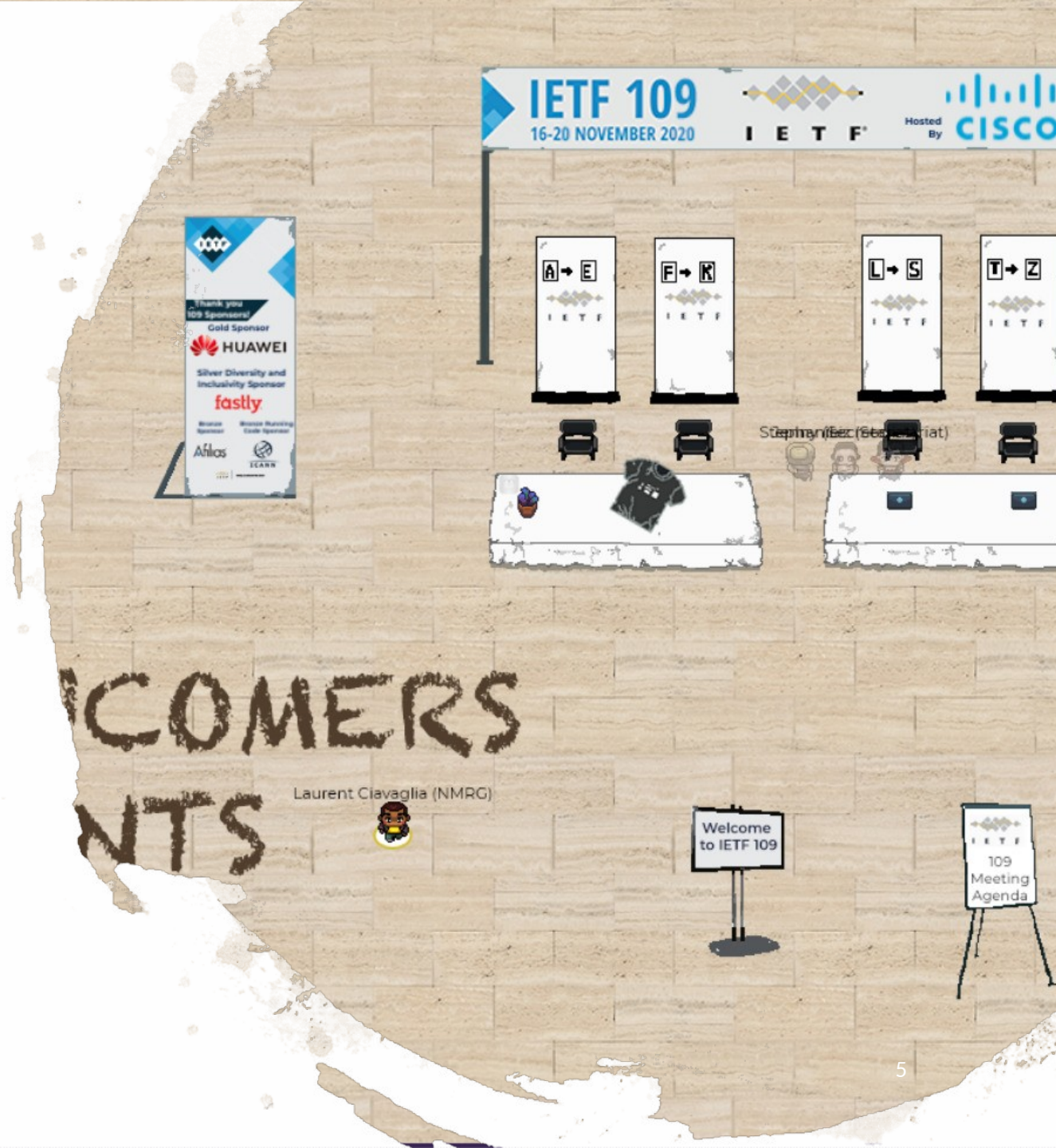
- The session is being recorded.
- The “Blue sheet” is automatically recorded based on IETF Datatracker login.
- Before speaking, you should enter the queue by pressing the “raise hand microphone” icon.
- Please keep your audio muted and video off when not presenting/speaking.
- When speaking, please start by stating your name and any affiliation
- Useful links:
 - Materials: <https://datatracker.ietf.org/meeting/109/session/nmrg>
 - Meetecho: <http://www.meetecho.com/ietf109/nmrg/>
 - Meeting notes: <https://codimd.ietf.org/notes-ietf-109-nmrg>
 - Audio recording: <https://www.ietf.org/audio/ietf109/>
 - Video recording: <https://www.youtube.com/user/ietf/playlists>

Online meeting experience

- **Gather**

- Platform for social interactions of an IETF meeting that are hard to do online
- <https://ietf.gather.town/app/L4fNNdm1NJa1sE2v/ietf>
- Guidelines at: <https://docs.google.com/document/d/172eqRpW8dodHpts1kGleel8JrGF4vCzcahTTpn3c0s/edit#>
- MeetEcho integration:
 - Meetecho should ask if you want to join the Gather space when you exit the meeting.
 - You can also join the MeetEcho session directly from the appropriate room in the Gather space.

So please continue discussions and interactions on Gather after our session !



Agenda

16:00 Meeting logistics, agenda and RG news 10 min

Part 1: Intent-based Networking (55 min.)

- 16:10 Concepts and Definitions (in RG last call), Laurent Ciavaglia, 5 min. + 5 min. Q&A
<https://datatracker.ietf.org/doc/draft-irtf-nmrg-ibn-concepts-definitions/>
- 16:20 Intent Classification, Olga Havel 5 min. + 5 min. Q&A
<https://datatracker.ietf.org/doc/draft-irtf-nmrg-ibn-intent-classification/>
- 16:30 Transport Slice Intent, Luis Contreras, 5 min. + 5 min. Q&A
<https://datatracker.ietf.org/doc/draft-contreras-nmrg-transport-slice-intent/>
- 16:40 Network Measurement Intent, Danyang Chen 5 min. + 5 min. Q&A
<https://datatracker.ietf.org/doc/draft-yang-nmrg-network-measurement-intent/>

Part 2: AI for Network Management (40 min.)

- 16:50 AI for Network and Service Automation: Standardization Enablers and Research Directions, Laurent Ciavaglia, 15 min. + 10 min. Q&A
- 17:15 Status of the document on Research Challenges in Artificial Intelligence for Network Management, Jérôme François, 10 min. + 10 min. Q&A
https://docs.google.com/document/d/1dQOzZustI2mkYr_omtiqu3FqUvoqLgaCp7nbRj4ZJyw/edit?usp=sharing

Part 3: Scouting/other topics (25 min.)

- 17:35 Multilevel configuration, Luis Contreras 10 min. + 5 min. Q&A
<https://datatracker.ietf.org/doc/draft-bogdanovic-multilevel-configuration/>
- 17:50 Update on Concepts of Digital Twin Network, Cheng Zhou, 5 min. + 5 min. Q&A
<https://datatracker.ietf.org/doc/draft-zhou-nmrg-digitaltwin-network-concepts/>

Future meetings

- January 2021, Interim, *online*
- March 2021, IETF 110, *online*
- (tentative) May 2021, Interim, co-located with IEEE IM conference, *hybrid (tbc)*

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

- (bi-)monthly Online meetings
- Mailing list
- Collaborative platforms (e.g. Github, Google Docs, etc.)

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

IBN use cases

- <https://github.com/jcnobre/draft-nobre-nmrg-ibn-use-cases>
- Tentative/proposed use cases
 - Interconnection Intents: draft-contreras-nmrg-interconnection-intents-00
 - Network Slice Intent: draft-contreras-nmrg-transport-slice-intent-04
 - Network measurement intent: draft-yang-nmrg-network-measurement-intent-00
 - Network Slicing Lifecycle Automation
 - Intent-Based 5G IoT Network Slice
- Outcome of uses cases ? E.g. what value information, learnings, know-how we would like to develop and document in/with the use cases, commonalities/patterns/...
- One single document vs. separate documents
- Template for document use case with a common level of description
- **Discussion to be continued on mailing list and in a next interim meeting**

Overview on NMRG items progress

- **IBN**

- Two RG drafts: concepts and definition (Last call in October) + classification
- Use cases under discussion: several propositions, need for synchronization □ expect to help in defining functional components/architecture
- Outcome of uses cases ? E.g. what value information, learnings, know-how we would like to develop and document in/with the use cases, commonalities/patterns/...

- **AI**

- Research challenges in AI for network management document
 - A first set of inputs (challenge description)
 - Dedicated meetings to progress on scope and objectives of the doc
 - 10+ contributors
- Can help to define targets for technical presentations

- **Scouting/other topics**

- Various topics
- Presentation in (virtual) meeting to have feedback from the groups