

COIN

Computing in the Network

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IETF 118 – Prague

Thursday, November 9, 2023

Note Well

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.

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Note Well - Policies

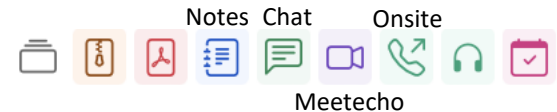
<https://ietf.org/policies>

Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

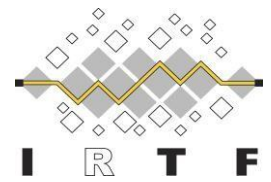
- [BCP 9](#) (Internet Standards Process)
- [BCP 25](#) (Working Group processes)
- [BCP 25](#) (Anti-Harassment Procedures)
- [BCP 54](#) (Code of Conduct)
- [BCP 78](#) (Copyright)
- [BCP 79](#) (Patents, Participation)
- <https://www.ietf.org/privacy-policy/> (Privacy Policy)

This session is being recorded

Administrivia



- **Meetecho:**
 - <https://meetecho.ietf.org/client/?group=coinrg>
 - Automatic Bluesheets
 - Integrated Jabber/IM/Chat
 - We will monitor both the **chat and the queue for questions**
 - **There is a moderator in the room**
 - ***In-person*** participants:
 - Use Onsite tool to sign into the session and to join the mic queue
 - ***Remote*** participants:
 - Use Full tool
 - Default to **audio muted** and **video off**, unless you are speaking
 - **Headphones strongly recommended**
- Chat room: <https://zulip.ietf.org/#narrow/stream/coinrg>
- **Live Minutes/Shared Notetaking:** <https://notes.ietf.org/notes-ietf-118-coinrg>
- Available post session:
 - Recording: <http://www.meetecho.com/ietf118/recordings#COINRG>
- **Mailing list:** coin@irtf.org
 - To subscribe: <https://www.ietf.org/mailman/listinfo/Coin>
- **Meeting materials:** <https://datatracker.ietf.org/meeting/118/session/coinrg>



Goals of the IRTF

- 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
- **The IRTF conducts research; it is not a standards development organization**
- 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](#)

Agenda

1) Chair Update (J/E/M) - 10 mins

2) Research topics (15 mins each, including 5 mins Q&A)

2.1 End-to-End discussions (Ike Kunze, RWTH Aachen University)

2.2 ClickINC: In-network Computing as a Service in Heterogeneous, Programmable Data-center Networks (Haoyu Song, FutureWei) <https://dl.acm.org/doi/10.1145/3603269.3604835>

2.3 P4Pir: In-Network Analysis for Smart IoT Gateways (Mingyuan Zang, Technical University of Denmark), <https://eng.ox.ac.uk/media/11759/zang22p4pir.pdf>

3) RG Drafts updates (10 mins each, including Q&A)

3.1 Use Case Analysis for Computing in the Network (Jungha Hong, ETRI-Electronics and Telecommunications Research Institute) <https://datatracker.ietf.org/doc/draft-irtf-coinrg-use-case-analysis/>

3.2 Directions for Computing in the Network (Dirk Kutscher, The Hong Kong University of Science and Technology) <https://datatracker.ietf.org/doc/draft-kutscher-coinrg-dir/02/>

4) Individual Drafts (5 mins each)

4.1 The Requirements of a Unified Transport Protocol for In-Network Computing (Haoyu Song, FutureWei) (<https://datatracker.ietf.org/doc/html/draft-song-inc-transport-protocol-req-00>)

4.2 An Evolution of Cooperating Layered Architecture for SDN (CLAS) for Compute and Data Awareness (Carlos J. Bernardos, University Carlos III of Madrid) <https://datatracker.ietf.org/doc/draft-contreras-coinrg-clas-evolution/>

5) Other Topics (5 mins)

5.1 AI4ME – Delivering the future of interactive and personalised media at scale (Rajiv Ramdhany, BBC) <https://ai4me.surrey.ac.uk/>

6) RG Wrapup

COIN Document Status (1 of 2)

- **RG Documents**

- [draft-irtf-coinrg-terminology](#): Terminology for COIN
- [draft-irtf-coinrg-use-case-analysis](#): Use Case Analysis
- [draft-irtf-coinrg-use-cases](#): Use Cases for In-Network Computing
- [draft-kutscher-coinrg-dir](#): Directions for Computing in the Network

- **Related Internet-Drafts**

- [draft-contreras-coinrg-clas-evolution](#): An Evolution of Cooperating Layered Architecture for SDN (CLAS) for Compute and Data Awareness
- [draft-urien-coin-sec](#): COIN Security
- [draft-urien-coinrg-iose](#): Internet of Secure Elements
- [draft-yao-coinrg-generic-framework](#): A Generic COIN Framework in controlled environments
- [draft-du-coinrg-coordination-on-data-plane](#): Data-driven Coordination of Network Devices in COIN
- [draft-li-coinrg-distributed-learning-architecture](#): Distributed Learning Architecture based on Edge-cloud Collaboration

COIN Document Status (2 of 2)

- **Other Documents (update status needed from authors)**

- [draft-defoy-coinrg-p4-by-tenants-in-mobile-nw](#): Use Case for P4 Programmability by Tenants of Future Mobile Virtual Networks
- [draft-kunze-coinrg-transport-issues](#): Transport Protocol Issues of In-Network Computing Systems
- [draft-fink-coin-sec-priv](#): Enhancing Security and Privacy with In-Network Computing
- [draft-mcbride-edge-data-discovery-overview](#): Edge Data Discovery for COIN
- [draft-sarathchandra-coin-appcentres](#): In-Network Computing for App-Centric Micro-Services
- [draft-hsingh-coinrg-p4use](#): Use of P4 Programs in IETF Specifications
- [draft-hsingh-coinrg-reqs-p4com](#) - Requirements for P4 Program Splitting for Heterogeneous Network Node
- [draft-defoy-coinrg-mobile-discovery](#): Impact of Mobility on Discovery in COIN
- [draft-fu-coinrg-joint-optimization-req](#): Requirements of computing and network joint optimization and scheduling
- [draft-li-coin-oam-framework](#): COIN Operation, Administration and Maintenance Framework
- [draft-liu-coin-differential-reservation](#): Differential Computing Resource Reservation
- [draft-liu-coinrg-requirement](#): Requirement of Computing in network
- [draft-mcbride-data-discovery-problem-statement](#): Data Discovery Problem Statement
- [draft-mcbride-edge-data-discovery-overview](#): Edge Data Discovery for COIN

Presentations and Discussion

Announcements & Future Meetings

- Meetings
 - **IETF 119 Brisbane**
 - Meeting TBD