# Recording Notice

- This is a joint IRTF MAPRG + RIPE MAT-WG meeting managed using IETF tools.
- This meeting session will be recorded and published on the IETF/IRTF YouTube channel: https://www.youtube.com/user/ietf/videos

# MAP+MAT Interim Meeting

IRTF Measurement and Analysis for protocols Research Group (MAPRG) and
RIPE Measurement, Analysis & Tools Working Group (MAT-WG)
Wednesday, August 5, 2020

MAPRG co-chairs <maprg-chairs@ietf.org>:
Mirja Kühlewind <mirja.kuehlewind@ericsson.com>
**Dave Plonka** <dave@plonka.us>

MAT-WG co-chairs <mat-wg-chairs@ripe.net>:
**Nina Bargisen** <nihbster@gmail.com>
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# Administrivia

- Charters: https://datatracker.ietf.org/group/maprg/charter/
  https://www.ripe.net/participate/ripe/wg/active-wg/mat
- Mailing Lists: maprg@irtf.org, mat-wg@ripe.net
  Subscriptions: https://www.irtf.org/mailman/listinfo/maprg,
  https://www.ripe.net/mailman/listinfo/mat-wg/
- Today's slides: https://datatracker.ietf.org/meeting/interim-2020-maprg-01/session/maprg
- Remote participation via WebEx:
  https://ietf.webex.com/ietf/j.php?MTID=m8506f91d53fc769f2afaaa81c917c0ef

# Agenda (part I)

1300 UTC **Intro, Overview & Status, 10 mins**
**chairs: Nina (MATWG) & Dave (MAPRG)**

**MAT: Mechanism and Performance Evaluation of RIPE IPmap Active Geolocation, 15-20 mins**
**Massimo Candela**

**MAT: Internet Measurements of the COVID-19 pandemic, 15-20 mins**
**Emile Aben, Vesna Manojloivic, Lai Yi Ohlsen**

**MAT: RIPE NCC Tools Update, 10-15 mins**
**Robert Kisteleki**

# Intellectual Property Rights (IPR)

The IRTF follows the IETF Intellectual Property Rights (IPR) disclosure rules. This is a summary of these rules as they relate to IRTF research group discussions, mailing lists and Internet Drafts:

• If you include your own or your employer's IPR in a contribution to an IRTF research group, then you must file an IPR disclosure with the IETF.

• If you recognize your own or your employer's IPR in someone else's contribution and you are participating in the discussions in the research group relating to that contribution, then you must file an IPR disclosure with the IETF. Even if you are not participating in the discussion, the IRTF still requests that you file an IPR disclosure with the IETF.

• Finally, the IRTF requests that you file an IPR disclosure with the IETF if you recognize IPR owned by others in any IRTF contribution.

**The IRTF expects that you file IPR disclosures in a timely manner, i.e., in a period measured in days or weeks, not months. The IRTF prefers that the most liberal licensing terms possible are available for IRTF Stream documents, see RFC 5743.** You may file an IPR disclosure here: http://www.ietf.org/ipr/file-disclosure

See RFC 3979 (BCP 79) for definitions of "IPR" and "contribution" and for the detailed rules (substituting "IRTF" for "IETF").

# Agenda (part II)

**MAP: Latency & AQM Observations on the Internet, 15 mins**
**Jake Holland**

**MAP: Analyzing Security Considerations, 10 mins**
**Mark McFadden**

**MAP: Packet Latencies in Mobile Network, 15 mins**
**Philipp Bruhn**

**MAP: MUST, SHOULD, DON’T CARE: TCP conformance in the wild, 10 mins**
**Mike Kosek**

**MAP: Debogonising 2a10::/12, 15 mins**
**Stephen Strowes**

# Cache Me If You Can: Effects of DNS Time-to-Live

Giovane C. M. Moura (1) John Heidemann (2) Ricardo de O. Schmidt (3) Wes Hardaker (2)
1: SIDN Labs and TU Delft 2: USC/Information Sciences Institute 3: University of Passo Fundo

**ABSTRACT**

DNS depends on extensive caching for good performance, and every DNS zone owner must set *Time-to-Live* (TTL) values to control their DNS caching. Today there is relatively little guidance backed by research about how to set TTLs, and operators must balance conflicting demands of caching against agility of configuration. Exactly how TTL value choices affect operational networks is quite challenging to understand due to interactions across the distributed DNS service, where resolvers receive TTLs in different ways (answers and hints), TTLs are specified in multiple places (zones and their parent's glue), and while DNS resolution must be security-aware. This paper provides the first careful evaluation of how these multiple, interacting factors affect the effective cache lifetimes of DNS records, and provides recommendations for how to configure DNS TTLs based on our findings. We provide recommendations in TTL choice for different situations, and for where they must be configured. We show that longer TTLs have significant promise in reducing latency, reducing it from 183 ms to 28.7 ms for one country-code TLD.

# Counterfighting Counterfeit: detecting and taking down fraudulent webshops at a ccTLD

Thymen Wabeke[1], Giovane C. M. Moura[1,3], Nanneke Franken[2], and Cristian Hesselman[1,4]

[1] SIDN Labs, Arnhem, The Netherlands
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[3] TU Delft, Delft, The Netherlands
[4] University of Twente, Enschede, The Netherlands

**Abstract.** Luxury goods such as sneakers and bags are in high demand.

**Papers, slides, videos are posted from IMC 2019 (Oct), PAM 2020 (Mar):**
https://conferences.sigcomm.org/imc/2019/program/
https://pam2020.cs.uoregon.edu/Program.html

.nl DNS zone. We have developed two detection systems and partnered with registrars and a large credit card issuer, which ultimately led to

**Videos are now posted from the Network Traffic Measurement and Analysis Conference - TMA 2020 (June).**

Links to papers and videos in agenda: https://tma.ifip.org/2020/main-conference/

YouTube playlist: https://www.youtube.com/playlist?list=PL4iXY1PzLoNoKnTqvLWzB4Tdak1Gow93d

# Coverage and Deployment Analysis of Narrowband Internet of Things in the Wild – Dataset Available

- **Two measurement campaigns in Oslo (1.4M) and Rome (51K)**
  - Four different scenarios
    - Deep Indoor, Indoor, Outdoor Walking, Outdoor Driving
  - Collected Attributes
    - Timestamps, User and Cell Positioning, …
    - RSRP, RSRQ, SINR, …
    - MCC, MNC, CellID, … (anonymized)
- **Complementary LTE measurements**
- **Interactive Visualization**
- **Dataset page**
  - https://mosaic-simulamet.com/nbiotcoverage
- **Paper page**
  - https://arxiv.org/abs/2005.02341
    - IEEE Communications Magazine (Internet of Things and Sensor Networks Series)