

# Measurement and Analysis for Protocols

Research Group (maprg)  
Chicago, March 28, 2017

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# Administrivia

- Charter: <https://datatracker.ietf.org/group/maprg/charter/>
- Mailing List: [maprg@ietf.org](mailto:maprg@ietf.org)  
Subscriptions: <https://www.ietf.org/mailman/listinfo/maprg>
- Today's slides: <https://datatracker.ietf.org/meeting/98/session/maprg/>
- Remote participation  
Audio: <http://ietf98streaming.dnsalias.net/ietf/ietf986.m3u>  
Meetecho: <http://www.meetecho.com/ietf98/maprg>  
Jabber: xmpp:maprg@jabber.ietf.org?join

# This Meeting's Notes

- Call for Contributions:  
We, again, ran a CfC via mailing list, requesting abstract weeks in advance; receiving 14 proposed contributions, 9 of which will be presented in full today.
  - Thanks for the proposals!
  - Please supply abstract with details!
  - Again, we will include “ads” at the end of these Intro slides for projects and works for which there wasn't time in the agenda.
- Next meeting: share ideas in the mailing list.

# Charter Notes

The *Measurement and Analysis for Protocols Research Group (maprg)* will focus on two topics:

- (1) Discussion of measurements and techniques that would inform *the development, deployment, and/or operation of existing IETF-defined protocols.*
- (2) Presentation of measurement results that inform *same.*

Presentations and work items must be obviously or explicitly “mapped” to those aspects of IETF-defined protocols, existing or works-in-progress.

# Agenda (i)

- **Introduction & Overview** – Dave Plonka and Mirja Kühlewind, 5m
- **Refresing MLab: [www.measurementlab.net](http://www.measurementlab.net)** – Matt Mathis, 5m
- **LE codepoint: preliminary results and ongoing work in the IETF** – Gorry Fairhurst, 10m
- **TCP ECN: Experience with Enabling ECN on the Internet** – Padma Bhooma, 20m

# Agenda (ii)

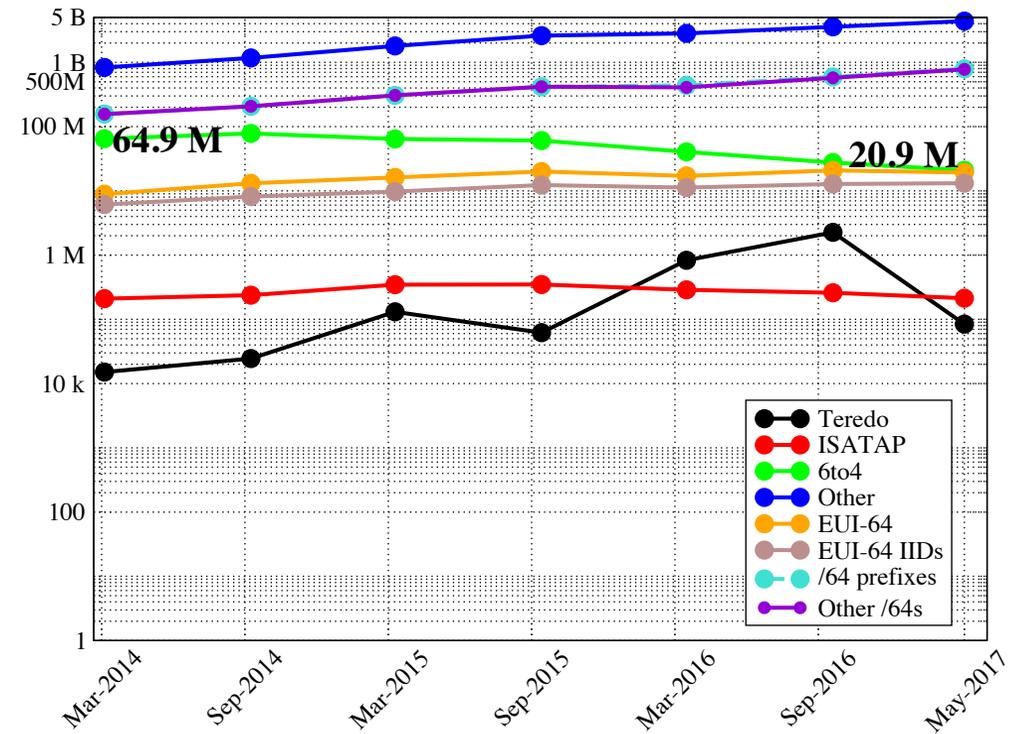
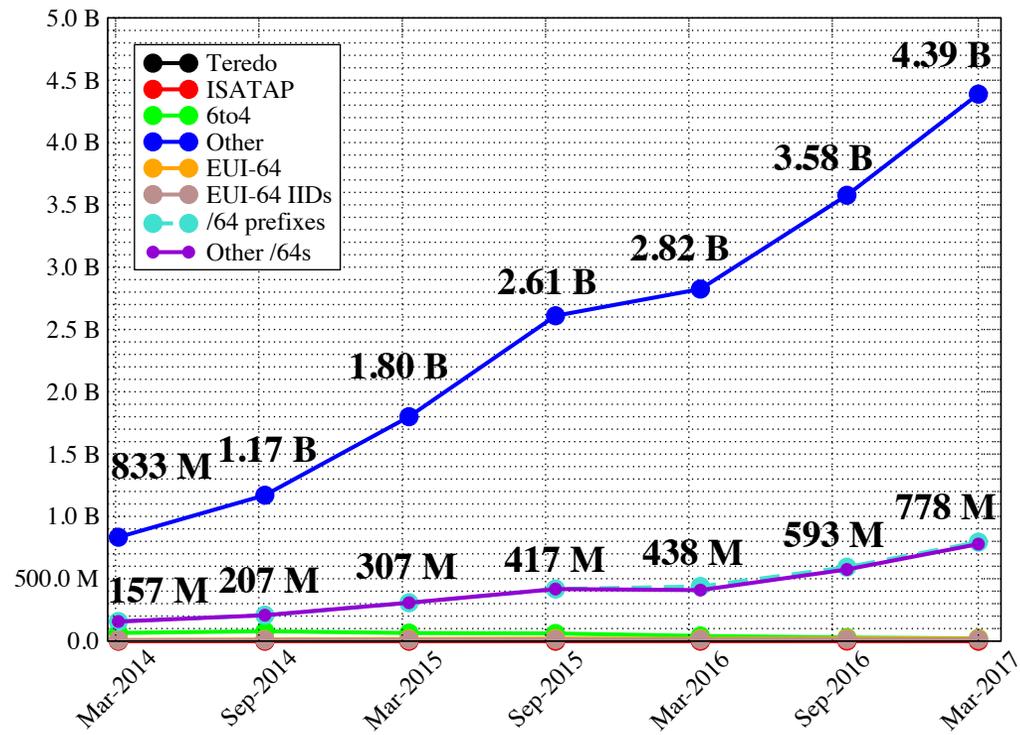
- **Measuring Trends in IPv6 Support**– Tommy Pauly, 10m
- **You can -j REJECT but you can not hide: Global scanning of the IPv6 Internet**– Tobias Fiebig, 15m
- **No domain left behind: is Let's Encrypt democratizing encryption?** – Giovane C. M. Moura, 20m

# Agenda (iii)

- **How Broadcast Data Reveals Your Identity and Social Graph –**  
Rolf Winter, 15m
- **Weak keys remain widespread in network devices –**  
Marcella Hastings, 20m
- **Open Measurement of Internet Censorship–** Will Scott, 20m

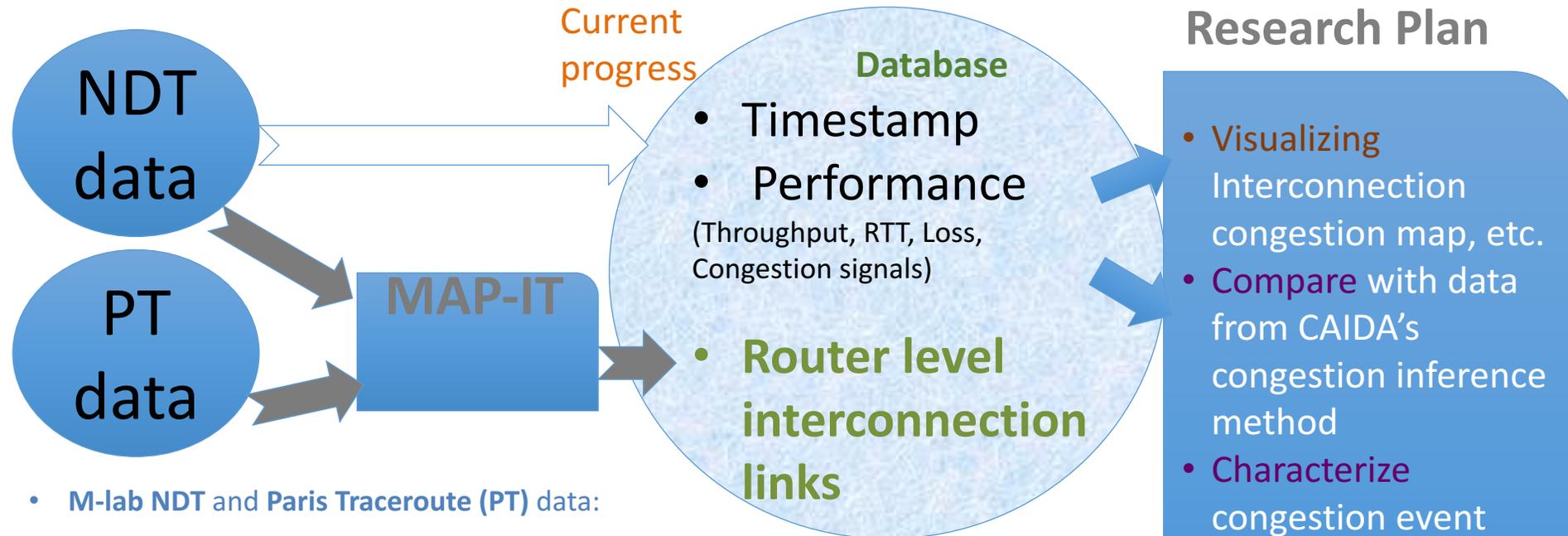
# Recent Related Works “Advertisements”

- Active IPv6 client address counts per week (<http://akamai.com/technical-publications>):



- Sunsetting SixXS: <https://www.sixxs.net/sunset/>

# Inferring Interconnection congestion using M-lab NDT and Paris Traceroute data



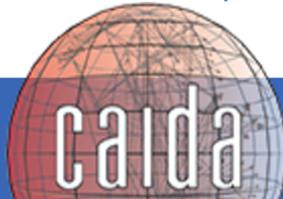
- M-lab NDT and Paris Traceroute (PT) data:

<https://www.measurementlab.net/>

- MAP-IT: Multipass Accurate Passive Inferences from Traceroute

<https://github.com/alexmarder/MAP-IT>

- CAIDA project: Mapping Interconnection in the Internet: Colocation, Connectivity and Congestion, Funding source: NSF CNS-1414177



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CAIDA/UC San Diego

## Research Plan

- Visualizing Interconnection congestion map, etc.
- Compare with data from CAIDA's congestion inference method
- Characterize congestion event across AS boundaries
- Capture hidden confounding factors (distance, host buffer, speed tier) by applying statistical and machine learning tools