

GMI-AIMS-4

The goal of the [GMI project](#) (Designing a Global Measurement Infrastructure to Improve Internet Security, or GMI3S) is to design a new generation of measurement infrastructure for the Internet, which will support collection, curation, archiving, and expanded sharing of data needed to advance critical scientific research on the security, stability, and resilience of Internet infrastructure.

The purpose of this fourth workshop is to meet after IMC 24 Madrid, to discuss GMI related interests and progress.

Participants

Onsite visitor, UCSD, or remote	Name (Affiliation)	Affiliation Country
1. visitor	Mattijs Jonker (U Twente)	NL
2. visitor	Raffaele Sommese (U Twente)	NL
3. visitor	Antonia Affinito (U Twente)	NL
4. visitor	Remi Hendriks (U Twente)	NL
5. visitor	Jasper den Hertog (NLnet Labs)	NL
6. visitor	Matthias Wählisch (TU Dresden)	DE
7. visitor	Alexander Männel (TU Dresden)	DE
8. visitor	Jonas Mücke (TU Dresden)	DE
9. visitor	Thomas Schmidt (HAW Hamburg)	DE
10. visitor	Raphael Hiesgen (HAW Hamburg)	DE
11. visitor	Emile Aben (RIPE NCC)	NL
12. visitor	Ties de Kock (RIPE NCC)	NL
13. visitor	Esteban Carisimo (Northwestern)	US
14. visitor	Cecilia Testart (Georgia Tech)	US
15. visitor	Romain Fontugne (IIJ)	JP
16. visitor	Malte Tashiro (IIJ)	JP
17. visitor	Ricky Mok (CAIDA)	US
18. visitor	Kc claffy (CAIDA)	US
19. visitor	Max Gao (CAIDA)	US
20. visitor	Zesen "Jason" Zhang (UC San Diego)	US
21. visitor	Tijay Chung (Virginia Tech)	US
22. visitor	Ralph Holz (University of Münster)	DE
23. visitor	Andra Lutu (Telefonica)	ES
24. visitor	Johannes Zirngibl (Max Planck Institute for	DE

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22. visitor	Ralph Holz (University of Münster)	DE
	Informatics)	
25. visitor	Marcin Nawrocki (NETSCOUT)	US

Workshop Information

Purpose: Discuss progress and results from last year of GMI3S-relevant measurement infrastructure research, discuss future and next steps of GMI3S.

Dates: Nov 7, 2024

Description	Address
Conference Room: Sala Club	Gran Via 28 13th Floor Centro, 28013 Madrid, Spain Room: Sala Club Entrance is from Calle de Valverde, not the same as for the conference.
Zoom channel for remote attendees	Currently undecided if Zoom will be made available

AGENDA

Thursday Nov 7

- Jasper den Hertog - *Implementing an off-line Looking Glass* [5-10min]
- Mattijs Jonker - *Towards Putting the "Open" in OpenINTEL*
- Esteban Carisimo - *Of Choices and Control – A Comparative Analysis of Government Hosting*
- Malte Tashiro - *Integration of Ark traceroutes into IYP* [15min]
- Emile Aben - (could talk about RPKI-flutter again, and/or about personal use ASNs)
- Raffaele Sommesse - *Directions in DNS transparency* [5-10 min]
- Antonia Affinito - *Domain Blocklist performance*
- Remi Hendriks - *Measurement tooling for anycast operators*
- Ralph Holz - *experiments wrt CAIDA telescope/DigitalOcean cloud telescope*
- Johannes Zirngibl - *GINO: Scans and future developments* [10min]
- Ricky Mok – *New approach to telescope data sharing* [10 min]
- Matthias Wählisch - *Stop Scanning IPv6! [5-10min]*
- Andra Lutu – *Global Cellular Connectivity: Complexities and Limitations* [15min]
- Tijay Chung – *Understanding and Measuring ROV Ecosystem* [10min]
- Cecilia Testart - *RPKI Barriers*

- Kc: Goals of workshop: Global Internet Measurement and Analysis Infrastructure:
 - Priorities, goals, funding opportunities, institutional evolution
- **State of GMI project:** ending Design phase, proposing Implementation Phase.
 - Four themes: Active Measurement, BGP, DNS, Traffic/Telescope.
 - Focus of proposed implementation phase: active measurement infrastructure, supporting data sets.
- **BGP (moved early so MJL can join)**
 - Jasper den Hertog - *Implementing an off-line Looking Glass* [5-10min]
 - Emile Aben - (could talk about RPKI-flutter again, and/or about personal use ASNs)
 - Qasim/Tijay
- **Active Measurement**
 - Johannes Zirngibl - GINO: Scans and future developments [10min]
 - Matthew Luckie – NewArk.
 - Remi Hendriks - Measurement tooling for anycast operators
 - Malte Tashiro - *Integration of Ark traceroutes into IYP*
 - Matthias Wählisch - *Stop Scanning IPv6!* [5-10min]
 - Mattijs Jonker - *Towards Putting the "Open" in OpenINTEL* [~10min]
- **DNS/hosting**
 - Antonia Affinito - Domain Blocklist performance
 - Raffaele Sommese - Directions in DNS transparency [5 min]
 - <https://ripe89.ripe.net/programme/meeting-plan/dns-wg/>
 - <https://www.icann.org/en/system/files/files/icann-org-comments-proposed-nis2-directive-19mar21-en.pdf>
 - In January 2022, the European Commission Study on Domain Name System (DNS) Abuse stated unequivocally that “[t]he contractual obligations in place for gTLD registries and registrars (and their resellers, if any) have been found unachieved, ineffective, and/or unenforced by periodic reviews mandated by ICANN Bylaws”² (emphasis added).
Therefore, ICANN contracts and policies cannot be relied upon to provide detailed substance to the obligations set forth in Article 28. Rather, EU Member States must provide clear and explicit requirements in their transposition of Article 28 and implementation in their national laws.
 - Art. 28. Para 4: “Member States shall require the TLD name registries and the entities providing domain name registration services to make publicly available, without undue delay after the registration of a domain name, the domain name registration data which are not personal data.”
- **Telescope:**
 - Ralph Holz - experiments wrt CAIDA telescope/DigitalOcean cloud telescope
 - Ricky Mok – New approach to telescope data sharing [10 min]
- **Geopolitical**
 - Esteban Carisimo - *Of Choices and Control – A Comparative Analysis of Government Hosting*

- Studying interconnection ecosystem in a given country (Romania),
 - <https://www.anisp.ro/en/blog/2020/02/03/the-competition-council-fines-net-city-telecom-for-abuse-of-a-dominant-position/>
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Links and References from discussions

Title/Description	URL/Location
NLnet Foundation funding	https://nlnet.nl/funding.html
NLnet Labs Rotonda	https://www.nlnetlabs.nl/projects/routing/rotonda/ https://github.com/nlnetLabs/rotonda
RouteViews data in BigQuery	https://github.com/routeviews/google-cloud-storage
"RPKI Time-of-Flight: Tracking Delays in the Management, Control, and Data Planes" paper	https://www.iijlab.net/en/members/romain/pdf/romain_pam23.pdf
RPKI Flutter parquet data	https://rd-www-1.ripe.net/rpki_flutter/daily/
RPKI Flutter Observable	https://observablehq.com/@emileaben/rpki-flutter-and-bgp
RPKI Flutter RIPE Meeting Slides	https://ripe89.ripe.net/wp-content/uploads/presentations/76-rpki-flutter-ripe-89-emileaben.pdf
RoVista paper	https://www.iijlab.net/en/members/romain/pdf/weitong_imc2023.pdf
Hoiho	https://hoiho.caida.org/
Anycast Census	https://github.com/anycast-census/anycast-census
TUM GINO	https://www.net.in.tum.de/projects/gino/
Internet History Initiative	https://internethistoryinitiative.org/
Switch DNS Resilience Dashboard	https://dns-resilience.openintel.nl/
Mattijs' Slides	https://mattermost.caida.org/external/pl/wp9kdnb5z7fj8n9gs8s9ntu8zh
OpenINTEL Zonestream	https://openintel.nl/zonestream/

