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United States

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Via Electronic Submission

Body of European Regulators for Electronic Communications (BEREC)
Zigfrīda Annas Meierovica bulvāris № 14, 2nd floor
LV-1050 Rīga
Republic of Latvia

Re: Public Consultation on Draft BEREC Guidelines on Implementation of Net Neutrality Rules

Dear Madam or Sir,

Measurement Lab (M-Lab) submits this letter in order to express its support for the Body of European Regulators for Electronic Communications (BEREC) in its efforts to promote public transparency on broadband access in its Guidelines on Implementation of Net Neutrality Rules,¹ released 6 June 2016. M-Lab is an international consortium of research, industry, and public interest partners dedicated to providing an ecosystem for the open, verifiable measurement of global Internet performance. Our experience as a partner to national regulatory agencies (NRAs) around the world, including in several European Union member states, has demonstrated that transparent and reproducible measurement of broadband access is critical to ensuring a healthy Internet that serves as an engine of innovation.

In Regulation (EU) 2015/2120, the European Parliament and the Council of the European Union emphasize that transparency and monitoring of compliance to the Net Neutrality Rules by member states constitutes a core component of safeguarding open Internet access. The Parliament and Council particularly focus on the essential role of measurement regimes provided by national regulatory authorities in ensuring that Internet users are able to effectively exercise their rights as consumers and make informed choices in a competitive market. One aspect of the transparency requirement is providing the public with mechanisms to monitor their own Internet access and seek remedies for non-compliance.

¹ Regarding Regulation (EU) 2015/2120,
http://berec.europa.eu/eng/document_register/subject_matter/berec/public_consultations/6075-draft-berec-guidelines-on-implementation-by-national-regulators-european-net-neutrality-rules

In its Draft Guidelines, BEREC further positions these recommendations within its previous reports on frameworks for monitoring network neutrality and the provision of Internet access services. Rather than explicitly establishing rules for monitoring mechanisms and their certification by NRAs, in its Draft Guidelines, BEREC instead encourages the public availability of measurement tools at no cost to the end-user, while reinforcing the best practices outlined under previous BoR documents. Critically, these mechanisms include monitoring of specialised services and discrimination of traffic based on application or destination, in addition the basic comparisons between actual and advertised speeds. M-Lab supports these initiatives and encourages their extension in line with the European Union’s regulatory and development mandates.

As BEREC demonstrates in its “Monitoring quality of Internet Access Services in the Context of Net Neutrality,”² and other BoR reports, in practice performance measurement is a complex field of ongoing development with continued research opportunities. In October 2014, Measurement Lab released a report entitled “ISP Interconnection and its Impact on Consumer Internet Performance,” the product of a two-year collaborative effort using our extensive measurement dataset to understand how interconnection arrangements impact end-user access in the United States.³ Through comparative analysis across the country, and amongst a diverse set of Internet access providers, we were able to demonstrate significant degradation in consumer broadband service over an extended period; degradation associated with disputes related to the business relationships between ISPs. This report, reinforced by subsequent M-Lab research, has since contributed to a stronger public discourse on the role of the business relationships at the core of the Internet, and has been cited in regulatory filings by a breadth of parties.⁴ Commercial disputes between network providers are not unique to the United States. European member states individually have already intervened in interconnection issues through regulatory reporting mechanisms and merger agreement conditions, and BEREC acknowledged the need of regulators to consider interconnection arrangements in its Draft Guidelines.

Performance measurements that provide data on the impact of congestion between access ISPs and other network providers promises to be the most thorough and scalable approach to interconnection transparency in the long term. In its final Guidelines, BEREC should explicitly encourage national regulators to include interconnection and other network segments in their measurement initiatives. Such a recommendation would incentivize NRAs to meaningfully increase their visibility into the diverse set of conditions that could potentially affect accessibility, rather than rely on testing mechanism that measure against a single location or infrastructure within the networks of last-mile providers.

M-Lab is committed to being a strong partner in these monitoring mechanisms. In the coming months, we will further increase our infrastructure footprint to cover multiple transit networks in significant

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http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/4602-monitoring-quality-of-internet-access-services-in-the-context-of-net-neutrality-berec-report

³ “ISP Interconnection and its Impact on Consumer Internet Performance,” Measurement Lab, http://www.measurementlab.net/static/observatory/M-Lab_Interconnection_Study_US.pdf

⁴ See: Letter of National Cable & Telecommunications Association in GN Docket No. 14-28. Page 3, January 21, 2015, <http://apps.fcc.gov/ecfs/document/view?id=60001014982>; Letter of COMPTTEL, Level 3, Cogent and Netflix in GN Docket No. 14-28. Page 3, January 13, 2015, <http://apps.fcc.gov/ecfs/comment/view?id=60001008405>

interconnection locations and population centers across the European Union. M-Lab's presence in diverse networks and geographies will bolster the ability of researchers and regulators to use our data to identify issues specific to a given market, and monitor the continued development of connectivity across and within Europe. Furthermore, M-Lab's infrastructure is provided through an open partnership program with network providers and regulators. The promotion of interconnection measurement will increase interest and participation in such initiatives, further supporting transparency on broadband accessibility and the creation of rich performance datasets.

M-Lab has partnered with academic institutions, private companies, and civil society organizations around the world in order to provide measurement tools in local languages and integrated in consumer applications. One initiative, MeasurementKit,⁵ hosted in the Nexa Center for Internet & Society at the Polytechnic University of Turin, builds on the experiences of the network neutrality measurement tool Neubot. MeasurementKit provides a library for device manufacturers and software developers to integrate open measurements tools into deployed applications and hardware. M-Lab has also developed consumer-facing tools, such as browser extensions and web portals to provide easy measurements in the browser and on mobile devices.⁶ One of these developments was recently cited as the monitoring mechanism of the Authority for Consumers and Markets in the Netherlands.⁷ Similar initiatives have been developed by NRAs themselves in Europe, such as in Greece and Cyprus. Despite differing self-interest, deployments and motivations, these efforts build toward a common dataset and increase the amount of performance information provided by European Internet users. All of these monitoring mechanisms and tools utilize the Network Diagnostic Tool (NDT), which as a result provides a perspective into consumer connectivity that is directly comparable across member states and against other competitive economies.

In order to ensure that the monitoring mechanisms offered by member states provide critical resources to the public and regulators in order to safeguard the open Internet, the final Guidelines on Implementation of Net Neutrality Rules should:

- promote the availability of easily-accessible, user-facing measurement tools for analyzing Internet access performance and network neutrality on mobile and wireline connections;
- encourage NRAs to adopt measurement mechanisms that provide openness and comparability across member states, to avoid piecemeal implementation of monitoring programs and in support regional analysis;
- include interconnection congestion and other sources of performance degradation relevant to end-to-end accessibility of broadband Internet users within monitoring mechanisms; and,
- support monitoring mechanisms that provide publicly-available datasets, open-source software and open methodologies.

Measurement Lab currently provides NRAs and consumers with a rich set of free and open tools to conduct independent assessments of broadband access using objective methodologies and tested platforms. As a result of its unique, collaborative model, M-Lab receives tens of thousands of

⁵ <https://measurement-kit.github.io/>

⁶ <https://speed.measurementlab.net>

⁷ <https://www.acm.nl/nl/publicaties/publicatie/16039/ACM-laait-consument-zijn-eigen-internetsnelheid-meten/>

measurements from Internet users in European countries on a daily basis. The Interconnection Study, and subsequent research, affirmed the strength of this open and collaborative approach to Internet performance monitoring. This research also proved that network management practices, traffic discrimination and congestion can be independently measured by third-parties and consumers, reducing opacity of such business arrangements. While we anticipate that BEREC will continue to provide NRAs with recommendations on monitoring framework beyond the implementation of the Net Neutrality Rules, the Guidelines currently offer an opportunity to further ensure rigorous measurement of broadband access through the promotion of principles of openness and comparability. Measurement Lab looks forward to supporting BEREC's monitoring mechanisms and evaluation of measurement tools, within the Guidelines and in anticipated further reports on measurement.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Collin Anderson', with a long horizontal flourish extending to the right.

Collin Anderson

Researcher, Measurement Lab