RIPE NCC Response to the European Commission's Proposed NIS 2 Directive

As an organisation tasked with operating one of the world's 13 global DNS root servers (K-root), the RIPE NCC appreciates the opportunity to share its views on the proposed text of the European Commission's NIS 2 Directive and to express some concerns about how we understand the proposed legislation would affect global domain name system (DNS) operations. We believe the directive, as proposed, could have unintended consequences due to overreach, that it risks reducing the resiliency of the global Internet, and that it would undermine the goal of the IANA stewardship transition by once again subjecting the DNS root zone distribution to government oversight.

Unintended consequences and overreach

Establishing regulatory oversight of root server operations within the EU may mean doing so for all 13 root servers, which are operated by 12 different organisations – not just those maintained by operators headquartered in Europe (i.e., Netnod and the RIPE NCC). There are instances of all 13 root servers in the European Union, including those operated by US government entities. We understand the directive would need to apply equally to all root server operators in order to avoid asymmetric regulatory oversight that would impose an unequal burden on some operators; however, it is unclear to us how the new directive is intended to apply to servers operated by a foreign government.

In particular, we see the potential for this extra-territorial regulatory oversight being reciprocated by other foreign governments, which would significantly complicate the operation of a fundamental component of the Internet's global infrastructure – infrastructure that has been extremely resilient, reliable and secure throughout the history of its operation under current conditions.

Reduced resiliency, reliability and security

In order to create the most widely distributed system possible, many root server operators host instances of their root servers with other network operators all over the world to protect against localised disruptions. In fact, only 26 out of the current total of the RIPE NCC's 74 K-root instances are hosted in EU member states. Of the 1,396 instances of all 13 root servers that exist across the globe, 212 are located in the European Union.[1]

The fact that the 12 root server operators globally distribute instances of their root servers is a key feature of the global domain name system, intended to maximise resiliency. The 12 operators are diverse and independent, with fundamentally different operational, funding and organisational models. The Internet will not be affected if one of the instances – or even many of

---

[1] https://root-servers.org/

the instances in a particular region or under any given operator's control – is disrupted or taken offline, as DNS requests will be automatically re-routed to the other available instances.[2]

Some root server operators, including the RIPE NCC, manage this core function of the DNS in a voluntary fashion and at their own expense for the greater good of the global Internet. However, the strict application of EU regulatory oversight on this system could reduce the system's diversity by introducing obligations on those operators currently offering services within the EU that are too burdensome to fulfil. Implementation of the proposed oversight likely translates to additional human resources, imposes severe financial penalties in the case of non-compliance, and includes significant legal implications in terms of organisational and managerial liability. If existing operators were to withdraw from the EU, the entire DNS would suffer as a result and would in fact become more susceptible to cyberattack and other security threats. This would make the domain name system less resilient, reliable and secure – the exact opposite of what the directive sets out to do.

Subjecting the DNS to government oversight

We also believe that subjecting the domain name system's functioning to government oversight goes against the 2016 IANA stewardship transition, when the US government's contract for the IANA functions expired and new agreements were established with representatives of the global, multistakeholder community.

The transition gave control of these core Internet functions to ICANN, which comprises the multistakeholder Internet community – including the world's governments – under a form of self-regulation that has provided the Internet with the means to expand, adapt and innovate since its conception.[3] We would urge the European Commission, Parliament and Council to work with the Internet community, including root server operators, to develop a regulatory approach that respects the spirit of the IANA transition and this model of multistakeholder self-regulation. The RIPE NCC is willing and able to facilitate this kind of knowledge sharing between policymakers and the RIPE community,[4] network operator groups and other technical stakeholders.

We've seen examples of other approaches to Internet governance that stifle the operation of an open, transparent and inclusive Internet. We believe that the more the EU moves away from an inclusive, bottom-up and multistakeholder approach to Internet governance, the less credibility it will have in upholding these European values on the global stage.

Removing the root server operators from NIS 2's scope

For all of the reasons above, we strongly urge the European Commission, Parliament and Council, as well as EU member states, to listen to the concerns of the DNS operator community regarding the far-reaching, unintended consequences that the current proposal would have on DNS operations in the EU. For our part, the RIPE NCC proposes that the root server operators should be exempt from the scope of the NIS 2 Directive.

---

[2] RSSAC Statement Concerning The Impact of the Unavailability of a Single Root Server: https://www.icann.org/en/system/files/files/rssac-021-statement-unavailability-single-root-server-08sep16-en.pdf
[3] Root Server System Governance Working Group (RSS GWG): https://community.icann.org/pages/viewpage.action?pageId=120820189
[4] https://www.ripe.net/participate/ripe