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CONTRIBUTION

Source:	Reseaux IP Européens Network Coordination Centre (RIPE NCC)
Title:	Response on review draft Recommendation Y.IPv6RefModel
Purpose:	Proposal
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Keywords:	IPv6 IoT Operations
Abstract:	Based on the outcome of a review of the current draft Recommendation Y.IPv6RefModel by the RIPE community between February and May 2018, the RIPE NCC is of the opinion that the current draft is sufficiently flawed that the Study Group should reconsider continuation of the Work Item.

Discussion

Earlier in this study period, the RIPE NCC, together with ARIN in Contribution SG20-C-169R1, argued that it is essential that development of Internet Number Resource Policies, including the development of any Best Practices or recommendations, should remain within the sole authority of the Regional Internet Registry (RIR) communities.

Failure to respect this could lead to inconsistencies in policy that could have operational implications and negatively impact the overall stability and resilience of the Internet and the networks.

The RIPE NCC has raised a number of issues with the proposed draft, both written and in discussion, stating that we believe it makes assumptions that are not based on operational experience, and highlighting where the proposed text is in conflict with existing RIR address policy or operational guidance documented by the RIR communities, the Internet Engineering Task Force (IETF) and the Internet Architecture Board (IAB).

Having heard these concerns, we welcomed the Study Group's decision to accept the invitation from the RIPE community to review the draft and provide its expert advice and operational feedback concerning the addressing model proposed and its use to the Internet technical community.

Considering the feedback collected and submitted via a reply to LS71, available to this meeting via SG20-TD879 and documented via the RIPE IPv6 Working Group archives[1][2], we believe that the

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[1] https://ripe76.ripe.net/archives/video/139
[2] https://www.ripe.net/ripe/mail/archives/ipv6-wg/2018-May/thread.html

issues raised in earlier discussions are illustrated and confirmed in the comments received from the network operator community.

Based on this review, we believe the Recommendation being developed under this work item is fundamentally flawed, and that:

- The draft recommendation is insufficient in its rationale regarding the operational benefit to network owners and operators;
- The proposed addressing plan incorporates mechanisms that rely on IPv4 and in suggesting these dependencies, it conflicts with the Internet community's advice to prepare for IPv6-only network environments;
- The draft recommendation does not provide evidence that the proposed addressing structure and mechanisms can be implemented in Internet networks;
- Implementing the suggested addressing model could accelerate the depletion of the IPv6 address space;
- The draft recommendation lacks a clear consideration and discussion of the security implications for networks that implement the proposed addressing model

Proposal

Based on the feedback received from the operator and RIR communities, the Regional Internet Registries themselves and interventions made by other participants in this Study Group, we propose to reconsider this work item and, in particular, the development of draft Recommendation Y.IPv6RefModel.

The RIPE NCC proposes to cease the development of Y.IPv6RefModel. We instead recommend that Member States and Sector Members consult with the Regional Internet Registries and/or network operator communities regarding advice on IPv6 addressing plans and deployment of IPv6 (including Internet-of-Things networks).

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