ITU Study Group 20

Update on IPv6 work items

Marco Hogewoning I IPv6 WG, RIPE 78 I 23 May 2019

Brief History

- ITU Study Group 20 was established in 2015, to study the "Internet of things (IoT) and smart cities and communities (SC&C)"

- Shortly after, in January 2016, started work on IPv6:

  - "Reference Model of IPv6 Addressing Plan for Internet of Things Deployment by Smart Cities, Public Administrations and Companies" (Y.IPv6RefModel)

  - "Reference Model of Protocol Suite for IPV6 Interoperable Internet of Things Deployments" (Y.IPv6-suite)

  - "IPv6 Potential for the Internet of Things and Smart Cities" (Y.IPv6-IoT Supp)

- Several member states and sector members objected

Interactions with the RIPE NCC

- Between August and October 2016, liaison statements were exchanged with the RIPE NCC

  - Answered Study Group 20 was not the appropriate venue for this work

- Participated in meeting March 2017, SG20 reorganised its work

  - Only discussion was where these work items would sit; some argued "security"

- Contribution in September 2017 with ARIN

  - "This work does not belong in ITU, Study Group 20 lacks expertise"

  - "Only appropriate venues are RIR and network operator communities"

  - Questions where draft text and updates come from, beyond editorial changes

Interactions with the RIPE community

- Established that SG20 did not have experience and expertise

  - Coordinated with IPv6 Working Group Chairs on offering assistance

- In January 2018 invited the Study Group to come to RIPE 76 meeting and community experts to review Y.IPv6RefModel draft

  - Invitation accepted and somewhat surprisingly the draft text sent for review

- Review took place overlapping the SG20 meeting in May 2018

  - IEEE send contribution regarding copyright issues with draft

  - Document describing theoretical deployment by Beijing university (BUPT)

  - Proponent did not attend, nothing happened

Discussions to Infinity

- RIPE community review was clear on document quality

  - Raised a lot of fundamental issues with the proposed model

  - Results of review communicated via liaison statement in July 2018

- Review tabled for December 2018 meeting in Wuxi

  - Contributions from RIPE NCC, ARIN, United States

    - "Review indicates the issues we raised before, stop this for lack of expertise"

    - Backed on floor by Canada, United Kingdom, Germany and GSMA

  - Proponents refiled the BUPT proof of concept

- No consensus to stop work item, escalated to closing plenary

The Endgame

- Closing Wuxi, the SG20 chairman proposed the following:

  - Have the item exist for one more meeting, inviting people to move it forward

  - Contributions on new text should address the issues raised by the RIPE community

  - If no new text agreed, work item should close

- Meeting in Geneva, April 2019

  - No contributions to update text and address the long list of issues

  - Both RIPE NCC and ARIN again proposed to abandon work

- Meeting finally reached consensus to stop Y.IPv6RefModel

  - With reference to previous agreement in Wuxi, little discussion

Looking Forward

- The big ticket item is done, no more work on IoT addressing plan

- But the problem hasn't gone away

  - IPv6 deployment is picking up, but remains low especially in IoT space

  - Still a lot of need for capacity building and guidance on deployment

  - Several WTSA, WTDC and Plenipot resolutions that instruct ITU to look into IPv6

- A number of other Study Groups are working on IPv6

  - We need to keep monitoring and helping them where we can

- Development sector also picking up on IPv6 training

On a Final Note

"The United States thanks the RIPE community for its review in the liaison statement TD 879."

Contribution SG20-C471, Wuxi , China 3-13 December 2018

Questions ?

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