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TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 2013-2016

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Source:	ITU-T SG20
Title:	LS on joint collaboration between ITU-T Study Group 20 and RIPE NCC on IPv6 related Work Items

LIAISON STATEMENT

For action to:	RIPE NCC
For comment to:	-
For information to:	JCA-IoT and SC&C
Approval:	ITU-T Study Group 20 meeting (Geneva, 5 August 2016)
Deadline:	15 October 2016

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ITU-T Study Group 20 would like to invite RIPE NCC to actively contribute to several Work Items related to the Internet of Things. More specifically, ITU-T Study Group 20, in its Question 1, is currently working on three IPv6-related Work Items:

- A supplement on "IPv6 Potential for the Internet of Things and Smart Cities", which intends to collect information and analyse the impact of IPv6 on IoT and smart cities and communities in line with the ITU-T SG20 mandate. It intends to identify relevant use cases and information of IPv6 use and to develop practical suggestions on exploitation of IPv6 where relevant. Other potential Recommendations may include suggestions on ITU guidance for IPv6 certification programmes for IoT to enable worldwide verifiable quality and conformance tests for IoT protocol interoperability.

- A draft Recommendation on a "Reference Model of IPv6 Subnet Addressing Plan for Internet of Things Deployment", which will provide guidance and a reference model for IPv6 Subnet addressing plan for Internet of Things deployment, in order to ease the deployment, management and evolution of networks for the Internet of Things. This Work Item is focused on the segment of the IPv6 address managed by final users, and is neither interfering with the Global Routing Prefix allocation managed by RIRs and ISPs, nor with the Interface Identifier.

- A draft Recommendation on a Reference Model of Protocol Suite for IPV6 interoperable Internet of Things Deployments. The Internet transition towards IPv6 is accelerating with a direct impact on many IoT-related standards and is de facto impacting the whole Internet architecture with a larger and larger availability. IPv6 provides very high addressing capacity potentially enabling to provide unique address to each and every Internet of Things device. In parallel, it appears that several emerging Internet of Things standards are converging towards IPv6 for their network layer. However, the layers above and below the networking layer are still highly heterogeneous, leading to reduced interoperability. The proposed Recommendation will analyse and propose a reference IPv6-compliant protocol pile for the IoT.

Q1/20 intends to develop its work related to IPv6 in close cooperation with the IETF, the IPv6 Forum, ISOC, ETSI and other relevant stakeholders and academic partners working on IPv6-based Internet of Things deployment.

ITU-T Study Group 20 would like to invite RIPE NCC to share and submit any relevant information and document on the above mentioned work items, including more specifically:

- Examples, models and use cases of IPv6 subnet addressing plans encompassing the Internet of Things;

- Any suggestion on IPv6 subnet addressing plan design;

- Information and documents on IPv6-compliant communication protocols and standards for the Internet of Things;

We would appreciate very much receiving such inputs by 15 October 2016.

ITU-T SG20 looks forward to cooperating with RIPE NCC and benefitting from its expertise in this domain.

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