Note: Travel support is provided to enable you to attend RSSAC meetings and expand your knowledge base so that your technical expertise can contribute to output from the RSSAC Caucus. After the RSSAC Admin Team's review, this report will be posted on the RSSAC Caucus repository wiki page (https://community.icann.org/display/RSSAC/Caucus) for transparency purposes.

Name: Rao Naveed Bin Rais
Trip: 116th IETF Meeting, Yokohama, Japan
Trip Dates: March 25 – March 31, 2023

Report Date: April 27, 2023

1. Describe the purpose(s) and outcome(s) of the trip.

Being an academic who is doing research in the field of Internet Architectures and Protocols, Naming and Addressing, I always look for the developments and progress of work being done at forums such as IETF. One of the objectives of the trip was to approach and meet people to identify the common interest for collaborative work. I have already attended a few IETF meetings and I am a member of a number of IETF WGs and RGs. I was particular interested in the developments made in the area of DNS, ICN, IPv6 and IoT.

2. Describe the details of your attendance and activities, including sessions attended, presentations given, documents you may be working on, or other specific contributions (DNS and RSS related sessions in particular).

During the meeting, I have attended a number of sessions. Some notable sessions that I attended include, RSSAC Caucus meeting, ICNRG, ICCRG, COINRG, QIRG, ROLL, KEYTRANS, LISP, SUIT, IOTOPS, BFP, CBOR, ADD, DNSOP, DNSSD, 6LO and VCON. There were a number of interesting discussions around DNS, security, and IOT. Besides, I have had a number of individual face-to-face meetings with attendees, especially from the participants of dnsop and 6lo. Recently, one of our drafts that we earlier presented in 6lo wg got expired. The draft is related to the use of ipv6 with wireless body area networks (WBAN). I engaged with active and interested attendees including chairs of 6lo wg to revive the draft with contemporary work.

There was an interesting draft on DNSSEC which allows generating a signed DNS response for a name that is non-existent in the DNS domain by portraying that the name exists but has to data associated to it so that the overall response does not get failed. Another interesting discussion is related to proposing verification techniques for DNS and making them standardized. Moreover, there is an active draft presented in dsnop group that is related to structuring the dns filtering response and allows the end user to get more information about the nature of the filtering applied.

On the end of IOT and IPv6, there are some interesting work ongoing at IETF specifically related to path-aware semantic addressing and multi-casting over low power and losing networks. On the other hand, one of my research areas include Information Centric Networking. So, I engaged with a number of participants of ICNRG to get to know of the opportunities for further collaboration on ICN/CCN, specifically related to naming and addressing issues.

3. Explain specific plans for follow-up activities in the RSSAC Caucus to enhance and continue the impact of the trip.

I thank RSSAC to provide the opportunity to attend the IETF meeting in person. It helped me a lot in catching up with our draft work which was pending for quite some time. I believe that participation by RSSAC Caucus members to the technical forums such as IETF is very important for the capacity building of the Caucus and will allow active participation of the member to the RSSAC activities. As such, I didn't find any direct discussion on the root server activities but the discussions around the DNS, its security and stability and advancement in DNS technology has an indirect relevance to the RSSAC, and will help members get in touch with the latest developments and make relevant connections and collaborations in the technical community.