**FS\_UAS\_ID**

Rapporteur Minutes of CC

3GPP Folder: <https://www.3gpp.org/ftp/Email_Discussions/SA2/FS_UAS_ID/Jul.30%20FS_UAS_ID%20Pre%20SA2%23140E%20CC>

Attendees:

China Mobile, Oppo, DT, Huawei, Samsung, Vodafone, Motorola/Lenovo Mobility, Interdigital, Nokia, AT&T, LG, Qualcomm, Airbus, ZTE, Ericsson, Futurewei, FirstNet, Spirent, Perspecta Labs, Orange, Charter, Sandvine, BT, Tencent, Matrixx, Telecom Italia, Sharp

Notes:

As the rapporteur, I must remind people to follow the 3GPP styles in editing their P-CRs, most documents DO NOT follow the mandated styles and require a lot of editing. The rapporteur can fix some mistakes, but authors should not skimp their responsibilities in writing the papers just because there is a rapporteur fixing papers, please.

Please find below the notes from the call:

1. Nokia, “Updates to Architectural Assumptions”
   1. Qualcomm accepts that we should focus on the scenario when UAVs only use cellular radio for PDU session connectivity, but why shouldn’t a networked UAVC be able to connect via n3GPP to the system?
   2. Oppo suggests waiting for further discussion in SA1 before deleting the assumptions
   3. Oppo indicates the added text on the use of External ID is part of solutions and should not be in the assumptions section
   4. Interdigital replies to Oppo indicating the deletion is OK and not related to the actual discussion in SA1
   5. Motorola asks whether the statement on being served by the same USS/UTM means a single UTM is used?
   6. Futurewei supports the same point and indicates it is OK to allow removal of UAV from UAS.
2. Nokia, “Updates to Reference Architecture”
   1. Qualcomm indicates the first change is OK, whereas the second one is not since Network Remote ID is only between the UAV and the USS, never to TPAE
   2. Futurewei supports the same point
3. Huawei, “Arch Update: Clarification on UAS concept”
   1. Qualcomm suggested to clarify that the changes refer to a Networked UAVC, not a non-networked UAVC
   2. Samsung expressed concerns with the third bullet
   3. Interdigital: why if the UAVC is not actively controlling the UAV it should be included in the UAS?
   4. Overall various concerns were expressed as to the meaning of “pairing being known to the 4G system”, it was suggested to explain what the 5GS is aware of and why
4. Oppo, “Update to Solution 10”
   1. Unclear what happens if the MME changes, does the new MME perform the check again?
   2. Does the AMF need to verify every time?
   3. Qualcomm asked to describe why it is OK to perform the interaction with external servers during the registration wrt impact on MM timers, given for NSSAA it was decided to avoid the impact
   4. Nokia asked what is the assumption wrt the MNO and USS relationship, given it assumes AMF is aware of the USS
5. Oppo, “KI#4, Solution 13 update”
   1. TMO asked to identify the additional functionality wrt NEF, this should apply to all solutions that extend or use the NEF functionality
   2. Huawei asked to clarify the issue of mismatch
6. Oppo, “KI#4, Merge of Solution 13, 14, 15,16”
   1. Qualcomm asked why not having the USS subscribe to UAV location and notification and implement the logic in USS
   2. Qualcomm asked if the two models are mutually exclusive
   3. Nokia: are steps 1/4/6/10 defined by 3GPP and via NEF?
   4. Nokia indicates that leaving more determination to be performed by the 3GPP system minimizes impact on 3GPP system, since it reduces the need for precise location determination (i.e. this is done only when it is needed by the 3GPP system)
   5. Huawei asked to clarify how KI#7 is solved
   6. Futurewei asked if the UAVF is similar to the UFES of other proposals
7. Huawei, “Sol#5 Update: Merging existing Sol#6, Sol#7 and Sol#8 into Sol#5”
   1. Motorola expressed concerns on having USS provide “input” on PDU session handling, should not require USS to be aware of PDU sessions
   2. Oppo asked if this is indeed directly from USS to SMF
   3. Oppo asks for clearifications on behaviour in case of unsuccessful authorization, how is UAV informed of this to avoid UAV retrying
   4. Oppo asked if this is done in the same way in case of EAP
   5. Interdigital notes that the EPS part is missing
8. Motorola/Lenovo Mobility,
   1. Several companies indicated it should be calrified whether this is secondary authentication/authorization and how it is used
   2. Oppo clarified we need to define how failure is communicated, and what simplifies the UAV configuration
   3. Vodafone indicates it may be reasonable to use EAP, but then it needs to be added in EPS also, and consider the PGW is mostly in HPLMN even if UAV is roaming and USS would be in VPLMN country. It was noted Nokia has a solution to address that
   4. Qualcomm suggested we should keep both options and gain feedback from the aviation community, do USS providers want to act as a Diameter AA server?
9. Interdigital, “Update to Solution #5: UAV authentication and authorization by USS/UTM based on NAS supplementary and secondary authentication and authorization procedures”
   1. Qualcomm asked how it would work if the UAV does not know which DNN is dedicated to UAV services, how is the modified meaning of Pending UUAA applicable then?
   2. Oppo asked to clarify what it means to “disable UAV related functionality of device”
   3. Futurewei expressed concerns with re-using connectivity for UAS services if the pairing fails
10. Nokia, “Updates to Solution #3, USS/UTM Discovery”
    1. Oppo asks if this means that the USS does not need to maintain anymore the mapping between the CAA-level UAV ID and the 3GPP UAV ID
    2. Oppo also suggests we might want to verify with the USS community if it is a valid assumption that the USS address is known to the UAV and configured in the UAV
    3. Qualcomm responds to Oppo that the model where an external application function/server uses the GPSI (in this case the 3GPP UAV ID) to use MNO services exposed externally has been set in stone for a long while and adopted by any vertical taking advantage of the service exposure.
11. Interdigital, “Update to Solution #21: Connectivity setup for C2 communication and association between UAV and UAV-C”
    1. Oppo asked if the network can change from UAV3 to UAV9 and why, asking to provide a better justification for the use case
12. Interdigital, “Update to Solution #16”
    1. Oppo indicates they see the point of the changes
    2. Qualcomm suggests we ask to the aviation community more details on how to use the 3GPP UAV ID
13. Huawei, “PDU Sessions and QoS flows”
    1. Nokia indicates that separate PDU sessions allow stricter access control to be performed at IP level
    2. TMO indicates having multiple PDU session is OK
    3. Vodafone indicates we must allow mapping of applications to multiple APNs in case of EPS (in the UE), and we must identify if this would work with legacy devices in the UAV
14. Nokia, “New solution: UAV and networked UAVC identification, authentication/authorization and C2 communication link establishment”
    1. Nokia presented slides summarizing the solution with no time left for questions

The call closed at 8:01AM PT.