**Source: SA4 SQ SWG Chair[[1]](#footnote-1)**

**Title: 3GPP SA4 SQ SWG report from teleconference on HInT (8 October 2021)**

**Document for: Agreement**

**Agenda item: 3**

**Executive summary**

The meeting (5 participants, ½ hour) covered one input Tdoc on HInT in S4aQ210168 (let alone the agenda in S4aQ210167). This input Tdoc, which is an update of the dCR to 26.132 including a proposal of a new Annex G with Bluetooth transparency tests, has been discussed and noted. The plan is to review this proposal again in the next SQ SWG telco on HInT scheduled on October 29, 2021.

**A.I. 1 Approval of Agenda and Tdoc allocation**

|  |  |  |
| --- | --- | --- |
| [**S4aQ210167**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/3GPP_SA4_AHOC_MTGs/SA4_SQ/Docs/S4aQ210167.zip) | Proposed agenda for SQ SWG teleconference on HInT (8 October 2021) | SA4 SQ SWG Chair |

**Presenter:** Stéphane

**Comments / questions:**

None.

**Decision:**

S4aQ210167 is approved.

**A.I. 4.2 HInT**

|  |  |  |
| --- | --- | --- |
| [**S4aQ210168**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/3GPP_SA4_AHOC_MTGs/SA4_SQ/Docs/S4aQ210168.zip) | DraftCR TS26.132 (update) + Proposal for "transparency check" | HEAD acoustics GmbH |

**Presenter:** Jan

Following updates:

* In cover page, highlighted one big change: propose a new Annex G
* No update in change 1 except reference to Bluetooth SI
* clause 4.4 was a bit edited in last meeting, put in brackets the sentence regarding amount of electrical interfaces, certain UEs may have more than one, it’s not like in handset or handsfree, have to address either one analog and one digital, have to check offline
* Clause 5.1.6.1: introduced last time, USB-C vs analog, USB-C can be used as wired analog, it was asked to put this statement in brackets
* For digital connection, unchanged except part on signal processing priority, connect passive headset, in some digital headsets via Bluetooth, there may be more inputs microphones, if device wants to do signal processing it can signal this in the Bluetooth connection, avoid tandem signal processing, or bad signals are transmitted in the network, it’s not covered by the specification, looking at “non-performance” of device, different from classical performance test, so propose new test in Annex G inspired from P.383, with transparency tests, proposed tests are coming from P.383
* Next clauses are unchanged
* Annex G is in brackets, transparency test only applies for Bluetooth, see AT command shall be executed from reference to DUT. First test is presence of noise reduction – it is simple: a pink noise is proposed to be inserted in send path, idea is range of attenuation shall be less than 4 dB. Second test is presence of echo cancellation, similar to acoustic echo testing, use again the artificial echo path and introduce a loss (20 dB), add a delay of 20 ms in ITU-T, not convinced, acoustic echo has less than 1 ms of delay

**Comments / questions:**

Stéphane: a minor comment on the cover page: the change mark for Annex G has to be removed in the next version, regarding the new reference to Bluetooth, one may note that there are now different Bluetooth specifications (LE Audio and Classic Audio) and at some point one may even get support for SWB/FB with the LC3 codec, so it would be important to specify the version number for the HP profile

Jan: good to have a comment, have to specify the version, the current version of HFP covers NB and WB, LC3 is not possible, it should be possible in near future

Stéphane: the extra information in the reference would make 26.132 future proof.

Any other comment?

Fabrice: thanks for presentation, quick comment about new Annex G, understand purpose just wondering if not adding too much test in this specification, already quite long, is it relevant to have this in this spec, quite different from other tests, start to assess a small part, wondering if necessary, not against if everybody agrees, perhaps not so relevant

Jan: had longer discussions internally, it belongs here because it affects the quality of signal from and to network, as introduced before all tests introduced in HInT are conducted with signal processing in device on, so that it behaves like handset, handsfree, headset cases... I would not care about active BT device because we make a link before in 5.1.6.2, with a reference to P.383, we can do them but it would not be necessary. Since the most popular or common method to connect a headset is typically Bluetooth it is quite relevant and a lot of headsets are using these commands because they apply signal processing, so that is relevant part. We do not have an overview of which type of headsets are used all over world but the amount of more powerful Bluetooth devices is increasing. I propose at least to have these two measurements, the first one is 20 s long with no calculation time, the other is about 35s long, it is just 2 additional measurements to get a lot of things clarified. If devices passes these two, there is no issue for this configuration and we can do performance tests. The overhead is ok and it is a fair compromise when looking at P.383, there are more you could do, I think it’s a fair overhead to add.

Fabrice: ok to us, aim to test end to end path, we are not against if group agrees, perhaps it is a bit too much, this is a Bluetooth command, we are wondering if this is necessary. If you noticed issues, we can make sure that this is not happening.

Jan: a lot of devices simply do not care about commands here, using the first flag and ignoring the second one, that’s the main purpose behind P.383, to do a quick check that there is not signal processing active.

Stéphane: could make these transparency explicitly conditional to testing with Bluetooth, so that this pre-test is not done when other electrical interfaces are tested?

Jan: this is only for Bluetooth

Stéphane: any other comment?

**Answer: No**

Stéphane: this document was submitted for discussion, any proposed conclusion?

Jan: can note it, there is another call on HInT, we wanted to introduce the proposal here.

**Decision:**

S4aQ210168 is noted.

**A.I. 5 Review of the future work plan**

Stéphane: Recall that the next AH telco will take place on the October 11 on HaNTE and October 29 on HInT again.

**A.I. 6 Close of the session**

The SQ Chair thanked HEAD acoustics for hosting the meeting and submitting the input on HInT and all delegates for their participation. The meeting was closed at 16:30 CEST.

**Annex A – Meeting agenda**

**Source: SA4 SQ SWG Chair[[2]](#footnote-2)**

**Title: Proposed agenda for SQ SWG teleconference on HInT (8 October 2021)**

**Document for: Approval**

**Agenda item: 1**

**Agenda for this telco (keeping only relevant items from the unique agenda for 3GPP SA4 AH telcos post-115e):**

|  |  |  |
| --- | --- | --- |
| 1 | Approval of Agenda | S4aQ200167app |
| 3 | Reports /Liaison if any, postponed from the formal preceding SA4 meeting |  |
| 4.2 | HInT | S4aQ200168n (dCR 26.132 + transparency tests, HEAD acoustics) |
| 5 | Any other Business |  |
| 6 | Review of the future work plan |  |
| 7 | Close of the session |  |

**Legend for Tdocs:**

* **Color: not-yet processed**, **processed**, **late**, **~~withdrawn~~**, **moved to a different A.I.**, **under email agreement**
* a agreed, app approved, n noted, pa partially agreed, np not pursued, pp postponed…

**Unique agenda for AH telcos post-115e (for information):**

|  |  |
| --- | --- |
| 1 | Approval of Agenda |
| 2 | IPR and Anti Trust Reminder |
| 3 | Reports /Liaison if any, postponed from the formal preceding SA4 meeting |
| 4 | List of Work Items for submission of Contributions in the current meeting |
| 4.1 | ITT4RT |
| 4.2 | HInT |
| 4.3 | 8K\_VR\_5G |
| 4.4 | FS\_XRTraffic |
| 4.5 | FS\_VR\_CoGui |
| 4.6 | FS\_5GVideo |
| 4.7 | FS\_FLUS\_NBMP |
| 4.8 | FS\_5GSTAR |
| 4.9 | FS\_5GMS\_EXT |
| 4.10 | FS\_NPN4AVProd |
| 4.11 | TEI17 and any other Rel-17 matter |
| 5 | Any other Business |
| 6 | Review of the future work plan |
| 7 | Close of the session |

**Annex B – List of participants**

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| Apple - Fabrice Plante |
| HEAD acoustics - Jan Reimes |
| Huawei Technologies – Huan-Yu Su |
| Orange - Alain Curti |
| Orange - Stéphane Ragot |

**Annex C - Documents status**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tdoc | Title | Source(s) | Agenda Item(s) | Status |
| [**S4aQ210167**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/3GPP_SA4_AHOC_MTGs/SA4_SQ/Docs/S4aQ210167.zip) | Proposed agenda for SQ SWG teleconference on HInT (8 October 2021) | SA4 SQ SWG Chair | 1 | Approved |
| [**S4aQ210168**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/3GPP_SA4_AHOC_MTGs/SA4_SQ/Docs/S4aQ210168.zip) | DraftCR TS26.132 (update) + Proposal for "transparency check" | HEAD acoustics GmbH | 4.2 | Noted |

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