**Source: MTSI SWG Chairman**[[1]](#footnote-0)

**Title: MTSI SWG Report during SA4#113-e**

## Document for: Approval

## Agenda Item: 14.3

Executive summary

The 3GPP SA4 MTSI SWG met for <five> telco sessions during SA4#113-e, and handled the other documents via the MTSI\_SWG email reflector.

A total of <56> delegates participated while <40> Tdocs were discussed with SWG-status concluded for <37> Tdocs. Below is a summary of what was agreed during this meeting.

Maintenance

ITT4RT

FS\_FLUS\_NBMP

**The output documents from the MTSI SWG sessions are:**

|  |  |  |
| --- | --- | --- |
| 14 | Reports and general issues from sub-working-groups |  |
| 14.3 | MTSI SWG |  |
| 15 | CRs to features in Release 16 and earlier |  |
| 16 | Release 17 Features |  |
| 16.2 | ITT4RT (Support of Immersive Teleconferencing and Telepresence for Remote Terminals) |  |
| 18 | Study Items |  |
| 18.6 | FS\_FLUS\_NBMP (Feasibility Study on the use of NBMP in E\_FLUS) |  |

**Agreed in MTSI SWG**

**No status in MTSI SWG**

SWG Minutes during SA4#113-e

## 12.1 Opening of the session

Mr. Nikolai Leung (Qualcomm, Chairman of MTSI SWG) opened the e-meeting sessions on April 6th, and the Telco sessions at 7:05 CEST on April 7th.

The minutes are shared online here:

<https://docs.google.com/document/d/1NuTs8haYCoZbchvW5OT3wlEUgNZHaa2CxcGaYJPG5H0/edit?usp=sharing>

Bo Burman, Charles Lo, and Iraj Sodagar agreed to serve as the acting secretaries for the meeting.

**Draft Schedule for the Telcos (see new SA4 schedule in S4-210550):**

**Wednesday April 7th:**

12.1 Opening of the session

12.2 Registration of documents

12.3 Reports and liaisons from other groups

12.4 CRs to Features in Release 16 and earlier: 514

12.5 ITT4RT Demo, VDP: 490, 430, 533, 535, 536

**Thursday April 8th:**

12.5 ITT4RT Overlays and multiple 360 video: 491, 532, 538, 506, 560,

**Friday April 9th:**

12.5 ITT4RT Audio (invite EVS SWG members to discuss **534**), correction to fisheye: 507, 534

**Monday April 12th:**

12.5 ITT4RT TimePlan, Wash-up: 576, 541

12.6 FS\_FLUS\_NBMP: 480, 481

**Tuesday April 13th:**

12.6 FS\_FLUS\_NBMP Wash-up

12.5 ITT4RT Wash-up: 540

12.9 Any Other Business

12.10 Close of the session

## 12.2 Registration of documents

The following documents were registered before the meeting:

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| 12 | Multimedia Telephony Service for IMS (MTSI) SWG | - |  |
| 12.1 | Opening of the session | A |  |
| 12.2 | Registration of documents | A |  |
| 12.3 | Reports and liaisons from other groups | A |  |
| 12.4 | CRs to Features in Release 16 and earlier | A | 514 |
| 12.5 | ITT4RT (Support of Immersive Teleconferencing and Telepresence for Remote Terminals) | A | 430, 533,  490, 491, 506, 507, 532, 534, 535, 536, 538, 560, 576 |
| 12.6 | FS\_FLUS\_NBMP (Feasibility Study on the use of NBMP in E\_FLUS) | B | 480, 481 |
| 12.7 | Others including TEI | B |  |
| 12.8 | New Work / New Work Items and Study Items | B |  |
| 12.9 | Any Other Business | B |  |
| 12.10 | Close of the session | B |  |

The agenda and registration of Tdocs was approved.

## 12.3 Reports and liaisons from other groups

## 12.4 CRs to Features in Release 16 and earlier

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| [**S4-210514**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210514.zip) | Updates on data channel in TS 26.114 | Samsung Electronics Co., Ltd., Ericsson LM |

No comments received via email.

Document is agreed but will only be made into a formal CR at SA4#114-e since there is no SA plenary until after that meeting.

## 12.5 ITT4RT (Support of Immersive Teleconferencing and Telepresence for Remote Terminals)

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| [**S4-210430**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210430.zip) | ITT4RT draft CR 26.114 on Viewport-dependent delivery | Nokia Corporation | **7-Apr** | 6:00 |

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| [**Re: [12.5, S4-210430, Block A, 7-Apr 6:00 CEST] ITT4RT draft CR 26.114 on Viewport-dependent delivery**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=9593) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Wed, 7 Apr 2021 01:06:22 +0000 | 197 lines |
| [**Re: [12.5, S4-210430, Block A, 7-Apr 6:00 CEST] ITT4RT draft CR 26.114 on Viewport-dependent delivery**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=20849) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Wed, 7 Apr 2021 05:03:08 +0000 | 277 line |
| [**Re: [12.5, S4-210430, Block A, 7-Apr 6:00 CEST] ITT4RT draft CR 26.114 on Viewport-dependent delivery**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=25095) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Wed, 7 Apr 2021 15:33:15 +0000 | 293 lines |
| [**Re: [12.5, S4-210430, Block A, 7-Apr 6:00 CEST] ITT4RT draft CR 26.114 on Viewport-dependent delivery**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=10099) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Thu, 8 Apr 2021 02:39:39 +0000 | 357 lines |
| [**Re: [12.5, S4-210430, Block A, 7-Apr 6:00 CEST] ITT4RT draft CR 26.114 on Viewport-dependent delivery**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=12123) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Thu, 8 Apr 2021 04:52:58 +0000 | 412 lines |
| [**Re: [12.5, S4-210430, Block A, 7-Apr 6:00 CEST] ITT4RT draft CR 26.114 on Viewport-dependent delivery**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=15237) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Thu, 8 Apr 2021 07:49:13 +0000 | 473 lines |
| [**Re: [12.5, S4-210430, Block A, 7-Apr 6:00 CEST] ITT4RT draft CR 26.114 on Viewport-dependent delivery**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=17762) | Nikolai Leung <nleung@QTI.QUALCOMM.COM> | Thu, 8 Apr 2021 16:45:00 +0000 | 529 lines |

Presenter: Saba Ahsan, Nokia.

* Saba: The parts questioned by Imed’s mail are in brackets here and are updated by #535.
* Imed: Not happy with having RTP HE and margins mentioned here.
* Saba: This is a template for future work. We should have text on margins since we use them, but this text is in brackets and indicates we will add text on margins.
* Imed: When we have an agreement, we can add text.
* Saba: I’ll put the text in the Editor’s note somewhere in the document.

Decision: Postponed, will continue discussion offline/via email.

On email the document was revised into #548

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| [**S4-210548**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210548.zip) | ITT4RT draft CR 26.114 on Viewport-dependent delivery | Nokia Corporation |

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| [**S4-210490**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210490.zip) | ITT4RT Demo (360 Room & Remote User) | KPN N.V. | **7-Apr** | 6:00 |

Noted via email.

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| [**S4-210533**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210533.zip) | Update to: Bitstream Structure for ITT4RT | Tencent | **7-Apr** | 6:00 |

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| [**Re: [12.5, S4-210533, Block A, 7-Apr 6:00 CEST] Update to: Bitstream Structure for ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=6002) | Bo Burman <bo.burman@ERICSSON.COM> | Tue, 6 Apr 2021 20:47:04 +0000 | 384 lines |
| [**Re: [12.5, S4-210533, Block A, 7-Apr 6:00 CEST] Update to: Bitstream Structure for ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=11365) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Wed, 7 Apr 2021 02:00:56 +0000 | 180 lines |

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| [**Re: [12.5, S4-210533, Block A, 7-Apr 6:00 CEST] Update to: Bitstream Structure for ITT4RT(Internet mail)**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=6731) | rabhishek(RohitAbhishek) <rabhishek@TENCENT.COM> | Tue, 6 Apr 2021 22:41:46 +0000 | 282 lines |
| [**Re: [12.5, S4-210533, Block A, 7-Apr 6:00 CEST] Update to: Bitstream Structure for ITT4RT(Internet mail)**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=7817) | Curcio, Igor (Nokia - FI/Tampere) <igor.curcio@NOKIA.COM> | Tue, 6 Apr 2021 23:03:23 +0000 | 408 lines |
| [**Re: [12.5, S4-210533, Block A, 7-Apr 6:00 CEST] Update to: Bitstream Structure for ITT4RT(Internet mail)**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=8689) | rabhishek(RohitAbhishek) <rabhishek@TENCENT.COM> | Wed, 7 Apr 2021 00:17:50 +0000 | 538 lines |
| [**Re: [12.5, S4-210533, Block A, 7-Apr 6:00 CEST] Update to: Bitstream Structure for ITT4RT(Internet mail)**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=10450) | rabhishek(RohitAbhishek) <rabhishek@TENCENT.COM> | Wed, 7 Apr 2021 01:07:04 +0000 | 534 lines |
| [**Re: [12.5, S4-210533, Block A, 7-Apr 6:00 CEST] Update to: Bitstream Structure for ITT4RT(Internet mail)**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=16112) | rabhishek(RohitAbhishek) <rabhishek@TENCENT.COM> | Wed, 7 Apr 2021 03:07:49 +0000 | 253 lines |

Presenter: Rohit Abhishek, Tencent.

* Imed: Can we make sure in an update that the alternatives are balanced in terms of amount of description?
* Rohit: Do you agree on the editor’s note?
* Imed: Don’t want to agree.
* Iraj: Who should provide that balanced text? Imed, can you provide that text?
* Imed: OK.
* Igor: Willing to review alternatives.

Decision: Revised to #542.

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| [**S4-210542**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210542.zip) | Update to: Bitstream Structure for ITT4RT | Tencent, Qualcomm Incorporated |

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| [**Revised document in 542**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=29717) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Wed, 7 Apr 2021 19:05:49 +0000 | 100 lines |
| [**Re: Revised document in 542**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=31791) | Iraj Sodagar <irajs@LIVE.COM> | Wed, 7 Apr 2021 21:13:13 +0000 | 139 lines |

Presenter:

Discussion:

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Decision:

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| [**S4-210535**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210535.zip) | Proposed changes to draft CR on viewport dependent processing | Nokia Corporation | **7-Apr** | 6:00 |

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| [**Re: [12.5, S4-210535, Block A, 7-Apr 6:00 CEST] Proposed changes to draft CR on viewport dependent processing**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=12063) | Iraj Sodagar <irajs@LIVE.COM> | Wed, 7 Apr 2021 02:05:03 +0000 | 233 lines |
| [**Re: [12.5, S4-210535, Block A, 7-Apr 6:00 CEST] Proposed changes to draft CR on viewport dependent processing**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=12742) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Wed, 7 Apr 2021 02:35:47 +0000 | 256 lines |
| [**Re: [12.5, S4-210535, Block A, 7-Apr 6:00 CEST] Proposed changes to draft CR on viewport dependent processing**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=18856) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Wed, 7 Apr 2021 04:32:47 +0000 | 313 lines |
| [**Re: [12.5, S4-210535, Block A, 7-Apr 6:00 CEST] Proposed changes to draft CR on viewport dependent processing**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=19943) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Wed, 7 Apr 2021 04:49:45 +0000 | 359 lines |

Presenter: Saba Ahsan, Nokia.

* Iraj: Does -Tx client always send 0x0 or not?
* Saba: It can send either.
* Iraj: So, when it confirms, it has received size from -Rx client?
* Saba: Yes. FOV is not the viewport size.
* Iraj: Can you make that more clear?
* Saba: Imed, is the proposal to remove text referencing papers?
* Imed: Would like to reduce the amount of informative text.
* Saba: I can do that.
* Imed: Don’t agree to the use case of VL.
* Saba: 2D displays and follower viewports don’t have to move as quickly.
* Imed: So, you’re only sending what should be displayed, why do you need the VL flag?
* Saba: So VL should be default for all 2D displays?
* Imed: Yes.
* Saba: How do you update it? Please reply in email.

Decision: Revised to #543.

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| [**S4-210543**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210543.zip) | Proposed changes to draft CR on viewport dependent processing | Nokia Corporation |

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| [**Re: [12.5, S4-210535, Block A, 7-Apr 6:00 CEST] Proposed changes to draft CR on viewport dependent processing**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=27632) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Wed, 7 Apr 2021 18:11:49 +0000 | 524 lines |

Presenter:

Discussion:

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Decision:

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| [**S4-210536**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210536.zip) | Proposed changes to draft CR on RTCP Viewport Feedback | Nokia Corporation | **7-Apr** | 6:00 |

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| [**Re: [12.5, S4-210536, Block A, 7-Apr 6:00 CEST] Proposed changes to draft CR on RTCP Viewport Feedback**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=13648) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Wed, 7 Apr 2021 02:41:06 +0000 | 180 lines |
| [**Re: [12.5, S4-210536, Block A, 7-Apr 6:00 CEST] Proposed changes to draft CR on RTCP Viewport Feedback**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=14535) | Iraj Sodagar <irajs@LIVE.COM> | Wed, 7 Apr 2021 02:48:15 +0000 | 269 lines |
| [**Re: [12.5, S4-210536, Block A, 7-Apr 6:00 CEST] Proposed changes to draft CR on RTCP Viewport Feedback**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&P=15403) | Iraj Sodagar <irajs@LIVE.COM> | Wed, 7 Apr 2021 02:53:27 +0000 | 229 lines |

Presenter: Saba Ahsan, Nokia.

* Saba: Don’t understand Imed’s comment. Let’s work offline to do text revision based on Iraj’s comments.
* Imed: I’ll check the document again.

Decision: Revised to #544.

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| [**S4-210544**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210544.zip) | Proposed changes to draft CR on RTCP Viewport Feedback | Nokia Corporation |

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| [**Re: [12.5, S4-210536, Block A, 7-Apr 6:00 CEST] Proposed changes to draft CR on RTCP Viewport Feedback**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=870) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Wed, 7 Apr 2021 23:19:00 +0000 | 290 lines |

Presenter:

Discussion:

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Decision:

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| [**S4-210491**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210491.zip) | Presentation Overlay in ITT4RT | KPN N.V. | **8-Apr** | 6:00 |

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| [**Re: [12.5, S4-210491, Block A, 8-Apr 6:00 CEST] Presentation Overlay in ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=25998) | Bo Burman <bo.burman@ERICSSON.COM> | Wed, 7 Apr 2021 17:37:43 +0000 | 193 lines |
| [**Re: [12.5, S4-210491, Block A, 8-Apr 6:00 CEST] Presentation Overlay in ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=74) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Wed, 7 Apr 2021 23:02:21 +0000 | 249 lines |
| [**Re: [12.5, S4-210491, Block A, 8-Apr 6:00 CEST] Presentation Overlay in ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=1774) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Wed, 7 Apr 2021 23:32:31 +0000 | 181 lines |
| [**Re: [12.5, S4-210491, Block A, 8-Apr 6:00 CEST] Presentation Overlay in ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=4921) | Iraj Sodagar <irajs@LIVE.COM> | Thu, 8 Apr 2021 01:14:25 +0000 | 242 lines |
| [**Re: [12.5, S4-210491, Block A, 8-Apr 6:00 CEST] Presentation Overlay in ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=11022) | Gunkel, S.N.B. (Simon) <simon.gunkel@TNO.NL> | Thu, 8 Apr 2021 04:52:03 +0000 | 903 lines |
| [**Re: [12.5, S4-210491, Block A, 8-Apr 6:00 CEST] Presentation Overlay in ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=13023) | Gunkel, S.N.B. (Simon) <simon.gunkel@TNO.NL> | Thu, 8 Apr 2021 05:02:24 +0000 | 583 line |

Presenter: Simon Gunkel, KPN

Discussion:

* Bo: is the ambition to signal the place MRF needs to add the overlay?
* Simon: <showing S4-191254 to explain>
* Imed: It seems to be a sphere-relative overlay
* Saba: The missing part seems to be the overlay configuration from the MRF, where to place overlay content from another participant.
* Simon: Overlay signaling need not be changed, but need content from another participant.
* Imed: Isn’t that the typical way to use the overlay?
* Simon: No. The media sender doesn’t know the position of an overlay or possibly not even that the content it sends will be used as an overlay.
* Saba: If both 360 and the overlay content is from the same sender, we don’t need this new attribute.

Decision: Continue the mail discussion.

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| [**[12.5, S4-210491, Block A, 8-Apr 6:00 CEST] Presentation Overlay in ITT4RT - follow up on 8-Apr online meeting discussion**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=16109) | Gunkel, S.N.B. (Simon) <simon.gunkel@TNO.NL> | Thu, 8 Apr 2021 12:49:38 +0000 | 749 lines |
| [**Re: [12.5, S4-210491, Block A, 8-Apr 6:00 CEST] Presentation Overlay in ITT4RT - follow up on 8-Apr online meeting discussion**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=16966) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Thu, 8 Apr 2021 15:37:00 +0000 | 678 lines |
| [**Re: [12.5, S4-210491, Block A, 8-Apr 6:00 CEST] Presentation Overlay in ITT4RT - follow up on 8-Apr online meeting discussion**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=18518) | Gunkel, S.N.B. (Simon) <simon.gunkel@TNO.NL> | Thu, 8 Apr 2021 18:55:33 +0000 | 769 lines |

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| [**S4-210506**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210506.zip) | ITT4RT: On multiple 360 videos | Samsung Electronics Co., Ltd. | **8-Apr** | 6:00 |

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| [**Re: [12.5, S4-210506, Block A, 8-Apr 6:00 CEST] ITT4RT: On multiple 360 videos**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=26812) | Bo Burman <bo.burman@ERICSSON.COM> | Wed, 7 Apr 2021 18:04:32 +0000 | 290 lines |
| [**Re: [12.5, S4-210506, Block A, 8-Apr 6:00 CEST] ITT4RT: On multiple 360 videos**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=34440) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Wed, 7 Apr 2021 22:59:11 +0000 | 404 lines |
| [**Re: [12.5, S4-210506, Block A, 8-Apr 6:00 CEST] ITT4RT: On multiple 360 videos**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=4189) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Thu, 8 Apr 2021 00:53:18 +0000 | 173 lines |
| [**Re: [12.5, S4-210506, Block A, 8-Apr 6:00 CEST] ITT4RT: On multiple 360 videos**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=6518) | Iraj Sodagar <irajs@LIVE.COM> | Thu, 8 Apr 2021 01:35:01 +0000 | 472 lines |
| [**Re: [12.5, S4-210506, Block A, 8-Apr 6:00 CEST] ITT4RT: On multiple 360 videos**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=9868) | Eric Yip <eric.yip@SAMSUNG.COM> | Thu, 8 Apr 2021 11:17:10 +0900 | 1015 lines |

Presenter: Eric Yip

Discussion:

* Iraj: You say you want to use SDP signaling but are not very specific on how you want to do it.
* Eric: The text has possible solutions.
* Iraj: So it’s just a concept?
* Eric: Yes.

Decision: Revised to #547.

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| [**S4-210547**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210547.zip) | ITT4RT: On multiple 360 videos | Samsung Electronics Co., Ltd. |

Agreed without presentation.

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| [**Re: [S4-210547 revision of 506] RE: Re: [12.5, S4-210506, Block A, 8-Apr 6:00 CEST] ITT4RT: On multiple 360 videos**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=19304) | Bo Burman <bo.burman@ERICSSON.COM> | Thu, 8 Apr 2021 19:10:20 +0000 | 1986 lines |

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| [**S4-210532**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210532.zip) | Draft CR updates on Viewport-relative Overlay Configuration | Tencent | **8-Apr** | 6:00 |

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| [**Re: [12.5, S4-210532, Block A, 8-Apr 6:00 CEST] Draft CR updates on Viewport-relative Overlay Configuration**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=32427) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Wed, 7 Apr 2021 21:40:42 +0000 | 271 lines |
| [**Re: [12.5, S4-210532, Block A, 8-Apr 6:00 CEST] Draft CR updates on Viewport-relative Overlay Configuration(Internet mail)**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=33356) | rabhishek(RohitAbhishek) <rabhishek@TENCENT.COM> | Wed, 7 Apr 2021 21:57:31 +0000 | 343 lines |
| [**Re: [12.5, S4-210532, Block A, 8-Apr 6:00 CEST] Draft CR updates on Viewport-relative Overlay Configuration**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=8071) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Thu, 8 Apr 2021 02:12:13 +0000 | 176 lines |
| [**Re: [12.5, S4-210532, Block A, 8-Apr 6:00 CEST] Draft CR updates on Viewport-relative Overlay Configuration(Internet mail)**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=8845) | rabhishek(RohitAbhishek) <rabhishek@TENCENT.COM> | Thu, 8 Apr 2021 02:16:17 +0000 | 241 lines |

Presenter: Rohit Abhishek, Tencent

Decision: Revised to #545

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| [**S4-210545**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210545.zip) | Draft CR updates on Viewport-relative Overlay Configuration | Tencent |

Agreed without presentation.

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| [**S4-210538**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210538.zip) | Carriage of HEIF Images in ITT4RT | QUALCOMM Europe Inc. - Italy | **8-Apr** | 6:00 |

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| [**Re: [12.5, S4-210538, Block A, 8-Apr 6:00 CEST] Carriage of HEIF Images in ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=28287) | Bo Burman <bo.burman@ERICSSON.COM> | Wed, 7 Apr 2021 18:29:08 +0000 | 249 lines |
| [**Re: [12.5, S4-210538, Block A, 8-Apr 6:00 CEST] Carriage of HEIF Images in ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=31132) | Ahsan, Saba (Nokia - FI/Espoo) <saba.ahsan@NOKIA.COM> | Wed, 7 Apr 2021 21:04:06 +0000 | 406 lines |
| [**Re: [12.5, S4-210538, Block A, 8-Apr 6:00 CEST] Carriage of HEIF Images in ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=5554) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Thu, 8 Apr 2021 01:22:09 +0000 | 353 lines |
| [**Re: [12.5, S4-210538, Block A, 8-Apr 6:00 CEST] Carriage of HEIF Images in ITT4RT**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=7310) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Thu, 8 Apr 2021 01:37:55 +0000 | 514 lines |

Presenter: Imed Bouazizi, Qualcomm

Discussion:

* Bo: if you put this image in the video stream, would it look exactly as HEVC video?
* Imed: depends on the profile used. It is a conformed HEVC streaming but the client may not support that profile.
* Imed: there are 2 options: send the image once, and render it all the time. we have this option that the RTP timestamps is not used for rendering in this case. And that provides the possibility of avoiding sending the images continuously.
* Bo: In the image sequence case, do you have a dedicated timestamp outside of RTP?
* Imed: yes, HEIF has metadata for the slideshows. We have a placeholder for the HEIF metadata.
* Saba: If the HEIF is stored as HEVC stream, then the client can send it with RTP stream?
* Imed: HEIF has compressed images, as well as the metadata. We use the HEVC payload format to send the images, we also deliver the metadata.
* Saba: is there a reason to keep metadata?
* Imed: metadata describes roles and information of images that can't be put in SEIs or RTP header. Metadata is optional and can be omitted.
* Saba: my understanding is that additional HEVC profile needs to be supported by receiver. what if the receiver doesn’t support the profile?
* Imed: HEIF supports two static profiles of HEVC. We can mandate the use of main static profile since that is supported by the client. We can signal the profile and if the receiver doesn’t understand the profile, it can signal back and MRF/Tx can use a different way to deliver the overlay.
* Saba: if you can elaborate on the profiles, and the metadata that is already supported and what profiles if any need to be added.

Decision: Continue discussion on mailing list. Revised to #546.

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| [**S4-210546**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210546.zip) | Carriage of HEIF Images in ITT4RT | QUALCOMM Europe Inc. - Italy |

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| [**S4-210560**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210560.zip) | Draft CR updates on Additional Overlay Configuration | Tencent | **8-Apr** | 6:00 |

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| [**Re: [12.5, S4-210560, Block A, 8-Apr 6:00 CEST] Draft CR updates on Additional Overlay Configuration**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=29137) | Bo Burman <bo.burman@ERICSSON.COM> | Wed, 7 Apr 2021 18:37:51 +0000 | 206 lines |
| [**Re: [12.5, S4-210560, Block A, 8-Apr 6:00 CEST] Draft CR updates on Additional Overlay Configuration(Internet mail)**](https://list.etsi.org/scripts/wa.exe?A2=ind2104A&L=3GPP_TSG_SA_WG4_MTSI&X=OAE56C586DF2C529D61&Y=nleung%40qti.qualcomm.com&P=30174) | rabhishek(RohitAbhishek) <rabhishek@TENCENT.COM> | Wed, 7 Apr 2021 19:31:37 +0000 | 282 lines |
| [**Re: [12.5, S4-210560, Block A, 8-Apr 6:00 CEST] Draft CR updates on Additional Overlay Configuration**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=2397) | Imed Bouazizi <BOUAZIZI@QTI.QUALCOMM.COM> | Wed, 7 Apr 2021 23:57:15 +0000 | 180 lines |
| [**Re: [12.5, S4-210560, Block A, 8-Apr 6:00 CEST] Draft CR updates on Additional Overlay Configuration(Internet mail)**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OC1B45B5181C1297BE5&Y=nleung%40qti.qualcomm.com&P=3280) | rabhishek(RohitAbhishek) <rabhishek@TENCENT.COM> | Thu, 8 Apr 2021 00:45:37 +0000 | 266 lines |

Presenter: Rohit Abhishek, Tencent

Discussion:

* Imed: Don’t understand why overlays from other senders would be used.
* Rohit: Believe -Rx client only streams overlays from the -Tx client sending the 360 video.
* Imed: Who authors that SDP? I believe the restriction is already there?
* Rohit: -Tx client should have control over which overlays the -Rx client streams.
* Eric: Do we by -Tx client mean the MRF?
* Rohit: Yes
* Bo: if by Tx client you mean the MRF, I agree. But any sender can send overlay too. Which Tx client has the control?
* Rohit: the Tx client that provides the 360 video, but via the MRF
* Bo: so Rx will not get the streams from Tx, but from MRF. So does Tx client should have opinion that other overlay can be used or not?
* Rohit: yes
* Bo: Still don’t understand, if you don’t have an MRF, there would have to be separate sessions between each participant if there are to be multiple overlay senders.
* Saba: If you have an MRF, it is inserting the overlays and senders send to the MRF.
* Iraj: Who defines the overlay parameters?
* Saba: The -Tx client, be it MRF or another 360 -Tx sender.

Decision: Continue in mail. Postponed.

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| [**S4-210507**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210507.zip) | Updates on fisheye video | Samsung Electronics Co., Ltd. | **9-Apr** | 6:00 |

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| [**Re: [12.5, S4-210507, Block A, 9-Apr 6:00 CEST] Updates on fisheye video**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=20974) | Bo Burman <bo.burman@ERICSSON.COM> | Thu, 8 Apr 2021 19:29:57 +0000 | 183 lines |

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| [**S4-210534**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210534.zip) | Signaling for Audio mixing gain | Tencent | **9-Apr** | 6:00 |

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| [**Re: [12.5, S4-210534, Block A, 9-Apr 6:00 CEST] Signaling for Audio mixing gain**](https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_MTSI&X=OACA57B450AB31A588D&Y=nleung%40qti.qualcomm.com&P=20178) | Bo Burman <bo.burman@ERICSSON.COM> | Thu, 8 Apr 2021 19:26:54 +0000 | 230 lines |

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| [**S4-210576**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210576.zip) | Next steps for the ITT4RT Work Item | Nokia Corporation | **12-Apr** | 6:00 |

## 12.6 FS\_FLUS\_NBMP (Feasibility Study on the use of NBMP in E\_FLUS)

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| [**S4-210480**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210480.zip) | [FS\_FLUS\_NBMP]: Update to DTR | Tencent | **12-Apr** | 6:00 |

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| [**S4-210481**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210481.zip) | FS\_FLUS\_NBMP: Workplan update (0.7) | Tencent | **12-Apr** | 6:00 |

## 12.7 Others including TEI

## 12.8 New Work / New Work Items and Study Items

## 11.9 Any Other Business

## 12.10 Close of the session

# Annex A: Meeting Agenda

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| 12 | Multimedia Telephony Service for IMS (MTSI) SWG |  |
| 12.1 | Opening of the session |  |
| 12.2 | Registration of documents |  |
| 12.3 | Reports and liaisons from other groups |  |
| 12.4 | CRs to Features in Release 16 and earlier | 514a |
| 12.5 | ITT4RT (Support of Immersive Teleconferencing and Telepresence for Remote Terminals) | TP: 576, 541  PD: 540  Demo: 490n  VDP: 430->548, 533->542, 535->543, 536->544  Overlays: 491, 532->545a, 538->546,  Multiple 360 videos: 506->547awp, 560  Correction: 507  Audio Mixing Gain: 534 |
| 12.6 | FS\_FLUS\_NBMP (Feasibility Study on the use of NBMP in E\_FLUS) | dCR: 480  TP: 481 |
| 12.7 | Others including TEI |  |
| 12.8 | New Work / New Work Items and Study Items |  |
| 12.9 | Any Other Business |  |
| 12.10 | Close of the session |  |

Sent for email discussion

# Annex B: List of participants

< > delegates attended

## Self-registration attendance list

If you are attending, please remove the underline if your name is listed. Otherwise please add your name and organization to the list.

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| **Name** | **Organization Represented** |
| Abhishek, Rohit | Tencent |
| Ahsan, Saba | Nokia |
| de Bont, Frans | Philips |
| Bouazizi, Imed | Qualcomm |
| Bruhn, Stefan | Dolby Laboratories, Inc. |
| Burman, Bo | Ericsson LM |
| Curcio, Igor | Nokia |
| De Bont, Frans | Philips International B.V. |
| Dillen, Paul | Philips International B.V. |
| Döhla, Stefan | Fraunhofer IIS |
| Ehara, Hiroyuki | Panasonic |
| Gudumasu, Srinivas | InterDigital |
| Gunkel, Simon | KPN N.V. |
| Han, Jae-Shin | LG Electronics Inc. |
| Hu, James | AT&T |
| Isberg, Peter | Sony |
| Jelinek, Milan | VoiceAge Corporation |
| Jung, Kyunghun | Facebook |
| Laaksonen, Lasse | Nokia |
| Leung, Nikolai | Qualcomm Incorporated |
| Li, Qiuting | ZTE |
| Lo, Charles | Qualcomm Incorporated |
| Ma, Liangping | Qualcomm Incorporated |
| Morita, Naotaka | NTT |
| Moriya, Takehiro | NTT |
| Multrus, Markus | Fraunhofer IIS |
| Oyman, Ozgur | Intel |
| Pazos, Marcelo | Qualcomm |
| Plante, Fabrice | Apple |
| Pousi, Timo | Ericsson LM |
| Ragot, Stéphane | Orange |
| Rämö, Anssi | Nokia |
| Saha, Jayeeta | ETSI MCC |
| Schevciw, André | Qualcomm |
| Sodagar, Iraj | Tencent |
| Song, Jaeyeon | Samsung |
| Su, Huan-Yu | Huawei |
| Szczerba, Marek | Philips |
| Toftgård, Tomas | Ericsson |
| Varga, Imre | Qualcomm |
| Yang, Hyun-Koo | Samsung Electronics |
| Yip, Eric | Samsung Electronics |

1. Nikolai Leung, Qualcomm Inc., with detailed minutes provided by Bo Burman, Charles Lo, and Iraj Sodagar [↑](#footnote-ref-0)