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| **Abstract:** | This TD provides the SG9 report for lead study group activities on integrated broadband cable and television networks. |

# Lead study group activities on integrated broadband cable and television networks

Since the last TSAG meeting in October 2021, SG9 organized its seventh Study Group meeting on 15 – 24 November 2021 fully virtual. The meeting was attended by 57 participants from 16 countries. All sessions were held using MyMeetings remote participation tool.

At this meeting, SG9 concluded twenty-one (21) deliverables including draft new and revised Recommendations and draft technical papers as listed from Table 1 to Table 3. The special session for WTSA-20 preparations was also organized on 17 November. It facilitated the finalization of SG9 activities report to WTSA (Report part 1), draft mandate for next Study Period (SG9 portion of Res.2) and Question texts for next Study Period (Report part 2). These discussed and completed texts will be submitted to WTSA-20.

Co-located with the SG9 meeting, the ITU organized a workshop on “The Future of Television for Europe” on 19 November 2021. This event, which was jointly organized by the ITU Standardization Sector (ITU-T), the ITU Radiocommunication Sector (ITU-R), the ITU Development Sector (ITU-D) and the ITU Regional office for Europe, focused on the diverse emerging broadband and broadcast technologies, including cable TV, with the aim to assist countries in the region of Europe to assess challenges, dynamics and opportunities. The workshop was attended by 342 participants and discussed the future of television in the region with relevant stakeholders including the European Broadcasting Union (EBU), covering regulatory and policy frameworks, emerging and convergent ICT Infrastructures and services, as well as user interfaces and usability issues. It also provided an opportunity to discuss TV-related regional and international standardization and spectrum management. The full event can be watched as the [offline recording](https://itu.zoom.us/rec/share/BSnNdEeFPKDHXz8feW-7o7drjVt75GNCkOvCSk-RgIBAD127i9yqkCtOCdjoUK2D.WFQF0nN1EeCxrZvx?startTime=1637309030000) is made available online. Full recorded presentations on related standardization activities from ITU-T SG9, ITU-R SG6, ITU T SG16 and ITU-D Q2/1 were also made available on the [event webpage](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/2021/1119/Pages/default.aspx) for offline access.

In addition, a meeting of the IRG-AVA was organized under the auspices of ITU-T SG9 on 16 November. IRG-AVA serves as a collaborative platform among ITU-T SG9, SG16 and ITU-R SG6 to progress the ongoing draft Recommendation on common user profile format, which was initiated by SG9. The IRG-AVA meeting produced an updated draft new Recommendation ITU-T J.acc-us-prof "Common user profile format for audiovisual content", posted as [SG9-TD1280](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1280).

Also, the final IRG-IBB meeting "Intersector Rapporteur Group on Integrated Broadcast-Broadband (IBB)" was held under the auspices of ITU-T SG9 on 18 November 2021. This meeting decided to conclude the activities of IRG-IBB as per its ToR and the three parent groups, ITU-T SG9, SG16 and ITU-R SG6, agreed to continue close communication through liaison statements. A related report was submitted to the three parent groups and posted as [SG9-TD1314](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1314).

Table 1: List of eighteen Consented draft Recommendations using AAP (ITU-T A.8)

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| --- | --- | --- | --- | --- | --- | --- |
| **Q** | **AAP/TAP** | **Rec** | **Status** | **Title** | **Final TD** | **A.5 justification** |
| Q1/9 | AAP | **J.483** (ex [J.rfip-switching-arch](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=16854)) | New | Architecture and Functional Specifications of a radio frequency (RF)/Internet protocol (IP) video switching system | [SG9-TD1276](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1276) | N/A |
| Q1/9 | AAP | **J.482-cor** | Cor. | Requirements of a radio frequency (RF)/Internet protocol (IP) video switching system | [SG9-TD1277](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1277) | N/A |
| Q2/9 | AAP | **J.1026** (ex J.1026-rev) | Rev. | Downloadable conditional access system for unidirectional networks - Requirements | [SG9-TD1295-R2](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1295) | N/A |
| Q2/9 | AAP | **J.1027** (ex J.1027-rev) | Rev. | Downloadable conditional access system for unidirectional networks - System architecture | [SG9-TD1296-R1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1296) | N/A |
| Q2/9 | AAP | **J.1028** (ex J.1028-rev) | Rev. | Downloadable conditional access system for unidirectional networks - Terminal system | [SG9-TD1297-R1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1297) | N/A |
| Q4/9 | AAP | **J.1401** (ex [J.dtc-dist-req](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=14182)) | New | Television Content Distribution Platforms: Requirements for Open Access and Signal Quality | [SG9-TD1281-R1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1281) | N/A |
| Q5/9 | AAP | **J.1201** (ex [J.1201-rev](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=16958)) | Rev. | Functional requirements of a smart TV operating system | [SG9-TD1305](https://www.itu.int/md/T17-SG09-211115-TD-GEN-1305/en) | N/A |
| Q5/9 | AAP | **J.1202** (ex [J.1202-rev](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=16959)) | Rev. | The architecture of a smart TV operating system | [SG9-TD1306](https://www.itu.int/md/T17-SG09-211115-TD-GEN-1306/en) | N/A |
| Q5/9 | AAP | **J.1203** (ex [J.1203-rev](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=16960)) | Rev. | The specification of a smart TV operating system | [SG9-TD1307](https://www.itu.int/md/T17-SG09-211115-TD-GEN-1307/en) | N/A |
| Q5/9 | AAP | **J.1204** (ex [J.1204-rev](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=16961)) | Rev. | The security framework of a smart TV operating system | [SG9-TD1308](https://www.itu.int/md/T17-SG09-211115-TD-GEN-1308/en) | N/A |
| Q5/9 | AAP | **J.1205** (ex [J.stvos-hal](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=14924)) | New | The HAL API of a smart TV operating system | [SG9-TD1309](https://www.itu.int/md/T17-SG09-211115-TD-GEN-1309/en) | N/A |
| Q6/9 | AAP | **J.299** (ex [J.299-rev](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=16963)) | Rev. | Functional requirements for remote management of cable STB by auto configuration server | [SG9-TD1299](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1299) | [SG9-TD1311](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1311) |
| Q6/9 | AAP | **J.1612** (ex [J.pcnp-smgw-arch](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=16554)) | New | The Architecture for Smart Home Gateway | [SG9-TD1298-R1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1298) | [SG9-TD1273](https://www.itu.int/md/T17-SG09-211115-TD-GEN-1273/en) |
| Q7/9 | AAP | **J.198.1** (ex [J.HiNoC3-REQ](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=16965)) | New | Functional requirements for third-generation HiNoC | [SG9-TD1283](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1283) | N/A |
| Q7/9 | AAP | **J.1111** (ex J.AIP-DVCS) | New | Requirements for Advanced IP-based Digital Video Convergence Service | [SG9-TD1284-R1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1284) | N/A |
| Q8/9 | AAP | **J.1303** [(ex J.CBCMS-part3)](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=16526" \o "See more details) | New | The specification of cloud-based converged media service to support IP and Broadcast Cable TV - System specification on collaboration between production media cloud and cable service cloud | [SG9-TD1275](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1275) | N/A |
| Q8/9 | AAP | **J.1302-cor** | Cor. | Specification of a cloud-based converged media service to support Internet protocol and broadcast cable television - System architecture | [SG9-TD1260](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1260) | N/A |
| Q9/9 | AAP | **J.1304** (ex [J.cable-ott](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=14931)) | New | Functional requirements for service collaboration between cable television operator and OTT service provider | [SG9-TD1278](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1278) | N/A |

Table 2: List of draft Recommendations which was AAP approved by SG9

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| --- | --- | --- | --- | --- | --- |
| **Q** | **AAP/TAP** | **Rec** | **Status** | **Title** | **Final TD** |
| Q9/9 | AAP | **J.1631** (ex J.cloud-vr-req) | Consented 2021-04-28 | Functional requirements of E2E Network Platform to enhance the delivery of Cloud-VR Services over integrated broadband cable networks | [SG9-TD1170](http://www.itu.int/md/T17-SG09-211115-TD-GEN-1170) |

Table 3: List of Technical Papers Agreed for publication by SG9

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Q** | **Approval** | **Document** | **Status** | **Title** | **Final TD** |
| Q7/9 | Agreement | ITU-T JSTP-IPVB-ACC (ex [TP.ipvb-acc](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=14999)) | Technical Paper | Analysis of the cost and complexity of IPVB technology | [SG9-TD1285](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1285) |
| Q7/9 | Agreement | ITU-T JSTP-IPVB-UC (ex [TP.ipvb-ucase](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=15169)) | Technical Paper | Use cases and service scenario of IP Video Broadcast (IPVB) for CATV Networks | [SG9-TD1286](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1286) |

# SG9 Management, Rapporteurs and Associate Rapporteurs

SG9 has updated the List of SG9 Rapporteurs and Associate Rapporteurs for the Study Period 2017-2021 as found in [SG9-TD1153-R1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1153). The following experts were appointed or left their roles:

– Mr Kenji Obata no longer acts as an Associate Rapporteur for Q2/9;

– Mr Dajiang Zhang was appointed as Q8/9 Rapporteur, to replace Mr TaeKyoon Kim who served as an Acting Rapporteur;

– Ms Jingyi Xue was appointed as Q10/9 Rapporteur, to replace Ms Qiong Yao who served as an Acting Rapporteur.

# Preparation to WTSA-20

To continue the preparatory process towards WTSA-20 for the next study period 2022-2024, SG9 organized a special session on 17 November 2021 to discuss WTSA updates. During this session, the draft report of SG9 to WTSA-20 (Part 1) was reviewed and comments from experts were incorporated as reproduced in [SG9-TD1242-R1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1242). The mandate of SG9 for the next study period was also reviewed in detail with no additional changes proposed, therefore, the revised mandate as earlier submitted to TSAG and provided in [SG9-TD1158](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1158) will be sent to WTSA-20. As for the Study Questions of SG9 for next Study Period (WTSA-20 Report Part 2), the Questions texts were presented and some editorial comments were made to update the list of J-series Recommendations under section A.4 for Q1/9. All other Rapporteurs were asked to inform TSB of any additional updates. By the closing plenary on 24 November 2021, no other updates were received and the revised Study Questions to be provided in SG9 report to WTSA (Part 2) was approved at the closing plenary as [SG9-TD1293](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1293), with the understanding that TSB, before submission, will apply the formatting required by WTSA-20 and update obsolete information, if needed. There are no substantial changes from the recently endorsed list of Question texts by TSAG.

# Approval of draft Recommendation J.1631 (ex. J.cloud-vr-req)

The sixth SG9 meeting held in April 2021 consented draft Recommendation ITU-T J.1631 (ex. J.cloud-vr-req). During the last call period (16 May – 12 June 2021), there were four LC comments submitted by Huawei Technologies Co., Ltd., Deutsche Telekom AG, Orange, Nippon Telegraph and Telephone Corporation (NTT). SG9 Chairman organized a meeting on 20 August 2021 to address the Comment Resolution as per 4.4.2 of Recommendation A.8. Based on consensus reached at that meeting, a modified text was prepared and submitted to the SG9 meeting held in November 2021 ([SG9-TD1170](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-SG09-211115-TD-GEN-1170)). After final review by the Q9/9 group during this SG9 meeting, the draft Recommendation ITU-T J.1631 was presented at the closing plenary on 24 November and was AAP approved.

# Next meeting

SG9 plans to organize the first meeting of the next study period on 6-15 September 2022 physically in Geneva (TBC).

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