

## Executive summary of ITU-T SG9 meeting (E-meeting, 9-17 May 2024)

### Introduction

The fourth Study Group 9 (Broadband cable and TV) meeting in the study period 2022-2024 was held fully virtual, from 9 to 17 May 2024. The SG9 meeting was chaired by Mr Satoshi Miyaji (KDDI, Japan), who was assisted by Mr Stefano Polidori (TSB Counsellor) and was attended by 56 participants from 15 countries. All sessions were held using [MyMeetings](#) remote participation tool.

During this meeting, three sessions on SG9 restructuring in view of WTSA-24 were held to revise SG9 mandate and the Questions texts for the next study period. The sessions provided also a venue to reflect on SG9 achievements in this Study Period.

### 1 List of Consented/Determined Recommendations and other deliverables for approval, including eventual modifications to J-series structure

During the SG9 meeting in May 2024 a total of five (5) draft Recommendations (4 new, 1 revised) were finalized and agreed for AAP Consent.

#### 1.1 List of ten Consented draft Recommendations using AAP (ITU-T A.8)

Question	Rec	Version	Title	Final TD	A.5 just.
Q1/9, Q4/9	J.153 (ex <a href="#">J.cable-5G-arch</a> )	New	System architecture for cable television services to use IMT-2020 radio systems	<a href="#">TD728</a>	<a href="#">TD730</a>
Q3/9	J.1630 (ex <a href="#">J.pcnp-char</a> )	New	End to End Network Characteristics Requirement for Video Services over integrated broadband cable network	<a href="#">TD747R1</a>	<a href="#">TD748R1</a>
Q6/9	<a href="#">J.298-rev</a>	Rev.	Requirements and technical specifications of a cable TV hybrid set-top box compatible with terrestrial and satellite TV transport	<a href="#">TD690</a>	<a href="#">TD719</a>
Q6/9	J.1291 (ex <a href="#">J.STB-AV</a> )	New	Requirements and functional specification of Audio and Video interface on cable set-top box	<a href="#">TD736R2</a>	N/A
Q9/9	J.1311 (ex <a href="#">J.cloud-game-req</a> )	New	Technical Requirements for Cloud Gaming Service Platforms	<a href="#">TD706R2</a>	N/A

#### 1.2 List of Determined draft Recommendations using TAP (WTSA Resolution 1, section 9)

No Recommendations were Determined at this meeting.

### 1.3 List of Draft Recommendations for AAP approval

None at this meeting.

### 1.4 Modification of the category names of J-series Recommendations

It is proposed to establish two new sub-series of J-series Recommendations.

- J.1290-J.1299 "Cable set-top box (part 2)"
- J.1310-J.1319: "Cloud-based Multimedia Services for IP Delivery".

## 2 List of Draft Supplements, Technical Reports/Papers or other documents for agreement

### 2.1 Supplements

No Supplement was proposed for agreement/approval at this meeting.

### 2.2 Technical Reports/Papers

The following Technical Report was agreed for publication by SG9 at this meeting.

Q	Approval	Document	Title	Final TD
Q1/9	Agreement	<a href="#">J.TR.WiFiTV</a>	Secondary distribution of digital television and audiovisual content to portable devices using the wireless local area network	<a href="#">SG9-TD739R1</a>

### 2.3 Amendments

No Amendment was proposed for agreement/approval at this meeting.

### 2.4 Corrigenda

Four Corrigenda were proposed for consent at this meeting.

Question	Rec	Version	Title	Final TD	A.5 just.
Q1/9, Q7/9	J.198.2 (Cor.1)	Corr	Physical layer specification for third-generation HiNoC	<a href="#">TD721</a>	N/A
Q2/9, Q10/9	J.1036 (Cor.1)	Corr	Factual subscriber-base reporting and protected content delivery in conditional access system – Requirements	<a href="#">TD734</a>	N/A

Question	Rec	Version	Title	Final TD	A.5 just.
Q8/9, Q10/9	J.1305 (Cor.1)	Corr	Requirements for microservices architecture for audiovisual media in the converged media cloud	<a href="#">TD732</a>	N/A
Q8/9, Q10/9	J.1306 (Cor.1)	Corr	Specification of microservices architecture for audiovisual media in the converged media cloud	<a href="#">TD733</a>	N/A

### 3 New and deleted work items

#### 3.1 New work items

The meeting agreed to start work on the following eleven (11) new work items.

NOTE: In colour the work items that were immediately consented.

#	Q.	Acronym	kind of publication	Version	Title	Editor	TD	A.1 /A.13 Justification template
1	Q1/9	J.wtv-req	Recommendation	New	Functional Requirements for secondary distribution of digital television and audiovisual content to portable devices using the wireless local area network	Avinash Agarwal ( <a href="mailto:avinash.70@gov.in">avinash.70@gov.in</a> ) Pallab Dutta ( <a href="mailto:pallab@cdot.in">pallab@cdot.in</a> )	<a href="#">TD743</a>	ANNEX C of <a href="#">TD691R2</a> (A.1)
2	Q2/9	J.DRMVA-req	Recommendation	New	Digital rights management for video and audio content distribution – Requirements	Wang Lei ( <a href="mailto:wanglei@abs.ac.cn">wanglei@abs.ac.cn</a> ) Liang Zhijian ( <a href="mailto:liangzhijian1@hisilicon.com">liangzhijian1@hisilicon.com</a> ) Han-seung Koo ( <a href="mailto:koohs@etri.re.kr">koohs@etri.re.kr</a> )	<a href="#">TD746</a>	Annex C of <a href="#">TD692</a>
3	Q2/9	J.DRMVA-arch	Recommendation	New	Digital rights management for video and audio content distribution – System Architecture	Wang Lei ( <a href="mailto:wanglei@abs.ac.cn">wanglei@abs.ac.cn</a> ) Liang Zhijian ( <a href="mailto:liangzhijian1@hisilicon.com">liangzhijian1@hisilicon.com</a> )	–	Annex D of <a href="#">TD692</a>

#	Q.	Acronym	kind of publication	Version	Title	Editor	TD	A.1 /A.13 Justification template
						Han-seung Koo ( <a href="mailto:koohs@etri.re.kr">koohs@etri.re.kr</a> )		
4	Q2/9	J.DRMVA-client	Recommendation	New	Digital rights management for video and audio content distribution – Client	Wang Lei ( <a href="mailto:wanglei@abs.ac.cn">wanglei@abs.ac.cn</a> ) Liang Zhijian ( <a href="mailto:liangzhijian1@hisilicon.com">liangzhijian1@hisilicon.com</a> ) Han-seung Koo ( <a href="mailto:koohs@etri.re.kr">koohs@etri.re.kr</a> )	–	Annex E of <a href="#">TD692</a>
5	Q2/9	J.DRMVA-rbst	Recommendation	New	Digital rights management for video and audio content distribution – Compliance and Robustness Rules	Wang Lei ( <a href="mailto:wanglei@abs.ac.cn">wanglei@abs.ac.cn</a> ) Liang Zhijian ( <a href="mailto:liangzhijian1@hisilicon.com">liangzhijian1@hisilicon.com</a> ) Han-seung Koo ( <a href="mailto:koohs@etri.re.kr">koohs@etri.re.kr</a> )	–	Annex F of <a href="#">TD692</a>
6	Q2/9	J.1036 (Cor.1)	Recommendation	Corr	Factual subscriber-base reporting and protected content delivery in conditional access system – Requirements	Avinash Agarwal, ( <a href="mailto:Avinash.70@gov.in">Avinash.70@gov.in</a> ) Jingyi Xue ( <a href="mailto:xuejingyi816@126.com">xuejingyi816@126.com</a> )	<a href="#">TD734</a>	N/A
7	Q5/9	J.stvos-ct	Recommendation	New	The conformity test of smart TV operating system	Haifeng Yan ( <a href="mailto:yanhaifeng@hisilicon.com">yanhaifeng@hisilicon.com</a> )	<a href="#">TD723</a>	ANNEX C of <a href="#">TD695R1</a>
8	Q7/9, Q1/9	J.198.2 (Cor.1)	Recommendation	Corr	Physical layer specification for third-generation HiNo	Cui Zhao ( <a href="mailto:zhaocui@abs.ac.cn">zhaocui@abs.ac.cn</a> )	<a href="#">TD721</a>	N/A
9	Q8/9, Q10/9	J.1305 (Cor.1)	Recommendation	Corr	Requirements for microservices architecture for audiovisual media in the converged media cloud	Rakesh DESAI ( <a href="mailto:rakesh.desai@gov.in">rakesh.desai@gov.in</a> )	<a href="#">TD732</a>	N/A
10	Q8/9, Q10/9	J.1306 (Cor.1)	Recommendation	Corr	Specification of microservices architecture for audiovisual media in the converged media cloud	Rakesh DESAI ( <a href="mailto:rakesh.desai@gov.in">rakesh.desai@gov.in</a> )	<a href="#">TD733</a>	N/A

#	Q.	Acronym	kind of publication	Version	Title	Editor	TD	A.1 /A.13 Justification template
11	Q11/9	J.CLE-ARVR	Recommendation	New	Terminology, Metrics and Functional requirements for Cognitive Load Estimation for Augmented and Virtual Reality (AR/VR) services	Pradipta Biswas, ( <a href="mailto:pradipta@iisc.ac.in">pradipta@iisc.ac.in</a> ) Avinash Agarwal, ( <a href="mailto:Avinash.70@gov.in">Avinash.70@gov.in</a> )	<a href="#">TD717</a>	ANNEX C of <a href="#">TD701R2</a>

### 3.2 Discontinued work items

None.

## 4 SG9 Management for the Study Period 2022-2024

SG9 confirmed the composition of the management of ITU-T Study Group 9.

Role	Name
Chair	Mr Satoshi MIYAJI (KDDI, Japan)
Vice-chair	Mr Blaise Corsaire MAMADOU (Central African Rep.)
Vice-chair	Mr TaeKyoon KIM (ETRI, Korea Rep. of)
Vice-chair	Mr Zhifan SHENG (ABS, China)
Vice-chair	Mr Pradipta BISWAS (Indian Administration / Indian Institute of Science, India)
Counsellor	Mr Stefano POLIDORI (TSB, ITU)
Administrative assistant	Ms Hiba Tahawi (TSB, ITU)

## 5 SG9 Structure for the Study Period 2022-2024

ITU-T SG9 Working Party structure and leadership was confirmed as contained in [SG9-TD577](#):

- **WP1** “*Cable transport and terminals, including video and data*” (Q1, 2, 4, 6 & 7), and
- **WP2** “*Cable-related platforms and applications*” (Q3, 5, 8, 9 & 11).

In addition, **Q10** and **IRG-AVA** report to the **SG9 Plenary**.

	SG9 Structure	Q/IRG	Titles
PLEN	<b>PLENARY of SG9</b> <b>Satoshi MIYAJI</b> ( <i>SG9 Chair</i> ) ( <i>KDDI, Japan</i> )	Q10	Work programme, coordination and planning
		IRG-AVA	Audiovisual Media Accessibility
WP1	<b>WP1/9: Cable transport and terminals, including video and data</b> <b>Zhifan SHENG</b> ( <i>WP1/9 Chair</i> ) ( <i>ABS, China</i> ) <b>Tatsuo SHIBATA</b> ( <i>WP1/9 Vice-chair</i> ) ( <i>Japan</i> ) <b>Feng OUYANG</b> ( <i>WP1/9 Vice-chair</i> ) ( <i>ABS, China</i> )	Q1	Transmission and delivery control of television and sound programme signal for contribution, primary distribution and secondary distribution
		Q2	Methods and practices for conditional access and content protection
		Q4	Guidelines for implementations and deployment of transmission of multichannel digital television signals over optical access networks and Hybrid Fibre-Coaxial (HFC)
		Q6	Functional requirements for terminal devices of the integrated broadband cable network
		Q7	Transmission control and interfaces (MAC layer) for IP and/or packet-based data over integrated broadband cable networks
WP2	<b>WP2/9: Cable-related platforms and applications</b> <b>Taekyoon KIM</b> ( <i>WP2/9 Chair</i> ) ( <i>ETRI, Korea</i> ) <b>Yanbin (Evan) SUN</b> ( <i>WP2/9 Vice-chair</i> ) ( <i>Huawei, China</i> ) <b>Pradipta BISWAS</b> ( <i>WP2/9 Vice-chair</i> ) ( <i>Indian Institute of Science, India</i> )	Q3	AI-enabled enhanced functions over integrated broadband cable network
		Q5	Software components, application programming interfaces (APIs), frameworks and overall software architecture for advanced content distribution services within the scope of Study Group 9
		Q8	The Internet protocol (IP) enabled multimedia applications and services for cable television networks enabled by converged platforms
		Q9	Requirements, methods, and interfaces of the advanced service platforms to enhance the delivery of audiovisual content, and other multimedia interactive services over integrated broadband cable networks
		Q11	Accessibility to cable systems and services

### 5.1 SG9 Questions texts and restructuring in view of WTSA-24

Three special sessions on SG9 restructuring in view to WTSA-24 took place on Friday 10 May Session 3 and Monday 13 May on Sessions 2-3 and were chaired by SG9 Chair, Mr Satoshi Miyaji.

The Questions texts were further revised, finalised, and agreed to be submitted to WTSA-24 as contained in [SG9-TD722R2](#).

The mandate of SG9 was also reviewed by the meeting and was agreed as contained in [SG9-TD664R5](#).

The main achievements of each of SG9 Questions during 2022-2024 study period were also discussed. Inputs have been collected by the various Rapporteurs so they can be included in part 1 of WTSA-24 report. The final agreed inputs are contained in [SG9-TD718](#).

## 6 SG9 Management, Rapporteurs and Associate Rapporteurs

SG9 has adopted the List of SG9 Rapporteurs and Associate Rapporteurs for the Study Period 2022-2024 as found in [SG9-TD579](#). No updates were proposed.

## 7 Liaison officers to external groups

SG9 agreed on the list of liaison officers for the Study Period 2022-2024, with the following change as found in [SG9-TD580R1](#):

- Mr Satoshi Miyaji was appointed as JCA-IdM (JCA on Identity Management) liaison officer to replace Mr Han Seung Koo.

## 8 Intersector Rapporteur Groups (IRG-AVA)

No meetings of IRG-AVA were held during this SG9 meeting but representatives of IRG-AVA were invited to join the two Q11/9 sessions, which were held with the support of real-time captioning.

SG9 continues to act as a parent study group for IRG-AVA (Audiovisual Media Accessibility), as mentioned in the table below.

IRG	Title	Co-chair from SG9	Parent Groups	Website
IRG-AVA	Audiovisual Media Accessibility	Pradipta BISWAS (Indian Institute of Science, India)	ITU-T SG9 ITU-R SG6 ITU-T SG16	<a href="https://itu.int/en/irg/ava">https://itu.int/en/irg/ava</a>

## 9 Outgoing Liaison Statements

The following table shows the list of the 19 agreed outgoing liaison statements, as indicated in [SG9-TD598R1](#):

#	Q	WP	To	For	Title	TD
1	Q1/9, Q4/9	WP1	JCA-IMT2020 , ITU-R SG6, ITU-T SG11 and ITU-T SG13	Information	LS/o on AAP consent of draft new Recommendation ITU-T J.cable-5G-arch "System architecture for cable television services to use IMT-2020 radio systems"	<a href="#">TD729R1</a>
2	Q1/9	WP1	ITU-R WP6A and WP6B, ITU-T SG16	Action	LS/o/r on the agreement of the draft ITU-T Technical Report J.TR.WiFiTV "Secondary distribution of digital television and audiovisual content to portable devices using the wireless local area network"	<a href="#">TD744R1</a>

#	Q	WP	To	For	Title	TD
3	Q3/9, Q9/9	W2/9	ITU-T SG12, SG13, SG16, ETSI ISG F5G, FG-MV, JCA-ML	Info	LS/o on J.1630 "End to End Network Characteristics Requirement for Video Services over Integrated Broadband Cable Networks"	<a href="#">TD749R1</a>
4	Q3/9	W2/9	ITU-T SG12	Info	LS/o/r on J.pcnp-char: "End to End Network Characteristics Requirement for Video Services over Integrated Broadband Cable Networks" ( <a href="#">SG12-LS55</a> )	<a href="#">TD751</a>
5	Q4/9	WP1	ITU-D SG1 ITU-D SG2	Action Information	LS/o on collaboration between ITU-D SG1/SG2 and ITU-T SG9	<a href="#">TD745</a>
6	Q5/9	WP2	ITU-T SG11, ITU-T SG16, ITU-R SG6 WP6B	Information	LS/o on creation of new work item on draft new Recommendation J.stvos-ct "The conformity test of smart TV operating system"	<a href="#">TD724</a>
7	Q6/9, Q9/9	WP2	ITU-T SG16	Information	LS/o/r on new work items ITU-T H.CAR-FA and ITU-T H.CVR-OP ( <a href="#">SG16-LS170</a> and <a href="#">SG16-LS171</a> )	<a href="#">TD726R1</a>
8	Q6/9	WP2	ITU-T SG12	Information	LS/o to inform on consent of ITU-T J.STB-AV "Requirements and functional specification of Audio and Video interface on cable set-top box"	<a href="#">TD752</a>
9	Q9/9	WP2	ITU-T SG16	Information	LS/o/r on the progress of F.HIM and the clarification of the differences between F.HIM and J.cloud-ow (SG16-LS164)	<a href="#">TD709R1</a>
10	Q9/9	WP2	ETSI ISG F5G and TC 100	Information	LS/o on the progress of J.cloud-ow	<a href="#">TD731R1</a>
11	Q9/9	WP2	ITU-T SG16, SG12	Information	LS/o on AAP consent of J.1311	<a href="#">TD753</a>
12	Q10/9	PLEN	ITU-T SG15	Action	LS/o/r on the new version of the Access Network Transport (ANT) Standards Overview and Work Plan (SG15-LS75)	<a href="#">TD737-R1</a>
13	Q10/9	PLEN	ITU-T SG15; SCV and CCV	Information	LS/o/r on the Validation of English terms and definitions (SG15-LS105)	<a href="#">TD738</a>
14	Q10/9	PLEN	ITU-T SG11	Information	LS/o/r on request for clarification on some terms for future study of ITU-T SG11 in the next study period (SG11-LS143)	<a href="#">TD708R1</a>
15	Q10/9	PLEN	ITU-T SG17	Action	LS/o/r on Coordination for Identity Management (SG17-LS110)	<a href="#">TD740R1</a>



#	Q	WP	To	For	Title	TD
16	Q10/9	PLEN	JCA-IMT2020	Action	LS/o/r on Updating JCA-IMT2020 about SG9 work items on J.cable-5G-req and J.cable-5G-arch (JCA-IMT2020-LS12)	<a href="#">TD741</a>
17	Q10/9	PLEN	SCV; CCV	Information	LS/o/r on the Validation of English terms and definitions (SCV-LS29)	<a href="#">TD742</a>
18	Q10/9	PLEN	SCV/CCV	Information	LS/o/r on the definitions of "hologram" and "object wave" (SCV-LS21)	<a href="#">TD727R1</a>
19	Q11/9	WP2	FG-MV, ITU-T SG16, ITU-R SG6, and IRG-AVA	Information	LS/o on creation of new work item on draft ITU-T Rec J.CLE-ARVR "Terminology, Metrics and Functional requirements for Cognitive Load Estimation for Augmented and Virtual Reality (AR/VR) services"	<a href="#">TD720R2</a>

## 10 SG9 results per Question

### 10.1 Question 1/9 “Transmission and delivery control of television and sound programme signal for contribution, primary distribution and secondary distribution”

The report of Q1/9 can be found in [SG9-TD691R2](#). It was approved.

#### Executive summary:

Question 1/9 examined four contributions and eight TDs, including 12 incoming liaison statements.

Question 1/9 and Question 4/9 examined one contribution.

Question 1/9 and Question 4/9 decided to reach AAP consent for the draft Recommendations ITU-T J.153 (ex J.cable-5G-arch) in this SG9 meeting, the text is available in [TD728](#).

Question 1/9 and Question 7/9 decided to reach AAP consent for the draft Recommendations ITU-T J.198.2 (ex J.HiNoC3-PHY) corrigendum 1 in this SG9 meeting, the text is available in [TD721](#).

Question 1/9 decided to reach the agreement for the draft ITU-T Technical Report J.TR.WiFiTV “Secondary distribution of digital television and audiovisual content to portable devices using the wireless local area network” in this SG9 meeting, the text is available in [TD739R1](#).

Question 1/9 agreed to initiate the new work item on the draft Recommendations ITU-T J.wtv-req “Functional Requirements for secondary distribution of digital television and audiovisual content to portable devices using the wireless local area network.”, the text is available in [TD743](#).

Question 1/9 reviewed all incoming liaison statements and agreed to send two outgoing liaison statements as follows:

- to inform JCA-IMT2020, ITU-R SG6, ITU-T SG11, and ITU-T SG13 on the AAP Consent of Recommendation ITU-T J.153, as found in [TD729R1](#), and
- to inform ITU-R WP6A and WP6B, and ITU-T SG16 on the progress of J.TR.WiFiTV, as found in [TD744R1](#).

Question 1/9 plans to organize one interim meeting in July 2024 for the upcoming period.

Question 1/9 kindly requested that SG9 experts provide their migration scenarios to J.cable-rf-to-ip.

WP1 reviewed the A.1 justifications of J.wtv-req and one outgoing liaison statement, as found in [TD744R1](#), and agreed with these documents.

## **10.2 Question 2/9 “Methods and practices for conditional access and content protection”**

The report of Q2 can be found in [SG9-TD692](#). It was approved.

### **Executive summary:**

Q2/9 achieved the following results:

- Four new work items were agreed:
  - draft Recommendation ITU-T J.DRMVA-REQ “Digital rights management for video and audio content distribution – Requirements”
  - draft Recommendation ITU-T J.DRMVA-ARCH “Digital rights management for video and audio content distribution – System Architecture”
  - draft Recommendation ITU-T J.DRMVA-CLIENT “Digital rights management for video and audio content distribution – Client”
  - draft Recommendation ITU-T J.DRMVA-RBST “Digital rights management for video and audio content distribution – Compliance and Robustness Rules”

One interim meeting is planned: 9:30-11:30 (Geneva time) on 22nd July 2024 (TBC), e-meeting.

## **10.3 Question 3/9 “AI-enabled enhanced functions over integrated broadband cable network”**

The report of Q3/9 can be found in [SG9-TD693R1](#). It was approved.

### **Executive summary:**

Question 3/9 reviewed 1 contribution and 14 incoming liaisons.

Q3/9 used 2 sessions to review the following contributions and TDs

- Contribution: [Q3/9-DOC5 \(240411\)](#)
- TD: [TD659](#), [TD606](#), [TD607](#), [TD620](#), [TD625](#), [TD627](#), [TD638](#), [TD639](#), [TD641](#), [TD650](#), [TD651](#), [TD652](#), [TD666](#), [TD676](#), [TD685](#).

In particular, Q3/9 reviewed the contribution [Q3/9-DOC5 \(240411\)](#), which describes the E2E network characteristics requirement for video services. It was agreed for consent and the text is available in [TD747R1](#).

E-meeting report of TD660 is approved at the opening plenary meeting of SG9.

Also reviewed 14 incoming liaisons, and coordinated with Q9/9. Q3/9 agreed to issue two liaison statements:

- To ITU-T SG12, SG13, SG16, ETSI ISG F5G, FG-MV, JCA-ML which includes the current status of J.pcnp-char, the liaison is available in [TD749R1](#), and.
- To ITU-T SG12 as reply to their LS on J.pcnp-char ([SG12-LS55](#)). The liaison is available in [TD751R1](#).

During the WP/2 Plenary, Q3/9 Rapporteur was asked to develop a new liaison statement to inform SG12 on the disposition of their comments to draft J.1630 as per their incoming liaison statement. The new liaison will be discussed at the closing plenary of SG9, the draft was posted as [TD751](#).

#### **10.4 Question 4/9 “Guidelines for implementations and deployment of transmission of multichannel digital television signals over optical access networks and Hybrid Fibre-Coaxial (HFC)”**

The report of Q4 can be found in [SG9-TD694](#). It was approved.

##### **Executive summary:**

Q4/9 received one contribution, [C114R1](#) from Japan Cable Laboratories.

C114R1 proposes a revised text of J.cable-5G-arch for AAP consent. It was reviewed during the joint Q1 and Q4 session on 13 May, in considerations of developing countries potential interest in using 5G radio system as FWA to extend cable television service areas.

Q4/9 did not receive contribution regarding the revision of ITU-T J. Supplement 11, but discussed how we can promote work of Q4/9 to other experts concerned in developing countries to submit contribution on use cases of hybrid cable network. Information received will be added to new appendix of revised J. Supplement 11.

- ***Action: TSB is requested to advise Q4/9 on possible actions (e.g. circular letter, workshops, etc.) to promote work of Q4/9 to other experts concerned in developing countries to submit contribution on use cases of hybrid cable network.***

Q4/9 meeting reviewed the updated Q4 text contained in TD664 and TD722, but received no opinions to further revise it. It also reviewed TD718 which contained achievements of SG9 but no comments were received.

Question 4 also drafted a liaison statement to ITU-D SG1 and SG2 to ask for continued collaboration in particular the collection of use cases of combined fibre and copper pairs running DOCSIS, ADSL or VDSL in developing countries, the liaison statement is available in [TD745](#).

### **10.5 Question 5/9 “Software components, application programming interfaces (APIs), frameworks and overall software architecture for advanced content distribution services within the scope of Study Group 9”**

The report of Q5/9 can be found in [SG9-TD695R1](#). It was approved.

#### **Executive summary:**

Q5/9 addressed one contribution.

The group agreed to start a new work item J.stvos-ct. The A.1 justifications for the draft new Recommendation can be found in [Annex C](#). The group agreed to produce one outgoing liaison statement to inform ITU-T SG11, ITU-T SG16 and ITU-R SG6 WP6B on this matter.

The group reviewed the text of J.stvos-ct and expected to make further progress of this draft new Recommendation with more contributions. The output document with the current baseline text can be found in [TD723](#).

The group reviewed and agreed on the updated terms of references of this Question.

The group reviewed and agreed on the main achievement of this Question in 2022-2024 Study Period.

The group produced one outgoing liaison statement available in [TD724](#).

### **10.6 Question 6/9 “Functional requirements for terminal devices of the integrated broadband cable network”**

The report of Q6 can be found in [SG9-TD696R1](#). It was approved.

#### **Executive summary:**

##### *10.6.1 Contributions:*

Six Contributions [C112R1](#), [C113R1](#), [C123](#), [C124](#), [C129](#), [C131](#) were reviewed during the 4 session meetings.

Draft revised Rec J.298 Rev was discussed and proposed for consent as available in [TD690](#), A.5 justification information post as [TD719](#)

Draft new Rec J.STB-AV was finalised and is proposed for AAP consent as available in [TD736R2](#).

There is a proposal to finalize baseline text of J.STB-UHDVR for further work and it is planned for AAP consent in next SG9 Meeting.

##### *10.6.2 Incoming Liaison Statements:*

Four incoming liaisons are reviewed.

[TD608](#), [TD609](#), [TD611](#) from SG15 for ANT/HNT, Q6 noted these LSs.

[TD674](#) is a liaison statement from SG16 and Q6/9 prepared a reply and agreed to send out liaison statement available in [TD726R1](#)

##### *10.6.3 Planned interim Rapporteurs meeting:*

Q6/9 is planning one interim Rapporteurs meeting to be held online on 4 July 2024.

#### 10.6.4 Agreed actions

- *Action: It is proposed to establish a new series: “1290-1299 "Cable set-top box (part 2)”*

#### **10.7 Question 7/9 “Transmission control and interfaces (MAC layer) for IP and/or packet-based data over integrated broadband cable networks”**

The report of Q7 can be found in [SG9-TD697R1](#). It was approved.

##### **Executive summary:**

Q7 achieved the following results:

Q7/9 achieved the following results:

- No outgoing liaison statement was approved.
- One corrigendum was agreed for consent, the text for consent is available in [TD721](#).
- No new work items were agreed

One interim meeting was planned in July 2024.

#### **10.8 Question 8/9 “The Internet protocol (IP) enabled multimedia applications and services for cable television networks enabled by converged platforms”**

Q8/9 didn't organize any session during this SG9 meeting.

#### **10.9 Question 9/9 “Requirements, methods, and interfaces of the advanced service platforms to enhance the delivery of audiovisual content, and other multimedia interactive services over integrated broadband cable networks”**

The report of Q9/9 can be found in [SG9-TD699R1](#). It was approved.

##### **Executive summary:**

Question 9/9 discussed two contributions and twenty-four TDs, including fifteen incoming liaison statements.

Question 9/9 agreed to reach AAP Consent for the draft new Recommendation ITU-T J.1311 (ex. J.cloud-game-req) "Technical Requirements for Cloud Gaming Service Platforms" at this SG9 meeting. The summary was agreed to be modified more extensively and it will be reviewed in WP2 closing plenary, the latest text is available in [TD706R2](#).

Question 9/9 agreed to accept the output draft new Recommendation J.cloud-ow "Requirements of E2E Network Platform for Cloud-based Object Wave Transmissions" as the new baseline text, as found in [TD707R1](#).

Question 9/9 reviewed all incoming liaison statements and agreed to send three outgoing liaison statements as follows:

- to inform ITU-T SG16 of the appreciation for the clarification and the progress of J.cloud-ow, as found in [TD709R1](#).
- to inform ETSI ISG F5G and ETSI TC 100 of the progress of J.cloud-ow, as found in [TD731R1](#).
- to inform SG16 about VR related activities from Q9/9 as joint liaison statement with Q6/9, as found in [TD726R1](#).

**Action: Question 9/9 agreed to propose to WP2/9 to establish a new sub-series: J.1310-J.1319: "Cloud-based Multimedia Services for IP Delivery".**

Question 9/9 agreed to organize one interim meeting in July 2024.

#### **10.10 Question 10/9 “Work programme, coordination and planning”**

The report of Q10/9 can be found in [SG9-TD700R1](#). It was approved.

##### **Executive summary:**

Question 10/9 reviewed forty-five (45) inputs, including forty (40) incoming liaison statements.

- Question 10/9 agreed to send seven (7) reply liaison statements as follows:
  - 1) [SG9-TD737R1](#): LS/o/r on the new version of the Access Network Transport (ANT) Standards Overview and Work Plan (SG15-LS75) [to ITU-T SG15]
  - 2) [SG9-TD738](#): LS/o/r on the Validation of English terms and definitions (SG15-LS105) [to ITU-T SG15; SCV and CCV]
  - 3) [SG9-TD708R1](#): LS/o/r on request for clarification on some terms for future study of ITU-T SG11 in the next study period (SG11-LS143) [to ITU-T SG11]
  - 4) [SG9-TD740](#):LS/o/r on Coordination for Identity Management (SG17-LS110) [to ITU-T SG17]
  - 5) [SG9-TD741](#):LS/o/r on Updating JCA-IMT2020 about SG9 work items on J.cable-5G-req and J.cable-5G-arch (JCA-IMT2020-LS12) [to JCA-IMT2020]
  - 6) [SG9-TD742](#): LS/o/r on the Validation of English terms and definitions (SCV-LS29) [to SCV; CCV]
  - 7) [SG9-TD727](#): LS/o/r on the definitions of "hologram" and "object wave" (SCV-LS21) [to ITU-T SCV/CCT]
- Q10 coordinated terminologies issues of already approved Recommendations J.198.2, J.1036, J.1305 and J.1306 and facilitated the issuance of related Corrigenda by Q1/9 (ITU-T J.198.2) and Q2/9 (ITU-T 1036). As Q8/9 had no sessions scheduled at the current meeting, Q10 took on the

responsibility to issue the Corrigenda for ITU-T J.1305 and J.1306 in collaboration with the editors of these Recommendation as well as the Rapporteur of Q8/9.

- Q10/9 also discussed activity highlights and updates of Question ToR based on TD675 and TD663 proposed by Rapporteur for Q10/9. In addition, the group also discussed the possible consolidation of Q10/9 and Q1/16 by inviting Rapporteur for Q1/16. One document has been compiled utilizing the inputs from Q10/9 and Q1/16 for the subsequent joint SG9 and SG16 Management meeting (see [TD750](#)).

### 10.11 Question 11/9 “Accessibility to cable systems and services”

The report of Q11/9 can be found in [SG9-TD701R2](#). It was approved.

#### Executive summary:

Q11/9 achieved the following results:

- Agreed for a new work item proposing a new ITU-T Recommendation J.CLE-ARVR "Terminology, Metrics and Functional requirements for Cognitive Load Estimation for Augmented and Virtual Reality (AR/VR) services", the output TD is available in TD717.
- Considered for consent of new Recommendation ITU-T J.acc-us-prof "Requirements for the specific semantics of a Common User Profile used to personalize audiovisual media", however, in view of the deliberations during the Q11/9 meetings, it was agreed to not propose it for consent during the current SG9 meeting.
- Reviewed the various incoming liaison statements.
- One interim meeting is planned.
- One outgoing liaison statement to FG-MV, ITU-T SG16, ITU-R SG6, and IRG-AVA was agreed, available in TD720R2.

## 11 Work plan for interim Rapporteur meetings and working party meetings.

### 11.1 Working party meetings

No interim working party meetings will be held before next SG9 meeting, currently planned in Tokyo, Japan, 2-10 September 2024.

### 11.2 Interim Rapporteurs’ groups meetings

The following interim Rapporteurs’ groups meetings are agreed by SG9. For updates, please see the Rapporteur meetings webpage:

<https://www.itu.int/net/ITU-T/lists/rgm.aspx?Group=9&type=interim>

Q/SG	Date	Place / Host	Terms of reference	Contact
1/9	8 July 2024 (0600-0730 CEST)	e-meeting	Progress on J.wtv-req and other work items in Q1/9	Kei Kawamura ( <a href="mailto:ki-kawamura@kddi.com">ki-kawamura@kddi.com</a> )

Q/SG	Date	Place / Host	Terms of reference	Contact
2/9	22 July 2024 (TBC) (0930-1130 CEST)	e-meeting	Progress on J.drmva-req, J.drmva-arch Discuss generating new work item for J.FSR series	Han-seung KOO ( <a href="mailto:koohs@etri.re.kr">koohs@etri.re.kr</a> )
6/9	4 July 2024 (1030-1130 CEST)	e-meeting	Progress on J.STB-UHDVR (Functional requirements for cable set-top box supporting Ultra-High-Definition video and virtual reality services) Other Contributions (TBC)	Xin.Zhang ( <a href="mailto:xin.zhang@skyworth.com">xin.zhang@skyworth.com</a> )
7/9	5 July 2024 (0930-1100 CEST)	e-meeting	Progress on J.DVCS.spec, JSTR-STBN etc.	TaeKyoon KIM ( <a href="mailto:tkkim@etri.re.kr">tkkim@etri.re.kr</a> )
9/9	24 July 2024 (0900-1015 CEST)	e-meeting	Progress on J.cloud-ow.	Yanhua (Willa) NIU ( <a href="mailto:niuyanhua@abs.ac.cn">niuyanhua@abs.ac.cn</a> )
11/9	18-19 June 2024 (1300-1500 CEST)	e-meeting	Drafting sessions on progressing the work item J.acc-us-prof “Requirements for the specific semantics of a Common User Profile used to personalize audiovisual media” and to address the comments received from IRG-AVA posted in <a href="#">SG9-TD689R2</a> .	Avinash Agarwal, ( <a href="mailto:Avinash.70@gov.in">Avinash.70@gov.in</a> )

## 12 Actions agreed

*Action 1: TSB is requested to advise Q4/9 on possible actions (e.g. circular letter, workshops, etc.) to promote work of Q4/9 to other experts concerned in developing countries to submit contribution on use cases of hybrid cable network.*

*Action 2: SG9 members are requested to submit actual use cases of cable IPTV services in respective countries to be included in Appendix III of J.cable rf-to-ip (TD735).*

TSB was requested to investigate if a Circular letter from TSB Director is possible to be issued to foster feedback on the two actions above mainly from developing countries (action 1) and both developing and developed countries (action 2).

## 13 Next Study Group 9 meeting

Next ITU-T SG9 meeting is currently scheduled to be held from 2 to 10 September 2024 in Tokyo, Japan, hosted by Japanese Government. More information will be provided on the SG9 website when available.