

Executive summary of ITU-T SG9 meeting (22-30 January 2018, Geneva, Switzerland)

The second Study Group 9 (Broadband cable and TV) meeting in the Study period 2017-2020 was held in Geneva, Switzerland from 22 to 30 January 2018. The SG9 meeting was attended by 45 participants from 15 countries. Along with face-to-face meetings a few sessions were supported by remote participation, as requested by SG9 Management. At this meeting, Q3/9 did not meet; due to lack of Contributions Q3/9 meeting was cancelled.

Co-located with the SG9 meeting, the ITU hosted a **workshop** on “[The Future of Cable TV](#)” on 25 and 26 January 2018. The workshop has been organized by the TSB jointly with BDT within the context of the European Regional Initiative approved by WTDC-17 on "Broadband Infrastructure, Broadcasting and Spectrum Management", whereby assistance is to be provided to countries in need on the assessment of dynamics, challenges and opportunities of diverse broadband technologies across Europe, including cable TV. The collaboration among the two ITU Sectors proven to be effective and the workshop was an opportunity to also discuss cable TV related regional and international standardization. A diversified representation of stakeholders joined the event and shared best practices and case studies on Cable TV roll-outs, which was highly appreciated by the ITU Membership. The workshop was attended by 85 participants from 30 countries. Remote participation was available to attend the workshop. All presentations given at the workshop are available from the [detailed programme](#) accessible from the event website at: <http://itu.int/go/SG9-FCTV> .

1. List of Consented/Determined Recommendations and other deliverables for approval

During the SG9 meeting in January 2018, a total of eight draft Recommendations were finalized, of which four through AAP Consent and four through TAP Determination.

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

Question	AAP/TAP	Rec	Status	Title	Final TD	A.5 justification
Q1/9	AAP	ITU-T J.382	Rev.	Advanced digital downstream transmission systems for television, sound and data services for cable distribution	TD273	TD274
Q5/9	AAP	ITU-T J.207	Rev.	Specification for integrated broadcast and broadband digital television application control framework	TD288	N/A

Question	AAP/TAP	Rec	Status	Title	Final TD	A.5 justification
Q6/9	AAP	ITU-T J.297	Rev.	Requirements and functional specification of cable set top box for 4K ultra high definition television"	TD290	N/A
Q7/9	AAP	ITU-T J.1107 (ex. J.roip-arch)	New	Architecture and specification for Radio over IP transmission systems	TD276	N/A

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

Question	AAP/TAP	Rec	Status	Title	Current TD	A.5 justification
Q2/9	TAP	ITU-T J.1012 (ex J.dmcd-part3)	New	Embedded Common Interface (ECI) for exchangeable CA/DRM solutions; CA/DRM Container, Loader, Interfaces, Revocation	TD307	TD314
Q2/9	TAP	ITU-T J.1013 (ex J.dmcd-vm)	New	Embedded Common Interface (ECI) for exchangeable CA/DRM solutions; The Virtual Machine	TD284R1	TD283R1
Q2/9	TAP	ITU-T J.1014 (ex J.dmcd-eci-as)	New	Embedded Common Interface (ECI) for exchangeable CA/DRM solutions; Advanced Security - ECI-specific functionalities	TD308	TD316
Q2/9	TAP	ITU-T J.1015 (ex J.dmcd-kl-as)	New	Embedded Common Interface (ECI) for exchangeable CA/DRM solutions; The Advanced Security system - Key Ladder	TD309R1	TD315

2. Supplements, Amendments, Corrigenda and other deliverables

2.1 Supplements

No Supplement was proposed for agreement at this meeting.

2.2 Amendments

No Amendment was proposed for agreement at this meeting.

2.3 Corrigenda

No Corrigenda was proposed for agreement at this meeting.

3. New and deleted work items

3.1 SG9 agreed to start the following 5 new work items:

#	Question	Work item (kind of publication)	Status	Title	Editor	TD	A.1 Justification template
1	Q1	J.atrans-tlvts	New	Conversion of type length value (TLV) packet and transport stream for advanced cable transmission systems	Kazuyuki Takahashi (Kazuyuki.A.Takahashi@sony.com)	TD293	Annex C of TD261R2
2	Q2	J.dcas-oneway (Draft Rec.)	New	Downloadable Conditional Access System for One-Way TV Networks	Qiang Wang (wangqiang@abs.ac.cn) Han-Seung Koo (koohs@etri.re.k)	N/A	Annex C of TD262R1
3	Q5	J.stvos-spec-arch	New	The Architecture of Smart TV Operating System	Haifeng Yan (yanhaifeng@hisilicon.com)	TD286	Annex C of TD265R1
4	Q7	J.roip-trans (Draft Rec.)	New	Transmission specification for Radio over IP transmission system	Mr TaeKyoon KIM (tkkim@etri.re.kr)	N/A	Annex C of TD267R1
5	Q10	J.tda (Draft Rec.)	New	Terms, definitions and acronyms for television and sound transmission and integrated broadband cable networks	Hongjun Jia (jiahjcn@163.com)	TD317	Annex C of TD270

3.2 SG9 agreed to stop working on the following work items at this meeting

No work items were discontinued at this meeting.

4. SG9 Management for the Study Period 2017-2020

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

Role	Name
Chairman:	Mr Satoshi MIYAJI (KDDI, Japan)
Vice-chairman:	Mr Blaise Corsaire MAMADOU (Central African Rep.)
Vice-chairman:	Mr Tae Kyoon KIM (ETRI, Korea Rep. of)

Vice-chairman:	Mr Zhifan SHENG (ABS, China)
Advisor	Mr Stefano POLIDORI (SGD, TSB)
Administrative assistant	Ms Rosa ANGELES-LEON DE VIVERO (SGD, TSB)

5. SG9 Structure for the Study Period 2017-2020

SG9 confirmed its structure and leadership for the Study Period 2017-2020 as proposed in [TD175](#).

SG9 is composed of two Working Parties reporting to the SG9 Plenary:

- WP1 “*Video transport*” (Q1, 2, 3 and 4);
- WP2 “*Cable-related terminals and applications*” (Q5, 6, 7, 8 and 9)

In addition, Q10 and the established Intersector Rapporteur Groups (IRGs) will report to the SG9 Plenary.

To be noted that, at this meeting, SG9 decided to discontinue its participation in the IRG-AVQA as no one was able to take on the responsibility of co-chair for such IRG-AVQA.

See the table below for more details.

	WP titles and MGT	Q/IRG	Titles
WP1	Video transport Zhifan SHENG <i>(WP1/9 Chairman)</i> ABS, China Bryant TAN <i>(WP1/9 Vice-chair)</i> Broadcom, USA	Q1	Transmission of television and sound programme signal for contribution, primary distribution and secondary distribution
		Q2	Methods and practices for conditional access, protection against unauthorized copying and against unauthorized redistribution (“redistribution control” for digital cable television distribution to the home)
		Q3	Digital programme delivery controls for multiplexing, switching and insertion in compressed bit streams and/or packet streams
		Q4	Guidelines for implementations and deployment of transmission of multichannel digital television signals over optical access networks
WP2	Cable-related terminals and applications Taekyoon KIM <i>(WP2/9 Chairman)</i> ETRI, Korea Blaise MAMADOU <i>(WP2/9 Vice-chair)</i>	Q5	Software components application programming interfaces (APIs), frameworks and overall software architecture for advanced content distribution services within the scope of Study Group 9
		Q6	Functional requirements for residential gateway and set-top box for the reception of advanced content distribution services
		Q7	Cable television delivery of digital services and applications that use Internet protocol (IP) and/or packet-based data over cable networks
		Q8	The Internet protocol (IP) enabled multimedia applications and services for cable television networks enabled by converged platforms

	WP titles and MGT	Q/IRG	Titles
	Central African Republic (RCA)	Q9	Requirements, methods, and interfaces of the advanced service platforms to enhance the delivery of sound, television, and other multimedia interactive services over cable television network
SG9 PLEN	Plenary of SG9 Satoshi MIYAJI (SG9 Chairman) KDDI, Japan	Q10	Work programme, coordination and planning
		IRG-IBB	Integrated Broadcast-Broadband systems
		IRG-AVA	Audiovisual Media Accessibility

5.1 SG9 Questions texts:

Also, taking into consideration that in this new Study Period Q3/9 did not receive any contribution and that the Rapporteur position has been vacant, SG9 agreed to revise the terms of reference of Q1/9 to include the applicable responsibilities of Q3/9. In this way, Q3/9 was merged into Q1/9 and the updated terms of reference are found in [TD313](#). As per normal procedure, a liaison statement was drafted to inform TSAG on this change and request its endorsement, see [TD 312](#).

6. SG9 Management, Rapporteurs and Associate Rapporteurs

SG9 has updated the List of SG9 Rapporteurs and Associate Rapporteurs for the Study Period 2017-2020 as found in [TD176R1](#).

China has proposed a replacement for the Rapporteur of Q5/9. The previous Rapporteur, Mr Heming WANG (Huawei, China) was thanked for his work and a new Rapporteur, Mr George Lee (Huawei, China) was appointed and welcomed among the SG9 team of experts.

7. Liaison officers to external groups

SG9 has agreed on the List of SG9 liaison officers for the Study Period 2017-2020 with the following as found in TD177R3.

- Mr Xiang (Eric) WANG (Huawei, China) is the new liaison officer to ITU-T SG15 and JCA-IMT2020;
- Mr TaeKyoon KIM (ETRI, Rep. of Korea) joins Mr Tomoyuki Shimizu (KDDI, Japan) as liaison officer to ETSI TC CABLE;
- Mr Yanbin (Evan) Sun (Huawei, China) is the new liaison officer to SCTE.

8. Intersector Rapporteur Groups (IRG-AVQA; IRG-AVA; IRG-IBB)

SG9 has agreed to continue its involvement with two of the three Intersector Rapporteur Groups between ITU-T and ITU-R, as mentioned in the table below. However, ITU-T SG9 will discontinue its participation in the IRG-AVQA, since it was not possible to

find any appropriate expert to co-chair and follow up on IRG-AVQA matters. As indicated in [TD318](#), a liaison has been drafted to explain this decision to both ITU-T SG12 and ITU-R WP6C.

The appointment of co-chairs for IRG-AVA and IRG-IBB was confirmed as follows.

IRG	Title	Co-chair from SG9	Parent Groups	Website
IRG-IBB	Integrated Broadcast-Broadband systems	Masaru TAKECHI (NHK, Japan)	ITU-R SG6 ITU-T SG16	https://itu.int/en/irg/ibb
IRG-AVA	Audiovisual Media Accessibility	Amal PUNCHIHEWA (ABU, Malaysia)	ITU-R SG6 ITU-T SG16	https://itu.int/en/irg/ava

9. Outgoing Liaison Statements

The following table shows the list of the 22 agreed outgoing liaison statements, as indicated in [TD180R1](#).

#	Questions	WP/ PLEN	To	For	Title	TD
1	Q1/9, Q7/9	WP1, WP2	ETSI TC Cable, ITU-T SG15	Information	LS/o/r on status of work items related to DOCSIS (SG9-LS2)	TD279 Rev.1
2	Q1/9	WP1	ETSI TC Cable, DVB-TM, SCTE DVS, ARIB, CableLabs	Information	LS/o on approval of revised Recommendation ITU-T J.382 "Advanced digital downstream transmission systems for television, sound and data services for cable distribution"	TD280
3	Q2/9	WP1	ITU-T SG17, ARIB, ETSI ISG ECI	Information	LS/o on Determination of new Recommendations ITU-T J.1012, J.1013, J.1014 and J.1015 with regard to "Embedded common interface for exchangeable CA/DRM solutions"	TD310 Rev.1
4	Q2/9	WP1	ITU-T SG17, ARIB, ETSI ISG ECI	Information	LS/o on initiation of the new work item of draft new Recommendation "Downloadable conditional access system for one-way TV networks (J.dcas-oneway)"	TD311 Rev.1
5	Q4/9	WP1	ITU-D SG1, ITU-R SG6	Information	LS/o on Request for information on ITU-D and ITU-R activities on deployment of digital (terrestrial) television in developing countries	TD306 Rev.1
6	Q5/9	WP2	ITU-R WP6B	Action	LS/o on Revision of Recommendation J.207 for consent and activities related to IBB systems	TD285
			ITU-T SG16, IRG-IBB	Information		
7	Q6/9	WP2	ITU-T SG16	Information	LS/o on revised draft Recommendation J.297-rev "Requirements and functional specification of cable set top box for 4K ultra high definition television"	TD292

8	Q6/9, Q10/9	WP2	ITU-T SG15	Action	LS/o/r on new version of the Home Network Transport (HNT) Standards Overview and Work Plan	TD296
9	Q7/9	WP2	SCTE, ETSI TC-CABLE	Information	LS/o on AAP consent of draft new Recommendation ITU-T J.1107 (J.roip-arch) "Architecture and specification for Radio over IP transmission systems"	TD275
10	Q7/9	WP2	SCTE, ETSI TC-Cable	Information	LS/o on new work item for J.roip-trans "Transmission specification for Radio over IP transmission system"	TD278 Rev.1
11	Q9/9	WP2	ITU-T SG12, ITU-T SG16	Action	LS/o on augmented reality smart TV service progress in Q9/9	TD282
12	Q10/9	PLEN	ITU-T SG5	Information	LS/o/r on new version of the Home Network Transport (HNT) Standards Overview and Work Plan	TD294
13	Q10/9	PLEN	ITU-T SCV, ITU-T SG15, ITU-R CCV	Information	LS/o/r on definition for the term "broadband access"	TD295
14	Q10/9	PLEN	ITU-T SG11	Information	LS/o/r on appointment of ITU technical experts	TD297
15	Q10/9	PLEN	TSAG	Information	LS/o/r on request for background information on the implementation of the 2012 International Telecommunication Regulations	TD298
16	Q10/9	PLEN	JCA IMT-2020	Information	LS/o/r on Invitation to update the information in the IMT2020 roadmap	TD299
17	Q10/9	PLEN	APT ASTAP	Information	LS/o/r on IPTV/CATV Survey including the questionnaire	TD300
18	Q10/9	PLEN	JCA MMeS	Information	LS/o/r on the amendment of the Terms of Reference of the JCA on multimedia aspects of e-services	TD301
19	Q10/9	PLEN	ITU-T SG11	Action	LS/o/r on updated reference table of ITU-T Recommendations to be used for conformity and interoperability testing	TD302
20	Q10/9	PLEN	ITU-T SCV, ITU-R CCV and ITU-T SG2, 3, 5, 11, 12, 13, 15, 16, 17, 20 and TSAG	Action	LS/o on the terms and definitions database	TD303
21	Q10/9	PLEN	TSAG, ITU-T SG16, ITU-R SG4, 5, 6	Action	LS/o on the merge of Q1/9 with Q3/9 and related amendment of Q1/9 ToR	TD312
22	SG9 Chairman	PLEN	ITU-T SG12 ; ITU-R SG6	Action	LS/o on ITU-T SG9 participation in IRG-AVQA	TD318

10. SG9 results per Question

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

The report of Q1/9 can be found in [TD261R2](#).

Question 1/9 discussed 3 contributions and 3 TDs, including 3 incoming liaison statements. Question 1/9 reached AAP consent for ITU-T J.382 (revised) in this SG9 meeting. Question 1/9 agreed to initiate the following new work item: J.atrans-tlvts. It aims to provide the specifications of conversion of type length value (TLV) packet and transport stream for advanced cable transmission systems. Two editors are assigned to the ongoing work items, J.docsis31-gen and J.docsis31-phy.

10.2 Question 2/9 “Methods and practices for conditional access, protection against unauthorized copying and against unauthorized redistribution (“redistribution control” for digital cable television distribution to the home)”

The report of Q2/9 can be found in [TD262R1](#).

Question 2/9 finalized four draft new Recommendations, respectively J.1012 (ex. J.dmcd-part3), J.1013 (ex. J.dmcd-vm), J.1014 (ex. J.dmcd-eci-as) and J.1015 (ex. J.dmcd-kl-as) for TAP determination. Q2/9 also decided to start one new work item: J.dcas-oneway.

10.3 Question 3/9 “Digital programme delivery controls for multiplexing, switching and insertion in compressed bit streams and/or packet streams”

Q3/9 meeting was cancelled due to lack of Contributions.

10.4 Question 4/9 “Guidelines for implementations and deployment of transmission of multichannel digital television signals over optical access networks”

The report of Q4/9 can be found in [TD264R1](#).

Question 4/9 progressed the two work items, Sup-digTV and J.dtc-distribution-req (formerly J.dtt-distribution-req).

Sup-digTV "Installing a digital TV service for cable networks and relating Recommendations" is a new ITU-T Supplement to J-series Recommendation, which provides a text book for engineers in developing countries. Contribution C.30 from Japan Cable Laboratories added a list of existing ITU-T Recommendations that can be referred to for this purpose. C.19 from Central African Republic proposed to include DOCSIS 3.1 standard in Sup-digTV. The meeting noted that DOCSIS is a data transport technology that can be used to transport IPTV over cable system, and decided to include information on ITU-T J.docsis31 (DOCSIS 3.1) along with ITU-T H.222.0 (DOCSIS 3.0) in Appendix I.

To advance the work on J.dtt-distribution-req, the meeting reviewed Contribution C.20 from Rwanda, C21 from Haiti, C22 from Benin, C23R1 and from Gambia, and C26 from Congo which all provided the actual case of digital television migration and deployment in each respective country. While reviewing this draft Recommendation, it was pointed out that this platform can carry not only DTT (Digital Terrestrial Television) content, but other digital television content (DTC) as well. The name of the work item was accordingly modified to J.dtc-distribution-req.

During the course of above discussion, a question was raised as to the relevancy of this work item with the current ToR of Question 4/9. In the future, the Contributions to this draft new Recommendations from developing countries have to be assessed for assignment by SG9 Management, in case they do not fall only into the Q4/9 ToR.

Lastly, to avoid the overlap of work concerning the deployment of digital television including DTT (Digital Terrestrial Television) in developing countries, the meeting decided to send liaison statement to ITU-D SG1 and ITU-R SG6.

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 [TD265R1](#).

The group discussed the separation of draft new Recommendation J.stvos-spec (contribution SG9-C31) based on contribution SG9-C41 and agreed to divide J.stvos-spec into two Recommendations based on contribution SG9-C42 and SG9-C43. With this agreement, the group created a new work item J.stvos-spec-arch "The Architecture of Smart TV Operating System" and changed the name of J.stvos-spec to J.stvos-spec-req. The group updated the text of draft new Recommendation of J.stvos-spec-req and J.stvos-spec-arch for progressing. Also three liaison statements were reviewed and noted. Q5/9 agreed to consent the draft revised Recommendation ITU-T J.207 “Specification for Integrated Broadcast and Broadband DTV application control framework”. Finally the group prepared liaison statements to ITU-R WP6B and ITU-T SG16 to inform about the consent of Recommendation ITU-T J.207 and the progress of J.stvos-spec-req and J.stvos-spec-arch.

10.6 Question 6/9 “Functional requirements for residential gateway and set-top box for the reception of advanced content distribution services”

The report of Q6/9 can be found in [TD266R3](#).

Over Q6 meeting session, Contribution SG9-C29 (J.297-rev) “Revision of J.297 Requirements and functional specification of cable set top box for 4K ultra high definition television” was reviewed and approved with change of “CAM” to “CAS” and “HDMI2.0 and beyond” to “HDMI2.0 or above”. The group agreed to submit ITU-T J.297 (TD291) for consent at the plenary session of SG9. An outgoing liaison statement to ITU-T SG16 (TD292) was drafted for information and another one joint with Q10/9 to be addressed to ITU T SG15 (TD296).

TD245 “Requirements and technical specifications of cable TV hybrid set-top box that has the compatibility with terrestrial and satellite TV transport” was reviewed; it was suggested to collect in more detail further market requirements and use cases. The Rapporteur (Mr Shizhu LONG, China) will study these user requirements to draft corresponding technical requirements and specifications which meet the market requirements. At the same time, Q6 will work closely with Q4 in regards to this work item.

10.7 Question 7/9 “Cable television delivery of digital services and applications that use Internet protocol (IP) and/or packet-based data over cable networks”

The report of Q7/9 can be found in [TD267R1](#).

Question 7/9 met in 4 sessions to discuss 3 contributions, 9 TDs including 3 incoming liaison statements. The group agreed to propose J.roip-arch for AAP Consent at the closing Plenary meeting of SG9. The group also agreed to initiate the following new work item: J.roip-trans that provides a transmission specification according to the J.1106. Three outgoing liaison statement were also agreed at this meeting.

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

The report of Q8/9 can be found in [TD268R2](#).

The group had two sessions. SG9-C25 was addressed by Mr. C. K. Vaghani from D. R. Congo. SG9-C25 is asking for energy efficient open standards and provide some examples for the recent deployment efforts of IPTV services by SCPT, a public company from D. R. Congo. The group discussed it and advised Mr. Vaghani that IPTV standards are more relevant to SG16 rather than SG9 and that example cases can be found in countries where IPTV is becoming widespread such as in Korea and France. SG9-C39 was addressed by Mr. Sungkwon Park from R. O. Korea. The group agreed to have an output document of J.qamip-req as TD289. The next meeting of Q8/9 will be arranged in three sessions during the regular meeting schedule in Geneva, Switzerland, currently scheduled 1-5 October 2018.

10.9 Question 9/9 “Requirements, methods, and interfaces of the advanced service platforms to enhance the delivery of sound, television, and other multimedia interactive services over cable television network”

The report of Q9/9 can be found in [TD269R1](#).

The Q9/9 sessions operated under WP2, under the chairmanship of Rapporteur Xiang (Eric) Wang (Huawei, China), with Q9 covering requirements, methods, and interfaces of the advanced service platforms to enhance the delivery of sound, television, and other multimedia interactive services over cable television network. Q9/9 met for two (2) sessions with about 9 people attending and addressed one (1) contribution, one (1) deferred contribution (resubmitted as TD document) and three (3) incoming liaison statements. The group progressed on J.302amd-1 “System specifications of augmented reality smart television service Amd #1”. The group used the “issues list” tool for maintaining the work of Q9/9. The approved “Q9 issues list” is TD281. Also, the group produced one (1) outgoing liaison statements.

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

The report of Q10/9 can be found in [TD270](#).

The group Question 10/9 reviewed two (2) contributions. We reviewed C.33 and agreed to initiate the following one new work item, J.tda, on “Terms, definitions and acronyms for television and sound transmission and integrated broadband cable networks”. We also discussed C.34 and agreed to add abbreviations and acronyms to the draft as well as to make several editorial modifications. An output document was drafted for progressing. Furthermore, on the basis of our discussion of the ITU terminology database, we have prepared an outgoing liaison statement to ITU-T SCV and ITU-R CCV. In this outgoing liaison statement, as found in TD 303, we proposed to indicate the status of the Recommendations (in force, superseded or withdrawn) for the terms in the database.

The group also reviewed nineteen (19) Temporary Documents, including eighteen (18) incoming liaison statements and its meeting agenda. The group agreed eleven (11) reply liaison statements too, including one joint with Q6/9.

Also, Q10 discussed in the joint session held by this group and Q1/9 the possibility to merge Q1/9 and Q3/9 terms of reference because Q3/9 does not have any ongoing work items under study and in addition no contributions were received by Q3/9 in the first two study group meetings of SG9. Accordingly, the merger of Q1/9 with Q3/9 and the amendment of the ToR text of the Q1/9 was discussed and agreed. The revised ToR of Q1/9 is found in TD 313. The group also prepared an out-going liaison statement to TSAG for endorsement as found in TD 312.

11. Work plan for interim Rapporteur meetings and Working parties meetings

11.1 Working Parties meetings

No interim Working Parties meetings will be held before next SG9 meeting (1-5 October 2018).

11.2 Interim Rapporteurs' groups meetings

The following interim Rapporteurs' groups meetings are agreed by SG9 meeting. For updates please see the Rapporteur meetings webpage: <https://www.itu.int/net/ITU-T/lists/rgm.aspx?Group=9&type=interim>

Question/WP	Date	Place / Host	Terms of reference	Contact
Q2/9	TBD May 2018	Beijing China	Progress on J.dcas-oneway	Han-seung Koo (koohs@etri.re.kr) Qiang Wang (wangqiang@abs.ac.cn)
Q2/9	TBD July 2018	Beijing China	Progress on J.dcas-oneway	Han-seung Koo (koohs@etri.re.kr) Qiang Wang (wangqiang@abs.ac.cn)
Q5/9	TBD (last week) March 2018	e-meeting	Progress on J.stvos-spec-req and J.stvos-spec-arch	Heming Wang (Hermit.wangheming@hisilicon.com)
Q5/9	TBD April 2018	e-meeting	Progress on J.stvos-spec-req and J.stvos-spec-arch	Heming Wang (Hermit.wangheming@hisilicon.com)
Q5/9	TBD June 2018	e-meeting	Progress on J.stvos-spec-req and J.stvos-spec-arch	Heming Wang (Hermit.wangheming@hisilicon.com)
Q5/9	TBD August 2018	e-meeting	Progress on J.stvos-spec-req and J.stvos-spec-arch	Heming Wang (Hermit.wangheming@hisilicon.com)

Question/WP	Date	Place / Host	Terms of reference	Contact
Q6/9	TBD May 2018	e-meeting	Progress on J.stb-cts	Long Shizu (longshizhu@skyworth.com)
Q6/9	TBD Jun 2018	e-meeting	Progress on J.stb-cts	Long Shizu (longshizhu@skyworth.com)
Q6/9	TBD Aug 2018	Shenzhen, China	Progress on J.stb-cts	Long Shizu (longshizhu@skyworth.com)
Q7/9	TBD (middle of) March 2018	e-meeting	Progress on J.fdx-req, J.docsis31-mac, J.docsis31-gen	Mr TaeKyoon KIM (tkkim@etri.re.kr)
Joint Q1/9 and Q7/9	TBD May TBD	Possibly hosted by ETSI TC CABLE	Progress on J.fdx-req, J.docsis31-mac, J.docsis31-gen; J.docsis31-phy	Mr TaeKyoon KIM (tkkim@etri.re.kr) Tomoyuki Shimizu (tomoyuki@kddi-research.jp)
Q7/9	TBD July 2018	e-meeting	Progress on J.fdx-req, J.docsis31-mac, J.docsis31-gen	Mr TaeKyoon KIM (tkkim@etri.re.kr)
Q7/9	TBD August 2018	Shenzhen, China	Progress on J.fdx-req, J.docsis31-mac, J.docsis31-gen	Mr TaeKyoon KIM (tkkim@etri.re.kr)
Q8/9	23 Feb 2018	e-meeting	Progress on J.qamip-req. Consider new contributions, etc.	Sungkwon Park (sp2996@hanyang.ac.kr)
Q8/9	4 May 2018	e-meeting	Progress on J.qamip-req. Consider new contributions, etc.	Sungkwon Park (sp2996@hanyang.ac.kr)
Q8/9	TBD August 2018	Shenzhen, China	Progress on J.qamip-req. Consider new contributions, etc.	Sungkwon Park (sp2996@hanyang.ac.kr)
Q9/9	6 June 2018 (9-11am, Geneva time)	e-meeting	Review working text of J.302amd-1; Discuss any other contribution(s); Discuss collaboration with other SDO(s)	Eric Wang (eric.wangxiang@hauwei.com)
Q10/9	TBD (end of) April, 2018	e-meeting	To progress J.tda	Hongjun Jia (jiahjcn@163.com)

12. Next Study Group 9 meeting

Next SG9 meeting is currently scheduled in Geneva, 1-5 October 2018.