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Technical Specification

**Broadband Radio Access Networks (BRAN);
HIPERLAN Type 2;
Conformance testing for the packet based convergence layer;
Part 3: IEEE 1394 Service Specific Convergence Sublayer (SSCS);
Sub-part 1: Protocol Implementation Conformance
Statement (PICS) proforma**



Reference

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Foreword

This Technical Specification (TS) has been produced by ETSI Project Broadband Radio Access Networks (BRAN).

The present document is part 3, sub-part 1 of a multi-part deliverable. Full details of the entire series can be found in part 1, sub-part 1 (see bibliography).

Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

1 Scope

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for the Packet based Convergence Layer for HIPERLAN 2; Part 3: IEEE 1394 SSCS, as defined in TS 101 493-3 [1] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [4] and ETS 300 406 [2].

It details in tabular form the implementation options, i.e. the optional functions additional to those which are mandatory to implement.

2 References

The following documents contain provisions, which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

- [1] ETSI TS 101 493-3 (V1.3.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Packet based Convergence Layer; Part 3: IEEE 1394 Service Specific Convergence Sublayer (SSCS)".
- [2] ETSI ETS 300 406: "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [3] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [4] ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 101 493-3 [1], ISO/IEC 9646-1 [3], ISO/IEC 9646-7 [4] and the following apply:

ICS proforma: document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS

Implementation Conformance Statement (ICS): statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented

NOTE: The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

Protocol ICS (PICS): ICS for an implementation or system claimed to conform to a given protocol specification

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

AP	Access Point
CC	Central Controller
CL	Convergence Layer
CPCS	Common Part Convergence Sublayer
DLC	Data Link Control
DM	Direct Mode
DUC	DLC User Connection
ICS	Implementation Conformance Statement
IUT	Implementation Under Test
MAC	Medium Access Control
PDU	Protocol Data Unit
PICS	Protocol ICS
RLC	Radio Link Control
SCS	System Conformance Statement
SSCS	Service Specific Convergence Sublayer
SUT	System Under Test
WCM	Wireless Cycle Master
WCS	Wireless Cycle Slave
WT	Wireless Terminal

4 Conformance to this PICS proforma specification

If it claims to conform to the present document, the actual PICS proforma to be filled in by a supplier shall be technically equivalent to the text of the PICS proforma given in annex A, and shall preserve the numbering/naming and ordering of the proforma items.

An PICS which conforms to the present document shall be a conforming PICS proforma completed in accordance with the guidance for completion given in clause A.1.

Annex A (normative): Protocol ICS proforma for TS 101 493-3

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the PICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed PICS.
--

A.1 Guidance for completing the PICS proforma

A.1.1 Purposes and structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in TS 101 493-3 [1] may provide information about the implementation in a standardized manner.

The PICS proforma is subdivided into clauses for the following categories of information:

- guidance for completing the PICS proforma;
- identification of the implementation;
- identification of TS 101 493-3 [1];
- global statement of conformance;
- roles;
- major capabilities;
- PDUs;
- PDU parameters.

A.1.2 Abbreviations and conventions

The PICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [4].

Item column

The item column contains a number which identifies the item in the table.

Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

Status column

The following notations, defined in ISO/IEC 9646-7 [4], are used for the status column:

- | | |
|-----|---|
| m | mandatory - the capability is required to be supported. |
| o | optional - the capability may be supported or not. |
| n/a | not applicable - in the given context, it is impossible to use the capability. |
| x | prohibited (excluded) - there is a requirement not to use this capability in the given context. |

- o.i qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer which identifies an unique group of related optional items and the logic of their selection which is defined immediately following the table.
- ci conditional - the requirement on the capability ("m", "o", "x" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table.
- i irrelevant (out-of-scope) - capability outside the scope of the reference specification. No answer is requested from the supplier.

NOTE 1: This use of "i" status is not to be confused with the suffix "i" to the "o" and "c" status above.

Reference column

The reference column makes reference to TS 101 493-3 [1], except where explicitly stated otherwise.

Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7 [4], are used for the support column:

- Y or y supported by the implementation.
- N or n not supported by the implementation.
- N/A, n/a or - no answer required (allowed only if the status is n/a, directly or after evaluation of a conditional status).

If this PICS proforma is completed in order to describe a multiple-profile support in a system, it is necessary to be able to answer that a capability is supported for one profile and not supported for another. In that case, the supplier shall enter the unique reference to a conditional expression, preceded by "?" (e.g. ?3). This expression shall be given in the space for comments provided at the bottom of the table. It uses predicates defined in the SCS, each of which refers to a single profile and which takes the value TRUE if and only if that profile is to be used.

EXAMPLE 1: ?3: IF prof1 THEN Y ELSE N

NOTE 2: As stated in ISO/IEC 9646-7 [4], support for a received PDU requires the ability to parse all valid parameters of that PDU. Supporting a PDU while having no ability to parse a valid parameter is non-conformant. Support for a parameter on a PDU means that the semantics of that parameter are supported.

Values allowed column

The values allowed column contains the type, the list, the range, or the length of values allowed. The following notations are used:

- range of values: <min value> .. <max value>
example: 5 .. 20
- list of values: <value1>, <value2>, ..., <valueN>
example: 2 ,4 ,6 ,8 ,9
example: '1101'B, '1011'B, '1111'B
example: '0A'H, '34'H, '2F'H
- list of named values: <name1>(<val1>), <name2>(<val2>), ..., <nameN>(<valN>)
example: reject(1), accept(2)
- length: size (<min size> .. <max size>)
example: size (1 .. 8)

Values supported column

The values supported column shall be filled in by the supplier of the implementation. In this column, the values or the ranges of values supported by the implementation shall be indicated.

References to items

For each possible item answer (answer in the support column) within the PICS proforma a unique reference exists, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table. If there is more than one support column in a table, the columns are discriminated by letters (a, b, etc.), respectively.

EXAMPLE 2: A.5/4 is the reference to the answer of item 4 in table 5 of annex A.

EXAMPLE 3: A.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in table 6 of annex A.

Prerequisite line

A prerequisite line takes the form: Prerequisite: <predicate>.

A prerequisite line after a clause or table title indicates that the whole clause or the whole table is not required to be completed if the predicate is FALSE.

A.1.3 Instructions for completing the PICS proforma

The supplier of the implementation shall complete the PICS proforma in each of the spaces provided. In particular, an explicit answer shall be entered, in each of the support or supported column boxes provided, using the notation described in clause A.1.2.

If necessary, the supplier may provide additional comments in space at the bottom of the tables or separately.

More detailed instructions are given at the beginning of the different clauses of the PICS proforma.

A.2 Identification of the implementation

Identification of the Implementation Under Test (IUT) and the system in which it resides (the System Under Test (SUT)) should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the PICS should be named as the contact person.

A.2.1 Date of the statement

.....

A.2.2 Implementation Under Test (IUT) identification

IUT name:

.....

.....

IUT version:

.....

A.2.3 System Under Test (SUT) identification

SUT name:

.....
.....

Hardware configuration:

.....
.....
.....

Operating system:

.....

A.2.4 Product supplier

Name:

.....

Address:

.....
.....
.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....
.....
.....

A.2.5 Client (if different from product supplier)

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

A.2.6 PICS contact person

(A person to contact if there are any queries concerning the content of the PICS)

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.3 Identification of the TS 101 493-3

This PICS proforma applies to the following standard:

TS 101 493-3 [1]: "Broadband Radio Access Networks (BRAN); Packet based Convergence Layer for HIPERLAN type 2; IEEE 1394 SSCS".

A.4 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No)

NOTE: Answering "No" to this question indicates non-conformance to the TS 101 493-3 [1] specification. Non-supported mandatory capabilities are to be identified in the PICS, with an explanation of why the implementation is non-conforming, on pages attached to the PICS proforma.

A.5 Roles

Table A.1: Roles

Item	Role	Reference	Status	Support
1	Central Controller CC	Clause 5.1	o.1	
2	Wireless Terminal WT	Clause 5.1	o.1	

o.1: It is mandatory to support at least one of these items.

Comments: According to the answer to items of table A.1 of this proforma, the completed PICS becomes a PICS relative to an CC or to an WT. If you want to describe both CC and WT, then two copies of this PICS proforma must be filled in, one copy for CC, another one for WT.

A.6 PICS for Wireless Terminal (WT) or Central Controller (CC) - user plane services

This clause contains the PICS proforma tables describing the protocol for user plane services related either to the Wireless Terminal (WT) or to the Central Controller (CC). They need to be completed according to the type of implementation declared in table A.1.

A.6.1 Major capabilities

Table A.2: Major capabilities

Item	Capabilities	Reference	Status	Support
1	Clock synchronization	Clause 5.3	m	
2	Asynchronous transaction data transport	Clause 5.4	m	
3	Isochronous stream data transport	Clause 5.5.1	m	
4	Asynchronous stream data transport	Clause 5.5.2	m	

Comment: Isochronous stream data transport becomes mandatory.

A.6.1.1 Clock synchronization

This table lists the individual capabilities. Next tables detail each process

Table A.3: Clock distribution at the WCM

Item	Capabilities	Reference	Status	Support
1	Build up a CPCS PDU with clock information (see table A.4)	Clause 5.3.3.1	m	
2	Deliver SSCS_PDU to the CPCS instance	Clause 5.3.3.1	m	
3	Deliver CL_CYCLE_SYNCH indication to upper layer (when CYCLE_TIME.offset_count has overflowed)	Clause 5.2.3.1.2	o	

Table A.4: Clock distribution procedures at the WCM

Item	Capabilities	Reference	Status	Support
1	Await DLC_MAC_FRAME_START indication	Clause 5.3.3.1	m	
2	Take snapshot of BUS_TIME, CYCLE_TIME, LOCAL_SECONDS, LOCAL_CYCLES	Clause 5.3.3.1	m	
3	Set clock info fields in SSCS PDU	Clause 5.3.3.1	m	

Table A.5: Clock reception at the WCS

Item	Capabilities	Reference	Status	Support
1	Check validity of clock PDU (by checking <i>frame_counter</i> field) - see table A.6	Clause 5.3.3.2	m	
2	Deliver CL_CYCLE_SYNCH indication to upper layer (when CYCLE_TIME.offset_count has overflowed)	Clause 5.2.3.1.2	m	

Table A.6: Clock reception procedure at the WCS

Item	Capabilities	Reference	Status	Support
1	Await DLC_MAC_FRAME_START indication	Clause 5.3.3.2	m	
2	Take snapshot of BUS_TIME (if any), CYCLE_TIME (if any), LOCAL_SECONDS, LOCAL_CYCLES and <i>frame_counter</i>	Clause 5.3.3.2	m	
3	Await corresponding packet from WCM (when <i>frame_counter</i> matches) and update clock	Clause 5.3.3.2	m	

A.6.1.2 Asynchronous transaction data transport

This table lists the individual capabilities. Next tables detail each process.

Table A.7: Asynchronous transaction data transport procedure at the sender

Item	Capabilities	Reference	Status	Support
1	Check destination address to open a DLC User Connection (DUC) if not yet open (see table A.8)	Clause 5.4.4.1 - 1 to 4	m	
2	Discard invalid packets (where time_of_life<0)	Clause 5.4.4.1 - 5	m	
3	Compute time_of_death value for valid packets (where time_of_life>0) and place value in seconds/cycles fields of the packet	Clause 5.4.4.1 - 5	m	
4	Determine code type of reply (reply_missing_code, reply_busy or reply_accepted) and return it (See table A.9)	Clause 5.4.4.1 - 2, 3 and 6	m	
5	Deliver SSCS_PDU to the CPCS instance	Clause 5.4.4.1 - 6	m	

Table A.8: Analysis to open a DUC at the sender

Item	Processing	Reference	Status	Support
1	Determine physicalAddress out of destination_ID.bus_ID	Clause 5.4.4.1 - 2	m	
2	Determine mac_ID_address out of physicalAddress	Clause 5.4.4.1 - 3	m	

Table A.9: Determination of code type for CL_ASYNC_ACTION confirm at the sender

Item	Processing	Reference	Status	Support
1	Set reply_missing code if HARP operations fail to return valid physicalAddr address	Clause 5.4.4.1 - 2	m	
2	Set reply_missing code if no mac_ID address corresponds to physicalAddr value	Clause 5.4.4.1 - 3	m	
3	Set reply_busy code if no buffer space available at lower layer	Clause 5.4.4.1 - 6	m	
4	Set reply_accepted code if all process correct	Clause 5.4.4.1 - 6	m	

Table A.10: Asynchronous transaction data transport procedure at the receiver

Item	Capabilities	Reference	Status	Support
1	Check header-CRC and discard corrupted packet	Clause 5.4.4.2	m	
2	Compute time_of_life value and set it into CL_UNITDATA	Clause 5.4.4.2	m	
3	Check data_CRC and set result into CL_UNITDATA	Clause 5.4.4.2	m	
4	Deliver CL_UNITDATA indication to IEEE1394 upper layers	Clause 5.4.4.2	m	

A.6.1.3 Isochronous stream data transport

This table lists the individual capabilities. Next tables detail each process.

Table A.11: Isochronous stream data transport procedure at the sender

Item	Capabilities	Reference	Status	Support
1	Check if multicast DLC User Connection (DUC) is open and discard request if not open	Clause 5.5.1.3.1	m	
2	Build up a CPCS PDU, either empty or not (see tables A.12 and A.13)	Clause 5.5.1.3.1	m	
3	Deliver SSCS_PDU to the CPCS instance	Clause 5.5.1.3.1	m	

Table A.12: Build a non empty CPCS PDU at the sender

Item	Processing	Reference	Status	Support
1	Collect SDUs (16, or less, or 15, or 17 according to the case)	Clause 5.5.1.3.1	m	
2	Set seconds and cycles fields of PDU to time_stamp value of first SDU	Clause 5.5.1.3.1	m	
3	Set all IEEE 1394 fields (tag, tcode, sy) in each SDU	Clause 5.5.1.3.1	m	
4	Set cycle_low field in each SDU	Clause 5.5.1.3.1	m	
5	Set data_CRC field in each SDU	Clause 5.5.1.3.1	m	

Table A.13: Build an empty CPCS PDU at the sender

Item	Processing	Reference	Status	Support
1	Insert an empty SDU (data length = 0, data quadlets = 0, data CRC = 0, tag, tcode, sy set to 0)	Clause 5.5.1.3.1	m	
2	Set seconds and cycles fields of PDU to 0	Clause 5.5.1.3.1	m	

Table A.14: Isochronous stream data transport procedure at the receiver

Item	Capabilities	Reference	Status	Support
1	Discard corrupted SDUs (wrong data_CRC)	Clause 5.5.1.3.2	m	
2	Regenerate individual valid SDUs (see table A.15)	Clause 5.5.1.3.2	m	
3	Deliver CL_UNITDATA indication to IEEE1394 upper layers	Clause 5.5.1.3.2	m	

Table A.15: Regeneration of isochronous stream service data units at the receiver

Item	Processing	Reference	Status	Support
1	Generate time_stamp value	Clause 5.5.1.3.2	m	
2	Generate the isoch_header parameters: tag, tcode, sy, channel.	Clause 5.5.1.3.2	m	

A.6.1.4 Asynchronous stream data transport

This table lists the individual capabilities. Next tables detail each process.

Table A.16: Asynchronous stream data transport procedure at the sender

Item	Capabilities	Reference	Status	Support
1	Check if multicast DLC User Connection (DUC) is open for this SDU and discard request if not open	Clause 5.5.2.3.1	m	
2	Discard packets where time_of_life is negative	Clause 5.5.2.3.1	m	
3	Build up a CPCS PDU when valid (see table A.17)	Clause 5.5.2.3.1	m	
4	Deliver SSCS_PDU to the CPCS instance	Clause 5.5.2.3.1	m	

Table A.17: Build a CPCS PDU at the sender

Item	Processing	Reference	Status	Support
1	Set seconds and cycles fields of PDU to time_of_death computed value	Clause 5.5.2.3.1	m	
2	Set all IEEE 1394 fields (data length, tag, tcode, sy)	Clause 5.5.2.3.1	m	
3	Set data_CRC field if data_quadlets field present	Clause 5.5.2.3.1	m	

Table A.18: Asynchronous stream data transport procedure at the receiver

Item	Capabilities	Reference	Status	Support
1	Generate a time stamp parameter	Clause 5.5.2.3.2	m	
2	Generate the async-header parameter	Clause 5.5.2.3.2	m	
3	Generate the time of life parameter	Clause 5.5.2.3.2	m	
4	Deliver CL_ASYNC_STREAM indication, containing the generated parameters and the SDU, to IEEE1394 upper layers	Clause 5.5.2.3.2	m	

A.6.2 PDU and Parameters

Table A.19: SSCS_PDU

Item	PDU	AP or WT Sending			AP or WT Receiving		
		Reference	Status	Support	Reference	Status	Support
1	SSCS_PDU	Clauses 5.4.2 and 5.5.2	m		Clauses 5.4.2 and 5.5.2	m	

Table A.20: SSCS_PDU fields

Item	Fields	Reference	Status	Support
1	format	Clause 5.4.2	m	
2	time stamp	Clause 5.4.2	m	
3	information	Clause 5.4.2	m	

Table A.21: Format definition and values

Item	Parameter	Reference	Status	Support	Values	
					specified	Supported
1	Iso-stream-bus-packet	Clause 5.4.2	m		0	
2	Async-stream-bus-packet	Clause 5.4.2	m		1	
3	Async-subaction	Clause 5.4.2	m		2	

Table A.22: Asynchronous SSCS_PDU

Item	Fields	Reference	Status	Support
1	format = 2	Clause 5.4.2	m	
2	seconds/cycles (time-of-death)	Clause 5.4.2	m	
3	type (of packets)	Clause 5.4.2	m	
4	destination Id	Clause 5.4.2	m	
5	tlabel	Clause 5.4.2	m	
6	rt	Clause 5.4.2	m	
7	tcode	Clause 5.4.2	m	
8	pri	Clause 5.4.2	m	
9	header quadlets	Clause 5.4.2	m	
10	header CRC	Clause 5.4.2	m	
11	data quadlets	Clause 5.4.2	m	
12	data CRC	Clause 5.4.2	m	

Table A.23: Packet type definition and values

Item	Parameter	Reference	Status	Support	Values	
					specified	Supported
1	ASYNC_REQUEST	Clause 5.4.2	m		0	
2	CLOSE_REQUEST	Clause 5.4.2	m		2	
3	CLOSE_RESPONSE	Clause 5.4.2	m		3	

Table A.24: Isochronous SSCS_PDU

Item	Fields	Reference	Status	Support
1	format = 0	Clause 5.5.1.2	m	
2	seconds/cycles (time stamp)	Clause 5.5.1.2	m	
3	Isochronous tagged SDU (repeat from 1 to n, see next table A.25)	Clause 5.5.1.2	m (see note)	

NOTE: Not always present.

Table A.25: Isochronous tagged SDU

Item	Fields	Reference	Status	Support
1	Data length	Clause 5.5.1.2	m	
2	tag	Clause 5.5.1.2	m	
3	cycle low	Clause 5.5.1.2	m	
4	tcode	Clause 5.5.1.2	m	
5	sy	Clause 5.5.1.2	m	
6	data quadlets	Clause 5.5.1.2	m	
7	data CRC	Clause 5.5.1.2	m	

Table A.26: Asynchronous stream SSCS_PDU

Item	Fields	Reference	Status	Support
1	format = 1	Clause 5.5.2.2	m	
2	seconds/cycles (time-of-death)	Clause 5.5.2.2	m	
3	data length (length of SDU)	Clause 5.5.2.2	m	
4	tag rt	Clause 5.5.2.2	m	
5	tcode	Clause 5.5.2.2	m	
6	sy	Clause 5.5.2.2	m	
7	data quadlets	Clause 5.5.2.2	m	
8	data CRC	Clause 5.5.2.2	m	

A.7 PICS for Wireless Terminal (WT) or Central Controller (CC) - control plane services

This clause contains the PICS proforma tables describing the protocol for control plane services related either to the Wireless Terminal WT or to the Central Controller CC. They need to be completed according to the type of implementation declared in table A.1.

A.7.1 Service Specific Convergence Sublayer procedures

Table A.27: SSCS procedures

Item	Capabilities	Reference	Status	Support
1	Association	Clause 6.3	m	
2	Bus reset	Clause 6.4	m	
3	Clock information connection control	Clause 6.5	m	
4	CC handover	Clause 6.6	m	
5	HL2 address resolution service	Clause 6.7	m	
6	Asynchronous transaction connection control service	Clause 6.8	m	
7	Isochronous stream connection control service	Clause 6.9	m	
8	Asynchronous stream connection control service	Clause 6.10	m	

A.7.2 SSCS_PDU description

The following tables list the SSCS PDUs which carry the CL_DATA parameter, which in turn carries the CL-ATTRIBUTES required by IEEE 1394 protocol [1].

Table A.28: SSCS_PDUs carrying IEEE 1394 information

Item	PDU	WT Sending/CC receiving			CC Sending/WT Receiving		
		Reference	Status	Support	Reference	Status	Support
1	RLC_INFO	Clauses 6.3, 6.4 and 6.7 (see note)	m			n/a	
2	RLC_INFO_ACK		n/a		Clauses 6.3 and 6.4 (see note)	m	
3	RLC_DM_SETUP	Clause 6.8	m			n/a	
4	RLC_GROUP_JOIN	Clause 6.5	m			n/a	
5	RLC_GROUP_JOIN_ACK		n/a		Clause 6.5	m	

NOTE: These PDUs are optional in basic RLC.

A.7.3 CL Information elements parameters

Table A.29: CL data parameters

Item	Parameter	Reference	Status	Support
1	Information element type	Clause 7.4.1 and see values in clause 7.4.2	m	
2	Length (of information)	Clause 7.4.1	m	
3	Information element	Clause 7.4.1	m	

Comments: no change compared to base.

Table A.30: List of information elements

Item	Parameter	SSCS PDU holding info in its CL-ATTRIBUTE	Reference	Status	Support
1	EUI_64	RLC_INFO/RLC_INFO_ACK	Clauses 6.3.1 and 7.4.5	m	
2	BUS_RESET	RLC_INFO/RLC_INFO_ACK	Clauses 6.4 and 7.4.9	m	
3	BUS_SUSPEND	RLC_INFO/RLC_INFO_ACK	Clauses 6.4 and 7.4.7	m	
4	BUS_RESUME	RLC_INFO/RLC_INFO_ACK	Clauses 6.4 and 7.4.8	m	
5	HARP_REQUEST	RLC_INFO/RLC_INFO_ACK	Clauses 6.7 and 7.4.3	m	
6	HARP_RESPONSE	RLC_INFO/RLC_INFO_ACK	Clauses 6.7 and 7.4.4	m	
7	CHANNEL	RLC_GROUP_JOIN / RLC_GROUP_JOIN_ACK	Clauses 6.3.2, 6.5, 6.7 and 7.4.6	m	
8	TRANSACTION_INDICATOR	RLC_DM_SETUP (see note)	Clauses 6.8 and 7.4.10	m	

NOTE: TRANSACTION INDICATOR parameter is in the field CL_CONN_ATTR, as there is no field CL_ATTRIBUTE in RLC_DM_SETUP message.

Table A.31: CL-ATTRIBUTE parameters in RLC_INFO and RLC_INFO_ACK for EUI_64

Item	Parameter	Reference	Status	Support
1	IE name = EUI_64	Clauses 6.3 and 7.4.5	m	
2	length = 9	Clauses 6.3 and 7.4.5	m	
3	GUID	Clauses 6.3 and 7.4.5	m	
4	node type	Clauses 6.3 and 7.4.5	m	

Table A.32: CL-ATTRIBUTE parameters in RLC_INFO and RLC_INFO_ACK for BUS_RESET

Item	Parameter	Reference	Status	Support
1	IE name = BUS_RESET	Clauses 6.4 and 7.4.9	m	
2	length = 3	Clauses 6.4 and 7.4.9	m	
3	New_phy_ID	Clauses 6.4 and 7.4.9	m	
4	mac_ID	Clauses 6.4 and 7.4.9	m	
5	node type	Clauses 6.4 and 7.4.9	m	
6	physical_ID	Clauses 6.4 and 7.4.9	m	

Table A.33: CL-ATTRIBUTE parameters in RLC_INFO and RLC_INFO_ACK for BUS_SUSPEND

Item	Parameter	Reference	Status	Support
1	IE name = BUS_SUSPEND	Clauses 6.4, 6.6 and 7.4.7	m	
2	length = 0	Clauses 6.4, 6.6, and 7.4.7	m	

Table A.34: CL-ATTRIBUTE parameters in RLC_INFO and RLC_INFO_ACK for BUS_RESUME

Item	Parameter	Reference	Status	Support
1	IE name = BUS_RESUME	Clauses 6.4, 6.6 and 7.4.8	m	
2	length = 2 × N + 1	Clauses 6.4, 6.6 and 7.4.8	m	
3	Toggle_bit	Clauses 6.4, 6.6 and 7.4.8	m	
4	mac_ID	Clauses 6.4, 6.6 and 7.4.8	m	
5	node type	Clauses 6.4, 6.6 and 7.4.8	m	
6	physical_ID	Clauses 6.4, 6.6 and 7.4.8	m	

Comments: Fields "mac_ID, node type, physical_ID" repeated N times when N nodes on the HL2 bus.

Table A.35: CL-ATTRIBUTE parameters in RLC_INFO for HARP_REQ

Item	Parameter	Reference	Status	Support
1	IE name = HARP_REQ	Clauses 6.7 and 7.4.3	m	
2	length = 2	Clauses 6.7 and 7.4.3	m	
3	bus_ID	Clauses 6.7 and 7.4.3	m	

Table A.36: CL-ATTRIBUTE parameters in RLC_INFO and RLC_INFO_ACK for HARP_RESP

Item	Parameter	Reference	Status	Support
1	IE name = HARP_RESP	Clauses 6.7 and 7.4.4	m	
2	length = 3	Clauses 6.7 and 7.4.4	m	
3	bus_ID	Clauses 6.7 and 7.4.4	m	
4	physical_ID	Clauses 6.7 and 7.4.4	m	

Table A.37: CL-ATTRIBUTE parameters in RLC_GROUP_JOIN for CHANNEL

Item	Parameter	Reference	Status	Support
1	IE name = CHANNEL	Clauses 6.5 and 7.4.6	m	
2	length = 1	Clauses 6.5 and 7.4.6	m	
3	channel	Clauses 6.5 and 7.4.6	m	
4	relay	Clauses 6.5 and 7.4.66	m	

Table A.38: CL_CONN_ATTR parameters in RLC_DM_SETUP for TRANSACTION IDENTIFIER

Item	Parameter	Reference	Status	Support
1	IE name = TRANSACTION IDENTIFIER	Clauses 6.8 and 7.4.10	m	
2	length = 1	Clauses 6.8 and 7.4.10	m	
3	request	Clauses 6.8 and 7.4.10	m	

Comments: Request value 0 stands for Requester, Request value 1 stands for Responder.

Annex B (informative): Bibliography

- ETSI TS 101 811-1-1: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the packet based convergence layer; Part 1: Common part; Sub-part 1: Protocol Implementation Conformance Statement (PICS) proforma".

History

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