INTERNATIONAL TELECOMMUNICATION UNION

ITU-T Q.2730

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TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

SERIES Q: SWITCHING AND SIGNALLING

Broadband ISDN – B-ISDN application protocols for the network signalling

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Signalling system No. 7 B-ISDN user part (B-ISUP) – Supplementary services

ITU-T Recommendation Q.2730

(Previously CCITT Recommendation)

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ITU-T RECOMMENDATION Q.2730

SIGNALLING SYSTEM No. 7 B-ISDN USER PART (B-ISUP) – SUPPLEMENTARY SERVICES

Summary

This Recommendation describes the supplementary services supported in the broadband ISDN applicable to B-ISUP (with the exception of CUG, which is contained in Recommendation Q.2735.1).

Source

ITU-T Recommendation Q.2730 was revised by ITU-T Study Group 11 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on 3 December 1999.

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

INTELLECTUAL PROPERTY RIGHTS

The ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. The ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, the ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

CONTENTS

Recommendation Q.2730

SIGNALLING SYSTEM No. 7 B-ISDN USER PART (B-ISUP) – SUPPLEMENTARY SERVICES

(revised in 1999)

1 Scope

This Recommendation specifies the exceptions to the 1997 Q.730 series of Recommendations for supplementary services to be supported in the broadband network. The information contained in this Recommendation should be read in conjunction with the 1997 Q.730 series of Recommendations.

The following services are supported by the first version of the B-ISUP:

– User-to-User Signalling (Recommendation Q.737).
– Calling Line Identification Presentation/Restriction (clause 3/Q.731 and clause 4/Q.731).
– Direct-Dialling-In (clause 1/Q.731).
– Connected Line Identification Presentation/Restriction (clause 5/Q.731 and clause 6/Q.731).
– Sub-addressing (clause 8/Q.731).
– Multiple Subscriber Number (clause 2/Q.731).
– Closed User Group (clause 1/Q.735).

Direct-Dialling-In and Multiple Subscriber Number are supported but without relevance to B-ISUP.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

[1] ITU-T Recommendation Q.2761 (1999), *Functional description of the B-ISDN user part (B-ISUP) of signalling system No. 7.*

[2] ITU-T Recommendation Q.2762 (1999), *General functions of messages and signals of the B-ISDN user part (B-ISUP) of signalling system No. 7.*

[3] ITU-T Recommendation Q.2763 (1999), *Signalling system No. 7 B-ISDN user part (B-ISUP) – Formats and codes.*

[4] ITU-T Recommendation Q.2764 (1999), *Signalling system No. 7 B-ISDN user part (B-ISUP) – Basic call procedures.*

[5] ITU-T Recommendation Q.2735.1 (1997), *Stage 3 description for community of interest supplementary services for B-ISDN using SS No. 7: Closed user group (CUG).*

[6] ITU-T Recommendation Q.761 (1997), *Signalling system No. 7 – ISDN user part functional description.*

[7] ITU-T Recommendation Q.762 (1997), *Signalling system No. 7 – ISDN user part general functions of messages and signals.*

[8] ITU-T Recommendation Q.763 (1997), *Signalling system No. 7 – ISDN user part formats and codes.*

[9] ITU-T Recommendation Q.764 (1997), *Signalling system No. 7 – ISDN user part signalling procedures.*

[10] ITU-T Recommendation Q.730 (1997), *ISDN user part supplementary services.*

[11] ITU-T Recommendation Q.731.1 (1996), *Stage 3 description for number identification supplementary services using signalling system No. 7: Direct-dialling-in (DDI).*

[12] ITU-T Recommendation Q.731.3 (1993), *Stage 3 description for number identification supplementary services using signalling system No. 7: Calling line identification presentation (CLIP).*

[13] ITU-T Recommendation Q.731.4 (1993), *Stage 3 description for number identification supplementary services using signalling system No. 7: Calling line identification restriction (CLIR).*

[14] ITU-T Recommendation Q.731.5 (1993), *Stage 3 description for number identification supplementary services using signalling system No. 7: Connected line identification presentation (COLP).*

[15] ITU-T Recommendation Q.731.6 (1993), *Stage 3 description for number identification supplementary services using signalling system No. 7: Connected line identification restriction (COLR).*

[16] ITU-T Recommendation Q.731.7 (1997), *Stage 3 description for number identification supplementary services using signalling system No. 7: Malicious call identification (MCID).*

[17] CCITT Recommendation Q.731.8 (1992), *Stage 3 description for number identification supplementary services using signalling system No. 7: Sub-addressing (SUB).*

[18] ITU-T Recommendation Q.732.2 (1996), *Stage 3 description for call offering supplementary services using signalling system No. 7: Call diversion services: call forwarding busy, call forwarding no reply, call forwarding unconditional, call deflection.*

[19] ITU-T Recommendation Q.732.7 (1996), *Stage 3 description for call offering supplementary services using signalling system No. 7: Explicit call transfer.*

[20] CCITT Recommendation Q.733.1 (1992), *Stage 3 description for call completion supplementary services using signalling system No. 7: Call waiting (CW).*

[21] ITU-T Recommendation Q.733.2 (1993), *Stage 3 description for call completion supplementary services using signalling system No. 7: Call hold (HOLD).*

[22] ITU-T Recommendation Q.733.3 (1997), *Stage 3 description for call completion supplementary services using signalling system No. 7: Completion of calls to busy subscriber (CCBS).*

[23] ITU-T Recommendation Q.733.4 (1993), *Stage 3 description for call completion supplementary services using signalling system No. 7: Terminal portability (TP).*

[24] ITU-T Recommendation Q.734.1 (1993), *Stage 3 description for multiparty supplementary services using signalling system No. 7: Conference calling.*

[25] ITU-T Recommendation Q.734.2 (1996), *Stage 3 description for multiparty supplementary services using signalling system No. 7: Three-party service.*

[26] ITU-T Recommendation Q.735.1 (1993), *Stage 3 description for community of interest supplementary services using signalling system No. 7, Closed user group (CUG).*

[27] ITU-T Recommendation Q.735.3 (1993), *Stage 3 description for community of interest supplementary services using signalling system No. 7: Multi-level precedence and preemption.*

[28] ITU-T Recommendation Q.735.6 (1996), *Stage 3 description for community of interest supplementary services using signalling system No. 7: Global virtual network service (GVNS).*

[29] ITU-T Recommendation Q.736.1 (1995), *Stage 3 description for charging supplementary services using signalling system No. 7: International telecommunication charge card (ITCC).*

[30] ITU-T Recommendation Q.736.3 (1995), *Stage 3 description for charging supplementary services using signalling system No. 7: Reverse charging (REV).*

[31] ITU-T Recommendation Q.737.1 (1997), *Stage 3 description for additional information transfer supplementary services using signalling system No. 7: User-to-user signalling (UUS).*

[32] ITU-T Recommendation Q.2951.3 (1995), *Stage 3 description for number identification supplementary services using B-ISDN digital subscriber signalling system No. 2 (DSS2) – Basic call: Calling line identification presentation (CLIP).*

[33] ITU-T Recommendation Q.2951.4 (1995), *Stage 3 description for number identification supplementary services using B-ISDN digital subscriber signalling system No. 2 (DSS2) – Basic call: Calling line identification restriction (CLIR).*

[34] ITU-T Recommendation Q.2951.5 (1995), *Stage 3 description for number identification supplementary services using B-ISDN digital subscriber signalling system No. 2 (DSS2) – Basic call: Connected line identification presentation (COLP).*

[35] ITU-T Recommendation Q.2951.6 (1995), *Stage 3 description for number identification supplementary services using B-ISDN digital subscriber signalling system No. 2 (DSS2) – Basic call: Connected line identification restriction (COLR).*

[36] ITU-T Recommendation Q.2951.9 (1999), *Stage 3 description for number identification supplementary services using B-ISDN digital subscriber signalling system No. 2 (DSS2) – Basic call: Support of ATM end system addressing format by number identification supplementary services.*

[37] ITU-T Recommendation E.191 (1996), *B-ISDN numbering and addressing.*

3 Exceptions and clarifications for ISDN supplementary services in the Q.730 series of Recommendations

The following tables contain three columns as follows:

– The first column marked "Q.73x references" identifies the relevant Q.73x Recommendation and references.

– The second column marked "Title" identifies the relevant title.

– The third column marked "Remarks" identifies the deviations from Q.73x as appropriate for the broadband signalling references.

All subclauses are the same as in the Q.730 series of Recommendations unless indicated otherwise in Tables 1 to 8 below.

The remark "Not applicable" in the tables means that a procedure described in Recommendation Q.73x is not available in the broadband signalling references.

Table 1/Q.2730

Q.730 references	Title	Remarks
1	General	References to TC and SCCP are not applicable.
1.2	Network-specific facilities (national option)	Not applicable.
1.2.1	Sending unsolicited information (national use)	Not applicable.
1.3	Generic procedures	Not applicable.
1.4	End-to-end signalling	Not applicable.
1.6	List of supplementary services	The following services are not applicable: – 7/Q.731 Malicious Call Identification (MCID) – 1/Q.732 Call Transfer (CT) – 2/Q.732 Call Forwarding Busy (CFB) – 3/Q.732 Call Forwarding No Reply (CFNR) – 4/Q.732 Call Forwarding Unconditional (CFU) – 5/Q.732 Call Deflection (CD) – 6/Q.732 Line Hunting (LH) – 7/Q.732 Explicit Call Transfer (ECT) – 8/Q.732 Single Step Call Transfer (SCT) – 1/Q.733 Call Waiting (CW) – 2/Q.733 Call Hold (HOLD) – 3/Q.733 Completion of Calls to Busy Subscriber (CCBS) – 4/Q.733 Terminal Portability (TP) – 1/Q.734 Conference Calling (CONF) – 2/Q.734 Three-Party Service (3PTY) – 3/Q.735 Multi-Level Precedence and Preemption (MLPP) – 6/Q.735 Global Virtual Network Service (GVNS) – 1/Q.736 International Telecommunication Charge Card (ITCC) – 2/Q.736 Advice of Charge (AOC) – 3/Q.736 Reverse Charging (REV)
Appendix I	Contents of the interface elements between the ISDN user part and the SCCP	Not applicable.

Table 2/Q.2730

Q.731 references	Title	Remarks
3.2.1	General description	Additional description for non-native E.164 addresses is described in Annex A of this Recommendation.
3.2.2	Specific terminology	Additional terminology for non-native E.164 addresses is described in Annex A of this Recommendation.
3.4	Coding requirements	i) The Access transport parameter is not used, the calling party subaddress information is transported in the calling party subaddress parameter. ii) The Generic number parameter is not used, the additional calling party number is transported in the additional calling party number parameter. iii) The number qualifier indicator is not used. iv) Additional coding requirements for non-native E.164 addresses are described in Annex A of this Recommendation.
3.5	Signalling requirements	Same remarks as for 3.4. Additional signalling requirements for non-native E.164 addresses are described in Annex A of this Recommendation.
Table 3-1	Calling party number, codepoints	The content of the table is superseded by Figure 1 in Annex A of this Recommendation.
3.6.6	Calling Line Identification Restriction (CLIR)	Replace "Generic number parameter" with "additional calling party number parameter". For non-native E.164 addresses, see Annex A of this Recommendation.
3.6.10	Call Diversion services (CDIV)	Not applicable.
3.7	Interactions with other networks	Replace "Generic number parameter" with "additional calling party number parameter". Additional procedures for non-E.164 addresses are described in Annex A of this Recommendation.
3.10	Dynamic description	The dynamic description is specified in Figures 1 and 2 in Annex A of this Recommendation.
4.5.2.1.1	Normal operation	Replace "Generic number parameter" with "additional calling party number parameter". Additional procedures for non-E.164 addresses are described in Annex B of this Recommendation.
4.5.2.3.2	Exceptional procedures	Replace "Generic number parameter" with "additional calling party number parameter". Additional procedures for non-E.164 addresses are described in Annex B of this Recommendation.
4.6.5	Calling Line Identification Presentation (CLIP)	Replace "Generic number parameter" with "additional calling party number parameter". Additional procedures for non-E.164 addresses are described in Annex B of this Recommendation.

Table 2/Q.2730 *(continued)*

Q.731 references	Title	Remarks
5.1	Definition	Replace "connected party's ISDN number" with "connected number".
5.2.1	General description	Replace "Generic number parameter" with "additional connected number parameter". Additional description for non-native E.164 addresses is described in Annex C of this Recommendation.
5.4	Coding requirements	i) The Access transport parameter is not used, the connected party subaddress information is transported in the connected party subaddress parameter. ii) The Generic number parameter is not used, the additional connected number is transported in the additional connected number parameter. iii) The number qualifier indicator is not used. iv) Additional coding requirements for non-native E.164 addresses are described in Annex C of this Recommendation.
5.5	Signalling requirements	Same remarks as for 5.4. Additional signalling requirements for non-native E.164 addresses are described in Annex C of this Recommendation. Replace "optional forward call indicator" with "Connected line identity request parameter".
5.7	Interactions with other networks	Replace "Generic number parameter" with "additional connected number parameter". Additional procedures for non-E.164 addresses are described in Annex C of this Recommendation.
5.8	Signalling flows	Replace "Generic number" with "additional connected number". For non-native E.164 addresses the *connected number* is to be substituted by *AESA (ATM End System Address) for connected party* and the *additional connected number* is to be substituted by *AESA for additional connected party*.
5.10	Dynamic description	The dynamic description is specified in through in Annex A of this Recommendation
6.2.1	General description	Replace "connected user's ISDN number" with "connected user's number".
6.5.2.4.1	Normal operation	Replace "Generic number parameter" with "additional connected number parameter". Additional procedures for non-E.164 addresses are described in Annex D of this Recommendation.
6.5.2.5.1	Normal operation	Replace "Generic number parameter" with "additional connected number parameter". Additional procedures for non-E.164 addresses are described in Annex D of this Recommendation.

Table 2/Q.2730 *(end)*

Q.731 references	Title	Remarks
7	Malicious Call Identification (MCID)	Not applicable.
8.2.1	General description	Replace the words "access transport" with "called party sub-address".
8.4	Coding requirements	Replace the first sentence by, "The sub-address information is carried in the called party sub-address parameter." In the second sentence, replace the words "sub-address information element" with "called party sub-address parameter".
8.5.2.1.1	Normal operation	Replace the words "access transport" with "called party sub-address".
8.5.2.2.1	Normal operation	Replace the words "access transport" with "called party sub-address".
8.5.2.3.1	Normal operation	Replace the words "access transport" with "called party sub-address".
8.5.2.4.1	Normal operation	Replace the words "access transport" with "called party sub-address".

Table 3/Q.2730

Q.732 references	Title	Remarks
2-5	Call diversion services	Not applicable.
7	Explicit call transfer	Not applicable.

Table 4/Q.2730

Q.733 references	Title	Remarks
1	Call Waiting (CW)	Not applicable.
2	Call Hold (HOLD)	Not applicable.
3	Completion of Calls to Busy Subscriber (CCBS)	Not applicable.
4	Terminal Portability (TP)	Not applicable.
4.6.13.3	User-to-User Signalling, service 3 (UUS3)	Not applicable.

Table 5/Q.2730

Q.734 references	Title	Remarks
1	Conference calling	Not applicable.
2	Three Party	Not applicable.

Table 6/Q.2730

Q.735 references	Title	Remarks
1	Closed User Group (CUG)	See [5].
3	Multilevel Precedence and Preemption (MLPP)	Not applicable.
6	Global Virtual Network Service (GVNS)	Not applicable.

Table 7/Q.2730

Q.736 references	Title	Remarks
1	International Telecommunication Charge Card (ITCC)	Not applicable.
3	Reverse Charging (REV)	Not applicable.

Table 8/Q.2730

Q.737 references	Title	Remarks
1.1.2.2	Specific terminology	User-to-user Indicators indicating request/acceptance/rejection are not applicable.
1.1.4	Coding requirements	The second paragraph is not applicable.
1.1.5.2.1.1.2	Explicit service request	Not applicable.
1.1.5.2.1.1.3	Transfer of user-to-user information	Replace the first paragraph with the following: "User-to-user information may be contained in any of the messages that may be transferred in the call set-up and call release phases, provided the request for implicit service 1 has not been discarded."
1.1.5.2.1.2	Exceptional procedures	In the first sentence, replace the words "and rejection indicators" with "indication".
1.1.5.2.2.2	Exceptional procedures	In the second sentence, delete the words "Rejection of an explicit service request or".
1.1.5.2.5.2.2	Rejection of explicit service request	Not applicable.

Table 8/Q.2730 *(concluded)*

Q.737 references	Title	Remarks
1.1.5.2.5.2.3	Discard of user-to-user information	In the first paragraph, second sentence, replace the words "with Q.767 ISUP" with "between Recommendation Q.767 and ISUP'92 or later". The second paragraph is not applicable.
1.1.6.10	Call diversion services	Not applicable.
1.1.6.13	User-to-User Signalling (UUS)	Not applicable.
1.1.6.16	Call Hold (HOLD)	Not applicable.
1.1.7	Interactions with other networks	In the first sentence, delete the words "or explicit". In Table 1-1 delete the columns entitled "Non-essential request" and "Essential request". Notes 2 and 3 are not applicable.
1.1.8	Signalling flows	In the first paragraph, delete the second sentence. In Notes 1 and 2 delete the words "user-to-user indicators parameter and/or". In the table of abbreviations, the following abbreviations are not applicable: "ni", "rne", "re", "p", "np" and "UUI ind".
1.2	User-to-User Signalling service 2	Not applicable.
1.3	User-to-User Signalling service 3	Not applicable.

ANNEX A

CLIP for non-native E.164 addresses

A.1 Definition

See clause 3/Q.731 with the modifications listed in Table 2.

A.2 Description

A.2.1 General Description

See clause 3/Q.731 with the modifications listed in Table 2, and the following additions:

The stage 3 DSS2 description is given in Recommendations Q.2951.3 [32] and Q.2951.9 [36]. This stage 3 description of the CLIP supplementary service uses the Broadband ISDN user part protocol as defined in Recommendations Q.2761-Q.2764.

A.2.2 Specific terminology

See clause 3/Q.731 with the modifications listed in Table 2, and the following additions and modifications:

A.2.2.1 ATM end system address: The ATM end system address is an address that uniquely identifies an ATM endpoint (see Recommendation E.191 [37]).

A.2.2.2 native E.164 number: See "ISDN number".

A.2.2.3 sub-address: See Recommendation E.191 [37].

A.2.2.4 served user: It is the user of a particular ISDN number or AESA who has subscribed to the presentation of the calling line identification information in association with incoming calls. The served user is also known as the called user.

A.2.2.5 default number: A national significant ISDN number or an AESA registered within the public ISDN following prior arrangement between the calling user and the public ISDN.

A.2.3 Qualification on the applicability to telecommunication services

See clause 3/Q.731 with the modifications listed in Table 2.

A.3 Operational requirements

See clause 3/Q.731 with the modifications listed in Table 2.

A.4 Coding requirements

See clause 3/Q.731 with the modifications listed in Table 2, and the following additions:

i) *Coding requirements if a special arrangement does not apply*

Recommendation Q.2763 gives the coding for the *AESA for calling party* parameter which is required to support this service.

The purpose of the *AESA for calling party* parameter is to identify the origin of a call when the calling line identity is an AESA. This number may be provided by the network or by the calling user and verified by the network.

ii) *Coding requirements if a special arrangement applies*

Recommendation Q.2763 gives the coding for the *AESA for additional calling party* parameter which is required to support this service.

The purpose of the *AESA for additional calling party* parameter is to transport an AESA calling party number provided by the calling user with a special arrangement.

A.5 Signalling requirements

See clause 3/Q.731 with the modifications listed in Table 2, and the following additions:

A.5.1 Actions at the originating local exchange

The actions at the originating local exchange are specified by the SDL provided in Figure A.1, which also contains the pure native E.164 case as a special case.

A.5.2 Actions at the outgoing international gateway exchange

The procedures of Recommendation Q.731 with respect to the handling of the *address presentation restricted indicator* shall be applied analogous to the *AESA for calling party* and *AESA for additional calling party* parameters.

A.5.3 Actions at the destination local exchange

The actions at the destination local exchange are specified by the SDL provided in Figure A.2, which also contains the pure native E.164 case as a special case.

A.6 Interaction with other supplementary services

See clause 3/Q.731 with the modifications listed in Table 2, and the following additions:

A.6.1 Calling Line Identification Restriction (CLIR)

Depending on bilateral agreement, the originating network may restrict the information conveyed in the *AESA for additional calling party* and/or *AESA for calling party* parameter(s) from being sent to the destination network when the CLIR supplementary service is applicable.

A.7 Interactions with other networks

ATM end system addresses are not received from or sent to ISUP networks. A broadband/narrow-band interworking exchange shall discard the AESA for calling party and/or AESA for additional calling party parameter.

A.8 Signalling flows

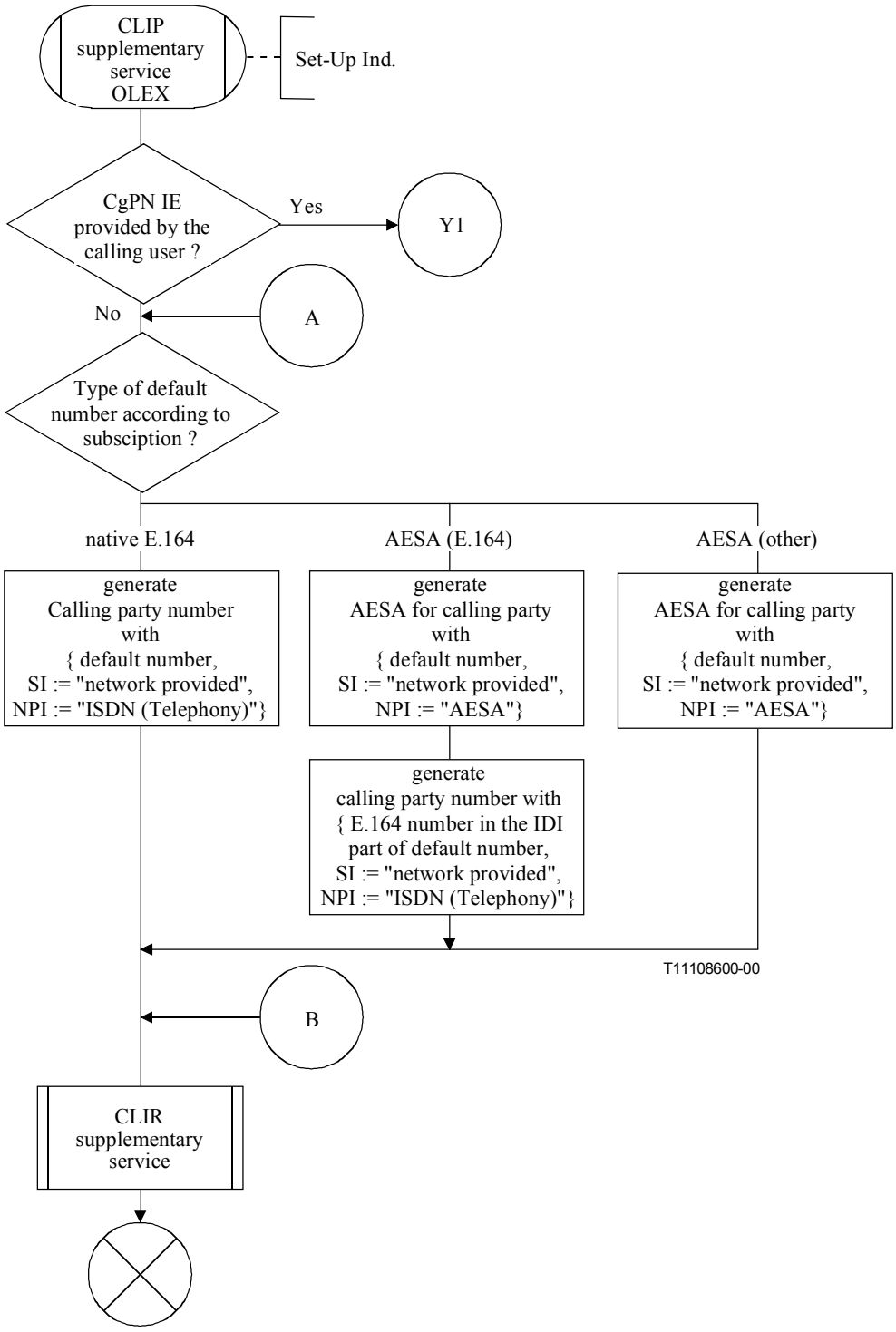
See clause 3/Q.731 with the modifications listed in Table 2.

A.9 Parameter values (timers)

See clause 3/Q.731 with the modifications listed in Table 2.

A.10 Dynamic description

The dynamic description is specified in Figures A.1 and A.2.



OLEX Originating Local Exchange
CgPN Calling Party Number
IE Information Element
SI Screening Indicator
NPI Numbering Plan Indicator
IDI Initial Domain Identifier

Figure A.1/Q.2730 – CLIP procedures at the originating local exchange

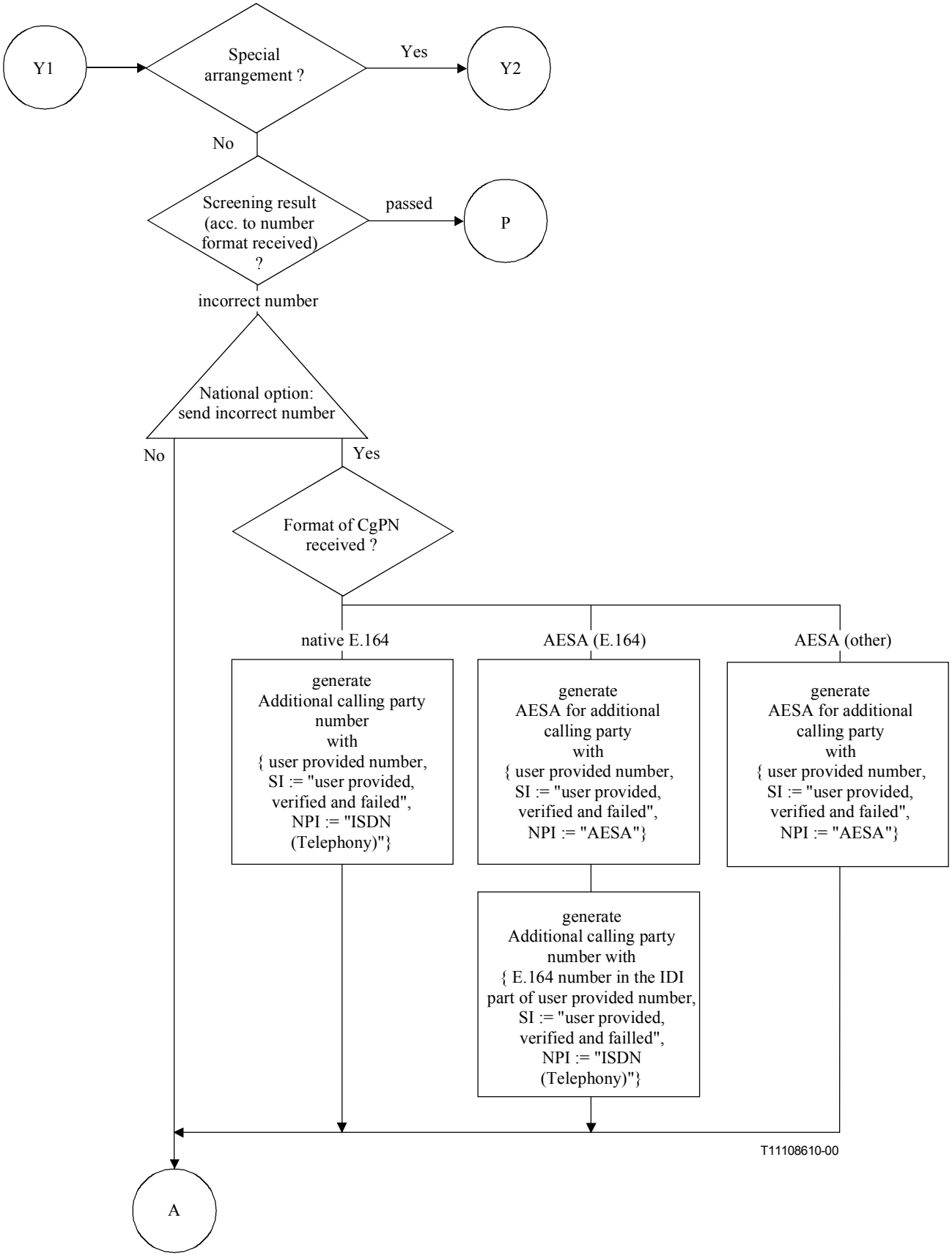


Figure A.1/Q.2730 – CLIP procedures at the originating local exchange *(continued)*

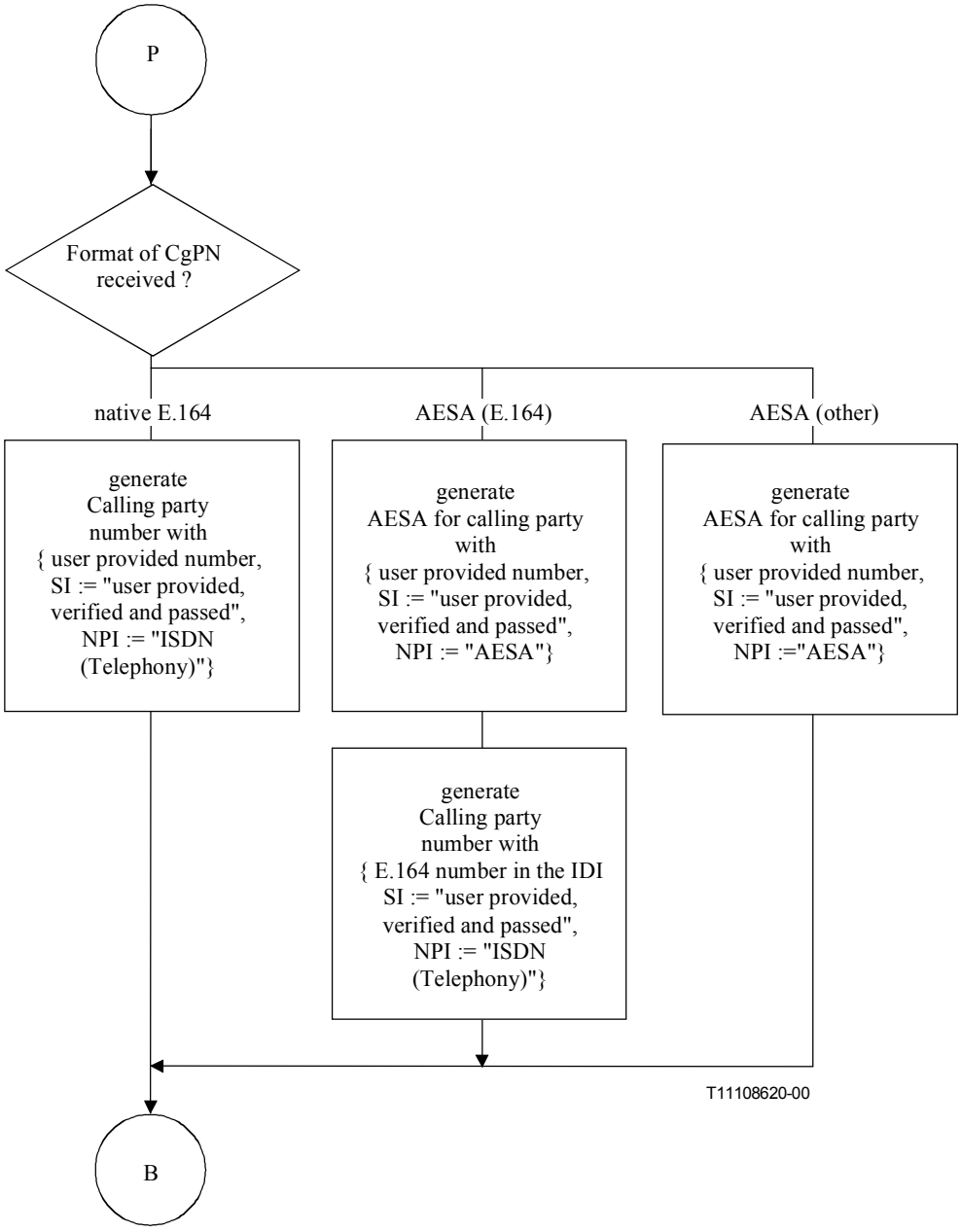


Figure A.1/Q.2730 – CLIP procedures at the originating local exchange *(continued)*

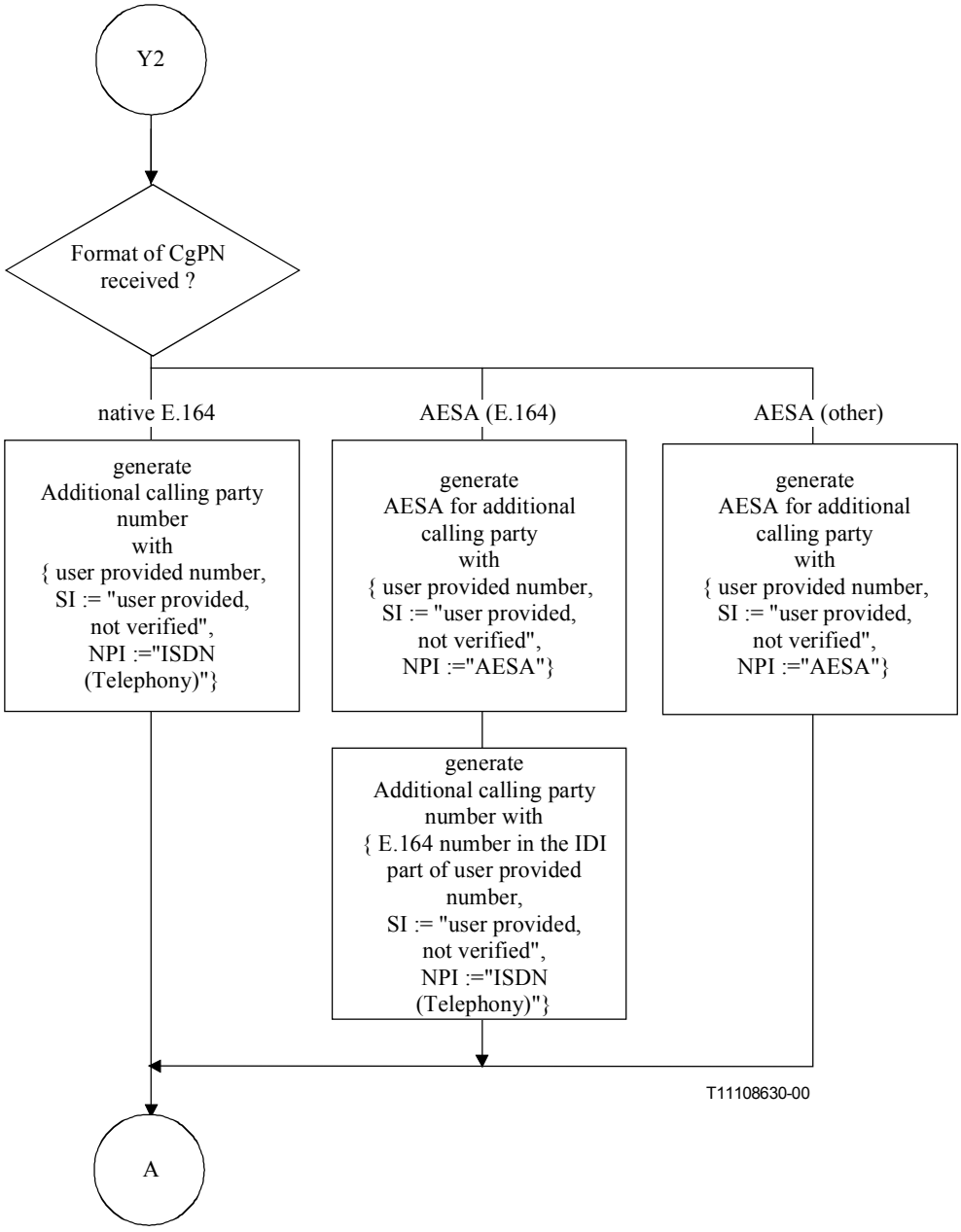


Figure A.1/Q.2730 – CLIP procedures at the originating local exchange *(concluded)*

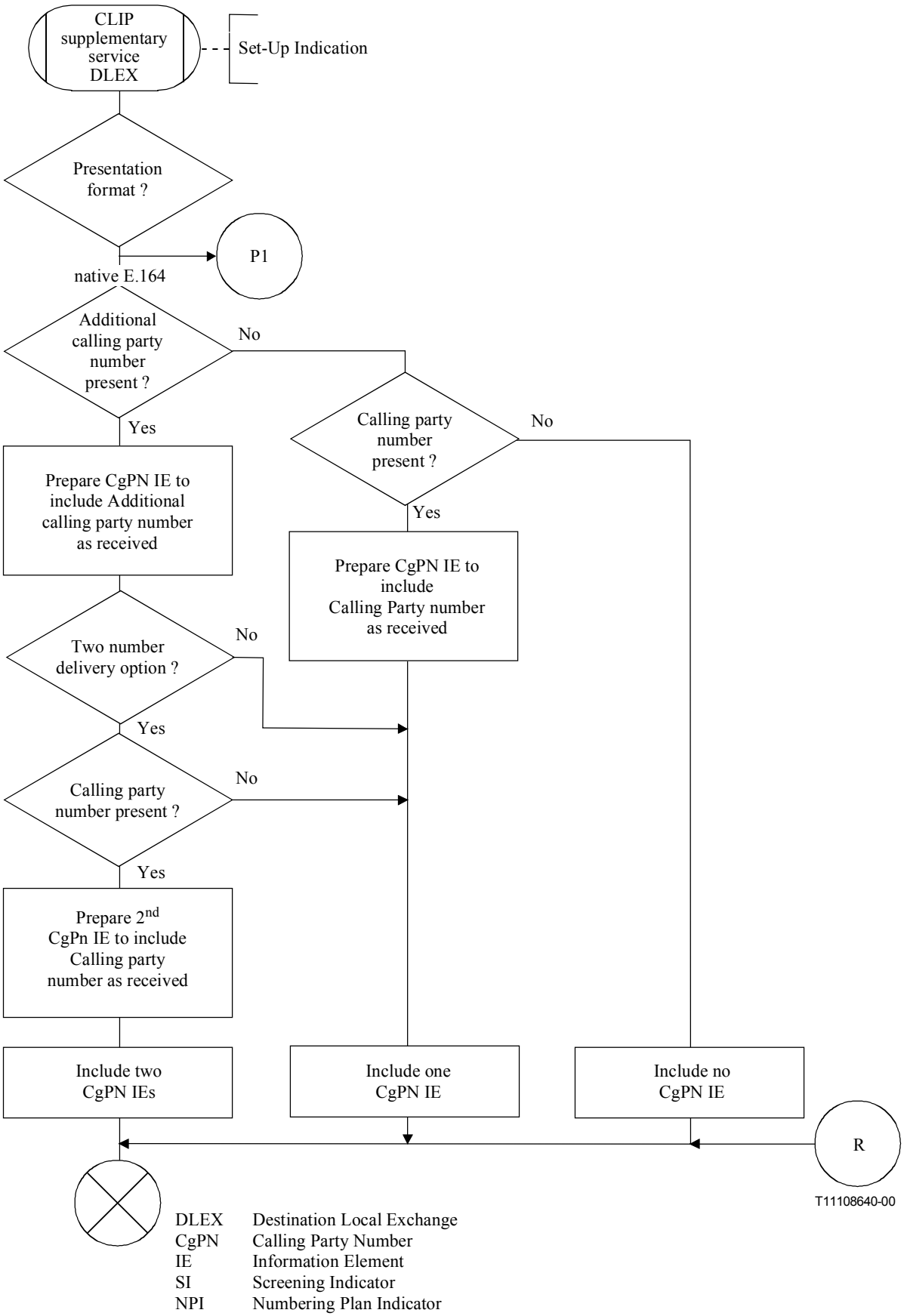


Figure A.2/Q.2730 – CLIP procedures at the destination local exchange

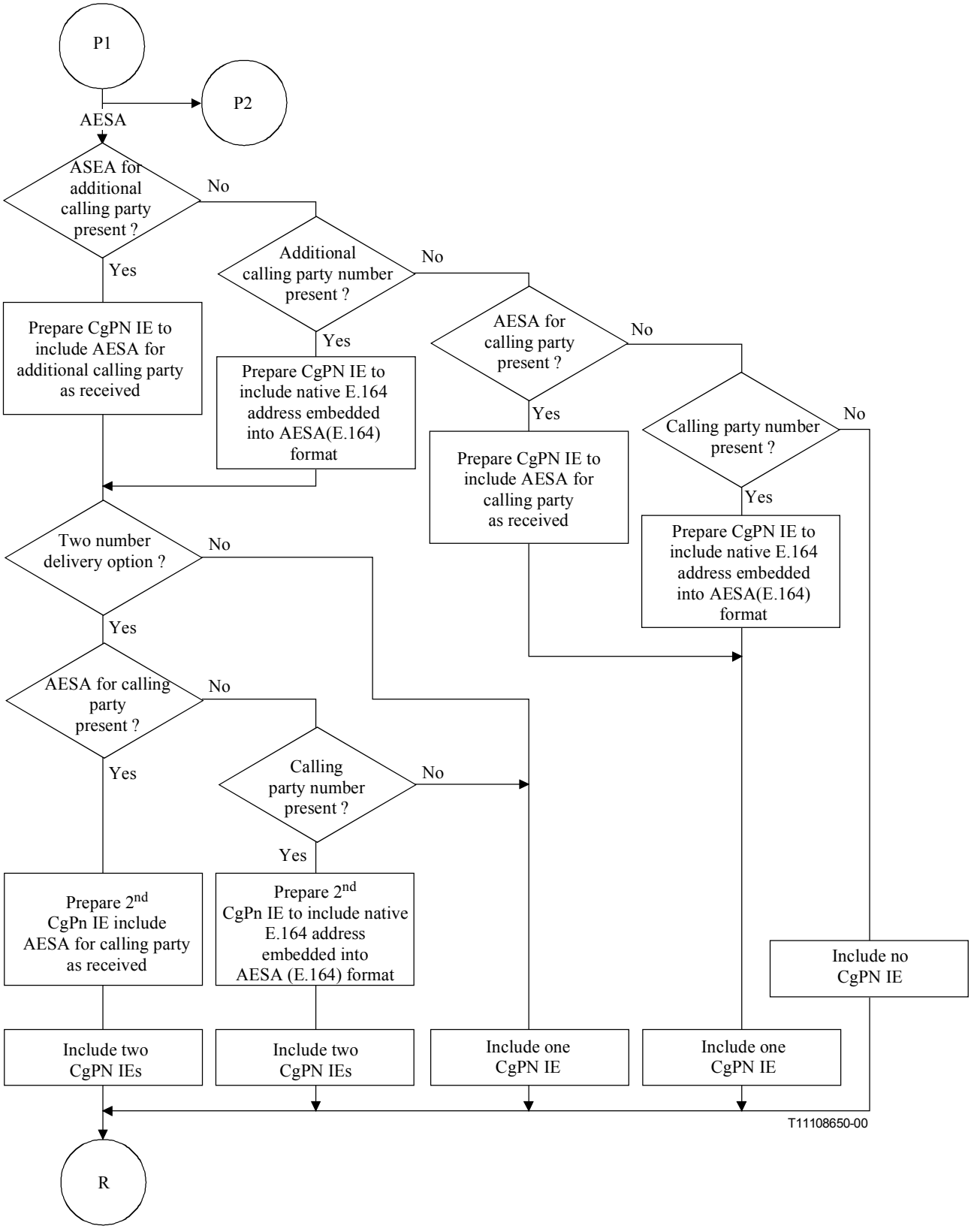


Figure A.2/Q.2730 – CLIP procedures at the destination local exchange *(continued)*

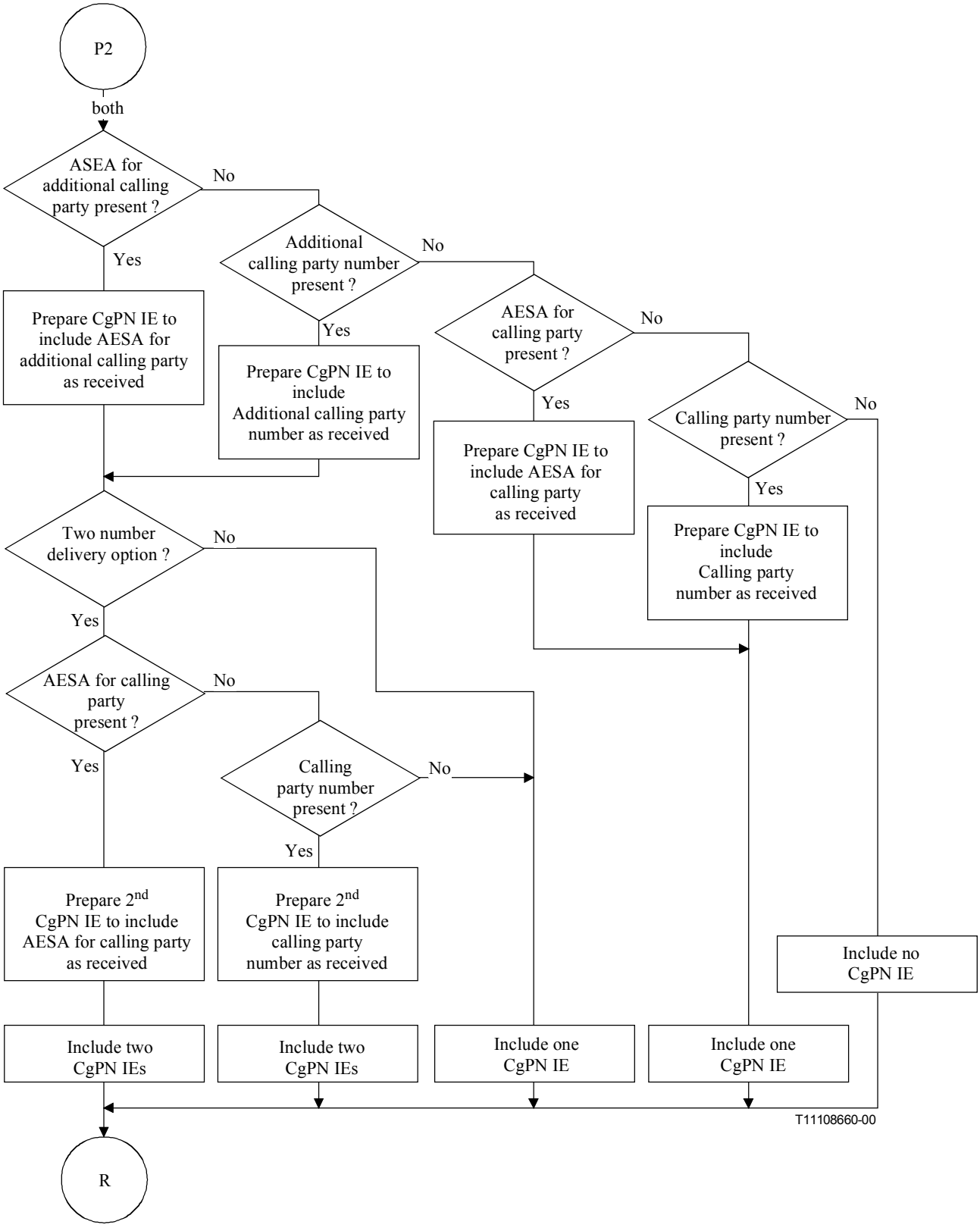


Figure A.2/Q.2730 – CLIP procedures at the destination local exchange *(concluded)*

ANNEX B

CLIR for non-native E.164 addresses

B.1 Definition

B.1.1 General description

See clause 4/Q.731 with the modifications listed in Table 2, and the following additions:

The stage 3 DSS2 description is given in Recommendations Q.2951.4 [33] and Q.2951.9 [36]. This stage 3 description of the CLIR supplementary service uses the Broadband ISDN user part protocol as defined in Recommendations Q.2761-Q.2764.

B.1.2 Specific terminology

See clause 4/Q.731 with the modifications listed in Table 2, and the following additions and modifications:

B.1.2.1 ATM end system address: The ATM end system address is an address that uniquely identifies an ATM endpoint (see Recommendation E.191 [37]).

B.1.2.2 native E.164 number: See "ISDN number".

B.1.2.3 sub-address: See Recommendation E.191 [37].

B.1.2.4 served user: It is the user of a particular ISDN number or AESA who has subscribed to the restriction of the calling line identification information (on a permanent or on a per-call basis) in association with outgoing calls. The served user is also known as the calling user.

B.1.2.5 default number: A national significant ISDN number or an AESA registered within the public ISDN following prior arrangement between the calling user and the public ISDN.

B.1.3 Qualification on the applicability to telecommunication services

See clause 4/Q.731 with the modifications listed in Table 2.

B.2 Description

See clause 4/Q.731 with the modifications listed in Table 2.

B.3 Operational requirements

See clause 4/Q.731 with the modifications listed in Table 2.

B.4 Coding requirements

See A.4.

B.5 Signalling requirements

See clause 4/Q.731 with the modifications listed in Table 2, and the following additions:

B.5.1 Actions at the originating local exchange

The originating local exchange shall set the address presentation restricted indicator of *the AESA for calling party* parameter and of the *AESA for additional calling party* parameter (if applicable) to the value as requested by the access signalling system of the calling user.

B.5.2 Actions at the outgoing international gateway exchange

Depending on bilateral agreement, the originating network may restrict the information conveyed in the *AESA for additional calling party* and/or *AESA for calling party* parameter(s) from being sent to the destination network when the CLIR supplementary service is applicable.

B.6 Interaction with other supplementary services

See clause 4/Q.731 with the modifications listed in Table 2, and the following additions:

B.6.1 Calling Line Identification Restriction (CLIR)

Depending on bilateral agreement, the originating network may restrict the information conveyed in the *AESA for additional calling party* and/or *AESA for calling party* parameter from being sent to the destination network when the CLIR supplementary service is applicable.

B.7 Interactions with other networks

See clause 4/Q.731 with the modifications listed in Table 2.

B.8 Signalling flows

See clause 4/Q.731 with the modifications listed in Table 2.

B.9 Parameter values (timers)

See clause 4/Q.731 with the modifications listed in Table 2.

B.10 Dynamic description

See A.10.

ANNEX C

COLP for non-native E.164 addresses

C.1 Definition

See clause 5/Q.731 with the modifications listed in Table 2.

C.2 Description

C.2.1 General Description

See clause 5/Q.731 with the modifications listed in Table 2, and the following additions:

The stage 3 DSS2 description is given in Recommendations Q.2951.5 [34] and Q.2951.9 [36]. This stage 3 description of the COLP supplementary service uses the Broadband ISDN user part protocol as defined in Recommendations Q.2761-Q.2764.

C.2.2 Specific terminology

See clause 5/Q.731 with the modifications listed in Table 2, and the following additions and modifications:

C.2.2.1 ATM end system address: The ATM end system address is an address that uniquely identifies an ATM endpoint (see Recommendation E.191 [37]).

C.2.2.2 native E.164 number: See "ISDN number".

C.2.2.3 sub-address: See Recommendation E.191 [37].

C.2.2.4 served user: It is the user of a particular ISDN number or AESA who has subscribed to the presentation of the connected line identification information in association with outgoing calls. The served user is also known as the calling user.

C.2.2.5 default number: A national significant ISDN number or an AESA registered within the public ISDN following prior arrangement between the connected user and the public ISDN.

C.2.3 Qualification on the applicability to telecommunication services

See clause 5/Q.731 with the modifications listed in Table 2.

C.3 Operational requirements

See clause 5/Q.731 with the modifications listed in Table 2.

C.4 Coding requirements

See clause 5/Q.731 with the modifications listed in Table 2, and the following additions:

iii) *Coding requirements if a special arrangement does not apply*

Subclause 7.12/Q.2763 gives the coding for the *AESA for connected party* parameter which is required to support this service.

The purpose of the *AESA for connected party* parameter is to transport the identity of the connected user when the connected line identity is an AESA. This number may be provided by the network or by the connected user and verified by the network.

iv) *Coding requirements if a special arrangement applies*

Subclause 7.9/Q.2763 gives the coding for the *AESA for additional connected party* parameter which is required to support this service.

The purpose of the *AESA for additional connected party* parameter is to transport an AESA connected party number provided by the connected user with a special arrangement.

C.5 Signalling requirements

See clause 5/Q.731 with the modifications listed in Table 2, and the following additions:

C.5.1 Actions at the originating local exchange

The actions at the originating local exchange are specified by the SDL provided in Figure C.2, which also contains the pure native E.164 case as a special case.

C.5.2 Actions at the incoming international gateway exchange

The procedures of Recommendation Q.731 with respect to the handling of the *address presentation restricted indicator* shall be applied analogous to the *AESA for connected party* and *AESA for additional connected party* parameters.

C.5.3 Actions at the destination local exchange

The actions at the destination local exchange are specified by the SDL provided in Figure C.1, which also contains the pure native E.164 case as a special case.

C.6 Interaction with other supplementary services

See clause 5/Q.731 with the modifications listed in Table 2.

C.7 Interactions with other networks

ATM end system addresses are not received from or sent to ISUP networks. A broadband/narrowband interworking exchange shall discard the *AESA for connected party* and/or *AESA for additional connected party* parameter.

C.8 Signalling flows

See clause 3/Q.731 with the modifications listed in Table 2.

C.9 Parameter values (timers)

See clause 3/Q.731 with the modifications listed in Table 2.

C.10 Dynamic description

The dynamic description is specified in Figures C.1 and C.2.

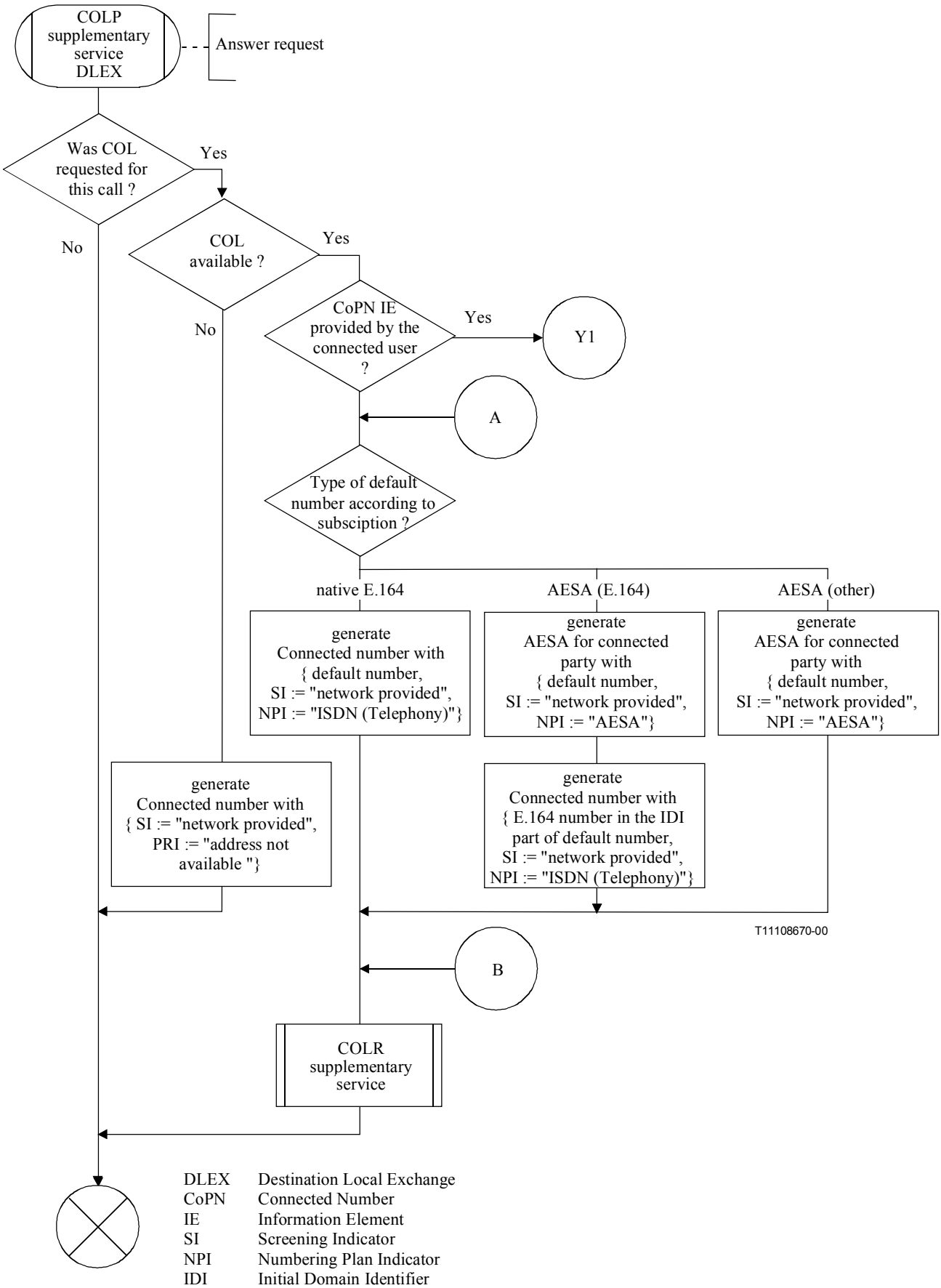


Figure C.1/Q.2730 – COLP procedures at the destination local exchange

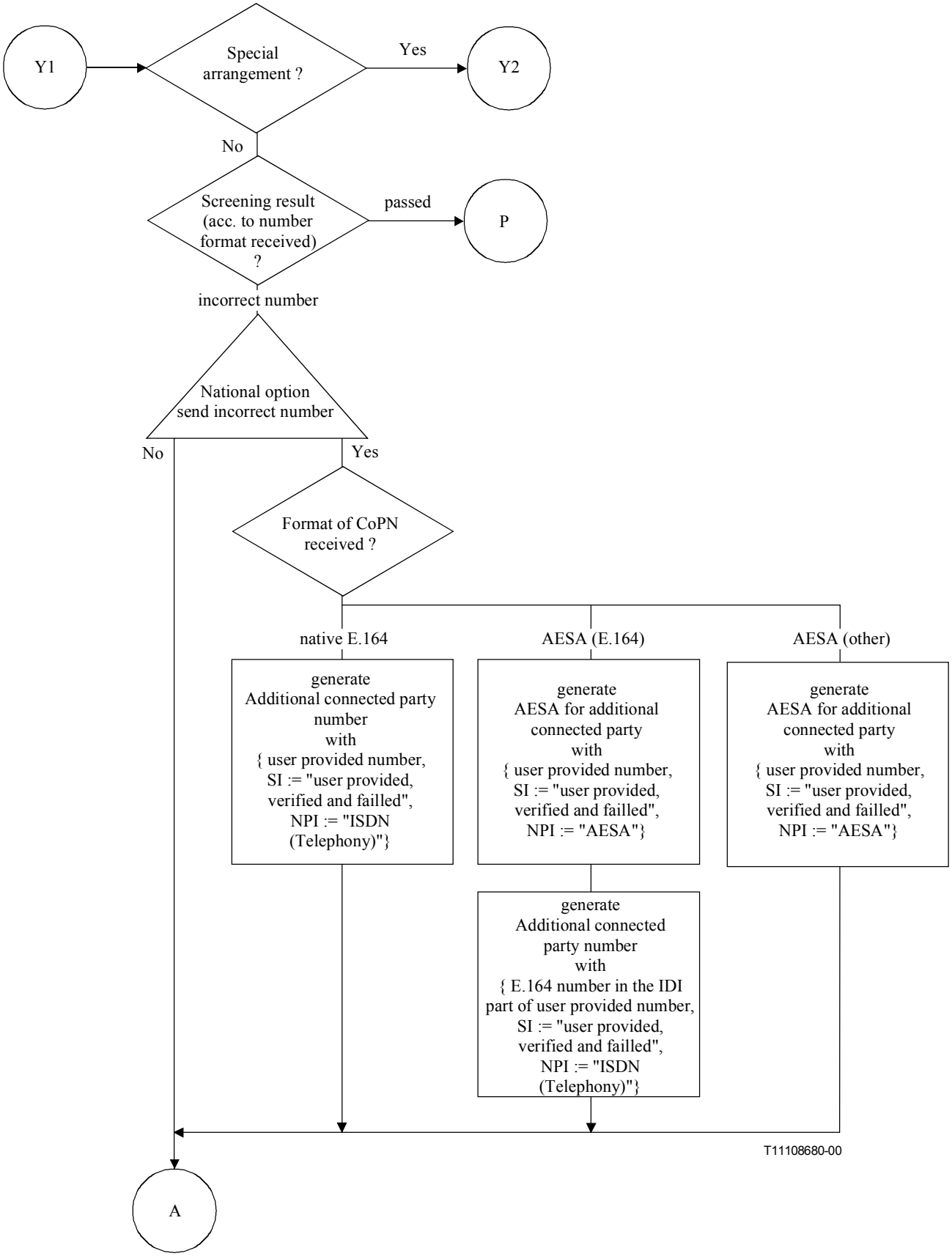


Figure C.1/Q.2730 – COLP procedures at the destination local exchange *(continued)*

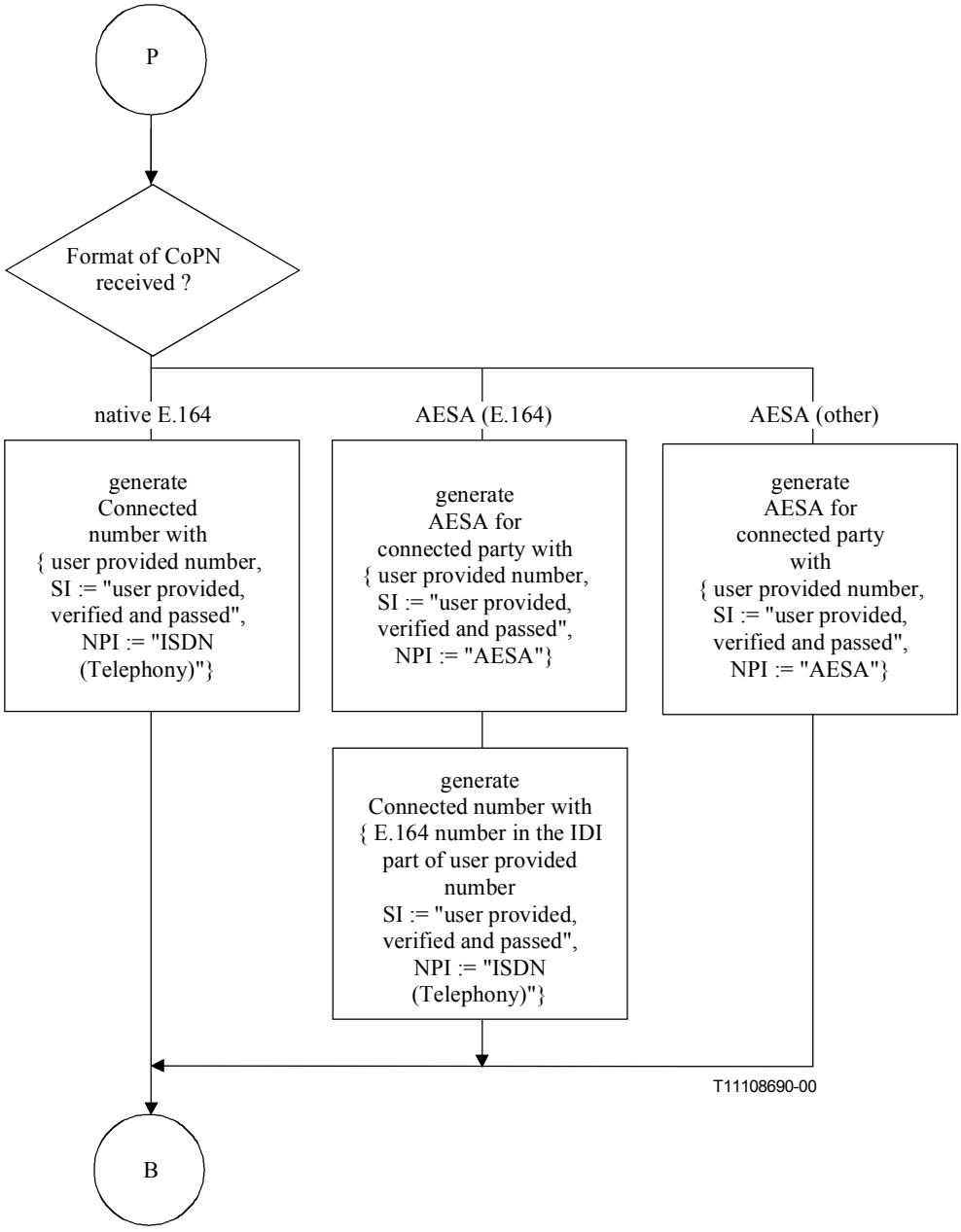


Figure C.1/Q.2730 – COLP procedures at the destination local exchange *(continued)*

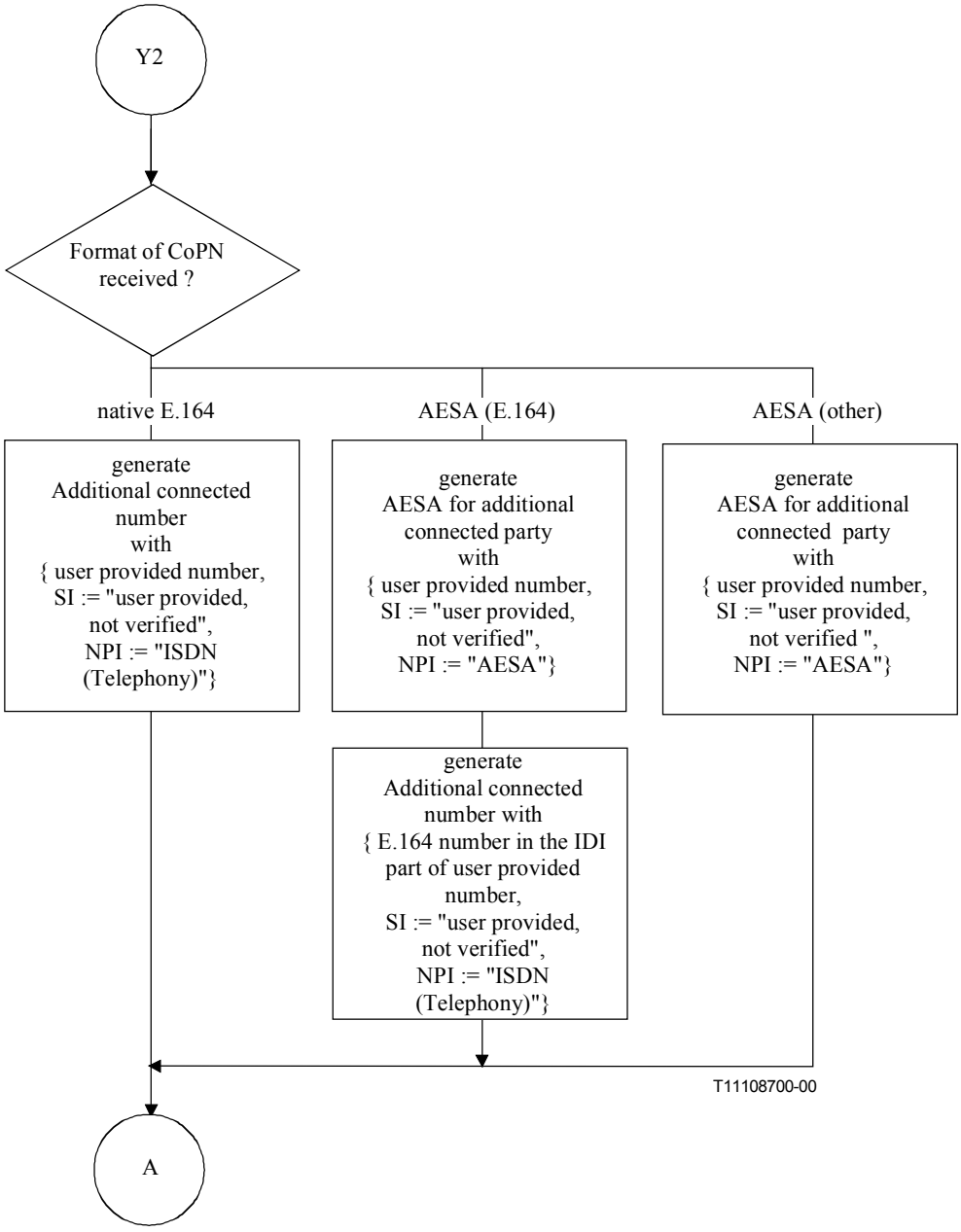
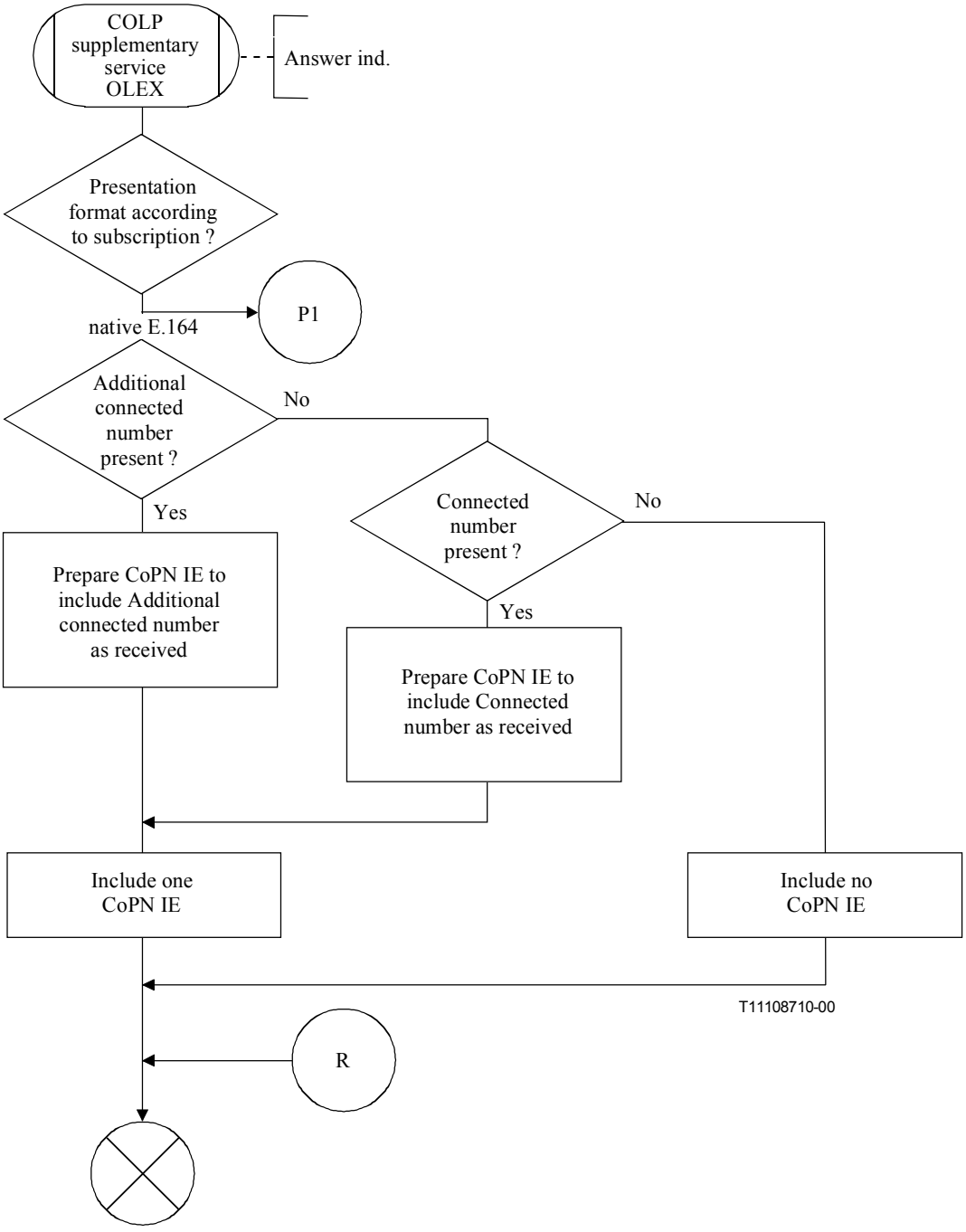


Figure C.1/Q.2730 – COLP procedures at the destination local exchange *(concluded)*



OLEX Originating Local Exchange
CoPN Connected Party Number
IE Information Element
SI Screening Indicator
NPI Numbering Plan Indicator
IDI Initial Domain Identifier

Figure C.2/Q.2730 – COLP procedures at the originating local exchange

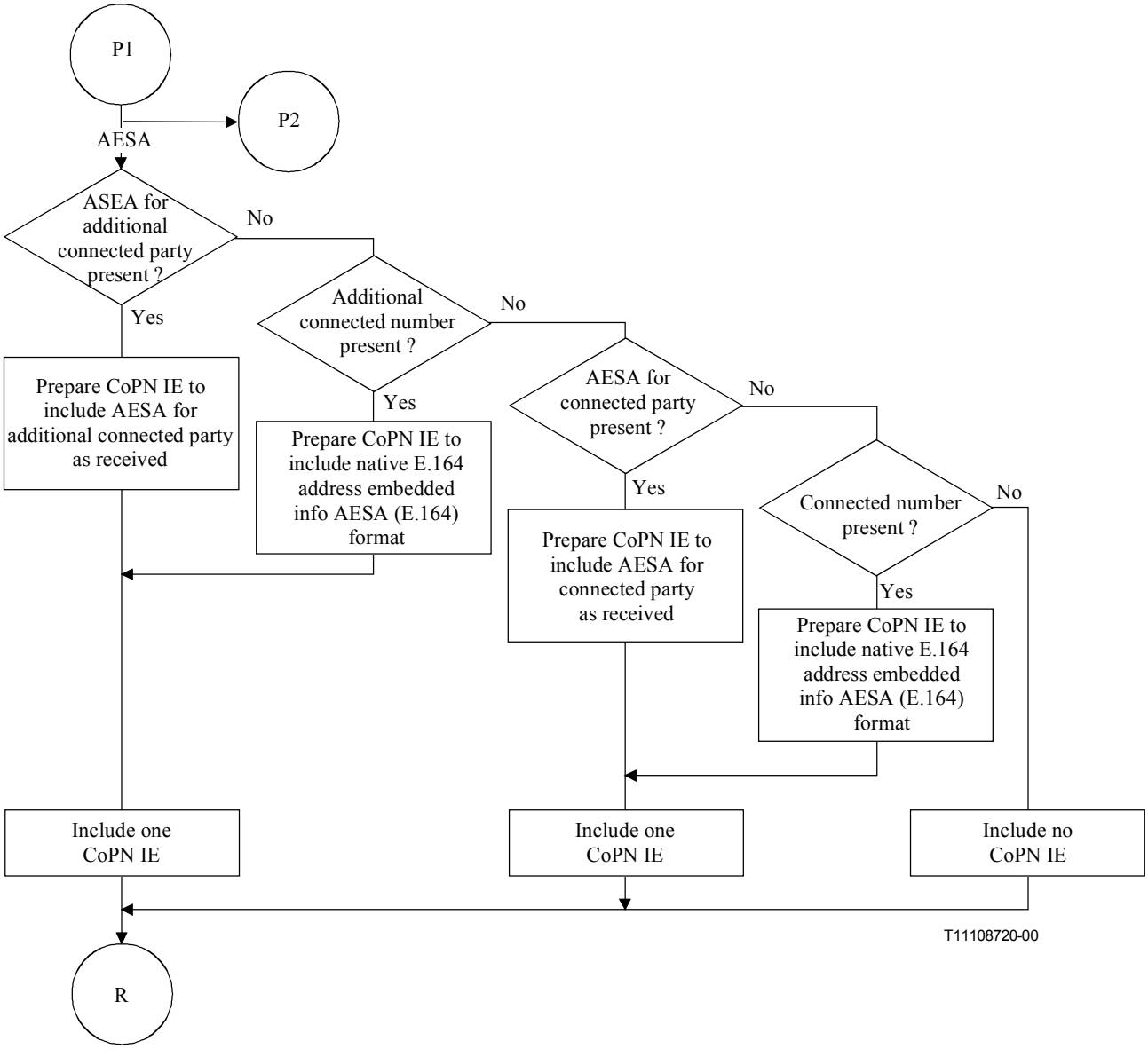


Figure C.2/Q.2730 – COLP procedures at the originating local exchange *(continued)*

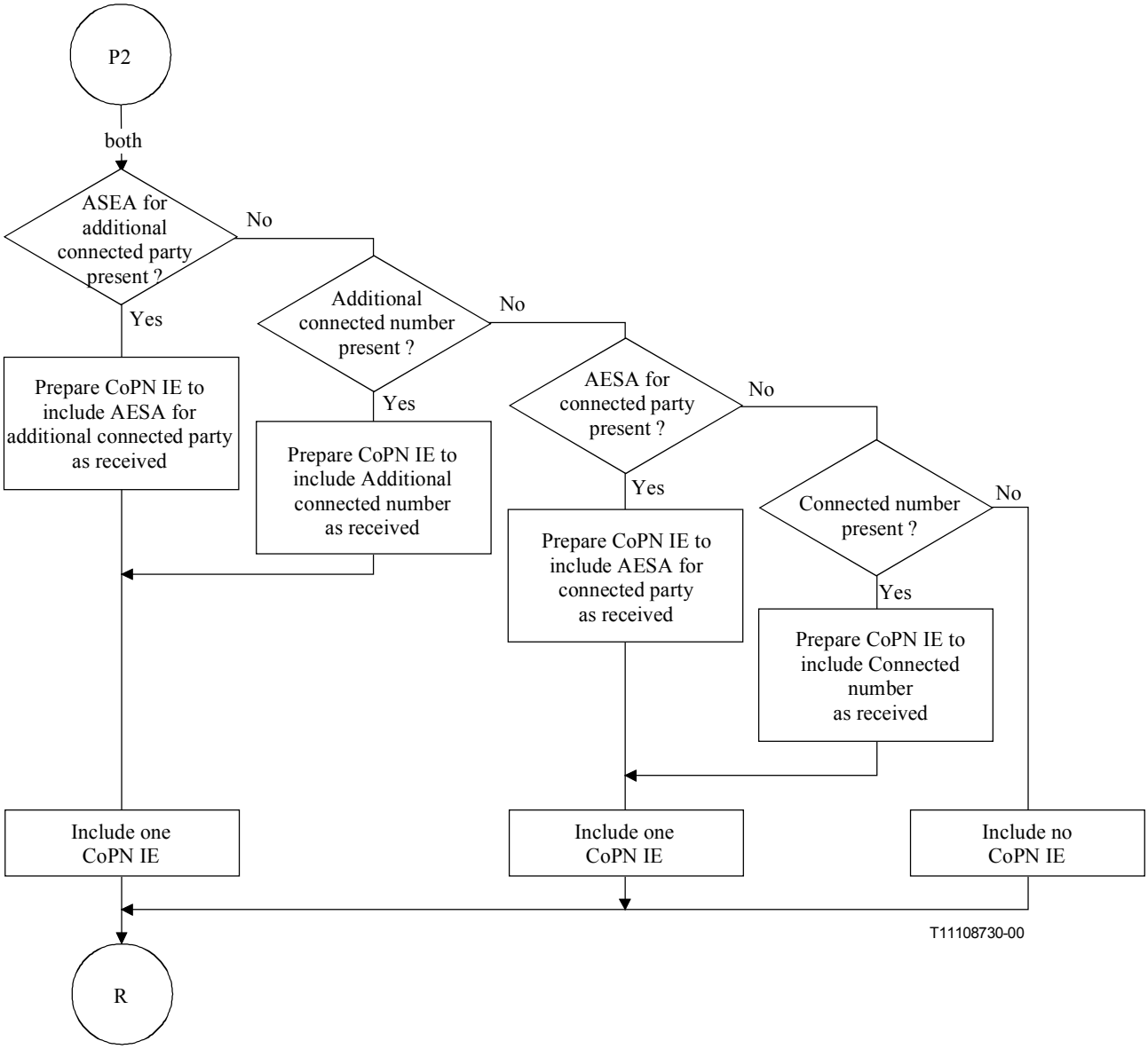


Figure C.2/Q.2730 – COLP procedures at the originating local exchange *(concluded)*

ANNEX D

COLR for non-native E.164 addresses

D.1 Definition

See clause 6/Q.731 with the modifications listed in Table 2.

D.2 Description

D.2.1 General Description

See clause 6/Q.731 with the modifications listed in Table 2, and the following additions:

The stage 3 DSS2 description is given in Recommendations Q.2951.6 [35] and Q.2951.9 [36]. This stage 3 description of the COLR supplementary service uses the Broadband ISDN user part protocol as defined in Recommendations Q.2761-Q.2764.

D.2.2 Specific terminology

See clause 6/Q.731 with the modifications listed in Table 2, and the following additions and modifications:

D.2.2.1 ATM end system address: The ATM end system address is an address that uniquely identifies an ATM endpoint (see Recommendation E.191 [37]).

D.2.2.2 native E.164 number: See "ISDN number".

D.2.2.3 sub-address: See Recommendation E.191 [37].

D.2.2.4 served user: It is the user of a particular ISDN number or AESA who has subscribed to the restriction of the connected line identification information (on a permanent or on a per-call basis) in association with incoming calls. The served user is also known as the connected user.

D.2.2.5 default number: A national significant ISDN number or an AESA registered within the public ISDN following prior arrangement between the connected user and the public ISDN.

D.2.3 Qualification on the applicability to telecommunication services

See clause 6/Q.731 with the modifications listed in Table 2.

D.3 Operational requirements

See clause 6/Q.731 with the modifications listed in Table 2.

D.4 Coding requirements

See C.4.

D.5 Signalling requirements

See clause 6/Q.731 with the modifications listed in Table 2, and the following additions:

D.5.1 Actions at the incoming international gateway exchange

Depending on bilateral agreement, the originating network may restrict the information conveyed in the *AESA for additional connected party* and/or *AESA for connected party* parameter(s) from being sent to the originating network when the COLR supplementary service is applicable.

D.5.2 Actions at the destination local exchange

The destination local exchange shall set the address presentation restricted indicator of *the AESA for connected party* parameter and of the *AESA for additional connected party* parameter (if applicable) to the value as requested by the access signalling system of the connected user.

D.6 Interaction with other supplementary services

See clause 6/Q.731 with the modifications listed in Table 2.

D.7 Interactions with other networks

See clause 6/Q.731 with the modifications listed in Table 2.

D.8 Signalling flows

See clause 6/Q.731 with the modifications listed in Table 2.

D.9 Parameter values (timers)

See clause 6/Q.731 with the modifications listed in Table 2.

D.10 Dynamic description

See C.10.

APPENDIX I

Setting of instruction indicators

The setting of the instruction indicators is as follows:

Parameter	Pass on not possible indicator	Discard parameter indicator	Discard message indicator	Send notification indicator	Release call indicator	Transit at intermediate exchange indicator	Broadband/ narrow-band interworking indicator
AESA for calling party	Discard	Do not discard	Do not discard message	Do not send notification	Do not release call	Transit node interpretation	Discard
Additional calling party number	Discard	Do not discard	Do not discard message	Do not send notification	Do not release call	Transit node interpretation	Pass on
Additional connected number	Discard	Do not discard	Do not discard message	Do not send notification	Do not release call	Transit node interpretation	Pass on
AESA for additional calling party	Discard	Do not discard	Do not discard message	Do not send notification	Do not release call	Transit node interpretation	Discard
AESA for additional connected party	Discard	Do not discard	Do not discard message	Do not send notification	Do not release call	Transit node interpretation	Discard
AESA for connected party	Discard	Do not discard	Do not discard message	Do not send notification	Do not release call	Transit node interpretation	Discard
Calling party number	Discard	Do not discard	Do not discard message	Do not send notification	Do not release call	Transit node interpretation	Pass on
Connected number	Discard	Do not discard	Do not discard message	Do not send notification	Do not release call	Transit node interpretation	Pass on

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