

Editorial changes performed on the Appendix 10 of Draft SARPs V2.0
Based on CCB recognized SNDCF's defect reports and APRIL CISEC meeting's recommendation

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SUMMARY

This paper presents the changes performed in the Appendix 10 of the draft SARPS V2.0 to incorporate changes proposal resulting from the CCB 's process , SNDCF PICS as recommended by the CISEC, as well as editorial changes to improve the readability of the Appendix

Introduction:

(The chapter has been updated to implement corrections to defects identified in the Following Defect Reports : - Copies of these reports are attached to this document)

- 95010014 (T. Whyman)
- 95010030 (T. Whyman)
- 95010032 (T. Whyman)
- 95010045 (T. Whyman)
- 95010049 (H. Thulin)

Note : The following reported Defects relating to the SNDCF were not corrected :

- 95010031 (T. Whyman) , on CIDIN SNDCF text was not corrected in the absence of Clear Change proposal .
- 95010044 (T. Whyman) , on SNDCF Error Report code was not corrected, as it implies to reassign a new code to the error “local reference cancellation error” , change which need further validation...

(To clarify some requirements , some text was moved from the guidance material, Chapter 10, or from the requirements regarding routing initiation and termination, in Appendix 6.

All new text or section which have been moved have been shaded in grey .Text which is to be removed or replaced is striken trough.

(SNDCF APRLS were added to the chapter.

(Tables coming from the ISO 8473 PICS relating to SNDCF - (They are currently in Appendix 9- my proposal is to moved them in Appendix 10 , to group the information on SNDCF)

(Tables derived from ATNP/WG2 WP95 , revisited .

(Tables build from SNDCF routing initiation/termination requirements previously defined in Appendix 6 and now (in this draft) moved to section A10.3 of this document.

Detailed Changes:

P : A10-1 Section A10.2 (3 lines) has been merged with A10.1 - Scope and Applicability -

P : A10-1 Section A10.3 “ATN Subnetwork Service considerations” has been renamed A10.2 “ATN requirements placed on subnetwork” - this change aims at separating clearly the provisions relating to SNDCF from the communication service expected from the subnetworks themselves . (1)

P : A10-1 line following A10.3.1 has been striken in order to remove reference to guidance material- Instead requirement listed in Chapter 10 have been moved to the new section A10.2

P: A10-1 requirement A10.3.1.1 has been reformulated because of its ambiguity - It is not clear wether it applies to the SNDCF or to the subnetwork itself. This sentence has been replaced by the new A10.2.1.1 which is extracted from the guidance material (Chapter 10).

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- P : A10-2 For the reason (1), table A10-1 is moved to section A10-4 “Subnetwork Service Primitives”
- P : A10-2 Requirement A10.3.1.2 has been renamed A10.2.1.3
- P : A10-2 New requirements A10.2.1.1 and A10.2.1.2 are extracted from Chapter 10
- P : A10-3 New requirements A10.2.1.4 , A10.2.2.2 are extracted from Chapter 10
- P : A10-3 A10.2.2.4 - Text was extracted from Chapter 10 and provided here for clarification
- P : A10-4 A10.2.2.4 - This recommendation “as soon as possible” was extracted from the guidance material
- P : A10-4 A10.2.2.5 - text was extracted from Chapter 10 and provided here for clarifications
- P : A10-4 , A10-5, A10-6 The new section A10.3 is extracted from the current Appendix 6 which the objective of keeping only the information relating to the SNDCF. The reason for this move is to be able to develop Appendix 10 APRLs which refers only to Appendix 10 sections , and for a better understanding of the SNDCF.
- On this text , in A10.3.1.1.1 I added a recommendation (my understanding) that ISH be mapped in the Call Request user Data.
- P : A10-7 Table A10-1 has been moved to this section. This table was previously in section A10.3.1.1
- P : A10-8 Table A10-2 has been added to this section. This table is the previous table 10-1.
- P : A10-11 Section A10.6.2.1.2 should be removed as it is a duplication of an ISO 8208 standard procedure.
- P : A10-12 Section A10.6.2.5.2 and table A10-2 should be removed as it is a duplication of an ISO 8208 standard procedure.
- P: A10-13 Text on ISO-8208 priority was added for clarifications in Section A10.6.2.6.1 . This text is extracted from Chapter 10.
- P: A10-13 Section A10.6.2.6.2 should be removed as it is a duplication of an ISO 8208 standard procedure.
- P A10-14, to A10-19 To ease readability , some Information in this section has been grouped into specific subsections - Section A10.6.4.3.3 , “Call user Data” , A10.6.4.3.4 “Application of compression procedure”, section A10.6.4.3.5 “Call acceptance and compression negotiation”, section A10.6.4.3.6 “Call rejection” were created.
- P: A10-14 Figure A10.1, format of call user Data has been moved to A10.6.4.3.3 “Call User Data”
- P: A10-14 A reference to table A10-2 , previously 10-1 has been added in section A10.6.4.3.2
- P: A10-15,A10-16 The definition of the SNCR field has been reformulated as proposed by Tony in DR 95010030 .
- P: A10-15 The definition of the length of the parameter block has been enhanced to correct the defect reported in DR 95010032.
- P: A10-16 Initial text describing the order in which compression algorithm are applied has been moved to a specific section : A10.6.4.3.4 “Application of compression procedure” . This is a change proposal for DR 95010014.
- P: A10-17 In the description of user data, text has been added after the definition of the Maximum Directory Entries field, to specify that this field is not used in the Call Accept User Data.
- P: A10-17 The definition of additional user Data field has been enhanced to incorporate Tony’s comment in one of his SNDCF’s Editorial defect report . Correction to this defect includes as well the deletion of Note 6 and Note 7 in this paragraph.

P: A10-17 , A10-18 Procedure for call acceptance or rejection has been reformulated to move all text relating to possible rejection to the new section A10.6.4.3.6 “Call rejection” .

P: A10-18 The new section A10.6.4.3.6 describes the various cases of Call rejection. The list of the diagnostic values to be used in these cases has been moved to section A10-6.4.10 . A10-6.4.10 lists all the cases of call termination and provide a recommendation for the diagnostic which should be used in each of these cases.

P: A10-30 Clarification was made in order to correct defect identified in DR 95010045

P: A10-32 Table A10-6 Recommended diagnostics values for call clearing, has been added to section A10.6.4.10 (Call Clearing Provisions) . In addition to the diagnostics already listed in the manual , this table proposes diagnostic codes for various cases of call clearing identified in the Appendix 10 or in the 8473 SNDCF Standard. This is a change proposal relating to DR 95010049.

P: A10-46 to P: A10-60 Three sets of APRLS were added - Annex I is an analysis of the differences between the tables in the new Appendix 10 and WG2/WP95.

Annex I - Differences between the proposed new Appendix 10 APRLs tables derived from WP95 and WP95
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item	Function	WP 95 support	New Appendix 10 support
Xcalla	Is new call setup when no suitable call exists	O	M
XMCI	Multiple Vcs initiating	OX	O
XCLRA	are calls cleared when idle timer expires	M	XIDL:M
XIDL	idle timer	XClra:M	O
mcSETUP	Call setup and clearing procedures	M	information moved to next tables A10.13
csDynam	Dynamic Call Setup	O.2	M
csPri	Mapping onto subnetwork priority	M	Entry removed - no info on mapping in Appendix 10
csFast	Use of Fast Select	M	O
csAdd	Use of additional call user Data	O	Entries moved to new table A10-13
csReq	Required use of additional user Data	M	Entry removed there is no such clause in the manual
csSMClear csTimeClear csResclear		O O O	Entries removed as this is already answered in XCLrc,Xclra, Xclrb
csAcp	Call acceptance procedure	- No entry	M
csRej	Call rejection procedures	-No entry	M
csOrd	Order of compression procedures	-No entry	M
csDiag	Use of call rejection diagnostic codes	-No entry	O
caUserDat caAdd caReq	Negotiation of compression algorithm	mcNego:M	Entries removed as they are implicit when mcNego is True
caMaxd	Indication of the maximum of directories entries	-No entry	mcNego:O

			(mcNego:X
LrReset	Purging directories entries on Reset	-No entry	mcMocRef:M

In the new Appendix 4 new tables have been added in A10-13 to list requirements relating to subnetwork routing initiation/termination , requirements previously listed in Appendix 6 , and now summarized in the new Appendix 10:

- Airborne BIS
- Ground BIS
- Initiating BIS
- Responding BIS

Annex II

Defect Reports on Appendix 10

Defect Report Reference : 95010014.DR

Change Proposal Reference(s):

Status : SUBMITTED

Defect Report Revision Date:

Defect Report Format Revision Date: 22nd December 1994

Defect Report Submission Date: 22-Nov-94 15:24

Submitting State/Organisation: Eurocontrol

Submitting Author Name: Tony Whyman

Submitting Author E-Mail Address: whyman@mwassocs.demon.co.uk

ATN Draft SARPs version: Draft 1.0

Category: Major

SARPs/GM Document Reference: Chapter A10.6.4.3.2, , Page No. A10
10

Summary of Defect: The paragraph beginning "It is important to specify the order.." is inappropriate for SARPs. The 2nd sentence reads like guidance. The 3rd and 4th sentences contain "should", but this is not a recommendation. "Shall" does not appear anyway in the text.

Discussion: There are six requirements here which are not part of the ATN Database and have been overlooked due to editorial errors.

Impact on Requirements:

CCB Decision Date:

CCB Recommended Action:

Defect Report Reference : 95010030.DR
Change proposal reference:
Status : SUBMITTED
Defect Report Revision Date:
Defect Report Format Revision Date: 22 nd December 1994
Defect Report Submission Date: 12-Jan-95 09:31:12
Submitting State/Organization:EUROCONTROL
Submitting Author name: Tony Whyman
Submitting Author e-mail address: whyman@mwassocs.demon.co.uk
ATN SARP Draft version: ATN Manual Validation Copy (19/11/93)
Category MINOR

SARPs/GM Document Reference chapter: A10.6.4.3.2 Page: A10-9
Summary of Defect:
Text: "The fourth and fifth octets form the Subnetwork Connection Reference (SNCR) for use in collision resolution"

The title call collision is a misnomer as true call collision should be resolved in the underlying subnetwork (i.e the DTE and DCE both trying to establish a call on the same virtual circuit reference) . The SNCR is not used in the case of call collision , but to control the number of VCs currently established between two DTES. This text should be simply replaced by : "The fourth and fifth octets form the Subnetwork Connection Reference (SNCR) " .

Reference chapter: A10.6.4.3.2 Page: A10-11
Summary
Text: "The following diagnostic codes may be used when an SNDCF rejects an incoming Call Request:"

This is a too ambiguous as a requirement . It should be replaced by :
"diagnostic code shall take one of the following values".

Discussion:
Impact on Requirements:
CCB Decision Date::
CCB Recommended action:

Defect Report Reference : 95010031.DR
Change proposal reference:
Status : SUBMITTED
Defect Report Revision Date:
Defect Report Format Revision Date: 22 nd December 1994
Defect Report Submission Date: 12-Jan-95 09:32:08
Submitting State/Organization:EUROCONTROL
Submitting Author name: Tony Whyman
Submitting Author e-mail address: whyman@mwassocs.demon.co.uk
ATN SARP Draft version: ATN Manual Validation Copy (19/11/93)
Category Minor

SARPs/GM Document Reference chapter: A10.8.2.4, A10.8.2.5 Page:
A10-25

Summary of Defect:

Text "A priori values for transit delay, protection against unauthorized access, cost determinants and residual error probability shall be entered as management data in the router"

Text "The mapping between SN Priority and the CIDIN subnetwork priority shall be entered as management data in the router "

This sentence assumes that the SNDCF is implemented in a router. There is no such requirement expressed before in this appendix to restrict CIDIN SNDCF to ATN routers. The same applies to A10.8.2.5

Discussion:

Impact on Requirements:

CCB Decision Date::

CCB Recommended action:

Defect Report Reference : 95010032.DR
Change proposal reference:
Status : SUBMITTED
Defect Report Revision Date:
Defect Report Format Revision Date: 22 nd December 1994
Defect Report Submission Date: 12-Jan-95 09:32:44
Submitting State/Organization:EUROCONTROL
Submitting Author name: Tony Whyman
Submitting Author e-mail address: whyman@mwassocs.demon.co.uk
ATN SARP Draft version: ATN Manual Validation Copy (19/11/93)
Category MAJOR

SARPs/GM Document Reference chapter: A10.6.4.3.2 Page: A10-7

Summary of Defect:

Text "2. The second octet is a length indicator giving the number of octets in the SNDCF parameter block (i.e up to and including (if present) the maximum number of directory entries field"

This is inconsistent with the ISO 8473 / year 94 recommendation, which add to the ATN calculated length (see Text) an additional +1 representing the octet for the length indicator in the Call user data structure.

Discussion:

Replace the quoted text by a reference to the ISO 8473 standards

Impact on Requirements:

CCB Decision Date::

CCB Recommended action:

Defect Report Reference : 95010044.DR
Change Proposal Reference(s):
Status : SUBMITTED
Defect Report Revision Date:
Defect Report Format Revision Date: 22nd December 1994
Defect Report Submission Date: 12/1/95
Submitting State/Organisation: Eurocontrol
Submitting Author Name: Tony Whyman
Submitting Author E-Mail Address: whyman@mwassocs.demon.co.uk
ATN Draft SARPs version: Draft 1.0
Category: Minor
SARPs/GM Document Reference:
Summary of Defect: 8. ATN Manual A10.6.4.8 reason codes for SNDCF Error
report: reasons (f) and (g) are no longer valid and should have been deleted
when "protocol id" was deleted from PDU format
Discussion:
Impact on Requirements:
CCB Decision Date:
CCB Recommended Action:

Defect Report Reference : 95010045.DR
Change Proposal Reference(s):
Status : SUBMITTED
Defect Report Revision Date:
Defect Report Format Revision Date: 22nd December 1994
Defect Report Submission Date: 12/1/95
Submitting State/Organisation: Eurocontrol
Submitting Author Name: Tony Whyman
Submitting Author E-Mail Address: whyman@mwassocs.demon.co.uk
ATN Draft SARPs version: Draft 1.0
Category: Minor
SARPs/GM Document Reference: A10.6.4.7.5
Summary of Defect: In the Mobile SNDCF, the action taken on an "unrecognised local reference" in the SNDCF Error Report needs to be specified i.e. notify a System Manager.
Discussion:
Impact on Requirements:
CCB Decision Date:
CCB Recommended Action:

Defect Report Reference : 95010049.DR
Change Proposal reference:
Status : SUBMITTED
Defect Report Revision Date: 12/01/95
Defect Report Format Revision Date: 22 December 1994
Defect Report Submission Date : 12/01/95
Submitting State/Organization: SITA
Submitting Author name: H. Thulin
Submitting Author E-mail Address: thulin@eg.par.sita.int
Submitting Author Supplemental Contact Information:
ATN SARPs & Guidance Material Draft Version : version 0 (19/11/94)
SARPs/GM Document Reference chapter: A10 Page:
Summary of defect: Though the ISO 8473 standard has identified a set of cases where calls can be cleared by the SNDCF, the standard does not provide any information on the values which should be used for the parameters cause and diagnostic which are forwarded in the clearing packets .
For a proper operation of the routers there is need to analyze the reasons for SNDCF calls clearing -
The ATN SARP should recommend values for the SNDCF call clearing procedures identified in the 8473 standard.
- Idle Timer expiration
- Need to re-use the circuit
- Systems management
- by provider
- by locals means

There is also a need to add a specific clearing cause/diagnostic for the case where the connection is refused due to a system lack of resources (memory or connection context for instance).

Reference chapter: A10.6.4.3.2 Page: A10-11
Summary of Defect: The two following cases should be added to the list of ISO 8208 Causes/
Diagnostics codes listed in the A10.6.4.3.2 sections :
bad SNCR
bad parameter block

Discussion: The full list of all clearing causes/diagnostics used by the SNDCF should be attached to Appendix 10 - The following is the list of cases which must have different causes/diagnostics codes. Values (0x means hexadecimal) are only proposed as an example.

8473 main call clearing reasons

Cause	Diagnostic	Reason
0x80	0x0	Systems management
0x80	0x1	Idle Timer expiration
0x80	0x2	Need to re-use the circuit
0x80	0x3	by provider
0x80	0x4	by locals means (To be used for system local error)
0x80	0x5	Call collision resolution

Clearing cases relating to errors in the section of header the call accept user data whis is compatible with 8473 standard SNDCF:

Cause	Diagnostic	Reason
0x80	0x20	Unrecognized protocol identifier in user data
0x80	0x21	Version number not supported
0x80	0x22	Length field invalid
0x80	0x23	SNCR field invalid

Clearing cases relating to the compression/decompression negotiation

Cause	Diagnostic	Reason
0x80	0x30	Invalid ATN parameter block (options or directory size)
0x80	0x31	Proposed directory size too large

0x80 0x32 Local reference cancellation not supported
0x80 0x33 No compression algorithm supported

Clearing due to a system lack of resource :

Cause	Diagnostic	Reason
0x80	0xF0	System lack of resources

(more precise diagnostic can be defined by the user if needed)

Impact on Requirements: None

Change proposal reference: included in this report

CCB Decision Date:

CCB Recommended Action: