<u>AERONAUTICAL TELECOMMUNICATIONS NETWORK PANEL(ATNP)</u>

CONFIGURATION CONTROL BOARD – 10TH MEETING

WG 3 - APPLICATIONS AND UPPER LAYERS – 17TH MEETING

WG3/SG1 – GROUND-GROUND APPLICATIONS – 19TH MEETING

Gran Canaria, 28th September – 7th October 1999 (seventeenth meeting)

SME3 CCB Report

Presented by Jean-Marc Vacher (Sub-Volume 3 SME)

<u>Summary</u>

This paper provides a summary status of PDRs raised against the Sub-Volume III SARPs since the Phuket WGW/1 meeting.

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1. INTRODUCTION

The goal of this paper is to provide the CCB / Working Group / Subgroup with the current status of the Sub-Volume 3 PDRs.

2. SUMMARY OF ATSMHS PDRS

The following table lists all PDRs raised against the ATSMHS SARPs (Doc 9705, Sub-Volume 3, Chapter 1) since their approval at the Phuket ATNP WGW/1 meeting.

Number	Name	Status (post CCB/9)	Comments
97060014	ATSMHS / use of implicit-conversion flag and EITS	RESOLVED	
97060015	ATSMHS / conversion of forwarded messages	RESOLVED	
97060016	ATSMHS / MHS priority and ATS-Message-Priority mismatch	RESOLVED	
97060017	ATSMHS / prohibited character check in converted AMHS messages	FORWARDED	to be addressed in Guidance Material
97060018	ATSMHS / erroneous cross-references to Sub-Volume 5	RESOLVED	
97060019	ATSMHS / recommendation on report generation	RESOLVED	
97100040	ATSMHS / editorial corrections	RESOLVED	
98030005	ATSMHS / Year 2000 dependency	RESOLVED	

3. SUMMARY OF AIDC PDRS

The following table lists all PDRs raised against the AIDC SARPs (Doc 9705, Sub-Volume 3, Chapter 2) since their approval at the Phuket ATNP WGW/1 meeting.

Number	Title	Status (post-CCB/9)	Comments
97060020	AIDC / Errors and inconsistencies in AIDC Abstract Definition	RESOLVED	
97060021	AIDC / Provision of the Called ICAO Facility Designation when Info-transfer-request is invoked outside a dialogue	RESOLVED	
97060022	AIDC / construction of the calling end-system AP-title	RESOLVED	
97060023	AIDC / ASN.1 correction : Airport	RESOLVED	
97060024	AIDC / sequencing table inconsistent with state tables	RESOLVED	
97100004	AIDC / Definition of releaseIndicator	RESOLVED	
97100005	AIDC / reference error in SARPs	RESOLVED	
97100015	CPDLC/AIDC Airway Name	RESOLVED	
97100016	CPDLC/AIDC VHF Frequency/ Frequencyvhfchannel	RESOLVED	
97100027	AIDC / Year 2000 dependency	RESOLVED	
97100033	AIDC / ASN.1 message type and Abort issue	RESOLVED	
97100042	AIDC / AIDC Abstract Definition	RESOLVED	
97100043	AIDC / Transfer Control Information parameter	RESOLVED	
97100044	AIDC / Departure Airport	RESOLVED	
97100045	AIDC / AircraftIdentification	RESOLVED	
97100046	AIDC / BeaconCode	RESOLVED	
98030002	AIDC / Control Function	RESOLVED	
98030003	AIDC / Control Function	RESOLVED	
98040005	all / ICAO V2.2 problems	RESOLVED	
98050019	CPDLC/AIDC problems with ICAO V2.2 CPDLC SARPs	RESOLVED	

98090006	AIDC / AIDC UCF Indication	WITHDRAWN	
98090009	AIDC / AIDC PM variable names	RESOLVED	
99080002	AIDC / Transfer Control protocol states	SUBMITTED SME proposal : REJECTED	
99080003	AIDC / Provider Abort indication parameters	SUBMITTED SME proposal : ACCEPTED	

4. RECOMMENDATION

The CCB is invited to note the information provided.

5. ATTACHMENT A : DETAILS OF SUB-VOLUME 3 PDRS

PDR 99080002

PDR 99080003

Title : ICAO 9705 - AIDC - Transfer Control Protocol States

PDR Reference: 990080002

Originator Reference: -
SARPs Document Reference: SARPs Sub_Volume III
Status: SUBMITTED
Impact:
PDR Revision Date:
PDR Submission Date: 24/08/99
Submitting State/Organization: CENA/CHARME Project
Submitting Author Name: Mathieu JEAN
Submitting Author E-mail Address: jean@cenatls.cena.dgac.fr
Submitting Author Supplemental
Contact Information:
SARPs Date: ICAO 9705 Edition 2
SARPs Language: English

Summary of Defect:

Sections 3.2.6.1.28 and 3.2.6.1.29. Tables 3.2.6-4 Sections 3.2.6.1.27 and
3.2.6.1.30.

AIDC-Transfer-Control is a confirmed service.

When the AIDC-ASE protocol machine receives an indication with a AIDC-tfr-
cntrl-req-apdu, the required state is the COORDINATED state and the protocol
machine remains in this state.(Section 3.2.6.1.28)

In the next section (3.2.6.1.29), when the AIDC-ASE protocol machine receives
the AIDC-tfr-cntrl response, the required state is the TRANSFERRING state but
the protocol machine is still in the COORDINATED state.

There is the same problem on Transfer Control Request and Confirmation. When
the AIDC-tfr-cntrl-req-apdu is sent, the protocol machine remains in the
COORDINATED state (Section 3.2.6.1.27) but when the confirmation is received
the required state is the TRANSFERRING state (Section 3.2.6.1.30).

Assigned SME: Sub-Volume III SME

Proposed SARPs Amendment (proposed by PDR author):

Section 3.2.6.1.27.2.1

g) enter the TRANSFERRING state

Section 3.2.6.1.28.2.1

g) enter the TRANSFERRING state

SME Comment:

In fact, as usual in the AIDC application, the state changes of the AIDC-ASE
protocol machine are performed upon sending and receiving of user
confirmations, by means of the user-confirmation service.

Figure 3.2.10-19 (page 274) shows the sequence diagram concerning the Transfer-control service. State changes are performed by the AIDC-ASE:

- for the R-ATSU, upon receipt of an AIDC-ucf request primitive (see section 3.2.6.1.33.2.1 b) 2) iv) C) and the state table 3.2.6-4),

- for the C-ATSU, upon receipt of an AIDC-DATA indication with an AIDC-ucf-apdu (see section 3.2.6.1.34.2.1 c) 1) iii) C) and the state table 3.2.6-4).

The SARPs are correct with this respect; the textual description of the AIDC-ASE protocol machine, the state table and the sequence diagram are consistent. The PDR appears to be a misinterpretation of the SARPs.

SME Recommendation to CCB: REJECT

CCB Decision: ? (CCB/10)

Title : ICAO 9705 - AIDC - Provider Abort Indication Parameters

PDR Reference: 99080003 Originator Reference:
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SARPs Document Reference:
SARPs Sub_Volume III Status: SUBMITTED
Impact: C (Clarification)
PDR Revision Date:
PDR Submission Date: 24/08/99
Submitting State/Organization: CENA/CHARME Project
Submitting Author Name: Mathieu JEAN
Submitting Author E-mail Address: jean@cenatls.cena.dgac.fr
Submitting Author Supplemental
Contact Information:
SARPs Date: ICAO 9705 Edition 2
SARPs Language: English

Summary of Defect:

Sections 3.2.6.1.33.2.1 c) 1) and 3.2.6.1.34.2.1 d) 1)

The invocation of the AIDC-pvd-abrt indication is required but the parameters
are not described.

Sections 3.2.6.1.39.2.1 a)

The invocation of the AIDC-pvd-abrt is required with the AbortReason parameter
set to communicationsservicefailure but the code communicationsservicefailure
is unknown in the ASN1 type ProviderAbortReason.

Assigned SME: Sub-Volume III SME

Comments:

1/ Sections 3.2.6.1.33.2.1 c) 1) and 3.2.6.1.34.2.1 d) 1)

The action in each of these cases is to signal AIDC-pvd-abrt.indication up to
the CF (thence to the AIDC-User) and AIDC-Abort.request down to the CF (thence
to the peer entity).

The abort reason is a mandatory parameter for provider abort at both the AIDC-
ASE service and the AIDC service. So a value must be provided. It's only
optional for the AIDC-ABORT service, but it seems reasonable to
signal the same value.

Case 1 (3.2.6.1.33.2.1): AIDC-ASE-User is responding to a message other than
the one that was most recently delivered and for which a User-confirmation is
awaited.

Case 2 (3.2.6.1.34.2.1): the peer ASE is responding to a message other than
the one that was most recently transmitted and for which a User-confirmation
is awaited.

Case 2 is protocol error. Case 1 is not really a protocol error and should
have a separate error value.

2/ 3.2.6.1.39.2.1
The abstract value "communications service failure" is called for, which is
not obviously equivalent to any one of the enumeration ProviderAbortReason.
The proposal is to change this abstract-value to "provider error", which would
give an equivalent view to the CF and to AIDC-user.

3/ 3.2.6.2.3.1 (Additional)

The abstract value "invalid APDU" is called for, which is not obviously
equivalent to any one of the enumeration ProviderAbortReason. The proposal is
here to change this abstract-value to "protocol error".

4/ 3.2.7.1.1

The insertion of the item "sequenceerror" in the ASN.1 definition is performed
before the extensibility marker, because this element is not used for PDU
encoding (but only for service specification). As such, it has not
interoperability impact and the change in the ASN.1 will not cause any
interoperability issue.

Proposed SARPs Amendment:

1/ amend 3.2.6.1.33.2.1 c) 1) and 2) to read:

"c)   if the variable vr2!= Reference ID then:
        1)   invoke an AIDC-pvd-abrt indication with the AbortReason
parameter set to the abstract value: sequenceerror;
        2)   invoke an AIDC-ABORT request with the AbortReason parameter
set to the abstract value: sequenceerror;
        3)   stop all timers; and
        4)   enter the IDLE state."

2/ amend 3.2.6.1.34.2.1 d) to read:

"d)   if the variable vs2 != Reference ID , then:
        1)   invoke an AIDC-pvd-abrt indication with the AbortReason
parameter set to the abstract value: protocolerror;
        2)   invoke an AIDC-ABORT request with the AbortReason parameter
set to the abstract value: protocolerror;
3) stop all timers; and
4) enter the IDLE state."

3/ amend 3.2.6.1.39.2.1 to read:

"3.2.6.1.39.2.1   Upon the receipt of an AIDC-P-ABORT indication primitive
the AIDC-ASE shall:
a) invoke an AIDC-pvd-abrt indication primitive with the AbortReason parameter
set to the abstract value: providererror;
b) stop all timers; and
c) enter the IDLE state."

4/ amend 3.2.6.2.3.1 to read:

"3.2.6.2.3.1 If an APDU received is determined to be invalid, the AIDC-ASE
shall:
a)   invoke an AIDC-ABORT request primitive; and
b) invoke an AIDC-pvd-abrt indication primitive with the AbortReason parameter
set to the abstract value: protocolerror; and
c) enter the IDLE state."

5/ amend 3.2.7.1.1 to read:

"ProviderAbortReason ... ::= ENUMERATED
      {
      protocolerror (0),
      timerexpired (1),
      undefinederror (2),
      providererror (3),
      rejectedpermanent (4),
      rejectedtransient (5),
      sequenceerror (6),
      ... }"

SME Recommendation to CCB: ACCEPT / RESOLVE

CCB Decision: ? (CCB/10)