

Annex F

CO Upper Layers PICS



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Agenda Item 5 : PICS and OICS

Connection Orientated Upper Layers PICS Proforma

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SUMMARY

This working paper contains the ATN Profile PICS proforma tables for the ATN Connection Orientated Upper Layers (Dialogue Service, Control Function, Association Control, Presentation and Session).

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Table I-1: PICS Identification

Ref No	PICS Identification	Implementation PICS
I-1.1	Date of Statement (DD/MM/YY)	
I-1.2	PICS Serial Number	
	Profile Identification	Profile Details
I-1.3	Profile Name	
I-1.4	Version	
I-1.5	Profile Authority Name	
I-1.6	Profile Applicability (Areas, Countries, Organisations etc where the profile can be applied)	
I-1.7	Date of effect	
I-1.8	Other Information	

Table I-2: Supplier and Implementation Identification

Ref No	Supplier Information	Supplier Details
I-2.1	Organization Name	
I-2.2	Contact Name(s)	
I-2.3	Address	
I-2.4	Telephone Number	
I-2.5	Telex Number	
I-2.6	Fax Number	
I-2.7	E-mail Address	
I-2.8	Other Information	
	Implementation Information	Implementation Details
I-2.9	Implementation Name	
I-2.10	Implementation Version	
I-2.11	Hardware Name	
I-2.12	Hardware Version	
I-2.13	Operating System Name	
I-2.14	Operating System Version	
I-2.15	Special Configuration	
I-2.16	Other Information	

Table P-1: Presentation Protocol Identification

Ref No		ATN	Profile	Implementation
P-1.1	ATN Protocol Standard (Title, reference, date)	ICAO Doc 9705 Second Edition - 1999 (IV Section 4.5)		
P-1.2	ISO Presentation Standards	ISO/IEC 8823-1: 1994 ISO/IEC 8823-1: 1994/Amd. 1: 1997		
P-1.3	Addenda, amendments and corrigenda implemented			
P-1.4	Defect Reports implemented			

Table P-2: Presentation Protocol Mechanisms Supported

Source: Chapter 1 - Protocol Mechanisms		ATN	Profile	IMP	Notes
Ref No	Protocol Mechanism	Profile	Status	Support	
P-2.1	Normal mode	M			
P-2.2	X.410-1984 mode	X			
P-2.3	Nominated context	—	—	—	
P-2.4	Short encoding	—	—	—	
P-2.5	Packed encoding rules	—	—	—	
P-2.6	Short connect	M			
P-2.7	Null encoding	M			

Table P-3: Use of the null encoding Presentation Protocol option

Source: Chapter 2 - Use of Null-encoding and Short-connect		ATN Profile	Profile Status	IMP Support	Notes
Ref No	Requirement				
P-3.1	The presentation context definition list contains precisely one item in which the abstract syntax is known to the responding PPM by bilateral agreement.	—	—	—	
P-3.2	The presentation context definition list is empty and the default context is known by bilateral agreement	M			
P-3.3	The presentation context definition list is empty and the abstract syntax of the default context is known to the responding PPM by bilateral agreement and is specified in ASN.1	M			
P-3.4	The calling and called presentation selectors are null	M			
P-3.5	The presentation-requirements parameter in the P-CONNECT service includes the kernel functional unit only.	M			

Table P-4 Selection of Presentation Functional Units and Pass-through Functional Units

Source: Chapter 4 - Functional Units		ATN	Profile	IMP	Notes
Ref No	Presentation Functional Unit	Profile	Status	Support	
P-4.1	Kernel	M			
P-4.2	Presentation Context Management	X			
P-4.3	Presentation Context Restoration	X			
Pass-through to Session Functional Units					
P-4.4	Negotiated release	X			
P-4.5	Half Duplex	X			
P-4.6	Duplex	M			
P-4.7	Expedited Data	X			
P-4.8	Typed Data	X			
P-4.9	Capability Data Exchange	X			
P-4.10	Minor Synchronise	X			
P-4.11	Symmetric Synchronise	X			
P-4.12	Data Separation	X			
P-4.13	Major Synchronise	X			
P-4.14	Resynchronise	X			
P-4.15	Exceptions	X			
P-4.16	Activity Management	X			
P-4.17	No-orderly release (NOR)	M			

Table P-5: Presentation Supported Roles

Source: Chapter 5 - Elements of Procedure		ATN	Profile	IMP	Notes
Ref No	Presentation Connection Roles	Profile	Status	Support	
P-5.1	Initiator	M			
P-5.2	Responder	M			
Presentation Connection Orderly Release Roles					
P-5.3	Requestor	—	—	—	
P-5.4	Acceptor	—	—	—	
Presentation Normal Data Roles					
P-5.5	Requestor	M			
P-5.6	Acceptor	M			

Table P-6: Supported Presentation Protocol Data Units

Source: Chapter 6 - Supported PPDUs		Sender			Receiver			Notes
Ref No	Presentation Protocol Data Unit	ATN Status	Profile Status	IMP Support	ATN Status	Profile Status	IMP Support	
P-4.1	Connect presentation (CP)	—	—	—	—	—	—	a
P-4.2	Connect presentation accept (CPA)	—	—	—	—	—	—	a
P-4.3	Connect presentation reject (CPR)	—	—	—	—	—	—	a
P-4.4	Abnormal release provider (ARP)	—	—	—	—	—	—	a
P-4.5	Abnormal release user (ARU)	—	—	—	—	—	—	a
P-4.6	Presentation Data (TD)	—	—	—	—	—	—	a
P-4.7	Short Connect (SHORT-CP)	M			M			b
P-4.8	Short Connect Accept (SHORT-CPA)	M			M			b
P-4.9	Short Connect Reject (SHORT-CPR)	M			M			b

Notes:

- a PPDUs not applicable, as the short-connect and null-encoding protocol options are selected
- b PPDUs defined in efficiency enhancement amendment

Table A-1: ACSE Protocol Identification

Ref No		ATN	Profile	Implementation
A-1.1	ATN Protocol Standard (Title, reference, date)	ICAO Doc 9705 Second Edition - 1999 (IV Section 4.6)		
A-1.2	ISO ACSE Standards	ISO/IEC 8650-1: 1995		
A-1.3	Addenda, amendments and corrigenda implemented			
A-1.4	Defect Reports implemented			

Table A-2: Identification of ACSE Protocol Specification and Version

Source: Chapter 1 - Protocol Details		ATN	Profile	IMP	Notes
Ref No	Identification of Protocol Specification	Profile	Status	Support	
A-2.1	ISO/IEC 8650-1:1988	X			
A-2.2	ISO/IEC 8650:1988/Amd. 1: 1990	X			
A-2.3	ISO/IEC 8650-1:1995	M			
Source: Chapter 2 - Protocol Versions					
Identification of ACSE Protocol Version					
A-2.4	Version 0	X			
A-2.5	Version 1	M			
A-2.6	Version 2	I			a

Notes:
a Not classified in the SARPs

Table A-3: ACSE Supported Roles

Source: Chapter 3 - Supported Roles		ATN	Profile	IMP	Notes
Ref No	Association Establishment Roles	Profile	Status	Support	
A-3.1	Association Initiator	C			
A-3.2	Association Responder	C			
Normal Release Roles					
A-3.3	Initiator	C			
A-3.4	Responder	C			
Abnormal Release Roles					
A-3.5	Initiator	M			
A-3.6	Responder	M			

Notes:

- C Either one or both of these roles shall be supported.

Table A-4: ACSE Protocol Mechanisms Supported

Source: Chapter 4 - Protocol Mechanisms		ATN	Profile	IMP	Notes
Ref No	Protocol Mechanism	Profile	Status	Support	
A-4.1	Normal mode	M			
A-4.2	X.410-1984 mode	X			
A-4.3	Rules for extensibility	M			
A-4.4	Supports operation of Session version 2	M			
A-4.5	Supports ASN.1 extensibility notation as specified in ISO/IEC 8650-1: 1996/Amd. 1: 1997	M			
A-4.6	PER encoding (basic, unaligned variant) of the ACSE APDUs	M			

Table A-5: Selection of ACSE Functional Units

Source: Chapter 5 - ACSE Functional Units		ATN	Profile	IMP	Notes
Ref No	Role	Profile	Status	Support	
A-5.1	Normal mode	M			
A-5.2	Authentication	C.1			

Notes:

C.1 If the Dialogue Service user requires the use of the Security Requirements parameter of the D-START primitives, then **M**, else **O**.

Table A-6: Supported ACSE Protocol Data Units

Source: Chapter 6 - Supported APDUs		Sender			Receiver			Notes
Ref No	ACSE Protocol Data Unit	ATN Status	Profile Status	IMP Support	ATN Status	Profile Status	IMP Support	
A-6.1	AARQ (A-Associate Request)	M			M			
A-6.2	AARE (A-Associate Response)	M			M			
A-6.3	RLRQ (A-Release Request)	M			M			
A-6.4	RLRE (A-Release Response)	M			M			
A-6.5	ABRT (A-Abort)	M			M			

Table A-7: Supported AARQ and AARE Parameters

Source: Chapter 6 - Supported APDUs		Sender			Receiver			Notes
Ref No	AARQ Parameter	ATN Status	Profile Status	IMP Support	ATN Status	Profile Status	IMP Support	
A-7.1	Protocol Version	X			M			
A-7.2	Application Context Name	M			M			
A-7.3	Calling AP title	M			M			
A-7.4	Calling AE qualifier	M			M			
A-7.5	Calling AP invocation-identifier	X			M			
A-7.6	Calling AE invocation-identifier	X			M			
A-7.7	Called AP title	X			M			
A-7.8	Called AE qualifier	X			M			
A-7.9	Called AP invocation-identifier	X			C.2			
A-7.10	Called AE invocation-identifier	X			C.2			
A-7.11	ACSE-requirements	C.1			C.3			
A-7.12	Authentication-mechanism name	X			—			
A-7.13	Authentication-value	C.1			C.3			
A-7.14	Implementation information	X			O			
A-7.15	User information	M			M			
AARE Parameter								
A-7.16	Protocol Version	X			M			
A-7.17	Application Context Name	M			M			
A-7.18	Responding AP title	X			M			
A-7.19	Responding AE qualifier	X			M			
A-7.20	Responding AP invocation-identifier	X			M			
A-7.21	Responding AE invocation-identifier	X			M			
A-7.22	Result	M			M			
A-7.23	Result source - diagnostic	M			M			
A-7.24	ACSE-requirements	C.4			C.2			
A-7.25	Authentication-mechanism name	X			—			
A-7.26	Authentication-value	C.4			C.2			
A-7.27	Implementation information	X			O			
A-7.28	User information	M			M			

Notes:

- C.1 If Connection Initiator and Authentication supported then **M** else —
- C.2 If Connection Responder supported then **M** else —
- C.3 If Connection Responder supported then **M** else —, ignored if Authentication is not supported the Connection Responder
- C.4 If Connection Responder and Authentication supported then **M** else —

Table A-8: Supported RLRQ, RLRE and ABRT Parameters

Source: Chapter 6 - Supported APDUs		Sender			Receiver			Notes
Ref No	RLRQ Parameter	ATN Status	Profile Status	IMP Support	ATN Status	Profile Status	IMP Support	
A-8.1	Reason	M			M			
A-8.2	User information	M			M			
RLRE Parameter								
A-8.3	Reason	M			M			
A-8.4	User information	M			M			
ABRT Parameter								
A-8.5	Abort source	M			M			
A-8.6	Diagnostic	M			M			
A-8.7	User information	M			M			

Table A-9: AE Title Name Form

Source: Chapter 6 - Supported APDUs		Sender			Receiver			Notes
Ref No	Syntax Form	ATN Status	Profile Status	IMP Support	ATN Status	Profile Status	IMP Support	
A-9.1	Form 1 (Directory name)	X			O			
A-9.2	Form 2 (Object identifier and integer)	M			M			

Table A-10: Authentication Value Form

Ref No	Authentication Value Form	Sender			Receiver			Notes
		ATN Status	Profile Status	IMP Support	ATN Status	Profile Status	IMP Support	
A-10.1	GraphicString	C.1			M			
A-10.2	BIT STRING	C.1			M			
A-10.3	EXTERNAL	C.1			M			
A-10.4	Other	X			—			

Notes:
C.1 If Authentication is supported thenO, but at least one form must be supported, else —

Table A-11: User Information Reference and Encoding Choice

Ref No	User Information Reference Parameter	Sender			Receiver			Notes
		ATN Status	Profile Status	IMP Support	ATN Status	Profile Status	IMP Support	
A-11.1	Direct Reference	X			—			
A-11.2	Indirect Reference	O			M			a
A-11.3	Data Value Descriptor	X			—			
User Information Encoding Choice								
A-11.4	Single ASN.1 Type	O			M			
A-11.5	Octet Aligned	X			—			
A-11.6	Arbitrary	O			M			

Notes:

- a If the single ASN.1 type encoding is used then the value is a presentation context id otherwise it is absent

Table S-1: Session Protocol Identification

Ref No		ATN	Profile	Implementation
S-1.1	ATN Protocol Standard (Title, reference, date)	ICAO Doc 9705 Second Edition - 1999 (IV Section 4.4)		
S-1.2	ISO Session Standards	ISO/IEC 8327-1:		
S-1.3	Addenda, amendments and corrigenda implemented			
S-1.4	Defect Reports implemented			

Table S-2: Session Protocol Versions Supported

Source: Chapter 1 - Protocol Versions Implemented		ATN	Profile	IMP	Notes
Ref No	Identification of Protocol Specification	Profile	Status	Support	
S-2.1	Version 1	—	—	—	
S-2.2	Version 2	M			

Table S-3: Selection of Session Functional Units

Source: Chapter 2 - Session Functional Units		ATN	Profile	IMP	Notes
Ref No	Session Functional Unit	Profile	Status	Support	
S-3.1	Kernel	M			
S-3.2	Negotiated release	X			
S-3.3	Half Duplex	X			
S-3.4	Duplex	M			
S-3.5	Expedited Data	X			
S-3.6	Typed Data	X			
S-3.7	Capability Data Exchange	X			
S-3.8	Minor Synchronise	X			
S-3.9	Symmetric Synchronise	X			
S-3.10	Data Separation	X			
S-3.11	Major Synchronise	X			
S-3.12	Resynchronise	X			
S-3.13	Exceptions	X			
S-3.14	Activity Management	X			
S-3.15	No-orderly release (NOR)	M			
S-3.16	Special User-data	X			

Table S-4: Session Protocol Mechanisms Supported

Source: Chapter 3 - Protocol Mechanisms		ATN	Profile	IMP	Notes
Ref No	Mechanism	Profile	Status	Support	
S-4.1	Use of transport expedited data (Extended control Quality of Service)	X			
S-4.2	Reuse of transport connection	O			
S-4.3	Basic concatenation	M			a
S-4.4	Extended concatenation (sending)	X			
S-4.5	Extended concatenation (receiving)	X			
S-4.6	Segmenting (sending)	X			
S-4.7	Segmenting (receiving)	X			
S-4.8	Max. size of SS-user-data (S-CONNECT) > 512	O			
S-4.9	Max. size of SS-user-data (S-CONNECT) > 10240	O			
S-4.10	Max. size of SS-user-data (S-ABORT) >9	X			
S-4.11	Null-encoding protocol option	M			
S-4.12	Short-connect protocol option	M			
S-4.13	Short-encoding protocol option	X			

Notes:

- a Only Category 1 SPDUs are used for this ATN profile. By definition these are never concatenated. Therefore Basic concatenation is not applicable to this profile, but must be supported to the extent necessary for compliance with the ISO PICS.

Table S-5: Session Supported Roles

Source: Chapter 4 - Supported Roles		ATN	Profile	IMP	Notes
Ref No	Session Connection Roles	Profile	Status	Support	
S-5.1	Connection initiator	M			
S-5.2	Connection responder	M			
Session Orderly Release Roles					
S-5.3	Requestor	—	—	—	a
S-5.4	Acceptor	—	—	—	a
Session Normal Data Transfer Roles					
S-5.5	Requestor	M			
S-5.6	Acceptor	M			

Notes:

- a Not applicable, as the No Orderly Release functional unit is selected. For ATN applications, orderly release is provided by the CF.

Table S-6: Supported Session Protocol Data Units

Source: Chapter 5 - Supported SPDUs		Sender			Receiver			Notes
Ref No	Session Protocol Data Unit	ATN Status	Profile Status	IMP Support	ATN Status	Profile Status	IMP Support	
S-3.1	Connect (CN)	—	—	—	—	—	—	a
S-3.2	Overflow Accept (OA)	—	—	—	—	—	—	a
S-3.3	Connect Data Overflow (CDO)	—	—	—	—	—	—	a
S-3.4	Accept (AC)	—	—	—	—	—	—	a
S-3.5	Refuse (RF)	—	—	—	—	—	—	a
S-3.6	Finish (FN)	—	—	—	—	—	—	b
S-3.7	Disconnect (DN)	—	—	—	—	—	—	b
S-3.8	Abort	—	—	—	—	—	—	c
S-3.9	Abort Accept (AA)	—	—	—	—	—	—	c
S-3.10	Data Transfer (DT)	—	—	—	—	—	—	c
S-3.11	Prepare (PR)	X			X			d
S-3.12	Short Connect (SCN)	M			M			
S-3.13	Short Accept (SAC)	M			M			
S-3.14	Short Refuse (SRF)	M			M			
S-3.15	Null (NL)	M			M			
S-3.16	Short Connect Continue (SCNC)	—	—	—	—	—	—	e
S-3.17	Short Accept Continue (SACC)	M			M			
S-3.18	Short Refuse Continue (SRFC)	M			M			
S-3.19	Short Finish (SFN)	—	—	—	—	—	—	e
S-3.20	Short Disconnect (SDN)	—	—	—	—	—	—	e
S-3.21	Short Data Transfer (SDT)	—	—	—	—	—	—	e
S-3.22	Short Abort (SAB)	—	—	—	—	—	—	e

Notes:

- a Not applicable, as the Short-Connect protocol option is selected.
- b Not applicable, as the No Orderly Release functional unit is selected
- c Not applicable, as the Null-Encoding protocol option is selected.
- d The Max Size of SS-User-Data >9 (S-MAXSIZE_9) and Use of Transport Expedited Data (S-EXP_T) mechanisms are not supported
- e Not applicable, as the Short-Encoding protocol option is not selected.

Table S-7: SPDUs associated with Token Exchange

Source: Chapter 5 - Supported SPDUs		Sender			Receiver			Notes
Ref No	Session Protocol Data Unit	ATN Status	Profile Status	IMP Support	ATN Status	Profile Status	IMP Support	
S-7.1	Give Tokens (GT)	—	—	—	—	—	—	a
S-7.2	Please Tokens (PT)	—	—	—	—	—	—	a

Notes:

a Not applicable, as the null-encoding protocol option is selected.

Table S-8: Use of the null-encoding and short-connect Session protocol options

Ref No	Requirement	ATN Profile	Profile Status	IMP Support	Notes
S-8.1	The calling and called session selectors are null	M			
S-8.2	The session-requirements parameter in the S-CONNECT service includes the kernel, full-duplex and no-orderly-release functional units only	M			