UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS

UIT-T X.246

SECTEUR DE LA NORMALISATION
DES TÉLÉCOMMUNICATIONS
DE L'UIT

(07/94)

RÉSEAUX DE COMMUNICATION DE DONNÉES ET COMMUNICATION ENTRE SYSTÈMES OUVERTS

INTERCONNEXION DES SYSTÈMES OUVERTS – FORMULAIRES DE DÉCLARATION DE CONFORMITÉ D'UNE INSTANCE DE PROTOCOLE

TECHNOLOGIES DE L'INFORMATION – INTERCONNEXION DES SYSTÈMES OUVERTS (OSI) – PROTOCOLE DE PRÉSENTATION EN MODE ORIENTÉ CONNEXION: FORMULAIRE DE DÉCLARATION DE CONFORMITÉ D'UNE INSTANCE DE PROTOCOLE (PICS)

Recommandation UIT-T X.246

(Antérieurement «Recommandation du CCITT»)

AVANT-PROPOS

L'UIT (Union internationale des télécommunications) est une institution spécialisée des Nations Unies dans le domaine des télécommunications. L'UIT-T (Secteur de la normalisation des télécommunications) est un organe permanent de l'UIT. Au sein de l'UIT-T, qui est l'entité qui établit les normes mondiales (Recommandations) sur les télécommunications, participent quelque 179 pays membres, 84 exploitations de télécommunications reconnues, 145 organisations scientifiques et industrielles et 38 organisations internationales.

L'approbation des Recommandations par les Membres de l'UIT-T s'effectue selon la procédure définie dans la Résolution n° 1 de la Conférence mondiale de normalisation des télécommunications (CMNT), (Helsinki, 1993). De plus, la CMNT, qui se réunit tous les quatre ans, approuve les Recommandations qui lui sont soumises et établit le programme d'études pour la période suivante.

Dans certains secteurs de la technologie de l'information qui correspondent à la sphère de compétence de l'UIT-T, les normes nécessaires se préparent en collaboration avec l'ISO et la CEI. Le texte de la Recommandation X.246 de l'UIT-T a été approuvé le 1er juillet 1994. Son texte est publié, sous forme identique, comme Norme internationale ISO/CEI 8823-2.

NOTE

Dans la présente Recommandation, l'expression «Administration» est utilisée pour désigner de façon abrégée aussi bien une administration de télécommunications qu'une exploitation reconnue.

RECOMMANDATIONS UIT-T DE LA SÉRIE X

RÉSEAUX POUR DONNÉES ET INTERCONNEXION DES SYSTÈMES OUVERTS

(Février 1994)

ORGANISATION DES RECOMMANDATIONS DE LA SÉRIE X

Domaine	Recommandations
RÉSEAUX PUBLICS POUR DONNÉES	
Services et services complémentaires	X.1-X.19
Interfaces	X.20-X.49
Transmission, signalisation et commutation	X.50-X.89
Aspects réseau	X.90-X.149
Maintenance	X.150-X.179
Dispositions administratives	X.180-X.199
INTERCONNEXION DES SYSTÈMES OUVERTS	
Modèle et notation	X.200-X.209
Définition des services	X.210-X.219
Spécifications des protocoles en mode connexion	X.220-X.229
Spécifications des protocoles en mode sans connexion	X.230-X.239
Formulaires PICS	X.240-X.259
Identification des protocoles	X.260-X.269
Protocoles de sécurité	X.270-X.279
Objets gérés de couche	X.280-X.289
Test de conformité	X.290-X.299
INTERFONCTIONNEMENT DES RÉSEAUX	
Considérations générales	X.300-X.349
Systèmes mobiles de transmission de données	X.350-X.369
Gestion	X.370-X.399
SYSTÈMES DE MESSAGERIE	X.400-X.499
ANNUAIRE	X.500-X.599
RÉSEAUTAGE OSI ET ASPECTS DES SYSTÈMES	
Réseautage	X.600-X.649
Dénomination, adressage et enregistrement	X.650-X.679
Notation de syntaxe abstraite numéro un (ASN.1)	X.680-X.699
GESTION OSI	X.700-X.799
SÉCURITÉ	X.800-X.849
APPLICATIONS OSI	
Engagement, concomitance et rétablissement	X.850-X.859
Traitement des transactions	X.860-X.879
Opérations distantes	X.880-X.899
TRAITEMENT OUVERT RÉPARTI	X.900-X.999

TABLE DES MATIÈRES

Résumé

La présente Recommandation | Norme internationale décrit la déclaration de conformité d'une instance de protocole (PICS) de présentation en mode orienté connexion de l'OSI (voir la Recommandation X.226). Le formulaire PICS présente, sous forme tabulaire, les éléments obligatoires et facultatifs du protocole de transport (TP). Les déclarations PICS sont utilisées pour représenter les choix et caractéristiques d'instances particulières du protocole de présentation de l'OSI.

Introduction

La présente Recommandation | Norme internationale fait partie d'une série de Recommandations | Normes internationales consacrée à l'interconnexion des systèmes informatiques; elle est en relation avec d'autres Recommandations et Normes internationales de cette série conformément à la définition du modèle de référence pour l'interconnexion de systèmes ouverts, dit modèle OSI (Rec. UIT-T X.200 | ISO/CEI 7498-1). Ce modèle de référence subdivise le champ d'application de cette interconnexion en une série de couches de spécifications ayant chacune des dimensions maniables.

L'objectif de l'interconnexion de systèmes ouverts OSI est de permettre, avec un minimum d'accords techniques extérieurs aux normes, l'interconnexion de systèmes informatiques:

- issus de constructeurs différents;
- gérés par des systèmes différents;
- présentant différents niveaux de complexité;
- mettant en œuvre des techniques différentes.

La Rec. UIT-T X.226 | ISO/CEI 8823-1 spécifie le protocole de présentation en mode orienté connexion, lequel spécifie un codage commun et un nombre d'unités fonctionnelles de procédures de protocole de présentation à utiliser pour répondre aux besoins des utilisateurs du service de présentation.

Pour évaluer la conformité d'une instance particulière, il est nécessaire de disposer d'une description des capacités et des options qui ont été mises en œuvre pour une spécification OSI donnée. Une telle description est appelée déclaration de conformité d'une instance de protocole (PICS).

La présente Recommandation | Norme internationale comporte le formulaire de déclaration de conformité d'une instance de protocole (PICS) pour le protocole de présentation en mode orienté connexion défini dans la Rec. UIT-T X.226 | ISO/CEI 8823-1.

NORME INTERNATIONALE

RECOMMANDATION UIT-T

TECHNOLOGIES DE L'INFORMATION – INTERCONNEXION DES SYSTÈMES OUVERTS (OSI) – PROTOCOLE DE PRÉSENTATION EN MODE ORIENTÉ CONNEXION: FORMULAIRE DE DÉCLARATION DE CONFORMITÉ D'UNE INSTANCE DE PROTOCOLE (PICS)

1 Domaine d'application

La présente Recommandation | Norme internationale fournit le formulaire de déclaration de conformité d'une instance de protocole (PICS) pour le protocole de présentation en mode orienté connexion spécifié dans la Rec. UIT-T X.226 | ISO/CEI 8823-1. Ce formulaire PICS correspond aux prescriptions et aux directives pertinentes données dans la Rec. UIT-T X.296 | ISO/CEI 9646-7. L'utilisation détaillée de ce formulaire est décrite dans la présente Recommandation | Norme internationale.

Le fournisseur d'une instance déclarée conforme à la Rec. UIT-T X.226 | ISO/CEI 8823-1 doit remplir un exemplaire du formulaire PICS figurant dans l'Annexe A; il doit aussi fournir les renseignements nécessaires à sa propre identification et à celle de l'instance.

2 Références normatives

Les Recommandations | Normes internationales suivantes contiennent des dispositions qui, par suite de la référence qui y est faite, constituent des dispositions valables pour la présente Recommandation | Norme internationale. Au moment de la publication, les éditions indiquées étaient en vigueur. Toutes Recommandations et Normes sont sujettes à révision et les parties prenantes aux accords fondés sur la présente Recommandation | Norme internationale sont invitées à rechercher la possibilité d'appliquer les éditions les plus récentes des Recommandations et Normes indiquées ci-après. Les membres de la CEI et de l'ISO possèdent le registre des Normes internationales en vigueur. Le Bureau de la normalisation des télécommunications de l'UIT-T tient à jour une liste des Recommandations de l'UIT-T en vigueur.

2.1 Recommandations | Normes internationales identiques

- Recommandation UIT-T X.200 (1994) | ISO/CEI 7498-1:1994, *Technologie de l'information – Interconnexion de systèmes ouverts – Modèle de référence de base: le modèle de référence de base*.
- Recommandation UIT-T X.215 (1994) | ISO/CEI 8326:1995, *Technologie de l'information – Interconnexion de systèmes ouverts – Définition du service de session*.
- Recommandation UIT-T X.226 (1994) | ISO/CEI 8823-1:1994, *Technologie de l'information – Interconnexion de systèmes ouverts – Protocole de présentation en mode connexion: Spécification du protocole*.
- Recommandation UIT-T X.680 (1994) | ISO/CEI 8824-1:1995, *Technologie de l'information – Interconnexion de systèmes ouverts – Notation de syntaxe abstraite numéro un: Spécification de la notation de base*.
- Recommandation UIT-T X.690 (1994) | ISO/CEI 8825-1:1995, *Technologie de l'information – Interconnexion de systèmes ouverts – Règles de codage de l'ASN.1: Spécification des règles de codage de base, des règles de codage canoniques et des règles de codage distinctives*.

2.2 Paires de Recommandations | Normes internationales équivalentes par leur contenu technique

- Recommandation UIT-T X.290 (1995), *Cadre général et méthodologie des tests de conformité OSI pour les Recommandations sur les protocoles pour les applications du CCITT – Concepts généraux*.

  ISO/CEI 9646-1:1994, *Technologie de l'information – Interconnexion de systèmes ouverts – Cadre général et méthodologie des tests de conformité – Partie 1: Concepts généraux.*

– Recommandation UIT-T X.296 (1995), *Cadre général et méthodologie des tests de conformité: Déclarations de conformité d'instances*.

ISO/CEI 9646-7:1994, *Technologie de l'information – Interconnexion de systèmes ouverts – Cadre général et méthodologie des tests de conformité – Partie 7: Déclarations de conformité d'instances.*

– Recommandation UIT-T X.650 (1992), *Interconnexion de systèmes ouverts – Modèle de référence de base pour la dénomination et l'adressage*.

ISO/CEI 7498-3:1989, *Système de traitement de l'information – Interconnexion de systèmes ouverts – Modèle de référence de base – Partie 3: Dénomination et adressage.*

2.3 Références supplémentaires

– Recommandation X.410 du CCITT (1984), *Systèmes de messagerie: opérations distantes et serveur de transfert fiable*.

3 Définitions

Pour les besoins de la présente Recommandation | Norme internationale, les définitions suivantes s'appliquent.

3.1 Termes définis dans la Rec. UIT-T X.226 | ISO/CEI 8823-1.

3.2 Les termes suivants sont définis dans la Rec. UIT-T X.290 | ISO/CEI 9646-1:

a) formulaire de déclaration de conformité d'une instance;

b) déclaration de conformité d'une instance;

c) déclaration de conformité d'une instance de protocole (PICS);

d) formulaire PICS.

3.3 Termes supplémentaires

a) demandeur: machine protocolaire de présentation qui lance une action déterminée;

b) accepteur: machine protocolaire de présentation qui accepte une action déterminée.

4 Abréviations

ASN.1 Notation de syntaxe abstraite numéro un (*abstract syntax notation one*).

ICS Déclaration de conformité d'une instance *(implementation conformance statement*).

PCI Information de commande de protocole (*protocol control information*).

PDV Valeur de données de présentation (*presentation data value*).

PICS Déclaration de conformité d'une instance de protocole (*protocol implementation conformance statement*).

PPDU Unité de données de protocole de présentation (*presentation protocol data unit*).

5 Conformité

Un formulaire PICS conforme doit être techniquement équivalent au formulaire PICS publié par l'UIT-T | ISO/CEI et doit en conserver la numérotation et l'ordre des items du formulaire PICS de l'UIT-T | ISO/CEI.

Une déclaration PICS conforme à la présente Recommandation | Norme internationale doit:

a) décrire une instance qui est conforme à la Rec. UIT-T X.226 | ISO/CEI 8823-1;

b) être présentée sur un formulaire PICS conforme, rempli selon les instructions données à l'article A.2;

c) donner les renseignements nécessaires pour identifier de façon univoque aussi bien le fournisseur que l'instance.

Annexe A[1)]

Formulaire de déclaration de conformité d'une instance de protocole (PICS) pour le protocole de présentation en mode orienté connexion

(Cette annexe fait partie intégrante de la présente Recommandation | Norme internationale)

A.1 Identification of PICS proforma corrigenda

The supplier of the PICS proforma shall identify any corrigenda (i.e. Technical Corrigenda or equivalent) to the published proforma that have been applied. Suppliers of the proforma should modify the proforma, or attach relevant additional pages in order to apply the corrigenda, and then record the application of the corrigenda in Table A.1.

Table A.1

Identification of corrigenda applied to this PICS proforma	ITU-T Rec. X.246 (1994) | ISO/IEC 8823-2:1994 Corr: Corr: Corr:

A.2 Instructions

A.2.1 Purpose and structure of the proforma

The purpose of this PICS proforma is to provide suppliers of implementations of ITU-T Rec. X.226 | ISO/IEC 8823-1 with a consistent means of stating which capabilities have been implemented.

The proforma is in the form of a questionnaire and consists of a set of items. An item is provided for each capability for which an implementation choice is allowed. Items are also provided for major mandatory capabilities for which no implementation choice is allowed. Each item includes an item number, an item description, a status value specifying the support requirement, and room for a support answer to be provided by the supplier.

This subclause provides general information and instructions for completion of the proforma.

Subclause A.3 is for identification of the implementation.

Subclause A.4 contains the means of specifying, at a high level, the protocol and corrigenda that have been implemented.

Subclause A.5 contains the global statement of conformance.

Subclause A.6 onwards contain tables in which the supplier specifies details of the implementation options chosen.

A.2.2 Symbols, terms and abbreviations

A.2.2.1 Introduction

Notations have been introduced in order to reduce the size of tables in the PICS proforma. These have allowed the use of multi-column layout where the columns are headed ‘Status’, and ‘Support’. The definition of each is given below.

Additionally, the following definitions apply:

(PICS) item: A row in a PICS proforma table.

(PICS) question: The question to be answered in the intersection of a PICS item and either a support column (i.e. “Is this item supported in the context applying to this table and column”) or supported values column (i.e. “What values are supported for this item in the context applying to this table and column”) in a PICS proforma table.

---

1) Droits de reproduction du formulaire PICS
Les utilisateurs de la présente Recommandation | Norme internationale sont autorisés à reproduire le formulaire PICS de la présente annexe pour utiliser celui-ci conformément à son objet. Ils sont également autorisés à publier le formulaire une fois celui-ci complété.

status (value): An allowed entry in the status column for an item in a PICS proforma table.

(support) answer: An allowed entry in the support or supported values columns for an item in a PICS, in answer to a PICS question.

A.2.2.2 Prerequisite notation

If a predicate applies to a whole ICS proforma table, a prerequisite line may be specified in front of the table to which it applies. A prerequisite line takes the form:

Prerequisite: <predicate>

The meaning of such a line is that if <predicate> is True then the table applies, else it is not-applicable.

A.2.2.3 Item numbering

Each line within the PICS proforma which requires implementation detail to be entered is given an item number in the first column. The item number column provides a means of uniquely referencing each possible answer within the PICS proforma. Such referencing is necessary for specifying predicates, conditional expressions, test suite parameters, and test suite selection expressions.

The means of referencing individual answers is to specify the following sequence:

a) if, and only if, the reference is being made from another Specification, then start with an unambiguous identifier for the relevant ICS proforma specification, enclosed in parentheses – this identifier is stated in the PICS proforma specification and is updated whenever the PICS proforma is updated – it is recommended that this identifier be the relevant Specification number and year of publication, as is used in a Normative References clause, and this is the default for such identifiers;

b) the number of the relevant table or, if the tables are not numbered, of the smallest subclause enclosing the relevant table;

c) a solidus character, "/";

d) the item number or mnemonic reference to the item, to identify the row in which the answer appears;

e) if, and only if, more than one question occurs in the row identified by the item number or mnemonic reference, then each possible answer is implicitly labelled a, b, c, etc., from left to right, and this letter is appended to the sequence, prefixed by a solidus character ("/") if a mnemonic reference is used.

If mnemonic references are specified and each uniquely identify an item in the PICS proforma, then entries b) and c) in the above sequence may be omitted.

A.2.2.4 Status column

'Status' as defined in ITU-T Rec. X.226 | ISO/IEC 8823-1. This column indicates the level of support required for conformance to ITU-T Rec. X.226 | ISO/IEC 8823-1. The values are as follows:

'm' Mandatory support is required.

'o' Optional support is permitted for conformance to ITU-T Rec. X.226 | ISO/IEC 8823-1. If implemented, it must conform to the specifications and restrictions contained in ITU-T Rec. X.226 | ISO/IEC 8823-1. These restrictions may affect the optionality of other items.

'o.*n*' The item is optional, but the optionality is qualified (where *n* is the number which identifies the qualification which is applicable). The definitions for the qualified optional statements used are written under the tables in which first appear, and are indexed in Annex B.

'c*n*' The item is conditional (where *n* is the number which identifies the condition which is applicable). The definitions for the conditional statements used are written under the tables in which they first appear, and are indexed in Annex B.

'n/a' The item is not applicable.

A.2.2.5 Support column

The 'Support' column shall be completed by the supplier or implementor to indicate the level of implementation of each feature. The proforma has been designed such that the only entries required in the 'Support' column are:

'Y' Yes, the feature has been implemented.

'N' No, the feature has not been implemented.

'–' No answer required – it is unnecessary to answer the question with a Yes or a No because the question has a status value of not-applicable.

A.2.3 Instructions for completion

The supplier shall complete all entries in the column marked 'Support'. In certain clauses of the PICS proforma further guidance for completion may be necessary. Such guidance shall supplement the guidance given in this subclause and shall have a scope restricted to the clause in which it appears. In addition, other specifically identified information shall be provided by the implementor where requested. No changes shall be made to the proforma except the completion as required. Recognizing that the level of detail required may, in some instances, exceed the space available for responses, a number of responses specifically allows for the addition of appendices to the PICS.

A.3 Identification of the implementation

A.3.1 Date of statement

1	Date of statement? (yy-mm-dd)

A.3.2 Implementation details

The supplier of the protocol implementation shall specify the information necessary to uniquely identify the implementation and the system in which it may reside. This may include details of:

a) supplier, implementation name, operating system, suitable hardware;

b) system supplier and/or client of the test laboratory that is to test the implementation;

c) information on whom to contact if there are queries concerning the content of the PICS.

1	

A.4 Protocol Identification

A.4.1 ITU-T Rec. X.226 | ISO/IEC 8823-1 protocol details

	Identification of Protocol Specification	Support
–	ITU-T Rec. X.226 (1994) | ISO/IEC 8823-1:1994	
1		
2		
3		

A.4.2 ITU-T Rec. X.226 | ISO/IEC 8823-1 technical corrigenda implemented

Identification of corrigenda applied to the implementation	ITU-T Rec. X.226 (1994) | ISO/IEC 8823-1:1994 Corr: Corr: Corr: Corr: Corr:

A.5 Global statement of conformance

1	Are all mandatory features implemented? (Yes or No)

NOTE – If a positive response is not given to this box, then the implementation does not conform to ITU-T Rec. X.226 | ISO/IEC 8823-1.

A.6 Protocol mechanisms and functional units

A.6.1 Protocol mechanisms

	Mode	Status	Support	Mnemonic
1	X.410(1984)	o.1		
2	Normal	o.1		

o.1: either Normal mode or X.410(1984) mode or both shall be supported. If only X.410(1984) mode is supported, then the remainder of the proforma shall be ignored.

A.6.2 Functional units

	Presentation functional units	Status	Support	Mnemonic
1	Kernel	m		
2	Presentation Context Management	o		P-FU(CM)
3	Presentation Context Restoration	c0		P-FU(CR)

c0: if [P-FU(CM)] then o else n/a.

.

	Pass through to Session functional units	Status	Support	Mnemonic
4	Negotiated Release	o		S-FU(NR)
5	Half Duplex	o.2		S-FU(HD)
6	Duplex	o.2		S-FU(FD)
7	Expedited Data	o		S-FU(EX)
8	Typed Data	o		S-FU(TD)
9	Capability Data Exchange	c1		S-FU(CD)
10	Minor Synchronize	o		S-FU(SY)
11	Symmetric Synchronize	o		S-FU(SS)
12	Data Separation	o		S-FU(DS)
13	Major Synchronize	o		S-FU(MA)
14	Resynchronize	o		S-FU(RESYNC)
15	Exceptions	c2		S-FU(EXCEP)
16	Activity Management	o		S-FU(ACT)

o.2: pass through for at least one of the Session functional units Duplex and Half Duplex shall be supported.

c1: if [S-FU(ACT)] then o else n/a.

c2: if [S-FU(HD)] then o else n/a.

.

A.7 Elements of procedure related to the PICS

A.7.1 Kernel functional unit

A.7.1.1 Supported roles

A.7.1.1.1 Presentation connection

	Role	Status	Support	Mnemonic
1	Initiator	o.3		P-CON_initiator
2	Responder	o.3		P-CON_responder

o.3: a conforming implementation shall support at least one of the above roles.

A.7.1.1.2 Normal data

	Role	Status	Support	Mnemonic
1	Requestor	o.4		P-DATA_requestor
2	Acceptor	o.4		P-DATA_acceptor

o.4: a conforming implementation shall support at least one of the above roles.

A.7.1.1.3 Orderly release

	Role	Status	Support	Mnemonic
1	Requestor	o.5		P-REL_requestor
2	Acceptor	o.5		P-REL_acceptor

o.5: a conforming implementation shall support at least one of the above roles.

A.7.1.2 Supported PPDUs associated with the kernel services

	PPDU	Sender		Receiver		Reference	Comment
		Status	Support	Status	Support		
1	CP	c3		c4			
2	CPA	c4		c3			
3	CPR	c4		c3			
4	ARP	m		m			
5	ARU	o		m			
6	TD	c5		c6			

c3: if [P-CON_initiator] then m else n/a.
c4: if [P-CON_responder] then m else n/a.
c5: if [P-DATA_requestor] then m else n/a.
c6: if [P-DATA_acceptor] then m else n/a.
.

A.7.2 Presentation context management functional unit

Prerequisite: P-FU(CM)

A.7.2.1 Supported roles

Does the implementation support the Context Management functional unit as:

	Role	Status	Support	Mnemonic
1	Requestor	o.6		P-ALTER-C_requestor
2	Acceptor	o.6		P-ALTER-C_acceptor

o.6: a conforming implementation shall support at least one of the above roles if the functional unit is supported.

A.7.2.2 Supported PPDUs associated with the context management services

	PPDU	Sender		Receiver		Reference	Comment
		Status	Support	Status	Support		
1	AC	c7		c8			
2	ACA	c8		c7			

c7: if [P-ALTER-C_requestor] then m else n/a.
c8: if [P-ALTER-C_responder] then m else n/a.
.

A.7.3 Presentation context restoration functional unit

No additional PPDUs.

A.7.4 Pass through to session functional units

A.7.4.1 Negotiated Release

The role supported by the implementation for the Session Negotiated Release functional unit is the same as for the Orderly Release.

A.7.4.2 Half Duplex

Prerequisite: S-FU(HD)

	Role	Status	Support	Mnemonic
1	Requestor	m		
2	Acceptor	m		

A.7.4.3 Duplex

There is no additional pass through functionality associated with this Session functional unit. This subclause is present for completeness only.

A.7.4.4 Expedited Data

Prerequisite: S-FU(EX)

	Role	Status	Support	Mnemonic
1	Requestor	o.7		S-XDATA_requestor
2	Acceptor	o.7		S-XDATA_acceptor

o.7: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

A.7.4.5 Typed Data

Prerequisite: S-FU(TD)

	Role	Status	Support	Mnemonic
1	Requestor	o.8		S-TDATA_requestor
2	Acceptor	o.8		S-TDATA_acceptor

o.8: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

A.7.4.6 Capability Data

Prerequisite: S-FU(CD)

	Role	Status	Support	Mnemonic
1	Requestor	o.9		S-CAP_requestor
2	Acceptor	o.9		S-CAP_acceptor

o.9: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

A.7.4.7 Minor Synchronize

Prerequisite: S-FU(SY)

	Role	Status	Support	Mnemonic
1	Requestor	o.10		S-MIN_requestor
2	Acceptor	o.10		S-MIN_acceptor

o.10: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

A.7.4.8 Symmetric Synchronize

Prerequisite: S-FU(SS)

	Role	Status	Support	Mnemonic
1	Requestor	m		
2	Acceptor	m		

A.7.4.9 Data Separation

Prerequisite: S-FU(DS)

	Role	Status	Support	Mnemonic
1	Requestor	m		
2	Acceptor	m		

A.7.4.10 Major Synchronize

Prerequisite: S-FU(MA)
INTERNATIONAL STANDARD

	Role	Status	Support	Mnemonic
1	Requestor	o.11		S-MAJ_requestor
2	Acceptor	o.11		S-MAJ_acceptor

o.11: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

A.7.4.11 Resynchronize

Prerequisite: S-FU(RESYNC)

	Role	Status	Support	Mnemonic
1	Requestor	m		
2	Acceptor	m		

A.7.4.12 Exceptions

Prerequisite: S-FU(EXCEP)

	Role	Status	Support	Mnemonic
1	Requestor	m		
2	Acceptor	m		

A.7.4.13 Activity Management

Prerequisite: S-FU(ACT)

A.7.4.13.1 Activity start

	Role	Status	Support	Mnemonic
1	Requestor	o.12		S-ACTS_requestor
2	Acceptor	o.12		S-ACTS_acceptor

o.12: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

A.7.4.13.2 Activity resume

	Role	Status	Support	Mnemonic
1	Requestor	o.13		S-ACTR_requestor
2	Acceptor	o.13		S-ACTR_acceptor

o.13: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

A.7.4.13.3 Activity interrupt

	Role	Status	Support	Mnemonic
1	Requestor	o.14		S-ACTI_requestor
2	Acceptor	o.14		S-ACTI_acceptor

o.14: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

A.7.4.13.4 Activity discard

	Role	Status	Support	Mnemonic
1	Requestor	o.15		S-ACTD_requestor
2	Acceptor	o.15		S-ACTD_acceptor

o.15: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

A.7.4.13.5 Activity end

	Role	Status	Support	Mnemonic
1	Requestor	o.16		S-ACTE_requestor
2	Acceptor	o.16		S-ACTE_acceptor

o.16: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

A.7.4.13.6 Give tokens confirm

	Role	Status	Support	Mnemonic
1	Requestor	o		S-GTC_requestor
2	Acceptor	o		S-GTC_acceptor

A.8 Supported PPDU parameters

A.8.1 Connect presentation (CP) PPDU

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	Calling presentation selector	c9		c4	
2	Called presentation selector	c9		c4	
3	Mode selector	c3		c4	
4	Presentation context definition list	c9		c4	
5	Default context name	c9		c4	
6	Protocol version	c10		c4	
7	Presentation requirements	c9		c4	
8	User session requirements	c11		c4	
9	User data	c9		c4	
10	CPC Type	c12		c4	

c3: if [P-CON_initiator] then m else n/a.
c4: if [P-CON_responder] then m else n/a.
c9: if [P-CON_initiator] then o else n/a.
c10: if [not P-CON_initiator] then n/a else if [P-V1] then o else m.
c11: if [P-CON_initiator and P-FU(CM)] then o else n/a.
c12: if [P-CON_initiator and A.8.1/4a] then o else n/a.
.

A.8.2 Connect presentation accept (CPA)

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	Responding presentation selector	c13		c3	
2	Mode selector	c4		c3	
3	Presentation context definition result list	c4		c16	
4	Protocol version	c17		c3	
5	Presentation requirements	c15		c18	
6	User session requirements	c14		c19	
7	User data	c13		c3	

c3: if [P-CON_initiator] then m else n/a.

c4: if [P-CON_responder] then m else n/a.

c13: if [P-CON_responder] then o else n/a.

c14: if [P-CON_responder and P-FU(CM)] then o else n/a.

c15: if [P-CON_responder and P-FU(CM)] then m else o.

c16: if [P-CON_initiator and A.8.1/4a] then m else n/a.

c17: if [not P-CON_responder] the n/a else if [P-V1] then o else m.

c18: if [P-CON_initiator and A.8.1/7a] then m else n/a.

c19: if [P-CON_initiator and A.8.1/8a] then m else n/a.

A.8.3 Connect presentation reject (CPR) PPDU

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	Responding presentation selector	c13		c3	
2	Presentation context definition result list	c4		c16	
3	Protocol version	c17		c3	
4	Default context result	c13		c20	
5	Provider reason	c4		c3	
6	User data	c13		c3	

c3: if [P-CON_initiator] then m else n/a.

c4: if [P-CON_responder] then m else n/a.

c13: if [P-CON_responder] then o else n/a.

c16: if [P-CON_initiator and A.8.1/4a] then m else n/a.

c17: if [not P-CON_responder] the n/a else if [P-V1] then o else m.

c20: if [P-CON_initiator and A.8.1/5a] then m else n/a.

A.8.4 Abnormal release user (ARU) PPDU

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	Presentation context identifier list	c21		m	
2	User data	c22		m	

c21: if [A.7.1.2/5a] then (if [(P-FU(CM) and A.8.4/2a) or A.8.1/4a or P-CON_responder] then m else o) else n/a.

c22: if [A.6.1.2/5a] then o else n/a.

A.8.5 Abnormal release provider (ARP) PPDU

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	Provider reason	m		m	
2	Event identifier	o		m	

A.8.6 Alter context (AC) PPDU

Prerequisite: P-FU(CM)

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	Presentation context addition list	c23		c8	
2	Presentation context deletion list	c23		c8	
3	User data	c23		c8	

c8: if [P-ALTER-C_responder] then m else n/a.

c23: if [P-ALTER-C_requestor] then o else n/a.

A.8.7 Alter context acknowledge (ACA) PPDU

Prerequisite: P-FU(CM)

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	Presentation context addition result list	c8		c25	
2	Presentation context deletion result list	c8		c26	
3	User data	c24		c7	

c7: if [P-ALTER-C_requestor] then m else n/a.

c8: if [P-ALTER-C_responder] then m else n/a.

c24: if [P-ALTER-C_acceptor] then o else n/a.

c25: if [A.8.6/1a] then m else n/a.

c26: if [A.8.6/2a] then m else n/a.

A.8.8 Presentation data (TD) PPDU

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	User data	c5		c6	

c5: if [P-DATA_requestor] then m else n/a.

c6: if [P-DATA_acceptor] then m else n/a.

A.8.9 Presentation typed data (TTD) PPDU

Prerequisite: S-FU(TD)

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	User data	c27		c28	

c27: if [S-TDATA_requestor] then m else n/a.

c28: if [S-TDATA_acceptor] then m else n/a.

A.8.10 Expedited data (TE) PPDU

Prerequisite: S-FU(EX)

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	User data	c29		c30	

c29: if [S-XDATA_requestor] then m else n/a.

c30: if [S-XDATA_acceptor] then m else n/a.

A.8.11 Capability data (TC) PPDU

Prerequisite: S-FU(CD)

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	User data	c31		c32	

c31: if [S-CAP_requestor] then m else n/a.

c32: if [S-CAP_acceptor] then m else n/a.

A.8.12 Capability data acknowledge (TCC) PPDU

Prerequisite: S-FU(CD)

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	User data	c32		c31	

c31: if [S-CAP_requestor] then m else n/a.

c32: if [S-CAP_acceptor] then m else n/a.

A.8.13 Resynchronize (RS) PPDU

Prerequisite: S-FU(RESYNC)

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	Presentation context identifier list	m		m	
2	User data	m		m	

A.8.14 Resynchronize acknowledge (RSA) PPDU

Prerequisite: S-FU(RESYNC)

	Parameter	Sender		Receiver	
		Status	Support	Status	Support
1	Presentation context identifier list	m		m	
2	User data	m		m	

A.8.15 Session service primitives not carrying Presentation PCI

	Primitive	Sender		Receiver	
		Status	Support	Status	Support
1	S-REL-req/ind	c33		c34	
2	S-REL-rsp/cnf	c34		c33	
3	S-TG-req/ind	c35		c35	
4	S-TP-req/ind	c35		c35	
5	S-CG-req/ind	c36		c36	
6	S-SYNm-req/ind	c37		c38	
7	S-SYNm-rsp/cnf	c38		c37	
8	S-SYNM-req/ind	c39		c40	
9	S-SYNM-rsp/cnf	c40		c39	
10	S-PER-ind	–		c41	
11	S-UER-req/ind	c41		c41	
12	S-ACTS-req/ind	c42		c43	
13	S-ACTR-req/ind	c44		c45	
14	S-ACTI-req/ind	c46		c47	
15	S-ACTI-rsp/cnf	c47		c46	
16	S-ACTD-req/ind	c48		c49	
17	S-ACTD-rsp/cnf	c49		c48	
18	S-ACTE-req/ind	c50		c51	
19	S-ACTE-rsp/cnf	c51		c50	

c33: if [P-REL_requestor] then m else n/a.
c34: if [P-REL_acceptor] then m else n/a.
c35: if [S-FU(NR) or S-FU(HD) or S-FU(SY) or S-FU(MA) or S-FU(ACT)] then m else n/a.
c36: if [S-FU(ACT)] then m else n/a.
c37: if [S-MIN_requestor] then m else n/a.
c38: if [S-MIN_acceptor] then m else n/a.
c39: if [S-MAJ_requestor] then m else n/a.
c40: if [S-MAJ_acceptor] then m else n/a.
c41: if [S-FU(EXCEP)] then m else n/a.
c42: if [S-ACTS_requestor] then m else n/a.
c43: if [S-ACTS_acceptor] then m else n/a.
c44: if [S-ACTR_requestor] then m else n/a.
c45: if [S-ACTR_acceptor] then m else n/a.
c46: if [S-ACTI_requestor] then m else n/a.
c47: if [S-ACTI_acceptor] then m else n/a.
c48: if [S-ACTD_requestor] then m else n/a.
c49: if [S-ACTD_acceptor] then m else n/a.
c50: if [S-ACTE_requestor] then m else n/a.
c51: if [S-ACTE_acceptor] then m else n/a.

A.9 Support of syntaxes

A.9.1 Transfer syntaxes supported

This subclause shall be used to indicate which transfer syntaxes the implementation supports. For each transfer syntax supported a reference to the definition of the transfer syntax shall be given. Implementation restrictions with respect to the encoding variations as offered by the transfer syntax shall be stated separately and referenced in the following table where applicable. If the number of transfer syntaxes supported by the implementation exceeds the space available in the table, then details of support shall be given in an appendix to the PICS using a table with the equivalent layout.

NOTE – The definition of the ASN.1 basic encoding rules are given in ITU-T Rec. X.690 | ISO/IEC 8825-1. To complete the specification of a transfer syntax it is necessary to indicate the abstract syntax specification to which the encoding rules should be applied.

	Type	Detail	Support	Reference to definition	Reference to restriction
1	Object identifier	{joint-iso-ccitt asn1(1) basic-encoding(1)}			

A.9.2 Abstract syntaxes supported

This subclause shall be used to indicate which abstract syntaxes the implementation supports. If the number of abstract syntaxes supported by the implementation exceeds the space available in the table, then details of support shall be given in an appendix to the PICS using a table with the equivalent layout.

NOTE – From the Presentation standard point of view, an implementation is required to support any standardized abstract syntax. However, for technical and economic reasons, an implementation may only support a limited number of abstract syntaxes.

	Type	Detail	Support
1	Object identifier	{joint-iso-ccitt association control(2) abstract-syntax(1) apdus(0) version1(1)}	

A.9.3 Use of ASN.1 basic encoding

This subclause shall be used to indicate whether any encoding restrictions exist for sending:

a) the Presentation PCI of PPDUs;

b) abstract syntaxes using ASN.1 which are stated as supported in A.9.2.

Any restrictions given are assumed to apply to a) and b) unless explicitly stated. In the case that more than one set of restrictions apply, the table shall be replicated and it shall be clearly stated to which abstract syntax each set of restrictions apply.

	Restriction	Support	Comment
1	Only definite form of length encoding used		
2	Indefinite form of length encoding used for all constructed types		
3	Only minimal number of octets used for definite form of length encoding		
4	Only primitive encoding used for OCTETSTRING		
5	Only primitive encoding used for BITSTRING		

A.9.4 PDV Structure of User Data parameters

This subclause shall be used to indicate whether particular restrictions exist for the encoding of multiple Presentation data value in Abstract syntaxes using ASN.1, which are stated as supported in A.9.2.

Any restrictions given are assumed to apply to all abstract syntaxes unless explicitly stated. In the case that more than one set of restrictions apply, the table shall be replicated and it shall be clearly stated to which abstract syntax each set of restrictions apply.

	Restriction	Support	Limit	Comment
1	Limit on number of PDVs in User Data parameter			
2	Limit on number of PDVs in a single PDV-list value			

End Of PICS Proforma

Annexe B

Résumé des conditions

(Cette annexe ne fait pas partie intégrante de la présente Recommandation | Norme internationale)

o.1: either Normal mode or X.410(1984) mode or both shall be supported. If only X.410(1984) mode is supported, then the remainder of the proforma shall be ignored.

o.2: pass through for at least one of the Session functional units Duplex and Half Duplex shall be supported.

o.3: a conforming implementation shall support at least one of the above roles.

o.4: a conforming implementation shall support at least one of the above roles.

o.5: a conforming implementation shall support at least one of the above roles.

o.6: a conforming implementation shall support at least one of the above roles if the functional unit is supported.

o.7: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

o.8: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

o.9: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

o.10: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

o.11: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

o.12: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

o.13: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

o.14: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

o.15: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

o.16: a conforming implementation shall support at least one of the above roles if the pass through functional unit is supported.

c0: if [P-FU(CM)] then o else n/a.

c1: if [S-FU(ACT)] then o else n/a.

c2: if [S-FU(HD)] then o else n/a.

c3: if [P-CON_initiator] then m else n/a.

c4: if [P-CON_responder] then m else n/a.

c5: if [P-DATA_requestor] then m else n/a.

c6: if [P-DATA_acceptor] then m else n/a.

c7: if [P-ALTER-C_requestor] then m else n/a.

c8: if [P-ALTER-C_responder] then m else n/a.

c9: if [P-CON_initiator] then o else n/a.

c10: if [not P-CON_initiator] then n/a else if [P-V1] then o else m.

c11: if [P-CON_initiator and P-FU(CM)] then o else n/a.

c12: if [P-CON_initiator and A.8.1/4a] then o else n/a.

c13: if [P-CON_responder] then o else n/a.

c14: if [P-CON_responder and P-FU(CM)] then o else n/a.

c15: if [P-CON_responder and P-FU(CM)] then m else o.

c16: if [P-CON_initiator and A.8.1/4a] then m else n/a.

c17: if [not P-CON_responder] the n/a else if [P-V1] then o else m.

c18: if [P-CON_initiator and A.8.1/7a] then m else n/a.

c19: if [P-CON_initiator and A.8.1/8a] then m else n/a.

c20: if [P-CON_initiator and A.8.1/5a] then m else n/a.
c21: if [A.7.1.2/5a] then (if [(P-FU(CM) and A.8.4/2a) or A.8.1/4a or P-CON_responder] then m else o) else n/a.
c22: if [A.6.1.2/5a] then o else n/a.
c23: if [P-ALTER-C_requestor] then o else n/a.
c24: if [P-ALTER-C_acceptor] then o else n/a.
c25: if [A.8.6/1a] then m else n/a.
c26: if [A.8.6/2a] then m else n/a.
c27: if [S-TDATA_requestor] then m else n/a.
c28: if [S-TDATA_acceptor] then m else n/a.
c29: if [S-XDATA_requestor] then m else n/a.
c30: if [S-XDATA_acceptor] then m else n/a.
c31: if [S-CAP_requestor] then m else n/a.
c32: if [S-CAP_acceptor] then m else n/a.
c33: if [P-REL_requestor] then m else n/a.
c34: if [P-REL_acceptor] then m else n/a.
c35: if [S-FU(NR) or S-FU(HD) or S-FU(SY) or S-FU(MA) or S-FU(ACT)] then m else n/a.
c36: if [S-FU(ACT)] then m else n/a.
c37: if [S-MIN_requestor] then m else n/a.
c38: if [S-MIN_acceptor] then m else n/a.
c39: if [S-MAJ_requestor] then m else n/a.
c40: if [S-MAJ_acceptor] then m else n/a.
c41: if [S-FU(EXCEP)] then m else n/a.
c42: if [S-ACTS_requestor] then m else n/a.
c43: if [S-ACTS_acceptor] then m else n/a.
c44: if [S-ACTR_requestor] then m else n/a.
c45: if [S-ACTR_acceptor] then m else n/a.
c46: if [S-ACTI_requestor] then m else n/a.
c47: if [S-ACTI_acceptor] then m else n/a.
c48: if [S-ACTD_requestor] then m else n/a.
c49: if [S-ACTD_acceptor] then m else n/a.
c50: if [S-ACTE_requestor] then m else n/a.
c51: if [S-ACTE_acceptor] then m else n/a.

Imprimé en Suisse

Genève, 1995