



ATNP/WG3/WP 18-29

ATNP/WG1/WP 1722

1 December 1999

AERONAUTICAL TELECOMMUNICATION NETWORK PANEL

WORKING GROUP 3 (APPLICATIONS AND UPPER LAYERS)

Tokyo, Japan, 1 – 3 December 1999

WG3 Agenda Item 12: Any Other Business

WG1 Agenda Item 6: Final Core & SV1 SARPs – Doc 9705 Third Edition

Possible Withdrawal of ISO Standards

Presented by: Tony Kerr

SUMMARY

This paper informs the Working Group of the possible withdrawal by ISO of some of the base standards upon which ATN is based.

1. INTRODUCTION

1.1 Background

From its inception, the ATN has been based on the international standards for Open Systems Interconnection (OSI), which were developed by a joint committee of the International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC). A number of the standards were also developed jointly or in close liaison with the Telecommunication Branch of the International Telecommunications Union (ITU-T).

1.2 Current Status

Many of the OSI standards are now considered "mature", and no further development effort is going into them. A maintenance function exists to handle defects reported against any standards in this category, and ensure that the standards remain current. The maintenance of mature OSI standards is currently being performed by BSI, the national standards body of the UK. A list of the standards maintained in this way is appended to this Working paper.

2. THE PROBLEM

The arrangements under which BSI provides the OSI maintenance function will end in 2000, unless an alternative source of funding can be found (see attached email from the ISO Maintenance Rapporteur). This may well lead to the withdrawal of all the ISO/IEC standards whose maintenance is currently assigned to BSI, unless some other entity offers to provide a maintenance function.

This could lead to the situation where the ATN Technical Provisions refer to standards documents that no longer exist. This would make implementation impossible in principle.

3. POSSIBLE SOLUTIONS

A number of options might be considered for handling this, including:

- 1) do nothing, and leave references in ICAO documents to standards which will cease to exist,
- 2) change all references in ATNP Sub-Volumes from ISO/IEC to equivalent or similar ITU-T standards, where they exist,
- 3) ICAO or a State or Organisation provide the 50% funding to the current ISO Maintenance rapporteur,
- 4) ICAO or a Panel, State or Organisation take on the standards maintenance job,
- 5) Another National Standardisation Body takes over the maintenance role,
- 6) ICAO makes representation to ISO Central Secretariat not to withdraw the relevant standards.

4. CONCLUSION AND RECOMMENDATIONS

It is recommended that all ATN Sub-Volumes should be reviewed in the first instance to determine the exact extent of the problem.

The Working Group is invited to consider the issue and produce a recommendation for the most appropriate long-term solution.

Attachment 1 – Email from the ISO Maintenance Rapporteur

From: Peter Furniss[SMTP:p.furniss@mailbox.ulcc.ac.uk]

Sent: 12 October 1999 11:41

To: 'Tony Kerr'; 'Stephen VanTrees'

Subject: OSI maintenance future

Tony, Steve,

The arrangements under which BSI provides the OSI maintenance function will end next year unless an alternative source of funding can be found. This may well lead to the withdrawal of all the ISO/IEC standards whose maintenance is currently assigned to BSI, unless some other entity offers to provide a maintenance function.

The present arrangement (since SC33 closed) is that BSI offered to provide a maintenance function for the defined list of standards. In the absence of some way of handling defects, it has been stated that BSI (and the other standards bodies) would be in breach of their duty of care, and that consequently the standard should be withdrawn rather than imply a responsibility. (It was this consideration that led BSI to offer the maintenance function, originally when SC21/WG8 closed down and subsequently in the later reorganisations).

The maintenance arrangements are actually delivered through BSI paying me as a consultant to be the rapporteur and to provide the website (<http://www.furniss.co.uk/maint>). BSI staff are also involved to a very minor degree. BSI is changing its internal funding arrangements, and consequently will be no general pool for consultancy money. Activities will only be funded if there is explicit assigned funding available into BSI. (e.g. company X gives money for chair of JTC1 SC n, which BSI passes on). Next year (2000) BSI are able to provide half the cost of the maintenance consultancy, and thereafter none. BSI are giving JTC1 the appropriate year's notice of withdrawal in case no alternative funding is available.

I'm sending this to you as the best contacts I have in the area that is most likely to want the standards to continue to be ISO standards, to see if there is any hope of getting support from the air traffic control community in some way. Although this could be channelled through BSI, there is no requirement that it is - BSI would be happy with an arrangement by which I appeared (from their financial perspective) to be a volunteer, although receiving support directly from elsewhere. There is also no requirement that the source of funding be UK-based, or even singular - several smaller contributions would be fine. The total amount is on the order of GBP 10000 per year, not counting any travel (there has been no travel involved since the close of SC33).

If the present arrangements do cease, it will be up to JTC1 what to do about the standards. If they then decide to withdraw them, it will be difficult to re-instate another maintenance arrangement.

Do feel free to pass this on, as is or summarised, to others, or put them in contact with me. I should say that BSI have asked me to seek funding elsewhere, especially from the ATC community, but I have not checked the wording of this message with them. I believe my assertions on BSI's actions and intentions are correct, but should not be regarded as statements on their behalf.

Peter Furniss

ISO/IEC JTC1 OSI Maintenance Rapporteur (on behalf of BSI)

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Attachment 2 – Extract from OSI Maintenance Website

Mature OSI Standards by category

The standards assigned to BSI and thence the OSI Maintenance Group, and whose defect processing is therefore handled via these web pages can be grouped into the following broad categories:

- INFRASTRUCTURE - covering Remote operations service element, Reliable transfer service element, Association control service element, Presentation, Session, Data descriptive file, Representation of numeric values
- GENERIC OSI APPLICATIONS - covering Distributed transaction processing, Commitment, concurrency and recovery, Remote procedure call, File transfer, access and management, Job transfer and manipulation, Virtual terminal
- SECURITY - covering Security frameworks, Generic upper layers security
- CONFORMANCE TESTING - covering Conformance testing methodology and framework, Accreditation of test laboratories, Upper layer conformance testing
- OSI Architecture - Reference Model, Application Layer Structure etc.
- REGISTRATION - covering Procedures for OSI Registration Authorities (some parts of this standard are the responsibility of SC6)
- Abstract Syntax Notation One (the ASN.1 standards are now the responsibility of SC6, but the defect reports that were already on these web pages will remain here for the time being)

This page has a table for each group, listing the standard numbers and the corresponding ITU-T number. These link to the page for each set of standards that gives the full names of the standards and the defect register (if there are any). The "Defect Register" entry in the tables below links to the title and defect register for the individual base standard.

The same standards are separately listed numerically, by their ISO number and by their ITU-T number.

INFRASTRUCTURE

ISO number	ITU-T number	Type of text	Defect Register	Brief title of standard
Remote operations service element				<u>full titles and defect registers</u>
9072-1	X.219	Twin	<u>Empty</u>	Remote operations. Model and service
9072-2	X.229	Twin	<u>Empty</u>	Remote operations. Protocol
9072-3	X.249	Common	<u>Empty</u>	Remote operations. PICS proforma
13712-1	X.880	Common	<u>Yes</u>	Remote operations. Model and notation
— /Cor.1	— /Cor.1	Common		Technical Corrigendum 1
— /Amd.1	— /Amd.1	Common		Built in operations
13712-2	X.881	Common	<u>Empty</u>	Remote operations. Service
— /Amd.1	— /Amd.1	Common		A-UNIT-DATA and Built in operations

13712-3	X.882	Common	Yes	Remote operations. Protocol
— /Cor.1	— /Cor.1	Common		Technical Corrigendum 1
— /Amd.1	— /Amd.1	Common		A-UNIT-DATA and Built in operations
Reliable transfer service element				<u>full titles and defect registers</u>
9066-1	X.218	Twin	Empty	Reliable transfer. Model and service
9066-2	X.228	Twin	Yes	Reliable transfer. Protocol
9066-3	X.248	Common	Empty	Reliable transfer. PICS proforma
Association control service element				<u>full titles and defect registers</u>
8649	X.217	Common	Empty	Association control. Service
8650-1	X.227	Common	Empty	Association control. Protocol
8650-2	X.247	Twin text	Yes	Association control. PICS proforma
10035-1	X.237	Common	Empty	Association control. Connectionless protocol
10035-2	X.257	Common	Empty	Association control. Connectionless PICS proforma
Presentation				<u>full titles and defect registers</u>
8822	X.216	Common	Empty	Presentation service
8823-1	X.226	Common	Empty	Presentation protocol
8823-2	X.246	Twin	Yes	Presentation PICS proforma
9576-1	X.236	Common	Empty	Presentation connectionless protocol
9576-2	X.256	Common	Empty	Presentation connectionless PICS proforma
Session				<u>full titles and defect registers</u>
8326	X.215	Common	Yes	Session service
8327-1	X.225	Common	Yes	Session protocol
8327-2	X.245	Common	Empty	Session PICS proforma
9548-1	X.235	Common	Empty	Connectionless session protocol
9548-2	X.255	Common	Empty	Connectionless session PICS proforma
Data descriptive file				<u>full titles and defect registers</u>
8211		ISO only	Yes	Data descriptive file
Representation of numeric values				<u>full titles and defect registers</u>
6093		ISO only	Empty	Representation of numerical values in character strings

GENERIC OSI APPLICATIONS

ISO number	ITU-T number	Type of text	Defect Registe	Brief title of standard
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			r	
Distributed transaction processing				full titles and defect registers
10026-1	X.860	Twin	<u>Empty</u>	OSI TP Model
10026-2	X.861	Twin	<u>Empty</u>	OSI TP Service
10026-3	X.862	Twin	<u>Yes</u>	OSI TP Protocol
10026-4	X.863	Common	<u>Empty</u>	OSI TP PICS proforma
10026-5		ISO only	<u>Empty</u>	OSI TP Application context proforma
10026-6		ISO only	<u>Empty</u>	OSI TP Unstructured data transfer (UDT)
14834		ISO only	<u>Empty</u>	XA specification
Commitment, concurrency and recovery				full titles and defect registers
9804	X.851	Common	<u>Yes</u>	Commitment, concurrency and recovery service
9805-1	X.852	Common	<u>Yes</u>	Commitment, concurrency and recovery protocol
9805-2	X.853	Common	<u>Empty</u>	Commitment, concurrency and recovery PICS proforma
11589		ISO only	<u>Empty</u>	Lotos description of the CCR service
11590		ISO only	<u>Empty</u>	Lotos description of the CCR protocol
Remote procedure call				full titles and defect registers
11578		ISO only	<u>Empty</u>	Remote procedure call
File transfer, access and management				full titles and defect registers
8571-1		ISO only	<u>Empty</u>	File transfer, access and management. Introduction
— /Cor.1		ISO only		Technical Corrigendum 1
— /Amd.1		ISO only		Filestore management
— /Amd.2		ISO only		Overlapped access
8571-2		ISO only	<u>Yes</u>	File transfer, access and management. Virtual filestore
— /Cor.1		ISO only		Technical Corrigendum 1
— /Amd.1		ISO only		Filestore management
— /Amd.2		ISO only		Overlapped access
8571-3		ISO only	<u>Yes</u>	File transfer, access and management. File service
— /Cor.1		ISO only		Technical Corrigendum 1
— /Cor.2		ISO only		Technical Corrigendum 2
— /Amd.1		ISO only		Filestore management

— /Amd.2		ISO only		Overlapped access
8571-4		ISO only	<u>Yes</u>	File transfer, access and management. File protocol
— /Cor.1		ISO only		Technical Corrigendum 1
— /Amd.1		ISO only		Filestore management
— /Amd.2		ISO only		Overlapped access
— /Amd.4		ISO only		Untitled (Defect report changes)
— /Amd.4/Cor.1		ISO only		Amendment 4. Corrigendum 1.
8571-5		ISO only	<u>Yes</u>	File transfer, access and management. PICS proforma
15298		ISO only	<u>Empty</u>	FTAM API (C language)
Virtual terminals				<u>full titles and defect registers</u>
9040		ISO only	<u>Empty</u>	Virtual terminals. Basic class service
— /Cor.1		ISO only		Technical Corrigendum 1
— /Cor.2		ISO only		Technical Corrigendum 2
— /Cor.3		ISO only		Technical Corrigendum 3
— /Amd.2		ISO only		Additional functional units
9041-1		ISO only	<u>Empty</u>	Virtual terminals. Basic class protocol
— /Cor.1		ISO only		Technical Corrigendum 1
— /Cor.2		ISO only		Technical Corrigendum 2
— /Cor.3		ISO only		Technical Corrigendum 3
— /Amd.2		ISO only		Additional functional units
9041-2		ISO only	<u>Empty</u>	Virtual terminals. PICS proforma

OSI ARCHITECTURE

These standards define the principles and terminology used by the other OSI standards and are not directly implemented as such. Consequently, it is not expected that reports of apparent defects will result in draft technical corrigenda for ballot. Nevertheless, defect reports can be raised against these standards. All defect groups will be invited to contribute to the consequent discussion.

ISO number	ITU-T number	Type of text	Defect Register	Brief title of standard
Reference model for OSI				<u>full titles and defect registers</u>
7498-1	X.200	Common	<u>Empty</u>	Reference model for OSI - Second Edition
7498-2	X.800	Twin	<u>Empty</u>	OSI RM - Security architecture

7498-3	X.650	Common	<u>Empty</u>	OSI RM - Naming and addressing - Second edition
TR 10730		ISO only	<u>Empty</u>	Naming and addressing tutorial
Service conventions				
10731	X.210	Common	<u>Empty</u>	OSI Service conventions
Application layer structure				
9545	X.207	Common	<u>Empty</u>	Application layer structure (second edition)

SECURITY

ISO number	ITU-T number	Type of text	Defect Register	Brief title of standard
Upper layer security model				
10745	X.803	Common	<u>Empty</u>	Upper-layer security model
Security frameworks				<u>full titles and defect registers</u>
10181-1	X.810	Common	<u>Empty</u>	Security frameworks. Overview
10181-2	X.811	Common	<u>Empty</u>	Security frameworks. Authentication framework
10181-3	X.812	Common	<u>Empty</u>	Security frameworks. Access control framework
10181-4	X.813	Common	<u>Empty</u>	Security frameworks. Non-repudiation framework
10181-5	X.814	Common	<u>Empty</u>	Security frameworks. Confidentiality framework
10181-6	X.815	Common	<u>Empty</u>	Security frameworks. Integrity framework
10181-7	X.816	Common	<u>Empty</u>	Security frameworks. Security audit and alarms framework
Generic upper layers security				<u>full titles and defect registers</u>
11586-1	X.830	Common	<u>Empty</u>	Generic upper layers security. Overview
11586-2	X.831	Common	<u>Empty</u>	Generic upper layers security. Security exchange service
11586-3	X.832	Common	<u>Empty</u>	Generic upper layers security. Security exchange protocol
11586-4	X.833	Common	<u>Empty</u>	Generic upper layers security Protecting transfer syntax
11586-5	X.834	Common	<u>Empty</u>	Generic upper layers security Security exchange PICS proforma
11586-6	X.835	Common	<u>Empty</u>	Generic upper layers security. Protecting transfer syntax PICS proforma

CONFORMANCE TESTING

ISO number	ITU-T number	Type of text	Defect Register	Brief title of standard
Conformance testing methodology				<u>full titles and defect registers</u>

and framework				
9646-1	X.290	Twin	<u>Empty</u>	Conformance testing methodology. General concepts
9646-2	X.291	Twin	<u>Empty</u>	Conformance testing methodology. Abstract test suite specification
9646-3	X.292	Twin	<u>Yes</u>	Conformance testing methodology. Tree and tabular combined notation
9646-4	X.293	Twin	<u>Empty</u>	Conformance testing methodology. Test realization
9646-5	X.294	Twin	<u>Empty</u>	Conformance testing methodology. Requirements on test laboratories
9646-6	X.295	Twin	<u>Empty</u>	Conformance testing methodology. Protocol profile test specification
9646-7	X.296	Twin	<u>Yes</u>	Conformance testing methodology. ICS proformas
— /Cor.1	— /Cor.1	Twin		Technical Corrigendum 1
Accreditation of test laboratories				<u>full titles and defect registers</u>
13233		ISO only	<u>Empty</u>	Accreditation of IT and telecommunications test laboratories
Upper layer conformance testing				<u>full titles and defect registers</u>
10168-1		ISO only	<u>Empty</u>	Session testing. Test suite structure and test purposes
10168-4		ISO only	<u>Empty</u>	Session testing. Test management protocol
10169-1		ISO only	<u>Empty</u>	ACSE protocol. Test suite structure and test purposes
10170-1		ISO only	<u>Empty</u>	FTAM protocol. Test suite structure and test purposes
10729-1		ISO only	<u>Empty</u>	Presentation protocol. Test suite structure and test purposes
10729-2		ISO only	<u>Empty</u>	ASN.1 encoding. Test suite structure and test purposes
10739-1		ISO only	<u>Empty</u>	VT protocol. Test suite structure and test purposes
13650-1		ISO only	<u>Empty</u>	TP protocol. Test suite structure and test purposes
13650-2		ISO only	<u>Empty</u>	TP protocol. Test management protocol

REGISTRATION

Maintenance of parts 1 and 3 of this standard were assigned to SC6 when SC33 closed down, along with the Directory and Messaging standards which use those parts. The parts maintained from here are used by other mature standards.

ISO number	ITU-T number	Type of text	Defect Register	Brief title of standard
Procedures for OSI Registration Authorities				<u>full titles and defect registers</u>

9834-1	X.660	Common	Empty (SC6)	OSI Registration Authority procedures. General procedures
— /Amd.1	— /Amd.1	Common		Object identifier component for short form names
9834-2		ISO only	Empty	OSI Registration Authority procedures. Document types
9834-3		ISO only	Empty (SC6)	OSI Registration Authority procedures. Object identifiers for joint ISO/CCITT use
9834-4		ISO only	Empty	OSI Registration Authority procedures. VTE profiles
9834-5		ISO only	Empty	OSI Registration Authority procedures. VT control objects
9834-6	X.665	Common	Empty	OSI Registration Authority procedures. Application entities

ASN.1

Maintenance of ASN.1 was assigned to the SC21 and SC33 Maintenance Group, although there was an active rapporteur group. When SC33 closed down, the rapporteur group was transferred to SC6, who now have the maintenance responsibility within JTC1 for all the ASN.1 standards. For the time being, the ASN.1 defect register and the defects will remain on this website, although the information here may not be definitive.

A new edition of ASN.1 was approved in 1997 (ISO/IEC publication in 1999).

ISO number	ITU-T number	Type of text	Defect Register	Brief title of standard
Abstract Syntax Notation One				full titles and defect registers
8824-1	X.680	Common	<u>Yes</u>	ASN.1 Specification of basic notation
8824-2	X.681	Common	<u>Yes</u>	ASN.1 Information object specification
8824-3	X.682	Common	<u>Empty</u>	ASN.1 Constraint specification
8824-4	X.683	Common	<u>Empty</u>	ASN.1 Parameterization of ASN.1 specification
8825-1	X.690	Common	<u>Yes</u>	ASN.1 Basic, Canonical and Distinguished encoding rules
8825-2	X.691	Common	<u>Yes</u>	ASN.1 Packed encoding rules
8824	X.208	Twin	<u>Closed</u>	1990 edition:Specification of ASN.1
8825	X.209	Twin	<u>Closed</u>	1990 edition:ASN.1. Basic encoding rules

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