

ATNP/WG3/WP3-17/07
September 22, 1999

INTERNATIONAL CIVIL AVIATION ORGANIZATION
AERONAUTICAL TELECOMMUNICATION NETWORK PANEL
Working Group 3

Gran Canaria, 28-31 September 1999

ATNP/WG3/SG3 Activity Report

(Presented by Stephen Van Trees (USA))

Summary

Progress and prospects of SG3 (Upper Layer Architecture) are presented.

1. Introduction

ATNP/WG3 is responsible for Upper Layer Architecture (ULA). The group is responsible for SARPs Sub-Volume 4 (Upper Layer Communications Service), SARP Sub-Volume 4 Enhancements (4.8 Secure Dialogue), SARP Sub-Volume 7 (Directory), and Sub-Volume 9 (Registration).

2. ATNP/WG3/SG3 Requirements

ATNP/WG3/SG3 in its work plan responds to the following requirements of ATNP/WG1.

Task	Description
B&C	Develop a Security Strategy for the ATN

3. ATNP/WG3/SG3 Work Plan

ATNP/WG3/SG3 offers the following overview of its work plan.

SARPs	Topic	Responsible	Gran Canaria Deliverable	Tokyo Deliverable
Sub-Volume 4	Secure Dialogue	Mittaux-Biron	9705/ed 3 clause 4.8	
Sub-Volume 4	Naming and Addressing	Kerr	9705/ed 3 clause 4.3bis	
Sub-Volume 4	Connectionless Dialogue	Van Trees	9705/ed 3 clause 4.7	
Sub-Volume 4	Generic ATN Comms	Kerr	9705/ed 3 clause 4.9	
Sub-Volume 4	ASO-ACSE	Van Trees		ASO-ACSE GM
Sub-Volume 7	Data Dictionary	Moulton	9705/ed 3 clause 7	9705/ed 2 clause 7

4. WG3 Issues

There are no issues to be co-ordinated at this meeting. The following issues bear watching:

- Validation Planning must be completed;
- Security progress depends on a continued stable requirement from WG1/SG2;
- Directory validation with a partner implementation must begin quickly;
- System management notification of security fault and certification revocation list (CRL) must be specified.

5. Schedule

Observing the work plan, we note that Security, Directory, Naming and Addressing, Connectionless Dialogue, and GACS are all in the validation phase.

6. Recommendation

WG3 is invited to approve the work plan provided.

ATNP/WG3/SG3 (Upper Layer Architecture)
8-10 September 1999
Toulouse

ATNP/WG3/SG3 Meeting

The meeting was hosted by Gerard Mittaux-Biron at Service Technique de la Navigation Aerienne in Toulouse.

Attendance

Mike Bigelow, ARINC
Simon Blake-Wilson, USA
Tony Kerr, Eurocontrol
Gerard Mittaux-Biron, France
James Moulton, USA
Frederic Picard, France
Bernard Ramsey, USA
David W. Robinson, USA
Greg Saccone, USA
Jim Simpkins, USA
Stephen Van Trees, USA

1. Review of SARPs

SG3 noted that ICAO have released the new ICAO Document 9705 as the second edition. SG3 reviewed one PDR 99080001 concerning a possible misreading of a note on User-data encoding. The note was edited to remove any ambiguity.

The 9705/Ed 2 change pages have not changed since Palo Alto. Most changes are in the registration area.

2. CNS/ATM-2 SARPs

Tony Kerr noted that the CNS/ATM-2 SARPs (yellow pages). The incorporated enhancements are Generic ATN Comms Service (GACS), Connectionless Dialogue Service (CLDS), and Naming and Addressing. The text for each enhancement is complete and now under configuration control. Tony noted that there are GACS validation results to be incorporated into change pages. The system management naming arc must also be noted.

3. Security

The group met for three days with WG1/SG2. Frederic Picard presented a detailed paper on support of security in terms of upper layer mechanisms. Gerard Mittaux Biron then presented his work on mapping of security requirements to protocol mechanisms implemented in the Security Application Service Object (ASO). The papers were reviewed and revised several times until they formed a final basis for understanding of security operational scenarios and mechanisms.

The security group took an action to document final SARPs for the Specific Security Object (SSO), which actually implements the elliptic-curve algorithm. The action will be completed immediately after the WG3 meeting in Gran Canaria.

Gerard Mittaux-Biron was congratulated for major work in the successful first draft of clause 4.8 as a stable basis for validation efforts.

Greg Saccone took the action to document Security CM changes.

4. Directory

Jim Moulton presented a complete draft of the X.500 schema and Directory Information Tree (DIT). The group reviewed security-related matters in the schema, including the format of the Certificate Revocation List (CRL). The group also agreed to store certificates in their transfer syntax rather than adding additional encoding rules to aircraft upper-layers implementation. The work is critical for the implementation of CNS/ATM-2 security and MHS.

Jim Moulton was also congratulated for major progress since Palo Alto.

5. Validation

The Direction General Aviation Civile (DGAC) and the Federal Aviation Administration (FAA) held a meeting 10 September 1999 to discuss validation of the CNS/ATM-2 SARPs, especially in the area of interoperability testing of security implementations.

6. Miscellaneous CNS/ATM-2

ACTION: (Van Trees) Upper Layer Multicast Addressing

ACTION: (Van Trees) ASO Template Development

ACTION: (Kerr) Fast Associate Enhancement

7. Base Standards

There is no current base standards activity. Application Service Object (ASO) Association Control Service Element (ACSE) is in the final throes of publication at ITU-T in Geneva.

8. WG3 Gran Canaria Prep

SG3 Report (Van Trees)

SV4/ed 2 Defect ("Rose") Pages (Kerr)

SV4/ed 3 Enhancement ("Yellow") Pages (Kerr)

Sub-Volume 4.8 Security (Mittaux-Biron)

Sub-Volume 7 Directory (Moulton)

9. Next Meeting

SG3 is contemplating its next meeting to integrate Security ASO and Directory some time before the Tokyo meeting.