

ATNP/WG3

WP/14-05

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AERONAUTICAL TELECOMMUNICATIONS NETWORK PANEL(ATNP)

WORKING GROUP 3 - APPLICATIONS AND UPPER LAYERS

Bordeaux, 28 September - 2 October 1998 (fourteenth meeting)

Agenda Item 5.1 : Ground-Ground Applications

Chairman's report - Working Group 3, Subgroup 1

Presented by Jean-Yves Piram

Summary

This paper aims at reporting to the ATNP Working Group 3 about the progress achieved by WG3/SG1 in its Work Programme, since the 13th WG3 meeting in Utrecht.

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1. INTRODUCTION

This paper aims at reporting to the working group the work achieved by SG1 since the Utrecht WG3 meeting.

2. MEETINGS

The subgroup has held its 15th meeting in Toulouse from 2nd to 4th September 1998.

There were 12 participants. The list is given in Appendix.

3. WORK PROGRESS

3.1 Maintenance of CNS/ATM-1 Package SARPs

3.1.1 ATSMHS

There has been no specific subgroup work in this area.

3.1.2 AIDC

As the result of the SG1 discussions in Utrecht and Toulouse based on WP/205 and WP/219, a PDR has been submitted about the setting of variables in the AIDC Protocol Machine (PDR 98090009).

An additional PDR (98090006, AIDC UCF) has also been submitted by J. Moulton.

Furthermore, a point identified as a potential PDRs has been studied by the subgroup, in the specification of exception handling. This has been identified as requiring further study, from an operational perspective. In effect, it was stated that maybe not in all cases an abort was required.

Finally, the issue of version handling in AIDC, as raised in the 13th WG3 meeting, was discussed. It was considered (as it had been agreed in the past) that AIDC is a relatively static application. A version change in an AIDC application in an ATSU would be carefully planned and co-ordinated with adjacent ATSUs, using formal procedures, so no negotiation mechanism is required in the AIDC protocol.

3.2 Work part of the SG1 Work Programme

3.2.1 Extended ATS Message Service

The following has been agreed by the subgroup concerning the Extended ATS Message Service:

Business Extensions

For the Extended ATS Message Service, the study of Business-Class Messaging Extensions to IPM in support of the parameters currently conveyed in the ATS-Message-Header has been continued:

- backwards compatibility issues (with the Basic ATS Message Service) have been further discussed, as part of SG1 subdeliverable D125. It was recognized that making optional the use of the ATS-Message-Header in the Basic ATS Message Service would indeed change the specification of the CNS/ATM-1 Package, and lead to the definition of three levels of service, instead of two as planned (Basic and Extended).

- the subgroup has agreed to study the operational impact in case of loss/distortion of the information contained in the ATS-Message-Header (AFTN priority and filing time), before finalising the specification principles.

Systems Management

As an outcome of a joint meeting on Systems Management between the SM Joint Subgroup, the WG3/SG2 and WG3/SG1, the following principles have been adopted concerning the work of WG3/SG1 with respect to Systems Management.

- Two levels of information are defined for information to be managed: a first level materialized by the summary MIB, containing only the summary information which organisations are willing to share on a cross-domain basis. This level would be specified in the SARPs (Doc 9705). A second level is local to each management domain and could be specified in Guidance Material.
- WG3/SG1 should define in a very simple manner the information which they wish to be managed at both levels. The name of the objects to be managed may be sufficient.
- In principle, the management information shared at a cross-domain level should be only for viewing, not for action. It is the role of the subgroup to indicate if there would be a requirement extending beyond simple viewing in a cross-domain mode, e.g. defining events which should need immediate reporting such as alarms.

It was requested that information which is going to be monitored in a cross-domain mode cannot be communicated to third party without previous written agreement by the manager of the monitored object. It was noted that such a requirement should be put in the CONOPS.

The place where should be located the boundary of system management with respect to gateways between the AMHS and the AFTN/CIDIN environment has also been studied. It was agreed that at least the MTCU should be taken into account by ATN Systems Management. The subgroup agreed to further study whether the AFTN Component and AFTN network should also be part of it, based in particular on the benefits and disadvantages of each options (to include or not to include the element in the scope of ATN Systems Management).

Although these considerations about Systems Management could also apply to AIDC, it may be noted that at present it has mainly been discussed by SG1 in the context of ATSMHS.

Security

A paper proposing a security approach for ATSMHS in the light of threat analysis presented in the Rio WG3 meeting was discussed. The paper proposed two options, as far as the selection of a Security-Class for the SEC Functional Group of the ISP was concerned.

A major point was discussed at some length. This point is related to the fact that with security class S1, peer-entity authentication should be used in strictly all information exchanges.

There was a general position in the subgroup that it was too early to conclude on such a paper. Several experts would like to study off-line the proposal made and re-discuss the issue after a thorough analysis of the options opened, in particular as far as the selection of a security-class is concerned. It was consequently agreed to have electronic co-ordination with WG1/SG2 and WG3/SG3 on the subject, so as to be in a position to conclude about this paper in the Bordeaux SG1 meeting. The Chairman took the action to inform S. Van Trees and M. Bigelow of the discussions held in WG3/SG1.

3.2.2 CIDIN/ATN Gateway

There has been no activity reported on this subject in the past meeting. However this subject has been progressing and will be addressed in the next SG1 meeting, so this should not be considered as an issue.

The level of progress on this work item allows to be confident that it will be completed for presentation to ATNP/3.

3.2.3 Directory

A preliminary draft of the X.500 schema and Directory Information Tree (DIT) for the ATN was provided by J. Moulton.

The following areas were identified as requiring further work:

- About the possible values for attributes such as country, facility, etc. it needs to be stated whether there are restrictive rules for the selection of a given value.
- The naming hierarchies allowed by the DIT need to be complemented with all cases which can be envisioned for CAAs and airlines.
- The attributes to be included in the specific ATN object-classes need to be defined by the relevant subgroups, e.g. attributes for object-class atnMHSuser should be defined by WG3/SG1.

The document was considered as a good basis by the subgroup. The Chairman expressed his satisfaction to see things progressing in this area where he had been requesting for an input. It was emphasized that a lot of work is needed for this document and that contributions by other experts will be required. The subgroup agreed to progress on this basis and to provide information about the AMHS related items.

3.3 Monitoring of Validation and Implementation activities

The subgroup was provided with an updated status report about the FAA AIDC implementation, which is almost completed and now being tested and validated. A demonstration of the prototype was given to the subgroup.

H. Tran stated, in name of the FAA representative stated that his objective is to implement operationally both ATSMHS and AIDC in Year 2000 in the ASIA/PAC region, first with Japan and then with Fiji.

The subgroup was updated about the status of the various AMHS implementation projects, namely ANDRA in Germany, CRAMI in Spain, ARMOR in France, ECG in Eurocontrol, and also the FAA and JCAB implementation projects.

Additionally the ATN SARP Electronic Library developed by the FAA for the management of AIDC SARPs was presented. This has been developed in relation with the FAA AIDC prototype implementation. A demonstration of the Electronic Library was made, and the subgroup expressed a strong interest for it and recommended to make also a demonstration of the system in Bordeaux.

4. FUTURE MEETINGS

The subgroup will meet in Bordeaux from 5th to 8th October 1998.

5. RECOMMENDATION

The working group is invited to note the progress achieved by the subgroup.

6. APPENDIX A: STATUS OF WORK ACHIEVED BY THE SUBGROUP

	Main Deliverable		Subdeliverable	Progress
D1	Extended ATS Message Service	D11	Security functionalities for the AMHS	
		D111	Analysis of risks and threats against the ATS Message Service	90%
		D112	Selection of a security (SEC) Optional Functional Group among the definitions of the MHS Profiles, offering an appropriate protection against the identified risks	80%
		D12	Message Contents in support of the Extended ATS Message Service	
		D123	Analysis of suitability of IPM Business Class Messaging Extensions for the support of ATS Message Service parameters	75%
		D125	Compatibility of Extended ATS Message Service (use of Business Class Messaging Extensions) with the Basic ATS Message Service	70%
		D13	Systems Management functionalities for the AMHS	25%
		D14	Directory Functionalities for the ATS Message Service	20%
		D15	CIDIN/ATN Gateway	25%

7. APPENDIX B : LIST OF MEETING PARTICIPANTS

15th meeting, Toulouse, 2-4 September 1998:

John Antonucci	(advisor for FAA)
Thomas Belitz	(DFS)
Manuel Garcia	(Aena)
Claude Leclerc	(Eurocontrol)
Jack McConnell	(advisor for FAA)
Tetsuo Mizoguchi	(supporting JCAB)
Jim Moulton	(ONS for FAA)
Manfred Okle	(Frequentis for DFS)
Jean-Yves Piram	(STNA)
Michel Solery	(STNA)
Hoang Tran	(FAA)
Jean-Marc Vacher	(ON-X Consulting for STNA)