



International Civil Aviation Organization and the Directorate General of Air Communication, Indonesia

SIXTH MEETING OF AERONAUTICAL TELECOMMUNICATION NETWORK (ATN) TRANSITION TASK FORCE OF APANPIRG



Bali, Indonesia, 26-30 April 2004

Agenda Item 4: Discussions and Review on ATN Technical Documents

PROPOSED CHANGES TO ATNTTF DOCUMENTATION TREE

(Prepared by: Vic Patel and Tom McParland, US FAA)

SUMMARY

The attached is a proposed set of additions to the ATNTTF Documentation Tree.

SUMMARY OF PROPOSED CHANGES

1. Documentation Tree Structure (Organization). It is proposed that the documentation tree be organized as follows:
 - a. Regional Planning Documents - These are the high level documents which define the overall strategy for regional transition to the ATN.
 - b. Policy and Service Definition Documents – These documents define the policy and functional capabilities to be provided in the major functional areas of: ATN Router, AMHS, AIDC, Directory, System Management, System Integrity, and Security.
 - c. Interface Control Documents – These documents specify the technical details of the interfaces in the major functional areas.
 - d. Implementation Documents – These documents provide a baseline for operation.
2. ATN Air-Ground Transition Plan. This should be one of the first documents for introduction of air-ground ATN services. This document should start by documenting the FANS and other candidate air-ground services and then adopt an overall strategy. The routing architecture and policy documents will need to be updated accordingly.
3. AIDC Services – The ATNTTF working group has already started an ICD but it may be useful to first identify what AIDC services are planned for introduction into the region. This should document the OPNET, ICAO and regional work.

4. System Management - Under System Management it is proposed that a have a high-level policy document be introduced. This document is similar to the System Integrity Policy and would require that each administration designate a system manager responsible for fault, configuration, accounting, performance, and security management. The on-going work by the ATNTTF working group would follow from this policy. It is proposed that a System Management Technical Provisions document be developed. This document would specify what technical parameters are to be monitored by automation systems. And it is proposed that a System Management Operational Procedures document be developed. This document would focus on what system managers (individuals) have to do.
5. System Integrity - Under system integrity it is recommended that a verification checklist and sample authorization be developed to implement the system integrity policy.
6. Subnetwork ICDs – It is recommend that the X.25 requirements in the ATN G/G Router ICD be moved to a separate ICD and properly specified in PICs format. This would leave the Router ICD independent of subnetworks and allow for the introduction of new subnetworks. For example, a Frame Relay ICD could also be developed. It is usually the case that the X.25 interface cards in ATN routers can also be configured to support Frame Relay. It is also recommended that an IPv4/IPv6 ICD be developed. This ICD could define three options for using IP subnetworks. One is to use the ICAO IP SNDCE. A second is to tunnel X.25 over TCP using XOT. The third is to use Generic Routing Encapsulation (GRE). The second and third are desirable because they can be simply implemented.
7. Security - The first document should identify what security services are to be used in the region. Once agreed to, ICDs should be developed to use ATN Edition 3 security services (for example over X.25 point to point links) or use IPsec if the IP ICD is used.

DOCUMENTATION TREE

