

AERONAUTICAL TELECOMMUNICATIONS NETWORK PANEL

ATN Internet Working Group (WG2)

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Proposed Changes to Chapter 1 of Sub-Volume V

(Presented By Akhil Sharma)

Summary

This paper proposes to replacement text for the the current Chapter 1 of Sub-Volume V (Version 3.1).

1. INTRODUCTION

Note 1

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1.1 The SARPs for the CNS/ATM-1 Package are documented in five "Sub-Volume" as follows:

- Sub-Volume I - Introduction & System Level Requirements
- Sub-Volume II - Air/Ground Applications
- Sub-Volume III - Ground/Ground Applications
- Sub-Volume IV - Upper Layer Architecture
- Sub-Volume V - Internet Communications Service

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1.2 This document comprises Sub-Volume V.

1.3 Sub-Volume V defines the provisions that Aeronautical Telecommunication Network compliant End Systems (ESs) and Intermediate Systems (ISs) must implement in order to provide a CNS/ATM-1 Package compliant "Internet Communications Service" to the "User" i.e. the Upper Layer Architecture as defined in Sub-Volume IV of the CNS/ATM-1 Package SARPs.

1.4 Sub-Volume V comprises nine Chapters as introduced below.

1.4.1 Chapter 1, i.e. this Chapter, contains introductory material to the remainder of the Sub-Volume.

1.4.2 Chapter 2 contains pertinent Internet definitions, system level provisions related to communications protocol support for ATN End Systems and Intermediate Systems, and SARPs related to priority handling within the ATN internet.

1.4.3 Chapter 3 contains provisions related to the definition of the ATN Internet Routing Architecture and components thereof e.g. Routing Domains, Administrative Domains, Routing Domain Confederations, ATN Backbone, ATN Islands, Routing Policies etc.

1.4.4 Chapter 4 contains provisions related to the ATN Internet addressing architecture and responsibilities related to the

definition and allocation of ATN Internet address fields.

1.4.5 Chapter 5 contains "Transport Layer" provisions applicable to ATN End Systems. Provisions for the ISO Connection Oriented Transport Protocol (Class 4) and the Connectionless Transport Protocol are defined. The majority of such provisions are defined in a tabular fashion under the title of "ATN Protocol Requirements Lists" (APRLs) as are the provisions for the protocols defined in subsequent chapters of this Sub-Volume.

1.4.6 Chapter 6 contains "Inter-Network Layer" provisions, based on the ISO Connectionless Network Protocol (CLNP), applicable to ATN End Systems and ATN Intermediate Systems.

1.4.7 Chapter 7 contains provisions related to the various candidate ground/ground and air/ground subnetworks of the ATN in order to ensure successful inter-operation of ATN Intermediate Systems and the subnetworks to which they are attached and to enable the efficient use of the limited bandwidth available over the currently standardised air/ground subnetworks via the definition of appropriate compression techniques.

1.4.8 Chapter 8 contains provisions related to the exchange of routing information between ATN Intermediate Systems and End Systems based on ISO OSI Routing Information Exchange protocols such as the Inter Domain Routing Information Exchange Protocol (IDRP).

1.4.9 Chapter 9 contains assumptions regarding the implementation of internet Systems Management within the frame of the CNS/ATM-1 Package.

Note 2. -

2.1 The material contained in Sub-Volume V is based on the material proposed at SICASP/V to be published as the "Second Edition" of the ATN Manual.