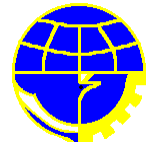




International Civil Aviation Organization and the Directorate General of Air Communication, Indonesia

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



Bali, Indonesia, 26-30 April 2004

Agenda Item 2:

Discussions and Review ATN Router Activities

REVIEW OF THE ASIA/PACIFIC ATN IDRP ROUTING POLICY

(Presented by Japan)

SUMMARY

This working paper presents the result of a review of the Asia/Pacific ATN IDRP Routing Policy prepared by the ATNTTF Working Group.

1. INTRODUCTION

1.1 Japan has conducted a review of the policy statements and recommendations contained in the second Version of the Asia/Pacific Aeronautical Telecommunication Network (ATN) Inter-Domain Routing Protocol (IDRP) policy document, which has been prepared by the working group of the ATN Transition Task Force (ATNTTF), and an issue has been identified. This working paper presents the findings of the review, and recommendations based on the findings.

2. REVIEW

2.1 Findings

A review of the proposed regional IDRP routing policies has identified an issue with a recommendation associated with the Route Preference Policy for Inter-Regional Aggregate Routes. The policy statement and its recommendation are given below.

3.2.2 Route Preference Policies for Inter-Regional Aggregate Routes

- a) Backbone routers with inter-regional connectivity shall accept inter-regional aggregate routes to ground systems for ATSC and AINSC applications from adjacent ATN routers.
- b) **Recommendation.** - Backbone routers with inter-regional connectivity should only accept inter-regional aggregate routes on these connections.

Note 1. - A simple method is to not accept routes with an NSAP prefix longer than the first octet of the ADM field. An alternative is to only accept inter-regional aggregate routes which have been pre-configured (using a so-called access control list).

Note 2. – This policy statement is a recommendation since in the future other routes such as routes to an airline’s “administrative” routing domain may need to be supported.

The policy itself (3.2.2 a) is considered desirable in order to reduce the amount of IDRP routing information exchanged across regional boundaries and propagated within regions. As a policy, it imposes no special requirements: any Class 4 router that complies with the mandatory requirements of ICAO Doc 9705-AN/956 (the ATN Standards and Recommended Practices: SARPs) is capable of fulfilling this policy.

However, regarding the recommendation associated with the policy statement, i.e. that certain routers should *only* accept inter-regional aggregate routes on these connections, there is no such recommendation in ICAO Doc 9705; that is, it goes beyond ATN recommended practices. Although *Note 1* to the policy statement above indicates methods that may be used to achieve compliance with the recommendation, because it is beyond ATN SARPs requirements, it will not in general be implemented by a generic SARPs-compliant Class 4 router.

Further, there is no justification for this recommendation at present — there are no existing operational circumstances that necessitate it, nor is there any certainty that conditions that would require it will materialise for some years. Recommendation (b) is thus considered somewhat premature.

Japan therefore proposes that recommendation (b) be removed from the IDRP routing policy.

2.2 Comment on the General Approach of Asia/Pacific Regional ATN Standards

In principle, to the greatest extent possible regional standards and recommendations that affect equipment specifications should avoid being unnecessarily restrictive; that is, they should avoid recommendations and requirements that go beyond the mandatory requirements of ATN SARPs and the associated OSI protocol standards, as this would limit the number of commercial off-the-shelf (COTS) products from which States and Organisations may choose, and would impose costs on States and Organisations that have already acquired equipment and need to upgrade or re-equip to ensure compliance.

Where a requirement or recommendation is proposed that goes beyond mandatory SARP requirements, there must be a clear justification for it based on operational need. Such requirements and recommendations should be explicitly identified as such to ICAO member States in a timely manner, and an analysis made of the cost of their adoption relative to benefits. To assist in planning, “sunrise” and “sunset” dates should be identified where possible.

Finally, deployment of the regional ATN backbone network has only just begun, and the mature state — the applications it will support and the users that will use it — is unlikely to become clear for several years. The ATNTTF is recommended to monitor the usage of the regional ATN backbone and emerging requirements, and to conduct reviews of regional policies as necessary based on revised and new operational requirements that may emerge.

3. ACTION BY THE MEETING

3.1 The meeting is invited to review this working paper and to take the following actions.

- 1) Consider the proposal to remove Recommendation b) to policy statement 3.2.2 from the present version of the IDRP Routing Policy document, and reach a conclusion.
- 2) To discuss the comments in section 2.2.
