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Agenda 3: Discussions and Review AMHS Activities; AMHS Routing Impact Study

ROUTING IMPACT STUDY OF PROPOSED AMHS ROUTING AND ATN LINK

Presented by: Japan

Summary

The paper 'AMHS Routing Issues' presented at the Fifth Meeting of ATN Transition Task Force (ATNTTF/5) was responded by the working paper 'Proposed new ATN Link between the ASIA and NAM Regions' which was presented by Hong Kong, China at the Ninth Meeting of the Asia Pacific ATNTTF Ad Hoc Working Group in November 2003. Japan reported the results of the requested review of the proposal at the Tenth Meeting of the Asia Pacific ATNTTF Ad Hoc Working Group in February 2004. Since the study of the proposal has identified many crucial issues on AMHS Routing as well as the ATN Links, Japan presents the paper at the ATNTTF meeting for discussions.

1. Introduction

During the 9th meeting of the ATN Transition Task Force ad hoc working group (ATNTTF WG/9), the working paper 'Proposed new ATN Link between the ASIA and NAM Regions' was presented by Hong Kong, China. The meeting requested Japan and the United States to conduct studies on the impact of the Hong Kong China proposal and to submit their findings to Hong Kong. This paper reports the outcome of the study by Japan.

2. Background

2.1 Working Paper WP/20 "AMHS ROUTING ISSUES", Fifth Meeting of ATN Transition Task Force (ATNTTF/5).

1) At the ATNTTF/5 (Phuket) meeting, Japan presented WP/20 on "AMHS routing issues". This proposed two means for implementing alternate routing to deliver AMHS messages in the case of ATN link failure between Hong Kong, Japan and the USA.

- i) Case-1: Alternate routing using the AFTN
- ii) Case-2: Alternate routing using the Japan AMHS and AFTN systems (by changing PRMD)

WP/20 detailed the case-2 analysis, which was recommended by Japan.

2) The response to the recommendation by the members of the meeting was not favorable. In particular, it was felt that effecting alternate routing by changing PRMD was not operationally feasible.

2.2 Working paper WP/10 "AMHS Transition Issues", Ninth meeting of the ATN Transition Task Force ad

hoc working group (ATNTTF WG/9).

- 1) Japan prepared this WP in response to comments received at the ATNTTF/5 meeting, especially to analyze case-1 “Alternate routing using AFTN”. (This means that Japan withdrew its recommendation of Case-2 “re-routing by changing PRMD”).
- 2) This WP proposed a means of effecting smooth transition to AMHS during the early stage of ATN transition where some AFTN links are replaced by ATN/AMHS. During the transition, AFTN and AMHS operate together and the priority must be to ensure a smooth transition during which operation of the AFS is stable. The WP proposed AMHS routing based on the current AFTN routing, which would thus have no impact on the current AFTN routing.

The WP proposed two methods, neither of which impacts the current AFTN routing. The first of these is considered preferable.

- Method 1: “Routing by relaying through adjacent AMHS sites based on the current AFTN routing directory”.
- Method 2: “Direct MTA-to-MTA routing between states that have introduced AMHS based on the current AFTN routing directory”.

2.3 Working paper ‘Proposed new ATN Link between the ASIA and NAM Regions’, presented by Hong Kong, China, at ATNTTF WG/9.

This WP proposed the following:

- 1) A new router-to-router ATN link between the USA and Hong Kong, China.
- 2) New AMHS direct MTA-to-MTA messaging between the USA and Hong Kong, China, along with some changes in the AFTN and AMHS routing.
- 3) It is stated that there are “virtually no changes” to the AFTN routing.

based on the following reasons responding to the recommendation by Japan at the ATNTTF/5 meeting:

- a) the operational difficulty of changing PRMD for re-routing AMHS messages in the case of ATN link failure, and
- b) the necessity of providing an alternative direct link between Hong Kong and the United States in case of link failure between Japan and the United States.

3. Summary of Japan review of the WP by Hong Kong, China

Japan conducted a review of the WP by Hong Kong, China as requested at the ATNTTF WG/9 meeting. The summary of the review is as follows:

- 1) Japan has withdrawn the proposal to “change PRMD for re-route” and has instead proposed alternate routing via AFTN in WP/10 submitted to the ATNTTF WG/9 Bangkok meeting. For this and the following reasons, it is considered that it is not necessary to install a new ATN link as an alternate route.
Reason 1: Currently we do not experience difficulty when adopting AFTN alternate routing in the case of link failure between the USA and Japan. Equally, there will be no problem using AFTN alternate routing in the case of link failure after AMHS becomes operational.
Reason 2: Hong Kong’s working paper says that when moving from an AFTN circuit to an ATN circuit, not an AFTN but an ATN alternate circuit is necessary. Following this thinking, this means that a state will not be able to transition from AFTN to ATN/AMHS until an ATN alternate circuit is in place. This will impede the progress of transition to ATN in the region.
- 2) The proposal of the new ATN link should be discussed in the context of the APAC Regional ATN Network Architecture.
- 3) There are changes in the AFTN routing in the proposal by Hong Kong, China (see the appendix for details). Therefore, the change proposal to the AFTN and AMHS routing by Hong Kong, China is not acceptable considering the need for transition without affecting AFTN operation.

- 4) The new ATN link proposal was thought to be unnecessarily intertwined with the AMHS routing change proposal in the HKG WP, and the proposal of new ATN links gives rise to many unresolved issues. For the details, see the appendix.

4. Recommendation

For the AMHS routing transition, Japan recommends the following methods described in the WP presented at the ATNTTF WG/9 meeting

- 1) to adopt the method 1 or
- 2) to adopt method 2, if appropriate coordination is carried out.

Attached Appendix: Detailed review and comments on the Hong Kong, China WP proposal

Appendix: Detailed review and comments on the Hong Kong, China WP proposal

List of Issues identified

1. Issue #1 AFTN routing and AMHS routing issues

Issue #1-1 AFTN routing and the AMHS routing change proposal

Issue #1-2 MTA-to- MTA messaging plan

Issue #1-2-1 Use of method to describe the ‘logical connections of AMHS messaging’

Issue #1-2-2 any MTA to any MTA messaging

Issue #1-2-3 Need of new direct MTA-to-MTA messaging

Issue #1-2-4 AFTN alternate procedure

2. Issues #2 Router-Router connection issues

Issues #2-1 More than two links between regions

Issue # 2-2 Incompatibility with the Regional ATN Network Architecture

Issue # 2-3 IDRP Routing Policy

Issue #2-4 Requirement of two Router-to-Router links to commence the AMHS messaging

Issue #2-5 Tentative nature of unplanned Router-to-Router links

A. Scope of the appendix

The main objective of this appendix is to study the impact of Hong Kong, China’s proposal, in particular the routing change proposal. The outcomes of impact analysis are provided in the section 1.1 below.

During the impact study, various unresolved issues were identified. These issues are applicable to any state migrating to AMHS, not just specific to Hong Kong, China. It was considered that it would be helpful to document these issues.

In order to avoid complicating the issues identified, the comments are organized in two sections:

- AFTN routing and the AMHS routing issues are discussed in section 1
- Router-Router connection issues are discussed in section 2.

B. Impact analysis

1.1 Issue #1-1 AFTN routing and the AMHS routing change proposal

1.1.1 Proposal in the WP (section 3.2 and the diagram):

- A proposal is made to exchange AMHS messages directly between HKG.MTA and USA.MTA.
- Also proposed are the AFTN routings after the Hong Kong–USA link is established.

Note: The circles in the diagram contained in the WP at the USA (KSLC), Hong Kong China (VHHH) and Japan (RJAA) are AFTN/AMHS gateways. Messages indicated between these are MTA-MTA messages; that is, they are the messages sent by the ‘logical connection’ between MTAs, which does not necessarily require a direct physical connection. On the other hand, the messages of the other connections in the diagram are AFTN station-to-AFTN station messages which are sent along the physical connections indicated.

The WP states that stations west and east of Hong Kong do not have to change their message routings, saying ‘the introduction of the HKG-USA link will cause virtually no change to the routing of their message’, although also saying, ‘there is thus MINIMAL change to the existing AFTN routing arrangement’.

1.1.2 Review comments:

The results of our detailed studies are given in the following tables. The extent of changes to the routing was investigated.

The following three tables indicate the differences between the proposal presented in the WP and the current AFTN routing or Japan proposal. The first table shows routing between stations excepting Japan, the USA and Hong Kong, China, and the following two tables show routing between these three stations)

1.1.2.1 Routing changes in States other than the USA and Hong Kong, China and Japan

Table 1 Hong Kong proposal and current AFTN routing:

Differences of AFTN routing between Stations in States except between the USA, Hong Kong China and Japan

From	To	Hong Kong Proposal	24 th Routing Directory (Note 1)	same or different
ZBBB	RJAA	A,B,C,E,K,L,M,N,P, R (except RP,RK),S,T,W,Y	A,B,C,E,K,L,M,N,P, R (except RP,RK),S,T,W,Y	same
RJAA	ZBBB	VN,Z	VN,Z	same
ZBBB	ZGGG	RP,ZG,VC,VD,VG,VH, VL,VM,VR,VT,VV,VY	RP,ZG,VC,VD,VG,VH, VL,VM,VR,VT,VV,VY, <u>ZI</u>	
ZGGG	ZBBB	B,C,D,G,H,K,M,O,P R(except RP) S,T,U,VN Z(except ZG)	B,C,D,G,H,K,M,O,P, R(except RP),S,T,U,VN, Z(except ZG, <u>ZI</u>)	
RJAA	RKSS	RK	RK	same
RKSS	RJAA	All Stns (except RK,Z)	All Stns (except RK,Z)	same
RJAA	ROAH		<u>RC,RO</u>	
ROAH	RJAA	A,B,C,E,K,L,M,N,OA,PRJ,RK, S,T,U,Y,Z	A,B,C,E,K,L,M,N,OA,PRJ,RK, S,T,U,Y,Z	same
RJAA	WSSS	A,D,E,F,G,H,L,O,RP,VA,VC,VE, VI,VO,VQ,VR,W,Y	A,D,E,F,G,H,L,O,RP,VA,VC,VE, VI,VO,VQ,VR,W,Y	same
WSSS	RJAA	B,C,K,M,P,R(except RP), S,T,U,VH,Z	B,C,K,M,P,R(except RP), S,T,U,VH,Z(<u>except ZG,ZI</u>)	
VHHH	RPLL	RP	RP	same
RPLL	VHHH	B,C,E,K,L,M,PRJ,RK,S, T,U,VD,VG,VH,VL,VM, VN,VT,VY,Z	B,C,E,K,L,M,PRJ,RK,S, T,U,VD, <u>VE</u> ,VG,VH,VL,VM, VN,VT, <u>VV</u> ,VY,Z	
VHHH	VVTS	VV	VV	same
VVTS	VHHH	B,C,E,K,L,M,P, R(<u>except RP</u>),S,T,U,VH, <u>VM,Z</u>	B,C,E,K,L,M,P, R,S,T,U,VH,	
VHHH	VTBB	A,D,E,F,G,H,L,N,O,	A,D,E,F,G,H,L,N,O,	same

		V(except VH,VM,VN,VV),W,Y	V(except VH,VM,VN,VV),W,Y	
VTBB	VHHH	B,C,K,M,P,R,S,T,U,VH,VM,Z	B,C,K,M,P,R,S,T,U,VH,VM,Z	same
VHHH	VMMC	VM	VM	same
VMMC	VHHH	All Stns (except Z,VM, VN, <u>VQ</u>)	All Stns (except VM, VN, <u>VV</u> (except <u>VVT</u>),Z)	

Note 1: also Japan Proposal methods 1 and 2

Note: Differences between the Hong Kong proposal and the 24th Routing Directory/Japan proposal are shown underlined.

Conclusion: There are changes to the existing AFTN routing that are considered beyond “minimal”.

1.1.2.2 Changes to message routing for the USA, Japan and Hong Kong, China.

**Table 2-1: Differences of AMHS routing between Hong Kong proposal
and the Japan Proposal method 1 among the USA, Hong Kong China and Japan**

From	To	Hong Kong Proposal	24 th Routing Directory (Note 2)	same or different
KSLC	RJAA	OP,R(<u>except RC,RP</u>),U,VA,VC,VE, VI,VO,VQ,VR, W(except WI),Z, <u>(except ZG)</u>	OP,R,U,VA,VC, <u>VD</u> ,VE, <u>VG,VH</u> , VI, <u>VL,VM,VN</u> ,VO,VQ,VR, <u>VT,VV,VY</u> W(except WI),Z	
RJAA	KSLC	B,C,K,M,N,P,S,T	B,C,K,M,N,P,S,T	same
KSLC	VHHH	<u>RC,RP,VD,VG,VH,VL,VM,VT,VV</u> , <u>VY,ZG</u>	(none)	
VHHH	KSLC	<u>B,C,K,M,P,S,T</u>	(none)	
RJAA	VHHH	VD,VG,VH,VL,VM,VT,VV,VY	VD,VG,VH,VL,VM,VT,VV,VY	same
VHHH	RJAA	RJ,RK,U	<u>B,C,K,M,PRJ,RK</u> , <u>S,T</u> U	

Note 2: also Japan Proposal method 1

Note: Differences between the Hong Kong proposal and the 24th Routing Directory/Japan proposal are shown underlined.

V = {VA,VC,VD,VE,VG,VH,VI,VL,VM,VN,VO,VQ,VR,VT,VV,VY}

Table 2-2: Differences of AMHS routing between Hong Kong proposal

and the Japan Proposal method 2 among the USA, Hong Kong China and Japan

From	To	Hong Kong Proposal	Japan proposal method 2	same or different
KSLC	RJAA	OP,R(<u>except RC,RP</u>),U,VA,VC,VE, VI,VO,VQ,VR, W(except WI),Z, <u>(except ZG)</u>	OP,R,U,VA,VC,VE, VI, <u>VN</u> ,VO,VQ,VR, W(except WI),Z	
RJAA	KSLC	B,C,K,M,N,P,S,T	B,C,K,M,N,P,S,T	same
KSLC	VHHH	<u>RC,RP</u> ,VD,VG,VH,VL,VM,VT,VV, VY, <u>ZG</u>	VD,VG,VH,VL,VM,VT,VV,VY	
VHHH	KSLC	B,C,K,M,P,S,T	B,C,K,M,P,S,T	same
RJAA	VHHH	VD,VG,VH,VL,VM,VT,VV,VY	VD,VG,VH,VL,VM,VT,VV,VY	same
VHHH	RJAA	RJ,RK,U	RJ,RK,U	same

Note: Differences between the Hong Kong proposal and the 24th Routing Directory/Japan proposal are shown underlined.

1.2 Issue #1-2 MTA-to- MTA messaging plan

The study by Japan identified the following issues (apart from the change proposal) related to MTA-to-MTA messaging.

Issue #1-2-1 Use of method to describe the ‘logical connections of AMHS messaging’

Issue #1-2-2 any MTA to any MTA messaging

Issue #1-2-3 Need of new direct MTA-to-MTA messaging

Issue #1-2-4 AFTN alternate procedure

1.2.1 Proposal in the WP (mainly given in the diagram)

The diagram in the WP indicates that

- there is a link between KSLC and VHHH
- there is an indication of messages between the two
- the messages indicated over the link are the AMHS messages

1.2.2 Review Comments:

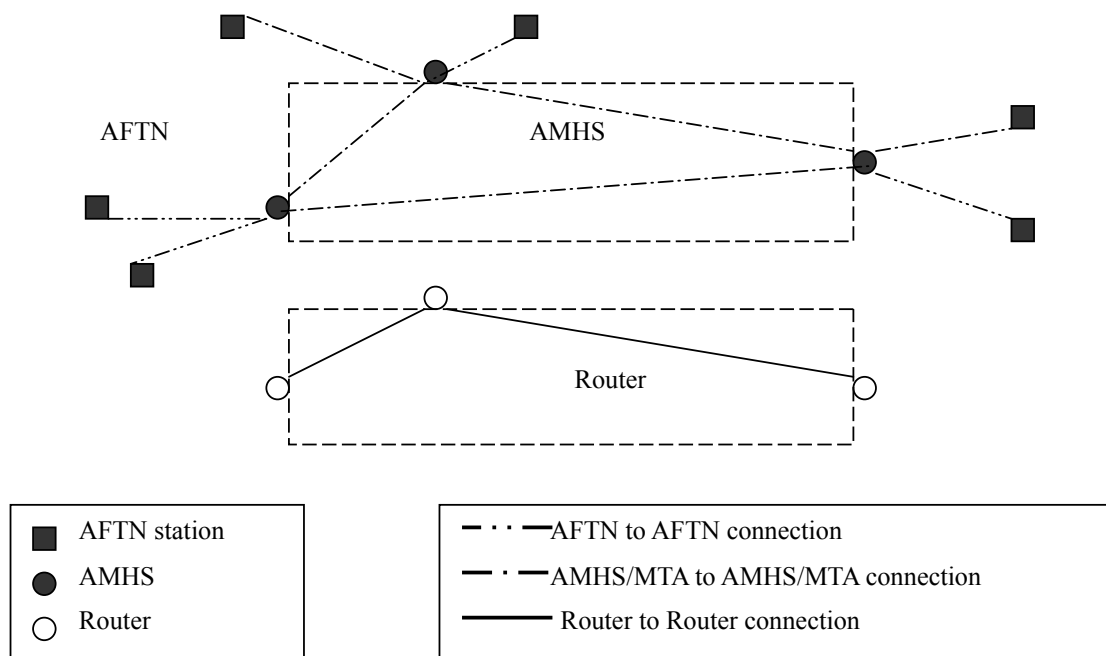
The proposal is a mixture of the MTA-to-MTA routing and router-to-router routing, implicitly stating the two are one-to-one correspondences; i.e. that the MTA application-level connection topology corresponds to router-to-router network-level connection topology.

Even if direct MTA-to-MTA routing of messages between KSLC.MTA and VHHH.MTA is necessary, it does not imply the need for a direct network (ATN) link between them. It could be argued that messages can be transmitted efficiently if a direct ATN link is provided between MTAs that communicate directly and the minimal hops IDRP routing policy is implemented. However, this is a separate issue of efficiency.

In this section, we focus on issues related to the MTA-to-MTA messaging plan only.

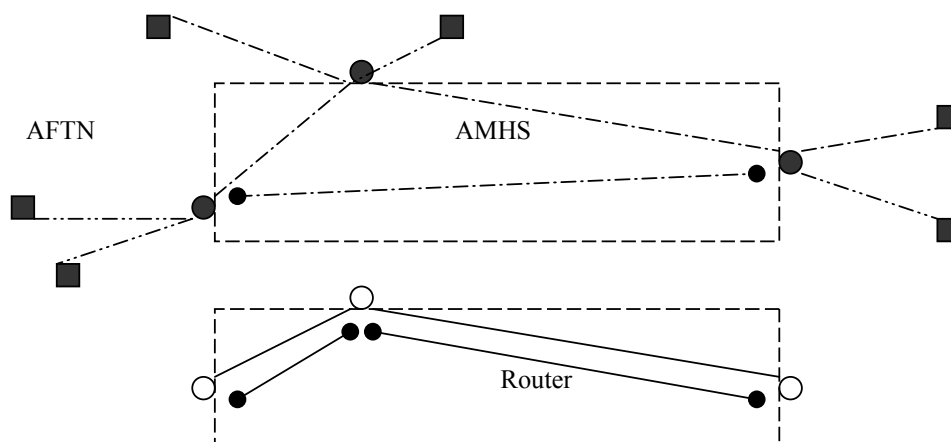
1.2.2.1 Comments on Issue #1-2-1: *Use of method to describe the 'logical connections of AMHS messaging'*

The AMHS messages indicated over the link (in the diagram the link is intended as a physical one) in the diagram in the WP are not necessarily routed over the KSLC-VHHH link. If the HGK-USA direct link is not proposed and the line between two locations in the AFTN routing diagram is used to describe the direct MTA-to-MTA routing of messages, we are mistaking the 'logical' way to describe the direct (logical) MTA-to-MTA routing messages between KSLC.MTA and VHHH.MTA with the physical connection diagram. See the following figure.



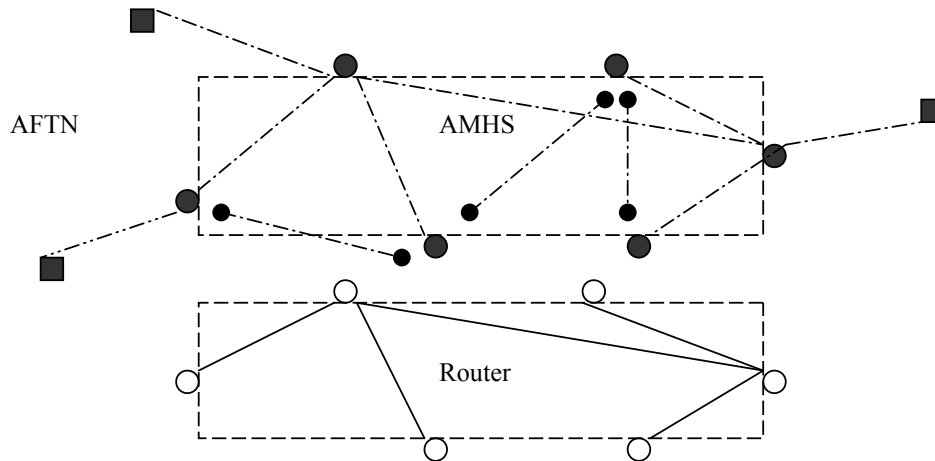
If the HGK-USA direct link is not proposed, and if the direct HGK.MTA and USA.MTA messaging is provided (see the MTA connection line terminated by two circles in the figure), for example, the messages may be routed according to the following figure (see the Router connection lines terminated by two circles).

In fact, the router routing can be dynamic.



In the early stage of the transition the number of the MTAs is not great, and also the number of connections between MTAs (MTA-level connections) and between Routers (network level connections) are not great. At the later stage, there will be a significant number of connections at both levels, but while there will be several

direct MTA connections between pairs of sites that are also connected by direct router-to-router connections, there will also be the direct MTA connections between pairs of sites that do not have a direct router-to-router connection between them. Some of the direct MTA connections in the following figure therefore do not correspond to the direct router connections.



Using the AFTN routing (or even the router-router connection diagram) for the direct MTA-to-MTA messaging is therefore misleading. Maybe, this is because of the AFTN way of thinking, ‘the AMHS routing messages between KSLC.MTA and VHHH.MTA’ may be interpreted as ‘the message routing over the direct link between KSLC.Router and VHHH.Router’. The MTA-MTA messages can be routed through any possible network path and of course over the direct link between them, if any. We can have more flexibility of message routing in the ATN environment.

In order to take advantage of the ATN, we should not be tied down to the direct AMHS messaging over direct network links, and should not depend on the AFTN diagram for planning the MTA-MTA messaging.

Recommendation :Some other description schemes, for instance the CNS tables, should be adopted for the planning of MTA-MTA messaging.

1.2.2.2 Comments on Issue #1-2-2 any MTA to any MTA messaging

Related to issue #1-2-1 above, the proposal of the WP may be interpreted as implicitly suggesting any MTA to any MTA messaging. The proposal indicates that any MTA to any MTA is the way to go, arguing some efficiency gains.

Earlier discussion on MTA routing policy at the ad hoc working group showed that in the extreme case, we may have any MTA to any MTA (direct) messaging between all stations, but it was concluded that some relaying MTAs would be needed in the region.

Since MTA routing policy has not been developed at this moment, it is hard to say whether any MTA to any MTA would be the recommendation or not.

As States introduce the AMHS one by one in the region, it is not clear whether States will adopt an any MTA to any MTA messaging policy or not, since any MTA to any MTA message routing could be excessive (not mentioning here the any Router-to-any Router routing).

Recommendation: The MTA routing policy needs to be established ASAP.

1.2.2.3 Comment on Issue #1-2-3 Need of new direct MTA-to-MTA messaging

The need for the new direct MTA-to-MTA messaging between Hong Kong and the USA seems not to be reasonably stated.

The need is not based on something needed for the messaging, but the proposal is made in conjunction with

the need for the direct link, which has no relationship to the need at the MTA-to-MTA messaging level. Something like ‘since XX, we need the new direct MTA-to-MTA messaging’ is expected.

Besides, the WP states the cause and results in reverse.

Statement A: The need of the (direct) AMHS routing messaging between KSLC.MTA and VHHH.MTA

Statement B: The need of the direct link between KSLC.Router and VHHH.Router

Reasoning #1

If the cause = Statement A and the efficient AMHS routing messaging between two is necessary, then the result = (may be) Statement B.

Reasoning #2

If the cause = Statement B, because of the alternate path required between KSLC.Router and VHHH.Router, then the result = Statement A.

Reasoning #2 is what the proposal follows.

1.2.3.4 Comment on Issue #1-2-4 *AFTN alternate procedure (WP section 2.1,2.2)*

WP/20 presented by Japan at the ATNTTF/5 Phuket Meeting proposed alternative message routing in case of link failure.

If there is a failure of the ATN link(s) conveying the AMHS message, then the AFTN could be notified of the failure and then re-route the messages, just as AFTN alternate routing is effected in the case of AFTN link failure at present.

In the near future, when there will be alternative ATN paths between MTA locations, there will be no need to revert to AFTN.

In order to have alternative paths within the ATN environment at the earlier stage, new links are proposed where there are many drawbacks as commented in the paper.

Recommendation: AFTN alternative routing should be carried out in the interim to deliver messages where other ATN paths are not available.

2. Issues #2 Router-Router connection issues

The following issues were identified during the review. These issues are related to Router-Router connections.

Issues #2-1 More than two links between regions

Issue # 2-2 Incompatibility with the Regional Network Architecture

Issue # 2-3 IDRP Routing Policy

Issue #2-4 Requirement of two Router-to-Router network paths to commence AMHS messaging

Issue #2-5 Tentative nature of unplanned Router-to-Router links

2.1 Issues #2-1 More than two links between regions

2.1.1 Proposal in the WP (section 1.1 and 1.2):

The proposal in the WP stated in the Introduction is as follows:

- *There will be only 2 ATN Links between ASIA and NAM regions (which affect ATN routing performance in case of a major inter-regional ATN link failure)*
- *As compared with 3 between ASIA and EUR/MID regions.*

Hence an additional (the third) direct ATN link between USA and HKG is considered necessary.

2.1.2 Review comments:

In order to provide an alternate network path (assuming the alternate path has sufficient capacity) in case of a major (inter-regional or otherwise) link failure, it is necessary and sufficient to provide two (ATN or anything else) links between any two sites or any two regions. A third one is redundant.

2.1.2.1 Comment #1 on Issues #2-1: The alternate links

The proposal, that a third link is necessary, goes beyond the requirement for simple link redundancy between two regions. By definition, providing an 'alternate' path requires only two links. (Or does the ATN require the third alternative always?)

The reason why there are three links between ASIA and EUR/MID is something apart from link failure considerations.

Recommendation: This has to be discussed in conjunction with the Regional ATN Architecture, not as a part of AMHS routing

2.1.2.2 Comment #2 on Issues #2-1: Amendments to the network architecture

Since one local view may contradict others, it is necessary to have a single, consistent view of the regional network architecture and routing. This is the reason why we have the architecture.

If there is a good reason for providing more than two links between regions, we should go back and amend the ASIA/PAC 'network architecture', since all states agreed on the architecture on which any services will be provided in the region. We should avoid a quick and dirty fix on the fly.

The same issue will exist for additional links proposed within the region. It will be commented in the following.

2.1.2.3 Comment #3 on Issues #2-1: Planned or unplanned?

As indicated, the third link proposed between ASIA and NAM regions could actually be the second link to be implemented, since the other planned ASIA-NAM link is not installed yet.

This causes another problem — the other planned ATN link between ASIA and NAM regions might not be installed since the proposed ‘unplanned’ links will be already in existence and so the ‘planned’ link will be redundant.

If the implementation of the ‘planned’ link should slip, then there is a good reason to implement an alternative ‘unplanned’ plan, but should that be done in a discretionary way? It might be the case, but are we going to promote such cases in the region? If this is the case, why discuss the implementation plan to begin with, or do we call it an incentive?

2.2 Comment on Issue # 2-2

Incompatibility with the Regional ATN Architecture

As already stated, the proposal is incompatible with the current regional ATN network architecture.

Because of the nature of the proposal, it cannot be simply concluded whether or not the proposal is appropriate.

Recommendation: The proposed link has to be discussed as an issue of the Regional ATN Architecture, not as a part of AMHS routing.

2.3 Comment on Issues # 2-3

IDRP Routing Policy

Given the End System (in this case, MTA) locations, and the network Architecture (we have the diagram), the Asia/Pac IDRP Routing Policy adopts the minimum hops policy in the region.

The network architecture is one of the baselines on which we discuss the Routing Policy. We cannot ignore the network architecture while applying the Routing Policy.

The proposal of the WP seems to argue the assumption to the conclusion in reverse; that is, in order to provide the minimum hops based on the Routing Policy between the ESSs, a new direct link in the network Architecture is required.

Recommendation: This has to be considered after the Regional ATN Architecture is discussed.

2.4 Comment on Issue #2-4

Requirement of (at least) two Router-to-Router links to commence AMHS messaging

As described above, the exchange of the direct MTA-to-MTA messages between two locations does not require a direct Router-to-Router link between the locations where each MTA is installed.

In order for a State to commence direct MTA-to-MTA messaging to some other location(s) in the region, it will be well understood that at least one (own) Router-to-(other location) Router link is necessary.

What the proposal is suggesting is that we need at least two (own) Router-to-(other locations) Router links to commence MTA-to-MTA messaging.

This may discourage the commencement of AMHS messaging.

Recommendation: AFTN alternative routing is recommended in case of the ATN link failure where there is no alternative ATN network path available.

2.5 Tentative nature of unplanned Router-to-Router links

While the proposal is tentative in nature, it is not clear when the proposed link will be terminated, if ever, and under what conditions.

Recommendation: It has to be clearly stated together with the Comment #3 on Issues #2-1 shown above, that the link introduced is actually tentative, and will be withdrawn when the planned link ASIA-NAM link is available. This discussion has to be again as a matter of the Regional ATN Architecture.