

Certification & Validation

ASIA/PAC the Guidance Document for AMHS Conformance Testing

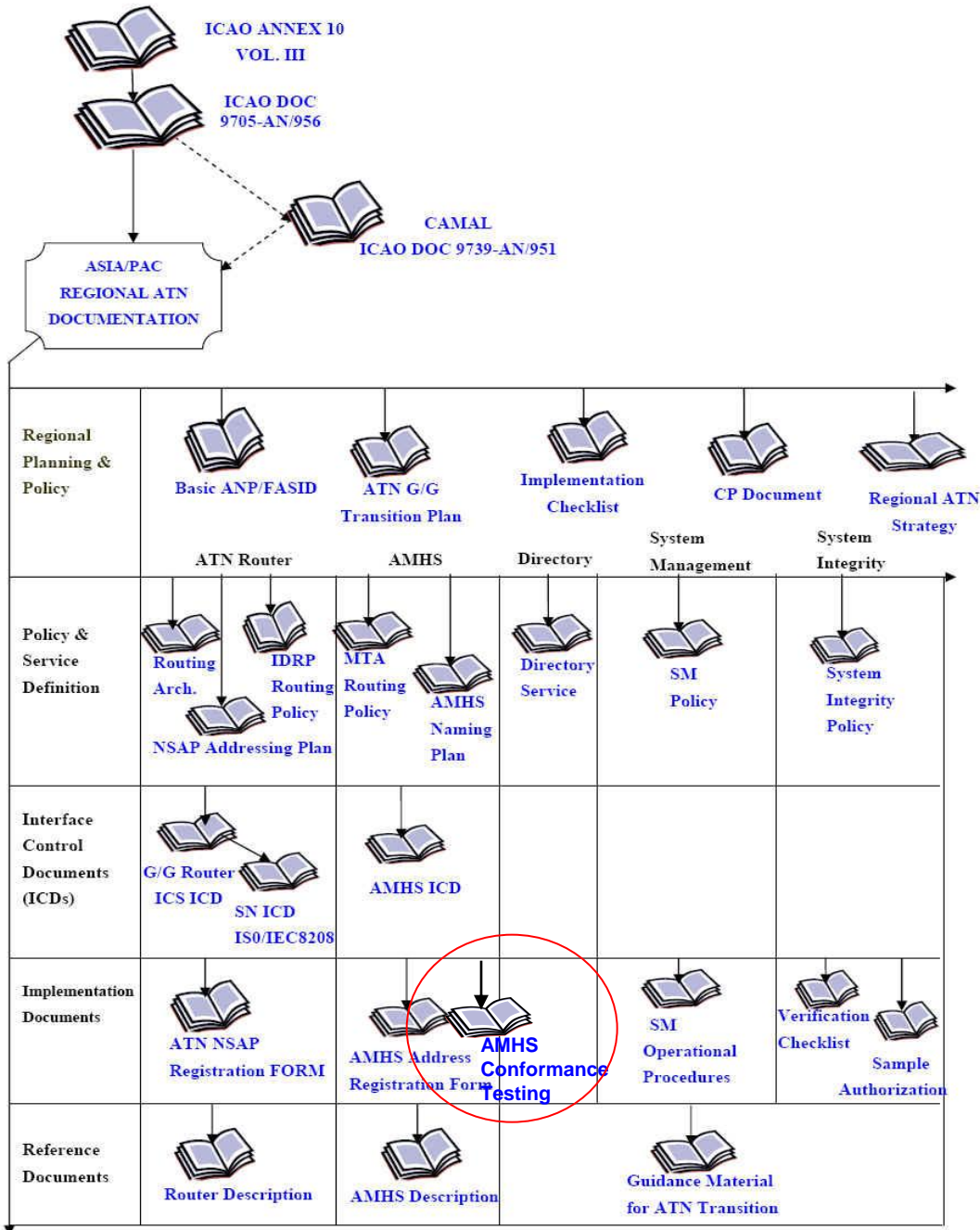
Civil Aviation Authority of Singapore

AMHS Implementation Planning Workshop
Bangkok, Thailand
27 to 28 January 2010

ATNICG Subject Task List

No	Performance Objective	ICAO Strategic Objective	Associated GPI	Tasks / Strategy	Benefits	Deliverables	Target Date	ATNICG/4 Update
3	ATN Certification & Validation Process	D. Efficiency	GPI-17, GPI-19, GPI-22	(1) Develop Conformance procedures & checklist for AMHS & ATN routers	Expedite implementation activities, ensure global system compatibility	(1) Checklist	(1) 2007	Completed
				(2) Develop validation process document		(2) Conformance Document	(2) 2007	Completed & forward to CNS/MET SG and APANPIRG/20 for review and adoption
				(3) Update to Conformance Document		(3) Ongoing till 2010		Document need to be kept up-to-date to reflect defect report from States

Supporting Members: China, Hong Kong China, Indonesia, Republic of Korea and USA



- Adapted from the EUR AMHS Manual
- Incorporated into the Asia-Pacific ATN Documentation Tree

The Guidance Manual for AMHS Conformance Testing

- 1st edition of ASIA/PAC AMHS Conformance Test Guidance Document – adopted by APANPIRG/18
- Consists of
 - Main Document
 - Annex A – QoS
 - Annex B – Conformance Test
 - Annex C – ATN Router
 - Annex D – AMHS Testing Requirements
- Two additional annexes – adopted by APANPIRG/19
 - Annex E – Inter-operability Tests
 - Annex F – Pre-operational Tests
- Version 3.0 – adopted by APANPIRG/20
 - Document can be downloaded on ICAO APAC website:
<http://www.bangkok.icao.int/edocs/cnsatn/cnsatn.html>

Conformance Main Document

- ATSMHS Overview
 - Functional Components
 - End systems
 - Levels of service
- AMHS Addressing
- AMHS router topology
- AMHS Protocol Scenarios
- System implementation -Guidelines for system requirements

Annex A – Quality of Service (QOS)

- Used as a reference document with information on prevailing performance.
- To help in the application of performance requirements to the individual AMHS system.
- Describes some idea of a performance benchmark with numerical data.

Annex B – Conformance Test

- **Objective**

- To test the operational and technical functionality of the AMHS system including the gateway

- **Scope of coverage**

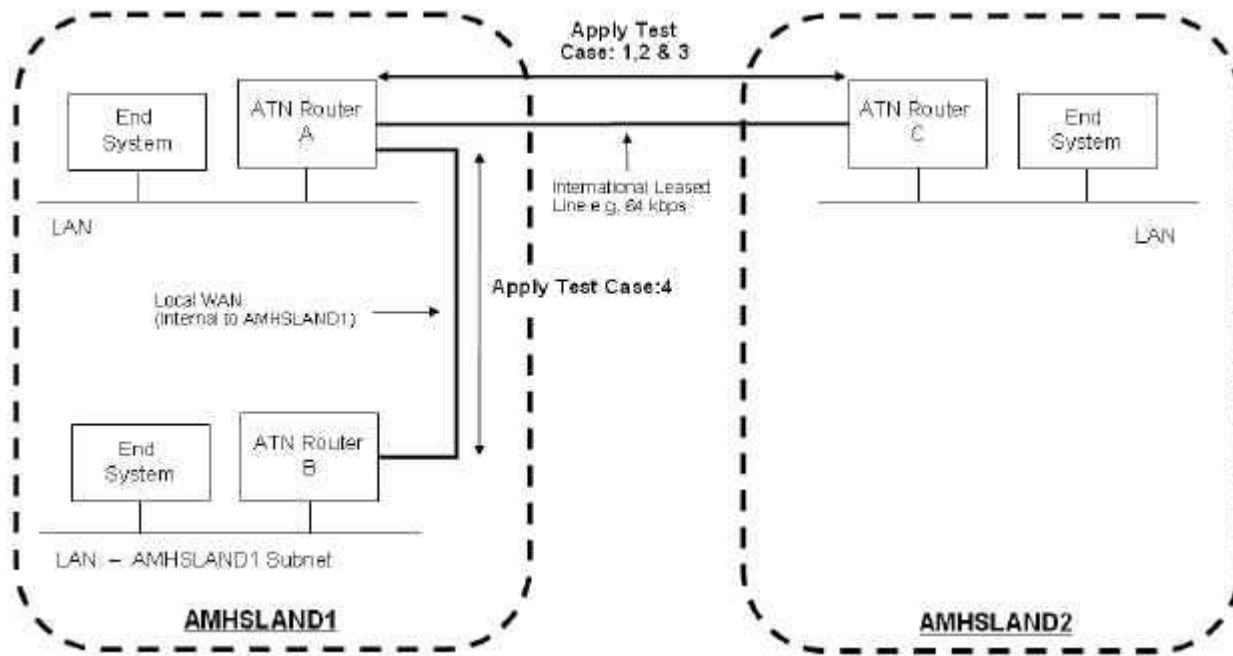
- Submission operations
- Delivery operations
- Transfer operations
- Gateway operations converting message from AMHS to AFTN
- Gateway operations converting message from AFTN to AMHS



Annex C – ATN Router

- **Objective**

- To test ATN Router operational and functional capacity
 1. Within the State/ANSP AMHS domain; &
 2. Between 2 State/ANSP to State/ANSP AMHS domains

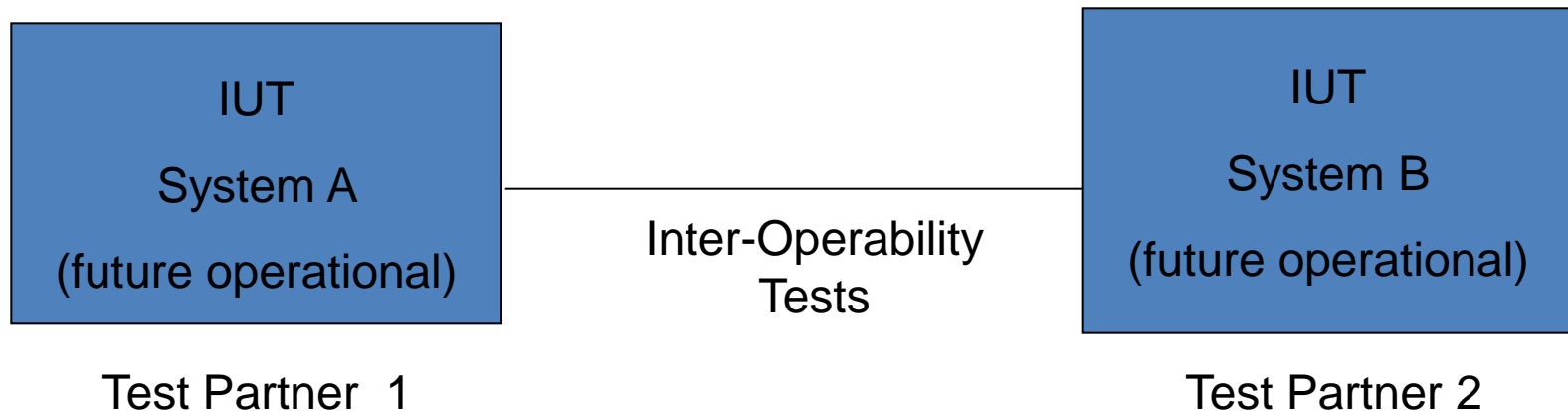


Annex D - AMHS Testing Requirements

- **Objective**
 - To define the functional requirement for AMHS testing procedures
- Provides general information on the AMHS testing concept
- Provides an overview of the testing environment for conformance and inter-operability testing
- Actual Details of testing procedure are defined in Annex B, E & F

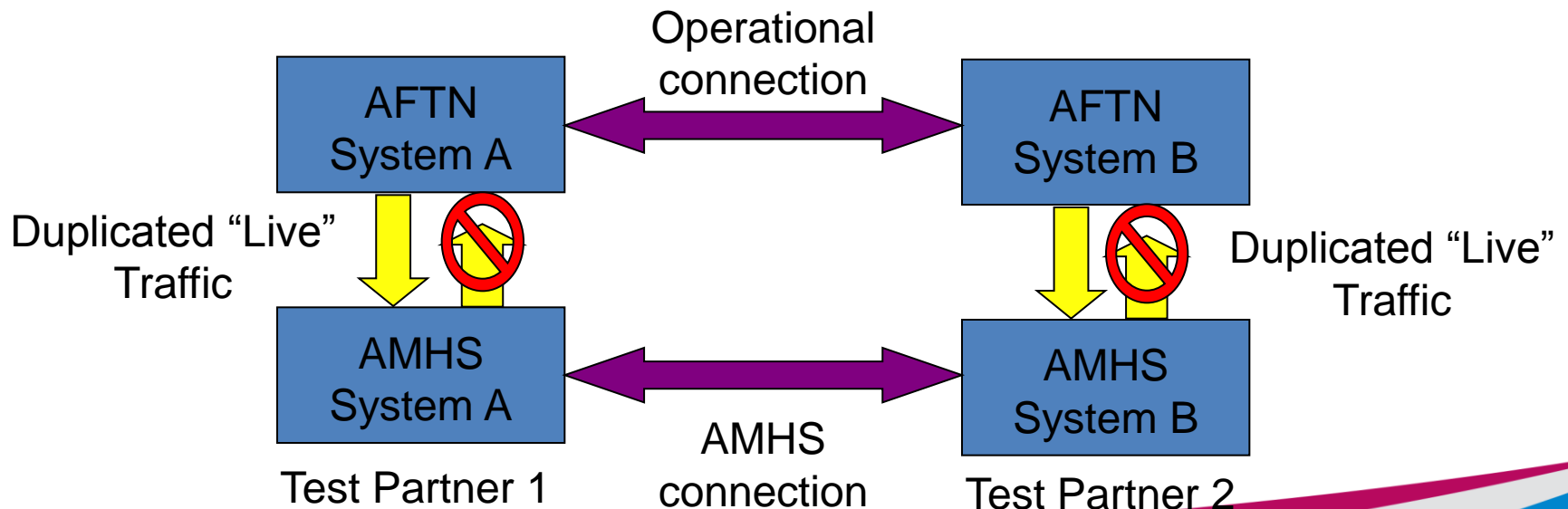
Annex E – Inter-Operability Tests

- **Objective**
 - Ensure end-to-end inter-operability between AMHS systems under test
 - Progress the IUT towards a future operational system
- Define functional tests cases for AMHS Inter-operability
- Carried out on bilateral basis
- Optional test case on tri-lateral basis included



Annex F – Pre-operational Tests

- Tests conducted before AMHS cut-over.
- Parallel duplicated “live” traffic will be used
- Test Objectives
 - inter-operability between AMHS systems in an operational environment
 - integrity of messages exchanged
 - disruptions from normal operations such as message queues



Thank You