

Implementation of Common Aeronautical VPN (CRV)

ARISE+ ATM Master Plan Workshop

11 September 2018

Purpose of a Common Aeronautical VPN (CRV)

- ▶ CRV provides a MPLS IP-based VPN communication network provided by a common network service provider in order to support all Aeronautical Fixed Service (e.g. AMHS, AIDC, ATFM, SWIM, ADS-B, voice) in the APAC region
 - A common platform to facilitate information exchange between different ANSPs in the APAC region
 - To harmonise the network infrastructure and replace legacy network which may no longer support higher bandwidth applications
- ▶ Arising from APANPIRG/24, CRV Task Force was established to identify the actions required to implement CRV and to come up with a harmonised approach for the APAC region

CRV in ASEAN

- ▶ The ASEAN ATM Master Plan approved by 44rd STOM/23rd ATM in October 2017 identified CRV as one of the 5 priorities for harmonised implementation across ASEAN Member States

Initiative	Focus Area
Performance Based Navigation Routes (PBN Routes)	En-route
Air Traffic Flow Management (ATFM)	En-route
ATS Inter-facility Data Communication (AIDC)	Information Management
Aeronautical Information Management (AIM)	Information Management
Common Aeronautical Virtual Private Network ¹¹ (CRV)	Information Management

- ▶ By the end of the first 5 years of adoption of the ATM Master Plan (i.e. 31 December 2022), all ANSPs in the ASEAN Member States should be connected to CRV

Implementation Roadmap - Work Processes Needed

S/No.	Subject	Projected Activities	Projected Schedule
1	Technical requirements and SOW	<ol style="list-style-type: none"> 1. Respective ANSPs develop their associated requirements and Statement of Work (SOW) that specify performance, interface, conversion, operational procedure, acceptance test procedure 2. Present to Vendor for comment and response 3. To seek CRV-OG concurrence on deviation from CRV common package 4. Finalize requirements 	6 to 9 months
2	Negotiation and agreement between two connecting States/ Administrations	<ol style="list-style-type: none"> 1. To decide the type of data or voice to be exchanged via CRC, QoS for each type of applications and the required bandwidth 2. CRV Contractor to comment and response to the agreed requirements 3. Agree to implementation schedule 	6 to 9 months
3	CRV Contractor proposes Contract to ANSP	<ol style="list-style-type: none"> 1. Contractual and Legal review 2. Technical and operational review 3. Finalize contract 4. Establish contract and payment system 	6 to 9 months
4	Site preparation	Site preparation and implementation of the service	1 to 3 months
5	Test and evaluation	<ol style="list-style-type: none"> 1. Perform acceptance test with associated applications 2. Perform acceptance test with respective ANSPs 	3 to 6 months
6	Service acceptance	Service acceptance	1 week

Implementation Progress Reporting

Status of Implementation Template

- ▶ The template for updating and tracking of the status of implementation of the various initiatives and priorities had been provided by the ASEAN Secretariat
- ▶ AMSs are to submit their respective updated status of implementation via email to the ASEAN Secretariat for compilation, by the stipulated first and second tracking dates
- ▶ The status of implementation will be reported by the Chairman of the SPG meeting at the next available SPG meeting, or ATTC/ATWG meetings, whichever is earlier

CRV Connection Plan for Singapore and Thailand

- ▶ Singapore would begin to connect to CRV using AFTN and AMHS in 2019
 - Connection to CRV for AMHS will begin with:
 - i. Australia in June 2019;
 - ii. Thailand in 2Q 2019;
 - iii. Japan in 3Q 2019; and
 - iv. India in 2019
- ▶ Thailand would connect to CRV with Hong Kong, Japan, Philippines and Singapore by 2019

Implementation Progress Report

CRV						Information Management	
Phase I (01-01-2018 to 31-12-2020: 31-12-2018)		Expected Start Date	Expected Completion Date	Phase II (01-01-2018 to 31-12-2022: 31-12-20)		Expected Start Date	Expected Completion Date
None.	BRUNEI	-	-	5.6.2.5. All ANSPs should connect to CRV.	BRUNEI	To be provided	To be provided
	CAMBODIA	-	-		CAMBODIA	TBC	TBC
	INDONESIA	-	-		INDONESIA	mid 2017	31-Dec-18
	LAOS	-	-		LAOS	28-Dec-18	31-Dec-20
	MALAYSIA	-	-		MALAYSIA	31-Dec-19	31-Dec-20
	MYANMAR	-	-		MYANMAR	2019	2020
	PHILIPPINES	-	-		PHILIPPINES	2018	Not Available
	SINGAPORE	-	-		SINGAPORE	Started	Mid 2018
	THAILAND	-	-		THAILAND	Started	1-Dec-19
	VIETNAM	-	-		VIETNAM	31-Dec-18	31-Dec-20

CRV Implementation Team

- ▶ A CRV implementation team to minimise interruptions of services was set up composing of the following:
 - CRV-OG representatives
 - National POCs
 - Local POCs
 - CRV Contractor Team
- ▶ AMSs are urged to participate actively in the CRV implementation team in order to facilitate a seamless and harmonised implementation of CRV in ASEAN