



Agenda Item 4: Assessment of operational requirements to determine the implementation of improvements in communications, navigation and surveillance (CNS) capabilities for operations in route and terminal area

IMPLEMENTATION OF THE INTERCONNECTION OF REGIONAL IP NETWORKS

(Presented by the Secretariat)

SUMMARY	
This working paper presents some initial considerations on the interconnection of regional IP networks (CRV/APAC, PENS/EUR and REDDIG II/SAM).	
References	
<ul style="list-style-type: none">• Contract REDDIG 22501200;• Technical specifications of REDDIG II – ground network (MPLS)• Report of the Twenty-third workshop/meeting of the SAM Implementation Group (SAM/IG/23 – Lima, 20-24 May 2019).• Report of the Twenty-third (extraordinary) meeting of the Coordination Committee of Project RLA/03/901 (Teleconference, 21 August 2019).• Doc 9896 – Second edition, 2015.	
ICAO strategic objectives:	<i>A – Safety</i> <i>B – Air navigation capacity and efficiency</i>

1 Background

1.1 In accordance with the CNS/ATM concept, States/organisations are implementing the communication infrastructure known as the Aeronautical Telecommunication Network (ATN), which involves the interconnection of several national and regional networks and that shall be integrated into the ATN global structure.

1.2 A communication platform was created in 2003 in the SAM Region to support CNS/ATM systems implemented by the States participating in Regional Technical Cooperation Project RLA/03/901 (REDDIG).

1.3 The REDDIG was modernised in 2015, becoming a purely IP network, consistent with the ATN/IPS concepts described in **Doc 9896 – Manual on the Aeronautical Telecommunication Network (ATN) using Internet Protocol Suite (IPS) Standards and Protocols**.

2 Analysis

OTHER REGIONAL IP NETWORKS

2.1 The PENS (Pan-European Network Service) network was implemented in 2009 and streamlined (NewPENS) starting in 2016. It provides an IP-based network service in the EUR Region, covering voice and data communications in support of existing air navigation services and the future requirements of CNS/ATM systems.

2.2 Likewise, the Common Regional Virtual Private Network (CRV) was implemented in 2017, providing services to 73 States of the APCA and MID Regions.

INTERCONNECTION OF REGIONAL NETWORKS

2.3 Once the aforementioned regional networks start using the same standards and protocols adopted for ATN/IPS, they will need to be incorporated into the global ATN. Figure 1 shows the concept for the interconnection of regional ATN/IPS networks.

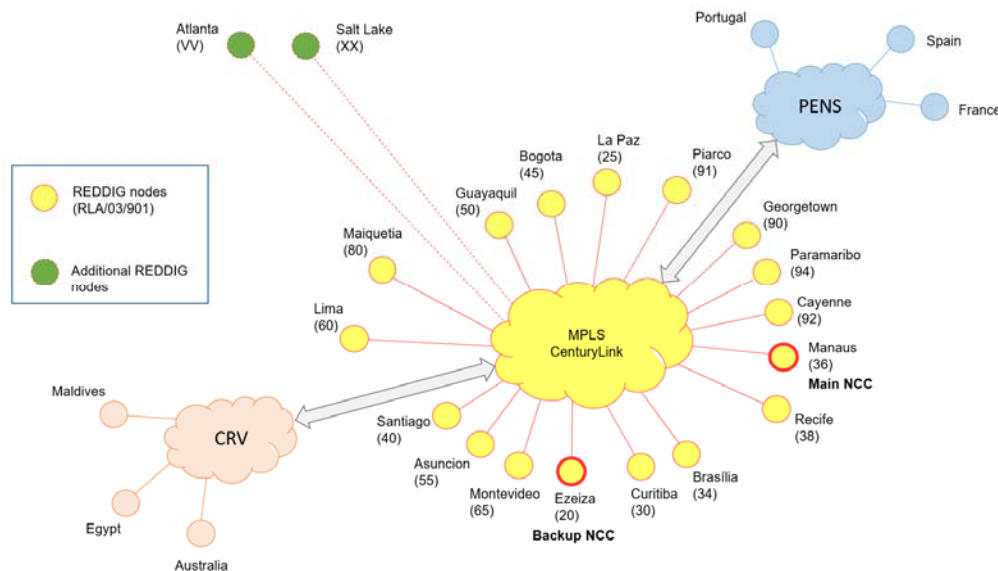


Figure 1 – Interconnection of regional ATN/IPS networks

2.4 In this regard, the SAM Regional Office is proposing the holding of meetings to establish the interconnection of these networks. Tentatively, two meetings to address this issue are being scheduled in Lima, on the following dates:

- 13-17 April 2020; and
- 12-16 October 2020.

2.5 The objective is to bring together CNS officials and telecommunication providers of the three regional networks, with a view to finalising the interconnection of the networks.

3 Suggested action

3.1 The Meeting is invited to:

- a) take note of the information provided herein;
- b) discuss the proposal set forth; and
- c) address any other related issues it may deem appropriate.

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