



ICAO

International Civil Aviation Organization

Seventh Meeting of the Common Aeronautical Virtual Private Network Operations Group (CRV OG/7)

Bangkok, Thailand, 20 – 22 January 2020

Agenda Item 7: Share best practices on cybersecurity and resilience as it relates to FAA’s implementation of supporting international users.

**FAA INTERNATIONAL USER PORTAL (IUP)
IMPLEMENTATION**

(Presented by Federal Aviation Administration/USA)

SUMMARY

This paper presents a proposed plan to address the FAA’s platform for providing IP services connectivity to external users using the International User Portal (IUP).

1. INTRODUCTION

- 1.1 Provides International Partner access to the FAA’s FTI (FAA Telecommunications Infrastructure) network and resources.
- 1.2 International Partner circuits connect to a set of routers positioned on the external side of the FAA’s NESG (NAS Enterprise Security Gateway).
- 1.3 The IUP provides IP (Internet Protocol) access for IP applications.
- 1.4 IUP supports IPv4 and IPv6 as well as operability between the two protocols.
- 1.5 FAA also implements an IUP test bed for testing services prior to implementation into Ops.

2. DISCUSSION

- 2.1 The FAA’s IUP platform is implemented by L3Harris (under the FTI program) at three locations: ATL NEMC (Network Enterprise Management Center), SLC NEMC, and the FAA Tech Center (for testing).
- 2.2 Security in the IUP is configured in a 4-zone format: External Connection, Ops IP Connection, Internal DMZ, and External DMZ. IP tunnels, Firewalls, NATs (Network Address Translations), and ACLs (Access Control Lists) are used to strengthen security.

Agenda Item 7

20-22/01/20

2.3 International users connect to the IUP via telco circuits. These telco circuits are isolated from the FAA's NAS (National Airspace System) Operational environment. Interconnectivity within the NESG and the IUP provide users access to FAA resources.

2.4 IUP supports custom IP addressing for individual International Partner States so ICAO addressing can be used which will eventually be NAT'd within the FAA IUP/NESG platform.

2.5 Connection security is accomplished by having external IP sessions proxied by a non-FAA server. This non-FAA server, in turn, will forward these connections to the operational FAA server.

2.6 The IUP system is monitored 24x7 by the FAA's FTI provider, L3Harris as well as the NEMCs.

2.7 There's an IUP system at the FAA Tech Center in Atlantic City, NJ that's used for testing services prior to implementation into the FAA's Operational network.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matter as appropriate in your organization and plan to attend the meeting
