International Civil Aviation Organization

SADISOPSG/13-WP/15
21/4/08

WORKING PAPER

SATELLITE DISTRIBUTION SYSTEM OPERATIONS GROUP (SADISOPSG)

THIRTEENTH MEETING

Dakar, Senegal, 27 to 29 May 2008

Agenda Item 6: Development of the SADIS
6.6: Changes to the back-up configuration

CHANGES TO THE SADIS DATA BACK-UP

(Presented by SADIS Provider State)

SUMMARY

This paper presents a progress report into the steps taken by the SADIS Provider State to implement a back-up service to the SADIS service.

1. INTRODUCTION

1.1 The group will recall that it formulated Conclusion 11/21 calling for the SADIS Provider State to install an international satellite communications system (ISCS)/2 receiver system on the SADIS Gateway (UK NATS) premises and a direct connection from the SADIS Gateway to the SADIS uplink site via a domestic ISDN connection.

1.2 The group will also recall that, from the last meeting, it formulated Conclusion 12/20, calling on the SADIS Provider State to, upon completion of the installation and testing of the back-up service, prove the resilience of the service within the real-time environment by way of planned backup test(s), in co-ordination with the ISCS Provider State, and to report the outcomes therefore to the SADISOPSG/13 Meeting.

1.3 This paper presents a progress report on the development of the SADIS data backup service – including an overview of difficulties encountered by the SADIS Gateway to procure the system on NATS premises. This paper will also detail the work that is still required to fulfil the requirements of Conclusion 12/20.

2. DISCUSSION

2.1 At the last meeting, the procurement of backup infrastructure to support the SADIS service was outlined and a schematic of the proposed backup configuration was presented (SADISOPSG/12-WP/16 and its appendix refer). It was also outlined that some local problems had been

encountered by SADIS Gateway in obtaining agreement for the installation of the ISCS VSAT receiving equipment on the NATS premises, and that a solution was being sought that would minimise cost and ensure the security of the installed VSAT.

2.2 Unfortunately, these difficulties were not immediately overcome in 2007, and the SADIS Gateway team at NATS has been working with British Telecom (BT) to determine the feasibility and costs of installing an ISCS VSAT receiver on BT premises. This proposal would necessitate a feed of the ISCS satellite reception (i.e. data) to be routed to NATS for onward promulgation to the SADIS satellite broadcast via Whitehill. A revised schematic of the proposed configuration is presented in the appendix to this working paper.

2.3 There was no connection charge for a BT located ISCS VSAT receiver; however, the annual ground connections required a connection charge of £750. The main problem was the revenue costs associated with the service which was £4.5K per annum for the ground communications and £6,750 per quarter for the satellite. These costs are significantly higher than the costs already endorsed by the SADISOPSG and SCRAG for this completion of this work activity.

2.4 NATS have let a small contract with VADOS System to perform end-to-end tests of the connection prior to operational implementation. This testing has not been successfully completed and one problem has been the provision of both SADIS 1G and 2G feeds. A workaround should be relatively straightforward; however, we are awaiting further progress with the ISCS feed before progressing further.

2.5 A further option has been identified which is undergoing investigation and this is access to the FTP service provided by NOAA. This would remove the need for the satellite installation which is proving to be a stumbling block. Such a service could also be integrated in a recently installed operation internet access security environment.

2.6 The project to provide the backup facility is now included in NATS Asset Plans and funding has been allocated to it, ready for release once a preferred cost-effective solution has been identified.

2.7 Once the SADIS data backup system, as detailed in the appendix of this working paper, has been fully installed and tested, the SADIS Provider State will prove resilience of the service within the real-time environment by way of planned back-up test(s). These tests will be performed in co-ordination with the ISCS Provider State. SADIS users will be informed by way of advance notification bulletins issued on the broadcast (i.e. SADIS administrative messages).

3. CONCLUSIONS

3.1 In view of the foregoing, it has not been possible to complete the undertakings called for in SADISOPSG Conclusion 12/20. Therefore, the group is invited to formulate the following conclusion:

Conclusion 13/ — Development of back-up data service for SADIS

That, the SADIS Provider State, upon completion of the installation and testing of the back-up service to SADIS:

a) prove resilience of the service within the real-time environment by way of planned back-up test(s), in co-ordination with the ISCS Provider State; and

b) prepare a report on the outcomes of the back-up test(s), in time for the SADISOPSG/14 Meeting.

Note. — SADIS users to be informed of the proposed real-time backup tests by way of administrative messages on the SADIS broadcast.

4. ACTION BY THE SADISOPSG

4.1 The SADISOPSG is invited to:

a) note the information contained in this paper; and

b) decide on the draft conclusion proposed for the group's consideration.

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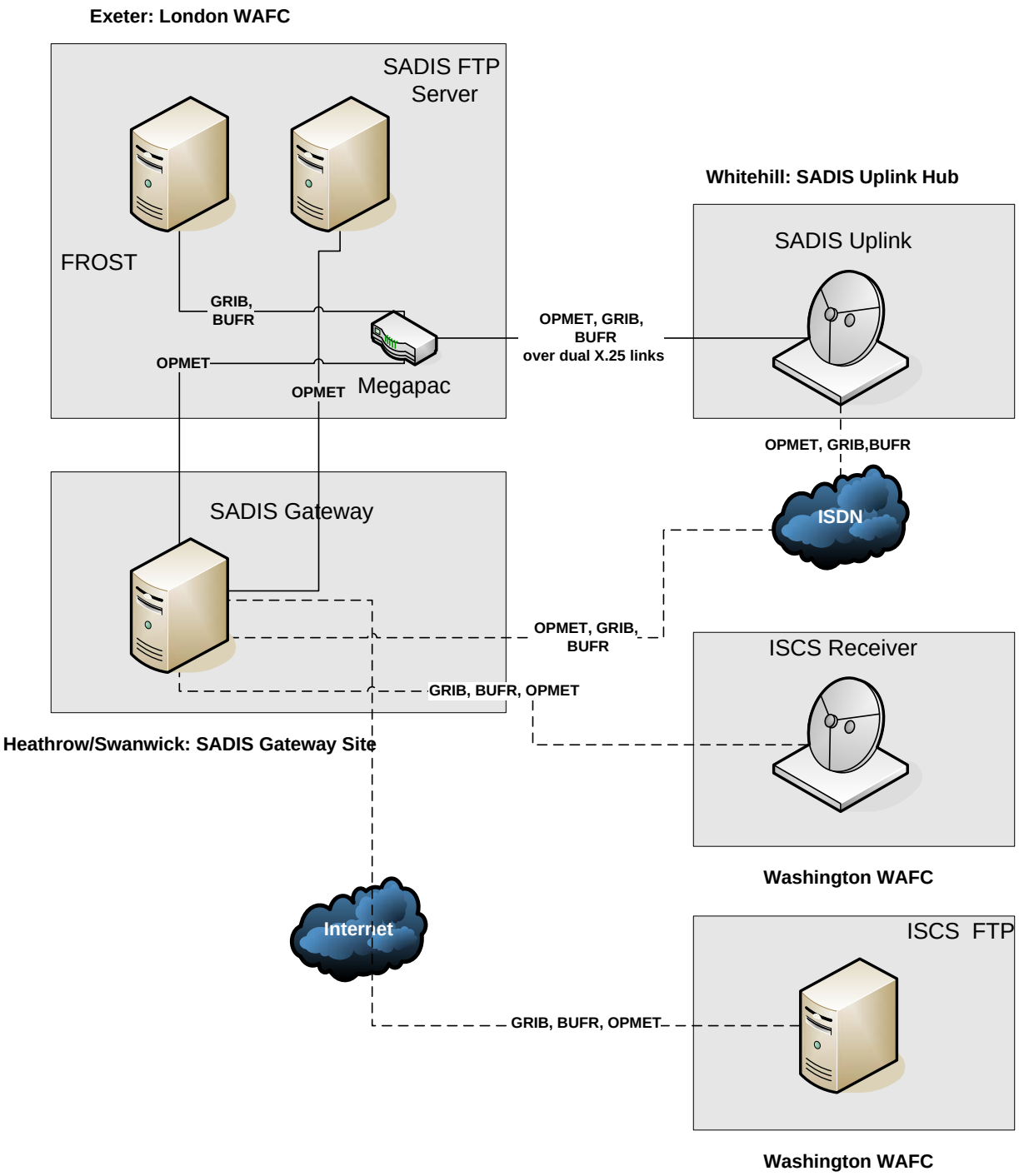
APPENDIX

PROPOSED BACKUP CONFIGURATION FOR SADIS DATA BACKUP



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