

# SADIS INVENTORY

(2019-2020)

The inventory items identified below cover the equipment and staffing required to provide, operate and maintain the Secure Aviation Data Information Service (SADIS). The inventory includes: communications circuits, communications back-up system, procured services, and staff. It should be noted that some equipment items form part of a wider infrastructure. Costs of some individual items cannot be separated from the required infrastructure that includes a significant part of the development of the software and technical configuration. The inventory is in accordance with the SADIS User Guide.

## 1. EQUIPMENT

### A. Key components of SADIS FTP infrastructure and communications circuits

SADIS infrastructure consists of the following:

i) **Solely procured for SADIS (major components)**

NIL

*Note: In November 2019 SADIS FTP was migrated to use Amazon Web Services infrastructure (see Section 2A) which is a procured service.*

ii) **Not procured principally for SADIS**

a) Met Office Message switch (MetSwitch): Total investment £328K<sup>1</sup> of which 1.23 per cent is attributable to the SADIS FTP service usage: switching data to operational FTP service;

b) NATS SADIS gateway function software (developed specifically for the gateway as part of the NATS CoreMet system)

c) Met Office operational monitoring software:

*Note. — This enables the operational monitoring of the SADIS FTP service and ensures problems can be identified and resolved in a timely manner.*

d) Met Office Service Desk equipment

*Note. — Equates to 3.5 per cent of the total share of Met Office IT Operations equipment.*

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<sup>1</sup> budgeted cost for providing MetSwitch service during the fiscal year 2018/2019.

## B. SADIS data back-up system

The recognised back-up for SADIS FTP in the event of a failure is via the USA administered, WAFS Information File Service (WIFS). SADIS FTP users are encouraged to arrange back-up accounts with the WIFS provider via <https://aviationweather.gov/wifs/> .

*Note 1: - Usage restrictions apply. Further information is provided in the SADIS User Guide Part 1 (Administrative)*

*Note 2: - It is the responsibility of the SADIS FTP user to arrange and test back-up accounts with WIFS.*

## 2. PROCURED SERVICES

A. Amazon Web Services (AWS) elements used by the Met Office in the operation of SADIS FTP:

AWS Service	Specification	Quantity	What the service is used for:
EC2	t3.medium 2* vCPU ( <i>Intel Xeon Platinum 8000 series</i> ) 4 GiB Memory  Network Bandwidth: ≤5Gbps; EBS Bandwidth ≤1.50 Gbps)	3	2* FTP Server and 1 Apps Server
S3	N/A	6	Data Storage : Ingestion; FTP Content; AuthN; Logs & Alerts.
Route53	N/A	1	DNS
Lambda	N/A	N/A	Various Serverless Functions including housekeeping, Log formatting, Alerting Management etc
Cloudwatch	N/A	N/A	Log Aggregation
NAT Gateway	N/A	1	Access
VPC	N/A	1	
Kinesis Data Stream	N/A	1	Log Entry Routing
Kinesis Firehose	N/A	2	
DynamoDB	N/A		Alert Management
Athena	N/A		

B. NATS Gateway function:

- i) Communication circuits between Met Office and NATS infrastructure site; and
- ii) System maintenance.

### 3. ANNUAL STAFF REQUIREMENTS

A. **Met Office**

i) **First Line Support**

*Help Desk*

*Skill*

1. Service desk (first point of contact enquiries)

Incident Management and customer enquiries

*Note.— The Service Desk acts as a first point of contact for all inquiries, including those concerning the OPMET Gateway function. Complex inquiries will be passed to a relevant expert. Experts are available either on a 24-hour rota basis, or as a daytime support with limited on-call capability*

ii) **Second Line Support**

*24-hour IT Operations support*

*Skill*

1. Shift Leader (ITCS)
2. Networks Incident Manager (NIM)

Technical Supervisor, incident handling  
Service Continuity, system monitoring

iii) **Third and Fourth Line Support**

*Normal working hours support and “best endeavors”*

*Skill*

1. Message Switching Manager
2. Message Switching Staff
3. AWS Technical Support

Incident handling, server adjustments  
Incident handling and account changes  
AWS expertise, support and guidance

iv) **Additional support**

*Day support*

*Resource*

1. Administrator
2. International aviation management
3. Contract procurement and management
4. Invoice Administration

144 staff-days of senior stakeholder relationship manager (SADIS manager)  
14 staff-days of aviation business head  
4 staff-days of senior procurement manager  
20 staff-days of finance assistant and  
15 staff-days of senior finance manager

## **B. NATS infrastructure site – Data Services (OPMET Gateway function)**

*Note 1. —Data Services provide the OPMET Gateway function, which is provided from a single operational site, but with a full capability at an alternative site. Staff are available either on a 24-hour basis, or as a daytime support with on-call capability.*

*Note 2. — The resource demand to provide the SADIS Gateway service is the standard required staff days needed to provide the SADIS service. It comprises 6 watches providing the H24 element of the service and day support administrative staff. The cost recovery NATS submits to the SCRAG will represent actual staff-days required to provide the service*

### *Role and Responsibilities*

### *Resource*

- |   |                          |
|---|--------------------------|
| 1. Operational Staff<br>- Operational Staff relates to the H24 function in ROC LONDON. Monitor, validate, record & report on issues raised through the SADIS Gateway operation.                         | 521 staff-days per annum |
| 2. Engineering Staff<br>- Engineering Staff includes the duties carried out by the Engineering Day support team and an H24 engineers for the support of SADIS.  | 20 staff-days per annum  |
| 3. Administration Staff<br>- The Administration Office carries out the documentation creation and amendments, adaptation changes, investigations and meeting attendance of the SADIS Gateway operation. | 63 staff-days per annum  |

## **C. Bought-in services**

Additional support and maintenance agreements with third parties are in place to provide additional third line AWS support of the SADIS FTP services.

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