

**Flight Schedule Information System (FSIS)**

**SYSTEM OPERATION DOCUMENT**

**MAB/GROUP IT/SOD/FSIS/V1.4**

##### Prepared by :

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1. - MANUAL ADMINISTRATION

# RECORD OF REVISION

| **No.** | **Description Of Changes** | **Issue No.** | **Rev. No.** | **Author** | **Effective Date** |
| --- | --- | --- | --- | --- | --- |
| 1 | Initial draft | 1 | 0 | Abhilash Ch | 15-Jun-2017 |
| 2 | Updated interface details | 1 | 1 | Ranjith T | 20-Sep-2017 |
| 3 | Updated with new template | 1 | 2 | Abhilash Ch | 15-Jul-2018 |
| 4 | Updated the Contract Management | 1 | 3 | Prashant Chauhan | 25-June-2020 |
| 5 | FSIS - Additional Fields in MH FSIS UI Screen | 1 | 4 | Prashant Chauhan | 21-Jan-2021 |
| 6 | FSIS - Additional Fields in UI Screen Set as UTC in (STD, ETD,ATD, STA, ETA, ATA) and Filter/ Report download. | 1 | 4 | Prashant Chauhan | 15-Apr-2021 |
| 7 | MH FSIS - (MH and FY, XY, TK) getting info from the same tab with Dynamic Fields in UI Screen.(3 modules) | 1 | 4 | Prashant Chauhan | 20-May-2021 |

# LIST OF EFFECTIVE PAGES

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Part** | **Page** | **Issue No.** | **Revision No.** | **Effective Date** |  | **Part** | **Page** | **Issue No.** | **Revision No.** | **Effective Date** |
| 1 | 1-1 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
|  | 1-2 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
|  | 1-2 | 1 | 3 | 25-06-20 |  |  |  |  |  |  |
|  | 1-2 | 1 | 4 | 21-01-21 |  |  |  |  |  |  |
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|  | 1-2 | 1 | 4 | 20-05-21 |  |  |  |  |  |  |
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|  | 1-6 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
| 2 | 2-1 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
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| 3 | 3-1 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
|  | 3-2 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
| 4 | 4-1 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
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|  | 4-3 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
|  | 4-4 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
|  | 4-5 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
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|  | 4-8 | 1 | 3 | 25-06-20 |  |  |  |  |  |  |
|  | 4-8 | 1 | 4 | 15-04-21 |  |  |  |  |  |  |
|  | 4-9 | 1 | 2 | 15-07-18 |  |  |  |  |  |  |
|  | 4-9 | 1 | 3 | 25-06-20 |  |  |  |  |  |  |
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Table 1 – Distribution List

# LIST OF ABBREVIATIONS

The following are the abbreviations used for the purpose of simplification.

|  |  |
| --- | --- |
| **Abbreviation** | **Denote** |
| FSIS | Flight Schedule Information System |
| SOD | System Operation Document |
| SOW | Statement of Work |
| PAX | Passenger |
| MH | Malaysian Hospitality / Malaysia Airlines |
| AODB | Airport Operation Database |
| T@TS | Turn Around Tracking System |
| FOCA | Foreign Carrier |

Table 2 – List of Abbreviations

# CONDITION OF USE

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1. - MANUAL BACKGROUND

# INTRODUCTION

This is the FSIS SOD, hereinafter referred to as “the Policy” provides comprehensive operating procedures within the scope and application herein defined in Part 2 Section 3.0 for Malaysia Airlines Berhad (MAB).

# PURPOSE

The objective of this document is to provide relevant information required to operate and “Flight Schedule Information System”.

# SCOPE AND APPLICATION

This document covers relevant information required to operate and support the FSIS system in production environment. This covers the maintenance operation of the system, database and interfaces.

This SOD does not include the following:

* Application maintenance for the sub-systems interfaced by the core system.

# TERMINOLOGY

Following are the terminologies used in this document

|  |  |  |
| --- | --- | --- |
| **No.** | **Term** | **Description** |
| 1. | EAI | Enterprise Application Integration |
| 2. | DR | Disaster Recovery |
| 3. | DB | Database |
| 4. | FSIS | Flight Schedule Information System |
| 5. | SOD | System Operational Document |
| 6. | SOW | Statement of Work |
| 7. | MQ | Message Queue |

Table 3 - Terminology

# REFERENCES

The references for this document is given in below table.

| **No.** | **Document** | **Description** |
| --- | --- | --- |
| 1 | SOW | Statement of Work as supplied as agreed upon between TCS and MAB |
| 2 | Technical Design Document | Document highlighting the Technical Design & architecture of the collaboration platform. This is supplied by TCS |
| 3 | Test Plan Document | Document highlighting the Test plan for the collaboration platform. This is supplied by TCS |

Table 4 - References

1. – OVERVIEW OF BUSINESS PROCESS

# OVERVIEW OF BUSINESS PROCESS

The primary purpose of FSIS (Flight Schedule Information System) is to provide a web based application for the Ground Handling team – AeroDarat users to:

* View MH & FOCA Flight Schedules
* Monitor and Update the Delay for the flown MH & FOCA flights from KUL station
* Generate the FIS and Delay Summary Reports for MH & FOCA flights
* Manage FOCA flight list and User Access

Below diagram represents the business process overview.

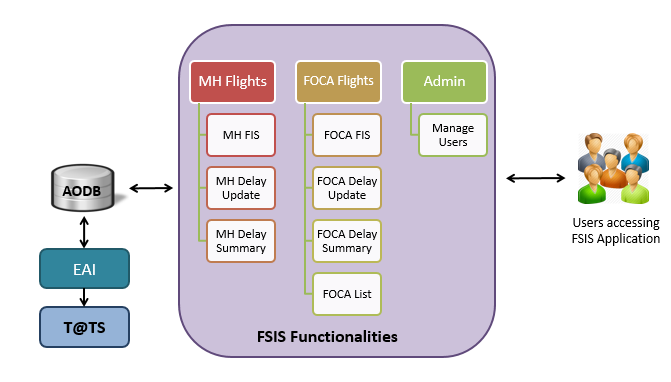


Figure 1 - Business Overview of FSIS

1. - MANUAL CONTENT TITLE

# SYSTEM OVERVIEW

FSIS application provides the below features to the Ground Handling Team:

* View MH & FOCA Flight Schedules

To view, retrieve and plan the operations based the inbound & outbound flights from various stations that MH operates.

* Monitor and Update Delay for MH & FOCA flights from KUL station

Users from KUL station have specialized role access to FSIS application, which enables Users to update the Delay Reason, Remarks and Duration of Delay for both MH and FOCA flights.

* Generate FIS and Delay Summary Reports for MH & FOCA flights

Users can able to select specific dates and generate the reports for MH or FOCA flights. Similarly they can generate the delay reports as well.

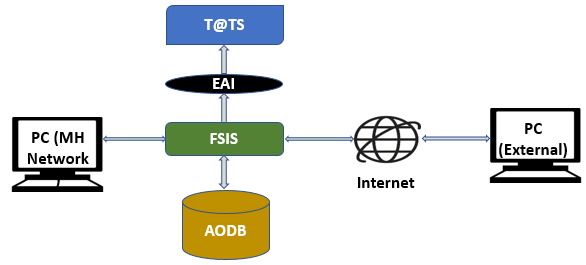
* Manage FOCA flight list and User Access

Admin user will be having access to this module where Admin can Add/Delete/Update the FOCA Carrier List. Also, Admin can Add/Remove/Update to the users to FSIS application access

The FSIS application comes under BCD 3 and the SLA is applicable as per the BCD 3 policy.

# SYSTEM CONCEPT DIAGRAM

The below diagram shows the concept diagram for FSIS application.



# SYSTEM ARCHITECTURE

Server instances are maintained separately for Production, Disaster Recovery and Test / Development environments. The connectivity and isolation of server are shown in below image.

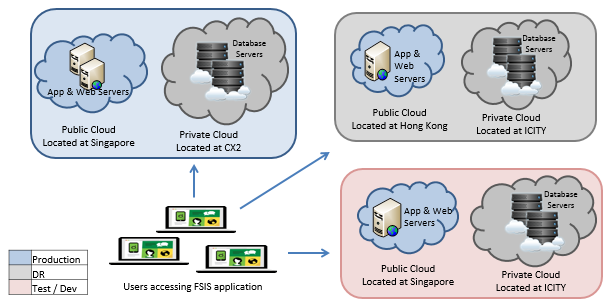


Figure 2 - Production, DR and Development environments isolation

# INTERFACES

## User Interfaces

FSIS System can be accessed by below URLs:

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Apps** | **Application URL(PROD)** |
| 1 | FSIS | <https://mhmessenger.malaysiaairlines.com/>fsis/  <https://flightinfo.mas.net/>fsis/ |

Table 5 – Access URLs

## System Interfaces

FSIS System has the below system Interfaces:

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Interfaced system** | **Description** | **Data access mode** |
| 1 | Delay updates to TATS | AeroDarat team updates on MH / FOCA flights | HTTP Request, EAI |
| 2 | Flight data from AODB | Flight Delay, Cancellation related information | JDBC calls |

Table 6 – System Interfaces

# WARRANTY AND MAINTENANCE PERIOD

The warranty and maintenance details are given below.

|  |  |  |
| --- | --- | --- |
| **Warranted Items** | **Start Date** | **End Date** |
| FSIS application maintenance by AMS support team | June 2015 | September 2018 |

Table 7 – Warranty and Maintenance

# ROLES AND RESPONSIBILITIES

The roles and responsibilities of different parties are given in below table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Role** | **Responsibility** | **Name** | **Company / Department** | **Contact (Email)** |
| Application SME | Responsible for ID creation, modification, deletion and review of user access | FSIS Support Team | Tata Consultancy Services | GD\_TCS\_MHLINKS@malaysiaairlines.com |
| Database Admin | Responsible for Database configuration and monitoring system performance | Database Team | Tata Consultancy Services | GD\_TCSDatabase@malaysiaairlines.com |

Table 8 – Roles and Responsibilities

\*Note: Proper handover must be performed if there is any change to the above roles and the matrix will be updated accordingly.

# TECHNICAL SPECIFICATIONS

## Server Details FSIS server details are listed in below table

| **Application (s)** | **Location** | **Hostname** | **IP Address** | **Environment** | **Server Function** |
| --- | --- | --- | --- | --- | --- |
| NMHLINKS (FSIS, FMON, FDN) | MAHK (Public Cloud-Hongkong) | MAHK-2NMHLINKSAPP1 | 10.222.4.14 | DR | Application |
| NMHLINKS | MAHK (Public Cloud-Hongkong) | MAHK-2NMHLINKSWEB1 | 10.222.2.8 | DR | Web |
| NMHLINKS (FSIS, FMON, FDN) | MASG (Public Cloud- Singapore) | MASG-1NMHLINKSAPP1 | 10.221.4.50 | PROD | Application |
| NMHLINKS | MASG (Public Cloud- Singapore) | MASG-1NMHLINKSWEB1 | 10.221.2.12 | PROD | Web |
| NMHLINKS (FSIS, FMON, FDN) | MASG (Public Cloud- Singapore) | MASG-3NMHLINKSAPP1 | 10.221.12.45 | UAT | Application |

Table 9 – Server Information

## Hardware Specifications

Below are the server hardware specifications allocated for FSIS application:

| **Hostname/Application(s)** | **Azure VM Size** | **OS Version** | **CPU** | **Memory (GB)** | **SWAP (GB)** |
| --- | --- | --- | --- | --- | --- |
| MAHK-2NMHLINKSAPP1 / FSIS, FMON, FDN | Standard DS2 v2(2 cores, 7 GB memory) | RHEL 7.2 | 2 | 7 | 8 |
| MAHK-2NMHLINKSWEB1 | Standard DS2 v2(2 cores, 7 GB memory) | RHEL 7.2 | 2 | 7 | 8 |
| MASG-1NMHLINKSAPP1 / FSIS, FMON, FDN | Standard DS2 v2(2 cores, 7 GB memory) | RHEL 7.2 | 2 | 7 | 8 |
| MASG-1NMHLINKSWEB1 | Standard DS2 v2(2 cores, 7 GB memory) | RHEL 7.2 | 2 | 7 | 8 |
| MASG-3NMHLINKSAPP1 / FSIS, FMON, FDN | Standard A2\_v2 (2 cores, 4 GB memory) | RHEL 7.2 | 2 | 4 | 8 |

Table 10 – Server Hardware Specifications

## Software Specifications

Below are the software required for FSIS application.

| **No** | **Software** | **Specification** |
| --- | --- | --- |
|  | Application & Database Server Operating System | RHEL 7.2 |
|  | Monitoring application | Tivoli 6.2 |
|  | Programming Language - UI | Java, Webservices & JSP, JavaScript |
|  | Programming Language - DB | PL/SQL |
|  | Front-end | IE 8+, Firefox 5+, Chrome 18+, Safari 5+, Opera 9+ |
|  | Database | DB2 |
|  | Operating System | Windows |
|  | Application | Tomcat 9.0.36 |
|  | Webserver | Apache 2.4.23 |

Table 11 – Server Software Specifications

## Communication / Network Specification

The communication and network specifications are as below.

|  |  |  |
| --- | --- | --- |
| **No** | **Category** | **Configuration** |
|  | Protocol | Server: TCP/IP  Client: TCP/IP |
|  | Webservice | EAI - B2B |

Table 12 – Communication Specification

## User and Equipment Locations

Users are located across globe where MH operates. Users need an appropriate browser to access the application. Supported browsers are listed in Section 4.7.3.

## File Management

File management details are given in below table.

|  |  |
| --- | --- |
| **LIBRARIES AND FILES** | **LOCATION (MOUNT POINT)** |
| Apache | /usr/local/apache |
| Tomcat | /tomcat |
| Application IDs home directory | /home/appadmin  /home/tomcatadmin |

Table 13 – File Management

# TECHNICAL OPERATIONS GUIDE

## Backup and Recovery

Database backup will be taken daily. In case of any disruption, system can be recovered to older date.

Azure Public Cloud: Recovery Services vault is an entity that stores all the backups and recovery points that have been created over time. The vault also contains the backup policies that will be applied to the virtual machines being backed up. When the Recovery services initiates a backup job at the scheduled time, it triggers the backup extension to take a point-in-time snapshot. The Azure Recovery service uses the VMSnapshot extension in Windows, and the VMSnapshotLinux extension in Linux. The extension is installed during the first VM backup.Once the Azure Backup service takes the snapshot, the data is transferred to the vault. To maximize efficiency, the service identifies and transfers only the blocks of data that have changed since the previous backup. When the data transfer is complete, the snapshot is removed and a recovery point is created.

Private Cloud Servers: Commvault Backup

1. **Application Back-up:**

Application back-up details are given in below table..

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Hostname / Application(s)** | **Backup Type** | **Frequency** | **Schedule Time (MYT)** | **Retention / No. of Versions** | **Remarks** |
| MASG-1NMHLINKSAPP1 / FSIS, FMON, FDN | Full | Every Saturday | 5:30 PM | 6 Versions | Monthly first Saturday backup retention is 2 months |
| MASG-1NMHLINKSWEB1 | Full | Every Saturday | 5:30 PM | 6 Versions | Monthly first Saturday backup retention is 2 months |
| MAHK-2NMHLINKSAPP1 / FSIS, FMON, FDN | Full | Every Saturday | 8:00 PM | 5 Versions | Monthly first Saturday backup retention is 2 months |
| MAHK-2NMHLINKSWEB1 | Full | Every Saturday | 8:00 PM | 5 Versions | Monthly first Saturday backup retention is 2 months |
| MASG-3NMHLINKSAPP1 / FSIS, FMON, FDN | Full | Every Saturday | 5:30 PM | 4 Versions | Monthly first Saturday backup retention is 2 months |

Table 14 – Application Backup Frequency

## Monitoring Tools

FSIS Production Server and Processes are monitored by Tivoli. Refer to TEC Events escalation procedure for more details.

## Batch Jobs

N/A

## Report Management

N/A

## Baseline Performance Information

The expected response time of FSIS application is as per below table.

|  |  |  |
| --- | --- | --- |
| **No.** | **Activity** | **Expected Response Time** |
| 1. | Average time to generate response to requests | < 5 seconds |
| 2. | Average time taken to load each page | < 5 seconds |

Table 15 – Baseline Performance

Acceptable down time during operation hours is based on BCD 3 plan

# MAINTENANCE AND SUPPORT

This section provides information to Help Desk personnel who are expected to receive problem or error reports from the users.

## Problem Logging

The Help Desk personnel should ask the users:

For a screenshot of the error/issue that they are facing

For the steps that need to be performed to recreate the error/issue

To check the same steps to recreate the error/issue on another machine

To check if others are also facing the same error/issue

## Problem Categorization and Escalation Matrix

Below table contains the problem categorization and escalation matrix.

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem Category** | **Severity Level** | **Problem Description** | **Escalation** |
| System Completely Unusable | 1 | Page not loading | AMS – MHLINKS |
| Functionality Completely Unusable | 2 | Part of the applications functionality | AMS – MHLINKS |
| Minor Functionality Error | 3 | The application as a whole is working but some small functionality is not working | AMS – MHLINKS |
| Cosmetic UI Error | 4 | The application and the concerned functionality is working but the UX is erroneous/misleading | AMS – MHLINKS |

Table 16 – Escalation Matrix

Below table contains the contact details of support team.

|  |  |  |
| --- | --- | --- |
| **No.** | **Type of support** | **Contact Details** |
| 1. | Level 1:  IT Helpdesk | (006) 03 8777 2222 [Helpdesk@malaysiaairlines.com](mailto:Helpdesk@malaysiaairlines.com) |
| 2. | Level 2: Application  SITO-FSIS | SITO-FSIS: +6 017 6430 341  [GD\_AMS\_FSIS@malaysiaairlines.com](mailto:GD_AMS_FSIS@malaysiaairlines.com)  [GD\_TCS\_MHLINKS@malaysiaairlines.com](mailto:GD_TCS_MHLINKS@malaysiaairlines.com) |
| 3. | Level 2: System & Network Infra\_Midrange & Database | Midrange: 1800817802 #3 [GD\_TCSMidrange@malaysiaairlines.com](mailto:GD_TCSMidrange@malaysiaairlines.com)  Database: 1800817802 #1  [GD\_TCSDatabase@malaysiaairlines.com](mailto:GD_TCSDatabase@malaysiaairlines.com) |

Table 17 – Support Contact Information

## Application / Technical Support

Application support team details are given below.

|  |  |  |
| --- | --- | --- |
| **Support Team** | **Team Members** | **Contact Numbers** |
| AMS | Prashant Chauhan  Palash Pandit | HP: +91 8305968583  HP:+91 9584530565 |

Table 18 – Technical Support

# USER GUIDE

## Accessing the Application

Users can access the application using the below URL

|  |  |  |
| --- | --- | --- |
| **No** | **Application Name** | **Application Production URL** |
| 1 | FSIS | [https://mhmessenger.malaysiaairlines.com/](https://mhmessenger.malaysiaairlines.com/admin/#/login)fsis/  <http://flighhtinfo.mas.net/>fsis/ |

Table 19 – Application Access

# CONTRACT MANAGEMENT

|  |  |  |
| --- | --- | --- |
| No. | **Contract** | **Parties** |
| 1. | Service contract from AMS support service | Signed between MAB and ATOS |

Table 20

*Copies of the contract / agreement are kept by (Name) and can be read at (directory).*

# HANDOVER ITEMS

The following documents/items will be handed over to Operations together with this System Operation Document during the Handover session:

1. Technical Design Document
2. Test Plan

# INFORMATION SECURITY

## Audit and Compliance Requirements

Audit and compliance requirements are as given in below table.

|  |  |  |
| --- | --- | --- |
| **Activity** | **Frequency** | **Responsible Party** |
| Perform ID review every quarter and submit result to IRS | Quarterly | ID Admin |
| Update user access matrix and submit to IRS | Yearly | System Owner |
| Install Critical Security Patches for the application and submit report to IRS | Quarterly | System Owner |
| Performed Backup restoration | Yearly | System Owner |

Table 21 – Audit and Compliance

## Password Policy Compliance

Below table contains the password compliance policy.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Password Policy Requirements** | **Yes** | **No** | **Remarks** |
|  | Password length at least 8 characters (minimum) | Yes |  | Uses LDAP authentication for login |
|  | Alphanumeric | Yes |  |  |
|  | Change temporary password at first logon | Yes |  |  |
|  | Password expiry = 90 days (maximum) | Yes |  |  |
|  | Password reuse generation = 5 (minimum) | Yes |  |  |
|  | Account lock out after 5 failed login attempts | Yes |  |  |
|  | Application shall disconnect or suspend inactive sessions= 15 Minutes | Yes |  |  |
|  | Wrong password shall be recorded in an audit log | Yes |  |  |

Table 22 – Password Policy Compliance

# DOCUMENTATION AND REFERENCES

The reference document details are given in below table.

| **No.** | **Document** | **Location and reference** |
| --- | --- | --- |
| 1. | System Operation Document | <https://mabitdept.sharepoint.com/sites/MyPulse/InformationTechnology/ServiceDeliveryManagement/> |
| 2. | Interface Control Document | <https://mabitdept.sharepoint.com/sites/MyPulse/InformationTechnology/ServiceDeliveryManagement/> |
| 3. | User Guide | <https://mabitdept.sharepoint.com/sites/MyPulse/InformationTechnology/ServiceDeliveryManagement/> |

Table 23 – Documentation and References

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# AppendiX

1. **DR PROCEDURE**
   1. **Roles and Responsibilities**

Roles and responsibilities of each team is given in below table.

| **Role** | **Responsibilities** |
| --- | --- |
| MAB IT Helpdesk | * As single point of contact to coordinate when FSIS problems occurred. |
| FSIS Application Administrator  (Infra) | * Responsible for identifying failed resources in Main site or disaster site. * Responsible for following DR procedures to activate FSIS DR procedure for disaster recovery * Responsible for maintaining DR site systems in the event of disaster * Responsible for backup and recovery FSIS systems in the event of disaster. |
| FSIS Application Support  (AMS) | * Responsible to support System Administrator during the disaster recovery process. * Responsible to verify FSIS has been successfully switched to the DR site and vice-versa after reverting to the normal production state. |
| DB2 Database Administrator  (Infra) | * Responsible to support FSIS Application Administrator during the disaster recovery process. * Responsible to verify FSIS DB2 database has been successfully switched to the DR site and vice-versa after reverting to the normal production state. |
| DNS Administrator  (Infra) | * Responsible to support FSIS Application Administrator during the disaster recovery process. * Responsible to change the DNS for FSIS upon switching to DR and vice-versa after reverting to the normal production state. |
| Tivoli Administrator  (Infra) | * Responsible to support FSIS Application Administrator during the disaster recovery process. * Responsible to ensure FSIS is monitored. |
| FSIS User Support  (FRA) | * Responsible to organize end-users during the switching of FSIS PROD to FSIS DR and vice-versa. * Responsible to validate business transaction and data in FSIS DR during the disaster and FSIS PROD after reverting to actual production site. |

Table 24

* 1. **Disaster Recovery Procedure**

In the event of a disaster or service is unavailable for an estimated period longer than BCD requirement, the following activities will be activated:

Below table contains the responsibilities of different teams during DR procedure.

| **Step** | **Procedure** | **Responsible** |
| --- | --- | --- |
| 1 | Inform all party concern on switching to DR. If this is a planned activity, inform via e-mail, otherwise via phone call and e-mail. | * Midrange SDM * FSIS Application Administrator |
| 2 | Verify Production DB and APP servers in MASG/CX2 still accessible / running. | * FSIS Application Administrator * Infra-Database |
| 3 | Shutdown Production Application in MASG/CX2 | * FSIS Application Administrator |
| 4 | Failover database from MASG/CX2 to MAHK/ICITY (Production to DR) | * Infra-Database |
| 5 | Change DNS to point DR server  flightinfo.mas.net | * Infra-Midrange * FSIS Application Administrator |
| 6 | Change mhselfservice.malaysiaairlines.com DNS to point DR server in Akamai | * Infra-Midrange |
| 7 | Mount file systems in DR application servers  Mount file systems in DR web servers | * Infra-Midrange |
| 8 | Start tomcat application and apache web server in DR | * Infra-Midrange |
| 9 | Verification | * FSIS Application Administrator |
| 10 | Request Key Users to verify and confirm FSIS application is running smoothly in MAHK/ICITY | * FSIS User Support Team |
| 11 | Officially broadcast to BU and relevant support via e-mail that AODB is now on DR (MAHK/ICITY) | * FSIS Application Administrator |
| 12 | Take daily full RMAN backup if the system’s in DR site has operated more than 2 days (if the servers in PROD site in MASG/CX2 are not available/not accessible) | * FSIS Application Administrator * DBA |

Table 25

* 1. **Reverting from Disaster Recovery site (MAHK/ICITY) to Production Site (MASG/CX2)**

Below table contains the steps to revert from DR site to production site.

| **Step** | **Procedure** | **Responsible** |
| --- | --- | --- |
| 1 | Inform all party concern on switching back to PROD in MASG/CX2. This should be a planned activity, inform via e-mail. | * Mid-range SDM * FSIS Application Administrator |
| 2 | Shutdown DR Application in MAHK/ICITY | * FSIS Application Administrator |
| 3 | Switch over database from MAHK/ICITY to MASG/CX2 (DR to Production) | * Infra-Database |
| 5 | Change DNS to point Production server  flightinfo.mas.net | * Infra-Midrange * FSIS Application Administrator |
| 6 | Change mhselfservice.malaysiaairlines.com DNS to point DR server in Akamai | * Infra-Midrange |
| 7 | Mount application file systems in DR APP server Mount application file systems in DR Web server | * Infra-Midrange |
| 8 | Start application in Production | * FSIS Application Administrator * Infra-Midrange |
| 9 | Verification | * FSIS Application Administrator |
| 10 | Request Key Users to verify and confirm FSIS application is running smoothly in MASG/CX2 | * FSIS User Support Team |
| 11 | Officially broadcast to BU and relevant support via e-mail that AODB is now on Production (MASG/CX2). | * FSIS Application Administrator |
| 12 | Enable DB replication from MASG/CX2 to MAHK/ICITY (Production to DR) | * FSIS Application Administrator * DBA |
| 13 | Unmount application filesystems in DR APP server  Un-mount application file systems in DR Web Server | * Infra-Midrange |

Table 26

**RELEASE MANAGEMENT REPORT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Change Request** | **Implementation Date** | **Change Description** | **Document Version** |
| 1 | CHG0018998 | 05-11-2020 | (FSIS ) & (FDN) Application code/Configuration changes for Tomcat upgrade 9.0.36 | 1.3 |
| 2 | CHG0020070 | 21-01-2021 | FSIS - Additional Fields in MH FSIS UI Screen and Display CNL in flight status dropdown | 1.4 |
| 3 | CHG0020355 | 15-04-2021 | FSIS - Additional Fields in MH FSIS UI Screen Set as UTC in  (STD, ETD,ATD, STA, ETA, ATA) and Report download XLS,PDF,CSV | 1.4 |
| 3 | CHG0020990 | 20-05-2021 | MH FSIS - (MH and FY, XY, TK) getting info from the same tab with Dynamic Fields in UI Screen. | 1.4 |
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Table 27 – Release Management Report

******PATCH MANAGEMENT REPORT**

Application : \_\_\_\_NIL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Owner **: \_\_\_\_**NIL**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| **Date** | **Patch / Service Pack Applied** |
| NIL | NIL |
|  |  |
|  |  |
|  |  |

Table 28 – Patch Management Report

**Prepared By: Approved By:**

**.................................................... ....................................................**

**System Admin System Owner**

**BACKUP RESTORATION REPORT**

Application : \_\_\_NIL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Owner **: \_\_\_**NIL\_**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| **Date** | **Status of Restoration** |
| NIL | NIL |
|  |  |
|  |  |
|  |  |

Table 29 – Backup Restoration Report

**Prepared By: Approved By:**

**.................................................... ....................................................**

**Backup Admin System Owner**

**NON COMPLIANCE REPORT**

Application : \_\_\_NIL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Owner **: \_\_\_**NIL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **Date** | **Reference Number** | **Description** |
| NIL | NIL | NIL |
|  |  |  |
|  |  |  |
|  |  |  |

Table 30 – Non Compliance Report

**Prepared By: Approved By:**

**.................................................... ....................................................**

**System Admin System Owner**

**END OF DOCUMENT**