

**iHRMS Archival**

**SYSTEM OPERATION DOCUMENT**

MAB/GROUP IT/SOD/iHRMS Archival/1.1

##### Prepared by:

##### iHRMS Archival Support Team

##### Application Management Services (AMS)

##### Group IT

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|  |  |  |  |
| Prepared By | : |  |  |
|  |  | RajashekarReddy Kasireddy |  |
|  |  | iHRMS Archival Support Team |  |
|  |  | Application Management Services |  |
|  |  |  |  |
| Reviewed By | :  : | |  | | --- | |  | | |  | | --- | | Wan Mohd Husni Wan Hussein | | Service Delivery Manager |   Application Management Services, ATOS | |  |
|  |  | |  | | --- | | Noor Hafiza Bahruddin | | IT-Service Delivery Management  Group-IT | |  |
|  |  |  |  |
|  |  |  |  |
|  | : |  |  |
|  |  | Nurazniyati Abd Wahid |  |
|  |  | Application Support – Airlines Business |  |
|  |  |  |  |
| Approved By | : |  |  |
|  |  | Mohd. Suhaimi Yusof |  |
|  |  | Head, Tech Management –  Airline Business |  |
|  |  | Group IT |  |

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1. - MANUAL ADMINISTRATION

# RECORD OF REVISION

| **No.** | **Description Of Changes** | **Issue No.** | **Rev. No.** | **Author** | **Effective Date** |
| --- | --- | --- | --- | --- | --- |
| 1 | Original – Initial version | 1 | 0 | Chandana P | 16-Jul-18 |
| 2 | Updated AMS SDM details | 1 | 1 | RajashekarReddy Kasireddy | 27-Sep-19 |
| 3 | Updated contract management details | 1 | 1 | Rajashekarreddy  Kasireddy | 25-Jun-20 |
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# LIST OF EFFECTIVE PAGES

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| **Part** | **Page** | **Issue No.** | **Revision No.** | **Effective Date** |  | **Part** | **Page** | **Issue No.** | **Revision No.** | **Effective Date** |
| 1 | 1-1 | 1 | 0 | 16-07-18 |  |  | 4-17 | 1 | 0 | 16-07-18 |
|  | 1-2 | 1 | 0 | 16-07-18 |  |  | 4-18 | 1 | 0 | 16-07-18 |
|  | 1-2 | 1 | 1 | 27-09-19 |  |  | 4-19 | 1 | 0 | 16-07-18 |
|  | 1-3 | 1 | 0 | 16-07-18 |  |  | 4-20 | 1 | 0 | 16-07-18 |
|  | 1-4 | 1 | 1 | 27-09-19 |  |  | 4-21 | 1 | 0 | 16-07-18 |
|  | 1-5 | 1 | 0 | 16-07-18 |  |  | 4-22 | 1 | 0 | 16-07-18 |
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|  | 2-4 | 1 | 0 | 16-07-18 |  |  | 4-16 | 1 | 0 | 16-07-18 |
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|  | 4-5 | 1 | 1 | 27-09-19 |  |  |  |  |  |  |
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|  | 4-7 | 1 | 0 | 16-07-18 |  |  |  |  |  |  |
|  | 4-8 | 1 | 0 | 16-07-18 |  |  |  |  |  |  |
|  | 4-9 | 1 | 0 | 16-07-18 |  |  |  |  |  |  |
|  | 4-10 | 1 | 1 | 25-06-20 |  |  |  |  |  |  |
|  | 4-11 | 1 | 0 | 16-07-18 |  |  |  |  |  |  |
|  | 4-12 | 1 | 0 | 16-07-18 |  |  |  |  |  |  |
|  | 4-13 | 1 | 0 | 16-07-18 |  |  |  |  |  |  |
|  | 4-14 | 1 | 0 | 16-07-18 |  |  |  |  |  |  |
|  | 4-15 | 1 | 1 | 27-09-19 |  |  |  |  |  |  |
|  | 4-16 | 1 | 0 | 16-07-18 |  |  |  |  |  |  |

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| **NAME** | **DEPT / AREA** | **DESIGNATION** |
| Mohd. Suhaimi Yusof | Group IT | Head, Tech Management –  Airline Business |
| Wan Mohd Husni Wan Hussein | AMS | AMS SDM |
| Nurazniyati Abd Wahid | Application Support – Corporate Services & Productivity | System Owner |
| Noor Hafiza Bahruddin | Group IT | IT - Service Delivery Management |

Table

# LIST OF ABBREVIATIONS

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

|  |  |
| --- | --- |
| **Abbreviation** | **Denote** |
| BU | Business Users |
| BCD | Business Critical Definition |
| DBA | Database Administrator |
| Group IT | Group Information Technology division |

Table

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1. - MANUAL BACKGROUND

# INTRODUCTION

This is the iHRMS Archival 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 a coherent description of the overall design of the iHRMS Archival System to enable and assist the technical and development team in the development and implementation of the System.

IT Operations management to prepare for applicable support. The maintenance team to support, maintain and/or enhance the system once in the production environment. It is intended that this document will form the basis of iHRMS Archival system detailed design.

# SCOPE AND APPLICATION

This document covers relevant information required to operate and support the iHRMS Archival system in production environment. This covers the maintenance operation of the system, database and interfaces. The application support team shall provide maintenance support for the application level.

# TERMINOLOGY

| **No** | **Term** | **Description** |
| --- | --- | --- |
| 1 | UAT | User Acceptance Test |
| 2 | DB | Database |
| 3 | SOD | System Operational Document |
| 4 | SOW | Statement of Work |

Table

# REFERENCES

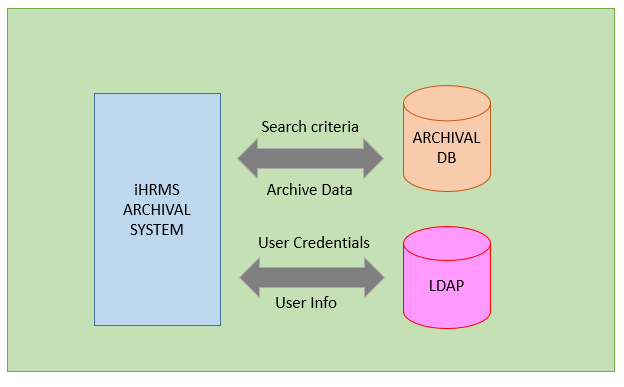
| **No** | **Document** | **Description** |
| --- | --- | --- |
| 1 | User Guide | User Guide |
| 2 | SOW | Statement of Work as supplied as agreed upon between TCS and MAB |
| 3 | Technical Design Document | Document highlighting the Technical Design & architecture of the collaboration platform. This is supplied by TCS |
| 4 | Test Plan Document | Document highlighting the Test plan for the collaboration platform. This is supplied by TCS |
| 5 | Functional Document | Document highlighting all the functional requirements of the system. This is supplied by TCS |

Table

1. – OVERVIEW OF BUSINESS PROCESS

# 

# OVERVIEW OF BUSINESS PROCESS



Figure

iHRMS Archival is an archival system (web application) which is to store all data from iHRMS system (decommissioned) and enable MAS–MAB BG employees to retrieve, view and download employee records.

1. – MANUAL CONTENT

4.1 Systems overview

iHRMS Application is an archival application (Web application) designed for IHRMS to backup data so that HR users can access the data.

This application is BCD 4 and the SLA will applicable accordingly.

The data contains information about employees including payroll and Leave.

The data therein is dated from December 2006 up to December 2016.

The logged in user can view/download past data in Excel format.

iHRMS Archival application has the following functionalities:

* User Management
* Employee Personal Details
* Employee Assignment Details
* Employee Contact Details
* Employee Dependent Details
* Employee Pay results
* Employee Payment Methods
* Employee Leave Details
* Employee EA form

**User Management:**

The user management module supports AD users. AD users are validated using LDAP.

Based on the functionalities, the application supports three types of roles. A user has one of the three roles assigned while configuring in the application.

Roles are:

* **Admin** – Have access to all screens and has the privilege of managing users.
* **Users** – Have access to the all the screens except Employee pay results and user management screen.
* **Super User** – Have access to all the screens except user management.

# 4.2 SYSTEM CONCEPT DIAGRAM

The overall logical System Architecture is as per diagram shown below:

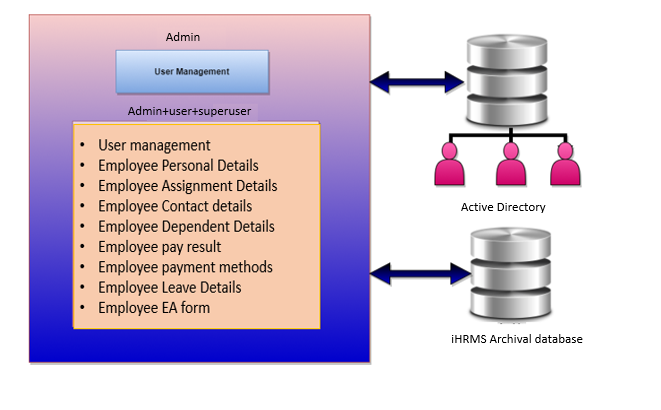


Figure 2

# 4.3 INTERFACES

## 4.3.1 User Interfaces

The end users shall access the reports offered by iHRMS Archival system, via normal web browser available in their computer.

The application will be accessible through the following link via intranet.

[**http://ihrmsviewer.mas.net/MABMAS/**](http://ihrmsviewer.mas.net/MABMAS/)

Browser support:

|  |  |  |
| --- | --- | --- |
| **SI.NO** | **Browser** | **Support** |
| 1 | Google Chrome | Yes |
| 2 | IE | Yes |
| 3 | Firefox | Yes |
| 4 | Safari | Yes |

Table

## 4.3.2 System Interfaces

Interface with MAB Corporate Active Directory

iHRMS Archival will have integration with the Active Directories (LDAP) for Security Authentication purposes. The integration with Active Directories shall adopt the existing standards currently practiced by Group IT.

User can login into application using MH domain credentials and it will be validated using LDAP Validator

|  | **Interfaced system** | **Description** | **Transfer Mode** |
| --- | --- | --- | --- |
| 1. | LDAP | The application is interfaced with the LDAP active directory to validate and get user information. | HTTPS protocol |

Table

# 4.4 WARRANTY AND MAINTENANCE PERIOD

|  |  |  |
| --- | --- | --- |
| **Warranted Items** | **Start Date** | **End Date** |
| Linux Servers Hardware maintenance by Hitachi. | Renewal from last maintenance contract | 31 May 2021 |
| iHRMS application maintenance by AMS support team | August 2017 |  |
| Oracle 12c AS maintenance by Oracle. Renewal from last maintenance contract. | Renewal from last maintenance contract |  |
| Oracle 12c DB maintenance by Oracle. Renewal from last maintenance contract. | Renewal from last maintenance contract |  |
| Tivoli Monitoring and Tivoli TSM | Enterprise License Agreement |  |

Table

# 4.5 ROLES AND RESPONSIBILITIES

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Role** | **Responsibility** | **Name** | **Designation** | **Company / Department** | **Contact (Phone & Email)** |
| System owner | Ensure system is operating as per designed and authorize user access to the system. | Nurazniyati Abd Wahid | Assistant Manager | IT - Business IT Corporate Services | nurazniyati.abdwahid@malaysiaairlines.com |
| Backup Admin | Responsible to ensure backup according to schedule | Abhinav Kishore | Database Admin | TCS | [ext\_abhinav.kishore@malaysiaairlines.com](C:\\Users\\2109840\\AppData\\Local\\Microsoft\\Windows\\INetCache\\Content.Outlook\\R997778H\\ext_abhinav.kishore@malaysiaairlines.com) |
| System Admin | Responsible for installation, configuration, patching, and monitoring system performance | RajashekarReddy Kasireddy | Application Admin | ATOS | [ext\_rajashekarreddy.kasireddy@malaysiaairlines.com](mailto:ext_rajashekarreddy.kasireddy@malaysiaairlines.com) |

Table

MAB IT Helpdesk will provide the first level support for iHRMS Archival. Users will call MAB IT Helpdesk for the first-level problem determination. Based on the severity and findings, the problem is to be channeled to the respective support team.

Infra and AMS Team will provide the second level support for the application infrastructure.

The second level support team coverage and their role/responsibility are listed below:

| **Role** | **Responsible Party / Responsibility** |
| --- | --- |
| iHRMS Archival Administration | * Infra Mid-Range tower. * Administer the iHRMS Archival PROD and TEST servers. * Perform the operating system and application backup/recovery. * Manage server security as per security policy. * Monitoring of the systems resources and ensure servers performance and availability is per SLA. * Gatekeeper for application fixes deployment. * Troubleshooting infrastructure related problems. * Administering Oracle AS * Perform OS and Oracle AS patches maintenance and implement upgrade or patch releases. |
| iHRMS Application Support | * AMS * 2nd level application support. * Coordinating application fixes and upgrade deployment   + perform UAT together with BU   + raise RFC for CAB * Coordinating with Infra to deploy fixes and upgrade   + Verify fixes together with BU * Reports and Monitoring the application technical problem |
| iHRMS Archival Oracle Database Administration | * Infra Database tower * Perform database maintenance and implement Oracle upgrade or patch releases. * Perform database recovery. * Manage database security as per security policy. |
| Tivoli Monitoring Administration | * IT-Ops Infra Mid-Range tower. * Ensure all components (hardware resources, daemons) of application are monitored and abnormal system behaviours are informed to operators and Application System Administrator. |
| Commvault Storage Management | * IT-Ops Infra Mid-Range tower * Monitor Linux, applications, Oracle DB are backup as per schedule backup via Commvault |
| iHRMS Archival User’s PC administration | * Desktop Support |
| WAU Group | * Responsible for monitoring the application server system health and TEC messages. * Responsible to escalate problems detected from TEC console and error log |
| MAS Helpdesk | * Single point of contact to coordinate when the problems occurred. * Responsible to coordinate problem reporting to the respective parties. |

Table

# 4.6 Technical specifications

## 4.6.1 Hardware specifications

| **No** | **Hardware** | **DNS Name** | **Server Location** | **IP address** | **Specification and Description** |
| --- | --- | --- | --- | --- | --- |
| 1. | Database Production  Server | IHRMSLEGACYDB.MAS.NET | Public Cloud: Singapore | 10.221.14.20 | Production Database Server  Resources allocated :-  CPU - 4 x 2.30GHz  Type - Intel(R) Xeon(R) CPU E7-8880 v3 @ 2.30GHz  Memory - 24 GB RAM  OS - Red Hat Enterprise Linux Server release 7.2 (Maipo)  Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit |
| 2 | Application Production  Server | 1MFMIGAPP1.MAS.NET | Public Cloud: Singapore | 10.221.4.18 | Production Application Server  Resources allocated :-  CPU - 4 x 2.30GHz  Type - Intel(R) Xeon(R) CPU E7-8880 v3 @ 2.30GHz  Memory - 24 GB RAM  OS - Red Hat Enterprise Linux Server release 7.2 (Maipo) |
| 3. | Database Test Server | CLMST/LMS02 | Public Cloud: Singapore | 10.225.4.83 | Test Database Server  Resources allocated :-  CPU - 2 x 2.30GHz  Type - Intel(R) Xeon(R) CPU E7-8880 v3 @ 2.30GHz  Memory - 16 GB RAM  OS - Red Hat Enterprise Linux Server release 7.2 (Maipo)  Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit |
| 4. | Application Test Server | 3MFMIGAPP1.MAS.NET | Public Cloud: Singapore | 10.221.12.20 | Test Application Server  Resources allocated :-  CPU - 2 x 2.30GHz  Type - Intel(R) Xeon(R) CPU E7-8880 v3 @ 2.30GHz  Memory - 16 GB RAM  OS - Red Hat Enterprise Linux Server release 7.2 (Maipo) |

Table

*.*

## 4.6.2 Software specifications

The iHRMS Archival software infrastructure as follows:

| **No** | **Software** | **No** | **Version** |
| --- | --- | --- | --- |
| 1. | Database | 50users | Oracle 12c Enterprise Edition Database License |
| 2. | Application | 50 users | Oracle Application Server 12c R2 Enterprise Edition License |
| 3. | Tivoli Suite of products | 14 | IBM Tivoli Monitoring Processor Lic |
| 4. | Tivoli Suite of products | 14 | IBM Tivoli Enterprise Console Processor Lic |
| 5. | Tivoli Suite of products | 6 | IBM Tivoli Monitoring For Databases Processor Lic |
| 6. | Tivoli Suite of products | 14 | IBM Tivoli Storage Manager Extended Ed Proc. Lic. |
| 7. | Tivoli Suite of products | 14 | IBM Tivoli Storage Mgr. For System Backup And Recover Pr. Lic. |
| 8. | Tivoli Suite of products | 14 | IBM Tivoli Storage Mgr For Storage Area Nw Pr Lic |
| 9. | Tivoli Suite of products | 6 | IBM Tivoli Storage Manager For Dbs Processor Lic |
| 10. | OS for DB and Application servers | 6 | RHEL 7.2 (Maipo) |
| 11. | WBI Jtext | ELA | MAB enterprise licenses. |

Table

## 4.6.3 Communication / Network Specification

The iHRMS Archival application users will be accessing the application over the WAN from KLIA-ACC. The network bandwidth of 20 Kbps per user sessions with each user having 3 sessions is expected. The total network bandwidth requirement for all the users will be around 3Mbps +. It is anticipated that the existing network is able to support the required bandwidth where currently the network bandwidth from KLIA to CX2 is about 100Mbps with the utilization of 10Mbps

Below are the lists of ports used:

| **Hostname** | **Service** | **Ports used** | **Comment** |
| --- | --- | --- | --- |
| 1MFMIGAPP1.MAS.NET | HTTPS | 8080 | Application Server to host application and access |
| IHRMSLEGACYDB.MAS.NET | Oracle | 1546 | Database server to fetch data from database |

Table



Figure 11

## 4.6.4 User and Equipment Locations

The user’s PCs have been upgraded or replaced to meet the iHRMS Archival requirement as below:

|  |  |
| --- | --- |
| **CPU** | Intel/AMD 2 GHz or Above |
| **RAM** | 2GB RAM memory or Above |
| **Monitor** | 800 x 600 resolution VGA color |
| **Operating System** | Windows XP or Above |
| **Disk** | 80 GB (less than 1GB is required) |
| **Software** | Internet Explorer Web browser - IE 8.0/Google Chrome/Fire fox  Acrobat Reader 9.0 to read the Report |
| **Network** | PC must be within MAB LAN/WAN network |
| **Specific Configuration** | If Proxy server is set on in the IE browser, ensure that the \*mas.net.\* is exempted. The performance may be slower if it goes through proxy. To change go to -> IE->Tools->Internet Options->Connection->LAN Setting->Advances->Exceptions. |

Table

## 4.6.5 File Management

## 4.6.5.1 Libraries and files

#### NA

## 4.6.5.2 DBMS setup

#### Instance Names

CLMSP for production database

#### Database Overall Size

Approximately 350GB disk space is required for Production instance.

# 4.7 Technical operations guide

This section describes all technical activities to be performed by IT Operations to operate and maintain the system

## 4.7.1 Installation Procedures

NA

## 4.7.2 Backup and Recovery

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 service 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 VM Snapshot Linux 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 has changed since the previous backup.

When the data transfer is complete, the snapshot is removed and a recovery point is created.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Server/Database** | **# of Versions** | **Frequency** | **Schedule (MYT)** | **Remarks** |
| MASG-1MFMIGAPP1 | 6 | Every Saturday | 5:50 PM MYT | Monthly first Saturday backup retention is 3 months |
| MASG-1MFMIGDB1 | 6 | Every Saturday | 5:50 PM MYT | Monthly first Saturday backup retention is 3 months |
| MASG-3MFMIGAPP-LX | 6 | Every Saturday | 5:50 PM MYT | Monthly first Saturday backup retention is 3 months |
| MASG-3MFMIGDB-LX | 6 | Every Saturday | 5:50 PM MYT | Monthly first Saturday backup retention is 3 months |

Table

## 4.7.3 System Startup and Restart

|  |  |  |  |
| --- | --- | --- | --- |
| **Hostname** | **IP Address** | **Server Function** | **Application Startup Procedure** |
| MASG-1MFMIGAPP1 | 10.221.4.18 | Production Application | Tomcat -> bin -> startup.sh |
| MASG-3MFMIGAPP-LX | 10.221.12.20 | UAT Application | Tomcat -> bin -> startup.sh |

Table

## 4.7.4 System Shutdown

## 

|  |  |  |  |
| --- | --- | --- | --- |
| **Hostname** | **IP Address** | **Server Function** | **Application Shutdown Procedure** |
| MASG-1MFMIGAPP1 | 10.221.4.18 | Application | Tomcat -> bin ->shutdown.sh |
| MASG-3MFMIGAPP-LX | 10.221.12.20 | UAT Application | Tomcat -> bin ->shutdown.sh |

Table

## 4.7.5 Monitoring Tools

The iHRMS Archival Production servers will be monitoring by IBM Tivoli Monitoring. Refer to Tivoli Monitoring document (TEC Events Escalation Procedure).

## 4.7.6 Source Code Version Control

The source code and versioning of iHRMS Archival application is being managed by the TCS.

## 4.7.7 Preparation of Production Environment

### 4.7.7.1 Program / macro

The iHRMS Archival application has been installed in Production servers.

### 4.7.7.2 Network Definitions

The following hostnames have been defined in the DNS:

1. 1MFMIGAPP1.MAS.NET– IP address 10.221.4.18

2. 3MFMIGAPP1.MAS.NET– IP address 10.221.12.20

3. IHRMSLEGACYDB.MAS.NET– IP address 10.221.14.20

### 4.7.7.3 Desktop Configuration

Current desktop configuration for iHRMS Archival users:

|  |  |
| --- | --- |
| **CPU** | Intel/AMD 2 GHz or Above |
| **RAM** | 2GB RAM memory or Above |
| **Monitor** | 800 x 600 resolution VGA colour |
| **Operating System** | Windows XP or Above |
| **Disk** | 80 GB (less than 1GB is required) |
| **Software** | Internet Explorer Web browser - IE 8.0/Google Chrome/Firefox  Acrobat Reader 9.0 |
| **Network** | PC must be within MAB LAN/WAN network |
| **Specific Configuration** | If Proxy server is set on in the IE browser, ensure that the \*mas.net.\* is exempted. The performance may be slower if it goes through proxy. To change goto -> IE->Tools->Internet Options->Connection->LAN Setting->Advances->Exceptions. |

Table

## 4.7.8 Batch Jobs

NA

## 4.7.9 Report Management

iHRMS Archival can produce numerous reports mostly in pdf and excel format. User can view the report online or download the report. For the Report category please refer the section Report.

# Maintenance and support

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

## 4.8.1 Problem Logging

iHRMS Archival users will log problem pertaining to iHRMS Archival application to Helpdesk by telephone call or by sending memo to HELPDESK.

Helpdesk will provide 1st level support, log problems and assign accordingly.

## 4.8.2 Problem Categorization and Escalation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Business Unit** | **Business Unit** | **1st Level Support** | **2nd Level Support** | **3rd Level Support - Vendor Warranty Support** |
| Business Users | Business Support Personnel | IT Helpdesk | IT Operations   * AMS | * iHRMS Archival application – third level support |
| IT Operations   * Infra | TCS   * Hardware maintenance |

Table

Helpdesk will analyze the problem and assign a ticket number and a severity level which is mutually agreed by the user based on the Group IT SLA.

Apart from Helpdesk channeling the problem ticket, the DC Operators will monitor the TEC Console for any occurrence of events monitored by the Tivoli Monitoring. The list of events are documented in the Tivoli Monitoring for iHRMS Archival. Upon receiving of TEC event, the Operators notify the following iHRMS Archival support staff by telephone call for urgent and critical problem or send MEMO or both.

| **No** | **Problem Category** | **Level** | **Problem Description** | **Escalation** |
| --- | --- | --- | --- | --- |
| 1 | Hardware problem | 3 | PC hardware or configuration problem where unable to start-up the PC or the standard desktop application. | Desktop Support |
| 2 | Unable to launch the Application. | 3 | - Page error  - Invalid User ID/ Password when launching iHRMS Archival application forms | AMS Support (1st) iHRMS Archival Systems Administrator and DBA (2nd) for Infra related. |
| 5 | PC unable to connect to LAN/WAN. | 3 | Users PC at site unable to connect to network | Network Support. |
| 6 | Unable to login to the Application | 3 | Unable to login to application due to invalid ID or password. | iHRMS Archival User Administrator |

Table

## 4.8.3 Application / Technical Support

For all Infra related problem, Helpdesk will channel the problem ticket to the following support personnel:

|  |  |  |
| --- | --- | --- |
| **Name** | **Responsibility Area** | **Contact (Email)** |
| IT Helpdesk | L1 support | [helpdesk@malaysiaairlines.com](mailto:helpdesk@malaysiaairlines.com) |
| Venkata Karthick | Midrange | [ext\_venkata.karthick@malaysiaairlines.com](mailto:ext_venkata.karthick@malaysiaairlines.com)  GD\_TCSMidrange <GD\_TCSMidrange@malaysiaairlines.com> |
| Abdul | Wintel | [ext\_abdulkhader.mohamedabusali@malaysiaairlines.com](mailto:ext_abdulkhader.mohamedabusali@malaysiaairlines.com)  GD\_TCSWintel <GD\_TCSWintel@malaysiaairlines.com> |
| Abhinav Kishore | Database | [ext\_abhinav.kishore@malaysiaairlines.com](mailto:ext_abhinav.kishore@malaysiaairlines.com)  GD\_TCSDatabase <GD\_TCSDatabase@malaysiaairlines.com> |
| Ravisankar | Network Support | [ext\_ravisankar.balasubramanian@malaysiaairlines.com](mailto:ext_ravisankar.balasubramanian@malaysiaairlines.com)  GD\_TCSNetwork <GD\_TCSNetwork@malaysiaairlines.com> |
| RajashekarReddy Kasireddy | Application Support,  Onsite-Primary | [ext\_rajashekarreddy.kasireddy@malaysiaairlines.com](mailto:ext_rajashekarreddy.kasireddy@malaysiaairlines.com) GD\_AMS\_SRAS <GD\_AMS\_SRAS@malaysiaairlines.com> |
| Group ID | iHRMS Archival support team | [GD\_AMS\_SRAS@malaysiaairlines.com](mailto:GD_AMS_SRAS@malaysiaairlines.com) |

Table

# User guide

|  |  |  |
| --- | --- | --- |
| **No** | **User guide** | **Location of document** |
| 1 | iHRMS Archival User Guide |  |

Table

## 4.9.1 Accessing the Application

iHRMS Archival application is deployed in web based environment, the client workstation uses the web browser to connect to the web server through LAN/WAN. The web server runs the application and communicates with the database server for exchanging the data.

Access iHRMS Archival via URL: **<http://ihrmsviewer.mas.net/MABMAS/>**

# Contract management

|  |  |  |
| --- | --- | --- |
|  | **Contract** | **Parties** |
| 1. | Service contract for AMS support services | Signed between MAB and ATOS |



Table

# 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. System Operation Document
3. Project Document (Refer to Reference section of this document).
4. Technical Training document.
5. User signoff by Business Users

# 4.12 Information security

**4.12.1 AUDIT AND COMPLIANCE REQUIREMENTS**

|  |  |  |
| --- | --- | --- |
| **Activity** | **Frequency** | **Responsible Party** |
| Perform ID review every quarter and submit result to IRS  [Req: ISO 27001, PCI-DSS] | Quarterly | ID Admin |
| Update user access matrix and submit to IRS  [Req: ISO 27001, PCI-DSS] | Yearly | System Owner |
| Install Critical Security Patches for the application and submit report to IRS  [Req: ISO 27001, PCI-DSS] | Quarterly | System Owner |
| Performed Backup restoration  [Req: ISO 27001, PCI-DSS] | Yearly | System Owner |
| Review & update security documentation and submit to IRS:   * Super/privilege IDs and access * Security Controls Setting * Audit Logs setting * System bypass * List of connections and integration * List of used ports * Data encryption setting * Application/system schematic diagram   [Req: ISO 27001] | Yearly | System Owner |

Table

**4.12.2 PASSWORD POLICY COMPLIANCE**

|  | **Password Policy Requirements** | **Yes** | **No** | **Remarks** |
| --- | --- | --- | --- | --- |
|  | Password length at least 8 characters (minimum) | Yes |  |  |
|  | Alphanumeric | Yes |  |  |
|  | Change temporary password at first logon | Yes |  |  |
|  | Password expiry = 90 days (maximum) | Yes |  |  |
|  | Password reuse generation = 5 (minimum) |  | No |  |
|  | 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 |  | No |  |

Table

**4.12.3 USER ACCESS MATRIX**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **USER TYPE** | **ACCESS LEVEL** | | | |
| **User Management** | **Screens** | **Pay result** | **EA Forms** |
| Admin | Yes | Yes | Yes | Yes |
| Super User | No | Yes | Yes | No |
| User | No | Yes | No | No |

Table

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# APPENDIX

**PATCH MANAGEMENT REPORT**

Application : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Nil\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Owner **: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_NIL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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

**Prepared By: Approved By:**

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

**System Admin System Owner**

**BACKUP RESTORATION REPORT**

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

Owner **: \_\_\_\_\_\_\_\_\_\_\_\_NIL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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

**Prepared By: Approved By:**

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

**Backup Admin System Owner**

**NON COMPLIANCE REPORT**

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

Owner **: \_\_\_\_\_\_\_\_\_\_\_\_\_\_NIL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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

**Prepared By: Approved By:**

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

**System Admin System Owner**

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