

Orane- SAP Basis Services for Ethiopian Airlines

Today's competitive business environment demands that IT managers run their organizations leaner, faster and smarter—with fewer people and lower costs. These challenges requires IT solutions that deliver results straight to the bottom line. These challenges require IT solutions that provide a low Total Cost of Ownership (TCO) and high Return on Investment (ROI).

Ethiopian Airlines : Overview

Ethiopian Airlines is wholly owned by the country's government. It was founded on 21 December 1945 and commenced operations on 8 April 1946 expanding to international flights in 1951. The firm became a share company in 1965, and changed its name from Ethiopian Air Lines to Ethiopian Airlines. Ethiopian is a member of the International Air Transport Association, and, since 1968, of the African Airlines Association (AFRAA).The airline is a Star Alliance member since December 2011.

Its hub and headquarters are at Bole International Airport in Addis Ababa, from where it serves a network of 80 passenger destinations —16 of them domestic— and 17 freighter ones. Ethiopian flies to more destinations in Africa than any other carrier. It is one of the fastest-growing companies in the industry, and is among the largest on the African continent. It is also one of the few profitable airlines in the Sub-Saharan region. The airline's cargo division was awarded *The African Cargo Airline of the Year* in early 2011.

Ethiopian Airlines: Logo



Our Understanding of Ethiopian SAP Landscape

Ethiopian has their current SAP environment hosted in their own data center and maintaining SAP servers. Below SAP servers are hosted in Ethiopia data center

1. **SAP ECC**

SAP ECC is installed as three system landscape (DEV, Quality, and PRD). ECC Production system is clustered where DB and CI are on different host.

2. **SAP BW**

SAP BW application is installed as three system landscape (DEV, Quality, and PRD). BW Production system is clustered where DB and CI are on different host.

3. **Enterprise Portal**

SAP Enterprise Portal is installed as three system landscape (DEV, Quality, and PRD). EP Production system is clustered where DB and CI are on different host. SLD is placed on SAP PI system collecting data from whole landscape.

4. **Solution Manager**

Solution Manager is single system connected with other system. This system is primarily used for EWA and Maintenance optimizer.

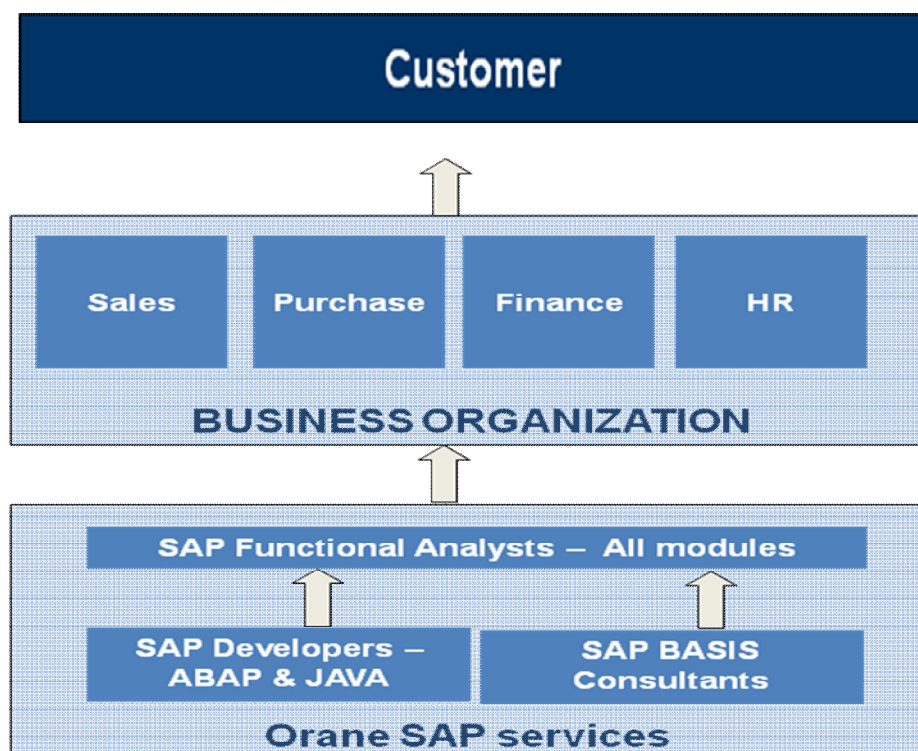
Ethiopia owns the physical hardware and i.e servers, storage and continues to do so. Only sap basis services will be supported taken care by Embellish Technologies.

Support Timeline

Regular baseline support will be taken care during (08:00 AM ET – 06:00 PM ET) time. Remaining time will be covered by on call person, who will be available for SEV1 / SEV2 down situation.

Orane SAP Basis Support

The term 'Basis' when used in the context of SAP technology refers to the application layer of the SAP system. When you think about the role a 'Basis Administrator' has, it should include system administration tasks such as managing the database, transporting development and configuration objects from one SAP system to another, monitoring system performance to ensure no interruption in system stability occurs in the SAP production environment, installing and upgrading the software on the servers, and system security. A *smooth operation of SAP basis infrastructure for production- and non production systems is therefore essential for the business of the BCH.*



Orane SAP Basis Activities as part of Baseline Support

1. Monitoring

As of now no automated monitoring is in place. Ethiopia to specify if any manual monitoring is in place. Embellish will provide necessary knowledge about the monitoring and manual monitoring will be taken care by Ethiopian resource and will be sent to Embellish and Ethiopia higher management. Configuration of automated monitoring tool will not be covered in SAP Baseline support and has to be taken care as project activities.

2. Incident Support

As of now there is no incident management tool is in place. Separate discussion is required for handling of Incident. All queries and issues will be handled as Incident and divided in different categories (SEV1, SEV2, SEV3, and SEV4). Resolution time will depend upon incident priority. Issue with non-production systems will taken care either as SEV3 or SEV4 and will be handled during normal support operation. Support clock will be stopped in case any inputs or activity is pending from

SEV1 - In case of production system down or major business affected (More than one department affected). Resolution time max 10 hours after it is received by support team.

SEV2 – Major business function affected. Around one complete department affected. Resolution time max 24 hours after it is received by support team.

SEV3 – Normal priority requests. To be closed within 96 hours after it is received by support team.

SEV4 – Low priority request. To be closed within 7 working days.

3. SAP Basis Day to Day Administration activities

Business critical and strategic SAP systems are implemented to run 24x7 hours, but from time to time it is necessary to stop or restart them. Reasons may be changes in hardware or software components (operating system, database) or activation of different SAP parameters. In all cases of a planned stop and restart during support hours a schedule will be agreed between Ethiopia and

Embellish. Below activities will be taken care as part of SAP Basis Day to day Administration :-

Activities	Embellish	Ethiopia
Start / stop of SAP servers	X	
Profile parameter changes	X	
Creation / deletion / modification of Operation modes. Work process distribution and assignment	X	
Creation / deletion / modification of logon groups	X	
Create / Delete "system messages"	X	
Delete user's session	X	
Analyse / Correct WAS JAVA problems	X	
Support packages / add-on(s) management	X	
Upgrade of SAP kernel (upto 4 times in a year)	X	
Tuning and Performances Management on SAP application level	X	
Create / Modify / Delete "RFC connection" & "Trusted RFC connection"	X	
Create / Modify / Delete "partner(s) profile(s)"		
Create / Modify / Delete "IDoc port(s)"		
Distribute / Transport "distribution model"	X	
Setup / Deletion of Transport System (STMS)	X	
Modification / addition of system to transport system.		
Create / Maintain / Delete "Logical Systems"	X	
Create / Maintain / Delete "Logical file name definition, cross-client"	X	
Creating and Configuring HTTP services	X	
Creating and Defining Logical Paths & Filenames	X	
Email Management in SAP (Lotus-GITO) for a generic email address creation (Only at SAP level)	X	
SCOT configuration	X	
Implementation of SAP notes / Corrections	X	

4. System Monitoring & Troubleshooting

Analysis of system specific ABAP Dumps	X	
Backup log check		
Tablespace size monitoring and extension	X	
Batch Job monitoring and troubleshooting	X	
Database Performance Monitoring	X	
Database performance analysis	X	
DBA operation log	X	
DBA planning calendar checks for jobs and backups	X	
Global work process overview	X	
IDOC Status monitoring		X
Local OS monitoring		X
Printer spool status check	X	

5. User Management / Security – User management/ Security will be handled by Ethiopia. Embellish can assist in as a when required.

6. OS Administration - OS administration (Solaris / Aix / Windows) will be handled by Ethiopia . Any inputs required from SAP end will be handled and provided by Embellish.

7. Database Administration: - DB administration will be handled by Embellish in association with Ethiopia.

Create / Modify / Delete database's user	X	
Maintain database user(s) password	X	
Start / Stop database / listener	X	
Configuration management of the database	X	
Add / Modify / Delete database parameter(s)	X	
Create / Extend / Delete datafile(s)	X	
Create / Extend / Delete tablespace(s)	X	
Upgrade database software	X	
Install database patch(es)	X	
Reorganisation management	X	
Reorganisation operation	X	
Backup / Recovery management (SAP / DB level)	X	
Backup / Recovery operation (SAP / DB level)	X	
Export / Import management (SAP / DB level)	X	
Export / Import operation	X	
Tuning management on DB level	X	

8. Printer Management : -

Installation/ setup of printers at sap level will be done under baseline. Setup of more than 10 printers should be treated separately and has to be handled as a separate project request. Below activities will be involved in Baseline support services.

Solving Print & Spool incidents	X	
Lock / Unlock printer(s) in SAP	X	
Spool administration management	X	
Spool & Print Tests	X	
Validate / Maintain printer request form	X	
Create / Modify / Delete printer(s)	X	

Create / Modify / Delete or Install "device type"	X	
Transport printer's configuration from DEV to PROD	X	
Lock / Unlock printer(s) in SAP	X	
Spool administration management	X	
Look for an appropriate driver for a given printer		X

9. Refresh management - Quality system is used for integration testing with production data and hence it requires to be refreshed timely. 4 refreshes in a year

Backup / Restoration operation	X	
Perform post-refresh operations	X	
Post-refresh transport orders	X	
Extract transport order list for post-refresh import	X	
Extract Printer list for Post refresh import	X	
Check post-refresh operations	X	

10. Client Management

Create / Delete a client	X	
Copy a client (local or remote)	X	
Maintain client status	X	
Open clients for customizing	X	

11. EHP / Version upgrade : Any upgrade activity EHP / Version will not be covered under baseline and has to be carried out as a separate project

12. Project Activities / out of scope: - Below activities will not be covered under baseline and has to be carried out either separate project activity or out of scope.

SAP EHP upgrade for SAP system
SAP Version upgrade
Interface management
Configuration of printers > 10 together
CTS + configuration
New installation / up-gradation
OS and DB migration
Database version upgrade.
SAP User administration and Security
Hardware movement for any server
Any new configuration
Solution manager Configuration
CCMS configuration

13. Problem Management :

Problem management is aimed at handling all high severity tickets (SEVERITY LEVELS 1 and 2) raised from the incident management process. The main objective is to find out the root causes of these failures and recommend changes in the configuration items. Repeated issues will be covered under problem management and requires a permanent solution.

14. Configuration of Transport Management System (TMS)

Every SAP system landscape consists of multiple SAP systems. The Transport Management System (TMS) is a SAP standard tool to organize the transport of changes e. g. programs or customizing settings to different systems in the system landscape. Embellish will be responsible for below activities:-

- ✓ For the technical implementation of the TMS configuration e. g. by providing disk space for file system /usr/SAP/trans
- ✓ For the configuration of the TMS e. g. definition of the Domain Controller, system types, transport goals
- ✓ To consult the client concerning TMS configuration
- ✓ Adapt the TMS configuration after a system refresh

15. OSS management

SAP AG needs a special SAP support connection for supporting CLIENT's SAP landscapes. To use the connection the following is required

- ✓ Service user is configured in each client (e.g. SAPOSS or SAPREMOTE);
- ✓ Connections are kept closed and service user is locked CLIENT recommends that user is not locked but validity dates are changed instead;
- ✓ Connection is opened on request for a specific timeframe (max. 24 hours) CLIENT recommends connection to be open one (1) working week based on experience;
- ✓ Service user is also unlocked on request for short periods of time (max. 24 hours) CLIENT recommends that user is not locked but validity dates are changed instead; and
- ✓ SAPNET (SAP Service Marketplace) user configured

Open / Close OSS connection to SAP system
Create / Delete developer(s) key(s)
Register object(s) key(s)

16. Roll back support

Roll-back is a restore to the latest data base state with non-corrupted transactions (most recent consistent data base state before system failure).

Where possible a full system backup will be taken before attempting recovery.

Following tools for oracle database restore and recovery, combined with any other third party utilities.

Training- SAP BASIS

AS ABAP:-

1. Fundamentals of SAP Basis
2. Starting and Stop
3. Introduction to system Configuration
4. Fundamentals of working with Database
5. Fundamentals of User Administration
6. RFC Maintenance
7. Software Maintenance
8. Output Management (Printer configuration)
9. Scheduling Background jobs
10. System monitoring and troubleshooting
- 11.SAP Connect and SMTP
- 12.Advance User administration (CUA)
- 13.Transport Management system
- 14.Client Administrations

AS JAVA:-

1. Fundamentals of Java Stack
2. Starting and stopping Java Stack
3. Basic Configuration of Java Stack (Visual Admin , Config Tool)
4. User and Authorization concept for Java stack
5. Java connector and Destinations
6. Change Management and Software Logistics
7. Monitoring of AS Java
8. Software Lifecycle

Database Administration with Oracle-

1. Oracle Database overview
2. Backup , restore & recovery overview
3. Monitors and tools (BRTOOLS)
4. Storage Management
5. Introduction to Oracle Cache management
6. Monitoring of Database Instance.

“The best simplifications of complexities of a business are done by SAP, and the best simplification of implementations is done by **ORANE**”



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