International Journal of Management, IT & Engineering
Vol. 15 Issue 02, February 2025,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

FRAMEWORK FOR APPLICATION MAINTENANCE SUPPORT FOR SAP

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Abstract

This Framework is aimed to provide a structured approach managing and effective support of SAP systems, processes, architecture, security and support functions. Upgrades, releases and patches of Technology tools and software and follow-on support is defined in this artefact. Further this framework ensures SAP systems operate efficiently, remain secure, and align with business goals.

1. Governance and Strategy

Governance is the process of creating a structure that governs the development, deployment, management and use of IT applications.

***Objectives*:** Define clear business goals for SAP operations.

- Objective of application governance are to keep application running smoothly increase data security, and manage risks

***Roles and Responsibilities*:** Establish roles for key stakeholders (e.g., IT, business owners, support teams).

- Clear separation of duties – application owner, define process, approval workflows, access policies and on/off boarding

Policies and Standards: Define operational standards, security policies, and compliance requirements.

- Enables how organization uses its applications ensuring compliance & adherence to policies and procedures

Governance Model for IT Operations

Level	Frequency	Stakeholders	Contractor Stakeholders	Key Activities
Strategic	Quarterly	CXO, Program Sponsor	Engagement Partner, Head of Operations	Strategic Partnership & Direction Relationship Management Resolve Critical Escalations
Tactical	Monthly	Associate Director, Program Director, Service Delivery Manager, PMO	Director, Head of Operations, Service Delivery Manager	Contract & Budget Management Assess status, risks, milestones Best Practice sharing, thought Leadership
Tactical	Weekly	Service Delivery Manager, Associate Director, OG Leads, PMO, IT	Service Delivery Manager, Director	Detailed Planning of activities, Weekly tracking of status, issues & risks Escalation & Risk Management Change & Scope Management
Operational	Daily/BAU	Service Delivery Manager, Functional & Technical Leads, IT	Service Delivery Manager, Consultants	Resolve Transactional Issues Coordinate with required Stakeholders Escalate as required

2. System Landscape and Architecture

***System Overview*:** Document all SAP systems, including production, development, and test environments.

- Define system architecture, network alignment & integration with overall system
- Define & update system upgrades & release status including patch upgrades
- Publish different system landscape (Dev/Test/Prod) and associated clients
- Define & publish usability of system landscape
    - BAU – AMS can use XXX systems
    - Projects will use YYY systems

***Integration Landscape*:** Map integrations with other systems (ERP, CRM, third-party tools).

- Define Integration Landscape for Business systems
- Define & update 3rd party systems stakeholders & contact details
- Impact of Integration & 3rd Party systems to Ooredoo functionalities

***Technical Architecture*:** Include database, servers, cloud, and on-premises infrastructure details.

- Define, publish and update databases details, servers and infrastructure details
- Understand the impact of Releases, Upgrades (patches & improvement) and adjust/add Infrastructure requirements accordingly
- Plan-test & approve any changes to infrastructure

3. Service Management

Incident Management: Define processes for identifying, logging, prioritizing, and resolving incidents.

What is Incident?

An incident is an event that is not a part of the standard operation of a service which causes or may cause an interruption to, or reduction in the quality of that service.
The process is applicable to all incidents, service interruptions and unplanned outages that occur in Technology production environments to provide any internal or external services.

Define Priority, SLAs & RACI – Contractor

Severity Level	Definition	Availability	Response Time	Resolution Time
Severity 1 (P1) – Very High	➢Business operations is severely affected ➢Adversely impacting internal & external constituents ➢Service-affecting serious circumstances that hamper business processes entirely (critical)	24 hours X 7 days	1 hour	4 hours
Severity 2 (P2) - High	➢Business operations is affected in some capacity with time-consuming workarounds and end user productivity ➢Service-affecting circumstances that are not hampering the business processes entirely (major impact)	24 hours X 7 days	2 hours	1 Business Day

Severity 3 (P3) - Medium	➢Minimal Business Impact (Users specific or less than 25% users affected) with workarounds ➢Service-affecting circumstances that are impacting business processes indirectly (minor impact)	8 hours X 5 days	2 hours	3 Business days
Severity 4 (P4) - Low	➢No impact on Critical Services ➢Knowledge transfer/handholding/Training and access related calls (minor impact)	8 hours X 5 days	2 hours	5 Business days

SLA are from Contract documents

RACI –

S.No	Activity	Responsible	Accountable	Consulting	Informed
1	Develop and Deploy Incident Management Process	Contractor	Contractor	In-house IT	In-house IT
2	Approve incident management process	In-house IT	In-house IT		
3	Provide incident support for all levels (L1,L2,L3)	Contractor	Contractor		Customer
4	Investigate and diagnose incidents	Contractor	Contractor		Customer
5	Provide solution or work around for incident	Contractor	Contractor	In-house IT	In-house IT
6	Implement solution or work around	Contractor	Contractor	In-house IT	In-house IT
7	Escalate the incidents that are not resolved within SLA's	Contractor	Contractor	Customer	
8	Acceptance solution or work around	Customer	Customer		
9	Review Incident Report	Customer	Customer	Contractor	Contractor

Escalation Matrix

Escalation Level	Contractor	Ooredoo	Criteria
First Level	Service Delivery Manager	Service Delivery Manager	
Second Level	Director	Head/Associate Director	
Third Level	Engagement Partner	Senior Director	
Fourth Level	Head of Operations	CXO	

Define Priority, SLAs & RACI – SAP tickets

Priority	Definition	Response level
P1	**Very High:** An incident should be categorized with the priority "very high" if the problem has very serious consequences for normal business processes or IT processes related to core business processes. Urgent work cannot be performed. This is generally caused by the following circumstances: - A productive service is completely down. - The imminent system Go-Live or upgrade of a production system cannot be completed. - The customer's core business processes are seriously affected. A workaround is not available for each circumstance. The incident requires immediate processing because the malfunction may cause serious losses.	**Initial Response:** Within one hour of case submission. **Ongoing Communication:** Unless otherwise communicated by SAP Support, once every hour. **Resolution Target:** SAP to provide for issues either a (i) resolution, or (ii) workaround or (iii) action plan within four hours
P2	**High:** An incident should be categorized with the priority "high" if normal business processes are seriously affected. Necessary tasks cannot be performed. This is caused by incorrect or inoperable functions in the SAP service that are required immediately. The incident is to be processed as quickly as possible because a continuing malfunction can seriously disrupt the entire productive business flow.	**Initial Response:** Within four hours of case submission for SAP Enterprise Support cloud edition customers **Ongoing Communication:** Unless otherwise communicated by SAP Support, once every six hours.
P3	**Medium:** An incident should be categorized with the priority "medium" if normal business processes are affected. The problem is caused by incorrect or inoperable functions in the SAP service.	**Initial Response:** Within one business day of case submission for SAP Enterprise Support cloud edition customers. **Ongoing Communication:** Unless otherwise communicated by SAP Support, once every three business days for non-defect issues and ten business days for product defect issues.
P4	**Low:** An incident should be categorized with the priority "low" if the problem has little or no effect on normal business processes. The problem is caused by incorrect or inoperable functions in the SAP service that are not required daily, or are rarely used.	**Initial Response:** Within two business days of case submission for SAP Enterprise Support cloud editions customers **Ongoing Communication:** Unless otherwise communicated by SAP Support, once every week.

RACI – SAP Tickets

S.No	Activity	Responsible	Accountable	Consulting	Informed
1	Create a ticket in SAP portal	Contractor	Contractor	In-house IT	In-house IT
2	Acknowledge ticket	SAP	SAP		
3	Respond to ticket within SLA	SAP	SAP		
4	Seek information for ticket investigation	SAP	SAP	Contractor/Customer	
5	Provide solution or work around for incident	SAP	SAP	In-house IT	Customer
6	Implement solution with in SLA or work around	SAP	SAP	Contractor	Customer
7	Validate solution/testing and confirm	Contractor/OneO/OpCo	Contractor	In-house IT /PMO	
8	Escalate the incidents that are not resolved within SLA's	Contractor/ In-house IT	Contractor/ In-house IT	Customer	Customer
9	Provide RCA of ticket	SAP	SAP	Contractor	Customer
10	Valid SLA adherence	In-house IT /PMO	In-house IT	Contractor	Contractor

P1 (Very High) Ticket Resolution:

Identification & Confirmation

- Either Users identify or IT (inclusive of AMS) identify non availability of functionality/system and raise ticket via ticketing tool
- AMS partner to validate the tickets and confirm. Simultaneously raise the ticket to P1 priority

Contain & Communication

- AMS partner to inform to Service Delivery Manager /IT Enablement about P! ticket and impact to Business
- AMS partner to contain the issue

- If AMS partner unable to resolve, raise P1 ticket with OEM (SAP/Ariba)
- Service Delivery Manager/IT Enablement to issue communication to relevant stake holders about the P1 ticket. This communication should include –
    - Application Details
    - Impacted areas
    - OEM ticket
    - Tentative timeline for resolution (if known)
    - Next communication timeline (ideally every 1 hour)

Investigation & Resolution

- Investigate the root cause and identify for resolution
- Look out for work around solution to support BAU
- Support OEM in resolving the issue by providing scenarios, data and testing
- Validate the solution (test) and engage Business users to confirm on solution

RCA & Closure

- AMS Partner to publish Root Cause Analysis (RCA) report. Align with OEM to get details and findings if the ticket is resolved by OEM
- If required, conduct AAR (After Action Review) session with relevant stakeholders

Problem Management: Root cause analysis and long-term fixes for recurring issues.

What is Problem?

A problem is recurring incident

Problem as a cause, or potential cause, of one or more incidents. The behaviors behind effective incident & problem management are often similar and overlapping, but there are still key differences.

Priority & SLA depends on criteria and need to be aligned/defined and tied to below -

- CR Process
- Release/Upgrade/Patch plan

RACI

S.No	Activity	Responsible	Accountable	Consulting	Informed
1	Develop and Deploy Problem Management Process	Contractor	Contractor		In-house IT
2	Approve problem management process	In-house IT	In-house IT		
3	Conduct major problem reviews	Contractor	Contractor	In-house IT/Customer	In-house IT/Customer
4	Correcting problems (error control)	Contractor	Contractor	In-house IT/Customer	In-house IT/Customer
5	Prepare Major Incident Report	Contractor	Contractor		In-house IT/Customer

6	Resolution acceptance	In-house IT/Customer	In-house IT/Customer	Contractor	

Change Management: Processes for introducing updates, patches, and enhancements without disrupting operations.
Need to provide Framework for ADM (Application Development Management)

Demand Management

- Capture demand requirements from Business user (ideally in defined template)
- Triage demand requests based on Business priority & criticality
- Asses & Approve requests
- Maintain pipeline of demand requests without disrupting BAU
- Align with Release Manager for deployment plan & communicate to Business
- POC for Business

Release Management

- Maintain release calendar for Application releases, upgrades, patches
- Publish release calendar and align with PMO on scheduled deployment dates (near & future)
- Align with Contractor and Business on deployment timelines
- Collaborate with Demand Manager for processing demand requests
- Plan deployments in-line with release calendar
- Coordinate Project phases (Build/test/train/deploy)
- Handover steady state to AMS

Reporting Requirements

Report/Activity	Details	Frequency	Audience	Ownership
Pipeline Demand	Details on upcoming demand requests (minor/medium/major)	Monthly	Customer, GPO	Demand Manager
Demand Vs Capacity	Requirements vs available resources (inclusive of budget)	Bi-Monthly	Customer	Demand Manager
Inflight ADM Status	On-going CR, Releases, Upgrades, upgrades etc	Weekly	Customer, Contractor	Release Manager
Release Calendar	Agreed sprints, count of changes per sprint (allocate space per work stream)	Bi-Monthly	Customer, Contractor	Release Manager
Completion, Adherence	Initiation to deployment time stamp. Tied to plan and budget/resource allocation	Monthly	Customer, Contractor	Release Manager

4. Monitoring and Performance Management

System Monitoring: Tools and processes for real-time health checks (e.g., SAP Solution Manager, external monitoring tools).

- Contractor to raise Jira ticket to monitor application system health monitor

- Frequency – Daily
- Tool used – Jira/Ticketing tool
- Contractor to provide proof of system health (by capturing screen shots of system availability)

Performance Metrics: Define KPIs such as system uptime, response time, and job completion rates.

System Availability SLA

- Availability of application systems (SAP S/4 HANA, Ariba, SuccessFactors and others like SolMan)
- Monitor planned, unplanned downtime/outages of application systems
- Record downtime instances, register, track and report to Ooredoo
- Contract Manager to Compare System Availability **Actual Vs Contract** and initiate credit collection process (tied to contractual terms & conditions)

Tickets Metrics

- Publish tickets count, segregate statuses & trends analysis at least once a week
- Publish % closure rate (Total Vs Closed or Closed Vs Open)
- Publish response & resolution timeframe at agreed frequency
- Contract Manager to Compare **Actual Vs Contract** (response & resolution timeframe) and initiate credit collection process (tied to contractual terms & conditions)

RACI – SLA Adherence for Tickets

S.No	Activity	Responsible	Accountable	Consulting	Informed
1	Prepare SLA reports – Tickets and OEM system availability	Contractor	Contractor		In-house IT, Contract Manager
2	Provide SLA adherence report proof for Tickets	In-house IT	In-house IT		Contract Manager
3	Approve SLA adherence report final numbers/differences	In-house IT	In-house IT	Contract Manager, PMO	Contract Manager
4	Calculate Credit Collection Process	Contract Manager	Contract Manager	In-house IT, PMO	Leadership
5	Finalize Credit Collection & Issue to Finance	Contract Manager	In-house IT	PMO, Leadership	

RACI – SLA Adherence for OEM System Availability

S.No	Activity	Responsible	Accountable	Consulting	Informed
1	Prepare SLA reports –OEM system availability	Contractor	Contractor		In-house IT, Contract Manager
2	Compare OEM system availability with Ooredoo Vs OEM numbers	Contractor	Contractor	In-house IT, Contract Manager, PMO	In-house IT, Contract Manager

3	Send SLA comparison to OEM for alignment	In-house IT	In-house IT	Leadership, PMO	Contract Manager
4	Calculate Credit Collection Process	Contract Manager	Contract Manager	In-house IT, PMO	Leadership
5	Finalize Credit Collection & Issue to Finance	Contract Manager	In-house IT	PMO, Leadership	

Controls & Validations

Incident Management

- Validate daily system monitoring activity of Contractor
- Ensure ticket is logged and obtain confirmation from the user once resolved
- Daily stand-up/catch-up calls to run through the tasks and agree on statuses and target dates

Problem Management

- Validate tickets trends and identify recurrent problem
- Review and audit RCA documents/Knowledge Base submitted by the SI
- Ensure identified problem has a resolution path. Conformation it's part of the next release or a CR has been raised and tracked

Adherence

- Validate the service level KPIs (& SLAs) against the dashboard /Contract
- Ensure the escalation path is followed by the Contractors and users
- Ensure RAID tracker items are closed within agreed timelines

OEM Notifications

- Configure notifications in service portal from OEM (SAP S/4 HANA, Ariba, SuccessFactors and others like SolMan) – this is making sure notifications are received for releases. Patches, outages
- Cascade notifications to relevant stakeholders (Business and Helpdesks) as applicable
- Exclusive for Outages – please engage Helpdesk & communicate for wider audience reach
- Post Outage – validate systems availability and its functionalities
- Cascade notification to relevant stakeholders (on system availability/back to normal)
- Follow-up with OEM to get RCA for the outage

5. Security and Compliance

User Management: Processes for user provisioning, de-provisioning, and role assignments.

- Assignment & de-assignment of roles to users must be processed as Service Requests
    - Defined approvals should be in place before assignment/de-assignment of role
- If new role is requested – this must be considered as Change Requests
    - Change Requests process to be followed

Contractor On & Off Boarding

On-boarding

- Recruit - Contractor to share profiles with Ooredoo before approving for meet & greet
- Meet & Greet - Schedule session for resource & secure customer approval before on-boarding
- Account & Access - Secure access to customer email, systems & applications
- On-boarding Resource - Comms to relevant stakeholders
- Update resource tracker in share point

Off-boarding

- Initiate - Contractor/Ooredoo to initiate off-boarding process
- Reasons - Provide reasons for off-boarding (attrition/capability performance/downsize etc)
- Exit Date - Discuss & align on final exit date & update resource tracker with exit date
- Access Revoke - Confirm access to customer email, systems & applications is removed on Exit date

7. Upgrades and Patching

Upgrade Process: Plan and execute SAP system upgrades (ECC to S/4HANA, patching, etc.).

- Start with preparing As-Is to To-Be systems and its functionalities
- Detailed Impact Analysis must be published
- Impact Assessment must be aligned with Ooredoo & OEM (SAP)
- Prepare Business case for securing Leadership buy-in
- Initiate project plan for upgrade process
- Align with all Stakeholders and kick-off project

8. Documentation and Knowledge Management

Operational Procedures: Detailed SOPs for common tasks.

- Post handover to BAU – maintain BPD, Process flow and RTM documentation
- Update with new version as and when changes executed as a part of CRs, Upgrades, Patches, Releases

Configuration Details: Documentation for customizations and settings.

- Post handover to BAU – maintain customization documentations (like FSD, TSD and KDS) to match with system configurations
- Proactively highlight any deviation to system Vs documentations
- Investigate & identify the root cause of deviations and propose options to fix the same

Knowledge Base: Maintain a repository for FAQs, troubleshooting guides, and training materials.

- Prepare and maintain SoP/KB (Standard Operation Procedures/Knowledge Base) for repetitive issues
- Prepare and maintain FAQs (Frequently Asked Questions) for repetitive asks
- Prepare and maintain training material (As-Is Vs To-Be) in a defined template for CRs/Releases/Upgrades/Patches

9. Continuous Improvement

Feedback Mechanisms: Gather input from users to identify improvement areas.

Activity	Details	Frequency	Audience	Ownership
CSAT Survey on Service delivery	Publish CSAT (Customer Satisfactory Survey) to gather inputs & feedback	Quarter or Monthly	Customer	Contractor
AAR (After Action Review)	Conduct AAR after an event (Outage/deployment/change)	As applicable	Customer	Contractor
Survey after ticket closure	Capture feedback after ticket is closed from the users	After ticket closure	Business Users	Contractor
Survey after Event	Capture feedback after an event (CR/Release/Upgrade)	As Applicable	Customer	Contractor

Innovation Planning: Explore SAP innovations (e.g., AI integration, new modules).

10. Reports & Cadences

Reports: Minimum reports to be published on agreed frequency

Report	Details	Frequency	Audience	Ownership
SLA Adherence	Details on response & resolution	Weekly/Monthly	In-house IT, Contract Manager	Contractor
Weekly Status Report	Risks & Challenges, Ticket trends, Open tickets, Key highlights etc	Weekly	In-house IT, Customer	Contractor
Monthly Service Deliver Report	Overview of AMS, risks & issues	Monthly	Leadership, In-house IT	Contractor
RAID Tracker	Publish RAID tracker items	Weekly	Customer	Contractor
Tickets open with OEM	Details on open tickets with SAP, Ariba, Icertis etc	Weekly	In-house IT	Contractor
System Availability SLA	Publish System Availability reports for SAP S/4 HANA, Ariba, Icertis, SuccessFactors, SolMan etc	Monthly	In-house IT, Contract Manager	Contractor
RCA Report	Root Cause Analysis report on problems and P1 issues	As Applicable	In-house IT	Contractor

Cadence: Minimum sessions to be held on agreed frequency

Cadence	Details	Frequency	Audience	Ownership
Weekly Status Review	Risks & Challenges, Ticket trends, Open tickets, Key highlights etc	Weekly	In-house IT, OpCo	Contractor
Monthly Service Review	Overview of Contractor, Leadership alignment on Support, Risks, Future Developments	Monthly	Leadership	Contractor Leadership
Quarterly Service Review	Quarter End Review with Senior Management on performance & Strategic investments/next steps	Quarterly	Leadership, CXO	Contractor Sr Leadership
RAID Tracker Review	Review on open RAID tracker items	Weekly	In-house IT, as applicable	Contractor
OEM Issues Review	Session with OEM (SAP, Icertis, Ariba) to discuss on outstanding issues, upcoming releases, outages	Monthly/Bi-Monthly	OEM, Contractor	In-house IT

CoP (Community of Practices): Align & schedule CoP on agreed frequency

Community of Practices (CoP) are regular session with pre-defined stakeholders per department or workstream. CoPs provide status, updates, knowledge sharing and trends pertaining to BAU.

Certain CoPs are internal to OneOoredoo to discuss contract, performance of contractor, amendments to contract, Load & Capacity, budgeted vs forecast etc..

Following is suggested CoPs/User groups -

- Supers Users, SME
- Data & Governance
- IT Departments