

# ERP – Enterprise Resource Planning System

## Business Requirements Document

## TABLE OF CONTENTS

1	Executive Summary .....	3
2	business objectives .....	3
3	Business problems and need.....	3
3.1	Channels .....	3
3.2	Integration and Process Automation .....	4
3.3	Business Intelligence .....	4
3.4	Financial Reconciliation .....	4
3.5	Document Management.....	4
3.6	business need .....	4
4	Scope .....	4
4.1	TERMs of reference .....	4
4.1.1	Time: .....	4
4.1.2	Cost .....	4
4.1.3	Solution: .....	4
4.2	Business Area Scope .....	5
4.3	Solution scope.....	5
4.3.1	Data Migration from current systems .....	5
4.3.2	Integrate with and not limited to below systems: .....	5
4.3.3	Key Features .....	6
4.4	Exclusions .....	6
5	Business Requirements .....	7
5.1	Human Capital.....	7
5.2	Finance.....	11
5.3	Procurement.....	13
5.4	Customer Relations Management (CRM).....	16
5.5	General.....	16
5.6	non functional requirements.....	17
5.6.1	Operational.....	17
5.6.2	Security and Privacy .....	17
5.6.3	Audit Trail .....	19
5.6.4	Reliability .....	20
5.6.5	Recoverability.....	20
5.6.6	Architectural Qualities .....	21
5.6.7	Development Qualities .....	22

## 1 EXECUTIVE SUMMARY

Sasria has embarked on the process of acquiring the Enterprise Resource Planning (ERP) system in order to streamline the business support processes that will promote the organisational collaboration and undoubtedly increase efficiency, which is the ultimate strategic goal. Sasria conducted Enterprise Architecture and Operating Model assessments; both reports recommended the ERP implementation to close the identified capability gaps. Below are the expected benefits for implementation of the ERP.

- Eliminate repetitive manual processes
- Eliminate data silos
- Enhance data integrity
- Improve the data collection and access
- Increase data security
- Enforce regulation compliance

## 2 BUSINESS OBJECTIVES



## 3 BUSINESS PROBLEMS AND NEED

From the independent operating model assessment, below were the identified capability gaps that the project aims to resolve.

### 3.1 CHANNELS

There is a need to address access channels for both internal and external user access. These channels are required to facilitate the ease of getting information on the fly for business decision making as well as for making it easy for information to be submitted and queries be made to Sasria, thus improving stakeholder experience. The examples are the introduction of a self-service portal that

is external facing for various stakeholders that Sasria deals with and internal employee self-service portals.

### **3.2 INTEGRATION AND PROCESS AUTOMATION**

Key processes have too much human intervention, which poses a risk to the efficiency and the integrity of the data transmitted between various systems. There is a need to drive the integration of the systems to ensure process automation and tracking of the required audit data by the business

### **3.3 BUSINESS INTELLIGENCE**

Sasria has a reporting platform but the use of such a platform seems to be limited in certain instances. It is important to ensure that reports are produced in the operational systems where scope of such reports relies only on data in those systems. Furthermore, it is a need to build a data warehousing and reporting environment that runs on its own environment outside the operational systems. This would ensure that reports required by the business can be produced in real-time with all the required data without manually creating them every time they are required.

### **3.4 FINANCIAL RECONCILIATION**

Financial reconciliation is largely manual at the moment and cumbersome. This poses a risk to the business as detail can be missed if these processes are not automated.

### **3.5 DOCUMENT MANAGEMENT**

Sasria already has SharePoint in place to drive document management. There is a need to move away from making use of shared drives to store documents as it is impossible to link these documents to transactions. SharePoint can be used to link documents to various transactions and systems as well as workflows. The human capital management documents and records are currently stored within the current payroll system, some on the shared drive and physical files.

### **3.6 BUSINESS NEED**

The organisation needs a Morden Enterprise Resource Planning system that will support the business functions that are in scope.

## **4 SCOPE**

### **4.1 TERMS OF REFERENCE**

#### **4.1.1 Time:**

Sasria aims to go live with the first phase implementation on 29 March 2019.

#### **4.1.2 Cost**

Sasria budget for the ERP Project is still to be confirmed.

#### **4.1.3 Solution:**

Not specified. This process seeks to identify the solution that is fit for Sasria business purpose.

## 4.2 BUSINESS AREA SCOPE

All Sasria employees will use the ERP system. However, below are the business functions that are in scope and directly affected by the change.

### People Management

---

- Human Capital
- Learning & Development
- Corporate Social Investment

### Finance

---

- Procurement
- Finance

### Insurance Operations

---

- Customer Relations Management

## 4.3 SOLUTION SCOPE

### 4.3.1 Data Migration from current systems

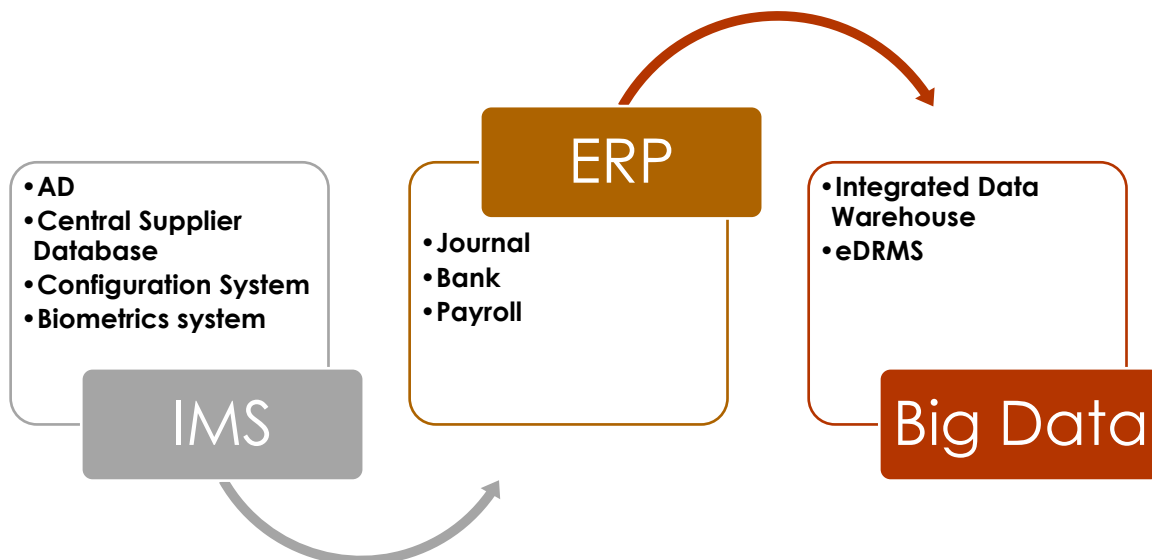
- Payspace
- Great Plains
- Fraxion

### 4.3.2 Integrate with and not limited to below systems:

- Insurance Management System
- Active Directory (AD)
- Configuration System
- Bank
- Central Supplier Database (CSD)
- Integrated Data Warehouse
- Biometrics system (Time and Attendance)
- Learning Management Solution
- Coaching and Mentoring Software
- Reporting tools - Cognos / BI Tool / TM1

#### 4.3.3 Key Features

- Mobility - access ERP data and tools anywhere, anytime via internet
- Integration
- Cross-department workflow management
- Document Management
- Built-in Intelligence Reporting engine
- Security
- Machine Learning
- Application Programme Interface – easy integration with Sasria website
- Extranet capability – access to external parties (recruitment candidates, suppliers, external interns, bursary custodians)
- Best Industry practice for modules in scope



**Figure 1: Solution Scope**

#### 4.4 EXCLUSIONS

The departments that are not mentioned on the business area scope are out of scope.

## 5 BUSINESS REQUIREMENTS

### 5.1 HUMAN CAPITAL

REQ#	Human Capital Requirements	Response Code	Comment
FRQ1	<b>Workflow Management</b> Workflow management with timelines to indicate the duration of activities performed in the various Human Capital processes		
FRQ2	Workflow triggered system notifications/reminders to relevant stakeholders or users as part of key events		
FRQ3	<b>Recruitment Management</b> System to fully support the recruitment process, this includes <ul style="list-style-type: none"> <li>• Position activation</li> <li>• Applicants Resume collection (via email/eRecruit)</li> <li>• Automatic shortlisting (survey on minimum requirements)</li> <li>• Applicants score card consolidation</li> <li>• Required documents management</li> <li>• Recording of qualifications validations, ID, criminal and credit check results</li> <li>• Recruitment letters (acceptance/regret letters)</li> <li>• Reporting</li> </ul>		
FRQ4	<b>New employee on-boarding</b> Automate the on-boarding checklist to guide the HC consultants, new employees of applicable processes to ensure flawless on-boarding journey.  Include induction modules in the Learning Management System		
FRQ5	<b>Dispute management/ Employment Relations matters</b> The system must also enable the capturing of disputes Allow uploading of evidence that forms part of the dispute process		
FRQ6	<b>Performance Management</b> The system must allow and support a full performance management process <ul style="list-style-type: none"> <li>• Contracting</li> <li>• Coaching</li> <li>• Mid-year review</li> <li>• Year review</li> <li>• Moderations</li> <li>• Reporting (Including bell curve)</li> </ul>		
FRQ7	Enable the facilitation of 360 degree (survey) performance management, this will include: <ul style="list-style-type: none"> <li>• Nominations</li> <li>• Distribution</li> <li>• Survey result consolidation</li> <li>• Survey report</li> </ul>		
FRQ8	Dashboard of each division and department (overall) performance must be provided by the system out of the box or with minimal customisation		
FRQ9	Enable the application of salary increase calculation based on performance score		

REQ#	Human Capital Requirements	Response Code	Comment
	There must be overriding capability for the relevant approved users		
FRQ10	Development of a recognition functionality. This will be an informal and separate from the formal performance For example, token of appreciations from colleagues. (Process not in place)		
FRQ11	The system must support the issuing of increase letters through Employee Self Service portal.		
FRQ12	<b>Compliance</b> The system must facilitate the management of employment equity, including the generation of relevant reports		
FRQ13	Ability to generate custom Industrial/Employment Relations reports		
FRQ14	<b>Grievance Management</b> Capability to support grievance management process which includes the following: <ul style="list-style-type: none"> <li>• Grievance registration</li> <li>• Human Capital Intervention (updates)</li> <li>• Notification to initiator</li> </ul>		
FRQ15	The system should be able to update the initiator of a grievance at every step or stage of the process		
FRQ16	Enable the link to applicable disciplinary actions		
FRQ17	The system must be able to support retrenchments process according to Section 189 of the constitution of the Republic of South Africa		
FRQ18	<b>Employee Wellness</b> The system must have the functionality to support employee wellness Wellness plan through mechanisms such as the discovery health index		
FRQ19	Ability to support integration to fit bit watch, for HC to be able to monitor employee health		
FRQ20	Capability to facilitate stats on gym attendants (using biometrics)		
FRQ21	<b>Termination</b> The system must support automated workflow for employee termination		
FRQ22	Ability to manage the exit interview process through a defined questionnaire		
FRQ23	<b>Talent Management</b> The system must have the full Talent Management functionality, driven by learning and development needs.		
FRQ24	Automation of currently manual/paper based talent management process (templates will be shared at a later stage)		
FRQ25	Personal Development Plan Management, it must be linked to employees talent management		
FRQ26	The system must allow for the definition of future role specifications based on the business needs		
FRQ27	Enable the employee profile management, which includes:		



REQ#	Human Capital Requirements	Response Code	Comment
	<ul style="list-style-type: none"> <li>Profile creation</li> <li>Profile update</li> <li>Profile deactivation</li> </ul> Profile refers to employee's skills, work experience and educational background.		
FRQ28	Functionality to assess employee potential		
FRQ29	Capability to assess and identify flight-risk employees		
FRQ30	Create the view on the employees' succession plan based on profile and talent positioning		
FRQ31	Capability to create profile for each role defining the required competencies.		
FRQ32	Capability to update employee's competency level (ongoing assessment)		
FRQ33	Identify areas of development to feed into Performance/Personal Development Plan (PDP).		
FRQ34	<b>Personal Development Plan (PDP)</b> The system must digitise the PDP process <ul style="list-style-type: none"> <li>Plan creation</li> <li>Mid-year review</li> <li>PDP Update (add new items, remove items, motivation and approvals)</li> <li>Enable override access to Learning &amp; Development Management (exception)</li> <li>Final review</li> </ul>		
FRQ35	The system must be able to link performance development planning to current/succession role required competencies		
FRQ36	The system must support the generation of L&D reporting and analytics as well as the ability to draw historical data		
FRQ37	The system must enable the link between training payments to training item from PDP		
FRQ38	Capability to apply and update Continuing Professional Development (CPD) points where applicable.		
FRQ39	Attachment uploading functionality such as proof of completing training(results/certificates) linked to a document management capability		
FRQ40	The system must support the capability to apply the L&D policies such as formal training – e.g. education - if employee fails, employee has 2 years to pass that course at own cost else it must then trigger payback (payroll deduction)		
FRQ41	The system must support the creation of special leave or note for informal training for visibility.		
FRQ42	Link training bookings with PDP items. The system must support the management view on team and division's leave calendar.		
FRQ43	The system must integrate with the Learning Management Solution		
FRQ44	The system should be able to offer a capability to run surveys on training outcomes as well as generate report on survey result.		
FRQ45	<b>External user management</b>		

REQ#	Human Capital Requirements	Response Code	Comment
	The system must support an e-recruit portal for recruitment		
FRQ46	Support the management of bursary applicants and progress		
FRQ47	Management of external interns performance management		
FRQ48	External user document management		
FRQ49	<p><b>Leave Management</b> System to support the leave management in accordance to Sasria leave policies for:</p> <ul style="list-style-type: none"> <li>• Annual leave</li> <li>• Sick leave</li> <li>• Study leave</li> <li>• Family responsibility leave</li> <li>• Maternity leave</li> <li>• Paternity leave</li> <li>• Special leaves</li> <li>• Leave forfeiture</li> </ul> <p>(policies will be shared at a later stage)</p>		
FRQ50	<p><b>Payroll Management</b> Capability to support payroll management processes or integrate with the payroll system.</p> <p>Employee Self Service (ESS) capability – employees should be able to:</p> <ul style="list-style-type: none"> <li>• View benefit statements as well as Total Reward statement</li> <li>• View payslip</li> <li>• Flex benefits</li> <li>• Apply for leave</li> <li>• Approve leave</li> <li>• Access Performance Management module</li> <li>• Update their qualifications and documentation</li> <li>• Change personal details (limited)</li> </ul>		
FRQ51	<p><b>Employment Equity (EE)</b> Digitise EE process to report to Department of Labour as follows;</p> <ul style="list-style-type: none"> <li>• The Economically Active Population (EAP) analysis is done in real-time and can be accessed for every quarterly meeting</li> <li>• EE Plans are available at the push of a button.</li> <li>• Functions of the EE Committee (nominations, appointments, agendas) are automated</li> <li>• Quarterly meetings are webcasted by a senior EE Manager, and members are able to attend meetings online</li> <li>• There is a need for integration with the payroll module to access employee profiles, demographics</li> </ul>		
FRQ52	<b>Skills Development</b>		

REQ#	Human Capital Requirements	Response Code	Comment
	<p>There is a need to digitise the INSETA's Skills Development process as follows;</p> <ul style="list-style-type: none"> <li>• Preparing Workplace Skills Plans</li> <li>• Learnerships &amp; Internships uptake &amp; monitoring</li> <li>• Financial management of SETA grants, learner payments &amp; levy payments</li> <li>• Generating Annual Training Reports</li> </ul>		
FRQ53	<p><b>Return of Earnings</b> Information needs to be imported from Payroll module for processing</p>		
FRQ54	<p><b>Compensation for Occupational Injuries and Diseases Act (COIDA) claims</b> There is a need to digitise the process; From the point the employee is injured/ illness/ death as a result of work then reports to enable submission to Compensation Fund.</p>		

## 5.2 FINANCE

REQ#	Finance Requirements	Response Code	Comment
FRQ55	<p><b>Integration</b> ERP system must integrate with all Sasria systems that have any financial transaction</p> <p>The current journaling is within Great Plains (GP) system/ between Insurance Management System (IMS) and GP, Banking system and Fraxion. ERP must integrate with data warehouse/reporting tools</p>		
FRQ56	ERP system to fully integrate with the IMS system to ensure that information flow is facilitated		
FRQ57	<p><b>Report import</b> Enable the uploading of HiPort/ other investment reporting tool to the reporting system automatically to create reports for investments (received from asset management companies) daily</p>		
FRQ58	Integrated and Intelligence reporting, ability to use information from actuaries and data warehouse, create journals and produce reports for management and annual reporting		
FRQ59	Automatic uploading of the expenses, fixed assets and investment information back into accounting journal (currently great plains) to facilitate a 360 degree view of the financial transactions		
FRQ60	<p><b>Budgeting</b> Budgeting capability is required and system to have view of budgeting tool (currently TM1) for retrieving previous data for efficient budgeting purposes</p>		
FRQ61	The budget system must allow for the inputting of budgets for 5 years and for different companies / consolidation		
FRQ62	<p><b>Journal entry process</b> The finance module should be able to process journals:</p>		

REQ#	Finance Requirements	Response Code	Comment
	System generated; manual and reversing journals		
FRQ63	Backdating capabilities for manual journals		
FRQ64	System restrictions for an independent preparer and reviewer/posting of the journals		
FRQ65	<b>Treasury</b> Integration with banking site for payments		
FRQ66	Capability to upload bank statements to perform cash book reconciliations		
FRQ67	<b>Investments module</b> Import of asset manager or administration data on the GL system		
FRQ68	Perform 3 way reconciliation between General Ledger (GL), asset manager and administrator		
FRQ69	Track performance of asset portfolios per different asset class or asset manager.		
FRQ70	Ability to track the asset / liability matching as well as the strategic asset allocation of our assets		
FRQ71	<b>Creditors/debtors module</b> Creditors/debtors ageing analysis		
FRQ72	Creditors/debtors reconciliations		
FRQ73	Creditors/debtors reports		
FRQ74	<b>Premiums</b> The ERP is required to perform reconciliation from IMS to ERP premium transactions, commission and binder fees		
FRQ75	The system must generate exception reports and distribute exceptions where there are transactions discrepancies		
FRQ76	Capability to cater for backdated premiums and reversals on the finance system		
FRQ77	The system must apply correct tax for above transactions and cater for VAT changes in the future		
FRQ78	Capability to cater for annual and monthly premiums transactions tracking and logging		
FRQ79	Facility where all agents upload their annexures into our system, allocate the payment to the annexure		
FRQ80	Capability to cater for direct (eft/deposit) and debit order premium collection methods.		
FRQ81	<b>Asset Management</b> The system must ensure the asset procurement transactions are directly linked to asset register and contracts		
FRQ82	Provide complete and single view of information on asset status, history and location for audit trail purposes		
FRQ83	Transaction types must support full and partial disposals, transfers, enhancements, cost adjustments and revaluation		
FRQ84	Enable unlimited number of standard and user-defined depreciation methods for full statutory compliance		
FRQ85	Generation of depreciation report		
FRQ86	Capability to pull through the assets notes into financials statements		

REQ#	Finance Requirements	Response Code	Comment
FRQ87	Automated alerts for key events such as warranty expiry or replacement date.		
FRQ88	<b>Tax management</b> Apply tax standard practice (calculations). Tax-checking automation. Tax reports (standard, customised and exception reports). Tax notes on financial statements and tax reports		
FRQ89	<b>Invoicing</b> Capability to generate invoices for the agent's on penalties		
FRQ90	Capability to generate salvage invoices		
FRQ91	Financial Statements with the integrated report		
FRQ92	Prepare annual financial statements with supporting notes for all finance modules		
FRQ93	Linking of new accounts between the various systems		

### 5.3 PROCUREMENT

REQ#	Procurements Requirements	Response Code	Comment
FRQ94	<b>Supplier Management</b> Below supplier management capabilities are required: <ul style="list-style-type: none"> <li>Supplier database management - List of approved suppliers.</li> </ul>		
FRQ95	The system must be able to integrate to treasury's (Central Supplier Database) CSD system to pull through supplier details.		
FRQ96	Enable the business to perform supplier performance management periodically		
FRQ97	The system must support automated supplier on-boarding based on RFP/RFQ process		
FRQ98	The system must be able to maintain supplier database such as: <ul style="list-style-type: none"> <li>Who supplying what service/product</li> <li>History of suppliers</li> <li>Price negotiations</li> </ul>		
FRQ99	The system must be able to send notification/warning when supplier's BBEE certificate is expiring based on a time threshold that can be defined in the system		
FRQ100	The system must support a supplier self-service portal for suppliers to: <ul style="list-style-type: none"> <li>Register Sasria profile</li> <li>Update profile</li> <li>Submit quote/proposal</li> <li>Upload documents</li> <li>View quote/proposal status</li> <li>View existing contracts</li> </ul>		
FRQ101	<b>Contract Management</b> The system must support the creation of standard contract templates <ul style="list-style-type: none"> <li>Enable custom contract template creation</li> <li>Enable the upload of electronic copy of signed contract</li> </ul>		

REQ#	Procurements Requirements	Response Code	Comment
	<ul style="list-style-type: none"> <li>Enable the digital signing of contract</li> </ul>		
FRQ102	Enable the maintenance of contract details <ul style="list-style-type: none"> <li>Contract details/conditions</li> <li>Enable adjustments to costs (approval)</li> <li>Enable contract extension/cancellation</li> <li>-15% allowance on extension (triggers on deviation)</li> </ul>		
FRQ103	<b>Requisition</b> The system must support the requisition processes		
FRQ104	System must have prepopulated catalogue (goods and services)		
FRQ105	<b>Purchasing Management</b> <ul style="list-style-type: none"> <li>Enable the logging(registration) of new RFQ/RFP</li> <li>Update the RFQ/RFP</li> <li>Track RFQ/RFP status</li> </ul>		
FRQ106	Enable the appointment of committee members (specification, evaluation and adjudication committees)  Enable the online appointment acceptance/rejection		
FRQ107	Enable the RFP/RFQ scorecard creation Enable online evaluation (by evaluation committee) System must be able to consolidate the scorecard consolidations		
FRQ108	<b>Deviation</b> Must be triggered by exception from RFP/RFQ process <ul style="list-style-type: none"> <li>Deviations workflow management</li> <li>Allow attachments uploading</li> </ul>		
FRQ109	Enable the standard committees' meeting's agenda template creation system to send agenda		
FRQ110	Capability to digitise the process for adjudication of tenders		
FRQ111	Enable the generation of standard/custom supplier quote/proposal regret/award letters  System to send suppliers the regret/award letter template upon quote/proposal evaluation completion  Enable supplier to accept/reject the offer (via supplier portal)		
FRQ112	<b>Reports</b> The system must have reporting functionality that is linked to procurement processes		
FRQ113	The system must produce a report on savings after negotiations		
FRQ114	System to generate report on expiring contracts		
FRQ115	The system must produce a consolidated report on RFQ/RFP activities end to end		
FRQ116	The system must produce the BBEE spending report		
FRQ117	<b>Purchase Order (PO) Management</b> System must be able to generate the Purchase Order		
FRQ118	The system must support a 3-way match: Quote, Purchase Order generated from quote, Invoice		
FRQ119	The system must enable goods receipting		

REQ#	Procurements Requirements	Response Code	Comment
FRQ120	The short delivery of goods/ services must be able to be recorded on system against the supplier <ul style="list-style-type: none"> <li>• capability to receipt short delivery</li> </ul>		



#### 5.4 CUSTOMER RELATIONS MANAGEMENT (CRM)

REQ#	Customer Relations Management Requirements	Response Code	Comment
FRQ121	<b>CRM capability</b> Enable the Agent information overview (Dashboard)		
FRQ122	Create a 360-degree view of agent's interaction, this will include: <ul style="list-style-type: none"> <li>Interaction planning</li> <li>Interaction outcome record</li> </ul>		
FRQ123	Capability to create annual/quarter Agents' premium targets		
FRQ124	Create a view on Agents' premium growth or decline (trends)		
FRQ125	Create Agents segmentation view, i.e. <ul style="list-style-type: none"> <li>Top 10</li> <li>Middle tier</li> <li>Bottom tier</li> </ul>		
FRQ126	Create Customer Relations Manager's portfolio performance view <ul style="list-style-type: none"> <li>Real-time</li> <li>Quarterly</li> <li>Annually</li> </ul>		
FRQ127	Create class of business performance overview		
FRQ128	Create a view of Agents' claims trends		
FRQ129	Create a view of Agents' premium reversals		
FRQ130	Create a view of Agents' Sasria's audit outcomes		
FRQ131	Create a view of Agents' information from social networks (Twitter, Facebook etc.) (Big Data - New capability)		
FRQ132	Create a view of Agents' financial performance (Big Data - New capability)		
FRQ133	Ability to maintain customer details (data) on CRM		
FRQ134	Mobility solution to manage relationships.		
FRQ135	Ability to request client satisfaction surveys <ul style="list-style-type: none"> <li>Conduct surveys</li> <li>Survey feedback consolidation</li> <li>Survey result presentation</li> </ul>		

#### 5.5 GENERAL

REQ#	General Requirements	Response Code	Comment
FRQ136	<b>Business Intelligence</b> Reporting Capability System must have built-in standard reports that are customisable		
FRQ137	<b>Synchronised</b> Changes made on the system should be automatically updated on all areas, especially in finance		
FRQ138	<b>Unique views</b> System has unique views for each user level: <ul style="list-style-type: none"> <li>Employee view</li> <li>Manager view</li> <li>Head of division/department view</li> <li>Overall/Organisational view</li> </ul>		



REQ#	General Requirements	Response Code	Comment
FRQ139	<b>Employee Self-Service through desktop or mobile devices should enable the following functionalities:</b> <ul style="list-style-type: none"> <li>• Leave Management</li> <li>• Pay Slip view</li> <li>• IRP5 view</li> <li>• Personal Information Update</li> <li>• Performance Management</li> <li>• Personal Development Plan</li> <li>• Employee Profile</li> <li>• Increase letter view</li> <li>• Expense Management</li> </ul>		
FRQ140	<b>Workflow Management</b> System must support workflow for basic and complex approval processes		
FRQ141	<b>Electronic Document &amp; Records Management</b> System must be compliant to records management policy Enable digital signature functionality Auto indexing		
FRQ142	Electronic document management to allow for efficient document storage, retrieval and distribution		

## 5.6 NON FUNCTIONAL REQUIREMENTS

### 5.6.1 Operational

REF	Item	Description	Response Code	Comment
NFR1	Accessibility	System should be accessible using Desktop and Mobile devices using network cable, WIFI and/or 3G/4G		
NFR2	Response time ranges	Front-end / host / back end: max 15 seconds.		

### 5.6.2 Security and Privacy

REF	Item	Description	Response Code	Comment
NFR3	Identification and authentication	Users must be assigned unique identities within the system, which clearly identifies who they are.  The system must only be accessed by legitimate and authorised users including users from external entities.		

		The system must utilise username and password to authenticate users and support two-factor authentication to strengthen access control when necessary.		
<b>NFR4</b>	Single sign on	System user identities must automatically be linked to Active Directory to allow single sign on to the ERP system.		
<b>NFR5</b>	User Group Definitions	<p>Role-based access control shall be used to define content and functionality applicable to users. This must be in line with the user's job function or role. Departments will define access rights and the ERP system administrator with permission from respective departments can only edit these access rights.</p> <p>Segregation of duties rules must be enforced on a system level.</p>		
<b>NFR6</b>	Database Security	<p>The database must be secured by allowing only authenticated and authorised users access to data.</p> <p>The database must be secured by only allowing the Web applications to access data through a service account, which forms part of Windows authentication.</p>		
<b>NFR7</b>	Confidentiality	<p>Data must only be accessed by authenticated and authorised users in line with their job function or role.</p> <p>Data and Passwords must never be viewable at the point of entry or at any other time during the ERP processes lifecycle.</p>		
<b>NFR8</b>	Data Loss (Disclosure of information about individuals or entities)	<p>Security policies must be enabled to prevent leakage/disclosure of sensitive information to unauthorised users.</p> <p>Users must be trained on the functionality of the system to</p>		

		understand their responsibilities to safeguard sensitive information.		
<b>NFR9</b>	Data Encryption	All data flowing within internal and external ERP modules must be encrypted with the latest industry standard encryption technology.  All data utilised within the ERP system must be encrypted when in storage, or in transit.		
<b>NFR10</b>	Data Integrity (Data Corruption)	All the information flowing within and across the ERP modules should be the same and not be altered throughout its lifecycle.  The information must not be compromised during changes and must still be intact after the changes or updates to the ERP system.  Only authorised users must be able to edit or make changes to data.		
<b>NFR11</b>	Implementation and development lifecycle	Development of the ERP applications must comply with Open Web Application Security Project guidelines and ISO 27001 standard.		
<b>NFR12</b>	Access Reports	Reports on user access and activities must be available to monitor policy violations.		

### 5.6.3 Audit Trail

REF	Item	Description	Response Code	Comment
<b>NFR13</b>	Audit trail	Enable transparent audit trail in the system, audit trails must be created for all user actions that are performed. The following information will be recorded in the audit log: <ul style="list-style-type: none"> <li>• User name</li> <li>• Date and time of action</li> </ul>		

		<ul style="list-style-type: none"> <li>• Field name</li> <li>• Before value</li> <li>• After value</li> <li>• Effective date</li> <li>• Source (Direct/Web/Mobile App)</li> </ul> <p>The audit logs are stored in a separate database</p>		
--	--	---	--	--

#### 5.6.4 Reliability

REF	Item	Description	Response Code	Comment
NFR14	Availability (Percentage of time available)	100%		
NFR15	Hours of Use	<ul style="list-style-type: none"> <li>• Monday to Friday: 00h00 – 23h59</li> <li>• Saturday: 00h00 – 23h59</li> <li>• Sunday and public holiday: 00h00 – 23h59</li> </ul>		
NFR16	Maintenance Hours	<ul style="list-style-type: none"> <li>• Sunday: 10h00 –23h59</li> </ul>		
NFR17	Mean Time to Repair (MTTR)	<ul style="list-style-type: none"> <li>• Critical: 1 hour</li> <li>• High: 1 hour</li> <li>• Medium: 1 hour</li> <li>• Low: 1 hour</li> </ul>		
NFR18	Mean time to failure (MTTF)	<p>ERP time out due to user inactivity shall be after 5min (with warning) Upon timeout, System must cancel the transaction, and must allow the user to start over</p> <p>The above exempts payment transactions while in progress.</p>		

#### 5.6.5 Recoverability

REF	Item	Description	Response Code	Comment
NFR19	Audit Trail Failure	If the audit trail function fails before the user saves updates to the transaction, the system shall be able to recover all changes made in up to one minute prior to the failure.		

<b>NFR20</b>	Update failure	When an update failure is detected all updates performed during the failed session shall be rolled back to restore the data to pre-session condition		
<b>NFR21</b>	Roll-back	All data recovered in a roll-back condition shall be recorded for use in forward recovery under user control		
<b>NFR22</b>	Safe mode	When operating after a failure the user must be informed that the application is operating in a “safe mode” and all data is available for review without update.		
<b>NFR23</b>	Module/Function Failure	The system shall prevent access to failed module/s while providing access to all currently operational modules		
<b>NFR24</b>	Hardware failure	All hardware components of the assembly operation shall be replicated, such that failure of any one hardware component shall not render the assembly operation unavailable to end-users. It is acceptable for system performance to be poorer than normal for up to 3 business days following the failure and replacement of a piece of hardware.		

### 5.6.6 Architectural Qualities

REF	Item	Description	Response Code	Comment
<b>NFR25</b>	Information retention requirements	All stored data must be backed up and archived to be available within 24 hours.		
<b>NFR26</b>	Capacity/Scalability	Current number of users: 130 Current processes: Refer to attached Growth % System should cater for future enhancements and increase in		

		volume (users/data) without affecting the system performance		
--	--	--	--	--

#### 5.6.7 Development Qualities

REF	Item	Description	Response Code	Comment
NFR27	Integration	Sasria must be able to integrate with other Sasria's existing systems and new (to be systems)		