Document Title	HIGH-LEVEL REQUIREMENTS FOR A CORPORATE ASSETS TRACKING SOLUTION
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1. INTRODUCTION AND PURPOSE

Necsa group is currently embarking on a project to implement Asset Tracking solution.

The purpose of this document defines the high-level business and technical requirements for an Asset Tracking Solution designed to enhance the management, security, and real-time monitoring of asset movements within the NECSA Group, with a focus on NECSA entrance gates and within South Africa.

1.1 Objectives

Necsa Group seeks to implement an integrated Asset Tracking Solution to achieve the following strategic and operational objectives:

Enhanced Asset Visibility & Control

- Real-time tracking of asset movements across all Necsa sites and entrance gates
- Centralized monitoring of asset location, status, and custody
- Automated alerts for unauthorized removals or breaches

Operational Efficiency

- Eliminate paper-based processes to reduce administrative overhead
- Minimize asset loss/theft through automated gate verification and audit trails
- Optimize asset utilization by identifying underused or misplaced resources

Security & Accountability

- Strengthen gate security through integrated checks with the Security system
- Enforce role-based access to prevent unauthorized asset transfers
- Improve accountability with digital trails of custodianship and approvals

Risk Mitigation

- Maintain audit-ready records of all asset movements and approvals
- Mitigate risks of fraud, counterfeit permits, or non-compliance with Necsa policies

Alignment with Business Goals

This procurement directly supports Necsa's broader objectives to:

- Digitize operations (replacing manual/paper processes)
- Enforce governance across asset-intensive departments

1.2 Type of Contract for Deliverables

The selected service provider will be expected to enter into negotiations with Necsa to establish an agreement for the provision of post-implementation support, as well as ongoing maintenance and support for a new Asset Tracking system, for an initial term of three years. Post-implementation support will include, but is not limited to, addressing service disruptions, resolving system failures and user queries, and implementing system enhancements and upgrades.

2. SCOPE OF WORK

2.1 Services Required

The service provider will be required to provide the following:

- An Asset Tracking System which will provide end-to-end visibility and control over asset movements within the NECSA Group
- The supplier will provide a consultation service to Necsa Group that will allow the software to be supplied to be best configured to suit the requirements of the Necsa Group (System Blueprint)
- The supplier will be responsible for installing and configuring the chosen application software, and to work with Necsa Group staff to ensure successful implementation.
- The supplier will be responsible for extracting and migrating data from the Asset Management system to the Asset Tracking system
- Testing – the supplier will assist Necsa Group staff with acceptance testing of the Asset Tracking system and correct any components that fail to meet the agreed specifications.

- Training – the supplier will provide training in the new system to Necsa Group staff.
- Commissioning – the supplier will be responsible for preparing and commissioning the system for live use.
- Maintain up-to-date documentation of system configurations, processes, and procedures, accessible to authorised personnel.
- Service providers providing service to Necsa are obligated to undergo a security vetting or screening. This measure is essential for safeguarding the integrity and security of the organisation operations, protecting sensitive information, and ensuring compliance with regulatory requirements.

3. FUNCTIONAL & NON-FUNCTIONAL REQUIREMENTS

The requirement listed in the requirements tables are Mandatory; unless stated otherwise.

Please use the following matrix as a key for responding to the requirement table(s).
All "V" responses must include explanation and any associated costs in the comment section.

Response Code	Description	Score
Y - Existing	Feature is delivered as standard functionality in the proposed version of the software and can be demonstrated by the vendor.	4
C - Customer Customization	Not included. Tools are provided for customization at no additional cost.	3
V - Vendor Customization	Not included. Vendor provides customization at an additional cost.	2
N - Not Available	Requirements cannot be met.	0

3.1 Requirements Table

Category	Description	Code	Comments
Asset Registration	System must allow registration of assets with unique identifiers (barcode, QR code, RFID)		
	System must capture asset registry data (e.g. custodian, department, category)		
	System must support bulk registration/import of assets.		
	The system must support the ability to associate each registered asset with the personnel's (custodian) access card		
Asset Identification	System shall support RFID (passive/active), barcode (1D/2D), and QR code technologies.		
	Tags must be durable (aluminum/UV-resistant plastic) with tamper-evident adhesive.		
Tracking & Monitoring	Real-time verification at all NECSA gates with <2 sec latency.		
	Security officers must be able to scan asset at exit and entry points		
	Unauthorized exit attempts must trigger an alert.		

Category	Description	Code	Comments
	System must log gate activity with date, time, officer name, and gate location.		
	Bulk scanning: Simultaneously scan up to 10 assets per vehicle.		
	Notifications: Email/SMS alerts for movements (unauthorized/successful) and permit expirations (7-day notice).		
	System must record asset return at gate or receiving department.		
	System must provide the capability to automate the verification of permits at gates		
Reporting & Analytics	Standard reports: Daily movements, incidents, location history (90-day retention).		
	Dashboards: provide real-time visibility of asset movement		
	Custom reports: Drag-and-drop builder with Excel/PDF export.		
	Audit trail: Immutable logs of all changes (user/action/timestamp).		

Category	Description	Code	Comments
	System must provide advanced search, filtering, and sorting capabilities.		
	Ability to export reports into different formats (PDF, Excel, CSV)		
User Interface	Web portal: Chrome/Edge compatible with role-based dashboards.		
	Mobile app (iOS/Android) for permit requests/asset returns.		
	Role-based access: - Employees: Request/view - Assets Control: Full lifecycle - Admins: System configuration.		
Integration	System must support Active Directory integration		
	NGFS (MS Dynamics): Bi-directional sync of asset registry (daily batch or real-time).		
	Gallagher: Real-time permit verification at gates via API.		
	System must integrate with existing asset register to sync asset data.		
	System must integrate with access control systems (e.g.		

Category	Description	Code	Comments
	RFID/barcode scanners at gates).		
Security	Hosting: On-premise solution		
	Encryption: AES-256 (at rest), TLS 1.2+ (in transit).		
	Define tagging process i.e. 1. Physical tagging by Assets Control 2. Digital registration in system 3. Verification steps. (by providing relevant documentation)		
	Compliance with applicable data protection and privacy regulations (e.g. POPIA).		
Hardware	Supplier must supply, install, and configure asset tag readers (RFID, barcode, or QR) for use at gates.		
	Supplier must supply 10 handheld/mobile scanners for security officers. (Provide brand and model details)		
	Scanners must support full offline operations in case of server unavailability and automatically sync with servers once connectivity is restored.		

Category	Description	Code	Comments
	Supplier must ensure supplied hardware meets durability standards for industrial/security use. • Official product certification (IP, MIL-STD, IK, or equivalent) • Manufacturer's datasheet/spec sheet showing compliance • Test reports from an accredited lab (optional but adds weight)		
	Supplier must provide warranty and maintenance support for supplied hardware (36 months warranty on all hardware, covering parts, labour, and on-site service)		
	Supplier must ensure all supplied hardware (tag readers, scanners, and gate units) is compatible with system software.		
System Availability & Performance	System must provide offline capability at gates with later sync.		

Category	Description	Code	Comments
	System should provide redundancy/failover at critical points.		
	System must be scalable to handle organizational growth in assets and users		
	Typical asset lookups and queries should return results within two seconds.		
User Training	The service provider must provide comprehensive user training on the system to ensure effective adoption and usage		

4. SUPPORT

The bidder/service provider is required to provide comprehensive information addressing the following areas:

- An overview of the customer support and maintenance services offered.
- The cost of the annual maintenance plan.
- Maintenance and technical support must include clearly defined response and resolution times, as well as escalation procedures.
- Bidders must submit a detailed warranty and support plan, including optional extended maintenance beyond the warranty period.
- Provision of 3 years of post-implementation support to assist with system stabilization.
- A commitment to regularly train service and support staff, as necessary, to ensure up-to-date knowledge and skills.
- Delivery of service and support in accordance with the agreed Service Level Agreement (SLA).
- After-hours emergency contact details, including applicable service rates for support provided outside regular business hours.
- Detailed information on the frequency of new software version releases.
- A proposed plan for implementing new releases and upgrades (e.g., scheduling during weekends or non-business hours).
- The process followed for testing new versions, upgrades, and patches prior to deployment.
- A detailed migration process to be followed when upgrading to new software versions.