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| **REQUEST FOR QUOTATION (RFQ) NUMBER:** | **PR****10110916 and PR10110917 (Please use this number as reference when sending quotations and supporting documentation)** |
| **DESCRIPTION**  | The Road Accident Fund (RAF) wishes to appoint a suitable service provider to source and supply a Humanoid Robot for Lease and Chatbot Development and support for a period of twelve (12) months. |
| **RFQ ISSUED DATE** | **27 August 2025** |
| **RFQ VALIDITY PERIOD** | 30 days from the closing date. |
| **CLOSING DATE AND TIME** | **04 September 2025 at 14:00** |
| **EXPECTED DATE SERVICES IS REQUIRED** | Twelve (12) months agreement (Part B & C only) which will come into existence from the date of the last signatory. |
| **COMPULSORY BRIEFING SESSION** | N/A |
| **DELIVERY ADDRESS OF GOODS** | RAF Head Office, 420 Witch Hazel Road Centurion, Eco Glades Pretoria |
| **RFQ RESPONSES MUST BE EMAILED TO:** | **For Head office all quotations should be emailed to** rfq.procurement@raf.co.za **Failure to follow these instructions will result in your quote not being considered.** |
| **ENQUIRIES REGARDING THIS RFQ SHOULD BE SUBMITTED VIA E-MAIL TO** | Enquires can be directed at this e-mail address ntsakob@raf.co.zaFor further enquiries, you may contact Ntsako Baloyion 012 649 2023 |

**Important Notes to this RFQ:**

* **Service providers/suppliers should ensure that RFQ responses are emailed to the correct email address;**

**(**rfq.procurement@raf.co.za**)**

* **If the quotation is late, it shall not be accepted for consideration;**
* **The RAF reception is generally accessible 8 hours a day (07h45 to 16h00); 5 days a week (Monday to Friday) for delivery of goods;**
* **All suppliers are required to complete and sign all Annexures to this document (Standard Bidding Documents and documents for submission under Mandatary Evaluation, where applicable);**
* **Historically Disadvantaged Individuals (HDI)\* claimed points for Race and Gender will be verified through CSD;**
* **Suppliers who have a disability must provide a valid medical certificate issued by a registered medical practitioner as proof of disability;**
* **RAF will conduct business ONLY with CSD Registered suppliers;**
* **Should you not be contacted within 14 working days, consider your proposal/quotation unsuccessful.**

**Prohibition of Gifts & Hospitality:**

“Except for the specific goods or service procured by the Road Accident Fund, service providers/suppliers are required not to offer any gift, hospitality or other benefit to any RAF official. To avoid doubt, branded marketing material is considered to be a gift. Furthermore, should any RAF official request a gift, hospitality or other benefit, the service providers is required to report the matter to our toll free fraud line at 0800 005919.”

*\*HDI - means a South African Citizen who (a) due to the apartheid policy, had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983(Act No.110 of 1983) or the Interim Constitution f the Republic of South Africa,1993 (Act No.200 of 1993); (b) is a female; or (c) has a disability.*

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1. TERMS AND CONDITIONS OF REQUEST FOR QUOTATION (RFQ)

**SERVICE PROVIDER/SUPPLIER: ………………………………………………………………………..**

**REGISTRATION NUMBER: ……………………………………………………………………….**

**CSD UNIQUE SUPPLIER REGISTRATION NUMBER: ……………………………………………………………………….**

**ADDRESS: ……………………………………………………………………….**

**CONTACT PERSON: ………………………………………………………………………..**

**TEL: …………………………………………………………………........**

1. RAF’s standard conditions of purchase shall apply.
2. RAF will not conduct business with suppliers whose tax matters are not declared to be in order by SARS.
3. Goods or services shall be delivered and accepted against an official and RAF Award Letter or Purchase Order (PO) signed and duly authorised RAF official.
4. The RAF reserves the right not to make payment or accept the goods or services should the goods or services be delivered to the RAF before the RAF Award Letter or PO is issued. (An official authorised RAF PO should have the Supply Chain Management (SCM): Manager signature or such other official duly authorised in terms of the RAF’s Delegations of Authority and Approval Framework),Description of the item, Quantity of items purchased, Date of delivery of the item, Total amount of the items purchased inclusive of where applicable VAT and other applicable taxes.
5. This RFQ will be evaluated based on the 80/20 preference point system applicable to bids with a Rand value equal to, or above R2 000.01 and up to a rand value of R1 000 000.00 (all applicable taxes included). The RAF may elect to apply the 80/20 preference point system to price quotations with a rand value less than R2 000.01.

I, the undersigned (NAME)……….………………………………………certify that :

I have read and understood the conditions of this RFQ;

I have supplied the required information and the information submitted as part of this RFQ is true and correct.

**Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Capacity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. GENERAL CONDITIONS OF CONTRACT

<http://ocpo.treasury.gov.za/Resource_Centre/Legislation/General%20Conditions%20of%20Contract-%20Inclusion%20of%20par%2034%20CIBD.pdf>

1. RFQ SPECIFICATION

#### BACKGROUND TO THE ROAD ACCIDENT FUND

The Road Accident Fund (RAF) is a schedule 3A Public Entity established in terms of the Road Accident Fund Act, 1996 (Act No. 56 of 1996), as amended.  Its mandate is the provision of compulsory social insurance cover to all users of South African roads, to rehabilitate and compensate persons injured as a result of the negligent driving of motor vehicles in a timely and caring manner, and to actively promote the safe use of our roads. The RAF has its headquarters in Centurion - Pretoria and other offices country wide.

#### BACKGROUND OF THE PROJECT

The Road Accident Fund (RAF) wishes to appoint a suitable service provider to source and supply a Humanoid Robot for Lease and Chatbot Development and support for a period of twelve (12) months.

The Technology and Digital division has adopted a cloud-based strategy aimed at modernising our operations and improving efficiency. As a result of this strategic shift, the cloud migration project, which commenced at the beginning of the financial year, is now approaching its final stages. Currently, 99% of all workloads have been successfully migrated to the cloud, with the remaining loads scheduled for migration before the end of the financial year. This marks a significant achievement in the RAF’s digital transformation journey.

To highlight this pivotal milestone, the RAF is seeking a qualified IT service provider with expertise in developing advanced technology solutions. The aim is to source both a humanoid robot and a chatbot for the official launch of the RAF Cloud Migration Project.

The humanoid robot will serve as an engaging, AI-driven representative during the launch event, interactively providing attendees with information and assistance. Meanwhile, the chatbot will be integrated into the RAF website and Intranet, offering ongoing digital support for users after the launch.

Both tools are intended to enhance user engagement and ensure that stakeholders receive comprehensive support throughout the project launch and beyond.

#### DETAILED SPECIFICATION

 **Part A: Humanoid Robot Lease – PR10110916**

1. The humanoid robot will be temporarily leased for the launch event. It must undergo a comprehensive reprogramming process to ensure it meets the objectives outlined in the RAF's Cloud Migration Project.
2. The humanoid robot must be an existing model that can be customised. Customisation should include, but is not limited to, modifications in programming, appearance, and functionality to accurately reflect RAF's branding and operational requirements. During the launch period, the humanoid robot will be used for a minimum of one day and up to a maximum of five days to support various activities and presentations.
3. All development, configuration, and testing processes must be completed within two weeks from date of award. This timeline is critical to ensure that all systems are thoroughly vetted and functional prior to the launch event.
4. Whenever possible, the Humanoid robot must be delivered at least one full day before the launch. This timeframe will ensure that the team has adequate time to set up the equipment, conduct final testing, and address any potential issues that may arise during setup.
5. The launch event will take place in the Gauteng Province, during regular business hours to accommodate attendees. The specific venue details will be provided closer to the date to ensure that all logistical arrangements are made efficiently.
6. The service provider will be required to offer on-site support during the event, which will last approximately one day. This support should include troubleshooting assistance and technical guidance to ensure the Humanoid robot operates smoothly throughout the event.

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| **General Features & Capabilities** |

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| **General Features & Capabilities** |
| **Physical Design** |
| The humanoid robot must be a commercially available model specifically designed for public interactions. It must feature a high-resolution screen that can display various visual content, making it engaging and informative. |
| This humanoid robot must be constructed with durable materials and engineered for smooth mobility, allowing it to navigate various environments easily and effectively engage with the audience. |
| The humanoid robot must have a minimum height of one meter. |
| **Mobility & Interaction** |
| The humanoid robot must boast 360-degree movement capabilities, supported by advanced navigation sensors that ensure safe and efficient movement in crowded spaces, enhancing its ability to interact with people from any angle. |
| Its functionality must include hand gestures and head movements, with minimal human behaviour and provide a more relatable conversational experience, making interactions feel more genuine and engaging. |
| **Voice & Audio Capabilities** |
| The humanoid robot must be equipped with high-quality speech synthesis technology. This will allow the robot to offer clear and intelligible speech in multiple languages, including English, allowing it to communicate effectively with a diverse audience. |
| The humanoid robot must integrate Natural Language Processing (NLP) to understand and respond to questions in real-time, facilitating interactive dialogue and enhancing user engagement.  |
| **Display & User Interface** |
| The humanoid robot must feature an integrated touchscreen that serves as an interactive user interface. This will allow users to navigate content easily, providing a hands-on experience when engaging with the robot. |
| Additionally, the humanoid robot must employ AI-powered facial expressions to convey emotions and reactions, further enriching the interaction experience and fostering a connection with users. |
| **Functional Capabilities** |
| **Cloud Migration Information & Engagement** |
| The humanoid robot must be designed to present comprehensive information about the RAF Cloud Migration Project through a combination of voice, text, and visual displays to cater to different learning styles and keep the audience engaged. |
| It must be capable of addressing frequently asked questions regarding the cloud migration project, providing users with reliable and prompt information to alleviate concerns. |
| The humanoid robot must effectively demonstrate key project benefits, such as improved operational efficiency and enhanced security measures, and highlight significant milestones achieved throughout the migration journey. |
| **Interactive Presentations** |
| During the launch event, the robot should engage the attendees.  |
| It must showcase detailed cloud migration roadmaps, outline security enhancements, and explain the operational benefits of the transition to the cloud, thereby ensuring that the audience understands the project’s significance. |
| **Integration with RAF Systems** |
| The humanoid robot must be integrated with the RAF website and intranet, allowing users to access additional resources and information seamlessly. This connectivity will ensure that users have all the information they need at their fingertips. |
| **Security & Compliance** |
| All interactions conducted by the robot must strictly adhere to RAF’s data protection policies, ensuring that user privacy and security are prioritised.  |
| Importantly, the humanoid robot must be designed not to store personal data locally; instead, all interactions must be processed securely through cloud services, minimising risk and maintaining compliance with RAF’s relevant regulations. |
| **Deployment & Maintenance** |
| **Rental & Configuration** |
| This is a rental requirement. The humanoid robot will be rented or leased from an existing provider, and RAF will NOT purchase a new unit.  |
| Prior to deployment, the humanoid robot must be reprogrammed to ensure that its branding, content, and interaction functionalities align with RAF’s standards and requirements, providing a consistent user experience. |
| **Usage Duration** |
| The humanoid robot is intended for deployment for a maximum of five days and at least one day during the launch period, ensuring that engagement remains impactful without overwhelming users.  |
| **Power & Support** |
| The humanoid robot should have a power outlet for charging and ideally include a backup battery to ensure continuous operation during temporary power outages. |
| Additionally, technical support must be readily available throughout the deployment period to assist with any operational challenges or technical difficulties, ensuring a smooth user experience. |

**Part B: Chatbot Development – PR10110917**

**CHATBOT REQUIREMENT**

1. The chatbot will serve as a digital assistant on the RAF Intranet, offering continuous support and answering queries related to the Cloud Migration Project both during and after the event.

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| **General Features & Capabilities** |
| **Deployment Platform** |
| The chatbot must be designed to facilitate its seamless integration into the official website and intranet of the RAF. This integration will enable visitors to access various services and relevant information about the RAF’s cloud migration project. |
| The chatbot must operate continuously, ensuring that users can access assistance and information (24/7/365). |
| The chatbot must be compatible with the RAF infrastructure environment, specifically Microsoft Azure or Amazon Web Services (AWS). |
| **AI-Powered NLP Engine** |
| The core of the chatbot must be powered by advanced Natural Language Processing (NLP) technology. This will enable the system to understand and interpret user queries accurately and provide prompt and relevant responses. |
| Additionally, it must incorporate machine learning capabilities that will allow the chatbot to learn from interactions, progressively enhancing the quality of its responses over time. As more data is gathered, the system must adapt to user preferences and common inquiries, leading to increasingly efficient interactions. |
| **Functional Capabilities** |
| **Cloud Migration Information & Support** |
| The chatbot must serve as a valuable resource for users seeking information about the RAF's cloud migration initiative. It must provide comprehensive, structured details that outline the objectives of the migration, including benefits, potential risks, and the overall impact on RAF operations. |
| Furthermore, the chatbot must include an interactive FAQ section that offers tailored responses based on user-specific queries, ensuring that individuals receive the most relevant information regarding cloud migration. |
| The chatbot design should be extensible and adaptable, allowing for the inclusion of additional services and data sources. Its design must prioritise modularity and a flexible framework, enabling easy addition of new features and integrations without requiring extensive rework or modifications. |
| **Live Agent Escalation** |
| To enhance user experience, the chatbot must be equipped with the ability to recognise complex queries that exceed its programmed capabilities.  |
| In such cases, it must facilitate a smooth transition to a live agent, specifically the RAF’s IT support team. This escalation process will ensure that users receive the necessary assistance in a timely manner, thereby improving overall satisfaction and response time for more intricate issues. |
| **Security & Compliance** |
| Security must be a top priority for the chatbot design. It must ensure that all communications are encrypted, safeguarding against unauthorised access and ensuring continuity of data protection. |
| The chatbot must adhere to the RAF's strict data protection policies, including compliance with relevant regulations. Importantly, it must be designed to avoid the storage of Personally Identifiable Information (PII), thereby minimising the risk associated with data breaches and maintaining user privacy. |
| **Deployment & Maintenance** |
| **Scalability & Performance** |
| The chatbot must utilise a cloud-based architecture, which will provide inherent scalability. The system must automatically adjust resources to accommodate varying levels of user traffic, ensuring exceptional performance even during peak usage times.  |
| To maintain user experience, robust load balancing measures must be implemented to enable the chatbot to efficiently handle multiple simultaneous users without degradation in response time or service quality. |
| **Analytics** |
| To continuously improve performance and user satisfaction, the chatbot must be able to generate detailed analytics reports on interactions. These reports must provide insights into user behaviour, query frequency, and engagement levels, allowing the RAF to identify areas for improvement, monitor the chatbot's performance, and adapt the system according to user needs and feedback. |

1. **NON-FUNCTIONAL REQUIREMENTS**
	1. **Infrastructure and Hosting Requirements**
2. All data exchange and processing, including reports and analytics, must be done on RAF’s cloud environment for both the humanoid and chatbot.

**a) Reliability and Availability**

1. The chatbot must maintain 24/7 availability for all users with a target up time of 99.0%.
2. Proactive system monitoring of the chatbot should be in place to detect and address potential issues before they impact users.

**b) Backup and Recovery**

1. The chatbot should be designed with redundancy and failover capabilities to minimise unplanned downtime.
2. All data produced from the chatbot should comply with RAF’s backup policies.

**4.2 Scalability and Performance**

1. The chatbot must be designed for high performance and scalability to ensure smooth and efficient operations.
2. It must be able to handle variable data volumes and concurrent users without significant performance degradation.
3. The chatbot must provide real-time data access through efficient data retrieval and processing mechanisms as per the requirements.

**4.3 Security, Privacy and Compliance**

1. Security must be a top priority for the chatbot. The design must ensure that all communications are encrypted, safeguarding against unauthorised access, breaches, and cyber threats, thereby ensuring continuity of data protection.

2. The chatbot must comply with the RAF's strict data protection policies, including relevant regulations such as POPIA and GDPR. It must be specifically designed to avoid storing Personally Identifiable Information (PII), thereby reducing the risk of data breaches and safeguarding user privacy.

3. Session management controls must be designed into all system components to safeguard against session hijacking and session replay attacks.

4. The chatbot must be designed with integrity controls to ensure that the information's accuracy, reliability, completeness, and correctness are protected from unintentional and/or unauthorised alteration/modification.

5. Secure design and development principles must be factored into all system interfaces and integration points with end users, RAF third parties, and integrated systems.

6. These controls should cover the following: -

a) Ensuring that error and exception reporting/messages do not inadvertently disclose sensitive information.

b) Secure architecture design that segregates major system components (e.g., Front-end, Application, and Data layers).

**4.4 Data Protection, Encryption, Obfuscation and Tokenisation**

1. The solution must enforce data protection controls, such as data encryption at rest and in motion, to safeguard sensitive data against unauthorised access and leakage.

2. Database components must provide for granular field/column obfuscation/tokenisation to provide additional safeguards against insider threats and privileged users unnecessarily accessing highly sensitive data on databases.

3. The solution must enforce secure management channels by default, with no clear-text protocols used for management/administration processes.

**4.5 Usability and User Experience**

1. The design must prioritise usability and user experience, ensuring ease of navigation for users with varying technical expertise.

2. The design should be intuitive, featuring logical workflows and straightforward operation.

**4.6 Extensibility, Integration and Interoperability**

1. The chatbot must be interoperable, meaning it can seamlessly exchange data with other internal RAF systems/data sources.

2. The design must utilise APIs (Application Programming Interfaces) to integrate with other systems/platforms.

3. The design must adapt to the RAF's evolving needs and be customisable and extensible.

**4.7 Training**

1. Training materials must be provided to support effective user adoption and system utilisation.

2. As part of the implementation plan, the service provider must train ten (10) users, including RAF’s internal IT support.

3. Train internal ICT and business staff on the administration and maintenance of the new solution.

**4.8 Documentation**

1. All technical documentation, including architecture artefacts, must be delivered as part of the document's scope. This will include all architecture domains.

2. (Business, Information, Data, Application, Technology, and Security domains)

**4.9 Chatbot Hypercare and Maintenance & Support**

1. The service provider is required to deliver hypercare support after the implementation of the chatbot. The Hypercare services will include, but are not limited to:

a) Resolution of all post-go-live issues to ensure system stability.

b) Incident Management that involves rapid response, diagnosis, and resolution of all system incidents.

c) Problem Management through proactively identifying and resolving underlying causes of recurring incidents.

d) Change Management support for implementing emergency changes and hotfixes.

e) Proactively monitor the system to identify potential issues before they impact users.

f) User support services must be available during RAF’s office hours, 8:00 AM to 5:00 PM, Monday to Friday.

g) Service Level Agreements (SLAs) should be defined for response and resolution times for support requests.

h) Remediate identified security vulnerabilities through system configuration hardening and installing security and system patches/updates.

i) A knowledge base or FAQ section should be available to the internal support staff for self-service support.

j) Provide regular maintenance and performance tuning activities to optimise the system performance.

**OUTPUT AND DELIVERABLES**

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| **Needs Analysis** |
| Confirmed Business Requirements Document, Solution architecture document, and Implementation roadmap/ Project plan. |
| **Governance, Programme, and Project Management** |
| Project charter with all governance structures, project methodology and project plan with timelines. |
| **Licensing requirements** |
| A document recommending the necessary licenses and outlining the recommended terms for each.Facilitate license acquisition and implementation. |
| **Planning and Design** |
| Technical design documentation detailing the technical infrastructure, including configuration and customisation specifics. A business blueprint that describes the configuration and customisation needed to implement the chatbot & Humanoid robot.  |
| **Configure, Build, and Test** |
| The security configuration document of both the humanoid & Chatbot and how it addresses the security requirements. The interface/Integration document for all interfaces/integrations with other systems. The Operations Manual of the new solution.A document outlining data governance to manage regulatory requirements and internal policies, ensuring data quality, security, and privacy.Security Configuration Documentation of the security configuration settings implemented in the new solution, including user access controls, authorisation settings, and system parameters.User Roles and Permissions Matrix defining user access levels and permissions within the solution.Implementation of the business requirements/ Programming of the Humanoid and Chatbot.Test plan and Test cases covering all relevant scenarios and use cases will be used to validate the solutions.Test Scripts and Results recording the results of various testing phases (unit, integration, UAT).Successful User Acceptance Testing (UAT) to validate the system against business requirements and formal sign-off from business users confirming that the new functionalities meet the requirements. |
| **Training and Deployment** |
| A detailed plan outlining the training approach, materials, and schedule.A comprehensive plan describing the steps necessary to deploy the system into the production environment. A list of tasks that must be completed before the system goes live. |
| **Hypercare and Maintenance & Support** |
| A clearly defined support model to address any issues or questions that arise after the system goes live. Ongoing support and guidance to ensure users are comfortable and proficient with the new system. System performance monitoring and optimisation in a real-world environment, making necessary adjustments to enhance performance. Early detection and prevention of issues by closely monitoring the system and user feedback to avert potential problems before they escalate. Knowledge-base articles and FAQs addressing common issues and their solutions to enable users to self-serve and reduce the support burden. Updated training materials if any gaps in user understanding are identified. A known issues list documenting any technical problems or limitations identified during the upgrade/configuration process and applicable workarounds. A post-go-live support plan and documentation defining the support process after the system launch, including maintenance and troubleshooting guidelines. The RAF takes full ownership of the system, with the internal support team capable of managing it effectively.The System Administration Guide that outlines tasks like user management, system monitoring, and troubleshooting.Documentation on how to use the system's reporting and analytics capabilities.Contact information for the support team and key stakeholders.Formal Service Level Agreements (SLAs) defining the level of support to be provided, including response times and resolution times. |
| **Detailed Project Risk Management Plan** |
| An up-to-date Risk Register, which is a living document listing all identified risks, their descriptions, potential impact, probability of occurrence, risk rating, and assigned owners. Risk Assessment Reports summarising the results of risk assessments, including the top risks and their potential impact.Risk Response plans for mitigating or responding to each identified risk, including specific actions, responsible parties, and timelines. These are dynamic and updated as needed.Contingency plans for dealing with specific risks if they materialise, outlining alternative approaches and resources.Documentation of lessons learned from risk events and mitigation efforts, which can be used to improve future risk management activities. |

1. **PROJECT APPROACH**

The project must be managed fully to ensure success. The Project Manager must ensure the following are in place:

1. Stakeholder engagement plan.
2. Project governance structure.
3. Resource allocation.
4. Project software delivery methodology.
5. Implementation plan and timelines.
6. Risk and Issue Management.
	1. **Delivery Methodology**
7. The implementation must follow the Agile methodology.
8. Regular progress reports and demonstrations are required.
9. Clear communication and collaboration must be maintained throughout the development and implementation process.
10. The service provider must communicate and reach an agreement with RAF on the proposed technology stack and development approach.
11. A detailed description of the application architecture must be provided, aligned with the non-functional requirements.
12. Testing and quality assurance procedures must be clearly defined.
13. Data security and privacy measures must be agreed upon.
14. EVALUATION CRITERIA

The evaluation criteria will be based on the following requirements:

* Phase 1: Mandatory Requirements
* Phase 2: Functional Requirements
* Phase 3: Demonstration by all service providers who have met Functional Requirements threshold.
* Phase 4: Evaluation for Price and Specific Goals based on preference point system of 80/20.

 **Phase 1: Mandatory Requirements**

 All Service Providers who do not meet all Mandatory Requirements will be disqualified and will not be considered for

 further evaluation on functionality.

 **Service Providers must indicate by ticking (√) correct box indicating that they Comply or Do not comply.**

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| **No** | **Description** | **Comply** | **Not comply** |
| **1** | **Reference Letter**The Service Provider must provide a minimum of one (1) reference letter from a previous client where they have successfully reprogrammed and leased a humanoid robot within the last five years from the closing date of this RFQ. The reference letter must be on the client’s letterhead and must contain the following information:* Project description or summary of scope of work.
* Project start and end date (end date where applicable)
* Contact Person
* Contact Number or Email Address

Please note: The RAF will not accept a list of reference letters listed on a table other than signed reference letters on a company letterhead from the client. The RAF reserves the right to validate all reference letters submitted. The reference letter(s) must be in the form of individual letter(s) from the respective clients.NB: If the reference letter/s do not include all the information as per the bullet points above, such letter will not be considered valid.The reference letter must be submitted by the closing date and time of the RFQ. |  |  |
| **Substantiate/Comments**  |

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| **No** | **Description** | **Comply** | **Not comply** |
| **2** | **Humanoid Robot Images** Service Provider must have in their position an available humanoid robot that can be leased and reprogrammed to meet RAF's requirements. Service Provider must provide image(s) of the humanoid robot as part of their submission. |  |  |
| **Substantiate/Comments**  |

**PHASE 2: Functional Requirements**

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| **2.1** | **PROJECT APPROACH & SOLUTION IMPLEMENTATION PLAN** | **POINTS** |
|  | Service Providers must submit a comprehensive proposal to meet the requirements, which includes reprogramming the humanoid robot and developing the chatbot. This must include the following.1. An implementation methodology outlining how the bidder will manage the project using agile methodology, with support from project governance.
2. The submitted project implementation plan aligns with the proposed solution and the requirements of this RFQ.
3. It includes project activities and tasks, milestones, timelines, and project resources.
4. Furthermore, the plan outlines tasks and activities that address the following:
* The initial onboarding of RAF.
* Initial configuration and customisation of the solution.
* Implementation of the solution features.
* Configuration optimisation.
* Integration with other RAF systems.
* Implementation of Reports.
* Timelines linked to all activities.
	+ - 1. **Humanoid Robot Reprogramming**

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| **Experience: Scoring Matrix** |
| **Project Approach and Methodology** | **Score** |
| No Project Approach and Methodology submitted  | 0 |
| Project Approach and Methodology that meets all requirements | 10 |
| Project Approach and Methodology that meets all requirements and timelines are not more than two (2) weeks | 20 |

**2. Chatbot Development**

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| **Experience: Scoring Matrix** |
| **Project Approach and Methodology** | **Score** |
| No Project Approach and Methodology submitted  | 0 |
| Project Approach and Methodology that meets all requirements | 10 |
| Project Approach and Methodology that meets all requirements and timelines are not more than two (2) weeks | 20 |

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| **2.2** | **EXPERIENCE OF THE PROJECT TEAM IN IMPLEMENTING A CHATBOT** |  |
|  | Service Provider must provide CVs of the proposed project team members with their qualifications in IT or Computer Science (minimum NQF Level 6) and experience in implementing chatbot projects. CV’s must be limited to one single-sided A4-sized page. CV’s exceeding this limit or without the required qualification will not be reviewed.Proof: A summary of the project manager’s CV detailing personal information, qualifications, work experience, and references. NB: Years of experience must be provided by date, month, and year for start and end periods.Please Note: If the service provider cannot meet the requirements to assign the allocated resources as per the submitted CV for this RFQ (the resource that was scored for this RFQ), the service provider must replace them with similar or more experienced resource (s).1. **Project Manager’s experience and certification**

The project manager must have at least three (3) years of experience in chatbot implementations, and they must be certified in Agile Project Management (proof of certification to be attached)

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| **Experience: Scoring Matrix** |
| **Number of years of Experience,** **Qualification in IT or Computer Science and Certification** | **Score** |
| No experience or less than three (3) years of experience, with no IT or Computer Science qualification (minimum NQF level 6) and no certification **OR** Three (3) years or more experience with no IT or Computer Science qualification (minimum NQF level 6) and with no certification | 0 |
| Three (3) years of experience and IT or Computer Science qualification (minimum NQF level 6) and a certification | 10 |
| More than three (3) years of experience and IT or Computer Science qualification (minimum NQF level 6) and a certification | 15 |

1. **Senior Developer’s experience in chatbot implementation**

The Senior Developer must have at least three (3) years of experience in chatbot implementation.

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| **Experience: Scoring Matrix** |
| **Number of years of Experience and qualification in IT or Computer Science qualification** | **Score** |
| No experience or less than three (3) years of experience with no IT or Computer Science qualification (minimum NQF level 6) | 0 |
| Three (3) years of experience and IT or Computer Science qualification (minimum NQF level 6) | 10 |
| More than three (3) years of experience and IT or Computer Science qualification (minimum NQF level 6) | 15 |

1. **Business Analyst in IT project implementation**

The Business Analyst must have at least three (3) years of experience in chatbot implementation.

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| **Experience: Scoring Matrix** |
| **Number of years of Experience and qualification in IT or Computer Science qualification**  | **Score** |
| No experience or less than three (3) years of experience with no IT or Computer Science qualification (minimum NQF level 6) | 0 |
| Three (3) years of experience and IT or Computer Science qualification (minimum NQF level 6) | 10 |
| More than three (3) years of experience and IT or Computer Science qualification (minimum NQF level 6) | 15 |

1. **Analyst Tester**

The Analyst Tester must have at least three (3) years of experience in chatbot implementation.

|  |
| --- |
| **Experience: Scoring Matrix** |
| **Number of years of Experience and qualification in IT or Computer Science qualification** | **Score** |
| No experience or less than three (3) years of experience with no IT or Computer Science qualification (minimum NQF level 6) | 0 |
| Three (3) years of experience and IT or Computer Science qualification (minimum NQF level 6) | 10 |
| More than three (3) years of experience and IT or Computer Science qualification (minimum NQF level 6) | 15 |

 | **60** |
| **Total** |  | **100** |

**Service Provider(s) who score a minimum threshold of 60 out of 100 points on Phase 2 will be considered for further evaluation in Phase 3.**

**PHASE 3: Demonstration**

**HUMANOID ROBOT DEMONSTRATION**

**NB: The demonstration for the Humanoid Robot and the Chatbot Development will be conducted virtually or at the Vendor’s location if logistically feasible.**

After the demonstration in this stage, service provider(s) must achieve a minimum score of **120** out of **150** points to proceed to the next evaluation stage (Phase 4 Price and specific goals). Service Provider(s) who do not achieve a minimum score of **120** out of **150** points will not be eligible to proceed further with the evaluation and will be disqualified.

|  |  |
| --- | --- |
| **ROBOT SUITABILITY AND PERFORMANCE** | **Max Points** |
|  | **PHYSICAL DESIGN**  | **[30]** |
| **Robot Size (Height/Width/Depth)** | Does the robot have a minimum height of one meter?  | **10** |
| **Integrated Screen** | Does the robot have a built-in screen for displaying visual content? | **10** |
| **Battery Life/Power Source** | Does the robot have a backup battery, or does it only rely on being plugged into a power outlet? | **10** |
|  | **VOICE & AUDIO CAPABILITIES**  | **[20]** |
| **High-Quality Speech Synthesis** | Is the robot's speech clear, natural, and easy to understand? | **5** |
| **Multilingual Support (English)** | Does the robot support English as needed? | **5** |
| **Natural Language Processing (NLP)** | Is the robot capable of effectively handling real-time questions and answers using natural language processing (NLP)? | **5** |
| **Error Handling and Recovery**  | Can the robot manage unexpected situations and quickly recover from errors?(During the demonstration a random question will be asked to the Robot to test if the robot can manage unexpected situations and quickly recover from errors) | **5** |
| **Total** |  |  **50** |

**CHATBOT DEMONSTRATION**

**NB: Bidders will be required to demonstrate evidence of their chatbot functionality.**

|  |  |
| --- | --- |
| **CHATBOT DESIGN AND SUITABILITY**  | **Max points** |
|  | **FUNCTIONAL CAPABILITIES AND UX** | **[20]** |
| **Live Chatbot Interaction** | Showcase the chatbot's user-facing features. A simulated webpage presenting the integrated chatbot widget. | **5** |
| **User Query (General)** | Demonstrate if the chatbot’s AI-powered NLP can accurately interpret a broad query and deliver comprehensive, structured details. | **5** |
| **User Query (Specific FAQ)** | Demonstrate the chatbot’s ability to pull a tailored answer from the interactive FAQ knowledge base. Interactive FAQ functionality provides relevant, user-specific information. | **5** |
| **User Query (Follow-up)** | Demonstrate the chatbot’s ability to provide relevant details from its knowledge base, i.e., it can handle follow-up questions within the context of the conversation. | **5** |
|  | **EXTENSIBILITY & ADAPTABILITY** | **[20]** |
| **Modularity of the design** | Demonstrate how new data sources can be added seamlessly without disrupting existing functionality. This allows for rapid service expansion with minimal rework and protects the investment for future growth. | **5** |
| **Live Agent Escalation** | Showcase the Chatbot’s skill in identifying queries outside its programming and its handling of user expectations politely. | **5** |
| Demonstrate the handover process, ensuring a smooth transition where the request is routed to the IT support team's queue, possibly with the chatbot conversation history included. | **5** |
| Show the chatbot’s capacity to confirm escalation of the request and optionally provide an estimated response time or a ticket number. | **5** |
|  | **AI, SECURITY & ARCHITECTURE** | **[60]** |
| **AI-Powered NLP Engine & Machine Learning** | Demonstrate how the core of the chatbot is powered by advanced Natural Language Processing (NLP) services and its processing sequence. What is the flow of actions from user query to response generation? | **10** |
| **Machine Learning** | Demonstrate how ML features enable the chatbot to learn from each interaction. | **10** |
| **Communication Encryption** | Demonstrate that all communication between the user, the chatbot, and backend services are end-to-end encrypted. | **10** |
| **Data Protection**  | Demonstrate adherence to data protection policies and relevant regulations such as POPIA. Additionally, show how the chatbot is designed to avoid the persistent storage of Personally Identifiable Information (PII).  | **10** |
| **Access Control** | Demonstrate how robust access controls are used for managing the chatbot's backend and knowledge base. | **10** |
| **Deployment Platform & Scalability** | Present a simplified architectural diagram showcasing the use of a chosen cloud platform.  | **5** |
| **Analytics & Insights** | Demonstrate a high-level mock-up of an analytics dashboard (e.g., Power BI dashboard) showcasing the following metrics:* Total conversations, daily/weekly traffic peaks.
* Resolution Rate: Percentage of queries successfully handled by the chatbot vs. escalated.
* Common query topics and trends.
* User engagement levels (e.g., conversation length).
* Unresolved/Fallback queries (key for identifying knowledge gaps).
 | **5** |
| **Total** |  | **100** |

**Phase 4: Price and Specific Goals Evaluations**

The evaluation for Price and Specific Goals based preference system shall be based on the 80/20 and the points for evaluation criteria are as follows:

|  |  |
| --- | --- |
| **Evaluation criteria**  | **Points** |
| **1** | **Price** | **80** |
| **2** | **Specific Goals**

|  |  |  |  |
| --- | --- | --- | --- |
| # | Specific Goal | Proof | Points Allocation |
| 1 | South African citizen who had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act 200 of 1983) or the Constitution of the Republic of South Africa, 1996. (minimum 51% ownership or more) | CSD Report | 10 |
| 2 | Women (minimum 51% ownership or more) | ID copy / CSD report | 8 |
| 3 | Persons with disabilities (minimum 51% ownership or more) | Valid medical certificate issued by an accredited medical practitioner | 2 |

 | **20** |
| **Total** | **100** |

1. COST BREAK DOWN
2. The service provider/supplier is required to provide a full cost breakdown for each item required on an official company letterhead;
3. In cases where a service provider submits two (2) different offers, the price stated on the RFQ document will be accepted for the basis of the evaluation purposes.
4. The service provider/supplier is required to list all additional costs associated with the services listed above, with the conditions of when such costs will apply;
5. All prices must be VAT inclusive (if VAT registered) and must be quoted in South African Rand (ZAR);
6. No price changes will be accepted after the official Purchase Order (PO) is issued.

**PART A**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO.** | **ITEM DESCRIPTION** | **QUANTITIES** | **UNIT PRICE** | **TOTAL PRICE** |
| **1.** | **Humanoid Robot Lease and reprogramming** (as per specification) | **1** |  |  |
| **TOTAL**  |  |
| **VAT (IF VAT REGISTERED)** |  |
| **GRAND TOTAL (VAT INCLUSIVE - IF VAT REGISTERED)** |  |

**PART B**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO.** | **ITEM DESCRIPTION** | **QUANTITIES** | **UNIT PRICE** | **TOTAL PRICE** |
| **1.** | **Chatbot Development and integration** (as per specification) | **1** |  |  |
| **TOTAL**  |  |
| **VAT (IF VAT REGISTERED)** |  |
| **GRAND TOTAL (VAT INCLUSIVE - IF VAT REGISTERED)** |  |

**PART C**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO.** | **ITEM DESCRIPTION** | **QUANTITIES** | **UNIT PRICE** | **TOTAL PRICE** |
| **1.** | Analytics and Reporting Dashboard configuration  | **1** |  |  |
| **2.** | Testing, Quality Assurance and Training | **10** |  |  |
| **TOTAL**  |  |
| **VAT (IF VAT REGISTERED)** |  |
| **GRAND TOTAL (VAT INCLUSIVE - IF VAT REGISTERED)** |  |

**Ad Hoc Services (Support)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **ITEM DESCRIPTION** | **Rates (including VAT) if applicable** | **Unit of Measure** |
| **2.1** | Labour/Support rate (**Onsite** – inclusive of transport and all other relevant administrative costs) | R | per hour |
| **2.2**  | Labour/Support rate (**Remote** – inclusive of all other relevant administrative costs) | R | per hour |
| **2.3** | Project Management Services (inclusive of all other relevant administrative costs) | R | per hour |
| **2.4** | Needs Analysis (inclusive of all other relevant administrative costs) | R | per hour |
| **2.5** | Chatbot Customisation and Training (inclusive of all other relevant administrative costs) | R | per hour |

|  |  |
| --- | --- |
| **TABLE** | **PRICING** |
| Total Price for Part A: **Humanoid Robot Lease PR10110916** | R |
| Total Price for Part B: **Chatbot Development PR10110917** | R |
| Total Price for Part C: **Other applicable costs**  | R |
| **TOTAL PRICE FOR TABLE A, B and C (inclusive of VAT) if applicable**  | R |

**NB! Service providers are required to provide total quotation price as per the above cost breakdown guideline for evaluation purposes as only Part B & C will be handed over for contracting purposes.**

1. STANDARD BIDDING DOCUMENTS

SBD 4 Bidders Disclosure

SBD 6.1 in Terms of PPR 2022