# NATIONAL INSTITUTE FOR SMART GOVERNMENT ON BEHALF OF THE GOVERNMENT OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

**Ministry of Digital Economy** 

## **BIDDING DOCUMENT – SCHEDULE OF REQUIREMENTS**

Volume 02 of 03 - Annexure 10: Manpower Requirements

**Two Stage Bidding Procedure** 

#### FOR THE

APPOINTMENT OF A MASTER SYSTEM INTEGRATOR (MSI) FOR DEVELOPMENT, IMPLEMENTATION AND MAINTENANCE OF THE "UNIQUE DIGITAL IDENTITY (SL-UDI) PROJECT" OF GOVERNMENT OF SRI LANKA

**INVITATION FOR BIDS No: NISG/SLUDI-2025** 

June, 2025

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## 10.1 Professional Staff and Engagement Approach

The following key professions are required for the core team.

|            | one wing key professions are               | •  |   |
|------------|--|--|---|
| No         | <b>Key Professional Staff</b>              | Deployment   | Deployment  |
|            |  | (Implementation Phase)   | (O&M Phase)                                       |
| (A)        | Project Management Role                    |  |   |
| 1          | Project Director                           | Onsite on need basis for one month every quarter   | Offsite on need basis for one month every quarter |
| 2          | Technical Project Manager                  | Full-Time Onsite   |   |
| 3          | Support and Operations<br>Manager          |  | Full-Time Onsite after Go-Live                    |
| <b>(B)</b> | Architects                                 |  |   |
| 1          | Chief Architect                            | Primarily Offsite during design  | On need basis                                     |
| 2          | Software Architect (Application Architect) | phase and Onsite on need basis<br>during the design phase as per<br>deployment schedule. |   |
| 3          | Security and Network<br>Architect          | aspreyment someone.  |   |
| 4          | Infrastructure & Systems<br>Architect      |  |   |
| 5          | Database Architect                         |  |   |
| 6          | Quality Assurance Architect                |  |   |
| (C)        | Team Leads and Track Lea                   | ds   |   |
| 1          | Team Lead – UI/UX                          | Primarily Offsite during design  | Onsite on need basis for after Go-                |
| 2          | Team Lead – Business<br>Analyst            | phase and Onsite on need basis<br>during the design phase as per<br>deployment schedule. | Live.   |
| 3          | Team Lead – Quality<br>Assurance           |  |   |
| 4          | Team Lead – Training and Certification     | Note: Business Analyst will be<br>Onsite Fulltime during Design<br>Phase                 |   |
| 5          | Track Lead – Data and<br>Analytics         |  |   |
| 6          | Track Lead – Network & Security            |  |   |
| 7          | Track Lead – Data Center<br>Manager        |  |   |
| 8          | Track Lead – Systems<br>Engineering        |  |   |
| 9          | Track Lead – Application<br>Manager        |  |   |

| No         | Key Professional Staff                                 | Deployment (Implementation Phase)                             | Deployment (O&M Phase) |
|------------|--|---|------------------------|
| 11         | Track Lead – Enrolment and Authentication              |   |                        |
| (D)        | Engineers  |   |                        |
| 1          | Infrastructure Engineer                                | Full-Time Onsite  | Offsite                |
| 2          | Network Engineer                                       | Full-Time Onsite  | Offsite                |
| 3          | CRM Engineer   | Full-Time   | Offsite                |
| 4          | BI Reporting and Data<br>Analytics Engineer            | Full-Time   | Offsite                |
| 5          | Application Engineer                                   | Full-Time   | Offsite                |
| <b>(E)</b> | <b>Biometrics (From BSP)</b>                           |   |                        |
| 1          | Manager – Biometric                                    | Onsite on during design phase and on need basis.              | Onsite on need basis   |
| 2          | Biometric - Implementation and Integration Engineer    | Onsite full-time after design phase                           |                        |
| <b>(F)</b> | Security   |   |                        |
| 1          | Information Security<br>Manager                        | Full-Time Onsite  | Onsite Part-Time       |
| (G)        | Software   |   |                        |
| 2          | Business Analysts                                      | Onsite full-time during the implementation phase.             | Offsite on need basis  |
| (H)        | Other  |   |                        |
| 1          | IT Helpdesk Agents                                     | Onsite full-time at least one month before helpdesk launch    | Onsite full-time       |
| 2          | NOC Agent  | Onsite full-time at least one month before NOC launch         | Onsite full-time       |
| 3          | SOC Agent  | Onsite full-time at least one month before SOC launch         | Onsite full-time       |
| 4          | Administrators (Server,<br>Network, Storage, Database) | Onsite full-time at least one month before data center launch | Onsite full-time       |

Table 1: Key Professionals

- i. The MSI is required to submit a detailed organization structure in the technical proposals which should mention all the resources, their roles in project, responsibilities assigned to them, their deployment (man-months). In addition, the deployment plan for these resources should be consistent with the deployment duration specified in the technical proposal.
- ii. The MSI should propose an adequate team comprising of key professionals (mentioned above) and other professionals to meet the timelines, quality norms, service levels, etc.

- iii. The MSI should ensure the other key professionals who are proposed through this assignment/contract are available on-demand throughout the duration of the assignment/contract without delay to ongoing SL-UDI project activates.
- iv. The MSI should allocate the full-time Project Management professional(s) for this assignment. The other key professionals can be allocated on a need basis.
- v. The MSI should ensure adequate support staff to assist the Project Management professionals who are assigned to this project.
- vi. The resources (engineers, developers, and testers) should be adequately trained in the respective technologies being proposed for this engagement. Wherever such certification is available from the OEM, the resources should also have the OEM issued certification for their specific roles.

### 10.2 Minimum Qualifications of Key Professional Staff

- i. The MSI should give the team of professionals with the curriculum vitae and team organization, of which the validity and accuracy of the CVs are very important. For the profile included under the technical evaluation (refer Volume-1), the CVs are to be submitted by the bidder with the technical proposal. For other profiles (not included in technical evaluation as well as non-key professionals), the CVs are to be submitted by the selected bidder at the time of team mobilization.
- ii. For technical profiles, the resources should have the relevant technology/product certifications from the respective OEM, wherever available.

| #    | Key<br>Professional<br>Staff | Academic &<br>Professional   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions  |  |  |  |  |  |
|------|------------------------------|--|----------------------------------|--|--|---|--|--|--|--|--|
| Proj | Project Management Roles     |  |                                  |  |  |   |  |  |  |  |  |
| 1    | Project Director             | MBA/ME/M-Tech/BE/B-Tech or Equivalent  Certifications: Certification in Project Management (PMP, or Prince2 and related) | 20 years                         | 05 years   | Experience in handling at least 5 (five) technology-led end-to-end projects of similar scale (scope, timeline, and budget) and out of this at least 1 (one) project should be in government sector.  Experience of managing a portfolio of projects, and experience of periodic interaction with C-level of the organization  Experience of working in a multi-cultural and diverse environment in at least 3 countries. | <ul> <li>Shall be deployed on-site during implementation Phase and part time during O&amp;M phase in Manila as per the proposed deployment plan</li> <li>Responsible for organizing, planning, directing and coordinating overall program effort</li> <li>Should have extensive experience and proven expertise in managing similar contracts</li> <li>Establish overall SL-UDI Programme and project management strategy</li> <li>Link objectives of the SL-UDI Programme and the technical solution being implemented</li> <li>Implement SL-UDI Implementation Strategy and Plan</li> <li>Development of procurement strategy and deployment strategy</li> <li>Monitor overall project progress and provide direction</li> <li>Responsible for periodically assessing the project resourcing and ensuring it is in line with proposed deployment and adequate for project requirements</li> </ul> |  |  |  |  |  |

| # | Key<br>Professional<br>Staff    | Academic &<br>Professional   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions  |
|---|---------------------------------|--|----------------------------------|--|--|---|
|   |                                 |  |                                  |  |  | <ul> <li>Assess project risks and ensure timely resolution</li> <li>Ensure compliance to the terms and conditions of contract and SLAs</li> <li>Manage project scope and ensure its deliverables</li> </ul>   |
| 2 | Technical<br>Project<br>Manager | MBA/ME/M- Tech/BE/B-Tech or equivalent Certifications: Desired — SCRUM Master Other Certification (PMP or Prince2) in Project Management | 15 years                         | 10 years   | Experience in handling at least 3 (three) technology-led end-to-end projects of similar scale (scope, timeline, and budget) and out of this at least 1 (one) project should be in government sector.  Experience as project manager on a national identity project with biometric aspect | <ul> <li>Shall be deployed on-site full time for the duration of the project during implementation phase</li> <li>Act as single point of contact for Project Committee</li> <li>Responsible for implementation of Project Governance Systems and Procedures in consultation.</li> <li>Responsible for successful delivery of SIs deliverables and scope of work</li> <li>Shall oversee all transition and scaling activities of SL-UDI.</li> <li>Responsible for supervising allotted resources, procurement, forecasting and demand management of services in SL-UDI.</li> <li>Own and be responsible for all SL-UDI policies and procedures implemented by SI</li> <li>Responsible for audit readiness of the SI and shall be the owner in charge of redressal of all audit findings</li> </ul> |

| # | Key<br>Professional<br>Staff         | Academic &<br>Professional   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions   |
|---|--------------------------------------|--|----------------------------------|--|---|--|
|   |                                      |  |                                  |  |   | <ul> <li>Shall participate in all fortnightly / monthly project meetings and project review meetings</li> <li>Shall ensure Quality Assurance for all goods and services delivered by SI</li> </ul>   |
| 3 | Support and<br>Operations<br>Manager | MTech / ME/B-Tech/BE or equivalent  Certifications: ITIL (Desired) | 15 years                         | 05 years   | Experience of at least 3 (three) technology-led projects as support manager role in a project of similar scale (scope, timeline, and budget)  Experience in managing operations, maintenance, and support (L1, L2 and L3) aspects during O&M phase of a large project in the government sector  Experience in managing operations, maintenance, and support (L1, L2 and L3) aspects during O&M phase of a large project with multiple | <ul> <li>Oversee daily operations, ensuring efficiency and productivity.</li> <li>Develop and implement process improvements.</li> <li>Manage vendor relationships and contracts.</li> <li>Ensure compliance with regulatory requirements.</li> <li>Lead customer support team, providing guidance and training.</li> <li>Develop and implement support processes and procedures.</li> <li>Ensure timely resolution of customer issues.</li> <li>Analyze and report on support metrics.</li> <li>Manage and mentor support and operations staff.</li> <li>Conduct performance reviews and provide feedback.</li> <li>Foster collaboration and open communication.</li> <li>Contribute to organizational strategic planning.</li> </ul> |

| #    | Key<br>Professional<br>Staff | Academic &<br>Professional   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions   |
|------|------------------------------|--|----------------------------------|--|---|--|
|      |                              |  |                                  |  | OEMs, ecosystem partners, sub- contractors, etc.  Experience is mandatory in a similar capacity on (a) biometric based projects, (b) DevSecOps, (c) Cloud Infrastructure, (d) Network and Security, and (e) Change Management   | <ul> <li>Develop and manage departmental budgets.</li> <li>Identify areas for improvement and propose solutions.</li> </ul>  |
| Arch | itects                       |  |                                  |  |   |  |
| 1    | Chief<br>Architect           | MS / MTech / ME / MCA/BE/B-Tech or equivalent  Certifications (Desired): TOGAF | 15 years                         | 10 years   | Experience in designing enterprise architecture for at least 3 (three) large scale technologyled projects of similar scale (scope, timeline, and budget) and out of this at least 1 (one) project should be in the government sector.  Experience is mandatory in a similar capacity on (a) biometric based | <ul> <li>Should be deployed onsite as per the deployment plan during design phase of the SL-UDI project</li> <li>Shall be single point of contact for the SL-UDI Technology solution requirements</li> <li>Develop deep understanding of SL-UDI architecture</li> <li>Manage architectural requirements</li> <li>Imbibe key architectural principles proposed and perform detailed design of software, hardware, network and security architecture of SL-UDI Registry</li> </ul> |

| # | Key<br>Professional<br>Staff                        | Academic &<br>Professional               | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions  |
|---|---|--|----------------------------------|--|--|---|
|   |   |  |                                  |  | projects, (b) DevSecOps, (c) Cloud Infrastructure, (d) Network and Security, (e) microservices, (f) enterprise architecture, server architecture, network architecture, database architecture, deployment architecture etc.  Experience of National Identity project is mandatory  Experience or Knowledge of MOSIP is desirable | <ul> <li>Responsible for creating or selecting the most appropriate architecture and technology components for SL-UDI such that it suits the business needs, satisfies user requirements, and achieves the desired results under given constraints</li> <li>Review software solution development to ensure alignment with the architecture designed should proactively monitor the adherence of the implementation to the chosen architecture during all iterations</li> <li>Re-design the solution based on feedback received on functionality and performance, if needed</li> <li>Implement continuous improvements in architecture, solution, algorithms and infrastructure to contain costs</li> <li>Manage SL-UDI architectural changes and ensure timely and accurate documentation of all key changes</li> </ul> |
| 2 | Software<br>Architect<br>(Application<br>Architect) | MS / MTech<br>/ ME / MCA /<br>BTech / BE | 12 years                         | 5 years  | Experience in designing solution/application architecture for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  | <ul> <li>Should be deployed onsite as per the deployment plan during design phase of the SL-UDI project till Go-Live of key SL-UDI modules</li> <li>Shall be single point of contact for the SL-UDI Software solution requirements</li> <li>Manage architectural requirements from a</li> </ul>   |

| # | Key<br>Professional<br>Staff         | Academic &<br>Professional               | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions   |
|---|--------------------------------------|--|----------------------------------|--|---|--|
|   |                                      |  |                                  |  | Experience is mandatory in a similar capacity on (a) biometric based projects, (b) Agile methodology, (c) DevSecOps, (d) Microservices architecture, (e) software architecture (Docker based deployment, Hybrid Mobile Application Development, etc.), (f) integration architecture, and (g) quality engineering  Experience of National Identity project is mandatory  Experience or Knowledge of MOSIP is desirable | <ul> <li>Imbibe key architectural principles proposed and perform detailed design of software and required data and application security</li> <li>Responsible for creating or selecting the most appropriate architecture and technology components for SL-UDI such that it suits the business needs, satisfies user requirements, and achieves the desired results under given constraints</li> <li>Implement continuous improvements in architecture, solution, algorithms and infrastructure to contain costs</li> <li>Manage SL-UDI architectural changes and ensure timely and accurate documentation of all key changes</li> </ul> |
| 3 | Security and<br>Network<br>Architect | BE / BTech / MS<br>/ MTech / ME /<br>MCA | 12 years                         | 5 years  | Experience in designing security architecture for at least 5 (give) large scale technology-led  | <ul> <li>Responsible for developing the IS policies<br/>and procedures for SL-UDI and their<br/>periodic review</li> <li>Head of the Information Security function</li> </ul>  |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|---|------------------------------|----------------------------|----------------------------------|--|---|---|
|   |                              |                            |                                  |  | projects.  Experience is mandatory on  (a) Biometric based projects,  (b) DevSecOps,  (c) establishing and managing security operation center,  (d) governance, risk, and compliance,  (e) authentication and authorization standard,  (f) Information security products design and deployment and (g) business continuity planning  Experience is mandatory in information technology security design, operations, encryption, information | <ul> <li>from the SI's team</li> <li>Work closely with other vendors appointed to ensure that IS policies and procedures are implemented properly</li> <li>Review overall Information Security posture of SL-UDI and undertake architecture reviews and enhancements in consultation with the Chief Technology Architect</li> <li>Responsible for training, communications and obtaining necessary Information Security certifications for SL-UDI</li> <li>Overall security of SL-UDI Data centers. Should work with the Data Center Managers to ensure that security is adequately safeguarded.</li> <li>Be responsible for establishing governance and processes to ensure that the company's information Security and Personal Data Privacy policies, standards and practices are updated, implemented and complied</li> <li>Develop, promulgate, and maintain policies, standards and practices of Information Security by establishing and maintaining efficient processes to monitor compliance of defined policies, standards and practices.</li> <li>Assist in planning for information security</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|---|------------------------------|----------------------------|----------------------------------|--|---|---|
|   |                              |                            |                                  |  | access, biometric security, and authentication processes.  Relevant experience in managing and reviewing the configuration of security devices and solutions such as IAM, DLP, WAF, firewall etc.  Experience of projects with ISO 27001 and ISO 22301 compliances  Experience of National Identity project is mandatory  Experience or knowledge of MOSIP is desirable | risk monitoring, risk analysis, incident management  Manage and perform internal IS audits at regular intervals and assist in External Audits and certifications  Ensure that threats, vulnerabilities, cyberattack and attendant risks are proactively identified and appropriately mitigated, avoided or accepted  Lead regular reviews of emerging technology risks and vulnerabilities that may impact the company and its business  Lead the IS incident response team, and investigate security violations  Administer IS training and awareness program  Monitor the development of IT and IS related legislation and industry developments, and advise senior management of necessary actions and countermeasures in conformance with relevant legislation  Establish and Manage Business Continuity Management and ensure all BCP-DR activities performed on timely manner |

| # | Key<br>Professional<br>Staff       | Academic &<br>Professional  | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions   |
|---|------------------------------------|---|----------------------------------|--|---|--|
| 4 | Infrastructure & Systems Architect | MS / MTech / ME / MCA / BTech / BE or equivalent  Certifications: Cloud Architect (Desired) | 12 years                         | 5 years  | Experience in designing systems and infrastructure architecture for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience is mandatory on (a)  Highly scalable private cloud platforms, (b)  DevSecOps, (c) Object storage platforms, (d)  Kubernetes, (e)  Microservices, (f)  Docker based deployment, (g) multisite architecture  Experience or  Knowledge of MOSIP is desirable | <ul> <li>Should be deployed onsite as per the deployment plan during design phase of the SL-UDI project till Go-Live of key SL-UDI modules</li> <li>Shall be single point of contact for the SL-UDI IT infrastructure requirements</li> <li>Manage architectural requirements from IT infrastructure perspective</li> <li>Imbibe key architectural principles proposed and perform detailed design of IT infrastructure and required data and IT infrastructure security</li> <li>Responsible for creating or selecting the most appropriate architecture and technology components for SL-UDI such that it suits the business needs, satisfies user requirements, and achieves the desired results under given constraints</li> <li>Implement continuous improvements in architecture to optimize costs</li> <li>Manage SL-UDI architectural changes and ensure timely and accurate documentation of all key changes</li> </ul> |
| 5 | Database<br>Architect              | MS / MTech / ME<br>/ MCA /<br>BTech / BE or<br>equivalent                                   | 12 years                         | 5 years  | Experience in designing database architecture for at least 2 (two) large scale technology-led   | Will be responsible for coordinating current<br>and future development efforts involving all<br>elements of the databases  |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional       | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions   |
|---|------------------------------|----------------------------------|----------------------------------|--|--|--|
|   |                              | Certifications:<br>DBA (Desired) |                                  |  | projects of similar scale (scope, timeline, and budget)  Experience is mandatory in a similar capacity on (a) biometric based projects, (b) relational and non-relational database, (c) clustering and replication, (d) backup and restoration, (e) database optimization and tuning, (f) disaster recovery, (g) space management  Experience in the architecture and design of population scale databases  Experience of National Identity project is mandatory Experience or Knowledge of MOSIP is desirable | <ul> <li>Lead all planning, database design, code review, and performance optimization</li> <li>Will oversee documentation activities.</li> <li>Will choose to implement the databases in accordance with the specifications and in collaboration with the various stakeholders (project manager, architects, integrators, consultants, etc.)</li> <li>Optimally define database settings.</li> <li>Define data security rules (physical and logical) as well as standards for the use of the bases.</li> <li>Model the bases and the relationships between them and supervise the design of tables and keys.</li> <li>Will take into account the specificities of the internal or external customer in collaboration with the infrastructure architect, in particular with regard to the size of the database (capacity planning).</li> <li>Review and approve server sizing.</li> <li>Guarantee of data availability and quality by maintaining and improving performance and functionalities (by improving their automation, optimizing processing and queries, parameterization, etc.).</li> </ul> |

| # | Key<br>Professional<br>Staff      | Academic &<br>Professional  | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|---|-----------------------------------|---|----------------------------------|--|---|---|
| 6 | Quality<br>Assurance<br>Architect | MS / MTech / ME / MCA / BTech / BE  Certifications (Desired): ISTQB (International Software Testing Qualifications Board) or CMSQ (Certified Manager of Software Quality) | 12 years                         | 5 years  | Note – This profile should directly report to Project Director as well as Chief Architect  Experience in designing quality architecture for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience is mandatory in a similar capacity on (a) biometric based projects, (b) Agile methodology, (c)  DevSecOps, (d) manual and automation testing, and (e) nonfunctional testing  Experience of National Identity project is mandatory Experience or Knowledge of MOSIP is desirable | <ul> <li>Develop and maintain QA vision, mission, and strategic plans.</li> <li>Define QA processes, standards, and best practices.</li> <li>Collaborate with cross-functional teams to ensure QA alignment.</li> <li>Design and implement QA architectures for software applications.</li> <li>Ensure scalability, reliability, and maintainability of QA solutions.</li> <li>Evaluate emerging technologies and trends in QA.</li> <li>Develop and execute comprehensive testing strategies.</li> <li>Conduct manual and automated testing.</li> <li>Identify and report defects.</li> <li>Lead and mentor QA teams.</li> <li>Conduct performance reviews and provide feedback.</li> <li>Foster collaboration and open communication.</li> <li>Analyze and improve QA processes.</li> <li>Implement continuous integration and delivery.</li> <li>Ensure compliance with industry standards.</li> </ul> |

| #    | Key<br>Professional<br>Staff | Academic &<br>Professional   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|------|------------------------------|--|----------------------------------|--|---|---|
| Tean | n Leads                      |  |                                  |  |   |   |
| 1    | Team Lead –<br>UI/UX         | MS / MTech / ME / MCA / BE / BTech or equivalent  Certifications preferred: UI/UX or design thinking | 10 years                         | 5 years  | Experience in designing user experience and user interfaces for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience is mandatory on (a) Design thinking, (b) Enterprise Applications, (c) Wireframing and Prototyping, and (d) Hybrid Mobile Applications | <ul> <li>Lead and mentor a team of UI/UX designers.</li> <li>Foster a collaborative environment and encourage open communication.</li> <li>Develop and implement design processes and standards.</li> <li>Conduct performance reviews and provide constructive feedback.</li> <li>Design and deliver high-quality, user-centered UI/UX solutions.</li> <li>Conduct user research, create wireframes, prototypes, and high-fidelity designs.</li> <li>Collaborate with cross-functional teams (Product, Development, QA).</li> <li>Ensure design consistency across products.</li> <li>Develop and maintain design guidelines, standards, and best practices.</li> <li>Stay current with industry trends, technologies, and design tools.</li> <li>Contribute to product strategy and roadmap development.</li> <li>Manage design projects from concept to launch.</li> <li>Ensure timely delivery of design assets and specifications.</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions  |
|---|------------------------------|--|----------------------------------|--|--|---|
|   |                              |  |                                  |  |  | Conduct design reviews and provide constructive feedback.   |
| 2 | Team Lead — Business Analyst | MBA / MS / MTech / ME / MCA / BE /BTech / BCA or equivalent  Certificatio n: IIBA, PBA, CSPO | 10 years                         | 5 years  | Experience in leading the business analysis for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience is mandatory in (a) requirement gathering and elicitation, (b) agile practices, (c) product ownership experience, (d) Lead the team of business analysts in a cross-territory environment, (e) business process reengineering, and (f) national identity.  A knowledge of MOSIP and all COTS/OTS | <ul> <li>Provide tools for in-depth analysis of data resulting from the various processes (enrollment, authentication, etc.)</li> <li>Simplify and automate reporting, and other data-driven activities.</li> <li>Define and implement business intelligence tools adapted to the requirements of the RNP</li> <li>Build solutions to have maximum capacity for self-service by stakeholders.</li> <li>Improve data sources for greater accuracy and simplicity.</li> <li>Recognize and adopt best practices in reporting and analysis: data integrity, test design, analysis, validation, and documentation.</li> <li>Propose tactical and critical data analysis schemes and models.</li> </ul> |

| # | Key<br>Professional<br>Staff  | Academic &<br>Professional  | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions   |
|---|-------------------------------|---|----------------------------------|--|--|--|
|   |                               |   |                                  |  | components is preferable.  Note: This profile should be supported with adequate number of Business Analysts and Product Owners (at least one per component working in parallel as per the project plan).   |  |
| 3 | Team Lead — Quality Assurance | MBA / MS / MTech / ME / MCA / BE / BTech or equivalent  Certifications (preferred): ISTQB (International Software Testing Qualifications Board) or CMSQ (Certified Manager of Software Quality) | 12 years                         | 8 years  | Note – This profile should directly report to quality assurance architect  Experience in leading the quality assurance for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience is mandatory on (a) Test plan development, (b) agile practices, (c) Test automation and DevSecOps, (d) leading security, performance, integration, and API testing etc. as applicable | <ul> <li>Leads the identification and disposal of duplicate enrollments, enrollments with poor demographic or biometric data quality, and quality checks of cases with biometric exceptions and cases with anomalous biometrics</li> <li>Work closely with Manager – Software Development and Manager – BI, Analytics and AI / ML to implement automation procedures for Quality Checks, Demographic Validations and Manual Adjudication</li> <li>Assist in case management of high risk cases</li> <li>Publish operational metrics to improve Enrolment operations and also assess quality of BSP's services</li> </ul> |

| # | Key<br>Professional<br>Staff           | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|---|--|----------------------------|----------------------------------|--|---|---|
|   |  |                            |                                  |  | for this project.   |   |
| 4 | Team Lead — Training and Certification | Any degree.                | 10 years                         | 5 years  | Experience in leading the training as a master trainer under the train the trainer approach for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget) out of which at least 1 (one) project should be in the government sector  Experience of the establishing a certification program for a large-scale project Should be able to fluently read and speak local languages (Sinhalese and Tamil) as well as English | <ul> <li>Work closely with the Software Development team for timely rollout of the Learning Management System and Knowledge Management System</li> <li>Prepare detailed Training Plan in consultation with the Program Manager in line with the rollout requirements</li> <li>Implement Training Effectiveness Evaluation procedures</li> <li>Prepare strategy for training large number of resources in a short interval including Training the Trainer, Online training, etc.</li> <li>Organize training content and coordinate content development efforts</li> <li>Systematically identify key knowledge objects and work closely with the architecture, information security and software development teams to ensure that documentation is up-to-date and maintained in a central Knowledge Repository</li> <li>Implement procedures for managing access to key knowledge objects</li> <li>Work closely with the Manager – CRM, Manager – Enrollment and Manager</li> </ul> |

| # | Key<br>Professional<br>Staff          | Academic &<br>Professional                             | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|---|---------------------------------------|--|----------------------------------|--|---|---|
|   |                                       |  |                                  |  |   | Ecosystem Partnerships to identify frequently encountered questions from various stakeholders and implement easy to access and understand procedures to the relevant answers / knowledge objects  • Publish calendar of Training and Knowledge sharing events and organize virtual / physical events to ensure that learning and knowledge management are effectively embedded into SL-UDI implementation         |
| 5 | Track Lead –<br>Data and<br>Analytics | MS / MTe ch / ME / MCA / BE / BTech / BCAor equivalent | 10 years                         | 5 years  | Experience in leading the data and analytics track for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget) Experience is mandatory on (a) structured and unstructured data handling, (b) data visualization, (c) trend analysis, fraud analysis, etc. | <ul> <li>Shall be responsible for architecting key data stores and carrying out data engineering routines to enable timely metrics analysis and reporting</li> <li>Help key stakeholders analyse operational data and enable data-driven decision making</li> <li>Help create AI / ML based systems to support fraud management, improve resident services and robustness of the overall SL-UDI system</li> </ul> |

| # | Key<br>Professional<br>Staff    | Academic &<br>Professional   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions  |
|---|---------------------------------|--|----------------------------------|--|--|---|
| 6 | Track Lead – Network & Security | MS / MTech / ME / MCA / BE / BTech / BCA or equivalent  Certifications preferred: PMP / CISSP / CCNA / CISM / CompTIA Network+ / CGRC- IT / ITIL / TOGAF | 10 years                         | 5 years  | Experience in leading the network and security tracks for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience in following is mandatory in similar capacity  (a) At least 6 years of experience in IT / networks and telecommunicat ions including at least 4 years as network administration for large missions.  (b) Experience e as main administrator of 3 large network | <ul> <li>Responsible for developing the IS policies and procedures for SL-UDI and their periodic review</li> <li>Head of the Information Security function from the SI's team</li> <li>Work closely with other vendors appointed to ensure that IS policies and procedures are implemented properly</li> <li>Review overall Information Security posture of SL-UDI and undertake architecture reviews and enhancements in consultation with the Chief Technology Architect</li> <li>Responsible for training, communications and obtaining necessary Information Security certifications for SL-UDI</li> <li>Overall security of SL-UDI Data centers. Should work with the Data Center Managers to ensure that security is adequately safeguarded.</li> <li>Be responsible for establishing governance and processes to ensure that the company's information Security and Personal Data Privacy policies, standards and practices are updated, implemented and complied</li> <li>Develop, promulgate, and maintain policies, standards and practices of Information</li> </ul> |

| # Key<br>Pro<br>Sta | ofessional | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions   |
|---------------------|------------|----------------------------|----------------------------------|--|--|--|
|                     |            |                            |                                  |  | installations  (c) Experience in managing at least 5 completed projects for large, enterprise scale clients for information security related work.  (d) Should have indepth knowledge of international information security related standards such as ISO 27001, NIST cybersecurity framework, etc.  (e) Experience in advising senior management on IS strategies and implementation plans at the organization ecosystem level.  (f) Experience in using open sources | Security by establishing and maintaining efficient processes to monitor compliance of defined policies, standards and practices.  Assist in planning for information security risk monitoring, risk analysis, incident management  Manage and perform internal IS audits at regular intervals and assist in External Audits and certifications  Ensure that threats, vulnerabilities, cyberattack and attendant risks are proactively identified and appropriately mitigated, avoided or accepted  Lead regular reviews of emerging technology risks and vulnerabilities that may impact the company and its business  Lead the IS incident response team, and investigate security violations  Administer IS training and awareness program  Monitor the development of IT and IS related legislation and industry developments, and advise senior management of necessary actions and countermeasures in conformance with relevant legislation  Establish and Manage Business Continuity |

| # | Key<br>Professional<br>Staff           | Academic &<br>Professional                                       | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions   |
|---|--|--|----------------------------------|--|--|--|
|   |  |  |                                  |  | tools and technologies and managing risks and vulnerabilities across the same  (g) Technical expertise in the management of the deployment and maintenance of large networks, network security, access administration, system integrity / reliability  (h) Experience of establishing, supervising, and operating the Security Operations Centre | Management and ensure all BCP-DR activities performed on timely manner   |
| 7 | Track Lead –<br>Data Centre<br>Manager | MS / MTech /<br>ME / MCA / BE /<br>BTech / BCA /<br>BSc / MSc or | 10 years                         | 5 years  | Note – This profile<br>should be from the data<br>center co-location<br>provider in Sri Lanka.   | <ul> <li>Assist the IT infrastructure architect in preparing detailed implementation architecture</li> <li>Prepare detailed installation, commissioning</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|---|------------------------------|----------------------------|----------------------------------|--|---|---|
|   |                              | equivalent                 |                                  |  | Experience in leading the data center and/or cloud infrastructure tracks for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience of Data Center for large scale technology-led projects in the government sector  Experience in following is mandatory in a similar capacity  (a) At least 5 years of experience as a Data Center Manager, managing all aspects of large infrastructure projects  (b) At least 3 years of experience in the operations of data center in a highly scalable manner | <ul> <li>Plan for the Data Center assigned</li> <li>Coordinate delivery of equipment to the Data Center</li> <li>Carry out detailed rack level planning and work with the Data Center physical infrastructure managers to ensure that adequate Power and HVAC facilities are available</li> <li>Check on basic Data Center amenities such as fire protection, rodent control, moisture control, power backup, air quality and noise / vibrations and resolve any issues prior to Go-Live</li> <li>Organize the equipment with clear signages and markings within the Data Center</li> <li>Organize structured cabling for network and power with appropriate labelling</li> <li>Track and improve Power utilization on an ongoing basis</li> <li>Track presence of harmonics and other electrical fluctuations which can potentially damage the equipment and work with the Data Center providers for early resolution</li> <li>Organize business continuity and disaster recovery drills in consultation with the CISO</li> <li>When required, plan for data center</li> </ul> |

| # | Key<br>Professional<br>Staff           | Academic &<br>Professional                                      | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions   |
|---|--|---|----------------------------------|--|--|--|
|   |  |   |                                  |  | (c) Experience in the supervision and administratio n of DC infrastructure operations Experience in the design and management of structured cabling infrastructures and indepth knowledge of cable distribution systems and industry standards | migrations and execute the same in consultation with the Program Manager and other Data Center managers  • Manage tape backups and ensure their traceability  • Implement well-designed Asset IMAC procedures  |
| 8 | Track Lead –<br>Systems<br>Engineering | MS / MTech /<br>ME / MCA / BE /<br>BTech / BCA or<br>equivalent | 10 years                         | 5 years  | Experience in leading the data center and/or cloud infrastructure tracks for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience in following is mandatory in a similar capacity   | <ul> <li>As part of Build Phase, coordinate the efforts of the OEM engineers to ensure that all devices are deployed and configured as per the overall SL-UDI architecture</li> <li>Work closely with the CISO to ensure that Information Security policies and procedures are implemented in a timely manner</li> <li>Assist in conduct of VAPT exercises and perform remedial measures as per recommendations received from the testing</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|---|------------------------------|----------------------------|----------------------------------|--|---|---|
|   |                              |                            |                                  |  | (a) At least 5 years of experience as a System Engineer, managing all aspects of large infrastructure projects (b) At least 3 years of experience in the establishment and operations of on-premises cloud environment and highly scalable private cloud platforms (c) Experience in the supervision and administration of DC infrastructure operations | <ul> <li>Carry out periodic vulnerability assessment of key assets and contribute to the risk identification exercise</li> <li>Ensure that the team of administrators are adequately trained and aware of key policies and procedures</li> <li>Organize the work of Network Operations Center and manage deployment of personnel to ensure 24x7 operations</li> <li>Assist in conducting BCP / DR drills</li> </ul> |

| # | Key<br>Professional<br>Staff     | Academic &<br>Professional                            | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions   |
|---|----------------------------------|---|----------------------------------|--|---|--|
|   |                                  |   |                                  |  | (d) Experience in Micro services, Object storage platforms, Kubernetes, Micro services, Docker based deployment Experience in backup and restoration, disaster recovery and business continuity   |  |
| 9 | Track Lead - Application Manager | MS / MTech / ME / MCA / BE / BTech / BCA or equvalent | 10 years                         | 5 years  | Experience in leading the software tracks for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience in following is mandatory in a similar capacity  (a) At least 5 years of experience in application development and implementation management  (b) Experience in implementing, | <ul> <li>Work closely with the Software Architect to finalize requirements, architecture and align the software development plan with overall SL-UDI implementation timelines</li> <li>Develop detailed project plan for software development in consultation with key stakeholders and publish Release Plans to all stakeholders</li> <li>Work closely with CISO to ensure that secure coding standards are implemented and software incorporates Information Security requirements</li> <li>Implement Software Quality Assurance processes</li> <li>Participate in project reviews and coordinate the efforts of the software development team</li> <li>Implement systematic issue tracking and</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions   |
|---|------------------------------|----------------------------|----------------------------------|--|--|--|
|   |                              |                            |                                  |  | operating, and maintaining a wide range of applications (bespoke applications, opensource products, commercial products, etc.)  (c) Experience in national identification systems, enrolments, and authentication Experience in identification and authentication systems  (d) Mastery of biometric algorithms  (e) In-depth knowledge of proposed ABIS system  (c) Extensive experience on the ISO biometric standards used in this project | ensure that production issues are tracked to closure in line with SLAs |

| #    | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions |
|------|------------------------------|----------------------------|----------------------------------|--|---|------------------|
|      |                              |                            |                                  |  | (d)Experience in following projects is desirable in similar capacity (a) National ID projects and (b) MOSIP based solutions in projects  (e) Proficiency in risk assessment procedures, policy training, role-based authorization methodologies, and authentication technologies  (f) Experience of National Identity project is mandatory  (g)Experience or Knowledge of MOSIP is desirable Knowledge of business models, pricing, etc. is desirable |                  |
| Expe | erts and Administ            | trators                    |                                  |  |   |                  |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions  |
|---|------------------------------|--|----------------------------------|--|--|---|
| 1 | Infrastructure Engineer      | BE / BTech / MSc / MCA / MTech or equivalent  Certifications: ITIL or equivalent (preferred) | 10 years                         | 5 years  | Experience in leading infrastructure aspects for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience in following is mandatory in a similar capacity  (a) Experience in managing all aspects of large infrastructure projects  (b) Experience in managing at least 3 completed projects for large, enterprise scale clients for IT Infrastructure related work  (c) Object storage platforms, Kubernetes, Docker based | <ul> <li>Should be deployed onsite as per the deployment plan during design phase of the SL-UDI project till Go-Live of key SL-UDI modules</li> <li>Shall be single point of contact for the SL-UDI IT infrastructure requirements</li> <li>Manage architectural requirements from IT infrastructure perspective</li> <li>Imbibe key architectural principles and perform detailed design of IT infrastructure and required data and IT infrastructure security</li> <li>Responsible for creating or selecting the most appropriate architecture and technology components for SL-UDI such that it suits the business needs, satisfies user requirements, and achieves the desired results under given constraints</li> <li>Implement continuous improvements in architecture to optimize costs</li> <li>Manage SL-UDI architectural changes and ensure timely and accurate documentation of all key changes</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic & Professional  | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions  |
|---|------------------------------|--|----------------------------------|--|--|---|
|   |                              |  |                                  |  | deployment.  (d) Highly scalable private cloud platforms   |   |
| 2 | Network<br>Engineer          | BE / BTech / MSc / MCA / MTech or equivalent  Certifications: CCNP | 8 years                          | 5 years  | Experience in leading networking aspects for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience in following is mandatory in a similar capacity  (a) Deploying Network Components within the Data Centre and Disaster Recovery Site  (b) Experience in implementation and operations of at least 3 completed projects for large, enterprise scale clients for Data Centre Network | <ul> <li>Configure and install the various network devices and services (routers, switches, firewalls, load balancers, VPNs, QoS)</li> <li>Write network maintenance procedures and define system upgrade procedures, including packs, patches, and security configurations</li> <li>Track performance and ensure system availability and reliability</li> <li>Monitor system resource usage and trends and plan capacity</li> <li>Provide level 2/3 support and troubleshooting to resolve any issues</li> <li>Work within established configuration and change management policies to ensure successful changes to network infrastructure</li> <li>Ensure the implementation of the defined network architecture (physical and logical components)</li> <li>Select and implement security tools, policies, and procedures in collaboration</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional                            | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions   |
|---|------------------------------|---|----------------------------------|--|---|--|
|   |                              |   |                                  |  | (c) Experience of leased line, MPLS, SDWAN, etc.  | <ul> <li>with the security team</li> <li>Provide technical support in the operation of RNP network infrastructure</li> <li>Ensure proper configuration for external customers (RNP user agencies)</li> <li>Control facilities and ensure compliance with network requirements</li> <li>Support internal application groups and troubleshoot any issues</li> <li>Formalize network administration and high availability procedures</li> <li>Backup of all critical data center devices for the base layer and network aggregation layer.</li> <li>Monitor system stability and performance, ensuring 24/7 operations</li> </ul> |
| 3 | CRM<br>Engineer              | BE / BTech /<br>MSc / MCA /<br>MTech or<br>equivalent | 8 years                          | 5 years  | Experience as CRM engineer for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience in following is mandatory in similar capacity (a) Experience in managing CRM | <ul> <li>Work closely with the architecture team to detail the business requirements for CRM and CCM and hold responsibility for comprehensive requirements documentation from CRM / CCM perspective</li> <li>Work closely with Manager – Software Development in Release Planning, performance of User Acceptance Test and Handhold the rollout of various versions of CRM, CCM and Helpdesk solutions for SL-UDI</li> </ul>  |

| # | Key<br>Professional<br>Staff                      | Academic &<br>Professional                            | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|---|---|---|----------------------------------|--|---|---|
|   |   |   |                                  |  | Software (b) Experience in managing at least 3 call center projects   | <ul> <li>Organize the Resident Support unit, arrange for required training of staff and ensure operational readiness of the Resident Support unit in line with SL-UDI</li> <li>roll out timelines</li> <li>Provide support via the Technical Helpdesk to users and align operations with the Ticket Resolution SLAs</li> <li>Analyze Contact Center metrics and provide recommendations for improving operational areas and Quality of Services to residents</li> </ul> |
| 4 | BI Reporting<br>and Data<br>Analytics<br>Engineer | BE / BTech /<br>MSc / MCA /<br>MTech or<br>equivalent | 8 years                          | 5 years  | Experience as BI Reporting and Data Analytics Engineer for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience in following is mandatory in similar capacity  (a) Experience in managing BI Reporting and Data Analytics Software |   |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional                                   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|---|------------------------------|--|----------------------------------|--|---|---|
|   |                              |  |                                  |  | (b) Experience in designing, developing, and maintaining the reports, dashboards and analytics  | schemes and models.   |
| 5 | Application<br>Engineer      | B.E. / B. Tech /<br>M.Sc. / MCA /<br>M. Tech or<br>equvalent | 8 years                          | 5 years  | Experience as Application Engineer for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)  Experience in following is mandatory in similar capacity  (a) Experience in managing Software Applications  (b) Experience in designing, developing, and maintaining the software applications (bespoke, COTS etc.) | <ul> <li>Carry out the technical evaluation of the target application park and prepare its introduction</li> <li>Predict and resolve product quality issues</li> <li>Initiate and conduct assigned technical activities leading to effective products, processes and applications</li> <li>Prepare reports and provide presentations on application progress</li> <li>Lead training and demonstration to internal customers</li> <li>Work on the maintenance of coding projects</li> <li>Analyze and understand complex application code and perform code corrections to resolve any issues</li> <li>Support for deploying software in production environments</li> <li>Develop tools to facilitate operations and maintenance.</li> <li>Report system and media status.</li> </ul> |

| #    | Key<br>Professional<br>Staff                                 | Academic &<br>Professional                                  | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|------|--|---|----------------------------------|--|---|---|
| Biom | netrics (From BS)  | P)  |                                  |  |   | <ul> <li>Work with engineering teams to escalate or support active support issues</li> <li>Create an app knowledge base and monitor the performance of teams working on different apps</li> </ul>   |
| 1    | Biometric –<br>Implementation<br>and Integration<br>Engineer | BE / BTech / BSc<br>/ MSc / MCA /<br>MTech or<br>equivalent | 8 years                          | 3 years  | Experience as integration engineer for biometric applications in large scale technology-led projects  Experience in following projects is mandatory in a similar capacity  (a) Software integration of biometric applications using similar architecture  (b) Should have been a lead integration engineer for a biometric project of comparable size | <ul> <li>Will be deployed on a full-time basis in Manila and will be required to travel within Philippines to effectively manage the Enrollment and Update operations</li> <li>Implement the Resident Enrollment and Update procedures as per the Enrollment and Update Manual</li> <li>Identify challenges faced during Enrollment and Update operations and recommend process improvements</li> <li>Work with Ecosystem Partners to ensure that processes are well understood and documented and quality of services is consistent</li> <li>Actively implement Mass Communication programs as well as targeted communication programs to inform Residents of the processes and procedures for Enrollment and Update as well as the various Service Access channels</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional                    | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions   |
|---|------------------------------|---|----------------------------------|--|--|--|
|   |                              |   |                                  |  | and complexity (Multi- modal ABIS of at least 20 million gallery size) (c) Windows, Linux, middleware, high performance messaging, Java/J2EE, C, ISO standards for biometrics and other technologies needed for server integration or experience in knowledge of Windows, .NET, C#, C, biometric device protocols and formats (d) Knowledge of integrating the proposed biometric SDK (e) Exposure to Rest APIs and API security | <ul> <li>Work in close coordination with the CRM and CCM department to ensure timely issue resolution for residents</li> <li>Implement metrics gathering mechanisms working in close association with the Software Development team to assist in decision making</li> <li>Will be responsible for publishing accurate Enrollment and Update metrics</li> <li>Ensure adequate training of Enrollment and Update operators</li> <li>Work with the software development team to implement workflow enhancements and improve usability of the SL-UDI system, especially the Pre-registration module and Mobile app(s)</li> </ul> |
| 4 | Manager -<br>Biometric       | BE / BTech / BSc<br>/ MSc / MCA /<br>MTech or | 10 years                         | 5 years  | Experience as biometric specialist for biometric applications in large   | Will be deployed on a full-time basis and<br>will be required to travel within Sri Lanka to  |

| # Key<br>Professional<br>Staff | Academic &<br>Professional   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|--------------------------------|--|----------------------------------|--|---|---|
|                                | equvalent  Certifications (desired): IEEE Certified Biometrics Professional (CBP) Program, |                                  |  | scale technology-led projects  Experience in following is mandatory in a similar capacity  (a) Should have been a Lead biometric specialist for a project of comparable size and complexity (Multi-modal ABIS of at least 20 million gallery size)  (b). Should have thorough knowledge biometric algorithms, biometric devices, and identity management systems.  (d). Should have over 2 years of experience in conducting performance and accuracy improvements  Should have over 2 years of experience with (i) fingerprint | <ul> <li>effectively engage with key stakeholders</li> <li>Identify challenges faced by various user agencies and recommend process and technology improvements</li> <li>Responsible for ensuring that key Service Levels of Authentication, e-KYC and APIs is maintained for availability and performance</li> <li>Work closely with BSP to ensure that quality of services is maintained and improved</li> <li>Work with Ecosystem Partners to ensure that processes are well understood and documented and quality of services is consistent</li> <li>Actively implement Mass Communication programs as well as targeted communication programs to inform Residents of the processes and procedures for authentication and e-KYC</li> <li>Work in close coordination with the CRM and CCM department to ensure timely issue resolution for residents</li> <li>Implement metrics gathering mechanisms working in close association with the Software Development team to assist in decision making</li> </ul> |

| #    | Key<br>Professional<br>Staff       | Academic &<br>Professional   | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions   |
|------|------------------------------------|--|----------------------------------|--|---|--|
|      |                                    |  |                                  |  | devices and algorithm, (ii) iris devices and algorithm, (iii) facial capture devices and algorithm and (iv) voice capture devices and algorithm   | Will be responsible for publishing accurate<br>authentication and e-KYC metrics  |
| Secu | rity Team                          |  |                                  |  |   |  |
| 1    | Information<br>Security<br>Manager | BE / BTech / BSc<br>/ MSc / MCA /<br>MTech / MBA or<br>equivalent<br>Certifications<br>(desired): PMP /<br>CISSP / CISM /<br>CGRC-IT / ITIL<br>/ TOGAF | 10 years                         | 6 years  | Experience as information security manager for at least five large scale technology-led projects.  Experience in following is mandatory in a similar capacity:  (a) Experience in managing all aspects of large cybersecurity projects.  (b) Managing and performing internal audits at regular intervals and manage external audits. | <ul> <li>Definition of the security organization and policy.</li> <li>Participation in the creation of the safety charter.</li> <li>Definition and implementation of security procedures.</li> <li>Assessment of risks, threats and consequences.</li> <li>Implementation of security measures</li> <li>Establishment of the prevention plan.</li> <li>Awareness of security issues in the general management</li> <li>Training of operational departments and business lines in the field of security.</li> <li>Facilitation of security awareness meetings.</li> <li>Technical validation of security tools.</li> <li>Definition of security norms and standards.</li> <li>Participation in the development of safety</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions  |
|---|------------------------------|----------------------------|----------------------------------|--|---|---|
|   |                              |                            |                                  |  | (c) Periodic reviews of emerging technology risks and vulnerabilities that may impact the SL UDI project.  (d) Ensuring that threats, vulnerabilities, cyber risks are proactively identified and appropriately mitigated, avoided or accepted.  (e) Experience in managing at least 3 completed projects for large, enterprise scale clients for security related work.  (f) Experience of developing, implementing, and | <ul> <li>rules at the global level</li> <li>Assurance that security plans have been completed according to defined plans.</li> <li>Steering periodic security audits and ensuring that teams comply with security measures.</li> <li>Monitoring of regulatory and technical developments in its field.</li> <li>Monitors the evolutions necessary to guarantee the logical and physical security as a whole</li> <li>Will need to be aware of cybersecurity trends and best practices in the field</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements  | Job Descriptions |
|---|------------------------------|----------------------------|----------------------------------|--|---|------------------|
|   |                              |                            |                                  |  | monitoring security policies, protocols, and procedures.                                |                  |
|   |                              |                            |                                  |  | (g)Experience of managing and operating the next generation security operations center. |                  |

Note: For the profiles listed below, The MSI is expected to submit the resumes for the given profiles along with the bid proposal and the Resume will be evaluated to ensure the qualification criteria is met by GOSL prior to staff deployment for this assignment. If any profile is unsatisfactory the MSI shall replace the same which meets the minimum qualification criteria spiced here.

| Soft | ware Developme       | nt   |         |  |  |  |
|------|----------------------|--|---------|--|--|--|
| 1    | Business<br>Analysts | BSc / BE / BTech / MCA/ MTech or equivalent  Relevant certifications | 5 years | 3 years (BA)<br>and 5 years<br>(senior BA) | Experience in following projects is mandatory in a similar capacity  (a) Knowledge of relevant COTS components  (b) Experience in agile methodologies  (c) Hands on experience of user acceptance testing  (d) Knowledge of industry standards and best practices related to software development  (e) Hands on experience | <ul> <li>Assess business processes and anticipate organizational and support resource needs</li> <li>Discover areas for improvement and develop and implement solutions for optimizing organizational processes.</li> <li>Propose an effective organizational structure</li> <li>Assess IT alignment with business processes</li> <li>Hold meetings and presentations to share ideas and findings on the ongoing operations</li> <li>Perform analysis of the organizational requirements of the ecosystem and their impact on the system</li> <li>Gather critical information in meetings with various stakeholders and propose ways to</li> </ul> |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional  | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role                    | Specific Qualifications / Requirements   | Job Descriptions  |
|---|------------------------------|---|----------------------------------|---|--|---|
|   |                              |   |                                  |   | as product owner is preferable  Note: For business analysts responsible for enrolment and authentication, the relevant knowledge is desirable. | <ul> <li>improve</li> <li>Train various employees on the organizational requirements</li> <li>Perform user acceptance testing</li> <li>Ensure the implementation of business procedures</li> <li>Prioritize organizational initiatives to be put in place to ensure effective service</li> <li>Ensuring liaison between stakeholders, user agencies and users</li> <li>Propose a change management plan to be extended to the ecosystem</li> </ul>  |
| 2 | IT<br>Helpdesk<br>Agents     | BE / BTech / MCA / MTech or equivalent  Certification in relevant tools and technologies, wherever available is desired | 5 years                          | 2 years (junior<br>engineer)<br>and 4 years<br>(senior<br>engineer) | At least 4 years of experience in the IT helpdesk  | <ul> <li>Answer user calls</li> <li>Understand the situation of users by asking specific questions as needed and rephrasing the explanations provided</li> <li>Remotely diagnose a failure (hardware or software)</li> <li>Identify the resources needed to resolve the issue, and recommend that a technician be dispatched to the site if necessary</li> <li>Guide the user through the resolution process or take control of the system remotely</li> <li>Changing or repairing defective items</li> <li>Perform function tests</li> </ul> |

| # | Key<br>Professional<br>Staff                       | Academic &<br>Professional  | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role                    | Specific Qualifications / Requirements   | Job Descriptions   |
|---|--|---|----------------------------------|---|--|--|
|   |  |   |                                  |   |  | Fill in the intervention monitoring materials and send them to the department concerned  |
| 3 | NOC<br>Agent                                       | BE / BTech / MCA / MTech or equivalent  Certification in relevant tools and technologies, wherever available is desired | 5 years                          | 2 years (junior<br>engineer)<br>and 4 years<br>(senior<br>engineer) | At least 3 years of experience in a network operations center of a public entity or large enterprise | <ul> <li>Provide 24-hour network status monitoring and generate the follow-up reports</li> <li>Report alerts using network monitoring tools</li> <li>Review and run the network trouble ticket queue</li> <li>Ensure 1st/2nd level problem resolution and escalate them to safety managers in case of difficulty</li> </ul>  |
| 4 | SOC<br>Agent                                       | BE / BTech / MCA / MTech or equivalent  Certification in relevant tools and technologies, wherever available is desired | 5 years                          | 2 years (junior<br>engineer)<br>and 4 years<br>(senior<br>engineer) | At least 3 years of experience in a security operations center of a public entity or large company   | <ul> <li>Review identified alerts and determined the level of urgency to postpone</li> <li>Create new trouble tickets for alerts that require higher-level action</li> <li>Run vulnerability scans and communicate assessment reports</li> <li>Manage and configure security monitoring tools (NetFlow, IDS, correlation rules, etc.)</li> <li>Review incident records and follow resolution/climb procedures</li> </ul> |
| 5 | Administrators<br>(Server,<br>Network,<br>Storage, | BE / BTech /<br>MCA / MTech or<br>equivalent  | 5 years                          | 2 years (junior<br>engineer)<br>and 4 years<br>(senior              | At least 5 years of<br>experience as a Server /<br>Network / Database<br>administrator in a large    | <ul> <li>Server</li> <li>Administer and maintain server hardware.</li> <li>Respond to requests to change user</li> </ul>   |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements   | Job Descriptions  |
|---|------------------------------|----------------------------|----------------------------------|--|--|---|
|   | Database)                    |                            |                                  | engineer)  | At least 5 years of experience as a Storage administrator in DCs larger than 5000 m²  Experience in administering large Storage solutions (> 100 TB) | accounts, install software, allocate storage capacity, etc.  Define system configurations to meet availability requirements.  Develop automation scripts and processes to streamline administrative tasks  Create and manage alert thresholds tailored to system requirements.  Interact with vendors for the diagnosis of hardware and software failures.  Perform capacity planning analyses.  Monitor and report on system security, performance, and notable events using server monitoring tools.  Apply patches and updates to infrastructure components  Apply virtualization and redundancy techniques  Prepare, deliver, and maintain documentation related to server systems  Respond to and resolve Level 3 support requests through the ticketing system  Network  Participate in the design and optimization of the network  Assess the need for additional hardware for |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements | Job Descriptions   |
|---|------------------------------|----------------------------|----------------------------------|--|--|--|
|   |                              |                            |                                  |  |  | <ul> <li>potential network upgrades</li> <li>Maintain the necessary bandwidth and connectivity.</li> <li>Ensure that the operating system, servers, switches, routers, and cabling are properly configured to support RNP system requirements.</li> <li>Perform software installations, upgrades, and patches.</li> <li>Ensure the integrity of the server's workstations/data.</li> <li>Administer system resources, user groups, and identities.</li> <li>Create and maintain all internal technical documentation.</li> </ul> |
|   |                              |                            |                                  |  |  | <ul> <li>Establish user needs and monitor user access and security</li> <li>Monitor performance and manage settings to provide quick responses to front-end users</li> <li>Consider both back-end data organization and front-end accessibility for end users</li> <li>Refine the logical design so that it can be translated into a specific data model</li> <li>Further refine the physical design to meet</li> </ul>  |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements | Job Descriptions   |
|---|------------------------------|----------------------------|----------------------------------|--|--|--|
|   |                              |                            |                                  |  |  | <ul> <li>the storage requirements of the system</li> <li>Install and test the different versions of the database management system (DBMS)</li> <li>Write database documentation, including standards, procedures, and data definitions for the data dictionary (metadata)</li> <li>Control access permissions and privileges</li> <li>Develop, manage, and test backup and recovery plans</li> <li>Ensure that storage and archiving procedures are working properly</li> <li>Perform capacity planning</li> <li>Manage the security and disaster recovery aspects of a database.</li> </ul> |
|   |                              |                            |                                  |  |  | <ul> <li>Database</li> <li>Coordinate daily storage tasks</li> <li>Monitor volume allocation and zone management</li> <li>Manage fabric security, analyze storage resource utilization, and optimize performance</li> <li>Plan capacities, coordinate system upgrades or patches with the various system administrators</li> <li>Maintain appropriate backup schedules</li> <li>Ensure data retrieval operations in the event</li> </ul>   |

| # | Key<br>Professional<br>Staff | Academic &<br>Professional | Minimum<br>Overall<br>Experience | Minimum<br>Experience in<br>the proposed<br>role | Specific Qualifications / Requirements | Job Descriptions   |
|---|------------------------------|----------------------------|----------------------------------|--|--|--|
|   |                              |                            |                                  |  |  | <ul> <li>of a request</li> <li>Facilitate out-of-tape storage and employ storage optimization techniques</li> <li>Monitor storage performance, and plan for requirements based on the expected rate of RNP transactions</li> <li>Identify and resolve storage issues and bottlenecks</li> <li>Monitor and comply with design parameters</li> <li>Ensure compliance with device storage and update procedures</li> <li>Assist in the management of production and test environments and assist users in troubleshooting storage issues</li> </ul> |

Table 2: Minimum Qualifications of Key Professional Staff

## 10.3 Resource Requirement

## 10.3.1 Guidelines for Staffing and Provisioning of Manpower

- i) Implementation of SL-UDI is envisaged offsite at SI's premises wherein, a dedicated core team shall be stationed at the Purchaser's premises while the development will take place in an offshore location.
- ii) The bidder shall provide a detailed staffing schedule in their Technical Proposal as per the format provided as part of this RFB.
- iii) The staffing schedule should also include an Organization Chart showing the proposed organization to be established by the SI for execution of the scope of work. The organization chart should clearly bring out variations to the Organization structure if any envisaged by the SI for various phases/stages of the project.
- iv) A separate organization structure should be provided for clearly identifiable activities such as Development of SL-UDI Software System, call center management, etc.
- v) Detailed CVs should be provided for key profiles that will be subject to evaluation. CVs should be as per the format given in this RFP Volume 1 Section 4.4. Area of expertise, role and tasks assigned should be clearly identified for each of the key profiles. Purchaser might interact with the said resources and this interaction shall be considered in technical evaluation.
- vi) Key roles in the MSI's team should be held only by Permanent employees of the MSI
- vii) The Staffing Schedule should contain the schedule of deployment of the Key personnel. It should also clearly highlight the onsite and offsite effort of each profile.
- viii) The SI should ensure that well-qualified and experienced resources with in-depth knowledge hold the respective positions.
- ix) The Purchaser shall approve this schedule after its careful study and may ask the SI to make the changes to the schedule, if required.
- x) The infrastructure or other facilities required for the efficient execution of work under the Contract, should be provided by MSI or its Sub-Contractors to its employees who are working under this contract.

### 10.3.2 Removal of Personnel

i) GOSL reserves the right to request MSI to remove any of MSI's authorized representatives due to negligence, professional incompetence and/or being assigned work for which he/she is not qualified and/or suited for. This includes the SI's

- employees, or any person(s) deployed by the SI in any of the sites.
- ii) GOSL shall state, in writing, the reasons for the request for removal and the SI should ensure that the personnel are removed and replaced with a competent substitute. GOSL will not bear any additional cost with regard to the personnel change.

## **10.3.3 Replacement of Personnel**

- i) The MSI should ensure, to the best of its efforts, to avoid any changes to the proposed manpower and organizational structure during the implementation period.
- ii) If this is required due to unavoidable circumstances, the ISI should inform GOSL in writing and should seek approval from GOSL. The replacement resource should conform to the guidelines stated under Section 4 Minimum Qualifications of Key Professional Staff. The MSI should also ensure that the knowledge is transferred effectively and should ensure that sufficient overlap between outgoing and incoming resources to ensure the same level of service.

### **10.3.4 Logistics Requirements of the Personnel**

- i) GoSL may require MSI's representatives to be present at its premises. The MSI shall ensure that required representation is available as per demand.
- ii) The MSI shall be responsible for the deployment, transportation, accommodation, and other requirements of all its employees required for the execution of the work and provision of services for all costs/charges in connection thereof.

#### **10.3.5 Escalation Matrix**

- i) The MSI should propose a detailed escalation matrix mapped with the proposed organizational structure of the MSI, including a steering committee for expedited decision making with GOSL as head of the committee.
- ii) The escalation matrix should cover key requirements stated in the Service Level Agreements covering the entire project lifecycle. The triggers for escalation should be clearly identified and stated for each category of service in the Technical Proposal.
- iii) MSI will also prepare the Escalation Matrix for support relating to MOSIP components in consultation with the Purchaser.

# 10.3.6 Role of GoSL and Responsibilities

During project duration, GoSL shall have following roles and responsibilities:

i) If onsite presence is required, GoSL will provide basic office amenities to the MSI's personnel at its office locations for performing their part of the obligations. MSI will

- not be entitled to any facilities beyond the contractual time frame.
- ii) Conducting UAT for the Foundational ID platform deployed and Issuing the Acceptance Certificate on successful deployment of the software application.
- iii) Provide necessary support such as coordination between necessary departments to provide necessary information, provision of list of participants coordination with stakeholders' participants, etc. to the workshops for the Stakeholder departments, if any.
- iv) The purchaser will provide the following infrastructure and no other facilities beyond this scope mentioned.
  - a. Office space for onsite manpower including Seating Facility that includes desks and chairs for this number of staff.
  - b. Communication Room for Connectivity
  - c. LAN connectivity, Network printing facility, Electrical Connectivity.
- v) GoSL through its Nodal department/agency will assist in coordination between all the divisions/departments for providing necessary information for the study and development/customization of the necessary solution.
- vi) GoSL will provide necessary support to MSI for conducting workshops for the stakeholder departments, if any.
- vii) GoSL will jointly monitor overall timelines, SLAs, and calculation of penalties accordingly.
- viii) Ensuring the staff members and other stakeholders attend the training programs as per the approved training calendar.
- ix) Any other requirements that could arise during operations for effective governance and to meet any administrative requirement.