THE GOVERNMENT OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

Ministry of Technology

BIDDING DOCUMENT – SCHEDULE OF REQUIREMENTS

Volume 02 of 03 - Annexure 10: Manpower Requirement

Single Stage Two Envelopes Bidding Procedure

FOR THE

PROCUREMENT OF A MASTER SYSTEM INTEGRATOR (MSI) FOR DESIGNING, DEVELOPING, SUPPLYING, DELIVERING, INSTALLATION, IMPLEMENTING, SUPPORT AND MAINTAINING THE SOFTWARE, HARDWARE AND INFRASTRUCTURE FOR SRI LANKA UNIQUE DIGITAL IDENTITY (SL-UDI) PROJECT OF GOVERNMENT OF SRI LANKA

INVITATION FOR BIDS No: **ICTA/SLUDI/IS/2022/01**

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10.1 Professional Staff and Engagement Approach

Following key professions are required for the core team.

No	Key Professional Staff	Deployment (Implementation Phase)	Deployment (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 Manager		Full-Time Onsite
(B) Architects			
1	Chief Architect	Onsite Fulltime. during design phase. And on need basis during the project.	On need basis
2	Software Architect (Application Architect)		
3	Security and Network Architect		
4	Infrastructure & Systems Architect		
5	Database Architect		
6	Quality Assurance Architect		
(C) Team Leads and Track Leads			
1	Team Lead – UI/UX	Onsite full-time during the implementation phase.	Onsite full-time till three months after go-live and afterwards Offsite part-time
2	Team Lead – Business Analyst		
3	Team Lead – Quality Assurance		
4	Team Lead – Training and Certification		
5	Track Lead – Data and Analytics		
6	Track Lead – Network & Security		

No	Key Professional Staff	Deployment (Implementation Phase)	Deployment (O&M Phase)
7	Track Lead – Data Center Manager		
8	Track Lead – Systems Engineering		
9	Track Lead – Application Manager		
10	Track Lead – Biometric		
11	Track Lead – Enrolment and Authentication		
(D) Experts and Administrators			
1	Expert – Legal Specialist	Onsite on need basis	Onsite on need basis
2	Expert – Change Management & Adoption Specialist	Onsite on need basis	Onsite on need basis
3	Infrastructure Lead	Full-Time Onsite	Offsite
4	System Engineer	Full-Time Onsite	Offsite
5	Network Manager	Full-Time Onsite	Offsite
6	Network Engineer	Full-Time Onsite	Offsite
7	Storage and Backup Engineer	Full-Time	Offsite
8	CRM Engineer	Full-Time	Offsite
9	BI Reporting and Data Analytics Engineer	Full-Time	Offsite
10	Application Engineer	Full-Time	Offsite
11	Middleware Expert	Full-Time	Offsite
(E) Biometrics (From BSP)			
1	Biometric - Implementation and Integration Engineer	Onsite full-time after design phase	
2	Biometric - QA and Test Engineer	Onsite full-time after design phase	

No	Key Professional Staff	Deployment (Implementation Phase)	Deployment (O&M Phase)
3	Engineer – Systems, Backup and Restoration	Onsite on need basis	Onsite Part-Time
5	Expert – Biometric Specialist	Onsite on during design phase and on need basis.	Onsite on need basis
(F) Security			
1	Information Security Manager	Full-Time Onsite	Onsite Part-Time
2	Fraud and Forensics Expert	Full-Time Onsite	Onsite Part-Time
3	Vulnerability Management Expert	Full-Time Onsite	Onsite Part-Time
4	Threat Hunting Analyst	Onsite Part-Time	Onsite on need basis
5	Network and Perimeter Security Expert	Full-Time Onsite	Full-Time Onsite
6	BCP-DR Engineer	Onsite Part-Time	Onsite Part-Time
7	Security Operations Expert	Full-Time Onsite	Full-Time Onsite
8	Patch and Endpoint Management Expert	Onsite Part-Time	Onsite Part-Time
9	Identity and Access Management Expert	Onsite Part-Time	Onsite Part-Time
10	Cryptography Expert	Onsite Part-Time	Onsite on need basis
11	Database Security	Onsite Part-Time	Onsite on need basis
12	Incident Response Expert	Off site Part-Time	Onsite Part-Time
13	Information Security Officer	Onsite Part-Time	Onsite Part-Time
14	Privacy Manager	Full-Time Onsite	Onsite Part-Time
(G) Software			
1	DevSecOps	Offsite Full-Time	Offsite Full-Time

No	Key Professional Staff	Deployment (Implementation Phase)	Deployment (O&M Phase)
		after design phase	
2	Business Analysts	Onsite full-time during the implementation phase.	Offsite on need basis
3	Software Engineer	Offsite Full-Time after design phase	Offsite Full-Time
4	Engineer-QA	Offsite full-time during the implementation phase.	Offsite on need basis
5	Engineer – UI/UX	offsite 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, 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 need basis.

(v) The MSI should ensure adequate support staff to assist the Project Management professional are assigned to this project.

(vi) The resources (engineers, developers, and testers) should be adequately trained in 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 the 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) The ability to communicate (Read, Write and Speak) in English is mandatory and for the customer facing roles knowledge of Sinhalese and Tamil is desirable.

(iii) For technical profiles, the resources should have the relevant technology/product certifications from the respective OEM, wherever available.

(iv) Unless otherwise states in the table given below, the experience of any project in Sri Lanka and the experience of National Identity project is desirable.

(v) All staff deployed under this assignment will need to undergo a security clarence process as defined by ICTA.

(vi) The degree should be awarded from recognized institute similar to university Grants Commission UGC of Sri Lanka. Where the degree is certified from a government body.

(vii)   All degrees are specified as per the Indian Standard. for all profiles listed, the equivalent of Sri Lankan qualifications are also considered if available.

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
Project Management Roles					
1	Project Director	MBA 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.
2	Technical Project Manager	MBA Certifications: (1) Mandatory – SCRUM Master (2) 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
3	Support and Operation	M.Tech./, M.E., equivalent	15 years	05 years	Experience of at least 3 (three) technology-led projects as support manager role in a project of similar scale (scope,

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
	s Manager	Certifications: ITIL (mandatory)			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 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
Architects					
1	Chief Architect	M.S./ M.Tech, M.E./ M.C.A. Certifications: TOGAF	15 years	10 years	Experience in designing enterprise architecture for at least 3 (three) large scale technology-led projects of similar scale (scope, timeline, and budget) and out of this at least 1 (one) project should be in government sector.
					Experience is mandatory in a similar capacity on (a) biometric based projects, (b) DevSecOps, (c) Cloud Infrastructure, (d) Network and Security, (e) microservices, (f) enterprise architecture, server architecture, network architecture, database architecture, security architecture, deployment architecture etc.
					Experience of National Identity project is mandatory

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					Experience or Knowledge of MOSIP is desirable
2	Software Architect (Application Architect)	M.S./M.Tech, /M.E. / M.C.A./ B.Tech. /B.E.	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)
					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
3	Security and Network Architect	B.E./ B.Tech/ M.S./ M.Tech/ M.E/ M.C.A./	12 years	5 years	Experience in designing security architecture for at least 5 (give) large scale technology-led 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 access, biometric security, and authentication processes.

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					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
4	Infrastructure & Systems Architect	M.S./ M.Tech/ M.E/ M.C.A./ B.Tech./ B.E. Certifications: Cloud Architect	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) multi-site architecture Experience or Knowledge of MOSIP is desirable
5	Database Architect	M.S./ M.Tech/ M.E./ M.C.A./ B.Tech./ B.E. Certifications: DBA	12 years	5 years	Experience in designing database 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) relational and non-relational database, (c) clustering and replication, (d) backup and restoration, (e) database optimization and tuning, (f) disaster recovery, (g) space

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					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
6	Quality Assurance Architect	M.S/ M.Tech/ M.E/ M.C.A./ B.Tech./ B.E. Certifications: 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) non-functional testing Experience of National Identity project is mandatory Experience or Knowledge of MOSIP is desirable
Team Lead s					
1	Team Lead	M.S./ M.Tech/ M.E./ M.C.A./	10 years	5 years	Experience in designing user experience and user interfaces for at least 2 (two) large scale technology-led projects of similar

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
	– UI/UX	B.E./ B.Tech/ B.Des. Certifications preferred :UI/UX or design thinking			scale (scope, timeline, and budget) Experience is mandatory on (a) Design thinking, (b) Enterprise Applications, (c) Wireframing and Prototyping, and (d) Hybrid Mobile Applications
2	Team Lead – Business Analyst	M.B.A/, M.S./ M.Tech./ M.E/ M.C.A./ B.E./ B.Tech./ B.C.A Certification: 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 re-engineering, and (f) national identity. Knowledge of MOSIP and all COTS/OTS 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).

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
3	Team Lead – Quality Assurance	MBA/ M.S./ M.Tech/ M.E./ M.C.A./ B.E/ B.Tech/ B.C.A Certifications: 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 for this project.
4	Team Lead – Training and Certification – Reward the title	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

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
5	Track Lead – Data and Analytics	M.S./ M.Tech./ M.E./ M.C.A/, B.E/ B.Tech./ B.C.A	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.
6	Track Lead – Network & Security	M.S./ M.Tech./ M.E./ M.C.A./ B.E/ B.Tech./ B.C.A 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 telecommunications including at least 4 years as network administration for large missions. (b) Experience as main administrator of 3 large network installations (c) Experience in managing at least 5 completed projects for large, enterprise scale clients for information security related work. (d) Should have in-depth knowledge of international information security related standards such as ISO 27001, NIST

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					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 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
7	Track Lead – Data Centre Manager	M.S./ M.Tech/ M.E./ M.C.A/ B.E/ B.Tech/ B.C.A/, B.Sc/, M.Sc,	10 years	5 years	Note – This profile should be from the data center co-location provider in Sri Lanka.
					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

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					(b) At least 3 years of experience in the operations of data center in a highly scalable manner
					(c) Experience in the supervision and administration of DC infrastructure operations
					(d) Experience in the design and management of structured cabling infrastructures and in-depth knowledge of cable distribution systems and industry standards
8	Track Lead – Systems Engineering	M.S./ M.Tech/ M.E./ M.C.A/, B.E/ B.Tech/ B.C.A	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
					(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
					(d) Experience in Micro services, Object storage platforms, Kubernetes, Micro services, Docker based deployment
					(e) Experience in backup and restoration, disaster recovery and

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					business continuity
9	Track Lead - Application Manager	M.S./ M.Tech/ M.E/, M.C.A./ B.E/ B.Tech/ B.C.A	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, operating, and maintaining a wide range of applications (bespoke applications, open-source products, commercial products, etc.) (c) Experience in national identification systems, enrolments, and authentication
10	Track Lead – Biometric	M.S./ M.Tech/ M.E./ M.C.A./ B.E/ B.Tech/ B.C.A	10 years	5 years	Experience in leading the biometric solution implementation 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) Development, operation, and implementation of biometric solutions (b) Experience in the implementation of biometric solutions and security of biometric devices

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					(c) Experience in identification and authentication systems
					(d) Mastery of biometric algorithms
					(e) In-depth knowledge of proposed ABIS system
					(f) Extensive experience on the ISO biometric standards used in this project
					Experience in following projects is desirable in similar capacity (a) National ID projects and (b) MOSIP based solutions in projects
11	Track Lead – Enrolment and Authentication	M.S./ M.Tech/ M.E./ M.C.A./ B.E/ B.Tech/, B.C.A	10 years	5 years	Experience in leading the enrolment and authentication implementation 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 operations management
					(b) Experience in redesigning and optimizing processes and desirable
					(c) Experience in the management of complex authentication systems
					(d) Mastery of the field of cryptology

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					(e) Proficiency in risk assessment procedures, policy training, role-based authorization methodologies, and authentication technologies
					Experience of National Identity project is mandatory
					Experience or Knowledge of MOSIP is desirable
					Knowledge of business models, pricing, etc. is desirable
Experts and Administrators					
1	Expert – Legal Specialist	LLB & Attorney at Law	10 years	3 years	Experience as legal expert for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget)
					Experience is mandatory in similar capacity on national-level identity projects
					Must have good knowledge of identity management systems, data protection, information security related laws pertaining with a global exposure and other relevant laws and legal framework of Sri Lanka
2	Expert – Change Management & Adoption	MSc / BSc Degree in human resource management, change management	15 years	10 years	Experience as change management specialist for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget) in government sector
					Knowledge of the following areas:
					(a) best practices and successful case studies of change

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
	Specialist				management (b) applying a structured methodology and leading change management activities (c) Supporting change communication, (d) assessing the change impact (e) supporting training efforts related to change management Note: In addition to other responsibilities, the Change Management and Adoption specialist, should also work closely with the Project Manager to identify and mitigate risks from the change management perspective.
3	Infrastructure Lead	B.E. / B. Tech / M.Sc. / MCA / M. Tech Certifications: ITIL or equivalent	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 deployment. (d) Highly scalable private cloud platforms

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
4	System Engineer	B.E. / B. Tech / M.Sc. / MCA / M. Tech Certifications: MCSE/VMWare Certified Professional Data Center Professional	8 years	5 years	Experience in System 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 is managing Servers, Virtualization Platform or Containers aspects of large infrastructure projects (b) Experience in managing at least 3 completed projects for large, enterprise scale clients for IT System Administrator related work.
5	Network Manager	B.E. / B. Tech / M.Sc. / MCA / M. Tech Certifications: CCNP	10 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) Experience of operationalizing and managing the large-scale network operations center (b) Experience in managing at least 3 completed projects for large, enterprise scale clients for Data Centre Network (c) Experience of leased line, MPLS, SDWAN, etc.
6	Network Engineer	B.E. / B. Tech / M.Sc. / MCA / M. Tech	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)

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
		Certifications: CCNP			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 (c) Experience of leased line, MPLS, SDWAN, etc.
7	Storage and Backup Administrator	B.E. / B. Tech / M.Sc. / MCA / M. Tech or equivalent Certifications: The resource shall have certification of the proposed product (preferred)	8 years	5 years	Experience as Storage and Backup Administrator 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 Storage and Backup Solutions (b) Experience in managing at least 3 completed projects for large, enterprise scale clients for Storage and Backup & Restoration Solutions (VTL, Tape Drives, etc.)
8	CRM Engineer	B.E. / B. Tech / M.Sc. / MCA / M. Tech	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 Software

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					(b) Experience in managing at least 3 call center projects
9	BI Reporting and Data Analytics Engineer	B.E. / B. Tech / M.Sc. / MCA / M. Tech	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 (b) Experience in designing, developing, and maintaining the reports, dashboards and analytics
10	Application Engineer	B.E. / B. Tech / M.Sc. / MCA / M. Tech	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/OTS, etc.)
11	Middleware Expert	B.E. / B. Tech / M.Sc. / MCA / M. Tech or equivalent Certifications: The resource shall have	8 years	3 years	Experience as Middleware Expert for at least 2 (two) large scale technology-led projects of similar scale (scope, timeline, and budget) Experience in deploying, integrating, and managing middleware platforms in at least 3 completed projects for large, enterprise

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
		certification of the proposed product			scale clients
Biometrics (From BSP)					
1	Biometric – Implementation and Integration Engineer	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech	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 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 RestAPIs and API security |
| 2 | Biometric - QA and | B.E. / B. Tech / B.Sc. / M.Sc. / | 10 years | 5 years | Experience as QA engineer in biometric applications for large scale technology-led projects |

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
	Test Engineer	MCA / M. Tech Certified Software Test Engineer or equivalent			Experience in following is mandatory in a similar capacity

(a) Should have been a Lead QA engineer for a project of comparable size and complexity (biometric, high-performance middleware, Windows, Linux, Java/J2EE, .NET)

(b) Should have good knowledge of application level biometric integration

(c) Should have previous experience of manual and automation testing using automation test technologies,

(d) Should have previous experience of various types of testing including user acceptance testing, performance benchmarking, etc.

Note: This profile should work closely with the combined testing team as well as offsite subject matter experts specializing in this area |
| 3 | Engineer – Systems, Backup and Restoration | B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech

Certified in Proposed Solution | 10 years | 5 years | Experience as system engineer in biometric applications for large scale technology led projects

Experience in following is mandatory in a similar capacity

(a) Should have highly specialized technical expertise to handle System Administration challenges for systems of size and complexity that are being proposed as part of this solution.

(b) Should have been a Lead system performance specialist for a project of comparable size and complexity (biometric, high- |

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					performance middleware, Windows, Linux, COTS H/W, high availability)
					(c) Should have good knowledge of biometric systems and dependent infrastructure
					(d) Should have experience of backup and restoration of proposed ABIS solution and should be hands on proposed tools for backup and restoration
4	Biometric Specialist	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech Certifications: IEEE Certified Biometrics Professional (CBP) Program,	10 years	5 years	Experience as biometric specialist for biometric applications in large 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 (e). Should have over 2 years of experience with (i) fingerprint devices and algorithm, (ii) iris devices and algorithm, (iii) facial capture devices and algorithm and (iv) voice capture devices and algorithm

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
Security Team					
1	Information Security Manager	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech / MBA degree Certifications: PMP / CISSP / CISM / CGRC-IT / ITIL / 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 on regular interval and manage external audits. (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 monitoring the security policies, protocols, and procedures. (g) Experience of managing and operating the next generation security operations center.
2	Fraud and Forensics	Education: B.E. / B. Tech / B.Sc. /	8 Years	5 Years	Experience in managing fraud and forensics management related

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
	Expert	M.Sc. / MCA / M. Tech / MBA degree Certifications: CHFI / CFS / GIAC			projects for at least 3 large scale technology-led projects. Experience in following is mandatory in a similar capacity: (a) All aspects of fraud management analysis, fraud prevention / detection in multiple domains. (b) Handling frauds across multiple industry domains. (c) Should be able to identify and look at a vast array of unstructured data to identify possible fraud and fraud patterns. (d) Conducting forensic investigations and use of forensic tools.
3	Vulnerability Management Expert	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech degree Certifications: GWEB / GWAPT / CEH / ECSA / LPT / OSCP / OSCE	8 years	5 years	Experience in vulnerability assessment for at three large scale technology-led projects. The team should have people who jointly have experience in all the following areas: (a) Experience in web application security testing, mobile application security testing, API security testing. This includes security audit against functional requirements and audit against technical architecture for compliance to it. (b) Excellent understanding of application security assessments in each phase of the software development lifecycle. Excellent understanding in Java security knowledge of the android/iOS mobile application testing and REST and SOAP API Testing. (c) Experienced in managing the vulnerability assessment and

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					penetration testing program, and conducting vulnerability assessments and penetration testing (VAPT). (d) Strong knowledge of offensive security testing and industry standards such as OWASP, SANS, etc. (e) Experience in conducting source code reviews (manual as well as tool based)
4	Threat Hunting Analyst	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech degree Certified with any threat hunting certification, Certificate from Bug Bounty, Zero Day / Vulnerability reporting with proof	8 years	5 years	Experience in managing thread hunting for at least three large scale technology-led projects Experience in following is mandatory in a similar capacity: (a) Experience of Performing threat management, threat modelling, identifying threat vectors and developing use cases for security monitoring. (b) Seasoned threat hunter and should have experience in performing threat hunting across multiple areas such as web / network / endpoint across industry domains / surface / deep / dark web. Should be able to identify threats and provide relevant suggestions to be protected from such threats. (c) Maintaining and continually evaluating cyber threat intelligence sources for changes that increase overall effectiveness and timeliness. (d) Should have expertise in working on a Threat Intelligence Platform. Should have hands on experience on

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					- Threat Identification (internal & external)
					- Orchestration of threat intelligence
					- Contextual reporting and tracking
					- Consuming multiple threat intelligence feeds and integrating them with analytics solution tools via creating required workflows.
					(e) Should have experience in reverse engineering and correlating the incidents and events
5	Network and Perimeter Security Expert	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech degree Certifications: CEH / GPEN / GCFW / CCNA / CCNP / CCSE / CCSA	8 years	5 years	Experience in managing Network and Perimeter Security for at least three large scale technology-led projects Experience in following is mandatory in a similar capacity: (a) Managing security of countrywide / large enterprise-scale networks. (b) Deep understanding of network security, protection of networks using controls related to people process and technology, well versed with various tools used for protection of networks and related components from a security perspective. (c) Shall have expertise with network equipment (including routers, switches, firewalls, IPS, WAF, LAN/WAN components etc.) against the bill of material and specifications. (d) Excellent knowledge of OSI Model, TCP/IP protocol suite

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					(IP, ARP, CMP, TCP, UDP, SNMP, FTP).
					(e) Experience in at least 3 completed projects for large, enterprise scale clients in the above-mentioned network security areas.
					(f) Creating technical documentation, network diagrams, inventory control documentation, and security documentation
					(g) Evaluation, coordination and implementation of Information Technology Security within the end-to-end solution including development and coordination for implementation of IT security related policies, standards and procedures relating to cyber-security controls, applications, networks, client devices etc.
6	BCP-DR Engineer	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech / MBA degree Certifications: ISO 22301 / CISA/ CISM / CISSP / CBCP / BCCS / BCCP / DRCS / CISRCP	8 years	5 years	Experience in managing similar BCP and DR for at least three large scale technology-led projects.
					Experience in following is mandatory in a similar capacity:
					(a) Performing BCP/DR operations life cycle for large data centers and big enterprises.
					(b) Infrastructure systems, backup software and BIA, RPO and RTO strategies, risk evaluation.
					(c) Deep understanding of IT DR at both a technical and business level.
					(d) Facilitating development of continuity plans, design cost-effective risk mitigation controls in alignment with the business

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					and in consultation with the responsible stakeholders. (e) Creating recovery plan for full site restoration including order of operations. (f) Strong understanding of Operational risk and resilience, Business Process improvement methods as well as risk related control frameworks and practices.
7	Security Operations Expert	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech degree Certifications: Relevant OEM certifications	L1 resource: 2+ years; L2 resource: 4+ years; L3 resource: 7+ years	L1 resource: 2+ years; L2 resource: 4+ years; L3 resource: 7+ years	Experience in managing security operations for at least three large scale technology-led projects. Experience in following is mandatory in a similar capacity: (a) Experience in managing and reviewing security incident management process. (b) Experience in security incident management and response operations. (c) Security Operations Center and related tools and technologies such as – SIEM, Packet Analysis, Network Monitoring, SSL, Web Gateway, NAC, Anti-Virus, DLP, kali Linux, NMAP and Nessus. (d) Analyzing security log data from various security devices. (e) Excellent knowledge and understanding of latest security threats and incidents across the globe. (f) Experienced in governance of security operations and

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					security organization at mid-level.
					(g) Experience with malware analysis.
					(h) Experience with reverse engineering and correlating the incidents and events.
8	Patch and Endpoint Management Expert	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech degree Certifications: Relevant OEM certifications	8 years	5 years	Experience in managing Patch and Endpoint Management for at least three large scale technology-led projects.
					Experience in following is mandatory in a similar capacity:
					(a) Relevant experience in managing and reviewing security devices and solutions such as DLP, EDR, Antivirus, etc.
					(b) Defining and deploying endpoint profiles while adding and managing access roles for users.
					(b) Regular patch management activities for large enterprise scale clients.
					(c) Driving upgrade and update schedules for Network and security devices.
					(d) Understanding of various Operating Systems Like Windows Server, Unix, Linux, Windows desktop, Virtual, Container and Mobile OS.
					(e) Knowledge of the latest security products, tools, and technologies.

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
9	Identity and Access Management Expert	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech. degree Certifications: Relevant OEM certifications	8 years	5 years	Experience in managing Identity and Access Management for at least three large scale technology-led projects. Experience in following is mandatory in a similar capacity: (a) Managing and reviewing security devices and solutions such as IDAM, PIM/PAM, 2FA etc. (b) Implementation, commissioning and enhancement of modules of IAM suite (Identity Manager, SSO, Identity Governance, Privileged Identity Manager) (c) Analyzing, designing, implementing and planning maintenance activities for IAM changes as requested (d) Administering, operating, managing, executing and governing the Identity & Access Management (IAM) process and tools for access, recertification and role Management in a global environment
10	Cryptography Expert	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech degree, Relevant certification	8 years	5 years	Experience in managing Cryptography for at least three large scale technology-led projects. Experience in following is mandatory in a similar capacity: (a) Experience in managing and reviewing security devices and solutions such as HSM, Key Management, SSL VPN, etc. (b) Knowledge of the PKI infrastructure and experience of PKI related projects.

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					(c) Excellent knowledge and understanding of cryptographic / encryption techniques and digital signatures.
					(d) Managing database security and privacy assessment including audit against functional requirements and audit against technical architecture for compliance to it.
					(e) Knowledge of MOSIP related cryptography aspects is desirable
11	Database Security Expert	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech degree Certifications: Relevant DBA / OEM certification	8 years	5 years	Experience in managing database security related projects for at least 3 large scale technology-led Clients.
					Experience in following is mandatory in a similar capacity:
					(a) Excellent knowledge and understanding of large databases and their security measures.
					(b) Managing and reviewing database security devices and solutions such as DAM, PIM/PAM, etc.
					(c) Managing database security and privacy assessment including audit against functional requirements and audit against technical architecture for compliance to it.
12	Incident Response Expert	B.E. / B. Tech / B.Sc. M.Sc. MCA / M. Tech. degree Certifications preferred: GCIH /	8 Years	5 Years	Experience in managing incident response for at least three large scale technology-led projects.
					Experience in following is mandatory in a similar capacity:
					(a) Managing and reviewing security incident management

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
		ECIH / CERT-CSIH / CREST CIM Certificate from Bug Bounty, Zero Day / Vulnerability reporting with proof			process. (b) Security incident management and response operations. (c) Knowledge of applications, databases, middleware to address security threats against the same. (d) Excellent knowledge and understanding of latest security threats and incidents across the globe.
13	Information Security Officer	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech degree Certifications preferred: ISO 27001 LA / CISA / CISSP / CISM / CRISC / ISO 31000	8 years	5 years	Experience of managing information security governance projects for at least 3 large scale technology-led data centric projects. Experience in following is mandatory in a similar capacity: (a) Developing and maintaining policies, standards and practices of information security by establishing and maintaining efficient processes to monitor compliance of defined policies, standards and practices. (b) Driving key meetings for closing identified Information Security issues or gaps. (c) Performing risk assessments, security testing of Information systems and providing recommending security enhancements. (d) Administering and running organization wide IS training and awareness program. (e) Strong understanding of ISO 27001 as well as industry

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					security frameworks.
14	Privacy Manager	B.E. / B. Tech / B.Sc. / M.Sc. / MCA / M. Tech degree Certification preferred: CIPP / BS 10012 / ISO 29100 / ISO 27701	8 years	5 years	Experience of managing privacy related projects for at least 3 large scale technology-led data centric projects. Experience in following is mandatory in a similar capacity: (a) Managing privacy projects such as drafting privacy policies, creating privacy frameworks, etc. (b) Conducting assessments against established privacy requirements, privacy impact assessments, etc. (c) Leading privacy standards and regulations such as etc. ISO 27701, ISO 29100, GDPR, Draft Privacy Bill of Sri Lanka.
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.					
Software Development					
15	DevSecOps	B.Sc./ B.E./ B. Tech, / MCA/ M. Tech With Relevant certifications	5 years	3years	Experience in following projects is mandatory in a similar capacity (a) Experience in agile methodologies and DevSecOps (b) Experience of micro services, container orchestration technologies (c) Hands on experience for the proposed DevSecOps technologies (d) Hands on experience on the CI/CD pipeline and

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					automation of security controls (e) Knowledge of industry standards and best practices related to software development
16	Business Analysts	B.Sc./ B.E./ B. Tech/ MCA/ M. Tech Relevant certifications	5 years	3 years (BA) and 5 years (senior BA)	Experience in following projects is mandatory in a similar capacity (a) Knowledge of relevant OTS/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 Hands on experience as product owner is preferable Note: For business analysts responsible for enrolment and authentication, the relevant knowledge is desirable.
17	Software Engineer	B.E./ B. Tech/ MCA/ M. Tech Certification in relevant tools and technologies, wherever available	5 years	2 years (junior engineer) and 4 years (senior engineer)	Experience in following projects is mandatory in a similar capacity (a) Experience in agile methodologies (b) Experience of micro services, container orchestration technologies (c) Hands on experience in development for the proposed technologies (d) Hands on experience of unit testing (e) Hands on experience of peer reviewing (f) Knowledge of industry standards and best practices

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
					related to software development
18	Engineer-QA	B.E./ B. Tech/ MCA/ M. Tech Certification in relevant tools and technologies, wherever available	5 years	2 years (junior engineer) and 4 years (senior engineer)	
19	Engineer – UI/UX	B.E./ B. Tech/ MCA/ M. Tech Certification in relevant tools and technologies, wherever available	5 years	2 years (junior engineer) and 4 years (senior engineer)	
20	IT Helpdesk Agents	B.E./ B. Tech/ MCA/ M. Tech Certification in relevant tools and technologies, wherever available	5 years	2 years (junior engineer) and 4 years (senior engineer)	
21	NOC Agent	B.E./ B. Tech/ MCA/ M. Tech Certification in	5 years	2 years (junior engineer) and 4 years	

No	Key Professional Staff	Academic & Professional	Minimum Overall Experience	Minimum Experience in the proposed role	Specific Qualifications/ Requirements
		relevant tools and technologies, wherever available		(senior engineer)	
22	SOC Agent	B.E./ B. Tech/ MCA/ M. Tech Certification in relevant tools and technologies, wherever available	5 years	2 years (junior engineer) and 4 years (senior engineer)	
23	Administrators (Server, Network, Storage, Database)	B.E./ B. Tech/ MCA/ M. Tech Certification in relevant tools and technologies, wherever available	5 years	2 years (junior engineer) and 4 years (senior engineer)	

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 premise wherein, a dedicated core team shall be stationed at the Purchaser's premises while the development will happen in 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) 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 by ICTA. CVs should be as per the CV format given in this RFB. 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 SI's team should be held only by Permanent employees of the SI

vii) The Staffing Schedule should contain the schedule of deployment of the Key personnel. It should also clearly highlight 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 in the schedule, if required.

x) The infrastructure or other facilities required for the efficient execution of work under the Contract, should be provided by SI or its Sub-Contractors to its employees who are working under this contract.

xi) The Section 4 - Minimum Qualifications of Key Professional Staff details indicative high-level roles, responsibilities, and corresponding qualifications to carry out the scope of work.

10.3.2 Removal of Personnel

i)   ICTA reserves the right to request the MSI to remove any of the 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) ICTA 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. ICTA 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 ICTA in writing and should seek approval from ICTA. 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)   ICTA may require MSI's representatives to be present at ICTA premises. The MSI shall ensure that required representation is available at ICTA premises as per ICTA's 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 ICTA 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) The MSI will also prepare the Escalation Matrix for support relating to MOSIP components in consultation with Purchaser.

10.3.6 Role of ICTA & DRP and Responsibilities

During project duration, the ICTA shall have following roles and responsibilities:

i) If onsite presence is required, ICTA 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) 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) DRP will assist in coordination between all the divisions/departments for providing necessary information for the study and development/customization of the necessary solution.

vi) DRP will provide necessary support to MSI for conducting workshops for the stakeholder departments, if any.

vii) ICTA and DRP will jointly monitor of 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.