

**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 15: Transition Framework

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

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1. Transition

{Reference : Annexure 1A: As-Is Functional System, Annexure-1-Functional-Overview and RFP Volume 2 Section 5.7 (Performance Testing, Acceptance and Go-Live)}

1.1 Background

In this context, Department for Registration of Persons (DRP), which was established on 1st October, 1971, issued the first ever Identity Card on 14th September, 1972 as the basic identification, verification and authentication Tool (Form 02) to be used for the identification of persons of Sri Lanka. As such, the sole authority and powers for registering citizens of Sri Lanka and issuance of National Identity Card (NIC) are vested with the DRP under the Registration of Persons Act No. 32 of 1968, which has been implemented since April 1971 with its allied Regulations.

Since DRP commenced its operations, NICs had been issued by means of a manual paper-based enrolment and approval system for more than 40 years until February 2014 (where an automated system was commissioned) and a laminated paper based card until October, 2017 (where a plastic card was introduced). The paper-based registry was severely constrained such that data had not been regularly updated and there was also high incidence of false information due to the lack of adequate sophistication in the paper based registry. As such, said system could not be relied upon for accuracy, particularly regarding national security requirements. Furthermore, the physical cards issued could be counterfeited easily using available printing technologies and was estimated that 15% to 20% of cards in circulation were forged, counterfeited or obtained by providing false information. Both the Registry and the physical Identity Card, therefore, required a replacement to cater to current and anticipated future challenges.

As several countries have implemented electronic identity registries and several other countries are in the process of implementing such systems, it was proposed that Sri Lanka should adopt a similar system, which suits the needs of the country. In this regard, DRP was granted approval for the “Establishment of a National Register of Persons (NPR) for the electronic storage of Citizens Registration data and issuance of Electronic National Identity Card (e-NIC)” in August 2011. This had been an enhancement of Authentication Mechanism from Form 02 to Form 03, which was to be implemented under e-NIC Project.

In the meantime, priority has been given by the Government of Sri Lanka for a national level program for the establishment of a Unique Digital Identity Framework for Sri Lanka (SL-UDI) in 2020 and SL-UDI Framework was defined as a foundational component with the overall Digital Economy Architecture for Sri Lanka.

National Identity Card (NIC), which is 10-year durable laser-engraved 100% polycarbonate with varying levels of security (Level 01 through Level 03) and anti-forgery features, is to be issued to every citizen of age 15 or above, as a trusted “Identification and Authentication Tool” (Form 02 primary artefact).

“Personalization” of information, through laser-engraving as per the international standards, has been introduced instead of printing data on NIC to protect from forgery and fake IDs.

Introduction of “Activation” of NIC through biometrics verification by the citizen, before use, to ensure Identity Card is with its correct person.

NIC is to be deactivated and status of the respective record in NPR is to be updated accordingly at the death of a citizen, through relevant DS-DRP Unit in Divisional Secretariat.

NIC is to be deactivated and status of the respective record in NPR is to be updated accordingly in case of a Renewal after 10 years of issuance or in the event of Lost card, Damaged/Defaced card as well as

Change of Information, through relevant DS-DRP Unit in Divisional Secretariat. A new NIC is to be issued and the information is to be updated in NRP, if needed.

In this endeavor, SL-UDI and DRP decided to appoint a MSI (Master System Integrator) to validate and transition the current system to MOSIP platform and other supportive applications.

The MSI for SL-UDI shall be required to manage various transitions during the tenure of the contract which could be triggered at various milestones during the implementation. The purpose of this section is to provide the broad Transition Framework within which the MSI would be required to validate, build, implement, and operate the MSI's scope of work and the roles and responsibilities of different stakeholders during various transitions.

The purpose of transition is to

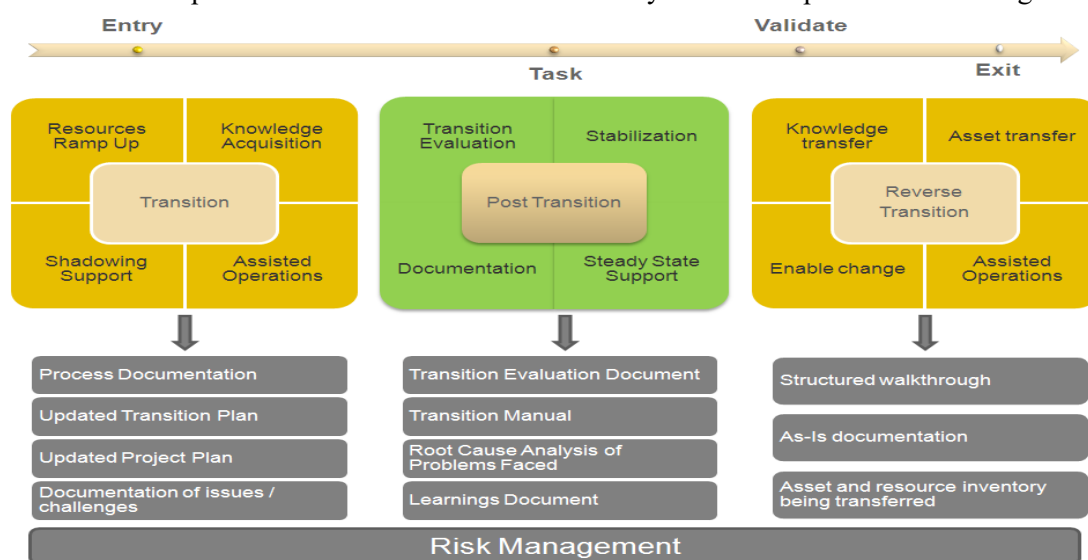
- i. Enable MSI to take over existing System and be the single point of responsibility as the Master System Integrator for managing various services
- ii. Enable well planned smooth taker over of responsibilities from SL-UDI and other service providers
- iii. Help Integration of the existing data & various applications and utilization of the spare capacity at the existing DRP Data Centre and installed Hardware. The MSI can utilize the existing spare capacity of the installed security Infrastructure and licenses as well.

1.2 Transition framework

The objective of this section is to define generic guidelines about transition methodology for the MSI for effective management of the transition of responsibilities. It is expected that all transition activities shall follow a three phase approach which will include:

- i. Pre-transition phase
- ii. Transition phase and
- iii. Post transition phase

The deliverables expected out of each transition activity is also depicted in the diagram below.



The three phases - Pre-Transition, Transition and Post Transition are detailed out below.

- i. **Pre Transition Phase: Pre-Transition** is broken down into 4 sub phases:
 - a. **Scope Definition:** This phase should begin with identification of the resources responsible for carrying out the transition. MSI and the DRP team will define the scope of the activities that

will be taken over by MSI from DRP Team or the existing service provider of DRP . It will be MSI's responsibility to manage the transition of activities.

- b. **Study of Existing Operations (As-Is Architecture):** The current operations of DRP should be studied and documented. After the study of As-Is architecture, MSI will work out a plan for To-Be architecture.
 - c. **Transition Planning:** This phase should involve developing transition plan steady-state requirements. Plans for identifying the skill set requirements for each job, deploying team members with requisite skills and developing and fine tuning the knowledge acquisition plans. Initial support and risk management plans are also to be developed.
 - d. **Define Success Criteria:** Finalizing the schedule and quality requirements will be done in this phase. The success criteria for the transition will be defined.
- ii. **Transition Phase:** There can be 4 sub phases in the **transition** phase
- a. **Resources Ramp Up:** In this phase, the MSI should acquire the resources that are required to start supporting the operations done by the vendor. The plan for ramp up of resources should be implemented during this stage.
 - b. **Knowledge Acquisition:** In this phase, MSI should assemble the core team for knowledge acquisition. DRP Team shall provide a detail walkthrough of Application, Solution Design and Deployment Architecture to MSI Team. MSI team will then go through the knowledge build-up through discussions, demonstrations and study of critical applications and their alignment to the SL-UDI Program. IT infrastructure of DRP (servers, network diagrams, monitoring equipment, databases, etc.) and various processes to be documented (if necessary). During this exercise, DRP will provide the details walkthrough of the source code and all relevant documents.
 - c. **Shadowing Support:** During this phase, each team member of MSI shall observes the activities under his purview done by an incumbent member from DRP / vendor's team. In this phase, process application knowledge is built, and hands-on application and infrastructure know-how is acquired. This knowledge can be documented for future use.
 - d. **Assisted Operations:** This activity is the reverse of shadowing support where the MSI team members will carry out the activities under the supervision of DRP / relevant Service Provider. A continuous knowledge-gap analysis is performed and the team members can be taken through the knowledge acquisition phase again. At the end of this stage, the team is expected to be ready for transition.
- iii. **Post transition phase:** Post transition phase will consist of 3 parts
- a. **Steady State Support:** At the start of this phase, full-fledged floor operations and quality control will start with planned shifts. Ongoing process improvement programs, reports, reviews, and training programs will be initiated to enable smooth execution of support operations. A continuous quality check is done during initial stage. Also, MSI teams are regularly involved in identifying opportunities and executing incremental steps aimed at improving performance, while reducing repetitive incidents for higher availability and improved reliability.

- b. **Transition Evaluation:** Transition evaluation starts when MSI is able to provide a stable steady-state support for the operations. Transition evaluation can be done on schedule variances, number of incidents reported and the criteria set initially. A detailed report of root cause analysis and remedial measures shall be created by the MSI.
- c. **Documentation:** This documentation involves the completion of overall documentation about the processes included under MSP's responsibility. Also, the problems faced during the transition, their causes, steps taken to resolve and precautionary measures suggested can be documented.

1.3 Transition process

A transition of legacy system to the modern system comprises of four key elements which are the Current State, Transition Triggers, Transition Process and Future State. The MSI shall be required to define transition process for each area of transition. At a broad level, the transition process of the MSI should comprise of three steps:

- i. **Step 1:** The MSI would work with the DRP team/respective Service Provider to create a detailed transition plan covering all the steps and would have this approved by DRP. In addition, the SME team of the MSI and the respective Service Provider of DRP will do a knowledge capture of the applications, data, processes, policies and all other activities relevant for the transition. Asset acquisition / transfer of asset is not envisaged presently. If there is a need for asset acquisition/transfer, the MSI will do a due-diligence on the same. The MSI will also identify potential risks and put in place mitigation plans for the same keeping in mind uninterrupted on going services as the goal.
- ii. **Step 2:** The MSI would work with the respective Service Provider / DRP to document the processes and procedures, including the system configuration, application configuration, environments, testing, QA and acceptance procedures. The MSI will co-perform the activities of the vendor with respective vendor's supervision (knowledge try-out).
- iii. **Step 3:** In this phase the MSI will take complete ownership of the assigned responsibilities and will be accountable for the services and the corresponding SLAs defined for the MSI.

The timeline for the implementation of the various transition steps will be specific to each module which is being transitioned.

1.4 Current state of Data Center (DC) and Disaster Recovery (DR)

There are multiple vendors managing different components of SL-UDI system.

- i. **Data Centre Service Provider ("DCSP"):** DRP has an existing in house data datacenter currently running with the following components :
 - a. Racks for IT components
 - b. Power, Cooling, Network Cabling for the Racks including Building Management System (BMS)
 - c. Space for the Operations
 - d. External network connectivity

- e. Manpower for Data Centre Operations
- f. Physical Security
- g. Cyber Security Infrastructure
- ii. **Application Software Development, Maintenance and Support Agency:** DRP has an in-house development team of 24-30 resources and 12 resources for maintenance of the system. During the site visit, MSI is expected to do a due-diligence of the mentioned team resources and consider them for transition for SL-UDI implementation phase till the roll-out of the system. The broad scope of work includes:
 - a. Setup and manage the testing and development environment (including all hardware and software)
 - b. Integrate the existing registration application with MOSIP Registration Client or replace the same with MOSIP Registration Client.
 - c. Validate the support application, enhance or replace them.
 - d. Validate the current middleware Eureka, enhance or replace with MOSIP IDMS.
 - e. Integrate the ABIS software provided by the BSP using the ABIS API.
 - f. Develop the following releases of the application
 - Release 1
 - Release 2
 - g. Provide production support including deployment of patches and fixes to the application
 - h. Perform functional and non-functional testing of the application
 - i. Provide a capacity/scaling plan for the application
 - j. MSI shall be responsible for the following
 - Provisioning the QA environment (functional and non-functional testing) for Release 2 and beyond
 - Independent Verification and Validation for Release 2 and beyond
 - Versioning, Patch release using the processes defined by MSI
 - Functionality upgrade in consultation with DRP
 - k. MSI shall be responsible for transitioning the scaling and capacity planning activities and provision IT infrastructure to meet the scaling requirements
 - l. MSI should assist DRP in analyzing performance issues of the entire stack, support in performance tuning, trouble shooting and analysis of issues in production.
 - m. The MSI will take over the available licenses with DRP and maintain them
- iii. **Biometric Service Providers:** DRP is in the process to appoint biometric service provider to deliver the following services. During the site visit, MSI is expected to confirm the availability of ABIS Solution and proposed its ABIS solution accordingly.

- a. MSI should verify the scalability of for meeting the volume requirements up to year 2045 for a gallery size of 35 Million and take a view accordingly to enhance the existing ABIS system or deploy a new ABIS system.
 - b. Provide Biometric De-duplication/Verification Application software (ABIS)
 - c. Perform Functional Testing, Performance Testing/Benchmarking of the ABIS Application
 - d. Provide Managed Services for the complete operations of the Biometric Application and IT Systems including technical support
 - e. Provide all the services as in (a.) to (d.) at the DC and DR/BCP sites
 - f. Provide and support the ABIS SDK
- iv. **IT Systems for SL-UDI:** Currently this responsibility rests with DRP and includes:
- a. Procurement of all hardware, system software for the deployment of SL-UDI application at the DC
 - b. Manage all SLAs as per the definition in the scope of work.
 - c. Define strategy and roadmap for deployment of SL-UDI applications in the data center along with associated IT systems
- v. **Technical Support Centre:** Currently technical support responsibility rests with DRP for their respective areas of operations:
- a. Resolution of technical support issues across of all aspects of SL-UDI
 - b. Co-ordinate with OEMs and vendors to resolve technical issues
 - c. Track status of issues

1.4.1 Transition of MSI

Transition of SL-UDI activities will be in a phased manner involving the following activities:

- i. Once the MSP comes on board, the MSP will take part in the QA activities for the Release 2 of SL-UDI in a supervisory role. MSI will perform the Knowledge Transfer to MSP for QA purposes. Independent Validation and Verification (IV&V) will be done by MSP.
- ii. Following release of SL-UDI Release 2.0, MSP shall be fully responsible for maintenance of Release 2.0. MSP shall also be responsible for Release Management of Release 2.0.
- iii. MSP shall be responsible for the following
 - a. Provisioning the QA environment (functional and non-functional testing) for Release 3 and beyond
 - b. Independent Verification and Validation for Release 3 and beyond
 - c. Versioning, Patch release using the processes defined by MSP
 - d. Functionality upgrade in consultation with DRP and MSI
- iv. MSP shall be responsible for transitioning the scaling and capacity planning activities and provision IT infrastructure to meet the scaling requirements
- v. MSP should assist DRP in analyzing performance issues of the entire stack, support in performance tuning, trouble shooting and analysis of issues in production.
- vi. The MSP will take over the available licenses with SL-UDI and maintain them.

1.4.2 Transition of BSP

Transition of BSP activities will be in a phased manner. The transition involves the following activities:

- i. Transition of IT Systems management for the BSP infrastructure including but not limited to:
 - a. Servers
 - b. Storage
 - c. Network
 - d. Management Infrastructure and Management Software (NMS)
 - e. Backup and Recovery including DR/BCP
 - f. Operation, Administration and Management of IT Systems
 - g. Integration/Augmentation/Alignment of BSP solution with cell architecture

1.4.3 Transition of DRP Data Centers

The transition of Data Centre (physical site) involves the following activities:

Once MSI is on board, the MSI has to create a Data Centre Transition Plan and should be approved by DRP. The plan should cover the following activities:

1. Co-ordinate with the DC infrastructure providers of DRP, application team of DRP, ISP, Logistics Provider, Call Centre Provider and BSP providers to create a plan and a Bill of Materials and other resources required for 30 million enrolments in the current data center space of DRP.
2. Co-ordinate with the Registrars, Enrollment agencies and all other entities who connect to the SL-UDI network (either directly or indirectly) to plan for the network connectivity transition. Provision appropriate resources at the data center to ensure proper connectivity.
3. Co-ordinate with the Data Centre Provider and ISPs to setup network connectivity to the DC.
4. Setup the IT systems and associated software and services at the DC site, create a strategy for securely transferring the already enrolled data to the new MOSIP database.
5. Test the DC site with few trail/pilot enrollments, test connectivity to all the agencies connecting to the SL-UDI
6. Switchover the enrollments to the DC site.
7. Reconfigure the DC site and the DR site, augment storage and all other IT system components as necessary. The DR site may be mainly used for replication.
8. After the successful transition of the DC and DR site, the MSI should activate the DR site. The DR site is estimated to have about 100% compute capacity and the same storage capacity as that of the primary DC site.
9. The MSI shall manage the Primary DC site and DR Site. Any switchover to DR will be based on the DR/BCP policy of SL-UDI and will be with prior consultation and approval of DRP.
10. Monitor, Manage the IT systems, connectivity on a 24x7 basis.

1.4.4 Transition of Data Centre IT operations

The transition of Data Centre IT operations involves the following activities:

- i. Co-ordinate with the Data center provider to create a transition plan for the Data Centre operations transition which has to be approved by DRP.
- ii. Transition of the Management of IT systems of SL-UDI including Servers, Storage, Network, NOC, Operating Systems, Middleware, Backup and Restore, Replication and BCP, Security, Management Software for SL-UDI applications suite and other infrastructure
- iii. Transition of the Management of WAN Links including:
 - a. Connectivity to Internet (via Multiple Links)

- b. Connectivity to Registrar Network
- c. Connectivity to Logistics Network
- d. Connectivity between DC sites
- e. Liaison with the respective ISPs of the above links and resolve issues if any
- iv. Transition all other IT services including compliance to SLAs for the services specified in the SL-UDI services
- v. Transition of technical helpdesk and support for all the SL-UDI services and infrastructure support for the SL-UDI
- vi. Transition of the management of all associated software and hardware assets including coordination with the OEM of the associated products for support, spares, upgrades, and patches management
- vii. Continue co-ordination activities with the DC provider for rack space, power, cooling requirements provisioning.

1.4.5 Transition of IT Help Desk

Transition of the IT Help desk will be from the current set of service providers to the MSI, the current vendors will continue to provide the level 2 and level 3 support for their respective products/components during their contractual period. The following will be the roles of the MSI:

- i. MSI will setup the IT Helpdesk system as per the ITSM process; log the data of all the outstanding calls as on date into the Helpdesk system. All new calls henceforth will be logged into the IT Helpdesk System.
- ii. MSI will be the single point of contact for all technical issues of SL-UDI; the MSI has to co-ordinate with the respective vendors to resolve their product/component specific issues.
- iii. MSI will provide requisite access to DRP, respective vendors to access the IT Helpdesk system to track/log issues.
- iv. MSI will Provide daily, weekly, monthly report of the calls to the help desk system (open, in-progress, closed, re-opened, fix-duration, SLA compliance/non-compliance), track and monitor the status of the calls with respect to the corresponding SLAs.

1.5 Non-Technical Aspects Transition

1.5.1 Transition of Contracts (Termination/takeover/replacement/extension)

Process of transition: The transition is triggered either by expiry of current contracts or termination of contracts. DRP will be the deciding authority with respect to continuation of the current contractual terms of the respective service with the MSI or re-negotiate the terms and conditions or issue a new tender for the same.

1.5.2 Attachment of Staff

The attachment of staff, if any, of DRP or the existing vendors to the MSI has to be mutually settled between the MSI and DRP / the respective service provider.

1.5.3 Transition of Documentation

The MSI on coming onboard within T+4 weeks (where T is the start date of MSI) will setup a configuration management and a Knowledge Management system to store all the process documents, soft copy of product manuals, Architecture and Design documents and all other artifacts of SL-UDI. The MSI will also be required to secure the access to this system and provide access to it based on the DRP Information Security policies.

1.5.4 Governance

During the course of transition of various assets and services to the MSI, the MSI and other vendors will be governed by DRP and its policies.