Terms of Reference

for

Implementing a Project Performance Monitoring system for ICTA

1. Backgrounds

Aligned with the national priority objectives of 'Digitization of Economy', ICTA implements number of projects aiming to develop national digital infrastructure, provide effective digital government services, country wide connectivity and affordable digital access and empower citizens to be able to use the benefit of digital technologies. To measure the achievement of results of these initiatives, ICTA implements a comprehensive monitoring and evaluation (M&E) mechanism across all the projects and programmes.

As part of the M&E mechanism, ICTA M&E unit engages in collection of project specific monitoring data to measure the progress of the projects. ICTA presents the project progress to the Ministry of Telecommunication and Digital Infrastructure twice a month. In addition a monthly and quarterly progress reports are submitted to the Department of Project Management and Monitoring (DPMM), Presidential Secretariats (PS), the various committees of the Parliament.

To properly demonstrate the project progress, ICTA uses a comprehensive set of indicators (KPIs). Key areas measured through KPIs are a) progress of initial planning,/designing, b) procurement process, c) M&E, d) project implementation and e) producing project outputs.

2. Key Problems

Collection and analyses of monitoring data through a manual system has become extremely complex and cumbersome process and efficiency, effectiveness and data quality can be significantly improved by automating the data collection, analysis and reporting procedures.

In order to meet the stakeholder reporting requirements efficiently, there is a need of implementing a solution to see the project progress and generate timely reports based on the stakeholders' requirements.

The existing project management tool (JIRA) in ICTA can be used to capture the project related information from project managers to be integrated with the new application.

3. Objectives

To implement a comprehensive solution, integrating with JIRA to capture, analyze and present data generated through project implementation. The system should be able to collect and update the project physical progress report (2B format) regular basis.

Further, the proposed solution will be directed to a mechanism to monitor project performances through streamlining the ICTA's work processes to get the output as expected.

4. Scope of the solution

4.1 Specific Guidelines

4.1.1   The following areas have to be considered when implementing this solution to meet the above mentioned objective;
- KPI Master Data
- Procurement Master Data
- SLA Calculation
- Overall Project Health
- Overall Project Progress
- Variance Analysis
- Reason for Variances/delays
- Responsibility for such Variances/delays
- Reports
- Visualization

4.1.2   Monitoring data of all the projects will be captured from JIRA and the integration should be built in between JIRA and the proposed solution.

4.1.3   Conduct a system requirement verification study of the processes.

4.1.4   Calculations in project performance monitoring should be done as a function of the proposed solution.

4.1.5   On time reports should be generated based upon the calculation in project performance monitoring (Please refer the Annex-3 for reference).

4.1.6   Design and develop the system in a cloud environment, upon obtaining ICTA approval for the above.

4.1.7   Facilitate User Acceptance Testing (UAT) for the implemented solution.

4.1.8   Provide support and maintenance services, from the date of launch to an agreed time period.

4.2 General Guidelines

4.2.1 Adopt a proper application release procedure to release the system releases to ICTA during the deployment in the staging / production environments.'

4.2.2 Propose solution shall conform to the non-functional requirements (Refer Annex-2 for reference criteria).

4.2.3 Adhere to the Service Level Agreement, during the support and maintenance phase (SLA) indicated in Annex-1.

4.2.4 Work collaboratively with ICTA and other stakeholder organizations.

4.2.5 Comply with the independent software project audit (SPA) process, or any third party audit process which will be carried by a team designated by ICTA.

4.2.6 Adherence to the latest revisions of e-Government Policy of Sri Lanka [http://www.icta.lk/attachments/759_ICT_Policies_and_Procedures_for_Government_V_9_English_Jan_08_2010.pdf].

4.2.7 Adherence to Web 2.0 concepts, open standards, interoperability standards and Service Oriented Architecture (SOA) principles.

4.2.8 The system will be audited by SLCERT (Sri Lanka Computer Emergency Readiness Team) for Information Security. The bidder shall implement the necessary changes/modifications/enhancements recommended by SLCERT.

5. Qualification of the key consultants

Preferable Minimum Qualifications;

▪ **System implementing team**

Key Professional Staff	Academic Qualification	Experience in the **PROPOSED ROLE**	Experience in working in API/ integration projects
Project Manager	B.Sc or equivalent, preferred with Professional qualifications (PMP)	5 years	2 years
Software Architect	B.Sc or equivalent with MSc in Computer science or similar	3 years	2 years
Business Analyst	B.Sc or equivalent	3 years	2 years
Technical Lead	B.Sc or equivalent	2 years	1 years
Software Engineer (2)	B.Sc or equivalent	2 years	1 years
UI/UX Engineer	B.Sc or equivalent	2 years	1 years
QA Engineer	B.Sc or equivalent	2 years	1 years

6. Deliverable and Time-lines

No	Deliverables	Duration
1	Inception of the project.	Commencement Date + 1 week
2	Identify the system requirements and compile the software requirement specification (SRS).	Commencement Date + 2 weeks
3	Develop the working prototype of the proposed solution and present it.	Commencement Date + 4 weeks
4	Complete the solution based on the feedback for the prototype	Commencement Date + 6 weeks
5	System Testing and User Acceptance Testing	Commencement Date + 7 weeks
6	Operation Acceptance Testing and Start live operations	Commencement Date + 8 weeks

7. Service and Facilities Provided by ICTA

7.1   Available APIs in JIRA.
7.2   Project performance related indices for the calculation purpose.
7.3   Issue tracking system.
7.4   Source code repository (if any).
7.5   Report formats.

8. Review Committees and Review Procedures

The Software Development Service Provider is required to work closely with the ICTA Technology Team, Monitoring and Evaluation team and the Software Process Audit (SPA) consultants. All versions of deliverables will be reviewed by/either the SPA consultants or ICTA Technology Team.

All the deliverables must be verified and confirmed to be accurate and complete by the Project Implementation Committee (PIC) or the Project Management Committee (PMC). Deliverables must be formally endorsed by the PIC or PMC or CTO or Head of Technology Team.

SERVICE LEVEL AGREEMENT *for*

SUPPORT AND MAINTENANCE SERVICES

Response time

Critical	Less-Critical	Non- Critical
Total failure of system	Partial failure of hardware/network equipment, no down-time	Critical alert
30 Minutes	60 Minutes	90 Minutes

Resolution time and penalties

Highly Critical	Critical	Less-Critical	Non- Critical
1 Hour	2 Hours	2 business days	3 business days

<u>**Annexure-2**</u>

Non-Functional Requirements

1. Security and Authentication

- Only authenticated users should be allowed. Access privileges should be granted to a user by assigning roles. The roles should be created by assigning tasks.
- The application should ensure "confidentiality" and "integrity" wherever applicable by adhering to transport and message level security standards. (i.e. HTTPS, WS-Security).

2. Audit Facilities

- An audit trail of all activities must be maintained. On a service or operation being initiated, the system should log the event, creating a basic 'audit log entry'. It should not be possible for the operation to be executed without the log entry being made.
- The information recorded in the audit trail depends on the type of activity which takes place. Each service would be responsible for logging detailed information. The different types of operations are; (not limited to)
  - Data Capture & Maintenance
  - Creation of an entry / item
  - Modification an item
  - Deletion
  - Control (or status change)
  - Process execution
  - Data synchronization
  - Print (only selected item)
  - Retrieval
  - Monitor
- Detail logging may be enabled or disabled for each type of operation, and/or for each business object. It should be possible to configure which attributes of a data item should be traced at the detail level. Tracing of some attributes may be considered mandatory, and they should not be turned off.

3. High Availability and Backup

- Application level high-availability should be ensured. There shouldn't be any single-point-of-failure.
- Necessary mechanisms for off-site backup should be implemented. Backup procedure and restoration procedure should be properly documented and restoration should be properly tested.

- The main contingencies that should be considered and the training with regards to these shall be given to the relevant staff -
    - Equipment failure
    - Physical / natural Disaster
    - Breakdown in EDM, messaging or communication facilities.
    - Changes in operations and policy
    - Sudden absence of key personnel
    - Breach in Security

4. Performance

- Following performance criteria is provided as a guideline only. If the actual performance is falling below the stipulated figures, the Bidder is to justify the reasons. However, the performance level must be accepted by the technical evaluation committee appointed by the client.
- The bandwidth is assumed at 256kbps with 50 named-users in total.

Item	Performance
i. Screen Navigation: field-to-field	< 10 milliseconds
ii. Screen Navigation: screen-to-screen	< 5 seconds
iii. Screen Refresh	< 3 seconds
iv. Screen list box, combo box	< 3 seconds
v. Screen grid – 25 rows, 10 columns	< 5 seconds
vi. Report preview – (all reports) – initial page view (if asynchronous)	< 60 seconds in most instances. It is understood that complicated / large volume reports may require a longer period
vii. Simple enquiry – single table, 5 fields, 3 conditions – without screen rendering	< 5 seconds for 100,000 rows
viii. Complex enquiry – multiple joined table (5), 10 fields, 3 conditions – without screen rendering	< 8 seconds for 100,000 rows
ix. Server side validations / computations	< 10 milliseconds
x. Client side validations / computations	< 1 millisecond
xi. Batch processing (if any) per 100 records	< 120 seconds
xii. Login, authentication, and verification	< 3 seconds
xiii. Daily backups (@ Dept.) – max duration	1 hour (on-line preferred)
xiv. Total Restore (@Dept) – max duration	4 hours

Criteria for Measuring the Project Progress - Development Projects to be implemented by ICTA during 2017

Criteria	Weightage	Sub criteria	Weightages based on the project value/complexity											
			0-10 MN			10-50 MN			50- 100 MN			over 100 MN		
			Total allocation (%)	%	Actual weightages	Total allocation (%)	%	weightages	Total allocation (%)	%	weightages	Total allocation (%)	%	Weightage
Planning and designing	10- 25%	Brief Project Concept Document completed	10	15	1.5	15	15	2.25	20	15	3	25	15	3.75
		NPD Project Proposal Completed and submitted to NPD		15	1.5		15	2.25		15	3		15	3.75
		NPD Approval/consensus is Obtained		30	3		30	4.5		30	6		30	7.5
		Detailed Project Plan developed (key activities with time frame, milestones and outputs)		15	1.5		15	2.25		15	3		15	3.75
		Detailed project plan and internal project budget approved by ICTA MD/CEO		10	1		10	1.5		10	2		10	2.5
		Stakeholder Consultation Process completed/MoUs signed		15	1.5		15	2.25		15	3		15	3.75
		Sub total		**100**	**10**		**100**	**15**		**100**	**20**		**100**	**25**
Procurement Process	20-35 %	ToR and Procurement Documents sent to the ICTA Procurement Division	20	5	1	25	5	1.25	30	5	1.5	35	5	1.75
		Nominations for TEC/PPC/ PCPC is sent to ICTA Procurement Division		5	1		5	1.25		5	1.5		5	1.75
		Appointment of PPC/TEC completed		7.5	1.5		7.5	1.875		7.5	2.25		7.5	2.625
		First TEC/PCPC Meeting held		2.5	0.5		2.5	0.625		2.5	0.75		2.5	0.875

Category	%	Description													
		EOI documents are completed and sent to Procurement unit		2.5	0.5		2.5	0.625		2.5	0.75		2.5	0.875
		EOIs are Published		5	1		5	1.25		5	1.5		5	1.75
		EOI are closed and required number of bids received		5	1		5	1.25		5	1.5		5	1.75
		EOI evaluation process started		5	1		5	1.25		5	1.5		5	1.75
		EOI selection report is completed		5	1		5	1.25		5	1.5		5	1.75
		RFP is ready and sent to ICTA Procurement division		5	1		5	1.25		5	1.5		5	1.75
		RFP is issued to short listed consultants		5	1		5	1.25		5	1.5		5	1.75
		Pre-Bid Meeting is completed		5	1		5	1.25		5	1.5		5	1.75
		Prebid minutes was done and committee agreed		5	1		5	1.25		5	1.5		5	1.75
		Prebid minutes circulated and bidders are agreed		5	1		5	1.25		5	1.5		5	1.75
		RFP is amended after Pre-BID if required		2.5	0.5		2.5	0.625		2.5	0.75		2.5	0.875
		BID is Closed & proposals received		5	1		5	1.25		5	1.5		5	1.75
		BID evaluation started		2.5	0.5		2.5	0.625		2.5	0.75		2.5	0.875
		TEC Report is completed and submitted to the procurement division		5	1		5	1.25		5	1.5		5	1.75
		Financial opening and negotiation completed		5	1		5	1.25		5	1.5		5	1.75
		Notification of contract Issued		5	1		5	1.25		5	1.5		5	1.75
		Contract is awarded and signed		7.5	1.5		7.5	1.875		7.5	2.25		7.5	2.625
		Sub Total		**100**	**20**		**100**	**25**		**100**	**30**		**100**	**35**
Monitoring an Evaluation process	5- 10%	GOPP/ZOPP - Goal Oriented Project Plan/LFA developed	5	40	2	10	25	2.5	10	25	2.5	10	25	2.5
		Arrangements for baseline data collection completed			0		15	1.5		15	1.5		15	1.5

Category	Range	Description													
		Project specific M&E plan completed		30	1.5		15	1.5		15	1.5		15	1.5
		Periodic evaluation report and ongoing monitoring reports completed		30	1.5		25	2.5		25	2.5		25	2.5
		Number of field visits to project sites to completed			0		20	2		20	2		20	2
		Sub total		**100**	**5**		**100**	**10**		**100**	**10**		**100**	**10**
Project Implementation	15% -35%	25% of implementation completed	35	25	8.75	25	25	8.75	25	25	25	15	25	7.5
		50% of implementation completed		25	8.75		25	8.75		25	25		25	7.5
		75% of implementation completed		25	8.75		25	8.75		25	25		25	7.5
		100% implementation completed		25	8.75		25	8.75		25	25		25	7.5
Sub total				**100**	**35**		**100**	**35**		**100**	**100**		**100**	**30**
producing key outputs and user adoption	15%- 30%	Project specific communication/marketing plan implemented	30	25	7.5	25	25	6.25	15	25	7.5	15	25	7.5
		50% of outputs produced		25	7.5		25	6.25		25	7.5		25	7.5
		75% of outputs produced		25	7.5		25	6.25		25	7.5		25	7.5
		100% of outputs produced		25	7.5		25	6.25		25	7.5		25	7.5
Sub Total				**100**	**30**		**100**	**25**		**100**	**30**		**100**	**30**
Total			100			100			100			100		