

THE GOVERNMENT OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

Ministry of Telecommunication and Digital Infrastructure

ADDENDUM NO 02 - TO THE BIDDING DOCUMENT

Volume 01, 02 and 03

Single Stage Two Envelopes Bidding Procedure

FOR THE

PROCUREMENT OF DESIGNING, DEVELOPING, SUPPLYING, DELIVERING, INSTALLATION AND IMPLEMENTING THE SOFTWARE, HARDWARE AND INFRASTRUCTURE FOR GENERATING DIGITAL IDENTITY FOR CITIZENS OF SRI LANKA AND FOR THE HOUSEHOLD TRANSFER MANAGEMENT (HTM) SYSTEM

INVITATION FOR BIDS No: MTDI /GOSL/IS/ICB/2016/15

12th July 2016

ADDENDUM NO 02 - TO THE BIDDING DOCUMENT VOLUME 01, 02 and 03

PROCUREMENT OF DESIGNING, DEVELOPING, SUPPLYING, DELIVERING, INSTALLATION AND IMPLEMENTING THE SOFTWARE, HARDWARE AND INFRASTRUCTURE FOR GENERATING DIGITAL IDENTITY FOR CITIZENS OF SRI LANKA AND FOR THE HOUSEHOLD TRANSFER MANAGEMENT (HTM) SYSTEM

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This Addendum No 02 to the Bidding Document of above procurement incorporates following amendments in Part 1 and Part 2 that have already been notified through clarifications issued to all bidders that have purchased the Bidding Document. All bidders shall comply with these amendments in addition to the clarifications issued.

PART 1

Amendments related to the Volume 01 and 03 of the bidding document.

1. BDS for ITB 24.1 of Volume 01

Following words are added to BDS for ITB 24.1

Bidders are requested to submit Copies of Technical Bids and Financial bids (in CDs) along with the Bids. Softcopy of the financial bid should be submitted in the envelope containing the financial bids

2. Item 3.1 Indicative Bill of Material (BOM) of Volume 01
Bill of Material (BoM) is given in Volume 2. Therefore the words "Section VI -Annex V" stated in Volume 01 under 3.1 Indicative Bill of Material (BoM) are deleted.

3. BDS for ITB 29.1 of Volume 01

The words "Sri Lanka Time: 1400 hours" stated under BDS for ITB 29.1 are deleted.

4. 2.1 Performance Security Form (Bank Guarantee) of volume 03

Third paragraph of the Performance Security Form (Bank Guarantee), that is;

"On the date of your issuing, to the Contractor, the Operational Acceptance Certificate for the IT Products and/or Services, the value of this guarantee will be reduced to any sum(s) not exceeding [amount(s)2 in figures and words]. This remaining guarantee shall expire no later than [number and select: of months/of years (of the Warranty Period that needs to be covered by the remaining guarantee)] from the date of the Operational Acceptance Certificate for the

IT Products and/or Services, ³ and any demand for payment under it must be received by us at this office on or before that date"

shall be replaced with the following words.

"This guarantee shall expire no later than [number and select: of months/of years (of the Warranty Period that needs to be covered by the remaining guarantee)] from the date of the Operational Acceptance Certificate for the IT Products and/or Services, and any demand for payment under it must be received by us at this office on or before that date".

5. Section III – Evaluation and Qualification criteria of Volume 01 -Specific Experience

The following words sated in "Requirement Column" under 3.2.4.2 - Specific Experience

"Specific experience: During the last five (05) years bidder must have successfully completed at least one (01) Contract of similar nature, with a value of LKR 5,000 Million or equivalent. The similarity shall be based on the physical size, complexity, methods/technology and other characteristics as described in the Bidding Document. The Bidder shall have completed national scale, biometric based, digital identity issuance solution involving personalization of smart cards" are replaced the following words.

Quote:

"Specific experience: During the last five (05) years bidder must have successfully completed at least one (01) Contract of similar nature, with a value of LKR 5,000 Million or equivalent. The similarity shall be based on the physical size, complexity as described in the Bidding Document. The Bidder shall have completed at least one national scale digital identity issuance involving personalization of smart cards"

Unquote:

6. Section III – Evaluation and Qualification criteria of Volume 01 - Specific Experience (3.2.4.2) is amended as follows

Lead Bidder must meet requirement for item (1) of specific experience requirement. Partners combined must meet specific experience for all sub items (i), (ii) and (iii) requirements specified in item (2).

The words "Lead Bidder must meet requirements for one or more characteristics" of the column 3 of Table labeled under "3.2.4.2 Specific Experience" are replaced with the words "Lead Bidder must meet requirements for item (1) of specific experience and all other Partners combined must meet specific experience for all sub items (i), (ii) and (iii) requirements specified in item (2).

7. Section IV - Bidding Forms 3.2 - Bidder's response to Technical Responsive Checklist and the Schedule of Requirements of Volume 01

Item No. 4 - "The Scope of Services" is the requirements for which bidders' compliance should be stated. The words "The Scope of Services" of Item No. 4 of Volume 02 are amended to read as ""The Scope of Services and Technical Responsive Checklist".

8. Appendix 7: Terms and Procedures for Payment of volume 03

The words "Release of the retention shall be after 6 months from the Operational Acceptance subject to receipt of unconditional bank guarantee for the same" stated under payment column in row "g" are replaced with the following words.

"Release of retention of 05% of the total contract price shall be after period of one year from the date of OAT. Retention may be released upon receipt of Advance Payment Bank Guarantee in the format given in the Bidding Document for same amount after completion of six (06) months period from OAT".

9. 2.2 Advance Payment Security Form (Bank Guarantee) of volume 03

i. The words "For each payment after the advance payment, which you will make tithe Contractor under this Contract, the maximum amount of this guarantee shall be reduced by the ninth part of such payment. At the time at which the amount guaranteed becomes nil, this guarantee shall become null and void, whether the original is returned to us or not" are replaced with the following words.

"Advance Payment Bank Guarantee shall be valid for a period of six (06) months from the date of acceptance of same by the Employer".

ii. The word "byte" in the third paragraph of Advance Payment Security Form (Bank Guarantee) is replaced with the words "by the".

10. Section III - Evaluation and Qualification criteria of Volume 01

The words "Table 3.1" in paragraphs (ii) under 3.1.3 are amended read as "Table 3.2"

The words "Form 2.9" in 3.2.2.2 - Pending Litigation are amended read as "Form 2.8"

 $$\operatorname{\textbf{PART}}$2$$ Amendments related to the Volume 02 of the bidding document.

Page No	Reference Clause No	Excising Clause	Amended Clauses
9	Figure 1	Figure 1: "National Digital Identity and Transaction Framework"	Figure 1: "National Digital Identity and Transaction Framework" image is attached seperately with Addendum 02.
12	3.4.1.7	National middleware infrastructure facilitating cross-government secure data communication.	National middleware infrastructure facilitating cross-government secure data communication. (As an important component of the e-Sri Lanka initiative, it was envisioned that practically all the eServices in Sri Lanka would be delivered via a comprehensive integration platform. This infrastructure, which is envisioned to be the gateway for electronic information and electronic interactions in Sri Lanka, is referred to as the 'Lanka Gate' initiative. The Lanka Gate infrastructure is built on leveraging the Service Oriented Architecture (SOA) architectural concepts and has the ability to plug any kind of eService with open standards in mind. Thus it would collectively provide an enabling infrastructure for rapid integration and delivery of eServices, leveraging loosely-coupled architectural principles to encourage the creation of innovative solutions, business models, communication models, pricing models and service mash-ups by various stakeholders across the country).
14	3.5.7	Bullet (1) of Item 3.5.7, Coloum "Implmentation Approach" in Table 1: Biometrics (i.e. Iris, finger print, and face) collected from beneficiaries will be used for uniquely identifying the citizens before generating Public and a Private keys which will be issued to each citizen.	Bullet (1) of Item 3.5.7, Coloum "Implmentation Approach" in Table 1: Biometrics (i.e. Iris, finger print, and face) collected from beneficiaries will be used for uniquely identifying the citizens before generating Public and Private keys, which will be issued to each citizen. Automatic Biometric Identification System

Page No	Reference Clause No	Excising Clause	Amended Clauses				
			(ABIS) shall be facilitated and used at the enrolment stage.				
18	4.1.12	Further to above, the bidder should carry out integrations such as connectively to LGN network .	Further to above, the bidder should carry out integrations such as connectively to Lanka Government Network (LGN). Connectivity will be facilitated, and the cabling is bidder's responsibility. Employer will provide separately caged spaces in a data center. All integrations, cables within the cage should be bidder's responsibility.				
18	4.1.19	 4.1.19 The total project duration is as specified below; 4.1.19.1 The total project duration is 5 years and 6 months from the contract effective date. This includes the following in accordance with the delivery schedule; 4.1.19.2 Time duration up to the commencement of the UAT is 4 months. 4.1.19.3 The UAT time period is 1 month 4.1.19.4 Project operational time duration from the date of UAT acceptance is 5 years. 4.1.19.5 However the bidder shall be able to commence the OAT acceptance within 12 months from the date of UAT acceptance. 4.1.19.6 The OAT time period is 1 month 4.1.19.7 Project operational time duration from the date of OAT acceptance is 4 years. 4.1.19.8 The contract end date shall be in accordance with the time duration specified in above points (4.1.16.1), (4.1.16.4) and (4.1.16.7). 4.1.19.9 Refer below Figure 2 for a graphical view of the project key milestones. 	 4.1.19 The total project duration is as specified below; 4.1.19.1 The total project duration is 5 years and 8 months from the effective date of the contract. This includes the following in accordance with the delivery schedule: 4.1.19.2 Time duration up to the commencement of the UAT is 6 months; 4.1.19.3 The UAT time period is 1 month; 4.1.19.4 Project operational time duration from the date of UAT acceptance is 5 years; 4.1.19.5 However, the bidder shall be able to commence the OAT acceptance within 12 months from the date of UAT acceptance. 4.1.19.6 The OAT time period is 1 month; 4.1.19.7 Project operational time duration from the date of OAT acceptance is 4 years; 4.1.19.8 The contract end date shall be in accordance with the time duration specified in above points (4.1.19.1), (4.1.19.4) and (4.1.19.7). 4.1.19.9 Refer "10 Implementation schedule" 				
19	4.1.20	During the UAT / OAT period there shall not be any issues of severity levels 1 or 2 reported / identified. If so it is considered as a failure.	During the UAT / OAT period, there shall not be any issues of severity levels 1 or 2 reported / identified. In such circumstances, it would be considered as a failure. The severity levels are as follows: • Severity level 01: Total system inoperability				

Page No	Reference Clause No	Excising Clause	Amended Clauses
			Severity level 02: Partial system inoperability
			4.1.20.1 As indicateed in 4.1.19.2, the time duration up to the commencement of the UAT is 6 months. Support / warranty in accordance with SLA shall commence from that day onwards.
			4.1.20.2 In addition to the UAT as indicated in 4.1.19.2, a formal UAT shall be carried out prior to accepting relevant other components such NDF centers.
19	4.1.22	The bidder shall ensure 24x7 available helpdesk and issue reporting system. The helpdesk shall support three languages (English/ Sinhala and Tamil), and shall be efficient. The bidder shall provide an SLA for the operations of the helpdesk, which shall complement the overall project SLAs.	The bidder shall ensure 24x7 available helpdesk and issue reporting system. The helpdesk shall support three languages (English/ Sinhala and Tamil), and shall be efficient. The bidder shall provide an SLA for the operations of the helpdesk, which shall complement the overall project SLAs. At the end of the contract period, the bidder shall ensure that the support knowledge shall be transferred to a party specified by the employer.
20	4.1.28	The bidder shall be able to undertake maximum of 5-years post warranty support services. During this time period, the same warranty and SLAs for respective Items shall be applicable (What had been enforced / applicable during the 5-year services support period). The bidder shall provide pricing for the post warranty time period.	The bidder shall be able to undertake maximum of 5-years' post warranty support services for the application stack (NDI, CA, Enrolment, HTM. Etc.). During this time period, the same warranty and SLAs for respective software components shall be applicable (What had been enforced / applicable during the 5-year services support period). The bidder shall provide pricing for the postwarranty time period.
22	4.1.33 (Item 7)	Column "Item Description: Supply, delivery, installation and commissioning of the Certification Authority and establishment of Signature Signing and Authenticating Services	Column "Item Description: Supply, delivery, installation and commissioning of the Certification Authority and establishment of Signature Signing and Authenticating Services. Certificate Service Provider (Certification Authority) to be hosted in the same building as NDI Hosting Infrastructure in a separate cage.

Page No	Reference Clause No	Excising Clause	Amended Clauses
23	4.2	[Item 1] – Enrolment Stations	The Clause 4.2 is amended by the inclusion of the following new clauses:
			 4.2.14 Bidders are to propose a suitable printer to print PIN number for the smart card. 4.2.15 The PIN generation and printing should comply the ISO 9564 standards; 4.2.16 The PIN number should be printed in a secure envelope, designed so that it can be printed without the PIN being visible (even at printing time) until the envelope is opened.
23	4.2.1.2	Finger prints (10)	4.2.17 The cost of this envelope will be incurred by the employer. Flat fingerprints (10 fingers in 4+4+2)
23	7.2.1.2	Tinger prints (10)	That imgerprines (10 imgers in 4+4+2)
23	4.2.4	The employer will setup a verification center in order to verify data / information, scanned document collected from enrolment centers, prior releasing the information for personalization.	The employer will setup a verification center in order to verify data / information, scanned document collected from enrolment centers, prior releasing the information for personalization. Application interfaces (APIs) shall be taken up during the requirement study.
24	4.3.5	The portable units will be utilizing to speed up the enrolment process and to reach citizens who are not able to visit the NDF centers.	The portable units will be utilizing to speed up the enrolment process and to reach citizens who are not able to visit the NDF centers. The portable unit shall work online with the central system. Notebooks may be installed with a VPN client to connect the NDI infrastructure.
25	4.4.4	The NDI solution including the enrolment software shall facilitate the collection of number of data/ information from citizens such as their name, address, gender, etc. This is yet to be finalized by the NSC.	The NDI solution, including the enrolment software shall facilitate the collection of number of data/ information from citizens such as their name, address, gender, etc. This is yet to be finalized by the National Steering Committee (NSC). Any changes to data should be managed by the post-issuance system, which should be facilitated by the enrolment points.
26	4.4.21	The bidder shall provide appropriate tools for administering,	The bidder shall provide appropriate tools for administering,

Page No	Reference Clause No	Excising Clause	Amended Clauses			
		monitoring and troubleshooting various software provided by them	monitoring and troubleshooting various software provided by them. Software should be centrally managable.			
26	4.4.24	The NDI solution shall have a bill generation solution for each enrolment/ citizen registration.	The NDI solution shall have a bill generation solution for each enrolment/citizen registration. There is a requirement for cash management.			
26	4.4.25	The NDI solution shall have adequate functions for the operator to generate a check-out report and other related MIS reports to be generated via the centralized reporting module	The NDI solution shall have adequate functions for the operator to generate a check-out report and other related MIS reports to be generated via the centralized reporting module. Solution should be capable of producing any dynamic reports as and when requested by the employer			
27	4.4.26 (Figure 3)	Figure 3: "High-level view of the NDI and NDT platform and the HTM system"	Figure 3: "High-level view of the NDI and NDT platform and the HTM system" - The image is attached seperately with Addendum 02.			
30	4.4.27.3.3	SSO API - it is required to provide API to be used for single sign on purpose.	SSO API - it is required to provide API to be used for single sign-on purpose. Single sign-on should be established, such a way to authenticate multiple government and public applications. Ability to scale-out and be able to be integrated with multiple identity platforms. Should be able to be implemented in a cloud environment.			
32	4.4.28 (Figure 5)	Figure 5: "Major components (Hardware layer) of NDI"	Figure 5: Major components (Hardware layer) of NDI" image is attached seperately with Addendum 02.			
32	4.4.28.2.1	Minimum 1,000 authentications per second with response time less than 1 second based on Finger prints	Minimum 1,000 authentications per second with response time less than 1 second based on Finger prints. For one-to-one (1:1) authentications/verifications and minimum 25 identifications per second for one-to-many (1:N)			
33	4.4.28.2.1	Minimum 1,000 authentications per second with response time less than 1 second based on IRIS recognition	Minimum 1,000 authentications per second with response time less than 1 second based on IRIS recognition. For one-to-one (1:1) authentications/verifications and minimum 25 identifications per			

Page No	Reference Clause No	Excising Clause	Amended Clauses
			second for one-to-many (1:N)
33	4.4.28.2.1	Minimum 1,000 authentications per second with response time less than 1 second based on Face recognition	Minimum 1,000 authentications per second with response time less than 1 second based on Face recognition. For one-to-one(1:1) authentications/ verifications and minimum 25 identifications per second for one-to-many (1:N)
33	4.4.28.2.5	Username / password combination and any biometric information shall be used to validate the user before logged in to the system	The Username / password combination and any biometric information shall be used to validate the user before logged in to the system. This shall be available to enrolment staff and enrolled users (citizens)
33	4.4.28.2.5	Sensitive data shall be encrypted stored. Appropriate and strong encryption algorithms shall be used.	Sensitive data shall be stored with encryption. Appropriate and strong encryption algorithms shall be used. Integrity and the security are the most important factors for the whole system and it'll be positively considered in every segment of the overall solution and bidders are expected to specify in detail on the security and the integrity of the solution's each segment.
33	4.4.28.2.3	Availability: System would be designed in a way to support high availability through clustering capabilities and maximum downtime < 1 hour	Availability: The System would be designed in a way to support high availability through clustering capabilities and maximum downtime < 1 minute"
33	4.4.28.2.4	Recoverability: System shall be designed in a way to recover at any failure scenario with maximum downtime < 3 hrs	Recoverability: System shall be designed in a way to recover at any failure scenario with maximum downtime < 15 minutes
35	4.5.8	The bidder shall undertake any costs associated with the training programs. This may include among others, training material, related devices, training center costs (if outside DSs), food, accommodation and travelling cost.	The bidder shall undertake any costs associated with the training programs. This may include among others, training material, related devices, training center costs (if outside DSs), food, accommodation and travelling cost. This is applicable to all enrolment staff being trained (trainees).

Page No	Reference Clause No	Excising Clause	Amended Clauses
38	4.6.16	DTC (Phase 2) should be designed, reviewed and ready for the final approval from the employer within 5 months of the effective date.	DTC (Phase 2) should be designed, reviewed and ready for the final approval from the employer in accordance with the implementation schedule.
38	4.6.20	(If required) site visits to the DTC manufacturing plant shall be facilitated by the bidder during the approval process and periodic / adhoc audits deemed necessary by the employer. Bidder shall bear all associated costs. This is a determination needs to be made by the employers review committee.	Site visits, if required, to the DTC manufacturing plant shall be facilitated by the bidder during the approval process and periodic / ad-hoc audits deemed necessary by the employer. This is applicable for project implmentation and operational phases of the project. Bidder shall bear all associated costs. This is a determination needs to be made by the employers review committee. Maximum 3 people at each site visit and maximum duration 3 days.
39	4.6.22 (Figure 6)	Figure 6: "Card Personalization process"	Figure 6: "Card Personalization process" image is attached seperately with Addendum 02.
39	4.6.23	During the enrollment process, as a part of the verification procedure, a selected set of information captured above will be verified for accuracy and respective translations are entered real-time by the translation unit located at NDI Verification Center.	During the enrollment process, as a part of the verification procedure, a selected set of information captured above will be verified for accuracy and respective translations are entered real-time by the translation unit located at NDI Verification Center. At the enrolment, entries should be translated to Sinhala and Tamil.
40	4.6.32.3	The system shall be based on web application model and java object oriented software conforms to J2EE	The system shall be based on web application model and java object oriented software conforms to JavaEE or equivalent technology.
43	4.6.33.1	The bidder shall already have strong prior experience of minimum 2 post issuance solution deployment with more than 2000 post issuance points.	In the proposal, the Bidder shall demonstrate the capability to implement a large number of post-issuance points.
43	4.6.33.6.5	OWASP top 10	OWASP top 10 (Should consider the latest versions)
44	4.7	[Item 6] NDI Hosting Infrastructure	Clause 4.7 is amended to add the following new clauses: 4.7.8 The datacenter shall be located within colombo district

Page No	Reference Clause No	Excising Clause	Amended Clauses
			4.7.9 The bidder shall provide 24x7 Help Desk support. At the end of the contract period, the bidder shall ensure that the support knowledge shall be transferred to a party specified by the employeer. 4.7.10 Modes by which the end users can contact the service desk includes calls, emails and chat.
44	4.7.2	There will be two sites; - Live data center facility - Live data center facility II	There will be two sites; - Live data center facility - Live data center facility II Both sites should be live and run in Active-Active mode. Bidders may propose advanced distributed storage systems alternatively to the SAN bi-directional replication. Each site should be capable to support FULL capacity in the case of site failure.
45	4.7.6	Proposed structure for the production site	Clause 4.7.6 is amended to add the following new clauses 4.7.6 Bidder should specify the bandwidth and latency requirements to run the solution in Active-Active mode. Employer will be provided connectivity.
47	4.8.6.1	NDI CA core shall CWA 14167-1 compliant, supports x.509 v3, EV (DV,OV) Certificates.	NDI CA core may compliant to AIPA/CICA, ETSI or equivalent standard and supports x.509 v3, EV (DV,OV) Certificates. (Refer 4.8.6.5.2)
48	4.8.6.2.2	Store CA keys in HSM	Store CA keys in HSM. It should be hardware HSM.
48	4.9.1	Introduction Introduction Household Transfer Management (HTM) system is a collection of software systems which functions together to facilitates the management of fund transfers /fund disbursements initiated by Treasury department of the Ministry of Finance to beneficiary or beneficiary group(s) under Social welfare and Safety-net programs, Pensions and other specified citizen groups.	Introduction Introduction Household Transfer Management (HTM) system is a collection of software systems which functions together to facilitates the management of fund transfers /fund disbursements initiated by Treasury Departments of the Ministry of Finance to beneficiary or beneficiary group (s) under Social welfare and Safety-net programs, which are managed by other government institutions.
			Solutions should be able to scale-out and the applications should be hosted on virtual instances in a cloud environment. Operating System

Page No	Reference Clause No		Excising C	lause	Amended Clauses				
					to be specified. Transaction flows should be automated according to the business rules created by administrators.				
49	4.9.2	(HTM) syster	m integrating with key con service, and the Nationa	household transfer management mponents such as the NDI al Payment Platform (NPP) are	The high-level conceptual view of the household transfer management (HTM) system integrating with key components such the NDI authentication service, and the National Payment Platform (NPP) are indicated below. HTM needs to interface with government institutes as well.				
50	4.9.5 (Figure 11)	Figure 11: " I implementation	High level architecture of on"	the HTM system		Figure 11: "High level architecture of the HTM system implementation" image is attached seperately with Addendum 02.			
53	5	Warranty and	Service Level Agreemer	nt (SLA)	Add the following clause as a general introduction about 5. Warranty and Service Level Agreement (SLA). 5.0 The bidder shall provide 24x7 Help Desk support. At the end of the contract period, the bidder shall ensure that the support knowledge shall be transferred to a party specified by the employer. Helpdesk should be contactable with phone, emails and chat.				
54	5.1.4	The Warranty	Support SLA is mention	ned below		led to add the following ute, RPO = 15 minutes	new clauses:		
54	5.1.4.2	Warranty Sup	pport SLA 2		Warranty Support SLA 2				
		Severity Level	Description	Type of Issues / incident	Severity Level	Description	Type of Issues / incident		
		Critical (24x7)	Enrolment staff cannot function	Any device issue/ fault at enrolment centers	Critical (24x7)	Enrolment staff cannot function	Any device issue/ fault at enrolment		
	Major NDF center functions (8:00 a.m. at degraded performance p.m.) NDF center functions and device issue/ fault at enrolment centers						centers		

Page No	Reference Clause No		Excisin	g Clause		Amended Clauses				
		High (8:00 a.m. to 5:00 p.m.)	NDF center function at degraded performance	Portable biometric data collection device issue	Major (From 08:00 AM to 05:00 PM Monday to Sunday (excluding public holidays))	NDF center functions at degraded performance	Any device issue/ fault at enrolment centers			
					High (From 08:00 AM to 05:00 PM Monday to Sunday (excluding public holidays))	Portable biometric data collection device issue				
57	5.2.4.2	Warranty Sup	oport SLA 2		Warranty Support SLA	2				
		Severity Level	Description	Type of Issues / incident	Severity Level	Description	Type of Issues / incident			
		Critical (24x7)	cannot function	Any component issue/ fault in portable unit	Critical (24x7)	Enrolment staff cannot function	Any component issue/ fault in portable unit			
		Major (8:00 a.m. to 5:00 p.m.)		Any component issue/ fault in portable unit	Major (From 08:00 AM to 05:00 PM Monday to Sunday (excluding public holidays))	NDF center functions at degraded performance	Any component issue/ fault in portable unit			
59	5.3.3	Service Level	l Monitoring			Clause 5.3.3 is amended to add the following new clauses 5.3.3.1 Comprehensive monitoring system should be provided by the				
60	5.3.4	Support Leve	els		Support Levels					
			ust provide support ar els mentioned below	nd maintenance services during	The bidder must provide support and maintenance services during Support Levels mentioned below					

Page No	Reference Clause No	U					Amended Clauses				
		Support I	Level 1: High				Support L	evel 1: High			
		Compone	ent/ Centra	lized NDI Solu	tion		Compone. Service	nt/ Cent	ralized NDI So	lution	
		Support Hours		•	lys in the week I mercantile holidays)		Support H		ours a day, all c	•	
		Support Level 2: Medium					Support L	evel 2: Medi	ım		
		Compone Service	ent/ NDI so centers	lution interfac	es accessed v	ia NDF	Compone	nt/ NDI cente	solution interfacts.	ices accessed	via NDF
		Support Hours		08:30 AM to 05	5:30 PM Monday to Friday lidays)		Support H		n 08:00 AM to ay (excluding _l		•
_	5.3.5 (Table 1)	Support	Business C	ritical	Non-Busir	ness Critical	Support	Business C	ritical	Non-Busin	ness Critical
		Level	Fatal	Impaired	Fatal	Impaired	Level	Fatal	Impaired	Fatal	Impaired
		High	60 minutes within Support Hours	90 minutes within Support Hours	90 minutes within Support Hours	minutes within Support Hours	High	60 minutes within Support Hours	90 minutes within Support Hours	90 minutes within Support Hours	minutes within Support Hours
					Tiours	Tiours	Medium	120 minutes within Support Hours	180 minutes within Support Hours	180 minutes within Support Hours	240 minutes within Support Hours
-	5.3.6										
	(Table 2)	Suppo	Business Cri	tical	Non-Busine	ss Critical	Support	Business C	ritical	Non-Busine	ess Critical

Page No	Reference Clause No												
		High L	Hours KR 00,000.00 er hour	10 Hours LKR 100,000.00 per hour	10 Hours LKR 100,000.00 per hour	15 Hours LKR 100,000.00 per hour	High	6 Hours LKR 100,000.0 0 per hour	10 Hours LKR 100,000.00 per hour	10 Hours LKR 100,000.00 per hour	15 Hours LKR 100,000.00 per hour		
							Medium	8 Hours LKR 50,000.00 per hour	15 Hours LKR 50,000.00 per hour	15 Hours LKR 50,000.00 per hour	20 Hours LKR 50,000.00 per hour		
61	5.3.6	Problem Rese	Problem Resolution and Penalties					Clause 5.3.6 is amended to add the following new clause: 5.3.6.1 Maximum penalty per year shall not exceed 1% of the total contract price					
62	5.4	[Item 5] – Di	[Item 5] – Digital Transactions Card (DTC) and Personalization						Clause 5.4 is amended to add the following new clause: 5.4.7. Maximum penalty per year shall not exceed 1% of the total contract price				
62	5.4.4	Any batch ex	DTC Quality Check error rate is 0.5% for a batch of 10,000 DTCs. Any batch exceeding this rate is charged with a penalty of LKR 10,000.00 per DTC.					exceeding thi per DTC. All	s rate is charge quality check	ed with a penal error cards sha	•		
62	5.4.6	Penalty charged for any delay delivering DTCs is LKR 100,000.00 per day.					_	aximum pena	•	•	IR 100,000.00 1% of the total		
65	5.5.4.2	Warranty Suj	pport SLA 2	;			Warranty S	upport SLA	2				
		Level	Description	Type of Is			Severity Level	Descript	**	of Issues	/C*		
		Critical	Live site	Any Kind	of hardware/fi	rmware	Critical	Live site	Any K	ind of hardwar	e/iiriiware		

Page No	Reference Clause No			Excising Clause		Ame	ended Clauses
		Major (8:00 a.m. to 5:00 p.m.) High (8:00 a.m. to 5:00 p.m.)	Live Site functions at degraded performance level Live Site functions at degraded performance performance	component issue that leads complete live site outage. (FW cluster failure, Switch cluster failure etc.) Any kind of system level (Operating system, hypervisor, management etc.) failure which leads complete live site outage. Any kind of hardware/firmware component issue that leads to degrade the 50% or lower performance of the site (Server failure, FW failure, switch failureetc) Any kind of system level (Operating system, hypervisor, management etc) failure which leads 50% or lower performance level. Any kind hardware, firmware, system application level failure which won't affect the performance, but need to be rectify and restore to the working state. (Power supply failure, KVM failure, Management and monitoring system failure, etc)	Major (From 08:00 AM to 05:00 PM Monday to Sunday (excluding public holidays)) High (From 08:00 AM to 05:00 PM Monday to Sunday (excluding public	Live Site functions at degraded performance level Live Site functions at degraded performance performance at degraded performance	component issue that leads complete live site outage. (FW cluster failure, Switch cluster failure etc.) Any kind of system level (Operating system, hypervisor, management etc.) failure which leads complete live site outage. Any kind of hardware/firmware component issue that leads to degrade the 50% or lower performance of the site (Server failure, FW failure, switch failure etc.) Any kind of system level (Operating system, hypervisor, management etc.) failure which leads 50% or lower performance level. Any kind hardware, firmware, system application level failure which won't affect the performance, but need to rectify and restore to the working state. (Power supply failure, KVM failure, Management and monitoring system failure, etc)
65	5.5.5	Penalties				num penalty per	d the following new clause year shall not exceed 1% of the total

Page No	Reference Clause No			Excising C	ause				Amended C	lauses				
67	5.6.4			e support and n	naintenance se	rvices during								
		Support L Componer Service Support Hours	From	olution interfac	5:30 PM Mono		Support L Compone Service Support Hours	From	solution interfacts.	O5:00 PM Monday to public holidays)				
67- 68	5.6.5 (Table 1)	Support Level	Business (Critical Impaired	Non-Busines	ss Critical	Support Level	Business (Critical Impaired	maintenance service aces accessed via NI 05:00 PM Monday t public holidays) Non-Business Cr Fatal In 180 24 minutes mi within wi Support Su Hours Ho pllowing new clause hall not exceed 1% o	ess Critical Impaired			
		High	60 minutes within Support Hours	90 minutes within Support Hours	90 minutes within Support Hours	120 minutes within Support Hours	Medium	120 minutes within Support Hours	180 minutes within Support Hours	180 minutes within Support	240 minutes within Support Hours			
68	5.6.6	Problem Re	esolution and	l Penalties				ximum pena						
70		Bill of Mate	erial (BOM)				Amended I	Bill of Mate	rial (BOM)					
		m	OCUREIN			Quantity		ROCUREI	NG ITEMS tations		Quantity			

Page No	Reference Clause No		Excising Clause			Amended Clauses	
			Notebook	1,783	1.1	Notebook	1,783
			Latch cables	1,783	1.2	Latch cables	1,783
			Scanner	1,783	1.3	Scanner	1,783
			POS Printer	1,783	1.4	POS Printer	1,783
			USB Hub	1,783	1.5	USB Hub	1,783
			Camera	1,783	1.6	Camera	1,783
			Fingerprint (10) Scanner	1,783	1.7	Fingerprint (10) Scanner	1,783
			Iris Scanner	1,783	1.8	Iris Scanner	1,783
			USB 1 finger scanner (Enrolment staff)	1,783	1.9	USB Contactless Card Reader (Enrolment	1 702
			PIN Printer	1,783	1.9	staff)	1,783
			Enrolment staff Table (*)	790	1.10	PIN Printer	1,783
			Enrolment staff Chair (*)	790	1.11	Enrolment staff Table (*)	790
			Citizen Chair (*)	790	1.12	Enrolment staff Chair (*)	790
			Extension cable (6 plugs)	1,783	1.13	Citizen Chair (*)	790
			Power Cabling (13A)	1,783	1.14	Extension cable (6 plugs)	1,783
		2	Portable Unit	331	1.15	Power Cabling (13A)	1,783
		3	Centralized NDI solution	Item	1.16	Monitor	1,783
		4	Training of Enrolment Staff	1,900	1.17	USB Contactless Card Reader (Enrolment	331
		5	Digital Transaction Cards (DTC)		1.1/	staff)	331
			Personalization and Issuance		1.18	Photo Background of Light colour board	1,783
			DTC Cards (Phase 1)	5,000		with height of 6ft and RAL colour for Gray	•
			DTC Cards (Phase 2)	14,000,000	2	Portable Unit	331
			DTC Personalization units	35	3	Centralized NDI solution	Item
			Notebook (Personalization unit)	35	4	Training of Enrolment Staff	1,900
			Notebook (QC unit)	35	5	Digital Transaction Cards (DTC)	
			Notebook (Dispatch unit)	35		Personalization and Issuance	
			Monitors	35	5.1	DTC Cards (Phase 1)	5,000
			Finger Print Reader	506	5.2	DTC Cards (Phase 2)	14,000,000
			USB Card Reader	506	5.3	DTC Personalization units	35
		6	Certificate Authority and Signature	Itam	5.4	Notebook (Personalization unit)	35
			Signing and Authenticating Services	Item	5.5	Notebook (QC unit)	70

Page No	Reference Clause No		Excising	Clause				Amended	Clauses		
		So	olution (High available)				5.6	Notebook (Dispatch unit)			70
							5.7	Monitors (Dispatch unit)			70
		/	DI Systems Infrastructur ctive)	re (HA, Activ	ve-	Item	5.8	Finger Print Reader (QC u unit)	nit and	Dispatch	140
		1 I X	ousehold Transfer Mana	gement		Item	5.9	USB Contact Card Reader	· (QC un	nit)	70
		. (H	ITM) system				5.10	USB Contactless Card Rea Dispatch unit)	ader (Q0	C unit and	140
							6	Certificate Authority and Signing and Authenticat Solution (High available)	ing Serv		Item
							7	NDI Systems Infrastruct Active)	ure (HA	A, Active-	Item
							8	Household Transfer Mar (HTM) system	nageme	nt	Item
71	6.1.2.1 7.1.1		n Data Center (Per Site) ebook – Item " Card Reade	er''			6.1.2.1.1 District.	5.1.2.1 is amended to add the Production data centers wind batebook – Item "Card Read	ll be loc	•	
	,,,,,	Item	Minimum Specification	Compliance		Reference	Item	Minimum Specification	Compl	iance	Reference
		Ittin	Minimum Specification	Yes If "I	No" der's ponse	(Section No and Page NOs)	Tun	William Specification	Yes /No	If "No" Bidder's response	(Section No and Page NOs)
		Card Reader	Integrated Media Card Reader				Card Reader	Integrated Media Card Reader that supports SD, SDHC, SDXC.			
73- 74	7.1.2		nner (Legal) – Item " Bit do n file format"	epth", " Scan	ı resolu	tion, optical"		anner (Legal) – Item "Bit d an file format"	epth", "	Scan resolu	ntion, optical"

Page No	Reference Clause No		Excising Cla	ause				Amended Cla	uses		
		Item	Minimum Specification	Comp	pliance	Reference	Item	Minimum Specification	Comp	oliance	Reference
				Yes /No	If "No" Bidder's response	(Section No and Page NOs)			Yes /No	If "No" Bidder's response	(Section No and Page NOs)
		Scan resolution , optical Bit depth Scan file format	Up to 1200 dpi 48-bit minimum PDF (formatted Text and Graphics, normal with images, searchable image over text, MRC, PDF/A), TIFF (single page, multi-page, compressed), JPG, BMP, PNG, DOC, RTF, TXT, WPD, XLS, HTM, OPF, UNICODE, XML, XPS				Scan resolution , optical Bit depth Scan file format	Up to 1200 dpi for flatbed and 600 dpi for ADF 24-bits PDF (formatted Text and Graphics, normal with images, searchable image over text, MRC, PDF/A), TIFF (single page, multi-page, compressed), JPG, BMP, PNG, DOC, RTF, TXT, WPD, XLS, UNICODE, XML, XPS			NOS
72	7.1	[Item 1] - En	nrolment Stations				Clause 7.1 i 7.1.10 PIN I	s amended to add the follow	ving ne	ew clauses	

Page No	Reference Clause No	Excising	Clause		Amended	Clause	s	
				Item	Minimum Specification	Comp	oliance	Reference
						Yes /No	If "No" Bidder's response	(Section No and Page NOs)
				1	PIN generation, printing should comply the ISO 9564			
				7.1.11 Item	PIN number should be printed in a secure envelope, designed so that it can be printed without the PIN being visible (even at printing time) until the envelope is opened. Monitors (Enrolment stations Minimum Specification	and d	ispatch units	Reference (Section No
						Yes /No	Bidder's response	and Page NOs)
				1	Size: 18" or higher			
				2	Type: LED backlit			
				3	Resolution: Wide 1366x768			
				4	Interfaces: HDMI/VGA input			
76	7.1.5	7.1.5 Dual Iris Scanner – Item "Interi	face"	7.1.5 I	Dual Iris Scanner – Item "Inte	rface"		
76	7.1.5	7.1.5 Dual Iris Scanner – Item "Interior Item Minimum Specification	face" Compliance Reference	7.1.5 I	Dual Iris Scanner – Item "Inte Minimum Specification		oliance	Reference

Page No	Reference Clause No		Excising	Clause				Amended	Clauses		
				Yes /No	If "No" Bidder's response	(Section No and Page NOs)			Yes /No	If "No" Bidder's response	(Section No and Page NOs)
		Interface	Standard USB 2.0				Interface	USB 2.0 or higher			
6	7.1.6	7.1.6 Camer	ra – Item "Interface"				7.1.6 Camer	ra – Item "Interface"			
		Item	Minimum Specification	Compl	liance	Reference	Item	Minimum Specification	Compl	iance	Reference
				Yes /No	If "No" Bidder's response	(Section No and Page NOs)			Yes /No	If "No" Bidder's response	(Section No and Page NOs)
		Interface	Standard USB 2.0				Interface	USB 2.0 or higher			
7	7.1.7	Area"	Print Scanner (10 Finge				Area"	Print Scanner (10 Finge	,		
		Item	Minimum Specification	Compl	liance	Reference	Item	Minimum Specification	Compl	iance	Reference
				Yes /No	If "No" Bidder's response	(Section No and Page NOs)			Yes /No	If "No" Bidder's response	(Section No and Page
						1100)					NOs)
		Interface	Standard USB 2.0			1105)	Interface	USB 2.0 or higher			_
		Interface Scan Area	Standard USB 2.0 132 x 130 mm			1100)	Interface Scan Area	USB 2.0 or higher < This requirement is	remove	d >	_
						1100)		•	remove	d >	_

Page No	Reference Clause No		Excising	Clause				Amended C	lauses		
		Item	Minimum	Compl	iance	Reference	Item	Minimum Specification	Comp	liance	Reference
			Specification	Yes /No	If "No" Bidder's response	(Section No and Page NOs)			Yes /No	If "No" Bidder's response	(Section No and Page NOs)
		Fingerprint Scanner	FBI Appendix F approved live scan device Supports collection of slaps and rolls 500ppi fingerprint images ANSI/NIST-ITL 1- 2007ISO/IEC FCD 19794- 4ANSI/NIST-ITL 1-2000ANSI/NIST-ITL 1TL 1-2000 Interpol Implementation				Fingerprint Scanner	FBI Appendix F approved live scan device Supports collection of slaps and rolls 500ppi fingerprint images ANSI/NIST-ITL 1- 2007ISO/IEC FCD 19794-4ANSI/NIST- ITL 1- 2000ANSI/NIST- ITL 1-2000 Interpol Implementation. Should support 10- finger scanning (4+4+2).			
80	7.3.1	7.3.1, Item "	Features of data collect	ion"			7.3.1, Item "	Features of data collection	on"		
		Item	Minimum Specification	Yes /No	iance If "No" Bidder's response	Reference (Section No and Page NOs)	Item	Minimum Specification	Ye /No		Reference (Section No and Page NOs)
							Features of data collection	Shall have tenant logins with biometric for users Users should be able to login to the system with SSO and customizable	•		

Page No	Reference Clause No		Excising	Clause				Amended Cla	uses		
		Features of data collection	Shall have tenant logins with biometric for users. Shall capture on client end, verify against existing data					methods (username + password + PIN). Each user is authenticated by his/her own biometrics to login to the system. The users should have an isolated area where the relevant information is stored and displayed Shall capture on client end, verify against existing data on database to avoid duplication less			
81	7.3.2	7.3.2, Item 6	on database to avoid duplication within 5 seconds "Speed of Matching"				7.3.2, Item "	than a second (ABIS should support up to 25 identifications per second). Deduplicatin should be checked with biometric matching 'Speed of Matching'			
		Item	Minimum Specification	Compl	iance	Reference	Item	Minimum Specification	Comp	oliance	Reference
				Yes /No	If "No" Bidder's response	(Section No and Page NOs)			Yes /No	If "No" Bidder's response	(Section No and Page NOs)
							Speed of Matching	Minimum 1,000 Authentications per second with response time less than 1 second based on Finger Prints (Any 4 Fingers). 1,000			

Page No	Reference Clause No		Excising Clause		Amended Clauses
86	7.5.2	Speed of Matching The research	Minimum 1,000 Authentications per second with response time less than 1 second based on Finger Prints (Any 4 Fingers) Minimum 1,000 Authentications per second with response time less than 1 second based on IRIS Recognition Minimum 1,000 Authentications per second with response time less than 1 second based on Face Recognition Minimum 1,000 Authentications per second with response time less than 1 second based on Face Recognition		Authentications per second for 1:1 matching and 25 Authentications per second for 1: N (one-to-many) identification. Minimum 1,000 Authentications per second with response time less than 1 second based on IRIS Recognition. 1,000 Authentications per second for 1:1 matching and 25 Authentications per second for 1: N (one-to-many) identification. Minimum 1,000 Authentications per second with response time less than 1 second based on Face Recognition. 1,000 Authentications per second for 1:1 matching and 25 Authentications per second with response time less than 1 second based on Face Recognition. 1,000 Authentications per second for 1:1 matching and 25 Authentications per second for 1:N (one-to-many) identification Item 6 is removed.
00	(Item 6)	^	tralized, decentralized or both scheme.	m detetetit	item o is removed.

Page No	Reference Clause No	Excising	Clause			Amended (Clauses		
86	7.5.3	Smart Cards – (Phase 1 Digital Tran	saction Card (DTCs))			Cards – (Phase 1 Digital Tran ng Minimum Specifications sl		·	
		It Minimum Specification e m	Compliance Yes If "No" /No Bidder's response	Reference (Section No and Page NOs)	following; Bidders should supply polycarbonate card with dual in (Contact & Contactless) and basic design.				erface
		1 Brand (Specify) 2 Country of Origin/			Item	Minimum Specification	Compliance		Reference
		Manufacture 3 Type: PVC Card					Yes /No	If "No" Bidder's response	(Section No and Page NOs)
		5 Compatible with personalization machine (item 2)				Dual interface polycarbonate card that complies to ISO/IEC 7810, ISO/IEC14443			
		6 Graphic quality, glossy surface					ISO/IEC 7816 standards.		
					$\frac{2}{3}$	JavaCard OS 32 KB User data			
					4	Basic design			
87- 88	7.5.4.1.	7.5.4.1 Card body and Visual Person	nalization - Item 9,15,	18 and 19	7.5.4.1	Card body and Visual Person	nalizatio	n - Item 9,1	5,18 and 19

Page No	Reference Clause No		Excising	Clause				Amended Clau	ses		
		Ite	Minimum Specification	Comp	liance	Reference	Ite	Minimum Specification	Comp	oliance	Reference
		m		Yes /No	If "No" Bidder's response	(Section No and Page NOs)	m		Yes /No	If "No" Bidder's response	(Section No and Page NOs)
		9 15 18	The card body must include a specific true-colour UV image with high brilliance, resolution and high colour reproduction. The image shall become visible under a UV light source at 365nm The card body must contain laser-engraved markings protecting against delamination, tampering and cutting attempts The smart card manufacturer must submit their samples containing each of requested features along with tender answer by the bidder Smart card for this project shall manufactured in a manufacturing site which has valid ISO 9001, ISO 14001 & ISO 27001, ISO 14298 or CWA 14641 certificates				15 18	The card body must include a specific 24-bit color UV image with high brilliance, resolution and high colour reproduction. The image shall become visible under a UV light source at 365nm. Bidders can propose a technology which is equivalent or exceeds this feature. The card body must contain laser-engraved markings protecting against delamination, tampering and cutting attempts or equivalent. The smart card manufacturer must submit their samples containing each of requested features along with tender answer by the bidder. Bidders must submit minimum of 5 sample cards and different features can be submitted with multiple cards. Smart card for this project shall be manufactured in a manufacturing site which has valid ISO 9001, ISO 14001 & ISO 27001, ISO 14298/ PCI-CP			NOS

Page No	Reference Clause No	Excising Clause				Amended Clauses					
89	7.5.4.2	7.5.4.	2 Chip and operating system s	pecifica	tion - Item	1,2 and 9	7.5.4	the time of bid submission bidders must have the compliances mentioned above 2 Chip and operating system specifications are considered as the compliance of	ication	- Item 1,2	and 9
		Ite	Minimum Specification			Reference	Ite	Minimum Specification	Compliance		Reference
		m		Yes /No	If "No" Bidder's response	(Section No and Page NOs)	m		Yes /No	If "No" Bidder's response	(Section No and Page NOs)
		2	The smart card manufacturer must master the full smart card value chain. The smart card manufacturer must have in house smart card operating system development and cryptographic library development Smart card shall be microprocessor based IC card with contactless interface complaint to ISO /IEC 14443-3 standard				2	The smart card manufacturer must master the full smart card value chain. The smart card manufacturer must have (Preferably in house developed) smart card operating system and cryptographic library. If the OS is not developed by the same bidder in house, then, the bidder shall provide adequate documentation with regard to the security aspects of the CardOS integration with their Smartcards. Smart card shall be microprocessor based IC card with dual interface complaint to ISO/IEC 7810, ISO/IEC14443, ISO/IEC 7816			
91- 92	7.5.4.3	7.5.4.	7.5.4.3 Personalization System - Item 4,13 and 16				7.5.4	.3 Personalization System - Item 4,1	3 and	16	

Page No	Reference Clause No	Excising Clause						Amended Clauses					
		Ite m	Minimum Specification	Yes /No	If "No" Bidder's	(Sec No a	and e		Ite m	7	Compl Yes No	iance If "No" Bidder's response	Reference (Section No and Page NOs)
		13	The personalization software shall be ready for connection with any Global Platform, Java card / MULTOS smart card management system The production management system shall interface with a relational database to store information The production management system shall integrate the white list coming from the card manufacturer			THOS.		-	13 S S S S S S S S S S S S S S S S S S S	The personalization software shall be ready for connection with Global Platform, JavaCard smart card management system The production management system shall interface with a RDBMS /NoSQL database to store information The production management system shall integrate the white list coming from the card manufacturer. White list may be either card serial number or crypto key whitelists from the manufacturer which allowed to personalize the card			
96	7.6.1	[Item	6] - NDI hosting infrastructi	ure					[Item 6] - NDI hosting infrastructure			
		External / Internal	filtering (Layer 8)		Yes /No	If "No" Bidde r's respo nse	Refer ence (Secti on No and Page NOs)		Extern al / Internal	Identity based access and filtering	Y /1	Compliance Yes If No "No Bid r's res nse	de on No and Page

Page No	Reference Clause No	Excising Clause					Amended Clauses				
		Firewa					Firewa				
		11s					lls				
		SAN	Dual Active-Active Storage				SAN	Dual Active-Active Storage			
			Controllers and upgraded to the					Controllers and upgraded to the			
			latest firmware level					latest firmware level			
			8 x 8 Gb FC Ports or higher on					8 x 8 Gb FC Ports or higher on			
			each controller.					each controller.			
			10/100Gbps FCoE/ iSCSI Host					10/100Gbps FCoE/ iSCSI Host			
			Ports or higher on each					Ports or higher on each controller			
			controller					FC, FCoE, iSCSI Support within			
			FC, FCoE, iSCSI Support within					the same array			
			the same array					Dual 6Gbps SAS Buses /FC-ALs			
			Dual 6Gbps SAS Buses /FC-					Automatic disk rebuild and			
			ALs					Automatic disk failover			
			Automatic disk rebuild and					Minimum 16GB Cache on Each			
			Automatic disk failover					Storage Controller or higher.			
			Minimum 16GB Cache on Each					Cache Upgradability 48GB or			
			Storage Controller or higher.					higher			
			Cache Upgradability 48GB or					Ability to use Flash/SSD to			
			higher					improve the cache.			
			Ability to use Flash/SSD to					Supported RAID Levels 0/1/5/6			
			improve the cache.					Automatic storage tiering support.			
			Supported RAID Levels 0/1/5/6					Minimum 100TB effective			
			Automatic storage tiering					capacity (RAID6) with 8+2			
			support.					RAID6 pools and 2TB SATA +			
			Minimum 100TB effective					1TB(4+1 RAID5) SSD pool to			
			capacity (RAID6) with 8+2					improve IOPS + 2 x 2TB Spares.			
			RAID6 pools and 2TB SATA +					Support SAS, NL-SAS, Solid			
			1TB(4+1 RAID5) SSD pool to					State/Flash Drives.			
			improve IOPS + 2 x 2TB					Up to 1024 Maximum hosts			
			Spares.					supported			
			Support SAS, NL-SAS, Solid					Maximum LUN size 128TB			
			State/Flash Drives.					Number of LUN 1024 or more			

Page No	Reference Clause No	Excising Clause					Amended Clauses			
			Up to 1024 Maximum hosts					Ability to take Snapshots / Clones		
			supported					Continuous Data Replication		
			Maximum LUN size 128TB					(Syncronous) to the SAN at DC2.		
			Number of LUN 1024 or more					Scalability upto 200 Disks.		
			Ability to take Snapshots /							
			Clones					Alternatively bidders are to be		
			Continuous Data Replication					proposed distributed storage		
			(Syncronous) to the SAN at					platform such as Hadoop, Ceph,		
			DC2.					Hedvigetc which configured to		
			Scalability upto 200 Disks.					facilitate DR and multi-site with		
								minimum of 100TB effective		
		SAN	8Gbps FC					capacity and 10Gbps backend		
		Switch	Fully redundant.					connectivity to the servers.		
		es	Support for ISL and Link				SAN			
			Aggregation.				Swite	Fully redundant.		
			Secure Management Access				es	Support for ISL and Link		
		Backu	Inline Deduplicated D2D					Aggregation.		
		p	Backup Solution.					Secure Management Access		
		Soluti	100TB Daily backup set with 3					Alternatively bidders are to be		
		on	Months Retention.					proposed distributed storage		
			Backup clients for hypervisors					platform such as Hadoop, Ceph,		
			for VM backups.					Gluster, Hedvigetc which		
			Backup server shall support					configured to facilitate DR and		
			parallel backup jobs to achieve					multi-site with minimum of		
			10TB/hr					100TB effective capacity and		
			CBT(Change Block Tracking)					10Gbps backend connectivity to		
			based incremental backups.					the servers		
			NFS and VTL Access method				Back	xu Inline Deduplicated D2D Backup		
			Direct SAN backups (VTL).				p	Solution.		
			2 x 10GbE and 2 x 8G FC				Solu	ti 100TB Daily backup set with 3		
			Connectivity.				on	Months Retention.		
			10TB/hr Throughput					Backup clients for hypervisors for		
			Replication over Ethernet to the					VM backups.		

Page No	Reference Clause No	Excising Clause	Amended Clauses
		Other site.	Backup server shall support parallel backup jobs to achieve 10TB/hr CBT(Change Block Tracking) based incremental backups. NFS and VTL Access method Direct SAN backups (VTL). 2 x 10GbE and 2 x 8G FC Connectivity. 10TB/hr Throughput Replication over Ethernet to the Other site. Bidder are expected to propose the most suitable backup and replication policies and architecture
103	8.1	Key Activities	Clause 8.1 is amended to add the following new clause 8.1.9. Data Collection - The Employer shall be responsible for the collection of data (Enrolments). 8.1.10 HTM Solution integration - Except for HTM solution integration with the NPP, to send requests for fund transfers. Pre definded rest APIs for NPP will be provided. 8.1.11 National CA – NCA shall be the responsibility of the Employeer. 8.1.12 Sourcing and supplying consumables such as POS printer paper, PIN printer paper/forms shall be the responsibility of the Employeer.

Page No	Reference Clause No	Excising Clause	Amended Clauses
107	8.2.10	The Employer will provide secure storage place for the portable devices.	The Employer will provide secure storage place for the portable devices. The Security aspects for blank and personalized cards need to be facilitated by the Bidder. However the delivery of DTC cards from NDF District centers to NDF DS centers shall be the responsibility of the employer.
114	10	Implmentation Schedule	Refer attached Annex 1 for the revied implementation schedule.
117	11.2.4	The entire solution shall be web based and web-enabled and shall not require installation of any software / library at the employer systems.	The entire solution shall be web based and web-enabled and shall not require installation of any software / library at the employer systems. This is applicable only for the enrolment front-end software.

All Bidders shall comply with this Addendum No 02 to the Bidding Document Volume 01, 02 and 03.

Chairman

Cabinet Appointed Procurement Committee Ministry of Telecommunication and Digital Infrastructure 79/1, 1st Floor, 5th Lane, Colombo 03, Sri Lanka

12th July 2016

Annex 1

10. Implementation Schedule

No	Item:		Description:		Deadline:
1	Successf	ful acce	ptance of the following:		6 months from the contract effective date
	1	Comple	tion of NDI hosting Infrastruc	cture	
			tion of the NDI software solu		
			ate Authority and related serv		
	4	Deliver	y of Portable units		
	5	Related	Reports		
2	Successf	ful acce	ptance of the following:		6 months from the effective date of the contract
	1	Establis	hment of enrolment stations a	nt Colombo DS	
	2	Trainin	g of enrolment staff at Colomb	bo DS	
			y of (Phase 1) DTCs		
	4	Related	Reports		
3	Successf	ful UA7	acceptance of the following:		7 th month, from the contract
	1	User A	cceptance Test (UAT) Certific	eation	effective date
4	Successf	ful acce	ptance of the following:		12 months from the date of
		Establis center	hment of enrolment stations a	at all other NDF	successful UAT acceptance
	2	Trainin	g of enrolment staff at all other	er NDF centers	
			ful personalization of DTCs		
		Related			
			y operational report		
5			ptance of the following:		8 months from the contract
	1 1	Househ	old Transfer Management (H	ΓM) system	effective date
6	Successf	ful Acce	eptance of the following:		13 th month, from the date of
	1 (Operati	on Acceptance Test (OAT) Co	ertification	successful UAT acceptance
7			ptance of the following		Within 1 month from the date
	1 1	DTC (P		2)	of employers request for a 1
			atches of 1 million DTCs (Ph Iaximum of 14 batches.	ase 2)	million batch.

8	Successful Acceptance of the following; 1 Related reports 2 Monthly apparticular agents	Delivered Quarterly during the 4-year operational time
	2 Monthly operational report	period.