

LIQUID PRPULSION SYSTEMS CENTRE

Date: 03/07/2024

CORRIGENDUM

Ref : Tender No : LPSC/LVF/MSA/2024000252 dated 11-03-2024

The above tender refers to the indent for establishing EACMS - Face recognition based biometric access control system. A pre-bid meeting was conducted on 27th May, 2024 and based on the queries from the Vendor the following points are added/modified/deleted

The changes are incorporated in EACMS RFP for LPSC Ver- 02 and the original RFP which was part of the tender issued on 11th March, 2024 will be henceforth referred to as EACMS RFP Ver-01.

LPSC EACM RFP Ver -01					LPSC EACMS RFP Ver -02			
Sl.No	Section	Reference	Page No	Description as per Tender	Addition / Modification / Removal	Description to be read as	Page No	Reference,
1	Section A	Sl. No 4: Eligibility criteria, c) documentary evidence	13	There is no compliance asked for GFR (Xi) Clause related to products from India's border sharing countries	Addition	Compliance to GFR 144 (xi)	13	Section A Sl. No 4: Eligibility criteria, c)
2	Section A	Sl. No 5: INSTRUCTION TO VENDORS 5.1.5.1, c.iv : Documents mandatory for evaluation	16	No declaration was asked for GFR (Xi) Clause related to products from India's border sharing countries	Addition	DECLARATION UNDER RULE 144(XI) IN GENERAL FINANCIAL RULES (GFR), 2017	16 130	Section A Sl. No 5: INSTRUCTION TO VENDORS 5.1.5.1, c.vii Annexure VIII
3	Section B	SL.NO 2- SYSTEM REQUIREMENTS 2.10	35	The Platform shall be an enterprise class TCP/IP based solution. System architecture shall make use of the industry standard Ethernet IEEE802.3, TCP/IP protocols, etc. to interconnect all nodes / subsystem. EACMS shall be	Modification	The Platform shall be an enterprise class TCP/IP based solution. System architecture shall make use of the industry standard Ethernet IEEE802.3, TCP/IP protocols, etc. to interconnect all nodes / subsystem. EACMS shall be IPv4 compliant. All components of	36	Section B SL.NO.2 SYSTEM REQUIREMENTS , 2.10

				<p>IPv4 and IPv6 compliant. All components of EACMS shall be in sync with NTP (Network Time Protocol) servers. Synchronization of hardware units shall be automated and transparent to users and shall occur in the background. It shall also be possible to manually synchronize units or to synchronize units on a schedule. The readers (both fixed and hand held) should sync data to the server in near real time over ethernet/Wifi network</p>		<p>EACMS shall be in sync with NTP (Network Time Protocol) servers. Synchronization of hardware units shall be automated and transparent to users and shall occur in the background. It shall also be possible to manually synchronize units or to synchronize units on a schedule. The readers (both fixed and hand held) should sync data to the server in near real time over ethernet/Wifi network</p>		
4	Section B	SL.NO 2- SYSTEM REQUIREMENTS 2.16	36	<p>The Vendor should supply perpetual licenses for the solution, one for Valiamala and one for Bangalore. All components i.e., hardware, software and firmware should be operational from day one</p>	Modification	<p>The Vendor should supply perpetual licenses for the solution, two for Valiamala (primary and redundant servers) and two for Bangalore (primary and redundant servers). All components i.e., hardware, software and firmware should be operational from day one</p>	37	Section B SL.NO 2- SYSTEM REQUIREMENTS , 2.16
5	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Facial Recognition: Data Privacy	37	Should comply to Digital Personal Data protection laws of GOI	Modification	<p>Should comply to the following key principles of Digital Personal Data Protection Act ,2023 of GOI 1.Lawfulness: Personal data must be processed lawfully, fairly, and transparently. 2.Purpose Limitation: Personal data must be collected for specified, explicit, and legitimate purposes and not further processed in a manner that is incompatible with those purposes.</p>	38	Section B Sl. No 3. DETAILED SPECIFICATIONS , Sl. No 3.1
		3.2 Face + Smart card reader cum controller - Fixed - Facial Recognition: Data Privacy	44				46	Section B Sl. No 3. DETAILED SPECIFICATIONS ,Sl.No 3.2

		3.3 Face + Smart card reader – Handheld-- Facial Recognition: Data Privacy	48						
6	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Facial recognition: Face Cameras	37	Live face detection using 2MP IR camera and 2MP Visual camera Minimum with Mask detection and low zero lux illumination for 3D face sensing	Modificati on	Live face detection using 2MP IR camera and 2MP Visual camera Minimum with Mask detection and low zero lux illumination for 3D face sensing. Both cameras are mandatory	39	Section B Sl. No 3. DETAILED SPECIFICATIONS , Sl. No 3.1	
		3.2 Face + Smart card reader cum controller – Fixed- Facial Recognition: Face Cameras	44				47	Section B Sl. No 3. DETAILED SPECIFICATIONS ,Sl. No 3.2	
		3.3 Face + Smart card reader – Handheld- Facial Recognition: Face Cameras	48				53	Section B Sl. No 3. DETAILED SPECIFICATIONS ,Sl. No 3.3	

7	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Facial Recognition: Face illumination	37	Device must include built-in LED flash lighting in order to be able to authenticate face in all environment (from dark to light)	Modification	Device must include built-in IR or Flash LED lighting in order to be able to authenticate face in all environment (from dark to light)	39	Section B Sl. No 3. DETAILED SPECIFICATIONS , Sl. No 3.1
		3.2 Face + Smart card reader cum controller – Fixed- Facial Recognition: Face illumination	44				47	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.2
		3.3 Face + Smart card reader – Handheld - Facial Recognition: Face illumination	49				53	Section B Sl. No 3. DETAILED SPECIFICATIONS ,Sl. No 3.3
8	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Facial Recognition: Face Algorithm	38	1. Built-in algorithm for Live face detection and anti-spoofing. 2. Built-in AI processor for fine tuning of face data over the period of use.	Modification	1. Built-in algorithm for Live face detection and anti-spoofing. 2. Built-in AI algorithm for fine tuning of face data over the period of use.	40	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.1
		3.2 Face + Smart card reader cum controller – Fixed - Facial Recognition: Face Algorithm	44				47	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.2
		3.3 Face + Smart card reader – Handheld - Facial Recognition: Face Algorithm	49				53	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.3
9	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Facial Recognition:	38	1:20,000 Genuine Verification of a Face in 30 days (testing method and acceptance criteria,success and failure should be logged and	Modification	1:20,000 Genuine Verification of a Face in 30 days (Image of the presented face along with employee details should be logged irrespective of whether	40	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.1

		Face algorithm False Accept/Reject Rates		transferred to server in .csv for evaluation). System offered shall have minimum false acceptance. It shall not grant the access to the unauthorized entity under any circumstances		authentication is valid/ invalid. These image logs should be pushed to the server for verification of FAR and FRR.). System offered shall have minimum false acceptance. It shall not grant the access to the unauthorized entity under any circumstances				
		3.2 Face + Smart card reader cum controller – Fixed - Facial Recognition: Face algorithm False Accept/Reject Rates	44						47	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.2
		3.3 Face + Smart card reader – Handheld - Facial Recognition: Face algorithm False Accept/Reject Rates	49						53	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.3
10	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Facial Recognition: Image Dimension/Resolution /Size	38	total image size and pixels (range) Optimized for the storage capacity of the device. Compression is desirable	Modification	All enrolled face image to be stored in the ISO format in the server and Image size and pixels range will be as per ISO format requirements.However, vendor can use their own proprietary image format for internal operations of the device	41	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.1		
		3.2 Face + Smart card reader cum controller – Fixed - Facial Recognition: Image Dimension /Resolution/Size	45				48	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.2		
		3.3 Face + Smart card reader – Handheld - Facial Recognition: Image Dimension /Resolution/Size	50				54	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.3		
11	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Facial Recognition: Face template size	39	Optimized for the storage capacity of the device. Compression is desirable The enrolled images should be in ISO/IEC 19794-5 formats	Modification	Face enrollment process should generate and store face template in ISO/IEC 19794-5 formats.However, vendor can have a device specific face	41	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.1		

		3.2 Face + Smart card reader cum controller – Fixed - Facial Recognition: Face template size	45			template format for internal operations	48	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.2
		3.3 Face + Smart card reader – Handheld - Facial Recognition: Face template size	50				54	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.3
12	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Fingerprint Recognition : Finger rotation & deviation	40	The Biometric reader should ensure automatic finger rotation detection and correction of maximum possible degree through which finger can rotate on sensor pad with Allowable Finger Displacement +/- 5 mm. Note: Specifically for enrolment and identification, the Vendor needs to ensure minimal rotation (not necessarily "0" angle) with the help of rotation detection and correction algorithm			42	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.1
13	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.4 Finger + Smart card reader – Handheld- Fingerprint Recognition : Finger rotation & deviation	54	The Biometric reader should ensure automatic finger rotation detection and correction of maximum possible degree through which finger can rotate on sensor pad with Allowable Finger Displacement +/- 5 mm. Note: Specifically for enrolment and identification, the Vendor needs to ensure minimal rotation (not necessarily "0"	Modification		58	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.4

				angle) with the help of rotation detection and correction algorithm				
14	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Fingerprint Recognition: Fingerprint Capacity (1:N)	40	Minimum 100,000 fingerprints	Removal	Fingerprint Capacity (1:N) Minimum 100,000 fingerprints		Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.1
		3.4 Finger + Smart card reader – Handheld- Fingerprint Recognition: Fingerprint Capacity (1:N)	55					Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.4
15	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed – Smart Card: Read range	41	Smart card reading range : 0 to 5cm or better and has to accommodate deg elevation error during presentation by the user.	Modification +/- 30	Smart card reading range : 0 to 5cm or better	43	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.1
		3.2 Face + Smart card reader cum controller – Fixed - Smart Card: Read range	46				49	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.2
		3.3 Face + Smart card reader – Handheld - Smart Card: Read range	50				55	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.3
		3.4 Finger + Smart card reader – Handheld- Smart Card: Read range	55				59	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.4

16	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Hardware/Firmware: Interfaces	41	Ethernet (IPV4 and IPV6 compliant) ,RS- 485 with OSDP, USB	Modification	Ethernet (IPV4 compliant) ,RS- 485 with OSDP, USB	43	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.1
		3.2 Face + Smart card reader cum controller – Fixed - Hardware/Firmware: Interfaces	46				49	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.2
17		3.3 Face + Smart card reader – Handheld - Hardware/Firmware: Interfaces	51	Ethernet (IPV4 and IPV6 compliant) , Wi-Fi(WiFi 6 (IEEE 802.11ax), RS- 485 with OSDP, USB		Ethernet (IPV4 compliant) , Wi-Fi(WiFi 5 (IEEE 802.11ac), RS- 485 with OSDP, USB	55	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.3
18	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.4 Finger + Smart card reader – Handheld- Hardware/Firmware: Interfaces	56	Ethernet (IPV4 and IPV6 compliant) , Wi-Fi (WiFi 6 (IEEE 802.11ax) , RS- 485 with OSDP, USB,	Modification	Ethernet (IPV4 compliant) , Wi-Fi (WiFi 5 (IEEE 802.11ac) , RS- 485 with OSDP, USB,	60	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.4
		3.16 Wireless Access Point-IPv6 Support	81	IPv6 Support -Yes	Modification	IPV4 & IPV6 Support -Yes	86	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.16
19	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.3 Face + Smart card reader – Handheld - Hardware/Firmware: Ingress protection	52	IP65, IK06 or IS 17050:2018 (relevant proof)	Modification	IP65	56	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.3

		3.4 Finger + Smart card reader – Handheld- Hardware/Firmware: Ingress protection	57				61	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.4
20	Section B	Sl.No.2.7, b	34	All hand held readers shall be of IP-65 rated and IK-06 or equivalent Indian Standard IS 17050:2018. It should be rugged and should not be easily tampered	Modification	All hand held readers shall be of IP-65 rated. It should be rugged and should not be easily tampered	35	SectionBSI.No.2. 7, b
21	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Hardware/Firmware: Environmental	43	Humidity : 10% to 90% RH non condensing, Operating temperature: 0 deg to 50 deg	Modification	Humidity :10% to 80% RH non condensing, Operating temperature: 0 deg to 50 deg	45	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.1
		3.2 Face + Smart card reader cum controller – Fixed - Hardware/Firmware: Environmental	48				51	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.2
		3.3 Face + Smart card reader – Handheld - Hardware/Firmware: : Environmental	52				56	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.3
		3.4 Finger + Smart card reader – Handheld- Hardware/Firmware: : Environmental	57				61	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.4

		3.5 Bi-directional Fully Automatic Half Height Tripod Turnstile with Drop Arm Facility: Temperature & Relative Humidity	59	0° to 50°C, RH 10% to 90%	Modification	5° to 50°C, RH 10% to 80%	63	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.5
		3.7 Electronic door lock for Single door with Exit switch- Temperature & Relative Humidity	61	0° to 50°C, RH 10% to 90%	Modification	5° to 50°C, RH 10% to 80%	65	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.7
		3.7 Electronic door lock for Double door with Exit switch- Temperature & Relative Humidity	61	0° to 50°C, RH 10% to 90%	Modification	5° to 50°C, RH 10% to 80%	66	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.7
		3.16 Wireless Access Point-Operating Humidity	81	10%~90%	Modification	10%~80%	85	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.16
22	Section B Sl. No 3. DETAILED SPECIFICATIONS	3.1 Face + Finger + Smart card reader cum controller – Fixed - Hardware / Firmware: PoE	43	IEEE 802.3 or better as required	Modification	Power supply with external adaptor is mandatorily required. PoE is optional	45	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.1
		3.2 Face + Smart card reader cum controller – Fixed – Hardware / Firmware: PoE	48				51	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.2

23	Section B Sl. No 3. DETAILED SPECIFICA TIONS	3.4 Finger + Smart card reader – Handheld – General :Facility with application	53	Wireless Face cum Smart card Access Control Reader	Modificati on	Wireless Finger cum Smart card Access Control Reader	58	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.4
	Section B Sl. No 3. DETAILED SPECIFICA TIONS	3.4 Finger + Smart card reader – Handheld – General : Biometric Credential	53	Face	Modificati on	Finger	58	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.4
24	Section B Sl. No 3. DETAILED SPECIFICA TIONS	3.4 Finger + Smart card reader – Handheld – Hardware/Firmware:CPU	55	At least Quad Core Processor , In-built memory of 2GB RAM and 16 GB flash memory or more	Modificati on	Processor 1.2 GHz or more and 4 GB Flash + 64 Mb RAM or more	60	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.4
25	Section B Sl. No 3. DETAILED SPECIFICA TIONS	3.4 Finger + Smart card reader – Handheld – Hardware/Firmware : Authentication Mode	55	Primary: Card + Face Option for Card only, Face only shall be available	Modificati on	Primary: Card + Finger , Option for Card only, Finger only shall be available	60	Section B Sl. No 3. DETAILED SPECIFICATIONS, Sl. No 3.4
26	Section B,	3.14.2, Sl.No. k,Integrated web based application software	69	The software shall be scalable to add more users and devices as per LPSC requirements	Modificati on	The software shall be scalable to add more users and devices as per LPSC requirements. Provision to scale up 25% users and 50% devices (The users in EACMS RFP is 20,000 and devices are as mentioned in Bill of materials)	73	Section B 3.14.2, Sl.No. k
27	Section C	Annexure V, Sl.No 1 UNPRICED VERSION OF BILL OF MATERIALS, Item Sl.No 21	111	Integrated web based Software and license - 2 Licenses	Modificati on	Integrated web based Software and license - 4 Licenses(two each at each location for primary and backup server)	116	Section C Annexure V Sl.No 1, Item Sl. No 21

		Annexure V, Sl. No 1 UNPRICED VERSION OF BILL OF MATERIALS, Sl.No 22	111	Installation charges of Sl.No 21 - 2	Modificati on	Installation charges of Sl.No 21 - 4	116	Section C Annexure V Sl.No 1, Item Sl. No 22
		Annexure VI, Sl. No 1, PRICE BID BILL OF MATERIAL AND PRICE SCHEDULE,SL.No 22	117	Integrated web based Software and license - 2 Licenses	Modificati on	Integrated web based Software and license - 4 Licenses(two each at each location for primary and backup server)	122	Section C Annexure VI Sl.No 1, Item Sl. No 22
		Annexure VI, Sl. No 1, PRICE BID BILL OF MATERIAL AND PRICE SCHEDULE,SL.No 23	117	Installation charges of Sl.No 22 - 2	Modificati on	Installation charges of Sl.No 22 - 4	122	Section C Annexure VI Sl.No 1, Item Sl. No 23
28	Section C	Additional document (new page in RFP)		-	Addition	DECLARATION UNDER RULE 144(XI) IN GENERAL FINANCIAL RULES (GFR), 2017	130	Section C, Annexure VIII
29	Section B	3.13Server: Server certification	63	-	Addition	The offered server shall be certified for Latest version of RHEL, Windows Server (latest), Ubuntu and SUSE Linux platform. The URL for OS certifications by respective OS OEM for the supported hardware- list shall be provided for each platform along with the offer.	68	Section B,3.13

Note: second pre-bid meeting is arranged on 19th July, 2024. Interested vendors can attend pre-bid meeting and site visit on the stipulated date at LPSC, Valiamala. For vendors who had already attended first pre-bid meeting, attending second pre-bid meeting is optional.