

Sr. No	Bid Reference(s) (Section, Page)	Content of Bid requiring clarification	Points of clarification required	Remarks
1	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification)  3. Display	- Screen Size – 4” Touch Screen Colour Display - Resolution – Min. 800 X 600	Display should have min 4.5” Color LCD to capture & display USER’s registered picture / Live captured picture on main window / screen after authentication for valid / invalid logs or any events. We request for 4.5" LCD and more since it gives better clarity of Image and reduces eyes strain of employees using the system on daily basis. - Resolution – Min. 800 X 480	RFP terms prevail.
2	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification)  4. Memory	- Memory to store up to 5,000 Face and 20,000 Fingerprints on terminal itself. - Device Memory: RAM – 2 GB, Flash Memory – 4 GB - Memory to store minimum 10,00,000 transaction logs along with min 25,000 picture logs.	We have 20,000 picture logs and recommend for Higher RAM of 8 GB as it is required to process data faster since it is Multi-Modal device of Face, Finger, Card and PIN as well. Also we can looking at 1:40,000 fingers considering system being used for next 7-8 yrs and more.	Please refer Addendum & Corrigendum-2.
3	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification)  6.Camera	Built-in 1.3 MP camera with IR sensor - It should read a face in 0 lux conditions means extreme dark environments and even with considerable background light of 50,000 lux.	Background light compatibility of 50,000 Lux is not required, for the attendance Purpose, as the machines are installed under a Shelter, to protect it from rain & direct sunlight. The 50,000 Lux will make the size of the machine too big, for the IR LED’s Panel requirement & also will load the cost for no value-addition in performance. 0 to 2,000 LUX Lighting compatibility shall be provided as specification	Please refer revised specification as per Addendum & Corrigendum - I.
4	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification)  7. Finger Print Scanner	- 500 dpi optical sensor - Minimum sensor area 13 mm X 15 mm	We suggest FBI PIV certified Fingerprint Scanner which is in line with Other Indian Govt standards	RFP terms prevail.
5	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification)  10. Authentication mode & speed	- System should be able to perform in 1:1 and 1:n authentication modes. And should support 1:5000 face authentication and 1:20000 for biometric authentication for 1:n modes. o For 1:1 mode: < 0.5 second o For 1:n mode: < 2 second - Support for authentication modes like Terminal only; Server only	1:1 > 1 sec and 1:N (2000) > 2 second. Support for Authentication Modes like Terminal Only; Server Only; First Terminal and if not found then Server .	Please refer revised specification as per Addendum & Corrigendum - I.
6	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification)  11.FRR / FAR for Face Recognition	FRR – 0.1% or better / FAR – 0.001% or better	FRR – 0.093% or better / FAR – 0.000 % or better	RFP terms prevail.
7	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification)  12.FRR / FAR for Finger print scanner	FRR – 0.1% or better / FAR – 0.001% or better	FRR – 0.1% or better / FAR – 0.0001% or better . This is standard as FAR is far more dangerous than FRR.	RFP terms prevail.
8	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification)  15. USB Support	support for connectivity using USB Dongle - support for data export/import/backup	We request to include SD Card support for data import, export, backup, transfer images / videos, Firmware upgrades etc. which is equally user friendly and more secure	Please refer Addendum & Corrigendum-2.

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9	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification) 18.Template on Card	Template on Card Device should support the Template on card feature by reading the face / finger templates stored on card & comparing the same at the time of marking of presence	For Fingerprint programming on Card we will require Fingerprint USB Scanner for Enrolment centrally which is one time process	RFP terms prevail.
10	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification) 19.Finger Enrolment	Software shall be able to register any 4 fingerprints of an employee in software & terminal itself	Software shall be able to register all 10 fingerprints of an employee in software database & shall be able to transfer min. 4 fingers to terminal itself	RFP terms prevail.
11	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification) 13.Operating Temperature	Temp. 0 degree to 60 degree	Temp. 0 degree to 50 degree	RFP terms prevail.
12	5. ELIGIBILITY CRITERIA 5.5	5.5 The bidder or OEM (by OEM or its channel partner) shall have successfully completed the supply to PSU / Government Organization / Banks / Educational institutions [Financial Years of 2014-15, 2015-16 and 2016-17] ☑ at least 80% of the tender quantity (480 nos.) of Biometric devices in one financial year during last three years out of which one order shall be of 50% of the tender quantity (300 nos.). OR ☑ at least 60% of the tender quantity (360 nos.) of Biometric devices in each of two financial year during last three years out of which two order shall be of 33% of the tender quantity (198 nos.).	We have certain PO mentioned in Korean laguange from Viridi. Can we use it as reference or can we attach those PO and stating on OEM letterhead confirming the same with brief translation?	Please refer Clause - 6.14 of the RFP.
13	Other points	-	We request to demand POC (proof of concept ) for all bidder for offered solution	Please refer Clause - 7.98 of Addendum & Corrigendum - I.
14	Other points	-	<b>Dual Color / IR Pan Tilt Camera</b> Since we have large employee strength we want to avoid users wasting their time in adjusting his/her face in front of the device. This delays process and so we recommend camera to be adjusted for faster verification. Tilted camera supports to adjust with users with different heights. Users don't have to tilt or adjust their knees when approach to device, instead devce camera adjusts the position +- 6 inches, hence supports users with a height difference of up to 1 feet. This feature can be used ro faster verification and also less rejection due to height adjustment.	RFP terms prevail.
15	Other points	-	<b>Personal / Global Messaging</b> System should be capable of displaying personal / global messages for specific user / all users and multimedia features like advertising, notices or wishing Birth days etc.	RFP terms prevail.
16	Other points	-	Demand for i/o ports I/O ports are reqd to support additional modules like Lock control (in future if reqd), Green / Red lamps to highlight authentication status etc.	RFP terms prevail.

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17	Other points	-	<b>Operating System: ANDROID</b> When we invest in any new technology we believe it should be having the latest features and in trend with Market. Android is user friendly and known to most of the users so faster implementation. Also Device should be capable to run in standalone and also view logs from Device itself in case Admin visits the sites for real time verification and authentication of data.	RFP terms prevail.
18	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification)  9. RF Card reader	- High Frequency Contactless Smart Card Reader - Read Range: Up to 10 cm. - Capability to read popular card technologies (EMV / MIFARE) - The protocol of data from the reader shall be an open format and nonproprietary.	- Capability to read popular card technologies ( <b>EM (Prox)/ MIFARE</b> )	Please refer Addendum & Corrigendum-2.
19	4.4.15 Hardware Specifications I. Biometric Device (minimum technical specification)  17. Security	- Ability to detect live face and live fingerprint - Device must ensure that the person marking the presence is actually present. - Attendance should not be marked using image / video - Attendance should not be marked using fake fingerprints made of Rubber, Silicon, Gel, etc.	Request you to include Paper & Film also for fake finger detection.	"Attendance should not be marked using fake fingerprints made of Rubber, Silicon, Gel, etc." means attendance should not be marked using fake fingerprints made of any type of matreial.
20	5. ELIGIBILITY CRITERIA 5.5 If Type-A & Type-B devices are from same OEM	The OEM (by OEM or its channel partner) shall have successfully completed the supply to PSU / Government Organization / Banks / Educational institutions [Financial Years of 2014-15, 2015-16 and 2016-17] - at least 80% of the tender quantity (420 nos.) of Biometric devices in one financial year during last three years out of which one order shall be of 50% of the tender quantity (263 nos.). OR - at least 60% of the tender quantity (315 nos.) of Biometric devices in each of two financial year during last three years out of which two order shall be of 33% of the tender quantity (173 nos.).	We request you to make it as " The OEM (by OEM or its channel partner or Bidder)..." so maximum number of bidder can participate in tender.	The word channel partner is a broad term and includes distributor, dealer, retailer, etc.
21	5. ELIGIBILITY CRITERIA 5.6	The bidder must have supplied at least 100 Biometric Attendance Devices or biometric based access control devices in any two financial year out of last three years [Financial Years of 2014-15, 2015-16 and 2016-17].	Some vendor may have 150+ device PO in one year and 50+ device po in next year, We request for to ask for 200 nos. of devices in any last three financial year , so more number of bidder can participate.	Please refer Addendum & Corrigendum-2.
22	RFP 7 Terms & Condition Point no 7.38	Minimum 10% spares & accessories to be kept at central location (at SMC HQ.) for smooth operation and maintenance of Biometric system and essential items (like Biometric Device, Sever etc.) for immediate replacement during warranty and AMC period for early restoration of the system during failure.	10% spares with qty should be mentioned in BOQ so we can quote for the same.	RFP terms prevail.