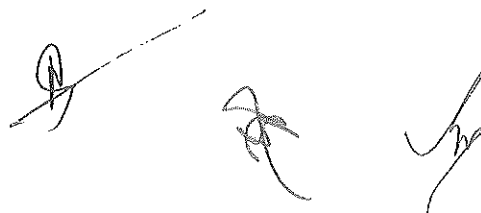


Technical offer for CRM:

Sl.	Required Items & Specifications	Description	Bidder's Response in Details
1	Brand	Please Specify	
2	Type	Please Specify	
3	Model & Manufacturing Year	Please Specify	
4	Country of Origin	Please Specify	
5	Country of Manufacturer & Shipment	Please Specify	
6	PC Specification		
6.1	Processor	Minimum Intel Core i5, Gen Minimum 10 or above. Cache: 6 MB Intel Smart Cache Cores 4 & Threads: 4 Turbo Frequency: up to 3.30 GHz (using turbo boost technology.)	
6.2	RAM	8 GB DDR3 RAM Offered by default. (Expandable to 32 GB)	
6.3	Mother Board	Please Specify	
6.4	Storage /Hard Disk	Minimum 1TB SSD + 1 TB SSD *For mirror copy of EJ and Event log. * CRM Hard disk should be encrypted	
6.5	Audio with Speaker	Mandatory Audio Support loudspeaker with adjustable volume	
6.6	Keyboard & Mouse	Standard External keyboard with functional keys and Mouse	
7	Card Reader Features		
7.1	Card Reader	Please Specify	
7.2	EMV Level – 1 & 2	Please Specify	



	Certified expiration date for Hardware & Level 2 for Application certified		
7.3	Read/Write Magnetic Stripe HICO/LOCO Card in Track 1, 2, 3 and Read/Write IC CARD	Please Specify	
7.4	Anti-Skimming Enabled	Mandatory	
7.5	Anti-Phishing	Mandatory	
7.6	Other Functionality	Capability to read NPSB/Visa/Master Card and other Chip Cards	
7.7	Card Return On Power Failure (CROPF)	Mandatory	
8	Real Time Cash Deposit		

8.1	Real Time Deposit	Machine need to be capable of detecting and authenticating all types of Bangladesh currency including BDT 100, BDT 200, BDT 500 to BDT 1000. Note: Incorporation of new version of any denomination or new denomination should be complementary as be BB.	
8.2	Other functionality	Must be captured note image during counting & storage (Void, Fit, Unfit, Counterfeit)	
		Fake Note Detection and Separation	
		Spoiled Note Detection & Return to Client	
		Deposit Slip Printing with note serial number	
8.3	Note Serial Number Recognition (Both Bangla and English), tracking with e-journal reflection and void note full image captured	Please Specify Mandatory to comply with Banknote recognition as per BB guideline	
9	Intelligent Anti Skimming Solution Feature		

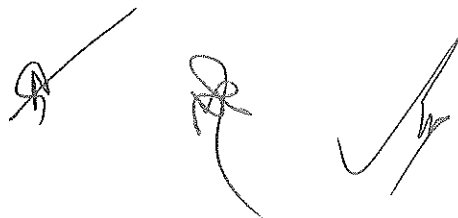


9.1	Specially designed card entry slot to protect against skimming attack	Yes/No	
9.2	Anti-skimming/ Anti-Virus solution	Mandatory comply with as per regulatory BB, VISA, EMV guidelines.	
9.3	Fraudulent Device Inhibitor (FDI)	Mandatory	
9.4	Fraudulent Device Detector (FDD)	Mandatory	
9.5	Card entry slot anti-destroy sensor mask	Mandatory	
9.6	Electromagnetic jamming solution	Please Specify	
9.7	Anti-Lebanese Loop Protection	Mandatory	
9.8	Anti-trapping Kit (ATK)	Mandatory	
9.9	OUT-OF-SERVICE Mode (CRM must go to OUT-OF-SERVICE Mode automatically if skimming device detected) also any kind of hardware fault.	Mandatory	
9.10	Anti-vandal Design slot with fireproof capability	Mandatory	
9.11	Electromagnetic signal protection	Mandatory	
Sl.	Required Items & Specifications	Description	Bidder's Response in Details
10	Consumer Operating Interface Feature		

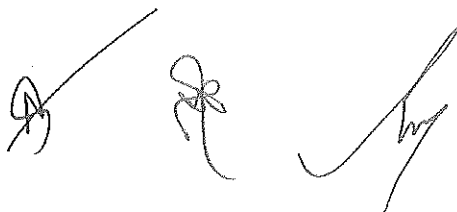
10.1	Size of Display	Minimum 15 inch	
10.2	Display Type	Please Specify	
10.3	Vandal resistant.	Mandatory	
10.4	Dust and Water Protection	Mandatory	
10.5	Display Privacy Filter	Mandatory	
10.6	Touch Screen	Mandatory	
10.7	(2*4) Function Display Keys (FDK)	Please Specify	
10.8	Biometric Reader	Please Specify	
10.9	NFC	Please Specify	



10.10	Indicators for all input output module (i.e. Indicator for Card Reader, Receipt Printer, Cash Shutter, EPP)(Pls. Add)	Please Specify	
11	Encrypted PIN PAD (EPP) Features		
11.1	Encrypted PIN PAD	PCI V4.0 or higher Certified	
11.2	PCI/DSS and PA-DSS Complaint (Provide certificate) Note: Renewal will cover under AMC	Please Specify PCI PTS Certified EPP and PA-DSS	
11.3	Triple DES Complaint	Mandatory	
11.4	(4x4) Metal Tactile Keypad (PIN PAD)	Mandatory	
11.5	Temper Pads Installed	Mandatory	
11.6	Vandal Resistant	Mandatory	
11.7	Built in self-destruction mechanism	Mandatory	
11.8	EPP / PIN Shield	Mandatory	
12	Cash Recycling Details		
12.1	Recycling, Deposit & Dispense Function	Please Specify Mandatory to have capability to store color both side image of all notes	
12.2	Dispense/Deposit Method	Please Specify	
12.3	Retract Mechanism Details	Mandatory Mention compartment and notes color image reconciliation Mechanism.	
12.4	Maximum notes per transaction	Please Specify	
12.5	Dispensing speed	Please Specify	
12.6	Depositing speed	Please Specify	
12.7	Total no. of cassettes	Please Specify	



12.8	Separate reject and retract (Withdraw and deposit) Compartment	Please Specify	
12.9	Cassette capacity	Please Specify	
12.10	Note serial number recognition and tracking (in deposit and In dispense)	Please Specify	
12.11	Cassette internal structure	Please Specify	
12.12	Cassette with key lock	Please Specify	
12.13	Ready note version for recycling capacity for recycling (deposit & withdrawal) i.e. BDT. 100, BDT. 200, BDT. 500, BDT. 1000	Please Specify	
13	Receipt Printer Features		
13.1	Thermal receipt printer	Please Specify	
13.2	Receipt paper bin (support Retract of receipt left by the customer)	Please Specify	
13.3	Receipt paper roll details (Support minimum 200mm diameter thermal paper roll (preferable))	Please Specify	
13.4	Support graphic printing	Please Specify	
14	Electronic Journal Log Features		
14.1	Electronic Journal (EJ) Log Enabled	Mandatory	
14.2	Support EJ Pulling to Remote Server	Mandatory	
14.3	Support File Transfer Protocol (with secured SFTP/SSL/SSH)	Please Specify	
15	Network Communication		
15.1	Ethernet Adapter	Please Specify	
15.2	Support TCP/IP Protocol	Mandatory	
15.3	Support Wireless (optional)	Please Specify	
16	Safe Lock Features		



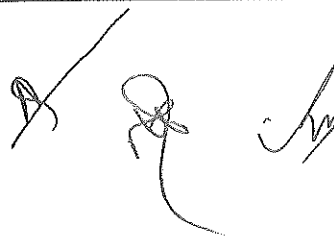
16.1	Vault Lock	Must Have Dual combination with digital lock with dual user authentication	
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Sl.	Required Items & Specifications	Description	Bidder's Response in Details
17	Security Features		
17.1	Physical security features of upper and lower chambers	Please Specify	

17.2	Built-in security camera	Must have min 2 cameras, one for face capture and one for cash delivery slot (with camera control software). Solution should have capability to send camera health status following NDC protocol. Camera Controlling Software with update status.	
17.3	Consumer awareness mirror (preferable)	Please Specify	
17.4	Fraudulent Device Detector (FDD)	Mandatory	
17.5	Anti-malware solution with following features <ul style="list-style-type: none"> - Application white listing. - USB protection. - XFS layer protection - Dispenser Encryption. - BIOS protection using password - File and registry protection 	Mandatory	
17.6	Other Security Feature	Please Specify	
18	Software Features		
18.1	Operating System – Latest Windows with license. Free of upgradable to higher version. Supplier need to ensure all upgrades for OS at least the next five years without any cost.	Mandatory	



18.2	Windows Patch	Quarterly patch update or update to last release of patch.	
18.3	Support protocols	Should be preloaded with either DCC/NDC/NDC+/ISO-8583	
18.4	Application Software.	Mandatory	
18.5	Version of Application Software	Please Specify	
18.6	Conformable to CEN/XFS standards	Please Specify	
18.7	EMV Level-2 Certified	Kernel version with expire date.	
18.8	PA-DSS Certified (with version)	Mandatory	
18.9	Customization requirement with switching system, Card less transaction support	Please Specify	
18.10	Support remote distribution and upgrade of device firmware (preferable)	Please Specify	
19	Operator Maintenance Features		
19.1	Maintenance with keyboard and mouse	Mandatory	
19.2	Graphical and user-friendly maintenance interface	Mandatory	
19.3	Standard diagnostic tools	Mandatory	
19.4	Provision for using diagnostic tools and diagnosis problem(s) remotely	Mandatory with application for monitoring.	
20	Environment Features		
20.1	Power requirement (i.e. AC (220± 20) V, 50Hz)	Please Specify	
21	Physical Dimension & Color		
21.1	Physical Dimensions (height, Width, Depth and Weight)	Please Specify	
21.2	Color	Please Specify	
22	Other Features		
22.1	Floor mounting Option	Please Specify.	




22.2	Experience in Bangladesh Market for CRM	Please Specify with proper documents	
22.3	Must be compliant with all rules & policies declared by Bangladesh Bank	Mandatory	
22.4	Buy Back ATM Existing ATM with Carrying	NCR-Self serve 22E – Four Unit NCR-Selfserve34 – Three Unit Please Specify on the mentioned models	
22.5	Delivery Time	Please Specify	
22.6	AMC	Please Specify	
22.7	Warranty	Please Specify	



Ashraf Alam Bhuiyan
Chief Technology Officer



Md. Towhiduzzaman Fuad
Head of Operations



Eiman Sarfraz
Country Operations Head