

TECHNICAL AND FUNCTIONAL VALIDATION

ANNEX 1

Score Definition
 4 - Exceeds Minimum Standard
 2 - Meets Minimum Standard
 0 - Below Minimum Standard

	TECHNICAL AND FUNCTIONAL REQUIREMENTS				Remarks
B.	WARRANTY/SUPPORT SERVICES				
	Warranty				
1	Three (3) year warranty for both hardware and software component				
	Support Services				
2	Support service coverage from 8:00AM to 5:00PM, Mondays to Fridays except holidays				
	TOTAL				
C.	CICS-APPLICATION (SOFTWARE)				
	Front-End System Requirements				
3	Adoption of X9.100-180 Electronic Image Cash Letter (ICL) Standards				
4	Transmission of Data and Images				
	a. 2 B & W (Front and Back) – 200DPI				
	b. 1 Grayscale (Front) – 100 DPI				
	c. 1 UV (Front) for High Value Transactions				
	d. Digital Signatures (Item & Batch level)				
5	Image Quality Assurance (IQA) – check				
6	Public Key Infrastructure (PKI)				
7	Integrated Archival Solution				
8	Express Clearing Facility				
9	Multi-Currency Feature				
	<i>The Front-end System:</i>				
10	Captures check images and data				
11	Completes the check data for Data-entry, Correction and Balancing (Central DCB)				
12	Sends the Outward items and their associated images to the Participants Bank Module (PBM) for validation before its transmission to PCHC.				
13	Monitors the interface directory with the PBM to import any Inward items from PCHC				
14	Different access levels, such as:				
	a) Supervisor Access				
	b) Central Data Entry				
	c) Central Correction and Balancing				
	d) Branch Data Entry				
15	Exception and processing users - mark returns manually or via standard file import				
16	Archive Capability				
17	Web enquiry user to CB archive				
18	Access to standard PCHC reports/status				
19	ICL generation/parsing Outward, Inward, Returns				
20	IQA Inclearings				
21	UV Inclearings (Area protection only)				
22	Can provide facility to upload Advice on Check Issued and Cancelled (ACIC) and compare to inward and on-us check (mini clearing). (positive pay)				
23	The system should have a functionality of Image Assisted Data Entry with the help of check image on the same screen (Side by Side)				
24	Can handle mini clearing process (On-us check).				
25	The application should integrate with the bank's CORE Banking System.				
26	System capability of capturing Full audit trail/log for any manual/systems changes. Should be able to provide regular and ad hoc online and printable audit trails.				

27	The system should have built-in user management(Access control) interfaces for the entire application.				
28	The system is rights driven (parameterized) user/role access				
29	The system should support password configuration as per bank's approved standard.				
30	The system must be able to provide a list of all users, with their current status i.e.: active/inactive and their date of last login.				
31	The system should have a comprehensive reporting functionality to enable bank users to design their own reports				
32	The system should be flexible to allow modifications to address changes required by the Bank's and/or PCHC/BSP.				
33	The system should be based on a workflow platform for flexibility to accommodate process and system changes in the future.				
34	Able to set cut-off times with appropriate warnings at pre-defined times for outward check processing where anything processed after the cut-off shall be processed as next day.				
35	Able to handle express clearing.				
36	Audit Trail / Logs - The system should have a facility to log activities and transactions within the system.				
37	a. The system should be able to maintain and report audit logs for any manual changes to all data and parameters in the system. It should be possible to user-define the specific fields /				
38	b. Audit trail reports should include changes made by the users (for any data changes) and the security administrator (for any parameter changes or user access security changes)				
39	c. It should be possible to print the parameter set-up and an audit trail of changes to parameters as and when they are made.				
40	d. The system must be able to provide a list of all users, with their current status i.e.: active/inactive and their date of last login.				
41	e. The system must be able to provide a list of all menus/functions used/accessed by a user for any given period by date range.				
42	f. All financial/transaction and static data amendments should automatically be stamped with Maker and Checker User IDs, date and time.				
43	g. An audit trail of all amendments to financial and static data should be provided by the system in a report form with the ability to determine:				
	i. Before and after values				
	ii. Date and Time of change				
	iii. Source of change (system /user				
44	h. It should be possible to select audit reports by specifying:				
	i. User who performed the system activity				
	ii. User group/ responsibility				
	iii. Date range				
45	System should be able to provide the file to include image of checks into the Statement of account (SOA) of the customer.				
46	The system must provide User ID and password maintenance and definition, including user creation, disabling/ enabling and removal.				
	Outward Clearing Module				

	<u>Outward Regular Transactions Processing</u>			
47	a. Read MICR code line data			
48	b. Capture required images			
	i. Front JPEG			
	ii. Front CCITT			
	iii. Rear CCITT			
	iv. UV			
49	c. Image Quality Assurance (IQA) check			
50	d. Perform UV validation at point of capture			
51	e. Perform data-entry, correction and balancing			
52	f. Reconcile all items and batches to ensure correctness of data and well formed transactions and batches			
53	g. Generate CASA information for Outward Items processed.			
54	h. Generate Outward Image Cash Letter (ICL) for dispatch to PCHC Backend			
55	i. Comply with the specified interface protocol with the PCHC (PBM) with respect to delivering Outward ICLs and receiving Acknowledgements.			
56	j. Generate any required Operational, Business, and Management Reports			
57	k. Archive of all outward items			
	<u>Outward Returns Transactions Processing</u>			
58	a. Allocate appropriate return reason to the return items			
59	b. Add unpaid / return items to an Outward Return ICL as per the interface standard			
60	c. Reconcile all return items and batches to ensure correctness of data and well-formed transactions and batches.			
61	d. Generate CASA information for the Outward return items processed			
62	e. Generate Outward Return Image Cash Letter (ICL) for dispatch to PCHC Back-end			
63	f. Comply with the specified interface protocol with the PCHC (PBM) with respect to delivering Outward Return ICLs and receiving Outward Return Acknowledgements			
64	g. Generate any required Operational, Business, and Management Reports			
	Inward Clearing Module			
	<u>Inward Regular Transactions Processing</u>			
65	a. Import of inward ICLs from PCHC			
66	i. Comply with the specified interface protocol with the PCHC (PBM) with respect to receiving Inward Return ICLs.			
67	ii. Validate bank-specific information, such as account numbers.			
68	iii. Process the items received.			
69	iv. Generate CASA information for the inward items processed.			
70	v. Perform Technical Verification from Image			
71	vi. Perform signature verification from image			
72	vii. Make any CASA-based Pay / No Pay decisions.			
73	viii. Identify all unpaid items and include them in Return ICLs that comply with the specified standards for return to the collecting bank via the PCHC.			
74	ix. Generate any required Operational, Business, and Management Reports			
	<u>Inward Returns Transaction Processing</u>			
75	a. Import of inward returned ICLs from PCHC			
76	i. Comply with the specified interface protocol with the PCHC (PBM) with respect to receiving Inward Return ICLs			
77	ii. Validate bank-specific information, such as account numbers.			
78	iii. Process the items received.			
79	iv. Perform Return Item processing in accordance with the business requirements of the bank and the Rules published by PCHC			
80	v. Generate CASA information for the Inward Return items processed			
81	vi. Generate any required Operational, Business, and Management Reports.			
82	viii. Represent items in compliance with the Rules (when possible).			
83	ix. Perform any required return tasks relating to the original, depositing client.			
84	Express Clearing Facility (Same Day Settlement/ Credit)			
85	Client Solution for the exchange of clearing files between PCHC and banks.			
	TOTAL			

	Front End System (Additional Features)			
86	The system must be able to provide a list of all menus/functions used/accessed by a user for any given period by date range.			
87	The system is scalable and able to handle increase in future volumes.			
88	System should be able to provide link with email and SMS gateway to send return notification to customers or advise of check cleared.			
89	Integration capability with third party systems like Mobile Check Image Capture, SMTP server, SMS engines option to send alerts/notifications to branch personnel/Customers at each work step, if required , Core Banking & other bank legacy system. SMS should be available as required by the bank.			
90	The system can interface with any scanners in the market.			
	TOTAL			
	Signature Verification System			
91	At least side by side check image and signature verification			
92	Signature verification parameters. E.g. Single/Multiple signature verification based in amount, segment, and/or customer tagging.			
93	Link into CICS all account maintenance activities related to signature capture such as: a. Updating of digital signature cards b. Amendment of signatory authority level c. Changes of signatories			
94	Able to migrate existing signature cards to the new Signature Management System			
95	Verification screen, fetching the signatures file, posting status real time from CBS, and displaying check image and details, and account balance in one view.			
	TOTAL			
	Archive			
96	Archive of all outward items (Regular and Returns)			
97	Archive of all inward items (Regular and Returns)			
98	The system should have enterprise class document management capabilities to store and easily retrieve the scanned images on long term basis. (All images captured)			
99	The system should archive all the scanned copies of mandates, checks, data, etc. automatically in the underlying DMS, for future search and retrieval. Search engine should be in place for records such as Checks, Charge/Deposit Slips, and Special Clearing Receipts.			
	TOTAL			
	Post Dated Check (PDC) Management System			
100	System shall have the ability to archive post dated checks for automated outward processing on due date with alerts at first banking hour.			
101	System can interface with Deposit System for PDC Handling.			
102	System can be able to provide inquiry access on received, deposited, dishonored Post dated checks.			
103	System can allow Pullout of PDCs and other client changes anytime.			
	TOTAL			
D	CICS-HARDWARE			
	PC Workstation and Scanner			
	Scanner:			
104	155 Document per Minute throughput or up to 80 Documents per Minute while capturing UV images			
105	Can apply and detects minimum check security features prescribed by PCHC.			
106	Automatic Document Feeder with doyle Document Detection			
107	CCITT and JPEG Image Capture (Grayscale 256bit)			
108	Rear Programmable Endorser 1 to 4 lines of UIC endorsement			
109	Single Pocket			
	PC Workstation:			

	PC of any brand				
110	Single Processor 3.3GHZ				
111	Intel Core i7				
112	Mininum 8GB RAM				
113	1TB SATA Disk 7.2K rpm 3.0GB/s				
114	1GB Ethernet NIC				
	Central Clearing Server and SVS Server				
	<i>Description: Small Configuration Up to 1,000 items per day</i>				
	PC Server:				
	PC Server of any brand				
115	Single Processor 3.3GHZ				
116	Processors has 4 cores 8 Threads				
117	16GB RAM				
118	2TB SATA Disk 6.0GB/s				
119	1GB Ethernet NIC				
120	Win Server 2012 R2				
121	Microsoft SQL 2014 Standard Edition				
123	<i>Miscellaneous: Back up and management tools as defined by the bank; or standard MS Tools provided with Windows and SQL</i>				
	TOTAL				