

GOVERNMENT OF INDIA
(Ministry of Home Affairs)
DIRECTORATE GENERAL
CENTRAL RESERVE POLICE FORCE
EAST BLOCK-7, SEC-1, R.K. PURAM, NEW DELHI-110066
(Email:- comncell@crpf.gov.in Tele/Fax:011-26107493)

No. B.V-7/2021-22-C (EARR)

Dated, the 10th May'2021

To

The Directorate General
Assam Rifles
Shillong-793010
Email: hqdgar@hotmail.com

Subject: Regarding QRs/TDs of "Enhancement of Assam Rifles Records".

Please find enclosed QRs/TDs of "Enhancement of Assam Rifles Records" as Annexure "A & B" duly approved by the competent authority is forwarded herewith for further necessary action.

Encl: (QRs & TDs of subject items)



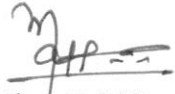
{P.R.Jha, DC (Comn)}
For DIG (Equipment)
Directorate General, CRPF

No. B.V-7/2021-22-C (EARR)

Dated, the 10th May'2021

Copy to:-

1. Liaison Office, Assam Rifles, Room No.171, North Block, New Delhi- 110001 for info please.



{P.R.Jha DC(Comn)}
For DIG (Equipment)
Directorate General, C R P F

TECHNICAL SPECIFICATION

ENHANCEMENT OF ASSAM RIFLES RECORDS

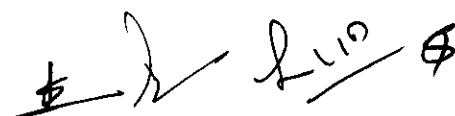
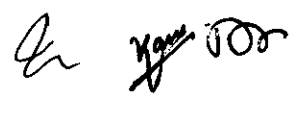
S No	Particulars	Compliance	Remarks
<u>SCOPE OF WORK</u>			
<u>Introduction</u>			
1.	The technology used for the system has exhausted its life but hardware is still functional hence a change in hardware of the Record Automation system is not recommended. The software caters for essential requirements however higher functions needs to be built which will exploit the data being captured in the system for better man management and automating respective functions.		
<u>Proposed Plan</u>			
2.	Integration of all Internal Branches Software i.e., UPAO, CPBO, ARGIS, ARESA and Recruitment(Rect) Branch are the major depending Branches of Record Automation. These branches should be inter connected for various data exchange purpose. The master data base available with ARCAMS will be used for all routine functioning of UPAO, ARGIS and ARESA. However, CPBO & Mobile application will update their database time to time through an API/ XML files. In addition to the above, the system will have an open API model to integrate all existing application such ARGIS, ARESA, CPBO, UPAO and Recruitment Branch. A web page ARCAMS be created and real time data be provided to all users. Data/System administrator can create new forms in web page and unit will fill up their details for easy and prompt to collection of data. All such collected inputs will readily available on desired report format.		
3.	<u>Requirement Analysis</u> (a) Vendor to Analyse user requirements to arrive at a proposed solution for the system in terms of Software characteristics. This Phase will be initiated on approval of a project Proposal. The deliverables in this Phase will define the proposed System in enough details to justify the requirements presented and to prepare an implementation plan. (b) This Phase may include following activities:- (i) Examine the current System in detail. (ii) Preparation of implementation plan. (iii) Approval of implementation by HQ DGAR. (iv) Revise the plan as required.		
4.	<u>High Level Design</u> (a) The overall functioning of the System has been defines		

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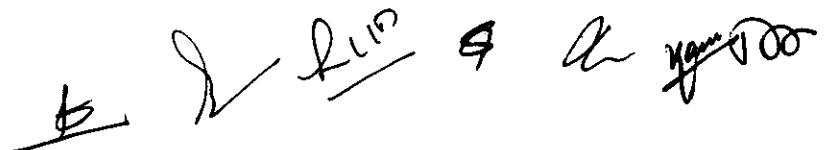
	<p>Qualitative Requirements (QRs). For its implementation Functional and Physical rules and design guidelines will be established by the vendor in construction with HQ DGAR. The functional definition of the System will be presented in the document in a manner understandable to the user as well as development Team.</p> <p>(b) Vendor will provide the following on approval of implementation plan.</p> <ul style="list-style-type: none"> (i) Build Functional Data Model. (ii) Build Functional Process Model. (iii) Define System performance criteria. (iv) Define Architectural Standards. (v) Build Prototype. <p>(c) Prepare Functional Specifications for Unit Process.</p>		
5.	<p>Low Level Design</p> <p>(a) Do the detailed design of the Software components and write specifications of various software components based on High Level Design.</p> <p>(b) The Function design documentation as per 123(c) above should allow the user to approve the description of each Unit Process and contain sufficient details to allow the development Team to process with System Construction activities. The Phase includes following activities:</p> <ul style="list-style-type: none"> (i) Build Physical Data Model. (ii) Build Physical Process Model. <p>(c) Write Specifications for Unit Process.</p>		
6.	<p>Construction, Compilation and Testing</p> <p>Produce Unit tested Software components. This may include following activities:</p> <ul style="list-style-type: none"> (i) Program Physical Data Model (ii) Program Physical Process Model (iii) Prepare User guides and documentation (iv) Conduct Unit Testing with demonstrating data. 		
7.	<p>Training, finalizing implementation.</p> <p>a) Providing Training on all modules as per plan and schedule provided by HQ DGAR.</p> <p>(b) The phase will be the final phase which will consist of the following :</p> <ul style="list-style-type: none"> (i) On Hand Training along with implementation. (ii) Once the users are confident a final phase of training will be provided. (iii) Package will be handed over in running condition. 		
8.	<p>Documentation</p> <p>(a) Providing Detailed documentation for managing system technically and at User Level.</p> <p>(b) Documentation to Include Technical Documentation & User Manual for the Entire Developed System.</p>		
9.	<p>The Platform should not depend on Operating System (OS) and run on any upgraded OS.</p>		

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10.	The system should run on virtualized environment.		
11.	A central policy manage compendium & look up of policy be created. When a new policy updated in this module an automated popup will generate for info of users. This would be available as website of ARCAMS.		
12.	Entry module for Units should be based on latest technologies and Web Services (The cut of date should be the date of supply order).		
13.	The system will be optimized for low bandwidth factor for remote locations.		
14.	System will provide details for probable candidates for a selected vacancy based on various policies mentioned in the policy master.		
15.	System will provide analytics based on the location of a unit and also suggest how to improve strength.		
16.	Integrating it with services like Data Security to keep transparently encrypted at all times, Use PKI to enable Digital Signing of All Documents using CCA India approved tokens and allow login and access privileges based on Single Sign on and Centralized identity and access management.		
17.	Integrating it with ARMS will allow auto triggering of emails to concerned departments like when a posting order is processed and an email will be sent to the locations where SOS/TOS is about to occur. It should be a digitally signed documents).		
18.	Integrating Recruitment rally will enable easy generation of requirements, generation of rally locations, auto storing of records for selected candidates through ARTC&S.		
19.	A website on ARWAN be created exclusively for all units/formations for accessing all type of user's info details including pay slip, form-16, ARGIS statement etc. All policies and posting, promotion, MACP, Part-II orders, attachments, deputation, ERE, posting In, posting out, online grievances, online posting request, AME/BMI, promotion lacking, Medical re-categorisation, apprehension roll, review of service cases, death cases of pensioners, details of 100 days of leave reports etc will be made available for this user's portal. User IDs for individual and unit/formation to be created. Main database would be linked with this website and a real time application be made available. This website should have a facility of online generation of leave app, leave cert, movement order, parade state, ration strength etc. and it should instantly updated with ARCAMS database on trigger based operation. Option for addition/deletion of new inputs/forms/reports should be made available with system administrator.		
20.	Data Security in form of Authentication, Authorization, Encryption and Audit logs will be available for all transactions including that of the administrator.		
21.	On generation of pension documents and receipt of Separation Part-II orders the system will automatically transfer all details from effective to non-effective DB. This will ensure performance of functional and active DB as non-		

	effective data will not be processed every time.		
22.	Physical documents can be stored with RFID based tags. This will enable locating the file very easy using Tag Finders and also on the system. The racks can be configured with RFID readers and will automatically detect any file available in the specified rack.		
23.	A simplified search option will be provided which will enable operators and users to find details by just typing a keyword and based on their access privileges the system will show search results.		
24.	A detailed MIS for various activities like details of individuals who retired between two dates, personnel belonging to a state, retired on a particular rank etc. will be available.		
25.	A case management module will help in keeping NE but active files in a separate active zone for example files under litigation etc.		
26.	The entire system should be deployed on ARWAN and should be accessible over ARWAN to all locations of Assam Rifles. The data accessibility has to be optimized for minimum bandwidth consumption using Caching at Local Systems and server side processing.		
27.	The entire system will be deployed centrally through which each branch can utilize their computing power of their localized system and should get the benefits of the centralized Engineered Storage		
28.	The system should store a Centralized Database which is to be used by all the modules for different branches.		
29.	The system should store all data pertaining to all automations related to records and will be accessed by various automation systems through a central console.		
30.	The system should just take one entry and the same data should be replicated to all other sections of records instantly.		
31.	Data verification will be done by the one single branch or user and same verified data will also be accessible to all other branch.		
32.	The system should give alert to the user if the personnel data is not verified properly and until the process is not completed the system should not proceed to further process.		
33.	The system should check and validate duplicity of the data.		
34.	The system should validate personnel data so that the data should only be saved when the mandatory fields are filled properly.		
35.	The system should perform background audit of each and every entries or transaction made by the user. The audit reports should be available to the System Administrator as and when required and for any specific period and time.		
Record Modules			
36.	The system should store master unit details.		
37.	The system should store master ranks details.		
38.	The system should store master trade details.		
39.	The system should store master branch details.		
40.	The system should store master qualification types		
41.	The system should store master cast category.		



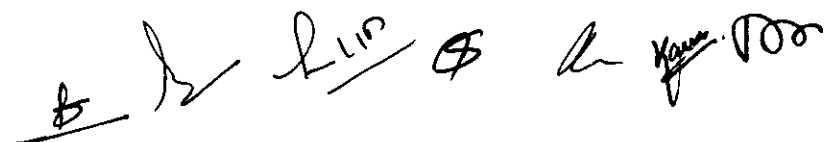
42.	The system should store master religion details.		
43.	The system should store master pay scale details.		
44.	The system should store master pay matrix details.		
45.	The system should store master leave category details.		
46.	The system should store master allowances details.		
47.	The system should store master deductions details.		
48.	The system should store master award type details.		
49.	The system should store master state details.		
50.	The system should store master nationality details.		
51.	The system should be capable of storing the personal details.		
52.	The system should be capable of storing the unit details.		
53.	The system should be capable of storing the enrollment details.		
54.	The system should be capable of storing the education details.		
55.	The system should be capable of storing the address details.		
56.	The system should be capable of storing the marital status details.		
57.	The system should be capable of storing the sports/games details.		
58.	The system should be capable of storing all existing masters without any changes.		
59.	All report should be export in to XML, MS Excel, MS Word and PDF format and it also available for printing (all applicable formats).		
60.	All functions of existing BRO-C module will be made available in the new system without any error and all suggested modifications should be implemented.		
61.	The Part-II Orders new Performa will be included in the new system as per the details given below :-		
	(a) Enclosure - A (Details of Group I to IV of Part-II Orders format).		
	(b) Enclosure - B (Details of Part-II Order Mgt System).		
	(c) Enclosure - C (Details of Centralised Pub of Part-II Orders).		
62.	A new format of Part-II Orders will be shared to all deputation unit and they will fwd draft Part-II Order/ manual Part-II Order to respective unit. Based on this unit will pub part-II order or capture details of manual Part-II Orders. This option will be applicable for only to deputation out cases. The inputs will further linked to various reports on Part-II Order mgt to knowing the real time position of pub of Part-II Orders of deputed out pers. For Central Controlled Category, the Part-II order will be pub by Documents Group based on the inputs of units.		
63.	Enclosure - D (Details of Dispensation of Registers).		
64.	Enclosure - E (Details of ARESA Modules).		
65.	Enclosure - F (Details of ARGIS Modules).		
66.	Enclosure - G (Details of Pension Documents Generation from Unit).		
67.	Enclosure - H (Details of Monitoring of Death/ Dismiss/ Suspension/ Missing Cases).		
68.	Enclosure - J (Details of Online Mail Mgt Sys).		

69.	Enclosure - K (Details of Application Programming Interface and XML format of Part-II order data exchange with CPBO and CDDO).		
70.	An option be created in ARCAMS module for Biometric digital authentication of each data entry/ edition/ authorisation. This will further linked to audit trail reports and all operations of the module should be linked for getting correct audit trail report. Option for digital signature on all documents to be incorporated. The database admin will allot user rights for digital signatures to respective users.		
71.	Enclosure - L (Details of Online HR Module for Units).		
72.	Enclosure - M (Details of Online Ration Strength Management System).		
73.	Enclosure - N (Details of Online Posting Request).		
74.	Enclosure - O (Identity Card Issue and Management System).		
75.	Enclosure - P (Details of ECHS Online application system).		
76.	Enclosure - Q (Details of Online Processing and Management of ACRs).		
77.	Enclosure - R (Details of Online Individual Pay Statement).		
78.	Enclosure - S (Details of Management of Digitalized Documents).		
79.	Enclosure - T (Details of Option for Documentation for AR Civilians).		
80.	Dashboard for Sec Officer, Coord Officer, Col Records and Brig Pers. A dashboard be created for each appointment to monitor the program of day to day functioning of the office. The dashboard will including mail status, Posting, Promotion, UMO, 179 Days attachment, Part-II Order status, ACR status, IPS status, death case, AME/BMI, LMC, medical review, cast category status, pension documents status, sheet roll status, parade state and ration strength, etc. Admin will allow to add new report on dashboard. The module can be extended to any other appointments as per user rights allotted by database admin.		
81.	Enclosure - U (Details of Manpower Analysis).		
82.	An option be created in ARCAMS for auto generation of a letter to individual and his unit on happening all imp occurrences. This mail shall send through by post/ by ARMS to the unit and individual concerned. This letter should be a digitally signed letter. Posting, promotion, grant of MACP, Change of NOK, upgrade/ downgrade med cat, change of kindred roll portion of Sheet Roll etc. are the important occurrence. Administrator would be empowered to add/ delete any number of items to the list.		
83.	Enclosure - V (Details of Sheet Roll and FSD Generation at Training Centre).		
84.	Enclosure - W (Details of New Sub Module for DSP Account Insurance Claims).		
85.	Enclosure - X (Details of New Sub Module for Pension Revision).		
86.	A comprehensive audit trail report is required for all data entry, login details, editing, deleting, validating and authorisation operation. This audit trail including date and		

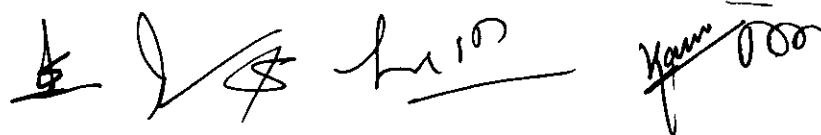
	time and complete particulars of individual who operated this sys. Database Administrator will allot the audit trail report generating rights to respective users. The login should be configured with AR Access Key for authentication, encryption and signing.		
87.	A dynamic query builder option be created in the module including all rows, columns and table of the database. User can generate any type of query by selecting various criteria as per his/ her requirement.		
88.	Migration of data from old system to new upgraded sys be entered without losing of any data and functions.		
89.	Enclosure - Y (Details of Online Grievances).		
90.	An option be created to transfer of documents to archive after 30 yrs of retirement. This data can also accessed by dealing staff with different user's right. This library will called as non effective archive library.		
91.	Enclosure - Z (Details of function of existing software).		
92.	Enclosure - AA (Details of function "A "Branch Legal Section Module).		
93.	Enclosure - AB (Details of function "A" Branch Discipline Section Module).		
94.	Enclosure - AC (Details of AME entry form & report).		
95.	Enclosure - AD (Details of Promotion Lacking report).		
96.	Enclosure - AE (Details of 179 days Attachment Tenure).		
97.	Enclosure - AF (Details of NE-III Death in service and Family Pension/ Dependent Family Pension).		
98.	Enclosure - AG (Details of Progress Report).		
99.	Enclosure - AH (Details of Medical re-categorisation and due date calculation report).		
100.	Enclosure - AJ (Details for capturing disability (%) and attribution of disability).		
101.	Enclosure - AK (Details for capturing the details of C of I and further its reports should be made available in ARCAMS).		
102.	Enclosure - AL (Details of Apprehension Roll).		
103.	Enclosure - AM (Details of Review of Service Cases).		
104.	Enclosure - AN (Details of PG Cell).		
105.	Enclosure - AO (Details of Pension Section (Serving)).		
106.	Enclosure - AP (Details of death cases of pensioners).		
107.	Enclosure - AQ (Details of 7 th CPC related pay and allowance).		
108.	Enclosure - AR (Details for 100 days of leave).		
109.	Enclosure - AS (Details of posting module).		
110.	A Centralized policy manager will enable creating of all policies centrally which can be used by various concerned departments like a change in pay and allowances policy, changes in subscription policy, changes in OTTB, changes in porting policy, promoting policy etc. A Policy uploading option to be create for Record Branch in new ARCAMS website and the Policies of other branches will collect by Record Branch on monthly / occurrence basis.		
111.	Integration with Mob Application. A facility for data transfer from Record App to Mob App through XML/API files has already existing. The same facility will continue in the new		

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	system and auto generation of incremental data on every 24/48hrs will also be ensured by the sys.		
112.	Enclosure - AT (The System will generate FSA of all affected cases and provide API/XML files and PDF, MS Word, MS Excel files (including print out) to CPBO software for further integration. All FSA related input, forms & reports to be prepared.)		
113.	This system should capable of providing inputs through chatbox for all desktop users and IVRS for all users approach through telephone (Mil telephone only). The inputs like family details, qualifications, promotions, total pay credited, number of leave accumulated etc should available for all sub users. Administrator would be empowered to add or delete any number of items to the list.		
114.	A comprehensive user right allotment system should be prepared. This would further linked to audit trail for monitoring the activity of each user. The system administrator is empowered to allot all type of user rights/ selected user right to a user. Module/ sub module/ report wise user right allotment is required.		
115.	Enclosure – AU (An option be created in web portal of Record Branch Software (ARCAMS) for allotting Regimental number of all newly enrolled pers. Further its related reports be also created on allotting Regimental number. This would be available for Training Centre for allotting Regimental numbers, based on pre-decided block of numbers.)		
116.	Inputs of newly enrolled recruitments receiving from online recruitment registration portal would be able to import to BROCM module of ARCAMS for initial pub of Part-II orders. This include all basic personnel particulars, PAN, Aadhar Number, emails, mob number, home address, civil education qualification, etc. The system administrator is empowered to add any number of Field/item.		
117.	Enclosure - AV (The existing Hardware (HW) also be taken in to consideration while calculating HW requirements of the project. Hardware will be upgraded by the Vendor (if required) to ensure a very fast (near real time) and responsive system. However, 15 high end book scanner are required for updating scanned documents of NE pers.		
118.	Enclosure - AW (An API is available in mob app server for updating the data of AR pers. ARCAMS should be the data feeder for the API and provide data as required in XML/API to internal server of mobile app. Additional field/data if any required by AB PM-JAY at later stage also be provided to mobile app server.)		
119.	Venders will include Artificial Intelligence (AI) wherever is possible in the project for better usage of the application.		
CPBO Integration.			
120.	The system should seamlessly gather data from record and PAO module for bill processing.		
121.	CPBO should only generate the final pay slip of the individuals after the PAO generates the credits statement.		
122.	CPBO can automatically update bill information based on new		

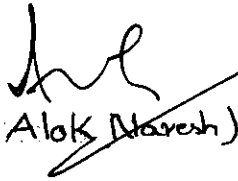


	rank and location where the personnel is posted.		
123.	The system should automatically display provident fund data to CPBO instantly when the data is updated from the GPF section.		
124.	The system should have multi-layered checks to ensure that only eligible individuals' pay and allowances are generated. The slips should have a cross reference from the PAY generated Credit Statement.		
125.	The system should automatically calculate leave encashment of the personnel when the person retires from Assam Rifles.		
126.	The system should be able to verify the data entered by the CPBO.		
127.	The system should be able to credit the bill to the individual's account upon successful verification.		
128.	The system should be able to generate credit report for payment after the verification of final bills received from CPBO.		
129.	Record Branch will provide specific inputs of Part-II orders in XML format like number of days, from date, to date, % of HRA etc, based on that CPBO systems will auto calculate correct pay and allowances of all individuals.		
<u>HARDWARE SPECIFICATION</u>			
130.	<u>High End Book & Document Scanner (Qty – 15 Nos)</u>		
(a)	The scanner should support larger format (>A1) available for flat document removing the book cradle (1085 mm x 76g mm), more than 600 x 800 mm (300 DPI), with glass and books up to 20 cm thickness or equivalent or higher.		
(b)	Should support 300 DPI – Scan time in color < 1 Sec at 300 DPI, 400 DPI- interpolated from 300 DPI.		
(c)	Should support 71 Mega Pixel, Metric Sensor camera, Auto focus, no mechanical shutter and extra 156 Mega pixel metric sensor camera, auto focus and 1000 x 1000 DPI maximum resolution or equivalent or higher.		
(d)	Should support TIFF, TIFF multi page, JPEG, JPEG2000, BMP, PDF, PDF multipage, PNG, DNG file format and fast data transfer: USB 3.0 scanner interface.		
(e)	Should support interface software: Software to process, enrich and convert media/document into digital assets and operated by Win 7, 8, 10 of higher and 32/64 bit.		
(f)	Should support 3 source for better homogeneity, 2 position with or without book cradle, LED lighting- cold lighting, cover to protect operators eyes.		
(g)	Should support book cradle: 20 cm / 20 Kg, Motorised glass plate, Motorised book plate, Auto leveling system, front touch pad, Automatic glass release, removable book cradle to obtain a large scan area and self-opening and closing glass plate.		
(h)	Should support color live preview before scan, multiple frame management : saving multiple file from once scan, auto focus, real-time lighting correction, light "On" only during scan, automatic calibration and fine tune calibration menu, thumbnails flow, multilingual operator interface and embedded image processing.		



131.	Digital Signature USB Crypto Token (Qty - 180 Nos)		
(a)	Should support digital signature certificate, FIPS certificate as per IT act, certificate encryption, data encryption bits as per latest procedure of CCA (Bits) and CCA approved CL-III digital signature token (equivalent or higher).		
(b)	Should support USB crypto token, auto run with built in drivers, acceptance of user verification through the authorized signatory of the concerned.		
(c)	Interoperability guidelines from CCA which shall be governed by the IT Act.		
132.	Biometric Digital Authentication Keys (Qty - 180 Nos)		
(a)	Finger Geometry recognition		
(b)	Work on Server Client Methodology		
(c)	Details should be stored and matched as and when required		
(d)	Should support USB Port.		


(Lt Col Smita Bagbande)
SO1 (Comn & IT)
HQ DGAR


(Maj Gen Alok Naresh)
IG AR (S)
HQ DGAR


(Kamlesh Kumar)
Team Commander
NSG

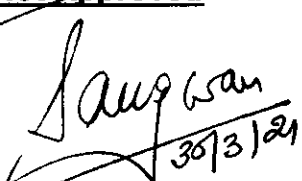

(Dy Comdt Madhvendra Singh)
ITBP


(SI/T Pardeep Kumar)
CRPF

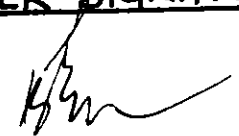

(Asst Comdt Sandesh Kumar)
SSB


(HS Sri Hari)
Dy Director
DCPW

Approved/ Not Approved


(Sukhdeep Sangwan)
Lt Gen
Director General Assam Rifles

COUNTER SIGNATURE


(KULDIP SINGH)
D.G. CRPF, DTE. GENL.

TECHNICAL DIRECTIVES

ENHANCEMENT OF ASSAM RIFLES RECORDS

All parameters/ specifications mentioned in QRs will be checked by the Board of Officers by ascertaining/ verifying following checks in the presence of Vendor/ Supplier/Manufacturer. In case of any discrepancies/ problem, the representative of firm will demonstrate the features to the Board of Officers. Further, if proper testing Instruments for testing these parameters are not available with customer, same will be arranged by the firm:

- (i) Physical Check :- In this category, specifications of the equipment will be checked by B.O.O. Physical check as per QRs.
- (ii) Functional Check :- In this category, supplier will show practically all features/ configuration to the board of officers during trial.
- (iii) Submission of Certificate:- Specifications which cannot be checked due to lack of testing facilities/ expertise, certificate of any Govt lab or NABL/ILAC accredited laboratory be submitted by the firm.

S No	Particulars	Trial Directives
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Proposed Plan		
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3.	<p><u>Requirement Analysis</u></p> <p>(a) Vendor to Analyse user requirements to arrive at a proposed solution for the system in terms of Software characteristics. This Phase will be initiated on approval of a project Proposal. The deliverables in this Phase will define the proposed System in enough details to justify the requirements presented and to prepare an implementation plan.</p> <p>(b) This Phase may include following activities:-</p> <ul style="list-style-type: none"> (i) Examine the current System in detail. (ii) Preparation of implementation plan. (iii) Approval of implementation by HQ DGAR. (iv) Revise the plan as required. 	BOO to check practically on ground
4.	<p><u>High Level Design</u></p> <p>(a) The overall functioning of the System has been defines Qualitative Requirements (QRs). For its implementation Functional and Physical rules and design guidelines will be established by the vendor in construction with HQ DGAR. The functional definition of the System will be presented in the document in a manner understandable to the user as well as development Team.</p> <p>(b) Vendor will provide the following on approval of implementation plan.</p> <ul style="list-style-type: none"> (i) Build Functional Data Model. (ii) Build Functional Process Model. (iii) Define System performance criteria. (iv) Define Architectural Standards. (v) Build Prototype. <p>(c) Prepare Functional Specifications for Unit Process.</p>	BOO to check practically on ground
5.	<p><u>Low Level Design</u></p> <p>(a) Do the detailed design of the Software components and write specifications of various software components based on High Level Design.</p> <p>(b) The Function design documentation as per Ser No 123(c) above should allow the user to approve the description of each Unit Process and contain sufficient details to allow the development Team to process with System Construction activities. The Phase includes following activities:</p> <ul style="list-style-type: none"> (i) Build Physical Data Model. (ii) Build Physical Process Model. <p>(c) Write Specifications for Unit Process.</p>	BOO to check practically on ground
6.	<p><u>Construction, Compilation and Testing</u></p> <p>Produce Unit tested Software components. This may include following activities:</p> <ul style="list-style-type: none"> (i) Program Physical Data Model (ii) Program Physical Process Model (iii) Prepare User guides and documentation 	BOO to check practically on ground

	(iv) Conduct Unit Testing with demonstrating data.	
7.	Training, finalizing implementation. (a) Providing Training on all modules as per plan and schedule provided by HQ DGAR. (b) The phase will be the final phase which will consist of the following : (i) On Hand Training along with implementation. (ii) Once the users are confident a final phase of training will be provided. (iii) Package will be handed over in running condition.	BOO to check practically on ground
8.	Documentation (a) Providing Detailed documentation for managing system technically and at User Level. (b) Documentation to Include Technical Documentation & User Manual for the Entire Developed System.	BOO to check practically on ground
9.	The Platform should not depend on Operating System (OS) and run on any upgraded OS.	
10.	The system should run on virtualized environment.	
11.	A central policy manage compendium & look up of policy be created. When a new policy updated in this module an automated popup will generate for info of users. This would be available as website of ARCAMS.	BOO to check practically on ground
12.	Entry module for Units should be based on latest technologies and Web Services (The cut of date should be the date of supply order).	
13.	The system will be optimized for low bandwidth factor for remote locations.	
14.	System will provide details for probable candidates for a selected vacancy based on various policies mentioned in the policy master.	
15.	System will provide analytics based on the location of a unit and also suggest how to improve strength.	
16.	Integrating it with services like Data Security to keep transparently encrypted at all times, Use PKI to enable Digital Signing of All Documents using CCA India approved tokens and allow login and access privileges based on Single Sign on and Centralized identity and access management.	BOO to check practically on ground
17.	Integrating it with ARMS will allow auto triggering of emails to concerned departments like when a posting order is processed and an email will be sent to the locations where SOS/TOS is about to occur. It should be a digitally signed documents).	
18.	Integrating Recruitment rally will enable easy generation of requirements, generation of rally locations, auto storing of records for selected candidates through ARTC&S.	BOO to check practically on ground
19.	A website on ARWAN be created exclusively for all units/formations for accessing all type of user's information details include pay slip, form-16, ARGIS statement etc. All policies and posting, promotion, MACP, Part-II orders, attachment, deputation, ERE, posting In, posting out, online grievances, online posting request, AME/BMI, promotion lacking, Medical re-categorisation, apprehension roll, review	BOO to check practically on ground

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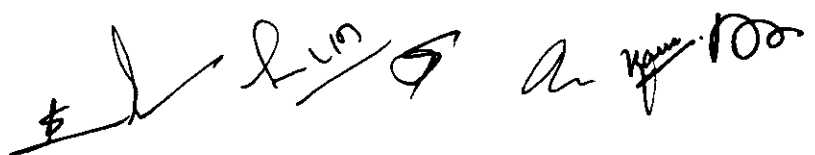
	of service cases, death cases of pensioners, details of 100 days of leave reports etc will be made available for this user's portal. User IDs for individual and unit/formations to be created. Main database would be linked with this website and a real time application be made available. This website should have a facility of online generation of leave application, leave certificate, movement order, parade state, ration strength etc. and it should instantly updated with ARCAMS database on trigger based operation. Option for addition/deletion of new inputs/forms/reports should be made available with system administrator.	
20.	Data Security in form of Authentication, Authorization, Encryption and Audit logs will be available for all transactions including that of the administrator.	
21.	On generation of pension documents and receipt of Separation Part-II orders the system will automatically transfer all details from effective to non-effective Data Base (DB). This will ensure performance of functional and active DB as non-effective data will not be processed every time.	BOO to check practically on ground
22.	Physical documents can be stored with RFID based tags. This will enable locating the file very easy using Tag Finders and also on the system. The racks can be configured with RFID readers and will automatically detect any file available in the specified rack.	
23.	A simplified search option will be provided which will enable operators and users to find details by just typing a keyword and based on their access privileges the system will show search results.	
24.	A detailed MIS for various activities like details of individuals who retired between two dates, personnel belonging to a state, retired on a particular rank etc. will be available.	
25.	A case management module will help in keeping North East but active files in a separate active zone for example files under litigation etc.	
26.	The entire system should be deployed on ARWAN and should be accessible over ARWAN to all locations of Assam Rifles. The data accessibility has to be optimized for minimum bandwidth consumption using Caching at Local Systems and server side processing.	BOO to check practically on ground
27.	The entire system will be deployed centrally through which each branch can utilize their computing power of their localized system and should get the benefits of the centralized Engineered Storage	
28.	The system should store a Centralized Database which is to be used by all the modules for different branches.	
29.	The system should store all data pertaining to all automations related to records and will be accessed by various automation systems through a central console.	
30.	The system should just take one entry and the same data should be replicated to all other sections of records instantly.	
31.	Data verification will be done by the one single branch or user and same verified data will also be accessible to all other branch.	




32.	The system should give alert to the user if the personnel data is not verified properly and until the process is not completed the system should not proceed to further process.	BOO to check practically on ground
33.	The system should check and validate duplicity of the data.	
34.	The system should validate personnel data so that the data should only be saved when the mandatory fields are filled properly.	
35.	The system should perform background audit of each and every entries or transaction made by the user. The audit reports should be available to the System Administrator as and when required and for any specific period and time.	
Record Modules		
36.	The system should store master unit details.	BOO to check each feature practically on ground and to generate report where ever it is applicable
37.	The system should store master ranks details.	
38.	The system should store master trade details.	
39.	The system should store master branch details.	
40.	The system should store master qualification types	
41.	The system should store master cast category.	
42.	The system should store master religion details.	
43.	The system should store master pay scale details.	
44.	The system should store master pay matrix details.	
45.	The system should store master leave category details.	
46.	The system should store master allowances details.	
47.	The system should store master deductions details.	
48.	The system should store master award type details.	
49.	The system should store master state details.	
50.	The system should store master nationality details.	BOO to check each feature practically on ground and to generate report where ever it is applicable
51.	The system should be capable of storing the personal details.	
52.	The system should be capable of storing the unit details.	
53.	The system should be capable of storing the enrollment details.	
54.	The system should be capable of storing the education details.	
55.	The system should be capable of storing the address details.	
56.	The system should be capable of storing the marital status details.	
57.	The system should be capable of storing the sports/games details.	
58.	The system should be capable of storing all existing masters without any changes.	
59.	All report should be export in to XML, MS Excel, MS Word and PDF format and it also available for printing (all applicable formats).	
60.	All functions of existing BRO-C module will be made available in the new system without any error and all suggested modifications should be implemented.	
61.	The Part-II Orders new Performa will be include in the new system as per the details given below :- (a) Enclosure - A (Details of Group I to IV of Part-II Orders format). (b) Enclosure - B (Details of Part-II Order management System).	



	(c) Enclosure - C (Details of Centralised Publication of Part-II Orders).	
62.	A new format of Part-II Orders will be shared to all deputation unit and they will fwd draft Part-II Order/ manual Part-II Order to respective unit. Based on this unit will publish part-II order or capture details of manual Part-II Orders. This option will be applicable for only to deputation out cases. The inputs will further linked to various reports on Part-II Order management to knowing the real time position of pub of Part-II Orders of deputed out pers. For Central Controlled Category, the Part-II order will be published by Document Group based on the inputs of units.	BOO to check each feature practically on ground and to generate report where ever it is applicable
63.	Enclosure - D (Details of Dispensation of Registers).	BOO to check each feature practically on ground and to generate report where ever it is applicable
64.	Enclosure - E (Details of ARESA Modules).	BOO to check each feature practically on ground and to generate report where ever it is applicable
65.	Enclosure - F (Details of ARGIS Modules).	
66.	Enclosure - G (Details of Pension Documents Generation from Unit).	
67.	Enclosure - H (Details of Monitoring of Death/ Dismiss/ Suspension/ Missing Cases).	
68.	Enclosure - J (Details of Online Mail management System).	
69.	Enclosure - K (Details of Application Programming Interface and XML format of Part-II order data exchange with CPBO and CDDO).	
70.	An option be created in ARCAMS module for Biometric digital authentication of each data entry/ edition/ authorisation. This will further linked to audit trail reports and all operations of the module should be linked for getting correct audit trail report. Option for digital signature on all documents to be incorporated. The database admin will allot user rights for digital signatures to respective users.	
71.	Enclosure - L (Details of Online HR Module for Units).	BOO to check each feature practically on ground and to generate report where ever it is applicable
72.	Enclosure - M (Details of Online Ration Strength Management System).	
73.	Enclosure - N (Details of Online Posting Request).	
74.	Enclosure - O (Identity Card Issue and management System).	
75.	Enclosure - P (Details of ECHS Online application system).	
76.	Enclosure - Q (Details of Online Processing and management of ACRs).	
77.	Enclosure - R (Details of Online Individual Pay Statement).	
78.	Enclosure - S (Details of management of Digitalized Documents).	
79.	Enclosure - T (Details of Option for Documentation for AR Civilians).	
80.	Dashboard for Sec Officer, Coord Officer, Colonel Records and Brig Pers. A dashboard be created for each appt to monitor the program of day to day functioning of the office. The dashboard will include mail status, Posting, Promotion, UMO, 179 Days attachment, Part-II Order status, ACR status, IPS status, death case, AME/BMI, LMC, med review,	BOO to check each feature practically on ground and to generate report where ever it is applicable



	cast category status, pension documents status, sheet roll status, parade state and ration strength, etc. Admin will allow to add new report on dashboard. The module can be extended to any other appt as per user rights allotted by database admin.	
81.	Enclosure - U (Details of Manpower Analysis).	BOO to check each feature practically on ground and to generate report where ever it is applicable
82.	An option be created in ARCAMS for auto generation of a letter to individual and his unit on happening all imp occurrences. This mail shall send through by post/ by ARMS to the unit and individual concerned. This letter should be a digitally signed letter. Posting, promotion, grant of MACP, Change of NOK, upgrade/ downgrade medical category, change of kindred roll portion of Sheet Roll etc. are the important occurrence. Administrator would be empowered to add/ delete any number of items to the list.	BOO to check each feature practically on ground and to generate report where ever it is applicable
83.	Enclosure - V (Details of Sheet Roll and FSD Generation at Training Centre).	BOO to check each feature practically on ground and to generate report where ever it is applicable
84.	Enclosure - W (Details of New Sub Module for DSP Acct Insurance Claims).	
85.	Enclosure - X (Details of New Sub Module for Pension Revision).	
86.	A comprehensive audit trail report is required for all data entry, login details, editing, deleting, validating and authorisation operation. This audit trail include date and time and complete particulars of individual who operated this sys. Database Administrator will allot the audit trail report generating rights to respective users. The login should be configured with AR Access Key for authentication, encryption and signing.	BOO to check each feature practically on ground and to generate report where ever it is applicable
87.	A dynamic query builder option be created in the module include all rows, columns and table of the database. User can generate any type of query by selecting various criteria as per his/ her requirements.	BOO to check each feature practically on ground and to generate report where ever it is applicable
88.	Migration of data from old system to new upgraded system be entered without losing of any data and functions.	
89.	Enclosure - Y (Details of Online Grievances).	
90.	An option be created to transfer of documents to archive after 30 yrs of retirement. This data can also accessed by dealing staff with different user's right. This library will called as non effective archive library.	
91.	Enclosure - Z (Details of function of existing software).	BOO to check each feature practically on ground and to generate report where ever it is applicable
92.	Enclosure - AA (Details of function A Branch Legal Section Module).	
93.	Enclosure - AB (Details of function A Branch Discipline Section Module).	
94.	Enclosure - AC (Details of AME entry form & report).	
95.	Enclosure - AD (Details of Promotion Lacking report).	
96.	Enclosure - AE (Details of 179 days Attachment Tenure).	

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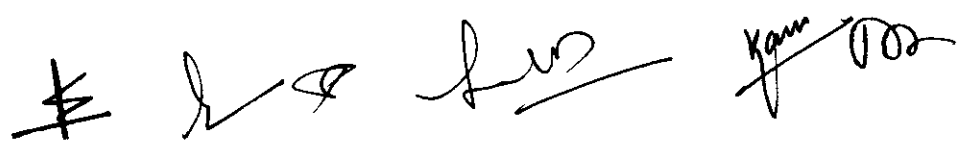
97.	Enclosure - AF (Details of NE-III Death in service and Family Pension/ Dependent Family Pension).	
98.	Enclosure - AG (Details of Progress Report).	
99.	Enclosure - AH (Details of Medical re-categorisation and due date calculation report).	
100.	Enclosure - AJ (Details for capturing disability (%) and attribution of disability).	
101.	Enclosure - AK (Details for capturing the details of C of I and further its reports should be made available in ARCAMS).	
102.	Enclosure - AL (Details of Apprehension Roll).	
103.	Enclosure - AM (Details of Review of Service Cases).	
104.	Enclosure - AN (Details of PG Cell).	
105.	Enclosure - AO (Details of Pension Section (Serving)).	
106.	Enclosure - AP (Details of death cases of pensioners).	
107.	Enclosure - AQ (Details of 7 th CPC related pay and allowance).	BOO to check each feature practically on ground and to generate report where ever it is applicable
108.	Enclosure - AR (Details for 100 days of leave).	
109.	Enclosure - AS (Details of posting module).	
110.	A Centralized policy manager will enable creating of all policies centrally which can be used by various concerned departments like a change in pay and allowances policy, changes in subscription policy, changes in OTTB, changes in porting policy, promoting policy etc. A Policy uploading option to be create for Record Branch in new ARCAMS website and the Policies of other branches will collect by Record Branch on monthly / occurrence basis.	
111.	Integration with Mob App. A facility for data transfer from Record Application to Mob Application through XML/API files has already existing. The same facility will continue in the new system and auto generation of incremental data on every 24/ 48hrs will also be ensured by the sys.	
112.	Enclosure - AT (The System will generate FSA of all affected cases and provide API/XML files and PDF, MS Word, MS Excel files (including print out) to CPBO software for further integration. All FSA related input, forms & reports to be prepared.)	BOO to check each feature practically on ground and to generate report where ever it is applicable
113.	This system should capable of providing inputs through chatbox for all desktop users and IVRS for all users approach through telephone (Mil telephone only). The inputs like family details, qualifications, promotions, total pay credited, number of leave accumulated etc should available for all sub users. Administrator would be empowered to add or delete any number of items to the list.	
114.	A comprehensive user right allotment system should be prepared. This would further linked to audit trail for monitoring the activity of each user. The system administrator is empowered to allot all type of user rights/ selected user right to a user. Module/ sub module/ report wise user right allotment is reqd.	
115.	Enclosure - AU (An option be created in web portal of Record Branch Software (ARCAMS) for allotting Regimental number of all newly enrolled pers. Further its related reports be also created on allotting Regimental number. This would be	

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	available for Training Centre for allotting Regimental numbers, based on pre-decided block of numbers.)	
116.	Inputs of newly enrolled recruits receiving from online recruitment registration portal would be able to import to BROC module of ARCAMS for initial pub of Part-II orders. This include all basic personnel particulars, PAN, Aadhar Number, emails, mobile number, home address, civil education qualification etc. The system administrator is empowered to add any number of Field/item.	
117.	Enclosure - AV (The existing HW also be taken in to consideration while calculating HW requirements of the project. Hardware will be upgraded by the Vendor (if required) to ensure a very fast (near real time) and responsive system. However, 15 high end book scanner are required for updating scanned documents of NE pers.	
118.	Enclosure - AW (An API is available in mob app server for updating the data of AR pers. ARCAMS should be the data feeder for the API and provide data as required in XML/API to internal server of mobile app. Additional field/data if any required by AB PM-JAY at later stage also be provided to mobile app server.)	
119.	Venders will include Artificial Intelligence (AI) wherever is possible in the project for better usage of the app.	
CPBO Integration.		
120.	The system should seamlessly gather data from record and PAO module for bill processing.	
121.	CPBO should only generate the final pay slip of the individuals after the PAO generates the credits statement.	
122.	CPBO can automatically update bill information based on new rank and location where the personnel is posted.	
123.	The system should automatically display provident fund data to CPBO instantly when the data is updated from the GPF section.	
124.	The system should have multi-layered checks to ensure that only eligible individuals' pay and allowances are generated. The slips should have a cross reference from the PAY generated Credit Statement.	BOO to check each feature practically on ground and to generate report where ever it is applicable
125.	The system should automatically calculate leave encashment of the personnel when the person retires from Assam Rifles.	
126.	The system should be able to verify the data entered by the CPBO.	
127.	The system should be able to credit the bill to the individual's account upon successful verification.	
128.	The system should be able to generate credit report for payment after the verification of final bills received from CPBO.	
129.	Record Branch will provide specific inputs of Part-II orders in XML format like number of days, from date, to date, % of HRA etc, based on that CPBO systems will auto calculate correct pay and allowances of all individuals.	

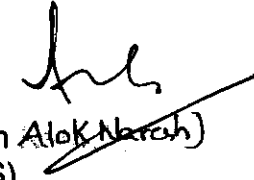
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HARDWARE SPECIFICATION			
130. High End Book & Document Scanner (Qty – 15 Nos)			
(a)	The scanner should support larger format (>A1) available for flat document removing the book cradle (1085 mm x 76g mm), more than 600 x 800 mm (300 DPI), with glass and books up to 20 cm thickness or equivalent or higher.	BOO to check practically on ground and verify from certificate of compliance from the OEM/technical Brochure	
(b)	Should support 300 DPI – Scan time in color < 1 Sec at 300 DPI, 400 DPI- interpolated from 300 DPI.		
(c)	Should support 71 Mega Pixel, Metric Sensor camera, Auto focus, no mechanical shutter and extra 156 Mega pixel metric sensor camera, auto focus and 1000 x 1000 DPI maximum resolution or equivalent or higher.		
(d)	Should support TIFF, TIFF multi page, JPEG, JPEG2000, BMP, PDF, PDF multipage, PNG, DNG file format and fast data transfer: USB 3.0 scanner interface.		
(e)	Should support interface software: Software to process, enrich and convert media/document into digital assets and operated by Win 7, 8, 10 of higher and 32/64 bit.		BOO to check practically on ground and verify from certificate of compliance from the OEM/technical Brochure
(f)	Should support 3 source for better homogeneity, 2 position with or without book cradle, LED lighting- cold lighting, cover to protect operators eyes.		
(g)	Should support book cradle: 20 Cm / 20 Kg, Motorised glass plate, Motorised book plate, Auto leveling system, front touch pad, Automatic glass release, removable book cradle to obtain a large scan area and self-opening and closing glass plate.		
(h)	Should support color live preview before scan, multiple frame management : saving multiple file from once scan, auto focus, real-time lighting correction, light "On" only during scan, automatic calibration and fine tune calibration menu, thumbnails flow, multilingual operator interface and embedded image processing.		
131. Digital Signature USB Crypto Token (Qty – 180 Nos)			
(a)	Should support digital signature certificate, FIPS certificate as per IT act, certificate encryption, data encryption bits as per latest procedure of CCA (Bits) and CCA approved CL-III digital signature token (equivalent or higher).	BOO to check practically on ground and verify from certificate of compliance from the OEM/technical Brochure	
(b)	Should support USB crypto token, auto run with built in drivers, acceptance of user verification through the authorized signatory of the concerned.		
(c)	Interoperability guidelines from CCA which shall be governed by the IT Act.		



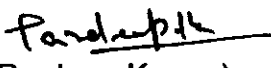
132.	Biometric Digital Authentication Keys (Qty - 180 Nos)	
(a)	Finger Geometry recognition	BOO to check practically on ground and verify from certificate of compliance from the OEM/technical Brochure
(b)	Work on Server Client Methodology	
(c)	Details should be stored and matched as and when required	
(d)	Should support USB Port.	


(Lt Col Smita Bagbande)
SO1 (Comn & IT)
HQ DGAR


(Maj Gen Alok Narah)
IG AR (S)
HQ DGAR


(Kamlesh Kumar)
Team Commander
NSG

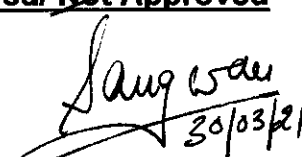

(Dy Comdt Madhvendra Singh)
ITBP


(SI/T Pardeep Kumar)
CRPF



(Asst Comdt Sandesh Kumar)
SSB


(HS Sri Hari)
Dy Director
DCPW

Approved/ Not Approved


(Sukhdeep Sangwan)
Lt Gen
Director General Assam Rifles

COUNTER SIGNATURE


KULDIP SINGH
D.G. CRPF, DTE GENL.