



ನವ ಮಂಗಳೂರು ಬಂದರು ಪ್ರಾಧಿಕಾರ
ನವ ಮಂಗಳೂರು ಪತ್ತನ ಪ್ರಾಧಿಕಾರಣ
NEW MANGALORE PORT AUTHORITY
(Fully Solar Powered)
ಭಾರತ ಸರ್ಕಾರ (ಪತ್ತನ, ಪೋತ ಪರಿವಹನ ಔರ ಜಲಮಾರ್ಗ ಮಂತ್ರಾಲಯ)
Govt of India (Ministry of Ports, Shipping and Waterways)
ಪಣಂಬೂರು ಪಣಮ್ಬೂರ Panambur / ಮಂಗಳೂರು ಮಂಗಳೂರ Mangalore - 575010



No: NMPA/CME/2023-24/CAMC/RFID

Dtd.22/12/2023

To,

The Prospective Bidders

Sir,

Sub: Operation and Comprehensive Annual Maintenance Contract (CAMC) of the RFID system for a period of 5 years at NMPA – Budgetary quotations requested - Reg.

Budgetary offers are invited from prospective bidders for the work of “Operation and Comprehensive Annual Maintenance Contract (CAMC) of the RFID system for a period of 5 years at NMPA”.

1. **BRIEF NOTE:**

The work involves Operation and Comprehensive Maintenance Contract (CAMC) of the existing RFID system, which includes manning, repair, servicing, maintenance and replacement of hardware as and when required, complete with necessary fittings, cable laying, installation, commissioning, networking, at all 3 gates of the Port i.e. Gate No. 1 MALLYA GATE, Gate No.2 KK GATE, Gate No.3 SJ GATE & at AO Building and also making arrangements for Augmentation requirements and additional requirements for a period of 5 years. Updating, renewing of license/validity of software is also included in the contract. The RFID system is installed and operated by M/s.CMS Computers Private Limited, Bangalore w.e.f 01/04/2017. The system should be maintained to ensure easy, fast and hazzle free movement of men and vehicles through all 3 gates and to ensure fool-proof security, to prevent entry/exit of any unauthorized person or vehicle. The software should be integrated seamlessly with NMPA’s ERP/POS/PCS for the efficient issue of gate passes during contract period.

2. **Objective of RFID system installed at NMPA:**

NMPA has installed RFID based gate access control system for smooth and faster gate movements. The proposed scope of work under this enquiry is for operation and comprehensive maintenance contract of the RFID based gate access control system for a period of five years. Broad objectives of the RFID based gate access control system are as follows:

- Automated and fast movement of men, material and machines at entry/exit gates of NMPA.
- Control and limit access only to authorized personnel at the port.
- Dwell time monitoring of men, material and machines inside the port.
- Record movement of men, material and machines based on data provided in RFID card
- Provide historical data for audit trial.
- Meet ISPS code compliance.
- Hazzle free port entry/exit process for men, material and machines with minimum human interference.

3. BASIC REQUIREMENTS FROM THE PROSPECTIVE BIDDER:

Prospective bidder shall have competence and experience to man and maintain the RFID system, carry out new integrations by developing APIs, networking or any other requirements related to port access as per requirements:

I. Existing RFID based gate access control system

Existing System is an integrated system comprising of the following items:

Sl. No	Description	Units	Qty	Make
1	RFID UHF READER Cum Transceiver	No	8	Thing Magic
2	RFID HF Reader	No	14	HID
3	RFID HF Controller	No	8	HID
4	32" LED Display	No	16	LG 32SM5KB
	HP Mini Pc	No	12	HP Pavilion 300-240tem
5	RFID Pass Issue Sys			
	a)Industrial PC @ 1 nos	SET	4	Dell Optiplex 3040MT
	b)RFID HF Desktop Read/Write @1 Nos			ID-Tech
	c) RFID UHF Desktop Read/Write @1 Nos			Omnikey 5021
	d)Web Camera @1 Nos			Logitech C615
	e)Smart Card Printer @1 Nos			Zebra
	f)Label Printer @1 Nos			HP CP 1025
	g)Scanner @1 Nos			HP Scanjet G3110
	h)Sign Pad @1 Nos			Iball Pentablet 8060U
6	RFID renewal KIOSK			No
7	Hand Held terminal (capable of Display of photo)	No	4	Zebra
8	Local Gate Server	No	3	Dell Power Edge R430
9	Port Server	No	2	Dell Power Edge R430
10	Switch	No	3	Alcatel-Lucent
11	Internet Outen to Connect Central Server to IPA Server	No	0	
12	3 KVA UPS	No	7	Numeric
13	Web Based port Access Control Software including Hosting	Lump sum	1	IDCube
14	Web Based port Access Control Software (PACS) Client- Concurrent sessions	No	15	IDCube
15	PACS- Comprehensive Server Software (Including Database, Back Up, Archive, Integration APIs2	No	1	IDCube
16	Incident Management/Supervisor Work Station	No	2	Dell Optiplex 3040MT
17	Printers-H6avy Duty B/W	No	6	Epson

18	Industrial PCs	No	11	Dell Optiplex 3040MT
19	Automatic barrier Gate	No	6	Magnetic Autocontrol
20	Tripod Turnstile with drop arm	No	6	Centurion
21	Signage Boards	No	12	Local
22	Cabling/Installation	Lump sum	1	
23	Network Switch POE Manageable-24 Port	No	1	D Link/ Net gear
24	Long Range reader with accessories (Antenna Cable. Mounting Brackets, External Antenna 270 X 270 Felg,24V AC 3Amp Power supply, for IP64)	No	2 Set	Feig LRU 1002
25	Boom (Access Pro L along with PE sensor) along with accessories	No	2	Magnetic Access Pro-L-RA6000
26	LED DISPLAY With PC mount on L Shape Pole and Enclosure unit for Both in box including accessories	No	4 Sets	LG+Intel PC & enclosure Box
27	Turnstile –Motorized Drop arm Classic Tripod In SS 304 cabinet and 500 MM arm length, lane Indicator, BLDC Motor based drive	No	2	TISO TTM-SS-03
28	Short range Reader	No	2	HID IClass SE R10
29	Controller with PS	No	2	HID Vertex
30	UPS for above material -3KVA (1Phase Input-1 Phase Output) (96 Vdc) Online UPS with 08 nos. of 12V-26 AH SMF batteries, along with battery rack, connecting cables	No	1	Numeric
31	Pole for Long Range Reader Including Foundation and mounting	No	2	Std.ISI
32	3 Core Cable(Power)	meter	300	Polycab/Std
33	4 Core Cable	meter	100	Polycab/Std
34	8 Core Cable	meter	300	Polycab/Std
35	Cat 6 LAN Cable	meter	100	D Link/Std
36	Laying of Loop Sensor Cable 1 Sqmm	meter	90	
37	Pole(4mtr) for Long Range Reader Including Foundation and mounting	No	2	Std.ISI
38	HF reader FRP Box (150x150x100) and 2 5amp Switch and socket	Lump sum	1	ISI/Std
39	10 Watt , 24V DC, 150mm Dia, Signal LED Light Red-2 Nos, Green 2 Nos along with suitable covered mounting enclosure	Nos	4	Std
40	Thermal Printer along with suitable covered mounting enclosure at cabin height of driver	Nos	2	Std
41	Computers in weighbridge	Nos	2	Std

The Existing RFID system includes below features:

- A. RFID based port entry passes to contract staffs, stakeholders, port users, agents, surveyors, workers, labors, drivers, khalasis, stake holders, visitors (guests, passengers, etc.)
 - 1. RFID Passes issued to above port users as per prevailing procedure.
 - 2. Port entry/exit cannot be accessed without an RFID pass.
 - 3. Each RFID pass will be unique identified with Chip Serial Number (CSN)
 - 4. The data in the RFID card to be encrypted.
 - 5. The RFID pass will determine the time limit and the area that the pass holder can access.

- B. Automated entry/exit of vehicles with boom barriers.
 - 1. Vehicles with authorized passes will be allowed speedy entry by automatic opening of the boom barrier when the vehicle card is flashed on the RFID reader and the system verifies the data and grants access.
 - 2. The boom barrier should be configurable to open in few seconds from closed state upon completion of verification by the system.
 - 3. The boom barrier will also have sensors to ensure that it does not fall on vehicle stopped below it or during movement of vehicle underneath.

- C. Automated entry/exit of individuals with turnstiles.
 - 1. Authorized Pass holders are allowed access into the Port gates through turnstiles.
 - 2. On successful authentication of the RFID pass, the turnstile will retrieve instantaneously.
 - 3. The turnstile will restrict multiple person entry on a single pass.

- D. LED screen which displays details of users & vehicles in visual format for verification of CISF and Customs.
 - 1. CISF guard positioned at gate will check the authentication of the person by visually checking the image and details for person & vehicle details which is displayed on the LED display screen.
 - 2. If an expired pass or a blocked pass is flashed on the RFID Access Control readers then the LED display will immediately indicate it to the CISF security by displaying access denied, Validity Expired, Pass blocked etc with visual Alert.

- E. Long Range Readers (UHF Reader) with integrated controller, along with accessories (Antenna cables, Brackets, Fixtures External antenna etc) to capture details of RFID tags on vehicle windshield.
 - 1. Long Range Readers (UHF Reader) with integrated controller installed at all entry / exit gates at the height of truck drivers cabin for easy access to drivers of trucks/trailers.
 - 2. The Long Range readers captures the details from the RFID card from a distance and display the data on the RFID screen for visual confirmation of CISF personnel.
 - 3. Upon acceptance of validity and confirmation of information in the RFID card, the Boom barrier will automatically open to permit the truck inside/outside the port gate.

- F. Short Range Readers (HF Reader) with accessories (Controller, cables, Brackets, Fixtures etc)
1. Short Range Readers (HF Reader) with controller installed at all entry / exit gates at optimum height for easy access by two wheelers, LMV and 4 wheelers.
 2. Short range reader is a touch type reader, where the card needs to physically come in contact with the reader to capture data.
 3. Upon acceptance of validity and confirmation of information in the RFID card, the CISF guard positioned at the gate will permit the two wheeler rider to enter/exit port.
- G. Online web based Pass Issue Request System.
1. RFID card purchase request can be placed by registered firms by login to the system and place a request for purchase/ Activation/ Validity extension.
 2. On approval by the concerned port authority, an eBill will be generated which will enable port user to collect the card from the pass issuing counter at Admin building. The activation and validity extension will be done based on the extension request of the port user. After verification by the concerned port authority, and receipt of payment through the online payment gateway, the validity will be extended.
- H. Provision for online payment gateway.
1. Online payment gateway option to be provided to port users to make payment directly to the Port for pass issue and other related activities. Port users can also maintain minimum fund in their payment gateway account for auto deduction as applicable upon extension of validation.
 2. The Port users should be able to make the payment from any national/recognized bank of their convenience via Net banking, Debit card, Credit card, Debit + ATM, etc.
- I. Alert system through Email, SMS, & Mobile alerts to users.
1. Pass Issue request placed online by registered companies can be accessed by the Port Authority through Port intranet.
 2. The request placed by companies will also have option of alert by email, SMS, mobile alert.
- J. 24/7 manned Control Room for round-the-clock monitoring of RFID system.
1. Control room established to monitor the RFID system at all gates 24/7 with round the clock manpower.
 2. Attend to repairs and breakdowns 24/7 to ensure uninterrupted gate movements.
 3. Unauthorized access or anomalous movement will be highlighted.
 4. Dashboard display of various parameters with real-time updates.
- K. Distributed Architecture
1. The system is highly distributed for better performance and decentralized activities.
 2. The high level of Gate Automation demands that each gate is installed with a local server with an instance of data replication.
 3. The server at each gate is connected to a Central Server in the control room.

4. The Central Server is of high-end to stand online requests from CFS/ICDs, eGovernance Centers, Authorized Centers, etc.
5. Provision to connect the Central Servers to Master Server in IPA shall be made as and when required.

L. High Availability Master Database.

1. The Master database with information on all users, vehicles, policies, etc. will be high availability with active fail over.
2. Master Database is robust to support large scale online requests.
3. Mirroring of Master Database will be implemented.
4. Replication of Master tables will be available at the Gates & Pass Issue Sections.

M. Archival & Retrieval System

1. The transaction data generated by the actions such as RFID pass issue, gate authentication, image capturing, vehicle identification, etc. will be available in the active database for a specific period.
2. The data is then rolled over to active archival system which will have capacity to hold 5 years data.
3. The archival data should be in multiple copies with adequate back ups.
4. Archival data should be actively searchable and available for retrieval anytime.

N. Integration APIs

1. Multi-level APIs provided by the bidder for integration with other systems as required.
2. Standard XML, Text, & Web Services will be available for integration with the system as required.
3. Data format and communication protocol will be open for future integrations.

O. Kiosk based Automatic RFID Pass Renewal System - 2 Nos.

Kiosks to request and renew approved RFID passes is provided at Mallya gate and KK Gate.

1. The Kiosk will also generate & dispense a receipt slip to the user.
2. The Kiosk will be provided with enough protection to work in tough port environment and withstand heavy-duty rough usage.

P. MIS reports.

1. Comparative results and anomaly reports.
2. Knowledge discovery from accumulated data.

Q. Centralized data pooling and reporting.

R. Integration of Weigh bridges.

1. Commercial Vehicle weighed at Weigh Bridge for onwards dispatch should be integrated with vehicle tracking system.
2. The RFID automated weighbridge system with Long range reader, LED screen, Signal light, thermal printer, sensors wiring complete with software, Licensing is under the scope of this contract at W.B.No.2&3.
3. Currently Weighbridge No.1 is not in the scope of CAMC. However if required, Weighbridge No.1 shall also be provided with required software support like APIs and integration as required.

4. Integrated with commercial Section of traffic Department for billing purpose.
- S. Integration with Port Community system (iPOS), Port operating system and ERP.
1. All Import and Export documents such as customs documents, Port users, and Traffic related documents should be integrated with PACs.
- T. Integration with Traffic gate Pass for delivery of Goods/Container to make visible to CISF and customs
1. All import and export Material/Goods/Container gate passes issued by Traffic Office to be made online.
 2. The Material/Goods/Container gate passes issued by Traffic Office may be integrated with customs and CISF.
- U. Application Software for Dock Entry Permit (DEP)
1. Maintain application software for automating the business processes with valid license for software and hardware associated with physical access control to Port premises. The application software to have capabilities such as:
 - a. Multiuser multitasking to allow for independent activities and monitoring to occur simultaneously at different workstations.
 - b. Support authentication and enrolment;
 - Pass verification,
 - Expiration date check, Blacklisting and its management
 - Digital photo display/check,
 - Validate signatures of authorizer / recommender etc.
 - c. Graphical user interface to show pull-down menus and a menu tree format that complies with interface guidelines of Microsoft Windows operating system.
 - d. Real time monitoring and tracking of entry/exit of personnel and vehicles to Port.
 - e. System license shall be for the entire system and shall include capability for future additions that are within the indicated system size limits specified in this Section.
 - f. System shall have open architecture that allows importing and exporting of data and interfacing with other systems.
 - g. Accountability of system components - audit trail.
 - h. System Administration of the application including access controls for access to various modules
 - i. Operator login and access shall be utilized via integrated smart card reader and password protection.
 - j. Interactive Reporting: It should be equipped with suitable MIS for enabling Port Management to get business information as well as monitor the system. The application software to be customized to include all business rules applicable to issue of Passes in Port.
 - k. Information Transfer: Transfer transaction information on daily, monthly and yearly basis to port information system in mutually agreed format.
 - l. Stakeholder should be able to issue passes by login into the system. The system should allow printing of only authorized port users after authentication.
 - m. Information & software interface with third parties.

n. Server reconciled with the payment collected.

V. ISPS code complaint.

1. The system shall comply all safety and security requirements from authorities and comply with the ISPS code.
2. Any changes, modifications in the system as per the suggestions/recommendations of IB/Authorized Cyber Security auditing agencies shall be complied.

The scope of work:

- i. The successful bidder shall maintain, upkeep the existing RFID system, repairing and maintaining items, if required replace the hardware and software etc. as may be required for 24 hrs round the clock operation of RFID system.
- ii. If any of the components is beyond repair and maintenance (Including additional items mentioned under Schedule II of BOQ), then replace the component with new component having same or higher capacity and compatible with the existing system.
- iii. All costs towards hardware, software and allied equipment's & spares, operation and maintenance including items provided at later stage during Augmentation and additional requirements is in the scope of successful bidder.**
- iv. Manning the RFID installations (Pass-section) at the gates, for issue of dock entry permits for individuals/persons and vehicles round the clock (24X7) at US Mallya gate pass section on hot seat arrangement. NMPA administration building shall provide RFID cards to port users as per regulations from 09:30 to 17:30hrs on all Port working days. An inventory of the RFID cards shall be maintained by the successful bidder.

Category of manpower to be deployed:

- a) Service Engineer – 1No – BE / B.Tech/ BCA in electrical / electronics / computer science with hardware and networking knowledge and RFID system experience to co-ordinate with port officers/Port Users/CISF and manage the RFID system.
- b) Data entry staff – 12 Nos – PUC with computer knowledge to carry out data entry for generating pass.
- c) Technician – 2 Nos – Diploma /ITI in electrical / electronics / computer science with hardware and networking knowledge or with more than 5 years experience in maintaining RFID system in organisation with more than 100 employees to carry out repairs/replacement of worn-out spares, test and trial run, maintenance and servicing.
- v. The Successful bidder may also make necessary arrangements to deploy additional staffs / Subject experts / OEM staffs to carry out work as required with approval of EIC at no additional cost.
- vi. Issue of Radio Frequency Identification (RFID) cards with pre-printed format on front side and other details on back side. The RFID cards will be supplied by the port.
- vii. The Successful bidder shall keep spare of items which will encounter frequent breakdowns, the bidder shall also have tie ups with firms to supply hardware items to make it available on urgent basis during breakdowns.

- viii. The successful bidder shall also provide sufficient no of necessary tools, tackles, consumable items, testing instruments and other items required by his technicians to carry out repairs and maintenance.
- ix. The work mentioned is illustrative and not exhaustive and successful bidder may have to carry out other works related to issue of pass/permits which are not included herein above. Additional manpower if required to carry out repair/maintenance/installation etc shall be provided by the successful bidder. Any technical manpower required including IT support executive, repair technician etc. shall be arranged by the successful bidder.
- x. As and when the passes are issued, the soft copy of the details shall be uploaded/updated to the server.
- xi. Network connectivity for the subject work will be provided by the Port. The number of passes issued in each category will be arrived based on the number of records transferred to the Port's server.
- xii. All the hardware/spares must be in sound and good working conditions during the contract period. All repairs/services to be carried out through OEMs/authorized service agencies.
- xiii. The successful bidder shall also be required to arrange for the integration of the software with any other software/3rd party software that is presently in use at NMPA or would be installed at a later stage at no additional cost. Necessary APIs required shall be developed by the successful bidder at his cost.
- xiv. The successful bidder shall conduct and impart necessary training to the CISF, concerned port staff/officers for the operation of the RFID system once in 6 months.
- xv. The successful bidder shall undertake to provide support services for the successful operation of the RFID system after the completion of the contract period upon request by NMPA, at such terms and conditions, as shall be mutually agreed.
- xvi. In addition to the above, the successful bidder shall ensure that necessary replacement/up gradation/integration of hardware and software, as may be required for the successful implementation of this project, from time to time.
- xvii. The successful bidder shall take over the RFID system and all other works as required under this tender, within 15 days from the date of issue of LOA.
- xviii. The successful bidder shall conduct a trial run of the RFID system in co-ordination with the existing contractor M/s.CMS Computers Limited and familiarize with the RFID system regarding the availability of required number of hardware, equipments available system, software, its version and license, programming of software and coding so as to individually operate/modify/improvise the system independently if need arises.
- xix. Successful bidder shall arrange for Backup & Disaster Recovery
 1. Port Access Control Software will have real time fail over as well as DR server.
 2. DR Server will be physically located separate from Central Server.
 3. DR Server will have instance of Master Data that is not any older than 2hours from the live data server.
 4. Configuring the auto replication tool/Application under contractors scope.
 5. Real time Auto data backup should be configured among 5 servers.

- xx. The successful bidder shall get the RFID check list signed by the CISF inspector at the gate for every shift clearly mentioning the down time if any, in prescribed format, on daily basis and submit the report along with monthly invoice for payment.
- xxi. The successful bidder shall also assist CISF personals in making manual entry of the registers to permit port users/vehicles to enter the port during breakdown of the system. Liaison with CISF / Traffic Department/ Marine Department for uninterrupted gate movement during Maintenance shut downs / breakdowns.
- xxii. Successful bidder shall take advance permission from EIC to carry out any up gradation/Maintenance shut down etc. The same shall be carried out during non peak movement hours and during night hours.
- xxiii. New Requirements/Up gradation/Additional scope in RFID system which might be required to be carried out by successful bidder as listed below:

Sl.No	Requirements in future	Scope of Successful Bidder
1	Integration of RFID system with Department of Mines and Geology.	1) Supply of Hardware with integration complete.
2	Integration of RFID system with ICD/CFS etc	2) Installation and Commissioning of the items, equipments.
3	Integration of RFID system with NLDS/NICDC for container tracking or any other department may be required to share information of trucks/cargo etc	3) Integration of the new system with the existing system by developing APIs as required along with software up gradation as required.
4	Augmentation of Gates with new lanes, Introduction of Cruise Gates.	4) Additional licenses as required to add the new readers/devices into the existing software
5	Upgrade the port entry process from RFID card based system to Face recognition system, where in the details of the personnel entering the port shall be captured via face recognition device installed at all entry/exit points of port.	5) Any other requirements for installation and commissioning in Bidders scope.

- xxiv. NMPA is providing UVSS where ANPR cameras will be introduced. The successful bidder shall make provision in his system to integrate the UVSS software with RFID system by developing required APIs.
- xxv. The requirements mentioned above are not exhaustive. The Successful bidder shall also execute any other new requirements which might be required to be executed during the course of contract.
- xxvi. The item wise rates quoted by the bidder in BOQs shall be standard throughout the contract period and if there is any requirements in future other than stated in this contract, the successful bidder shall supply the items in the same rate as quoted in BOQ.

II. Penalty: Penalty will be levied if any of the sub-components fails or if the whole RFID system fails. As per clause xix, The downtime will be calculated based on the RFID check list signed by the CISF inspector at the gate for every shift clearly mentioning the down time:

i. Penalty for total system failure:

- If $1 < Dwt \leq 4$ then

$$P = (Dwt - 1) \times \frac{(1.10 \times Y)}{(12 \times 30 \times 24)}$$

P:Penalty, Dwt: Cumulative Down time in hours for the month,
Y:Amount quoted by the bidder per year

- If $4 \leq Dwt$ then

$$P = Dwt \times \frac{(1.5 \times Y)}{(12 \times 30 \times 24)}$$

- If $Dwt \leq 360$ then the contract will be terminated and PBG will be forfeited.

ii. Penalty for partial system failure:

For calculating penalty, the system is divided into following sub components:

- RFID system not working in individual lanes, total 8 lanes presently.
- Weighbridge Automation Failure
- Failure of capturing data of workers boarding vessel, due to Hardware, Software issue.

$$P = Dwt \times \frac{(1.10 \times Y)}{(12 \times 30 \times 24 \times 10)}$$

Note: The no of lanes mentioned above is subjected to change with increase in no of lanes during gate automation in future.

Part of an hour is considered as one hour.

iii. Penalty for delay in taking over the RFID system within 15 days from the date to issue of LOA

From 16th day of issue of LOA, Rs.1000 per day for first 5 days, Rs.2000 per day from 21st day to 25th day. Rs.4000 per day from 26th to 30th day. After 30 days, Termination of contract and forfeit of EMD.

iv. Penalty towards short supply of Manpower as per duty Roaster

Supervisor – Proportionate deduction

Data entry staff/Technicians - Prorata deduction as per prevailing minimum wages.

III. Indicative Line diagrams of various processes in RFID system:

(ANNEXURE – I)

IV. GENERAL TERMS AND CONDITIONS:

1. The bidders shall visit the facility and get acquainted with the RFID system before quoting for the tender.
2. The RFID system is already installed and functioning smoothly at NMPA. The successful bidder needs to take over the RFID system from the existing Contractor and operate and maintain the same.
3. Successful bidder is responsible for the Operation and Maintenance of the RFID system at NMPA including repairs to items, supply of spares, replacement of items and equipment with similar or higher grade/category as per requirement including installation, commissioning of replaced items and fittings complete.
4. Successful bidder shall make arrangements for Augmentation requirements and additional requirements during his tenure. During Augmentation/additional requirement, the successful bidder shall make arrangements for dismantling of existing devices/items and installing of new devices/items as required
5. Successful bidder shall provide manpower as per requirement and category mentioned at scope of work under category (ii).
 - a) The Service Engineer shall be paid a consolidated amount of Rs.40,000 per month with 5% annual increment. Provision for insurance, medical and other benefits shall be provided as per norms and directions for labour commission.
 - b) The Technicians and Data Entry Staffs shall be considered under Skilled grade and paid minimum wages as per the directives of Central Labour Commissioner(CLC) which shall not be less than the minimum wages applicable to the workers employed for construction & maintenance of roads, runways which comes under Area 'B', revised from time to time.
 - c) Police verification certificate shall be provided for all the staffs within 2 month of commencement of contract and once in 2 years subsequently. For new joinees the certificate shall be provided within 2 months from the date of joining.
6. Staffs shall be provided with 2 pairs of uniforms. i.e Shirt and Pant for Men and Salvar for ladies every year. The colour choice will be informed after the award of contract. The Service Engineers and Technicians shall be provided with Safety helmets, Safety gloves for electrical work, Safety Shoes and socks, Mask etc to carry out their job safely.

7. Payment Terms:

The payment shall be made on monthly basis within 15 days of submission of GST invoice along with supporting documents like EPF, ESI, Wage register, Attendance statement, breakdown register etc by the successful bidder. The penalty if any shall be deducted on actual every monthly before releasing the payment.

The Monthly payment shall be calculated as,

$$M = \left[\frac{Y}{12} \right] - P - (N \times 2)$$

Where **M** is the monthly admissible payment to the successful bidder; **Y** is the tender value quoted by the Bidder per year; **P** is the penalty as mentioned in Clause II, Sub-Clause no.1&2 for the invoice month, **N** is deduction towards short supply of manpower for the invoice month.

8. The successful bidder will be responsible for the safety and security of spares and equipments. An undertaking in this regard shall be submitted during handing over of the equipment. The equipments shall be returned to the EIC after the completion of contract in good working conditions.
9. The successful bidder shall arrange to provide Performance Security Deposit for the contract period of 5 years at 10% of contract value quoted by them.
10. The successful bidder shall also carry out replacement/refitting/re-conditioning including painting and tinkering if required for the structures, supports, fixtures and brackets as per requirement or as directed by EIC.
- 11.1 No room in the ground floor of Administration Building, 1 No Control Room near Main Gate and seating places in KK Gate and SJ Gate for the successful bidder to operate and to store spare items will be allocated till the completion of contract free of cost.
12. The RFID staffs will have to directly interact with CISF personals, Port Officers, staffs, Stake holders, port users, vendors, truck drivers etc hence staffs should display good behaviour and cordial relationship.

You are requested to submit your lowest quotation for the above work in BOQ format. Your quotation in complete shape in the enclosed format addressed to: The Executive Engineer (E)I, New Mangalore Port Authority, Administrative Building, Panambur, Mangalore - 575010 should reach us on or before 04/01/2024.

Encl: ANNEXURE I

Yours faithfully,
-sd-
(Executive Engineer(E))

V. Bill Of Quantity (BOQ):**I. CAMC**

Sl.No	Payments	Rate in Rs.	Amount in Rs.
1	1 st year Operation and CAMC charges		
2	2 nd year Operation and CAMC charges		
3	3 rd year Operation and CAMC charges		
4	4 th year Operation and CAMC charges		
5	5 th year Operation and CAMC charges		
GST @.....%			
Total Amount for 5 years contract			

II. Replacement of existing Infrastructure (To be provided within one year of issue of award of contract):

Sl.No.	Items	Qty	Rate in Rs.	Amount in Rs.
1	RFID HF Reader	14 Nos		
2	RFID HF Controller with PS	14 Nos		
3	Servers	5 Nos		
4	DR Server	1 No		
5	Boom Barriers	8 Nos		
6	3 Core Cable(Power)	300 mtrs		
7	4 Core Cable	100 mtrs		
8	8 Core Cable	300 mtrs		
9	Cat 6 LAN Cable	200 mtrs		
10	3KVA UPS with 120 AH Batteries	7 Sets		
11	Necessary enclosures, Mounting Brackets, conduits, saddles etc	Lumpsum		
12	Face recognition readers	20 Nos		
13	New Software development for Face recognition reader and integration with existing system.	Lumpsum		
14	Migration of data to new server	Lumpsum		
15	GST @.....%			
14	Total of Additional requirements (Sl.No.1 to 14)			

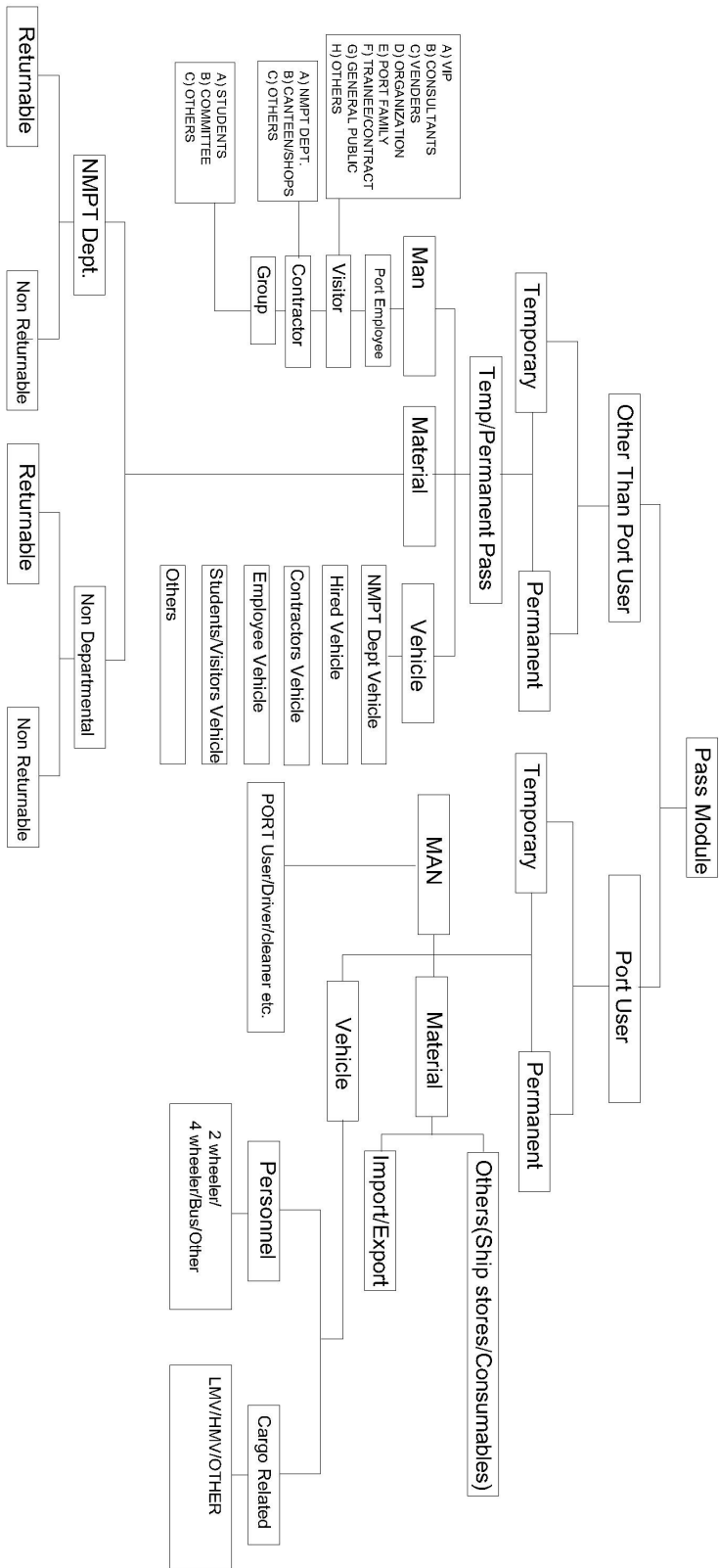
III. AUGMENTATION REQUIREMENT for KK Gate and Introduction of New Cruise Gate:

Sl.No.	Items	Qty	Rate in Rs.	Amount in Rs.
1	Network Switch POE Manageable 24 Port	2 Nos		
2	Long Range Readers UHF with accessories	4 Set		
3	Boom Barrier	4 Nos		
4	LED Display with PC Mount with accessories	8 Set		
5	Turnstile – Motorized	4 Nos		
6	Short Range Readers HF	4 Nos		
7	Controller with PS for HF reader	4 Nos		
8	3KVA UPS with 120 AH Batteries	2 Nos		
9	Mounting Bracket for Long Range UHF Readers	4 Nos		
10	Mounting Bracket for Short Range HP Readers	4 Nos		
11	3 Core Cable(Power)	600 mtrs		
12	4 Core Cable	200 mtrs		
13	8 Core Cable	600 mtrs		
14	Cat 6 LAN Cable	400 mtrs		
15	Conduit, 25mm PVC	600 mtrs		
16	Conduit, 40 mm HDPE	300 mtrs		
GST @.....%				
Total of Augmentation Requirement (Sl.No.1 to 16)				

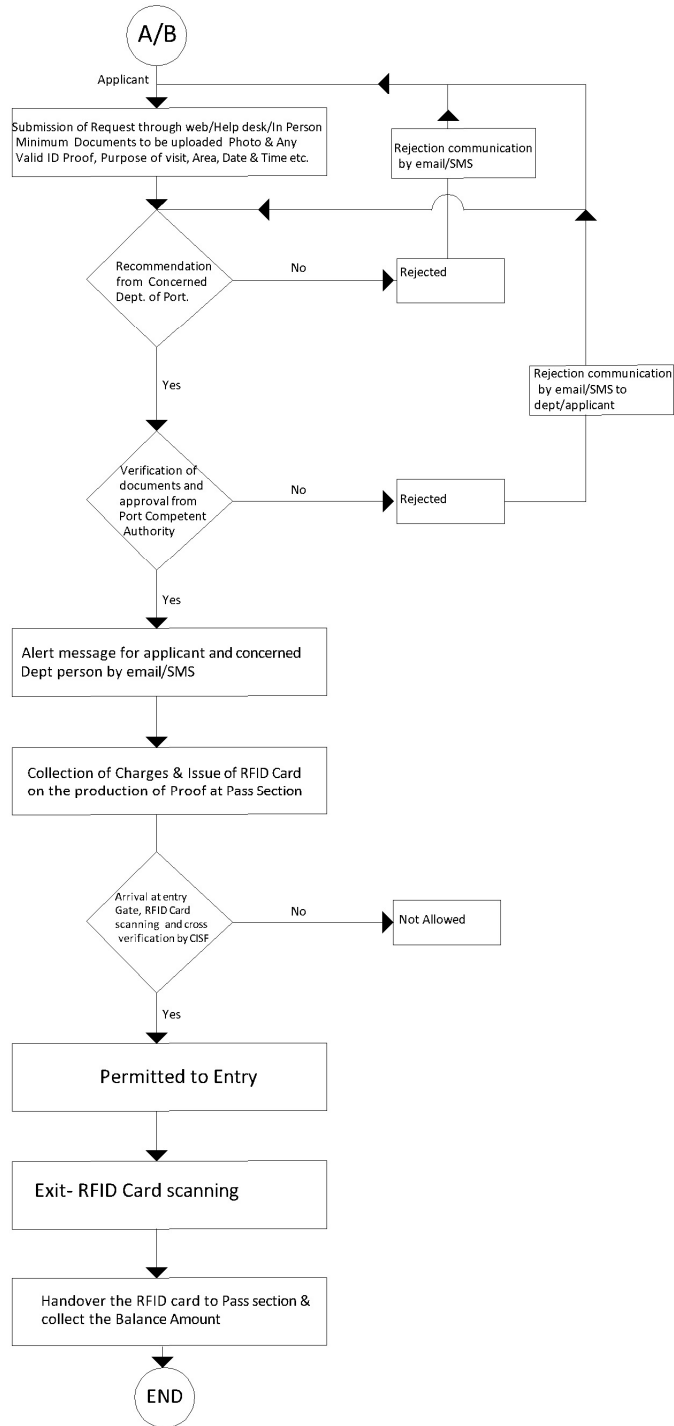
Total of I (Excl GST) + II (Excl GST) + III(Excl GST) =

(In words)

RFID PASS MODULE FOR NMPT-LINE DIAGRAM

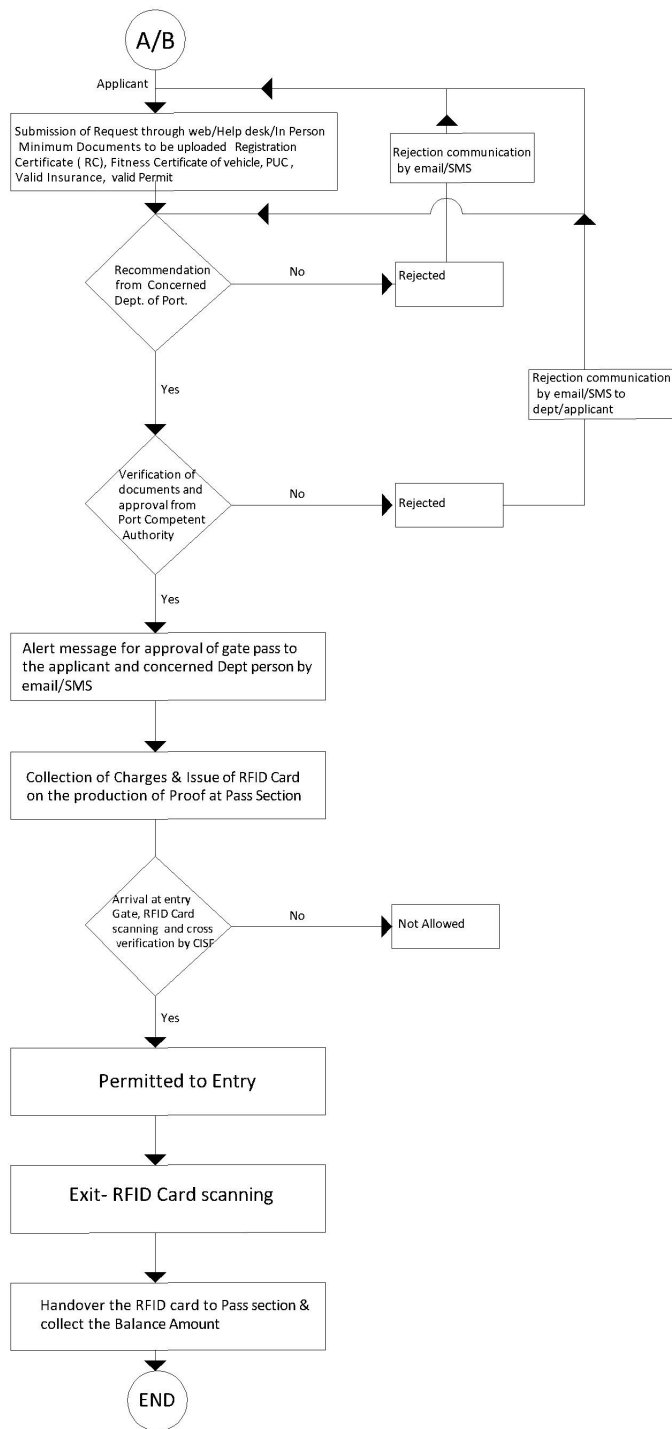


1. Individual Port Entry Pass-Other than port user



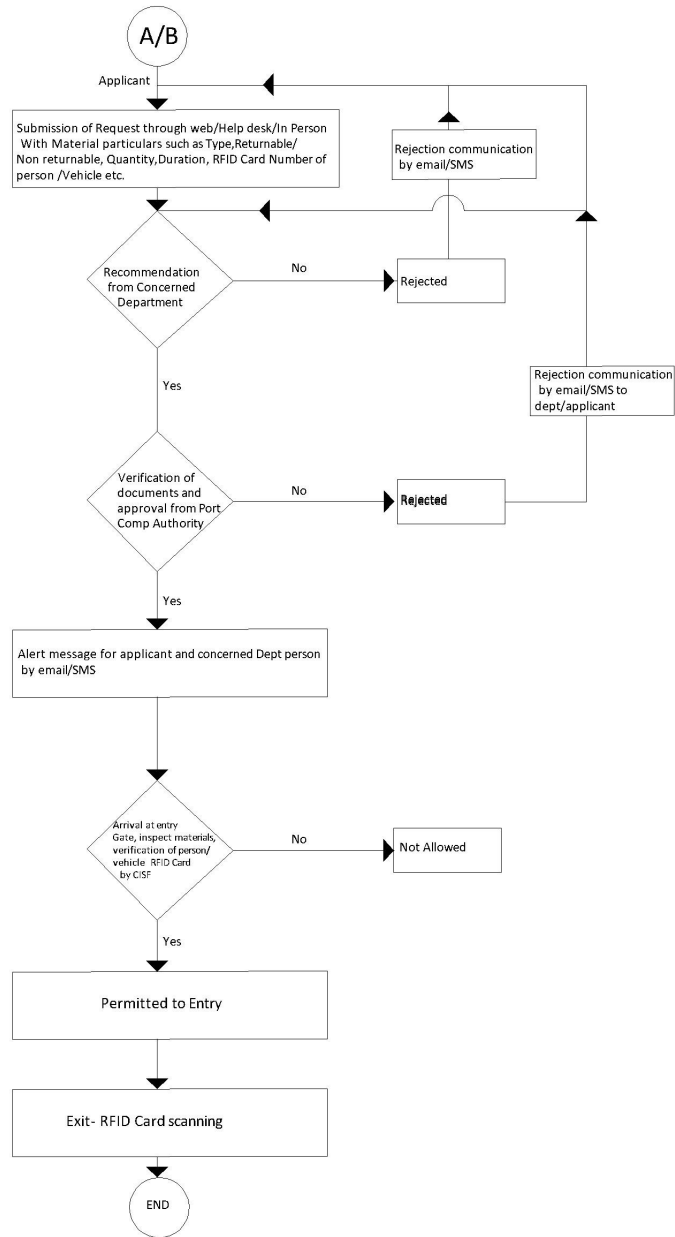
Note:
 A. Temporary <= 1 Month
 B. Permanent > 1 Month

2. Vehicle Port Entry Pass-Other than port user



Note:
 A. Temporary <= 1 Month
 B. Permanent > 1 Month

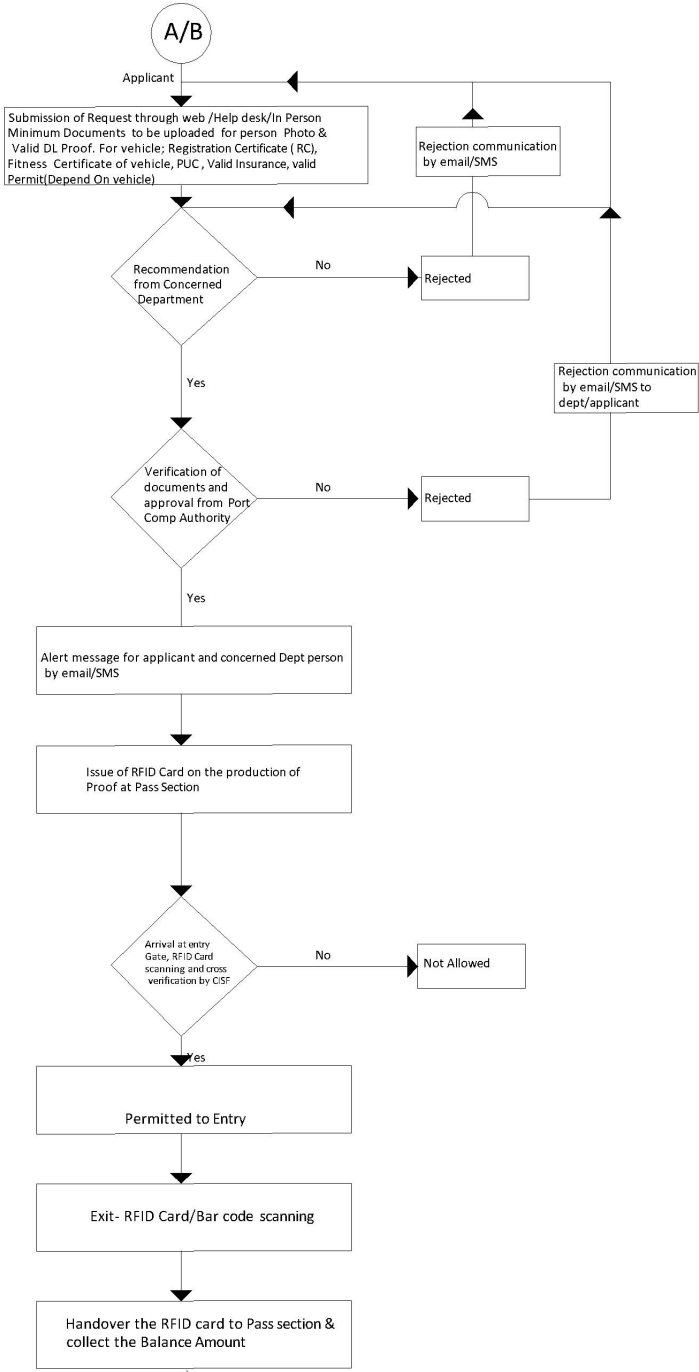
3. Material Port Entry Pass



Note:
 A. Temporary <= 1 Month
 B. Permanent > 1 Month

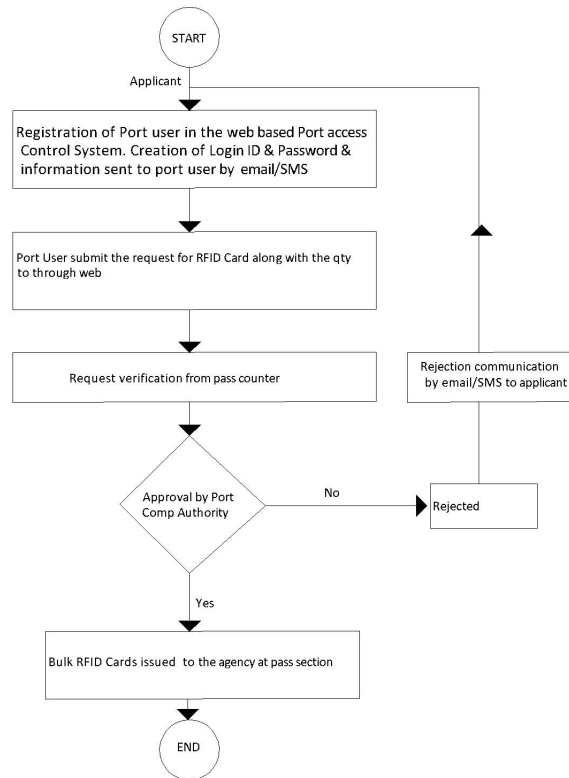
4.

Vehicle with Individual Port Entry Pass



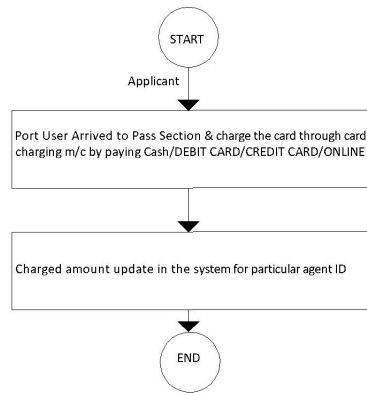
Notes:
 A. Temporary <= 1 Month
 B. Permanent > 1 Month

5. Process Flow for issue of Bulk RFID Cards -Port Users

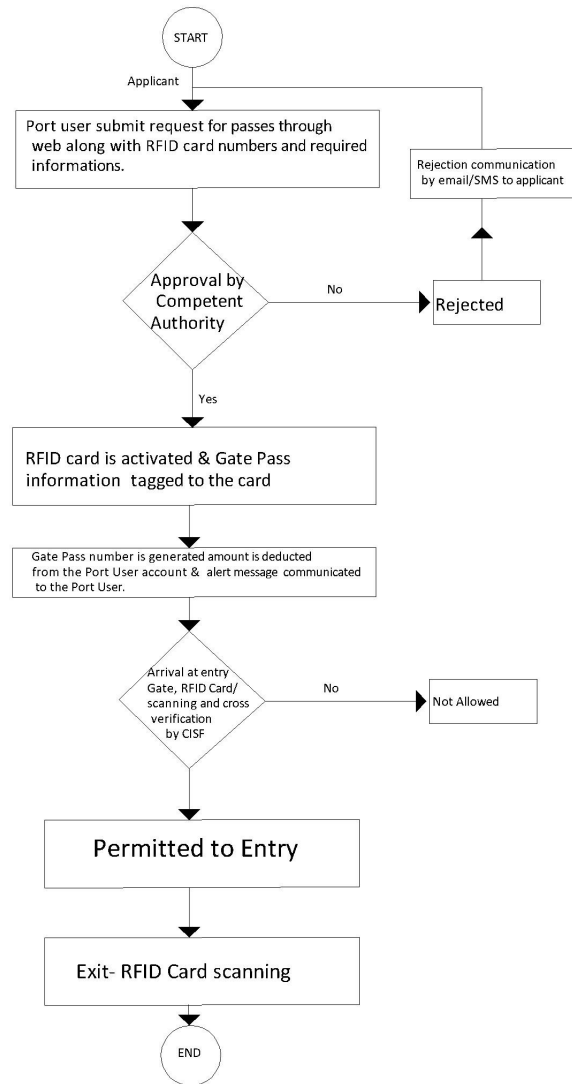


6.

Process Flow for Card Charging-Port User



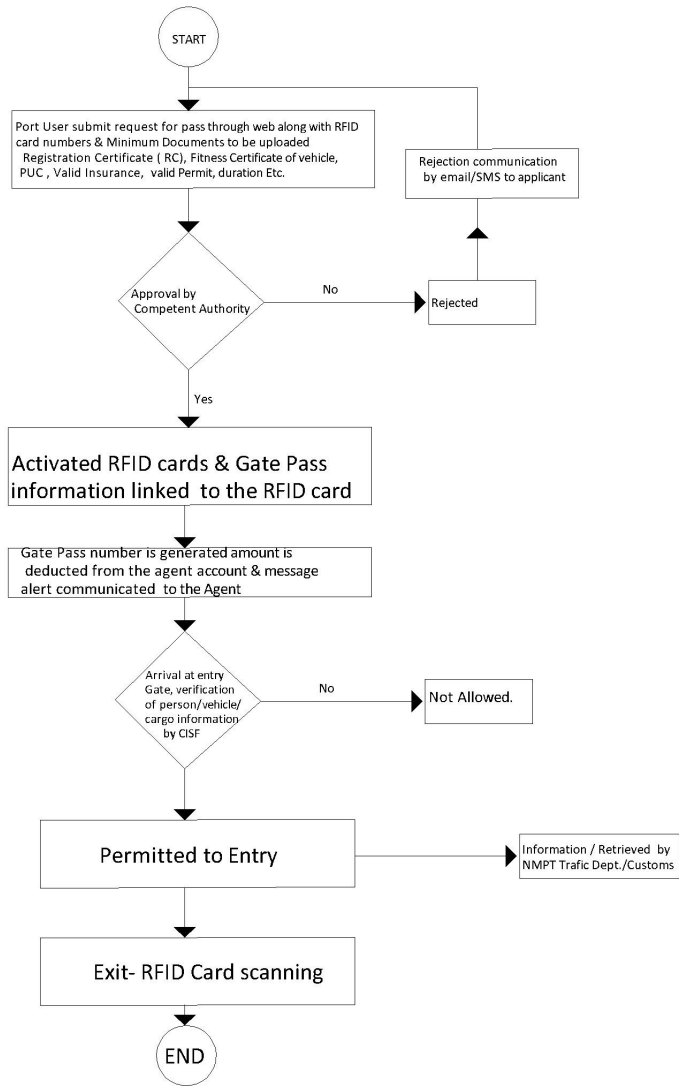
7. Process Flow for Activation/Deactivation of RFID Card to the Direct Port User



Note:
A. Temporary \leq 1 Month
B. Permanent $>$ 1 Month

8.

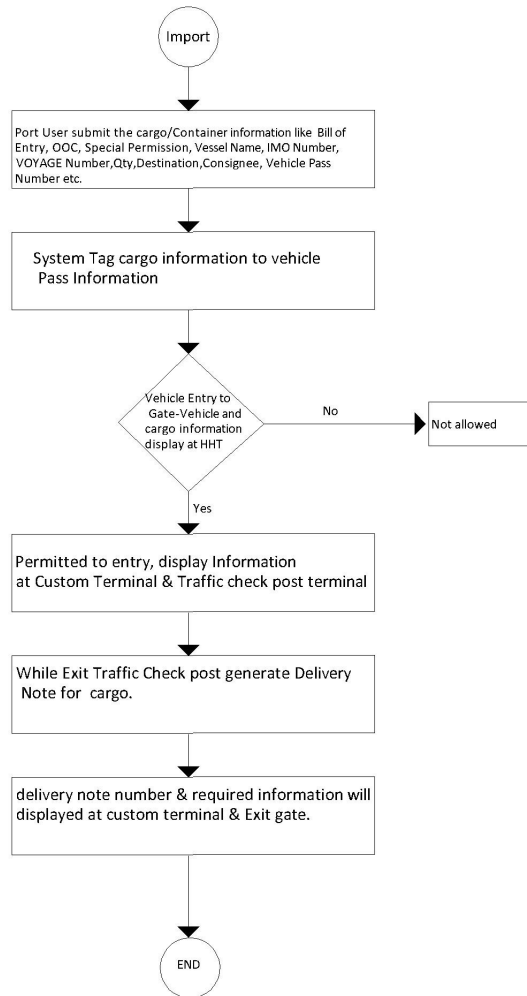
Process Flow for Activation/Deactivation of RFID Card to Direct port user vehicle



Note:
A. Temporary \leq 1 Month
B. Permanent $>$ 1 Month

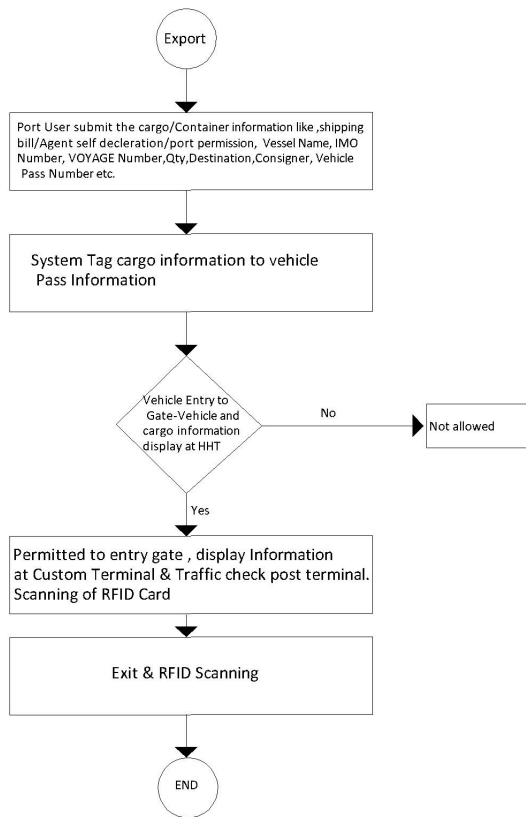
9.

Process Flow for Import cargo information



10.

Process Flow for Export cargo information



11.

Process Flow for Export Ship Stores

