



UTS PROJECT

**Comprehensive Guidelines and
Working Instructions
on UTS Project**

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ANDHRA PRADESH STATE ROAD TRANSPORT CORPORATION

O/o the VC & MD

Lr.No.ATM-II(Mgr-IT)/UTS(2)/22-IT

RTC HOUSE, VIJAYAWADA

JOINT IT/OPD/AUDIT CIRCULAR No.01/2022-IT Dated:16-08-2022

Subject: UTS–Implementation of Unified Ticketing Solution (UTS) Project– Issue of Joint Circular (IT, OPD & Accounts) with Operational Guidelines, duties and responsibilities of different functionaries associated with UTS Project etc., - Reg.

INTRODUCTION:

APSRTC, is a pioneer in adopting appropriate technological advancements that are beneficial to the Corporation, from time to time, with a view to provide the best service to the customers besides improving work experience of its staff.

In the year 2000, Ticket Issuing Machines (TIMs) were introduced in all long distance services, operating with drivers to overcome the shortcomings and the hardships involved in issuing Pre-Printed Tickets like punching the ticket at boarding & alighting stages, issue of multiple tickets for a single passenger, issue of individual tickets to a group of Passengers, Calculation of Concessional ticket fare etc.,

After the successful implementation of Driver TIMs, the project is extended to all services of Corporation in the year 2011.

Likewise APSRTC has introduced many Passenger friendly Technological interventions like, OPRS: Online Passenger Reservation System, VTPIS: Vehicle Tracking & Passenger Information System, PAAS: Pass Automation and Accountal System, APSRTC LOGISTICS: APSRTC Parcel & Courier Services providing different services to the customers on different digital platforms.

OBJECTIVE OF UTS (UNIFIED TICKETING SOLUTION)

The customer while availing, multiple services from APSRTC, is facing certain major disadvantages in the existing eco system. Further, there are some disadvantages to the Corporation as well. The same are summarized hereunder:

1. Passengers need to access multiple interfaces to avail different services of APSRTC.
2. Only 7% of bus seat inventory is made available online for ticket booking.
3. No scope for online ticket purchase after the commencement of the bus trip.

4. No scope for live revenue monitoring in Offline ticket & Bus pass issues
5. No scope for cashless transactions through Offline Systems.
6. No real time intelligence to optimize operations.

APSRTC, with a view to leverage the power of the currently available technologies, has developed the revolutionary concept UTS (Unified Ticketing Solution) to be implemented FOR THE FIRST TIME IN THE COUNTRY amongst all the STUs. This unique state of the art solution integrates all the different services availed by the customer from APSRTC onto a single user friendly platform aiming at taking customer satisfaction to the next level with cascading effect on improving the image and revenues of the corporation.

This requires, all the present offline TIMs to be replaced with Android based 'connected' **e-PoS machines**, with a single application(App) facilitating all types of ticket issues and other services like Cargo and parcel booking, Bus Passes, Vehicle tracking and Passenger information, Bus checking, Customer surveys etc.,

The following System Integrators for the development & maintenance of software and supply of hardware for the UTS project have been selected through competitive bidding cum Reverse Tendering Process and stringent Pre-qualification and Technical qualification criteria duly complying with the statutory requirements in every phase.

1. M/s. Abhibus India services ltd. For software and allied services @ **Rs.17.01/-** plus applicable taxes **for every 100 transactions.**
2. M/s. Ebix Cash Pvt. Ltd., for supply and maintenance of android based e- POS machines @ **Rs.680/- per machine per month** plus applicable taxes.

The Payment to the System Integrators will be made at Head Office in accordance with the Service Level Agreements (SLAs), after receiving online certification from Depot Managers and DPTOs.

TRAINING:

Master ToTs (Trainer of Trainees) from all the depots have been identified from among the Conductors/Drivers with Aptitude, Knowledge and Communication skills and imparted rigorous training in all the aspects of UTS implementation. These ToTs shall in turn train the rest of the staff in their respective Depots.

Further, around 1,000 users were trained by IT team till now, which includes, DPTOs, Depot Managers, ToTs, Traffic in-charges, System-in-charges, Regional Core Group Members and OPRS in-charges.

Besides imparting the training to all the end-users, it is also felt essential to issue comprehensive guide lines and instructions (in a Circular

form) duly defining the roles, responsibilities and duties of the staff involved in the implementation and operation of UTS application and handling the e-PoS machines.

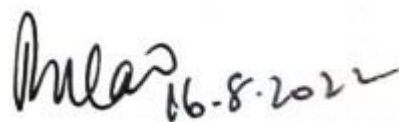
The user-wise and department-wise roles and responsibilities, like the procedure of way bill issue and receipt, the methodology of checking buses by TTIs, the process of sending a faulty machine for repair, the activities at Regional Service center, the payment procedure to the System Integrators, the Do's and Don'ts while handling the e-PoS machine and FAQs pertaining to UTS project are annexed along with the Circular for information and reference.

The Timelines for Implementation of UTS Project are as follows:

SNo	Event	Timeline
1	Pilot Implementation in OPRS services of Vijayawada & Guntur-I depots.	August 2022.
2	Implementation of UTS project in all OPRS services of rest of the depots of Corporation.	15 th October 2022.
3	Implementation of UTS services in all services of Corporation.	February 2023.
4	Implementation of Logistics, Vehicle Tracking and Bus Pass module in UTS Project.	April 2023.

The successful implementation of the UTS Project is prestigious for the Corporation, as it is designed to cater to the aspirations of our esteemed Customers duly adopting the latest Technological advancements. It is one project that has the potential to create a watershed moment in the history of Public Transport in India, elevating and enhancing the image and prospects of our Organisation. In fact, the MORTH, ASRTU and all STUs are eagerly waiting for the full fledged take off of this Project in order to replicate the same in other STUs.

It is therefore necessary, for every member, involved in this project to bestow their fullest attention and sincerely contribute their best for its successful implementation.



VICE CHAIRMAN & MANAGING DIRECTOR

Copy to all Executive Directors, FA & CAO for information.

CC to: all HODs, DPTOs, and Depot Managers for necessary action.

CC to: all Principals of ZSTCs.

CC to: ATM (Enforcement Squads)

CC to: Secretaries of all Associations.

The Important Features of the UTS Project :

1) e-PoS:

- a) **Electronic Point of Sales machines** are Android based hand held machines. These machines can be navigated through both the touch screen and Key pad. This machine is provided with a 4G GSM SIM card for network connectivity and is enabled with GPS tracking. These machines are user friendly, and display the vital information such as ticket revenue, duty particulars, service and trip details, stage-wise boarding and alighting details along with the onboard information of passengers, bus pass count, vacant seats, required by the crew while performing their duties. All the live data will be transmitted to UTS Server which in turn helps in providing with Real time statistics useful for analysis and appropriate business decisions.
- b) The contract for supply and maintenance of e-PoS machines for all depots/units was awarded to the firm M/s Ebix Cash pvt. Ltd. These machines will be on rental basis @ Rs.680/- per machine per month. They will also set up regional service centers for repair and maintenance of defective machines.

2) Online Ticket booking

- a) In the existing OPRS system, passengers can book tickets for only long distance services through the available online booking website, B2C portals, Booking counters and ATB agents. With the implementation of the UTS project, in addition to the above, passengers can also avail the following facilities:
- b) Can book the advance reservation tickets inside the bus from the Conductor/Driver itself for any date, from anywhere to anywhere for his journey.
- c) Can book the tickets, till it reaches the penultimate stage even though the waybill is generated for the service.

3) VTPIS:

- a) At present, Vehicle Tracking service is only available for Long Distance OPRS Services through the VMUs (Vehicle Mounting Units) available inside the buses. On implementing the UTS project, with the SIMs available in the e-PoS machines, all the buses/DGTs of the corporation

can be tracked. With this facility, the passengers can also plan their journey in any bus as they are able to know the exact location of the buses they intend to board.

4) PAAS :

- a) Under UTS Project, Issue of Fresh Passes and their Renewal for students, NGOs, PHC, Journalists and sale of MSTs are made online. These Pass holders will no longer need to carry the physical passes. Instead they can show the QR code from their phone, to Conductor/Driver to be scanned and verified on the e-PoS machine. As an offshoot of this digital process the actual Route Wise, Type wise and Destination wise data on journeys performed is made available for streamlining our operations.

5) APSRTC LOGISTICS :

- a) At Present Couriers and Parcels are booked at Logistics counters in Bus Stations and at Parcel booking agents of APSRTC at specific places. In addition to the above, with the implementation of UTS project, Parcels and Couriers can be booked inside the bus at the Driver/Conductor, during journey. Location of each and every consignment can be tracked by both the sender and receiver. As mentioned earlier, with the SIM based e-PoS machines, the tracking of consignments will be simplified.

6) New Interventions: Apart from the developments mentioned above, some other new interventions were incorporated into the UTS Project:

a) CASHLESS TRANSACTIONS :

- i) Post Covid-19 pandemic, the adoption of Cashless transactions by the general public has increased phenomenally. Being a public dependent organization there is an imperative need to incorporate cashless transactions into our system in order to rise to the expectations of customers. The e-PoS machines and the software application of the UTS project are so designed to take care of this vital aspect duly facilitating acceptance of all types of Digital payments, in addition to cash.
- ii) The different payment options provided to the passengers include e-Wallet, Credit Cards, Debit Cards, UPI (PhonePe, Google pay, PayTM), NCMC Closed loop Cards and cash.

b) OPEN TICKET SYSTEM :

- i) It is an innovative feature provided to the passengers whereby the passengers can now book tickets online in advance even for unreserved and short distance services duly selecting a time slot, type of bus and route.
- ii) The passenger can board bus of the selected type of any depot in the selected route, and in the selected Time Slot.

For eg : If a passenger books a ticket on the route from Vijayawada to Eluru in an Ultra Deluxe service in the time slot between 9am to 10am on a particular day, passenger can board any Ultra Deluxe service of any depot operating in that route between 9am to 10am.

c) COMMAND CONTROL CENTER :

- i) Command Control Center is set up at Corporate Office, RTC HOUSE, Vijayawada which operates 24/7 to assist the crew and field staff on operational and software issues of UTS application.
- ii) The CCC will send real time alerts to the field staff and authorities on operational delinquencies, untoward incidents, Traffic demand, Bunching etc. The team will also assist in processing refund related transactions.

II. KEY TAKE AWAYS FOR STAKE HOLDERS:

1) PASSENGERS :

- a) One Integrated portal and App for passengers to avail Online Reservation of Tickets, Bus Passes, Vehicle Tracking, Cargo and Parcel booking. No need to download multiple apps.
- b) Passenger can book the tickets in advance even after the commencement of service till it reaches the penultimate stage.
- c) Easy and secure cashless payments using UPI (PhonePe, Google Pay, PayTM etc.), Credit Cards, Debit Cards, APSRTC-Wallet and Closed Loop/NCMC.
- d) Passenger can carry digital Bus Pass., i.e., in mobile and Can Renew bus pass in bus.
- e) Passengers have the flexibility to book tickets in advance in a particular time

slot in the Un-Reserved and short distance services through Open Ticket system.

- f) Passengers can take advance reservation tickets from the Conductor/Driver, while Travelling in a bus.

2) DRIVERS/CONDUCTORS :

- a) Display of the details of On-Board passengers, stage-wise information of advance reservation passengers to be boarded and stage-wise information of no. of passengers to be alighted in the e-PoS machines.
- b) No need to take auxiliary waybill for OPRS Services. The duty crew will be provided with E-way bills in the e-PoS machines.
- c) Change due problems are reduced as cashless payments are enabled.
- d) Procedure for transferring the passengers to another service in the event of Bus break down or accident is simplified. Amount to be refunded based on the leftover journey and type of service to which the passengers are shifted will be auto calculated and displayed for the convenience of the crew.
- e) Handing over and Taking over time will be reduced.
- f) No need to connect the e-PoS to PC for waybill issue/receipt.

3) CORPORATION :

- a) Availability of Real Time data on revenue, passengers count in buses and traffic demand on various routes etc through Dash Board.
- b) Availability of Real time data on Trip wise, Service wise and Route wise performance for analysis.
- c) OPRS and Non-OPRS ticket data will be synced and Stage wise passenger boarding/alighting data will be made available.
- d) Photos can be taken with the inbuilt camera of e-PoS machine, at the time of Accidents, agitations and breakdowns etc. These photographs and videos can be uploaded and stored in UTS Server for a long time. The stored data can be retrieved on later dates which will be helpful in MACT cases.
- e) Replacement of old TIMs with new and advanced e-PoS machines.

III. PILOT PROJECT:

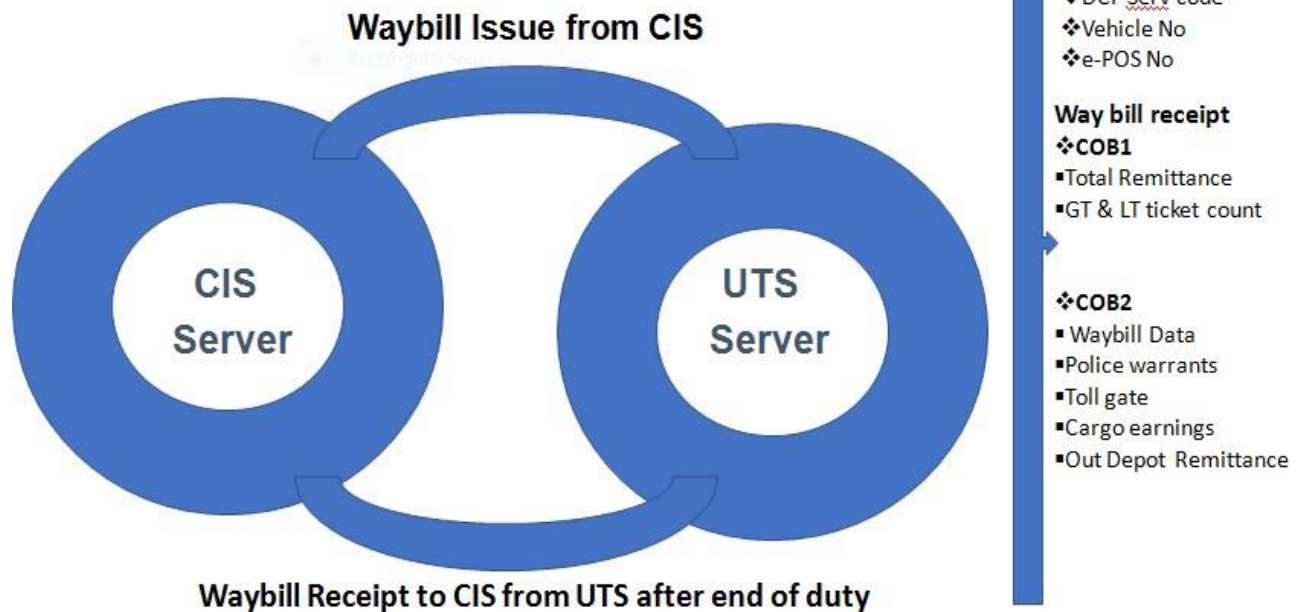
During First phase of implementation, pilot project is being implemented in Vijayawada and Guntur-1 depots in August 2022 and thereafter the UTS Project will be implemented in all the depots across the state.

Since this is a major Transformation in Ticketing system in Corporation, the officials and staff who are involved in day to day transactions with e-PoS machines like the Depot Managers, Traffic Supervisors, RCGs, OPRS In-charges, System In-charges, Conductors, Drivers, ADCs, Accounts Personnel, TTIs etc., shall have sufficient knowledge about the functioning, procedural guidelines, Do's and Don'ts, trouble shooting, generation of reports etc., of e-PoS machines. Hence, a comprehensive training program is designed and implemented.

IV. TRAINING:

- 1) Before the commencement of training program, the training materials such as user manuals, demo videos, Do's and Don'ts and FAQs were shared through the RTCWAN directory **ATM-2 IT/UTS/UTS TRAINING** for the convenience of Depot Managers, Traffic In-charges, System In-charges, Crew and all others.
- 2) Initially, training was conducted for Depot Managers, Traffic In-charges, RCGs, OPRS In-charges, System In-charges and Trainer of Trainees (TOTs) for the pilot depots of Vijayawada and Guntur-1. Hands on training was also imparted to the participants.
- 3) All RCGs and OPRS In-charges from all over the Corporation were given multiple trainings on Route and Services creation in UTS.
- 4) Hands on training was conducted to Traffic In-charges, System In-charges and TOTs of all Zones at respective Zonal Staff Training Colleges on e-PoS machines. Few machines were supplied to System in-charges to impart training to all other crew at their respective depots.
- 5) Around 1000 users were trained on UTS till now. Depot Managers have to make use of TOTs (Trainer of Trainees) to train all the crew in their respective depots within the time frame.

UTS Work Flow



V. UTS Workflow:

1) Methodology of Waybill Issue

- Login into CIS application, go to Waybill issue tab.
- Enter the details of Service no., Vehicle no. , e-PoS serial no., Conductor and Driver Staff Nos.
- Click on UTS Waybill issue.
- Once waybill is issued, CIS server pushes the waybill details to UTS server through API (Application Programming Interface).
- UTS server assigns the duty to the e-PoS and driver.
- Once Driver/Conductor enters their Login Credentials in the assigned e-PoS machine given to them the details of waybill issued by CIS server gets auto populated in e-PoS machine.
- Driver/Conductor has to check the waybill details and start their service.

2) Methodology of Waybill Receipt

- After completion of duty, Driver / Conductor should close all trips, end the duty and take Total Remittance Report.

- b) Once the Total Remittance Report is generated from e-PoS machine, the COB-1, COB-2 data will be transferred from the machine to CIS Server through an API.
- c) The ADC will get the waybill data in CIS waybill receipt page and the ADC will receive the service way bill.

3) Depending on the availability of Network and Server response the Issue and Receipt of Waybills can be done through alternate methods.

The different scenarios involved are as follows:

a) Waybill Issue Process:

i) Scenario 1: CIS Server is down – UTS Server is up.

Waybill is issued through UTS Server and the waybill data will be updated into CIS once the network is revoked.

ii) Scenario 2: CIS server is down – UTS server is down.

Waybills shall be issued manually in DCP.

iii) Scenario 3: Depot Internet down - CIS server Down – UTS Server is up.

Waybill is issued through MPLS (Multi protocol Label Switching)

- 1) System supervisor shall ensure to connect the MPLS to system.
- 2) Open the UTS application and login with given user details.
- 3) Go to the users tab.
- 4) Click on Duty assignment tab.
- 5) Enter the details of service number, vehicle number, staff no.s, e-POS serial no. etc. and then save the details.
- 6) Once the details are saved successfully, UTS server issues the waybill to that service.

iv) Scenario 4: Depot Internet down – CIS Network/Server down – UTS UP – MPLS down

Waybill can be issued from UTS application by using mobile phone network through UTS URL link.

b) **Waybill Receipt Process** :

i) **Scenario 1: Internet is down – CIS network is up.**

Connect to MPLS and receive the waybill in CIS.

ii) **Scenario 2: CIS Network is down.**

Receive manually and wait till the CIS network is restored. Once the CIS network is up and running, CIS server takes all the pending COB files data related to the downtime and completes the waybill receipt process.

VI. ESTABLISHMENT OF SERVICE CENTERS

In order to provide quick and quality service at close proximity of all units and to ensure prompt disposal of the hardware and software problems, it is proposed to establish the service centers at the following places by the firm. As per the terms and conditions of the tender document of e-PoS machines, the Corporation has to provide a closed room to M/s Ebix Cash and OTPL Ltd., without charging any rent in the Bus Station premises where a service centre is proposed to be established.

These Service Centers will be manned by service engineers and it is the duty of Service Engineer to receive the defective e-PoS machine, get them repaired and return the machines to the respective depot/unit within 48 hours of their receipt.

1) LIST OF PROPOSED REGIONAL SERVICE CENTERS (RSCs) :

1. VISAKHAPATNAM
2. VIZIANAGARAM
3. RAJAHMUNDRY
4. ELURU
5. VIJAYAWADA
6. GUNTUR
7. ONGOLE
8. NELLORE
9. TIRUPATHI
10. KADAPA
11. KURNOOL
12. ANANTAPUR.

“The Regional Service Centers function between 8am to 8pm on all days in a year”.

VII. Maintenance of e-PoS machines:

1) Activity at Depot:

- a) System in-charges will be provided with knowledge on the utilization of EMM software for raising the tickets against the Repairs and Working condition of the e-PoS machines which are to be sent for Regional Service Centers.
- b) Depot System in-charge will troubleshoot the e-PoS machines as per the guidelines of the OEM.

- c) If the device is not functioning as expected after troubleshoot, Depot System in-charge will send the device to RSC for attention, duly stating one of the following reasons:
- i) Display Problem - black screen, white screen.
 - ii) Blur Screen.
 - iii) Battery Issue.
 - iv) Printer problem.
 - v) Touch Screen problems.
 - vi) Printer wheels.
 - vii) Charging issues.
 - viii) Camera issues.
 - ix) NFC issues.
 - x) Swiping issues.
 - xi) Card Chip reader issues.
 - xii) Physical Damages.
 - xiii) Port damages.
 - xiv) Network connectivity issues.
 - xv) SIM issues
- d) Depot System Supervisor will mark the concerned flag regarding the repairs of the e-PoS machines and submit in the web form. This module will have provision to add additional flags.
- e) After entering the status in the web application about the malfunctioned e-PoS machines, a unique reference number will be generated by the system.
- f) Depot System Supervisor will enter all such e-PoS machines which require attention at Regional Service Center.
- g) After completion of the entering the details of all malfunctioning e-PoS machines, he/she shall generate transfer summary of e-PoS machines to RSC for repair with details such as Date, Depot Unique Reference Number e-PoS Serial No, Make, Model, Date of inception, Reason for Repair.
- h) All such e-PoS machines will be handed over physically at RSC by APSRTC representative along with the summary report.

2) Activity at RSC:

- a) The Service Engineer / Technician at Regional Service Center (RSC) will collect the e-PoS machines physically and accept the same in the application along with summary report duly verifying the machines serial number, make and model.
- b) RSC Technician will inspect the e-PoS machine, including health check-up of the machine.
- c) RSC technician shall attend all the repairs stated by the depot system supervisor along with any other problems identified during health check-up.
- d) No e-PoS machine will be dispatched without complete inspection.
- e) Transfer of e-PoS machine from RSC to Depot will not be initiated by the system unless inspection report is uploaded after receipt of e-PoS machine for repair.
- f) Once inspection is completed, the machines will be sent to depots from RSC.

3) Payment Cycle for e-PoS machines (M/s. Ebix Cash Ltd.):

- a) The District-wise billing data, as well as billing data for Corporation as a whole will be available on EMM (Enterprise Mobility Management) portal.
- b) The District Public Transport Officer has to login into the EMM portal where particular district-wise billing data will be available.
- c) The District Public Transport Officer verifies the data against actual utilization of resources to deliver the services/milestones/applications and delivery of services in compliance with SLA metrics.
- d) The District Public Transport Officer then performs online certification of the payment due to the Service Provider, after any SLA related deductions.
- e) Based on the Certifications from all DPTOs, Payments are made to the system integrator at Head Office after audit.
- f) MDR (Merchant Discount Rate) Charges to M/s. Ebix Cash Ltd. will be paid at Head Office.

4) Payment Cycle for Software Services (M/s. Abhibus services India Ltd.):

- a) The payment for providing Software and allied services is based on the no. of Transactions made in that particular calendar month.
- b) The payment is processed at Head Office based on no. of transactions made

and deductions if any as per the SLA metrics.

c) After audit at Head office payment is made to the System Integrator.

VIII. PROCEDURE TO BE FOLLOWED IN CASE OF THEFT/DAMAGE OF e-PoS machine.

Utmost care shall be taken to avoid theft/ loss of e-PoS machine in Depots by not allowing unauthorized persons into Computer cell where e-PoS machines are kept. Register has to be maintained for "e-PoS machine-handing-over and taking-over" among ADCs, reconciliation of e-PoS machine daily by Traffic In charge/DC(E) and giving instructions to depot security wing to be vigilant etc., to avoid untoward incidents.

The Crew shall also be instructed to carry the e-PoS machine along with them while performing the service and to take proper care in case of night out services.

In case any e-PoS machine is damaged, stolen or lost, A Joint Inspection Committee is constituted with members from APSRTC and Ebix Cash Ltd.,. The committee shall enquire and decide the amount of damage, the reason for damage, whether it was done intentionally, accidentally or due to negligence of the user, and fix up responsibility on the person to whom e-PoS machine has been handed over and the cost of damage to the e-PoS machine shall be recovered from him, besides initiating suitable disciplinary action.

However, the circular instructions in vogue of lodging a complaint with the nearest Police Station and issue of all concerned message as is being done in the case of loss of tickets and TIMS shall also be continued in the case of theft/ loss of e-PoS machines. It shall be ensured that the Driver/Conductor records the cumulative earnings after the end of each trip in STAR document. The amount to be remitted in case of loss of e-PoS machine shall be arrived at, by considering the highest earnings realized by the service over the last one month or amount recorded in the STAR document by the Conductor whichever is high.

IX. PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE of e-PoS machine

In case of e-PoS machine online failure or uploading/down loading problem, the details of the failure of the e-PoS machine shall be informed to the Command Control Center located at the Head Office. The machine should be taken to the nearest Regional Service Center to restore its functioning. Meanwhile, the service has to proceed to the nearest available depot en-route and take another e-PoS machine in that depot, for continuing the remaining portion of the service without any issue.

X. The user-wise and department-wise roles and responsibilities are as follows:

1) ROLE OF DEPOT SYSTEM IN-CHARGE:

- a) Creation of Routes and Services: The Common Codification of routes will be done at Head Office level. The System in-charge has to create Services into the UTS app according to the MTD 141 which was certified by the Traffic In-charge of the depot. The distance and fares between stages should be matched with the 141 cards. In case of any issue while creating the Routes or Services, it must be brought to the notice of concerned Regional Core Group member. The Regional Core Group member has to inform the issue to the Head Office if not rectified at his level.
- b) System In-Charge has to create User Data in the UTS application.
- c) Shall enter the details of e-PoS machines into e-PoS Master Data in CIS and UTS application immediately after the machines were received to the depot.
- d) Shall ensure availability of Internet connectivity & Wi-Fi. He shall arrange to rectify the connectivity issues and bring the issue to the notice of the Depot Manager if the issue is not resolved.
- e) Shall carry out preventive maintenance like cleaning of printer head, cleaning of dust between the keys on the keypad etc on e-PoS machines periodically.
- f) Shall ensure the working of SIM cards in all e-PoS machines and the issue has to be brought to the notice of Regional Core Group supervisor for arranging the replacements in place of the malfunctioned SIM cards. He should ensure to send all the e-PoS machines with SIM Cards. No machine shall be sent online without SIM Cards.
- g) Shall send the failed e-PoS machines to Regional Service Centre for servicing through the Depot Clerk (Earnings) duly updating the complaint details of the machine in the EMM (Enterprise Mobility Management) web application.
- h) Shall send the e-PoS machine to the Regional Service Center for retrieving the data, if the machine fails to deliver the data completely when the network gets failed and the complete data is not transferred to the UTS server.
- i) Shall ensure to maintain the digital log book of the "e-PoS machine in the EMM software to maintain the installation particulars, software versions, complaints of the machines, transfer of machines between the depots etc.

- j) Shall ensure updation of latest version of application software in all the e-PoS machines as and when a new version is developed and deployed by the Software System Integrator.
- k) Shall extend Technical assistance regarding UTS application and e-PoS machines to ADCs/DCs, whenever required.
- l) Shall Assist DC (Earnings) in assessing the requirement of paper rolls.
- m) Shall ensure proper earthing in the Earnings section to avoid issues related to power fluctuations and Voltage issues. In case of improper earthing in earnings section, the system in-charge should bring the same to the notice of Depot Manager for immediate rectification.
- n) Shall ensure neat and tidy environment inside the earnings section and maintain cleanliness to avoid dust entry in to the e-PoS machines and computer systems.
- o) Shall ensure that there are no roof leakages and water entries into the earnings section to avoid damage of the e-PoS machines. In case of roof leakages, in earnings section, the system in-charge should bring the same to the notice of Depot Manager for immediate rectification.
- p) Shall ensure the working condition of Gang Chargers.
- q) Shall impart training to depot crew from time to time along with TOTs on UTS.
- r) Shall bring the issues to the notice of Traffic in-charges and Depot Managers for any kind of assistance with regard to
- s) Any other work entrusted by the Depot Manager from Time to Time.

2) ROLE OF DISPATCH ADC:

- a) Shall ensure full charging of e-PoS machine assigned to the service before issuing the waybill.
- b) Shall Switch On the e-PoS machine and check the network connectivity before issuing the UTS waybill.
- c) Shall do Duty Assignment mandatorily.
- d) Shall enter e-PoS machine number for the assigned service/duty in the system, for generation of UTS waybill and should issue the e-PoS machine to the Service Conductor/Driver.

- e) Shall ensure the availability of pouch to e-PoS machine.
- f) Shall ensure the availability of sufficient Paper rolls, Ticket tray with minimum denominations blocks, manual MTD141 card, Cash bag, with Conductor/Driver.
- g) Any other work entrusted by the Depot Manager from Time to Time.

3) ROLE OF RECEIVING ADC:

- a) Shall ensure there are no physical damages, touch screen damages to the e-POS machine, ensure the availability of SIM network, and in case of any irregularity it should be reported to DC (E) and Traffic In-Charge.
- b) Shall report to DC (E) for taking necessary action, in case of damage of e-PoS machine
- c) Shall receive the e-PoS machine, hand ticket tray, manual MTD 141 card, Tollgate receipts, Police warrants, Out depot money remittance receipts, STAR document, Total Remittance Report and Cash as per the Total Remittance report.
- d) Shall ensure that each Conductor has invariably recorded the ticket number of LAST ISSUED ticket in the STAR document against each stage and cumulative earnings after completion of each trip.
- e) Shall ensure that conductor has accounted the opening and closing numbers of the tray tickets and remitted the cash accordingly to avoid the temporary misappropriation.
- f) Shall cross check e-PoS machine serial number and service amount with serial number and amount reflected against that service in CIS application.
- g) Shall keep the e-PoS machine for charging immediately on receiving the e-PoS machine. While connecting the charger to e-PoS machine it must be ensured that the power socket switch is kept on and the e-PoS machine is being charged. After the machine is fully charged it should be ensured that the indicator light of adapter turns green. After observing the green light indication the charging should be stopped.
- h) Shall bring to the notice of Traffic in-charge immediately, in case of failure of e-POS machine en-route or if any mismatch of data is observed between the e-POS machine and the CIS waybill receiving program.
- i) Shall ensure not to use any e-PoS machine while it is under charging.
- j) Shall record the hardware issues related to e-PoS machines and the software

issues related to data receiving should be recorded in the register provided by the Traffic in-charge.

k) Any other work entrusted by the Depot Manager from Time to Time.

4) ROLE OF DEPOT CLERK (EARNINGS):

- a) Shall be the designated custodian of all e-PoS machines.
- b) Shall maintain the record of e-PoS machine received or transferred with unit history cards digitally in the EMM software.
- c) Shall ensure the availability of pouches to all the e-PoS machines. He should ensure that the e-PoS machines are covered with the pouches.
- d) Shall maintain adequate stock of paper rolls.
- e) Shall receive new e-PoS machines with accessories like SIM Cards, Chargers and Pouches from the vendor M/s Ebix Cash Pvt. Ltd.
- f) Shall ensure to print the important computer generated reports like Total remittance report, Ticket reports etc. and enclose them to the STAR documents for those services which are involved in C&T irregularities. (Since the e-PoS machine generated reports gets faded over a period of time)
- g) Shall reconcile the number of trays/e-PoS machines issued and received every day.
- h) Shall continue to maintain the tickets receipts, issues and accountal at the depot, even after the implementation of e-PoS machines for all services.
- i) Shall initiate report duly fixing up primary responsibility in the event of any e- Pos machine damage, loss or theft.
- j) Shall send the damaged e-PoS machines to the Regional Service Centers for getting repaired without any delay.
- k) Shall cross check the e-PoS machines for charging status and educate ADCs on correct charging duly avoiding either under or over charging.
- l) Any other work entrusted by the Depot Manager from Time to Time.

5) ROLE OF CONDUCTOR/DRIVER:

The Conductor is responsible for the following while using the e-PoS machine.

- a) Shall ensure that there are no physical damages, touch screen damages to the e-PoS machine, availability of SIM network. If any irregularity is found, it should be reported to ADC /DC(E)/Traffic in-charge.

- b) Shall ensure that e-PoS machine issued to him/her is fully charged before proceeding to the duty.
- c) Shall carry the charger with them for the services wherever it is required.
- d) Shall cross check the service no. and e-PoS machine serial no. with STAR document.
- e) Shall ensure that e-PoS machine is showing correct software version, date and time.
- f) Shall collect the hand tray with minimum denominations blocks (for using the same in case of e-PoS machine on line failure).
- g) Shall verify the e-PoS machine generated MTD-141 for the correctness of the actual fares of the service with the manual MTD 141 and if any discrepancy is found, the same should be brought to the notice of dispatching ADC/Traffic in-charge.
- h) Shall carry sufficient number of paper rolls required for the completion of the service.
- i) Shall observe the red band provided one meter before the end of the paper roll and to change the paper roll before it is totally exhausted.
- j) Shall record the e-PoS machine LAST ISSUED TICKET when the stage is closed and number of passengers on board against each fare stage in Star document.
- k) Shall enter the last issued ticket as NIL, if no ticket is issued between two consecutive stages.
- l) Shall record the cumulative amount realized against the last stage of each trip and arrival timings against each stage in STAR document.
- m) Shall follow HAIL and BOARD and pick up passengers till next stage is reached and close each stage just before reaching the immediate next stage.
- n) Shall enter the Toll gate amount paid and Out Depot cash remittances particulars into e-PoS machine immediately after the transaction.
- o) Shall issue manual tickets through tray and make entries against relevant denomination columns of STAR document, if the e-PoS machine fails en-route,.
- p) Shall not try to open or repair the e-PoS on your own knowledge under any circumstances.
- q) Shall not plug cables other than charger while the e-PoS machine in use.
- r) Any willful damage or damage caused to e-PoS machine, due to negligence, will

attract disciplinary action, in addition to recovery of amount equal to the cost of the e-PoS machine.

- s) Shall end the trip and end the duty after completion of service, generate Total Remittance Report and remit the bus cash accordingly.
- t) Shall transfer the data of passengers to the e-PoS machine of the other bus through the Breakdown Tab provided in e-PoS machine, in case of breakdown of the Bus.
- u) Shall handover the e-PoS machine, manual tray and STAR document to TTIs and cooperate with them whenever the bus is checked.
- v) Shall sign in the TPT ticket obtained by TTI in case of O2 cases and also over the Photostat copy of the TPT at the depot.
- w) Shall carry the e-PoS machines over the neck with strap provided to the machine pouch. The e-PoS machine should not be removed from its pouch and should not be carried loosely with hands while performing the duty.
- x) Shall ensure that e-PoS machine is not exposed to rainwater, heat, dust and vibrations.
- y) Shall strive to increase the occupancy ratio duly completing the ticket issues before reaching the next stage following SHOUT & LOAD, HALT & GO methods and also by maintaining good customer relations to propagate marketing schemes.
- z) Shall strive to achieve breakeven EPB duly observing the cumulative earnings at each stage vis-à-vis the breakeven earnings.

6) ROLE OF TRAFFIC IN-CHARGE:

- a) Shall ensure maintenance of manual MTD 141 register and certify the 141 card particulars.
- b) Shall ensure correct 141 details were loaded into the e-PoS machines.
- c) Shall ensure master data creation and monitoring of data.
- d) Shall ensure training of all employees and implementation of project smoothly.
- e) Shall authorize Route change, Bus Change and Crew Change in UTS app as per the situation and demand.
- f) Shall verify and crosscheck the eligibility criteria of different concessions and passes for different types of services in the e-PoS machines.

- g) Shall ensure and make it mandatory to record the e-PoS machine ticket closing number, no. of passengers on board by conductor against each main stage and cumulative amount against the last stage of each trip in STAR document, in the absence of which there will be no proof for certification with respect to the operated kilometers of HIRE services while making payments and also to have the data in case of the failure of the e-PoS machines.
- h) Shall conduct random cross checks and ensure that e-PoS machines are fully charged before issuing to the services duly utilizing the spare e-PoS machines.
- i) Shall randomly crosscheck all reports generated through e-PoS machine as well as through the application for correctness.
- j) Shall bring to the notice of the DM any cases pertaining to abnormal functioning of e-PoS machines leading to cash discrepancies and the same shall be sent to the firm with the signature of the DM, for rectification, retrieval of data and to ensure that the earnings are realized and accounted correctly.
- k) Shall ensure proper discharge of duties by the System Supervisor / ADCs / DCs / Conductor or any other individual employee handling the e-PoS machine apart from the above specific functions.
- l) Shall ensure generation of available reports and analyse the data for improving the performance of services in the depots.
- m) Shall conduct Joint Inspection and to fix up responsibility in case of damage to e-PoS machines by crew due to negligence.
- n) Any other work entrusted by the Depot Manager from Time to Time.

7) ROLE OF CHECKING OFFICIALS:

- a) Shall ensure that maximum number of checks are exercised duly covering dead-end routes and vulnerable points.
- b) Shall check for the punctuality of services.
- c) Shall follow the below mentioned procedure and guidelines while exercising check on any service bus.
- d) Shall take the e-PoS machine into their custody soon after boarding the bus for checking.
- e) Shall verify the software version and also cross verify the e-PoS machine number displayed in e-PoS machine with the e-PoS machine number printed over the STAR document.

- f) Shall take out the 141 card through e-PoS machine by entering into the TTI LOGIN with the passwords provided to the respective squads.
- g) Shall verify e-PoS machine generated MTD-141 card with manual MTD 141 card issued to Conductor for the correctness of passenger fares, concessions and luggage tariffs.
- h) Shall verify the tickets displayed in e-PoS machine with the physical tickets available at passengers.
- i) Shall issue Top Punch Tickets and impose penalties from the TTI TAB provided with the TTI logins in case of Cash and Ticket irregularities

j) TTIs Checking Module in e-PoS Machines :

- i) TTIs are required to login into the App by using TTI login credentials in e-PoS machines.
- ii) TTI Menu contains the following tabs:
 - 1) **Verify Tickets Tab:** There will be 2 options, **Non – Verified** and **Verified**. All the ticket details will appear by default in Non – verified tickets tab and once the tickets are verified by TTIs, they be shifted to Verified tickets tab.
 - 2) **Issue Ticket Tab:** After verification of all tickets in the bus, if the TTIs find any discrepancy and intends to issue a TOP PUNCH TICKET, then they have to issue TPT from the issue ticket tab. Penalty imposed and collected if any will also be accounted in this ticket.
 - 3) **TTI summary Details Tab:** Display of Top Punch tickets issued and penalties imposed by TTIs.
 - 4) **TTI Ticket Reports Tab :** This tab contains three options,
 - a) **All Trips:** Prints ticket details of All trips
 - b) **Current Trip:** Prints ticket details of Current Trip.
 - c) **On-Board Tickets:** Prints ticket details of Passengers on-board.
 - 5) **Track Ticket Tab:** TTIs can track the details of a particular ticket, by entering the ticket number in the search bar provided in this tab.

8) ROLE OF ACCOUNTS IN-CHARGE AT DEPOT:

- a) Shall cross check the e-PoS machine generated ticket reports with the computer generated ticket reports duly covering 20% of e-PoS machines in a month in addition to the existing 10% ticket tray checking.
- b) Shall cross check the computer generated reports with e-PoS machine generated reports for tallying the correctness of different amounts. He/she shall check the incentives paid to the Drivers/Conductors for the operated service for which the crew have performed the duties. In addition to the above, the Accounts in-charge should also ensure that incentive was not paid to the services with part cancellation.
- c) Shall periodically cross check the total e-PoS machines to be received and actual e-PoS machines received at that point of time for that day.
- d) Shall periodically check the trays which were used by the Conductors in case of failure of e-PoS machines for their accountal and has to ensure proper remittance of cash as per the sale of manual tickets from tray held by the conductor.
- e) Shall periodically audit the status of e-PoS machines sent to Regional service centers (RSC) of the with due certification of the DM, since as per the terms and conditions of the agreement, Repair of e-PoS machines shall be completed within 2 working days by the RSC. An audited and certified report with penalties to be imposed on the firm should be sent to Head office every month.

9) ROLE OF DEPOT MANAGER:

- a) Shall ensure proper accountal of e-PoS machine transactions by random verification of the records and registers being maintained by the ADC's and DC's for the tickets and e-PoS machines accountal.
- b) Shall crosscheck, whether all the Conductors/Drivers are recording the e-PoS machine ticket number and number of passengers on board against each stage and cumulative earnings realized at the end of each trip in the STAR document.
- c) Shall ensure that the Traffic in-charge is cross verifying the MTD 141s prepared by the system supervisor for loading into the e-PoS machines.
- d) Shall ensure master data creation and monitoring of data.
- e) Shall ensure training of all employees and smooth implementation of project.
- f) Shall authorize Route change, Bus Change and Crew Change in UTS app, as per the situation and demand.

- g) Shall review the performance of services by utilizing the dashboard and provided reports for analyzing the stage wise boarding and alighting of passengers, Traffic demand, Route potential, Augmentation, Curtailment, Cancellations, Punctuality, etc.
- h) Shall facilitate the charging of e-PoS machines at conspicuous places for needy services touching the bus stations with multiple chargers and power sockets under their jurisdiction.
- i) Shall educate and counsel the crew to engage in good practices like Hail & Board, Shout & Load and Halt & Go etc. for improving the earnings as the task of issuing tickets with the e-PoS machines is simpler and faster saving time for the crew.
- j) Shall ensure that all the low earning services of the depot are checked at least twice in a calendar month and also arrange checks on dead end routes and vulnerable points of the services in coordination with checking squads.
- k) Shall organize Depot level checks, using man power from Traffic, Personnel and Accounts Departments, since it is easy to check the bus using e-PoS machine generated Ticket Report.
- l) Shall Ensure that the DC(E) shall stock the sufficient number of paper rolls for the e-PoS machines from the Zonal stores and also to collect the plastic paper roll cores from the Drivers/Conductors and handover to depot stores supervisor for further transfer to Zonal stores.
- m) Shall coordinate with Electrical Engineering Department and ensure to arrange properly concealed wiring and earthing, at the Earnings section.
- n) Shall coordinate with the Civil Engineering Department and ensure to avoid roof leakages, Water entries, Rats etc at earnings sections where the computer hardware, e-PoS machines and Network infrastructure are located.
- o) Shall certify the monthly payment to the system Integrator M/s Ebix Cash Ltd., online through EMM Portal.

10) ROLE OF ACCOUNTS OFFICER AT DISTRICTS:

- a) Shall cross check and ensure that all the depots under their jurisdiction transferred the daily earnings as per e-PoS sales, to Head Office.

11) ROLE OF REGIONAL CORE GROUP SUPERVISOR:

- a) Shall create services for all Long Distance OPRS Services.
- b) Shall add the fares and kms correctly as per the certified 141 cards by the traffic in-charges.
- c) Shall ensure that the fares and distance between the stages of the services created in UTS match exactly with the services in existing TIMs.
- d) Shall attend complaints pertaining to Full and Partial Refunds to the passengers of OPRS services.
- e) Shall inform Cancellation details of OPRS services to the concerned Bus Stations in advance.
- f) Shall ensure updating of the latest version of e-PoS machine software in all depots of the Region.
- g) Shall have proper knowledge on establishing alternative network connections required for the functioning of UTS application and its data transfer to CIS server.
- h) Shall impart periodic training to the System In charges and ADC's concerned in preparation of trip details, 141 cards and uploading and downloading of data from e-POS machine.
- i) Shall impart periodic training to Traffic supervisors, Conductors and Drivers about the e-PoS machine utilization, battery charging procedures, usage of e- POS machine consumables like paper rolls etc.
- j) Shall train the System supervisors and Traffic supervisors on the alternate methods available for the data transfer between the UTS application and CIS server.
- k) Shall impart training to the System supervisors on establishing alternative network connections required for the functioning of UTS application and its data transfer to CIS server.
- l) Shall impart periodic training to TTIs of RES on checking procedures with e-PoS machine.
- m) Shall inform the Head Office about damaged/ burnt e-PoS machine in the region periodically to withdraw those e-PoS machines.
- n) Shall ensure that e-PoS machine periodicals are sent to Head Office in the prescribed proforma.
- o) Shall train the System supervisors and Traffic in-charges in their jurisdiction on

utilization of the UTS application, EMM software and alternate network connection establishments required for trouble free operations and communicate the training details to the Head office every month.

12) ROLE OF OPRS INCHARGE:

- a) Shall create services for all Long Distance OPRS Services.
- b) Shall add the fares and kms correctly as per the certified 141 cards by the traffic in-charges.
- c) Shall ensure that the fares and distance between the stages of the services created in UTS match exactly with the services in existing TIMs.
- d) Shall attend complaints pertaining to Full and Partial Refunds to the passengers of OPRS services.
- e) Shall inform Cancellation details of OPRS services to the concerned Bus Stations in advance.
- f) Shall put up seats vacancy position to Depot Managers for planning of services.
- g) Shall monitor flexi fares and share reservation status to Depot Managers from time to time.
- h) Shall inform the Depot Managers regarding any type of fare anomalies or difference in route lengths are observed.
- i) Shall implement in toto, all circular instructions pertaining to OPRS services.

13) ROLE OF DISTRICT PUBLIC TRANSPORT OFFICER (DPTO):

- a) Shall ensure 100% training of crew belonging to depots under his/her jurisdiction.
- b) Shall ensure smooth implementation of UTS project in all depots under his/her jurisdiction.
- c) Shall monitor the performance of Regional Core Group supervisors and OPRS in-charges under his/her jurisdiction.
- d) Shall ensure smooth transfer of e-PoS machines through RCGs, from one depot to another depot under special circumstances.
- e) Shall verify, record and communicate the details of irregularities found in earnings sections with respect to the working of e-PoS machines, charging of machines, working condition of Computers, Printers, UPS devices, ACs etc., during periodical inspection.

- f) Shall ensure the availability of Wi-Fi and internet connections in the depots of their jurisdictions.
- g) Shall inspect for the roof leakages, water entries, wall cracks etc if any in the earnings section of depots under their jurisdiction and arrange for repairs duly coordinating with Civil Engineering Department.
- h) Shall instruct the concerned to arrange proper earthing, wiring, piping, power sockets and power connections in the depots of their jurisdiction wherever they are required.
- i) Shall certify the monthly payment to the system Integrator M/s Ebix Cash Ltd., online through EMM Portal.

14) ROLE OF IT DEPARTMENT/HEAD OFFICE:

- a) Designing and development of Hardware/ Software specifications of e-PoS machine to meet the requirements of users.
- b) Designing and development of various reports as per the requirement of field managers from time to time.
- c) Conducting of training classes on e-PoS machine across the state to DPTOs, Depot managers, Traffic in-charges, Regional core group members, System-in-charges, ADCs, TTIs etc.
- d) Conduct the User Acceptance Tests at the Head Office for identifying and rectifying the issues before launching the application in the live environment.
- e) Launching of UTS project and monitoring of its progress from time to time at various depots.
- f) Supporting the Units in rectification of the Hardware/ Software problems, modifications, enhancements etc.
- g) Review of Hardware/ Software problems from time to time.
- h) Imposing of penalties to the System Integrators based on hardware and software problems.
- i) Conducting of meetings with firms.
- j) Conducting training programs on software modifications from time to time.
- k) Processing monthly invoices of System integrators and arranging payments after audit.

15) ROLE OF INDUSTRIAL ENGINEERING DEPARTMENT(HEAD OFFICE) :

- a) Review and issue of incentive circulars pertaining to e-PoS machine.
- b) Review of the incentive payments being done.

16) ROLE OF OPERATIONS DEPARTMENT/HEAD OFFICE :

- a) Review of scope of work of UTS for Passenger services.
- b) Review and propose additional passenger services under UTS project.
- c) Proposal to develop new marketing schemes for passengers.
- d) Enhancement and Integration of Enforcement Squad's module.
- e) Review the physical performance of services.
- f) Review the Depot wise implementation and utilization status of e-PoS machine, from time to time.
- g) Assessing the requirement of e-PoS machine by depots as per the schedules against augmentation and replacement periodically.
- h) Provide the templates required for generation of reports required for performance review and analysis.
- i) To access the dashboard and monitor the trend, traffic demand, requirements etc on various routes across the Corporation and take necessary actions accordingly.

17) ROLE OF ACCOUNTS DEPARTMENT – HEAD OFFICE

- a) Imposing of Penalties on System Integrators as per Service Level Agreements (SLAs)
- b) Reconciliation of amounts received through different Payment gateways.
- c) Post Audit of Manual refunds against cancellation/failure of services.
- d) Realisation and accounting of earnings.

The above guidelines and instructions regarding the Roles & responsibilities of Officers, Supervisors, Crew and other Staff who are involved in UTS project shall come into force with immediate effect and should be followed scrupulously without any deviation.

Do's and Don'ts for e-PoS Machines

Do's

- 1) e-PoS should be kept in the Pouches to protect them from Dust, Water and avoid dropping of machines while in use.
- 2) Use e-PoS only when it is not connected to Charger.
- 3) Ensure battery level is at minimum 95% - 100% before starting the duty.
- 4) Check the date and time in the e-PoS before starting the duty.
- 5) **Check** and **Ensure** the latest Version of the Application in the e-PoS machines. Update the latest version upon receiving the Update Alert if any before starting any duty.
- 6) Check the availability of paper roll while receiving the e-PoS machines before starting to duty.
- 7) After inserting the paper roll check and ensure free paper roll movement.
- 8) Use only APSRTC approved model of paper roll.
- 9) After the end of the duty and printing of required reports, e-PoS machines have to be switched off.
- 10) Inspect the e-PoS machines received at the depot physically for any damages if any and then put them to Charging.
- 11) All the charging stations must have stable input power.
- 12) Ensure charging is done in an ambient temperature between 15°C to 25°C or up to a maximum of 30°C.
- 13) Use only APSRTC approved OTPL individual charger for charging the e-PoS.
- 14) Always Charge the e-PoS at the Depot/Bus station charging stations with APSRTC approved OTPL Gang Charger.
- 15) While charging, check that the Red LED light is glowing in the Charger.
- 16) While charging, check that the Red LED light is glowing in the e-PoS machine.
- 17) Remove the e-PoS from Charger only when charger LED light is turned Green.
- 18) Tear the paper left to right, pushing against the cutter and holding the paper properly.

- 19) If user finds any problem in e-PoS functioning, System In-charge and/or Regional Core Group Supervisor concerned to be contacted and e-PoS to be handed over to System In-charge
- 20) While on duty if e-PoS drops by any chance, switch off the e-PoS and report immediately to concerned System In-charge and/or the Regional Core Group Supervisor.
- 21) If the e-PoS machine is getting over heated, switch off the machine and report to the System In-charge and/ or Core Group Supervisor.
- 22) While receiving e-PoS machine at the end of duty always ensure that the data in the e- PoS is uploaded to servers.
- 23) While issuing the e-PoS machine ensure that the last duty in the e-PoS is closed and machine is free.

Don'ts

- 1) Do not charge the e-PoS with unauthorized charger.
- 2) Do not charge the e-PoS over generator power, preferably it is better to use Inverter Power to charge the e-PoS machines in case when Main Power is not available.
- 3) Do not use the e-PoS while in charging.
- 4) Do not take rest or go to bed holding the e-PoS by your side.
- 5) Do not upload or download data while charging.
- 6) Do not charge e-PoS under direct sunlight.
- 7) Do not charge e-PoS in high room temperature of more than 30 °C or in lower temperature of below 0 °C.
- 8) Do not store e-PoS in high humid and damp environment.
- 9) Do not try to open the e-PoS under any condition.
- 10) Do not remove Battery Cover of the e-PoS.
- 11) Do not remove the Battery from the e-PoS.
- 12) Do not remove SIM Card from the e-PoS.
- 13) Do not handover e-PoS to any outsider.
- 14) Do not hit the e-PoS with any hard object.
- 15) Do not drop the e-PoS in any circumstance.

- 16) Do not remove the e-PoS out of pouch while in use or otherwise.
- 17) Do not drop any metal object (like pin) in the printer paper box.
- 18) Do not use any foreign object to clean the printer head.
- 19) Do not insert the paper roll in reverse order.
- 20) Do not apply grease or oil for printer gears.
- 21) Do not expose machine to water or any liquid while in use.
- 22) Do not try to insert outside cables for any purpose, the machines may go into self-destruction mode citing data theft to secure the data.

FAQs on Maintenance of e-PoS Machines :

1) Who shall carry out maintenance?

- e-PoS maintenance lies with the System in-charge or the Regional Core Group Supervisor. However, if deemed necessary the supervisor may send e-PoS to their respective Regional Service Centre for maintenance services periodically (every 3 to 6 months).

2) What should be the Periodicity of Maintenance?

- Preventive maintenance between 3 to 6 months in case the machine has been in idle or in storage condition.

3) What are the Precautions to be taken during Maintenance?

- System in-charge should ensure that the necessary data backup has been complete on the respective device before taking it for maintenance.

4) What is the Procedure for Preventive Maintenance?

- Charge the battery until charger LED indicator turns green and the battery status is 100%.

- Wipe the display screen with clean soft cotton cloth or tissue paper. "Colin" or any other mild cleaning agent (dilute isopropyl alcohol – 70%) can be used to remove hard dust.

- Check the display screen guard for clear visibility of display data; change the display screen guard if existing ones found with scratches, wear and tear.

- Clean the e-PoS rexine pouch if it is dirty or dusty. Change the pouch if existing ones found with wear and tear.

- Clean the paper roll container with dry cotton cloth. There must not be any dust or tiny bits of thermal paper.

- Check the Paper Roll, if it is found to be dusty or sticky because of printing colour, it should be replaced. The Paper roll should be clean and free flowing.

- Run the e-PoS Health Status App.

- Send periodic report to respective RSC Center and the HO.

5) Any issues like ageing of Battery on Over-charging?

- It is recommended that the e-PoS must be unplugged from charger once the charger LED indicator turns green suggesting a full charge condition of battery. Frequent and repetitive power surges may weaken the charger protection and consequently cause non-repairable damage to the battery as well. Hence please ensure stabilized power input to the charger.

6) What is the Minimum time required for charging from 0% to 100%?

- A fully discharged battery (~ 6V) requires a minimum charging time of 3 hours 30 mins (~ 4h) to charge fully and maintain a good battery life.

7) Health Check Procedure and Checklist.

- e-PoS Health check app shall be run periodically to check on the working status of various components and functionalities of the device.

8) What is the Storage Procedure for e-PoS Machines?

- e-PoS Storage space must be a cool and dry room with some ventilation but absolutely dust free.
- e-PoS must be kept in individual compartments or in a box with spacers/partitions so they must not touch each other.
- Before storing the e-PoS, ensure battery charge level must not be below 50%, instead it must be in range of 50% – 70% charge level.

9) How to check the version of e-PoS?

- e-PoS version along with launcher and application versions can be checked from EMM portal.

10) Is this compatible to charge en-route with any C-Type charger?

- No other charger except for APSRTC approved OTPL charger to be used for charging the e-PoS en-route. Device and Battery Warranty will be considered void and sole responsibility in case of any hazard or damage will be with the person who is using any other charger for charging the e-PoS. Conductors must carry OTPL individual chargers along with them while on duty. They can also charge e-PoS with OTPL Gang-chargers installed at various depot locations.

11) What are the Charger specifications?

- Output voltage: 5V; Output Current: 2A
- In-built protection against input over-voltage, over-current, and voltage surge; output short-circuit protection provided.

Take-aways for stake holders :

Passengers

- 1) Passengers can avail One Integrated portal and App for all services.
- 2) Issue of Online Reservation of Tickets in-bus.
- 3) Renewal of Bus Passes online.
- 4) Paperless Ticket - mTicket, mPass and Trip planning
- 5) Vehicle Tracking for all Buses and DGTs of corporation
- 6) Cargo and Parcel booking in Bus.
- 7) Easy and secure payments using UPI, Wallet, CC, DC and Closed Loop/NCMC
- 8) QR code based ticketing inside the bus
- 9) Real time trip status enabling customer to purchase ticket even after trip start.
- 10) Improved communication for feedback and response.
- 11) Unique **Open Ticket** for advance ticket in un-reserved and short distance services.

Crew

- 1) In the present scenario, it is mandatory to feed all the bus passes in to the TIMS to capture the total count of the passes boarded. But, with the implementation of UTS Project, just with scanning of bus passes the total count of the boarded passes will be captured automatically.
- 2) Handing Over and Taking over time will be reduced.
- 3) Auto Calculation of refund amounts during Breakdown.
- 4) There will be Paperless waybill i.e., e-waybill.
- 5) The crew can issue Advance Reservation tickets to the passengers in the bus.
- 6) At the time of breakdowns, the transfer of passengers to other buses can be done directly in a simplified manner.

- 7) Remote log in and log off from e-PoS machines.
- 8) Updates on stage wise list and passenger count to be boarded.
- 9) Android e-PoS machines real time data sync of tickets issued through Conductor/Ground Booking/Online.
- 10) Complete stage details will be available to crew while issuing ticket.
- 11) Cashless transactions will reduce the cash handling and change issues.
- 12) Pride of using the latest technology in place of antiquated TIMs

Corporation

- 1) TIMs replaced with e-PoS/Android mobiles
- 2) Real time data flow of ticket transaction data.
- 3) Real time monitoring through Command Control Center.
- 4) Increased cash less transactions.
- 5) Dynamic routing based on real time information.
- 6) Demand forecast, short and long term planning
- 7) Empowered customer – Enabled Organisation.
- 8) Single Source of Truth is established.
- 9) Single technology platform – for 100% Integration
- 10) Effective control and Monitoring.
- 11) Seam less flow of clean data for analysis and decision making
- 12) Analytics for performance enhancement
- 13) Secure version control of Software modules.
- 14) Over the Air (OTA) Updates and enhancements on the fly.
- 15) Real time dynamic data sync for ticket issues at multiple locations.
- 16) More than 10x increase in online seat availability to passenger.