

GOVERNMENT OF INDIA (BHARAT SARKAR)
MINISTRY OF RAILWAYS (RAIL MANTRALAYA)
RAILWAY BOARD

No.2014/TG-I/10/P/UTS on Mobile

New Delhi, dated 09.10.2015

Chief Commercial Manager,
Eastern Railway,
Kolkata.

Managing Director,
CRIS,
Chanakyapuri,
New Delhi.



COMMERCIAL CIRCULAR No. 60 of 2015

Sub: Introduction of Unreserved ticketing through Mobile phone including Paperless ticketing.

Ref: Board's letter no. 2014/TG-I/10/P/UTS on Mobile/Pt-II dated 29.09.2015.

Please refer to approval regarding launch of unreserved ticketing through mobile phone including paperless ticketing. A copy of Joint Procedure Order in the matter as well as MoU (sample MoU signed by Central Railway, IRCTC and CRIS) to be entered into with CRIS by the Zonal Railways are enclosed for necessary action. The scheme will be periodically reviewed to assess various issues inter-alia those related to security of tickets, leakage of revenue etc. Therefore, it is requested that Board may be kept apprised of the progress of the project through fortnightly report on the working of the project including the number of tickets sold, passengers travelled, problems noticed, complaint/feedback received, suggestions if any for improvement etc.

22/10/15
(Sanjay Manocha)
Deputy Director Traffic Commercial (G)-II
Railway Board

DA: As above.

Copy to: Chief Commercial Managers, all Zonal Railways (except ER) for information and necessary action please.

- 2/-

	<i>National Federation of Indian Railwaymen (N.F.I.R.) 3, Chelmsford Road, New Delhi.</i>	<i>Dr:23.10.2015</i>
<i>No. II/91/Part 2</i>		
<i>Copy together with its enclosures is forwarded to the General Secretaries of affiliated Unions of NFIR for information and comments.</i>		
<i>C/: Media Centre/NFIR.</i>		<i>Dr. M. Raghavaiah</i> General Secretary



S.No. 74

CCM(PM)'s Office,
PRS Computer Centre,
Mumbai CST

CENTRAL RAILWAY

No.C/CRS/BB-WP/2008-09/Unreserved Tkt thro Mobile Dt. 02.01.2015

✓ Chief General Manager
CRIS / Mumbai

Group General Manager
IRCTC / Mumbai

Sub : Project on Unreserved Ticketing through Mobile Phone: (MoU for provision of common payment Gateway for R-wallet for Pilot Project for implementation of Unreserved tickets through Mobile Phones)
Ref : Railway Board's Letter No.2014/TG-I/10/P/UTS on Mobile dated 24.12.2014.

The mode of payment for transfer of recharge amount paid vide IRCTC enabled payment Gateway to Railways was later changed to a Rotating Deposit scheme conveyed vide EDPM letter under reference thus necessitating a revised MoU.

1. A revised MoU for joint signature by IRCTC, Railways & CRIS has been drawn up signed and is being sent for your counter signature.
2. It is informed that JPO circulated by CRIS for the purpose (between Commercial & Accounts Departments) will also be changed subsequently.
3. Submitted for necessary action on Sr.No.1 above please.

This issues with the approval of CCM, Central Railway.

Encl: Final MoU.

(D Y Naik)

Chief Commercial Manager (PM)

- Copy to :
- CCM/CR, FA&CAO/CR
 - CMD, IRCTC, New Delhi
 - MD, CRIS, New Delhi
 - Executive Director (C&IS), Railway Board, New Delhi
 - Executive Director (PM), Railway Board, New Delhi
 - FA&CAO(T) CSTM for kind information please. W r t your letter No.AC/TA/PRS/Mobile tkt/MoU/2015 dated 01.01.2015.
 - FA&CAO(F&B), CSTM for kind information please w.r.t. your letter No.AC/BKS/347/V/RIB Policy dated 24.12.2014 the JPO will be taken up for suitable revision subsequently as discussed with Dy.FA&CAO(F&B) on date.
 - Sr.Law Officer for kind information please w.r.t. your letter No.G.382/OPN/Doc/Law/928/2015 dated 01.01.2015.

for kind information please

20150005
21/1/15

MD

How is it (R) done?

5/1

(D Y Naik)
Chief Commercial Mgr. (PM)

DO

By my ADM 5/1
2348
21/1/15

Signature
07-01-15
CM/UT

MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN CENTRAL RAILWAY, IRCTC & CRIS FOR PROVISION OF COMMON PAYMENT GATEWAYS FOR R-WALLET AND THE SOLUTION FOR PILOT IMPLEMENTATION OF UNRESERVED TICKETING THROUGH MOBILE PHONES IN CHENNAI AND MUMBAI SUBURBAN AREA.

This MEMORANDUM OF UNDERSTANDING is entered into by and between:

Central Railway represented by General Manager or his authorized nominee, hereinafter referred to as the Railways.

AND

Indian Railways Catering and Tourism Corporation, represented by the Chairman and Managing Director or his authorized nominee hereinafter referred to as the IRCTC.

AND

Centre for Railway Information System, represented by the Managing Director or his authorized nominee, hereinafter referred to as the CRIS

1. **PURPOSE :** For pilot implementation of common Payment Gateway for recharge of R-wallet and Unreserved ticketing through Mobile Phones in Chennai & Mumbai suburban area.

2. **Role of CRIS & Railways**

CRIS & Central Railway shall be responsible for the following -

- a. Accounting of R- Wallet for the booking of UTS tickets.
- b. All Reconciliations for UTS booking and Cancellations.
- c. Accounting of tickets booked to the amount left in R-wallet.

3. **Role of IRCTC :**

IRCTC will handle the following:

- a. Provisioning of Common Payment Gateways for the recharge/top-up of R- Wallet online through www.utsnmobile.indianrail.gov.in website.
- b. All Customer accounts debited imply credit to the Common Payment Gateway. The intimation in this regard is sent to CRIS on real time/run time basis for credit to the R-Wallets respectively for each customer.
- c. Provisioning of Merchant Identification (MID) for UTS mobile ticketing integration to CRIS.




CGM, CRIS, Mumbai

- d. IRCTC will maintain a Rotating Deposit in the nodal account of Central Railway of Rs.50 lakhs, this account will be recouped (regularly in a period not exceeding two days) and in case the deposited amount falls below 5 lakhs recharge of customers R-wallet and consequently ticketing will automatically stop till the pending amount is replenished by IRCTC.
- e. IRCTC will do the Common Payment Gateway Reconciliation in T+2 days for all the transactions lapsed on the IRCTC Common Payment Gateway and the funds will be received by IRCTC.
- f. IRCTC shall provide the CRIS the settlement file (after bank reconciliation) for further reconciliation with UTS on T+3 days. CRIS will do the reconciliation based on the settlement file provided by IRCTC.

4. RECONCILIATION

- a. IRCTC shall reconcile the recharge money to nodal account of Central Railway on T+3 days (excluding Saturday/ Sunday and holidays)
- b. Payment Gateway charges, as applicable shall be paid by customer.
- c. The reconciliation and settlement should be done along the same line as internet based season ticketing system which has been working satisfactorily for many years.

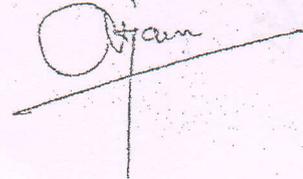
5. DURATION

This arrangement will be initially valid from 27.12.2014 to 31.03.2015 and shall be extended further unless Central Railway, IRCTC & CRIS agree in writing for the termination of same by serving one month notice in advance. For any change either in role/mode or payment, addendum will be issued.

6. DISPUTE RESOLUTION / ARBITRATION:

- 6.1 In the event of any dispute/difference between Central Railway, IRCTC & CRIS, all endeavour shall be made for amicably resolving the same.
- 6.2 In case any question, dispute or difference arising under these conditions or in connection with this MOU cannot be resolved amicably as stated in sub-para 6.1 above, the same shall be referred to the sole arbitration of the Gazetted Railway Officer appointed to be the Arbitrator, by the General Manager, Central Railway. The Gazetted Railway Officer to be appointed as Arbitrator, however, will not be one of those who had an opportunity to deal with the matters to which the contract relates or who in the course of his duties as Railway servant has expressed views on all or any of the matters under dispute or difference. The award of the Arbitration shall be final and binding on the parties to this contract.

In the event of the Arbitrator dying, neglecting or refusing to act or resigning or being unable to act for any reason or his award being set aside by the Court of any reason, it shall be lawful for the authority appointing the Arbitrator to appoint another Arbitrator in place of the outgoing Arbitrator in the manner aforesaid.



It is further a term of this MOU that no person other than the person appointed by the authority as aforesaid should act as Arbitrator.

The cost of arbitration shall be borne by the respective parties. The cost of arbitrator shall interalia include fee of the arbitrator, as per the rates fixed by the Railway Administration from time to time.

Subject as aforesaid, the Arbitration & Conciliation Act 1996, and the rules thereunder and any statutory modifications thereof shall apply to the arbitration proceedings under this clause.

The venue of arbitration shall be the place from which the MOU is signed or such other place as the Arbitrator at his discretion may determine.

In this MOU the authority to appoint the Arbitrator includes, if there be no such authority, the officer who is for the time being discharging the functions of that authority, whether in addition to other functions or otherwise.

7. FORCE MAJEURE

Neither Central Railway, IRCTC nor CRIS shall be responsible or liable for any failure or delay on their part to fulfill or perform any of the terms or obligations under this MoU, if such failure or delay is caused by an factor or event beyond the control of any of them.

8. Any issue / matter left out in this MOU may be mutually decided as agreed by the Central Railway, IRCTC & CRIS for implementation of project.
9. The progress would be reviewed periodically. All parties of the MoU can mutually modify / amend / amplify the aforesaid terms & conditions of the MoU in writing duly signed by all the parties to this MoU.

10. EFFECTIVE DATE

This Memorandum of Understanding is effective from _____

11. This MoU shall be governed by the laws of India.

12. NOTICES

All notices, requests, consent statements or any other communication required to be given shall be in writing and issued by or delivered to by hand or mailing the same by Registered Post to the respective address set forth below or such other addresses and to the attention of such person as may thereafter be designated by notice hereunder:

IN CASE OF RAILWAYS :

General Manager / Central Railway
CST, Mumbai



IN CASE OF IRCTC :

Chairman & Managing Director

IN CASE OF CRIS :

Managing Director

In witness whereof the parties have hereunto set and prescribed their respective hands and/or sealed the day, month and year respectively mentioned against their respective signatures.

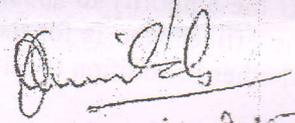
Signed: 

Date: 02-01-2015

Witnesses:

Address:

Designation:

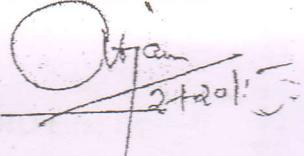


Date: 02-01-2015

Witnesses:

Address:

Designation:

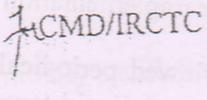


Date: 21/01/15

Witness:

Address:

Designation:

for General Manager / Central Railway.  CMD/IRCTC

for MD/CRIS









WORKING PROCEDURE (JOINT PROCEDURE ORDER) FOR PURCHASE OF UTS TICKETS THROUGH MOBILE PHONES

The pilot project has already been launched for issuance of unreserved ticketing through mobile phones in the suburban sections over Mumbai and Chennai on 27.12.14 & 14.01.15 respectively as per the approval of Railway Board vide letter No. 2007/C&IS/OTH/Ref Doc for PPP/52 dated 22.02.2012 with the provision of printing tickets. Railway Board has sanctioned the detailed estimate amounting to Rs 5.467 crores vide letter No. 2007/C&IS/OTH/Ref Doc for PPP/52/Pt.1 dated 10.03.2014. The pilot project will be for a period of one year. These tickets can be printed through ATVMs at stations or Printing kiosks. Through these kiosks, it will be possible to print the tickets by placing the mobile phone in front of camera which will read the ticket ID and will print the ticket after validating the ticket from UTS server. (These kiosks are at development stage and will be rolled out after successful testing).

CRIS is also developing the application for paper based mobile ticketing for non-smart mobile phones using USSD technology. The same will be rolled out after successful testing.

Railway Board have also decided to issue paperless unreserved ticket/ season tickets on Smart Phone vide letters No. 2015/C&IS/UTS/Paperless/2 dated 17.03.15 and letter No. 2014/TG-1/10/P/UTS on Mobile dated 01.07.2015 respectively. This application can also be used for introduction of paperless platform ticket after approval by Railway Board.

These are to be read in conjunction with Board's letter Nos 2006/CRIS/NDLS-HQ/UTS/Project/Misc/Pt.6, No. 2012/CIS/UTS/Mobl-Tkng/8 dated 19.9.2014 and No. 2014/TG-1/10/P/UTS on Mobile dated 03.11.2014

The booking clerk nominated for manning the counters enabled for recharge of Railway Wallet shall scrupulously maintain the daily records in the register provided for the purpose. All issues faced in top up should be mentioned. The CBS shall consolidate and send the same to the Divisional Office with a copy marked to Dy.CCM (PM) of Zonal Railways.

1.0 Definitions

- 1.1 **CRIS** - Centre for Railway Information Systems
- 1.2 **UTS** - Unreserved Ticketing System
- 1.3 **GSM** - Global System for Mobile Communication
- 1.4 **CDMA** - Code Division Multiple Access
- 1.5 **SVA** - Stores value Account
- 1.6 **OTP** - One Time Password
- 1.7 **MTAMS** - Mobile Tower Area Mapped Stations. Service Provider Mobile Tower Area can be mapped to set of stations.
- 1.8 **USSD** - Unstructured Supplementary Service Data
- 1.9 **IMEI** - International Mobile Equipment Identity
- 1.10 **IRCODE** - IRCODE is a unique identifier which is a combination of selective alphabet and some special characters. The IRCODE will be sent to device as SMS and used as ticket identification. The IRCODE will be used in the Printing Kiosk to take ticket printout.
- 1.11 **IMPS** - Immediate Payment Service
- 1.12 **MMID** - Mobile Money Identifier
- 1.13 **Generation of OTP/mPIN :**

For Registration: At the time of registration, OTP will be generated by Mobile application server to check validity of the mobile number.

For payment: OTP/mPIN should be generated before starting the ticketing activity for the payment instrument, which depends upon the payment instrument used by the passenger.

- 1.14 **Registration of user:** Registration is the first step to start mobile ticketing. It is a process to

know about the passenger and help them to work smarter with frequent travel information.

1.15 Booking of ticket Purchase of ticket and obtaining unique Booking ID and IRCODE along-with booking information as SMS

1.16 Printing of ticket Printing of ticket in a self-operated Kiosks/ATVM by typing the mobile number and Booking Id or OCR-enabled printing kiosk by typing the mobile number unique Booking ID or tapping IRCODE.

1.17 Cancellation of ticket Ticket is cancelled either automatically in case train is cancelled due to natural calamity or by Competent Authority Decision or on request by the passenger before printing the ticket.

1.18 Paperless Ticket: The passenger can book paperless ticket through mobile application and ticket will be delivered and stored in the mobile application itself. The passenger can travel without taking hardcopy of the ticket. Whenever Ticket Checking Staff asked for ticket, the passenger will use 'Show Ticket' option in the app to display the ticket to the TTE/TC.

- a. The smartphone should be GPS enabled to book paperless ticket.
- b. The paperless tickets are not allowed for cancellation in order to avoid refund after performing the journey. Hence, no refund should be permitted for the paperless tickets issued through Smartphone.
- c. The journey should commence within one hour after booking paperless ticket.
- d. In case passenger is not able to show the ticket on mobile then it is considered as ticket less travel.
- e. The paperless ticket will not work on those device which are rooted as mentioned in para 1.26 to 1.34.

1.19 Paper Ticket:

The passenger can book paper ticket through the smartphone mobile app for non-GPS routes or USSD app. After booking the ticket, he/she will get Booking ID along with other ticket details. The booking details will also be available in booking history. The booking ID will also be conveyed through an SMS.

- a. After booking the Paper ticket, Passenger can go to the journey originating (source) station to take ticket print out from any of the ATVM there, by entering his/her registered mobile number and Booking ID. The Journey is valid only with printed ticket.
- b. The cancellation of Paper ticket is allowed either at the counter after printing the ticket or through the app before printing the ticket. However, in both the cases, cancellation fee is applicable.
- c. The journey should commence within one hour after printing paper ticket in the kiosk.

1.20 Show Ticket :

This feature is only for paperless ticket. The passenger can use this feature to show the booked ticket to the TTE/TC as and when required. This feature will work even there is no internet connectivity in the passenger mobile.

1.21 Sync Ticket :

This feature is only for all type of paperless tickets .The option is available under profile feature. This is used to remove the old expired tickets and sync latest valid ticket from the server. Those tickets whose validity period is more than 1 day will be removed automatically from the application.

1.22 Printing Kiosk/ATVMs **Self-operated** Terminal/kiosk to generate printed tickets using Mobile number and the unique Booking ID or by tapping IRCODE sms. This feature is for paper ticket(i.e) Ticket booked for Non-GPS enabled routes.

1.23 Gen-Fencing area : It is an geographically fenced area which covers the GPS co-ordinates of suburban Railway tracks plus 15 for Chennai/30 meters for Mumbai on either side of the tracks/station and No ticket booking is allowed within the Geo-Fencing area

1.24 Customer self care portal It is a portal through which the customer support personnel can do the needful sought by the passenger. Passenger can check and change the profile like address, Frequent Travel Route etc.

1.25 Railway Wallet(R-Wallet) It is a payment instrument issued by Indian Railway. Upon successful registration, an R-Wallet will be created with zero Balance.

1.26 Rooted Device

1.26 **IPSEC** - Internet Protocol Security

1.27 **VPN** - Virtual Private Network

1.28 **HTTPS** - Hyper Text transfer Protocol Secure

1.29 **MNO** - Mobile network Operator

1.30 **MSC** - Mobile Switching Centre

1.31 **HLR** - Home Location Register

1.32 **VLR** - Visitor Location Register

1.33 **NBIN** - National bank Identification Number

1.34 **MPA** - Mobile Print Application

2.0 Mobile Application Availability/accessibility

The downloadable mobile application will be uploaded in the OEMs application store.(ie) Android app in Google Play, Windows app in Windows store, iPhone app in apple store ,etc The passenger can download the mobile ticketing app from the appropriate application store.

The USSD application will be accessed by dialling *139#.

The downloadable app for Android and windows mobile phones were uploaded for public use. The mobile app for iPhone and USSD app for low-end phones will be launch in phased manner.

3.0 Registration

3.1 The passenger first will get registered by providing his/her mobile number , name, id-card, city, default booking train type, class, ticket type, number of passenger, and frequently travelling routes.

3.2 Registration can be done on USSD, Portal(<https://utsonimobile.indianrail.gov.in>) and Mobile App.

3.3 After successful registration, an SMS will be sent to the user with login-id and password. Currently, the passenger can also register through the mobile phone app and internet only.

3.4 Following information will be captured from the mobile user at the time of registration:

(i) **USER ID-** By default, User mobile number will be the user identification.

(ii) **User name-** Name of the mobile user is required to give welcome screen in the portal and while sending confirmed ticket, as also at the time of checking with customer care service.

(iii) **CITY-** The mobile user resident city which will be used to customize the application interface to filter source station at the time of booking.

(iv) **ID-CARD** - The passenger has to give an ID card of any ID card type specified in the 'Select ID card Type' list. The passenger is responsible in case of defining wrong/fake ID card.

(iv) **OTP** - The mobile application will send an OTP to the mobile specified against USER ID field. This is to ensure validity of the mobile number.

(iv) **Default booking information** like train type, class, ticket type, number of passengers and payment details.

(v) **Frequent travel route-** Each mobile user is allowed to store five most preferred routes, which includes Source Station Name and Destination Station Name. The default booking information provided in step 5 will be used at the time of booking.

After successful registration, an SMS will be sent to the user with login-id and password. Later, the passenger can also change the password through the mobile app or website <https://utsonmobile.indianrail.gov.in> using Change password option

4.0 Login and Application Feature

The passengers have to login to the application by giving their mobile number and password as the user credentials. Only registered users are allowed to access the

application features. If the login credential fails three times consecutively, then the user account will be locked. It will be unlocked automatically after 1 hour. The policy for automatic unlock may change time to time.

Mobile Application Feature

1. Quick Booking.
2. Normal Booking.
3. Cancel Ticket.
4. Booking History.
5. Profile.
6. Show Ticket.
7. Sync Ticket.
8. Logout.

Website Application Feature

1. **Wallet Balance** - The passengers can check their R-Wallet Balance.
Wallet Recharge - The passengers can recharge their R-Wallet using Debit card and Netbanking account through IRCTC website & UTS counter.
2. **Ticket book History-** The passenger can see their ticket booking transaction Details.
3. **Ticket Cancel History-** The passenger can see their cancelled ticket transaction Details.
4. **Wallet Top-up History-** The passenger can see their R-Wallet recharge transaction Details.
5. **Edit Profile** - The passenger can manage their profile like default journey details, City, quick routes and ID card.
6. **Change Password** - The passenger can change their password. In case passenger forgot his/her password, he/she will use

'Forgot Password' Option so that the system will send new password to the passenger.

7. Help - This will give details about various features of the app.
8. FAQ - This will give details about frequently asked question with answer.

5.0 Ticket booking

The passengers are allowed to book normal(non-concession) journey/return suburban ticket only for Chennai and Mumbai suburban section and concession tickets are not allowed, however senior citizen is allowed later. The journey date will always be current date. No advance ticket booking is allowed.

The passenger will get paperless ticket for GPS enabled routes and paper ticket for Non-GPS enabled routes.

At the time of Ticket Sync, those tickets whose validity period is more than 1 day will be removed automatically from the application.

- 5.1 Tickets can be booked either through USSD application on any mobile phones or Mobile Apps on smart phones.
- 5.2 The passenger will be prompted with password authentication, which will enable only users who have done the registration for mobile ticket to use the application.
- 5.3 There are two options given to the passenger to book tickets

1. Normal Booking
2. Quick Booking

5.4 Transaction Flow for mobile booking of paper based ticket using Normal Booking features:

- (i) The passenger will be asked to enter the source station. Following options will be given to select the source:
 - (a) Allow the passenger to enter the full name of the source station and shortlist the station using pattern matching software.
 - (b) Allow the passenger to enter the source station code and shortlist the station using pattern matching software.
- (ii) Allow the passenger to enter the partial/full name of the destination station and shortlist the station using pattern matching software.
- (iii) If there are multiple routes, there will be an option to select specific route, otherwise go to next menu for selecting journey detail.
- (iv) The passenger will be prompted for Journey Class; the allowed entries are II for Second class and FC for first class.
- (v) The passenger will be prompted for number of Adult and Child
Maximum number of passengers allowed per ticket is based on the Class
 - Second Class - 4 passengers
 - First Class - 4 passengers
- (vi) The passenger will be prompted for Journey Type. The allowed journeys are Single/Return.
- (vii) In case of Return Journey, the passenger will not be prompted for Train Type because Return tickets are allowed only in Ordinary Trains.

(viii) In case of Single Journey

1. Mumbai Suburban: The passenger will not be prompted for Train Type because Suburban tickets are allowed only in Ordinary Trains in Mumbai.
2. Chennai Suburban: The passenger will be prompted for Train Type. The allowed Train Types are O- Ordinary, E-Express, S- Superfast.

(ix) The passenger will get fare for the ticket and available balance in the passenger R-Wallet.

(x) The passenger will confirm the ticket by selecting the payment option as R-Wallet.

(xi) The System will check whether the passenger R-Wallet is having sufficient balance. If the R-Wallet is having sufficient balance to book the ticket, then the money will deducted from the passenger R-Wallet and ticket will be booked. Otherwise, the application will give a message "Insufficient balance in your R-Wallet".

(xii) The passenger will get confirmation message with ticket information, along with unique booking ID and he will be asked to print the ticket at the station using ATVM Kiosk.

(xiii) The passenger will be prompted to save this ticket information in Frequent Travel Information(FTI) in case this ticket information is not available in the passenger FTI.

(xiv) Subsequently, the passenger will get a text message with ticket information as SMS and IRCODE.

(xv) The passenger will be allowed to book ticket for current day.

5.5 Transaction Flow for mobile booking of paperless ticket using Normal Booking features:

(i) The passenger will be asked to enter the source station. Following options will be given to select the source:

(a) Allow the passenger to enter the full name of the source station and shortlist the station using pattern matching software.

(b) Allow the passenger to enter the source station code and shortlist the station using pattern matching software.

(ii) Allow the passenger to enter the partial/full name of the destination station and shortlist the station using pattern matching software.

(iii) If there are multiple routes, there will an option to select specific route, otherwise go to next menu for selecting journey detail.

(iv) If route is GPS enabled than the Application will display that "This is a GPS enabled route, your GPS location will be checked".

(v) The passenger will be prompted for Journey Class; the allowed entries are II for Second class and FC for first class.

(vi) The passenger will be prompted for number of Adult and Child
Maximum number of passengers allowed per ticket is based on the Class

Second Class - 4 passengers

First Class - 4 passengers

(vii) The passenger will be prompted for Journey Type. The allowed journeys are Single/Return.

(viii) In case of Single Journey

1. Mumbai Suburban: The passenger will not be prompted for Train Type because Suburban tickets are allowed only in Ordinary Trains in Mumbai.

2. Chennai Suburban: The passenger will be prompted for Train Type. The allowed Train Types are O- Ordinary, E-Express, S- Superfast.

(ix) In case of Return Journey, the passenger will not be prompted for Train Type because Return tickets are allowed only in Ordinary Trains.

- (x) The passenger will get fare for the ticket and available balance in the passenger R-Wallet.
- (xi) The passenger will confirm the ticket by selecting the payment option as R-Wallet.
- (xii) The system will check Passenger's GPS location.
 - a. If the passenger GPS location is not readable ,the passenger is not allowed to book ticket.
 - b. If the passenger GPS location is within the Geo-fencing area, then also passenger is not allowed to book the ticket.
 - c. If the passenger GPS location is outside the Geo-Fencing area and within 5 kms radius for Southern Railway or 2 kms radius for Western Railway/Central Railway from the source station, then ticket booking is allowed.
- (xiii) The System will check whether the passenger R-Wallet has sufficient balance. If the R-Wallet has sufficient balance to book the ticket, then the money will be deducted from the passenger R-Wallet and ticket will be booked. Otherwise, the application will give a message "Insufficient balance in your R-Wallet".
- (xiv) The passenger will get confirmation message with ticket information and ticket in encrypted form will be stored in the local mobile application database.
- (xv) The paperless tickets cannot be printed.
- (xvi) The passenger will be prompted to save this ticket information in Frequent Travel Information (FTI) in case this ticket route information is not available in the passenger FTI.
- (xvii) The passenger will be allowed to book ticket only for current day.

5.6 Transaction Flow for mobile booking of paper based ticket using Quick Booking features:

- (i) The Frequent travel route will be displayed along with default class, ticket type, train type, number of passengers, and The format is
<Source>,<Destination>,<Adult>,<Child>,<Class>,<Journey>,<Train Type> (ii)
- (ii) The passenger will get fare for the ticket and available balance in the passenger R-Wallet.
- (iii) The passenger will confirm the ticket.
- (iv) The System will check whether the passenger R-Wallet has sufficient balance. If the R-Wallet has sufficient balance to book the ticket, then the money will deducted from the passenger R-Wallet and ticket will be booked. Otherwise, the application will give a message "Insufficient balance in your R-Wallet".
- (v) The passenger will get confirmation message with ticket information alongwith unique booking ID and he will be asked to print the ticket at the station using ATVM Kiosk/Printing Kiosk.
- (vi) Subsequently, the passenger will also get an IRcode with ticket information as SMS.
- (vii) The passenger will be allowed to book ticket only for the current day.

5.7 Transaction Flow for mobile booking of paperless ticket using Quick booking features:

- (i) The Frequent travel route will be displayed along with default class, ticket type, train type, number of passengers, and The format is
<Source>,<Destination>,<Adult>,<Child>,<Class>,<Journey>,<Train Type>
- (ii) If route is GPS enabled than the Application will display that "This is a GPS enabled route, your GPS location will be checked".
- (iii) The passenger will get fare for the ticket and available balance in the passenger R-Wallet.
- (iv) The passenger will confirm the ticket.
- (v) The system will check Passenger's GPS location.
 - d. If the passenger GPS location is not readable ,the passenger is not allowed to book ticket.
 - e. If the passenger GPS location is within the Geo-fencing area,then also passenger is not allowed to book the ticket.

f. If the passenger GPS location is outside the Geo-Fencing area and within 5 kms radius for Southern Railway or 2 kms radius for Western Railway/Central Railway from the source station, then ticket booking is allowed.

- (vi) The System will check whether the passenger R-Wallet has sufficient balance. If the R-Wallet has sufficient balance to book the ticket, then the money will be deducted from the passenger R-Wallet and ticket will be booked. Otherwise, the application will give a message "Insufficient balance in your R-Wallet".
- (vii) The passenger will get confirmation message with ticket information and ticket in encrypted form will be stored in the local mobile application database.
- (viii) The paperless tickets cannot be printed.
- (ix) The passenger will be allowed to book ticket for the current day.

6.0 Cancellation of tickets

Cancellation is not allowed for paperless journey, season and platform tickets..

- (i) This option will list all the valid tickets bound to the mobile number.
- (ii) The passenger can select one of the tickets and the application will check the centralised database for the following authenticity of the ticket
 - 1. Ticket is not yet cancelled.
 - 2. Ticket printout is not yet taken.

The cancellation methods are described as follows:

a. Ticket Booked, but not yet printed (paper based)

Those tickets which are booked but not yet printed can be cancelled from the Mobile App. The rules for cancellation are same as UTS without any time limit(i.e. upto 23:59 hours). However, ticket is not allowed to cancel next day.

b. Ticket Booked and Printed (paper based)

Ticket which were booked and printed can be cancelled at only UTS counters within the cancellation time limit. The cancellation rules are same as per Railway Board directives for unreserved tickets.

- (iii) Cancellation request will be sent to the UTS application, which will decide whether cancellation is allowed for the requested ticket or not as per various refund rules.
- (iv) The refund amount after deducting cancellation fee will be credited immediately to the passenger R-Wallet..
- (v) The system will have an automatic bulk cancellation of non-printed tickets in case of natural calamity or administrative decision.
- (vi) The money will be recouped or refilled into his payment instrument.
- (vii) There will not be any cash refund.

7.0 Booking History

- 7.1 The passenger can view the last 5 booking details.
- 7.2 It will show the booking details in the following format:

- <Source>,<Destination>,<Amount>,<Jrnydate> and other journey details.
- 7.3 The paperless ticket will be shown in pista colour and paper ticket will be shown in pink colour.
- 7.4 There will be an option to re-book the ticket; the system will automatically change the journey date to current date.
- 7.5 The passenger will get fare for the ticket.

7.6 Rebooking a paper based ticket

- o The System will check whether the passenger R-Wallet is having sufficient balance.
- o If the R-Wallet is having sufficient balance to book the ticket, then the money will be deducted from the passenger R-Wallet and ticket will be booked. Otherwise, the application will give a message "Insufficient balance in your R-Wallet".
- o The passenger will get a confirmation message with ticket information along with unique booking ID. He will be asked to print the ticket at the station using ATVM Kiosk/Printing Kiosk.
- o Subsequently, the passenger will get a text message with ticket information as SMS and IRCODE.

7.7 Rebooking a paperless ticket

The system will check Passenger's GPS location.

- a. If the passenger GPS location is not readable ,the passenger is not allowed to book ticket.
- b. If the passenger GPS location is within the Geo-fencing area, then also passenger is not allowed to book the ticket.
- c. If the passenger GPS location is outside the Geo-Fencing area and within 5 kms radius for Southern Railway or 2 kms radius for Western Railway/Central Railway from the source station, then ticket booking is allowed.
- d. The System will check whether the passenger R-Wallet is having sufficient balance. If the R-Wallet is having sufficient balance to book the ticket, then the money will be deducted from the passenger R-Wallet and ticket will be booked. Otherwise, the application will give a message "Insufficient balance in your R-Wallet".
- e. The passenger will get confirmation message with ticket information and ticket in encrypted form will be stored in the local mobile application database.
- f. The paperless tickets are not allowed to take printout

7.8 The passenger will be prompt to save this ticket route information in Frequent Travel Information.

7.9 The passenger will be allowed to book ticket for the current day.

8.0 Paperless season tickets:

There are two type of season ticket is being issued/renewed through UTS.

1. Single route season ticket (i.e) Journey is allowed between a pair of stations.
2. Multiroute season ticket (i.e) Journey is allowed between multiple sources and destinations.

In UTS, currently, the multi-route ticketing is allowed only in Central Railway/Western Railway/Eastern Railway.

Since, the validity of season Ticket for longer period say Monthly, Quarterly, Half-yearly and yearly, the GPS validation in the Geo-fencing area will be removed. Instead, the paperless season

ticket issued through utsonmobile will always be effective the next day of the issuing date. That is no paperless season ticket will be issued with validity period starting from current date. In case of advance renewal of season ticket, the new validity period logic is as follow

1. In case the season ticket validity period is active, then the new validity period will be effective from existing validity period plus one day.
2. In case the season ticket validity period is expired, then the new validity period will be from next day (i.e. current date plus one).

Also, the paperless season ticket will be provided to adult passengers only because the utsonmobile service is not available to persons under the age of 17.

The system will not allow concessional season tickets,

8.1 Transaction flow for issuance of paperless season tickets:

1. The passenger will login to the utsonmobile application on smart mobile phones.
2. The passenger will select 'Season Ticket' option and then select sub option 'Issue'
3. The application will check whether any valid season ticket is associated with the mobile number. If there is already a valid season ticket, the system will not allow second season ticket.
4. The application will prompt the passenger to feed ticket details like Source Station, Destination Station, Via, Class, Adult/Child, Name, Age, Gender, I-Card number and address.
5. The passenger can book Second/First Class season ticket.
6. The passenger will be responsible for the age, date of birth, gender, I-card and address details as the system will not validate these information. The age will be automatically calculated based on the date of birth provided by the passenger
7. The passenger will get the total fare and a prompt to select payment option.
8. The System will check whether the passenger Railway Wallet (R-Wallet) has sufficient balance. If the R-Wallet has sufficient balance to book the ticket, then the money will be deducted from the passenger R-Wallet and season ticket will be issued. Otherwise, the application will give a message "Insufficient balance in your R-Wallet". In case of insufficient balance, the passenger can use the web facility to recharge the R-wallet. He/She can then purchase the season ticket, following the steps detailed above.
9. The season ticket will be stored in the local mobile phone database in encrypted form with validity period.
10. Whenever TTE/TC asks for the season ticket, the passenger can open show ticket option in the app and display the ticket to the TTE. The paperless season ticket will have the following information
 - a. The source station, destination station, validity period, age, gender, ID card number of passenger, class, duration and other information.
 - b. It will also have a QR code. The TTE can use the Ticket validator device (mobile phone or HHT) to read the QR code and cross check the ticket information by validating from the backend system.
8. The show ticket option will work in offline mode in case GPRS link is not available.
9. Season ticket once booked cannot be cancelled.

8.2 Transaction flow for renewal of paperless season tickets:

The system will give automatic notification to the passengers regarding their paperless ticket expiry 10 days in advance which will help the passenger to renew the season paperless ticket well in advance using the R-wallet .

1. The passenger will login to the utsonmobile application on smart mobile phones.
2. The passenger will select 'Season Ticket' option and then select the suboption 'Renewal'
3. Based on the passenger registered mobile number or UTS number, the application will check in the backend system for any existing valid season ticket. If there is any valid ticket available in the system , which is going to be expired within 10 days or ticket validity period is expired, but still within the grace period, the same will be displayed by the application.
4. Details of old season ticket will be displayed on screen with renew option.
5. The passengers are allowed to change the duration, class, ID card and address.
6. The passenger can book Second/First Class season ticket.
7. The passenger's age will be automatically calculated based on the date of birth provided..
8. The passenger will get the total fare and a prompt to select the payment option.
9. The System will check whether the passenger R-Wallet has sufficient balance. If the R-Wallet has sufficient balance to book the ticket, then the money will deducted from the passenger R-Wallet and season ticket will be renewed. Otherwise, the application will give a message "Insufficient balance in your R-Wallet". In case of insufficient balance, the passenger can use the web facility to recharge the R-wallet. He can purchase a season ticket as detailed above.
10. The season ticket will be stored in the local mobile database in encrypted form with validity period.
11. Whenever TTE/TC asks for the season ticket, the passenger can open show ticket option in the app and display the ticket to the TTE. The paperless season ticket will have the following information
 - a. The source station, destination station, validity period , age, gender, ID card number of passenger, class, duration and other information.
 - b. It will also have a QR code. The TTE can use the Ticket validator device (mobile phone or HHT) to read the QR code and cross check the ticket information by validating in the backend system.
12. The show ticket option will work in offline mode in case GPRS link is not available.
12. Season ticket once booked cannot be cancelled.
13. Once the ticket validity period plus grace period is expired, then passenger can obtain a fresh season ticket.

9.0 Platform Ticket

The paperless Platform (PF) ticket will be enabled only for those stations where PF ticket earning is more (i.e. > 100 tickets per day). Normally, PF tickets will be enabled on those stations where Mail/Express, Superfast, Shatabdi, Jan Shatabdi, etc train stops.

1. Only paperless PF ticket is allowed through utsonmobile application.
2. The paperless PF ticket is valid only for two hours from the booking time.
3. Ticket booked cannot be cancelled.
4. At the time of Ticket Sync, those tickets whose validity period is more than 5 hours will be removed automatically from the application.

In order to enable paperless platform ticket through utsonmobile app, the following scenarios should be prevented

1. Passengers may try to take PF ticket only immediately after seeing Ticket checking staff in the platform or station ticketing area.
2. Passengers may travel without ticket in a train and take paperless PF before getting down at the destination station or on seeing Ticket checking staff available in the destination station.

The above cases will be prevented only if we block booking of PF ticket on the train while travel or near by the station premises by defining Geo-fencing area.

Normally , the passengers will not take PF ticket well in advance because the validity of PF ticket is only for 2 hours after the ticket is purchased(i.e)the passenger will take paperless platform ticket when he/she is within 2km radius from the station.

Geo-fencing area for the PF ticket: The area covering the GPS co-ordinates of the railway track for 2 kms distance on either direction of the station plus 15 meters on either side of the tracks.

Hence, the passengers may be allowed to take paperless platform tickets within 2 km radius from station and 15 meters away from the railway track or station.

This option enable user to buy platform ticket over mobile phone.

- 8.1 User needs to enter number of passengers and Station name.
- 8.2 After successful payment , platform ticket will be booked.

10.0 Recover ticket

The recovery of ticket facility may be required in two following case

1. Whenever, the passenger changes the mobile handset.
2. Whenever, the passenger changes the mobile SIM card.

Case 1

The passengers are allowed to change the handset. However, there should not be any active ticket associated with the mobile number. This is required to prevent fraudulent activity of generating duplication in the new handset and old handset.

The passenger will give a Change IMEI number request by logged in the portal and give a request. The system will take this request and will change to new IMEI number upon the subsequent login using the new mobile handset by the passenger. All the profile information will be linked to the new handset.

Case 2

This is ruled out because the mobile number is the key element in the mobile ticket system which is linking the passenger R-wallet and also the application login user id. So, the passenger has to surrender the R-wallet and then request to close the account in the website(<https://utsonmobile.indianrail.gov.in>).

11.0 Mobile ticket printing Kiosk/ATVM

- 11.1 There will be wall mountable printing kiosks at stations. The number of such kiosks would depend on the expected bookings at the various stations. In the pilot phase, there will be 5 such kiosk in each station.

- 11.2 The kiosk will be equipped with IRCODE scanner with camera and OCR, keypad , ticket printer and a display mechanism.
- 11.3 The passenger will tap the mobile device with IRCODE on the scanner.
- 11.4 The print kiosk will scan the text message and convert it into a text and send to the Mobile Print Application (MPA) server. The OCR scanning will be performed in all mobile phones irrespective of make and model which include low-end mobile phones with a screen display which support minimum 3 lines and 14 characters per line except those mobile phones screens having cracks, water droplet , visible dust mark and blurred display.
- 11.5 The IRCODE will be decrypted by the MPA and will perform the first level validation, of the following type:
 Check whether the ticket is for current date.
 Check whether the journey originating station is the location where print kiosk is installed.
- 11.6 The ticket information will be sent to the UTS Mobile server for validation which will:
- Check authenticity of the ticket.
 - Check whether the ticket is not printed yet.
 - Check whether the ticket is not cancelled yet.
- 11.7 If the ticket information is valid, then the UTS Mobile server will send back the full ticket information to be printed. Then, it will print the ticket.
- 11.8 If IRCODE is not readable by the print kiosk scanner, then the passenger will use the keypad for keying in the mobile number and BOOKING ID.
- 11.9 The system will validate genuineness of the mobile number and BOOKING ID.
- 11.10 It will fetch the ticket information associated with the mobile number and BOOKINGID.
- 11.11 If it is valid, then it will print the ticket.
- 11.12 System will ensure single ticket print per BOOKING ID.
- 11.13 The existing ATVMs are equipped with new option 'Print Mobile Ticket'. Using this option, a passenger enters the mobile number and Booking id and takes print out of the ticket.

12.0 Ticket checking

Whenever TTE/TC wants to check the paperless ticket, he/she may ask the passenger to select "show ticket option" .This will display list of valid ticket booked in the mobile phone. The passenger will select the appropriate ticket to be shown to the TTE/TC.

The ticket will have the following information

- The source, destination station, class, number of passenger, journey date, ticket type and other journey information
- The security information like booking time ,secret code, ticket color code for the day and scroll text "IR unreserved Ticket".
- It also contains encrypted QR code which is non-editable.

In addition to this, in case the TTE/TC want to check further, he has to install TTE app which a separate ticket checking application is available for the TTE to check the paperless ticket bought using utsonmobile application. Currently, this application is available in android. The TTE can check the ticket by scanning the QR code in the offline mode or by entering the UTS number and mobile number to check from the UTS server(online).The TTE can also use the call check feature to give a missed call to the passenger mobile linked to the ticket.

In case GPRS link is not there, then offline "show ticket facility" will be provided.

The paperless ticket is non-editable and non-forwardable. The paperless ticket cannot be captured using screenshot option of the mobile phone.

It is also to be noted that the blown up ticket screen can be taken as photo(snapshot) from other mobile. It can be edited in offline and reproduced as ticket image. There are two approaches to handle this situation

(a) At the time of ticket checking, the TTE will read the QRcode and give a miss call to the mobile number from which ticket has been booked. If the passenger does not get a call, then the ticket has not been issued from that mobile. It is a forwarded ticket image and this should be treated as ticketless travel. or

(b) The ticket can be bind to the passenger ID card and while checking, TTE will ask for the passenger ID card and will match with the ID card mentioned in the ticket. In case of mismatch, it will be treated as ticketless travel.

In case the battery of the mobile phone is drained and passenger is not able to show ticket, then this should be considered as ticketless travel.

13.0 Payments

The passenger has to use R-Wallet as a payment instrument to book the ticket through mobile application.

Railway wallet

(i) Upon successful registration, R-Wallet will be opened on zero-balance basis for the passenger. The R-Wallet will be linked with the mobile number.

(ii) Railway wallets are closed wallets and will be used only for Rail ticket booking. This wallet will work on similar lines as the JTBS advance deposit.

(iii) Minimum recharge amount on R-wallet will be Rs 100/- and thereafter recharge can be in multiple of Rs 100/-. Maximum recharge amount on R-Wallet will be Rs 5000/-.

(iv) At the time of ticket booking, system will check whether the passenger R-Wallet has sufficient balance to book the ticket and if the amount is sufficient, then the amount will be deducted and ticket will be booked.

(v) Upon cancellation of paper mobile ticket, the refund money after deducting cancellation fee will be topped up in the R-Wallet.

(vi) Validity of R-Wallet will be for one year from the date of registration.

The Railway Wallet (R-Wallet) will be topped in the following two ways:

- i. In the UTS counters wherein the money will be credited immediately to the station earnings and passenger can use the money immediately for booking ticket.
- ii. Online through utsonmobile.indian.rail.gov.in (UTS mobile ticket web site) using IRCTC Common Payment Gateway.
 1. IRCTC will maintain an Rotating Deposit in the nodal account of Central Railway(CR) of Rs.50 lakhs.
 2. In case the deposited amount falls below 5 lakhs , then the online

- recharge facility of R-Wallet will automatically stop till the pending amount is replenished by IRCTC.
3. The passenger can do online recharge using their net banking and debit cards.
 4. On the recharge transaction day(T),as soon as the passenger recharges his/her R-Wallet through utsonmobile ticket website.
 - a. The money equivalent to recharge R-Wallet plus Payment Gateway charge (PG) will be debited from the passenger bank account. As of now, the PG charge is Rs.11.24 (variable).
 - b. The money equivalent to recharge R-Wallet credited directly to the IRCTC bank account and debited in the IRCTC RDS account immediately.
 - c. The passenger R-Wallet will be recharged immediately on receiving Payment success from CPG.
 5. On T+2 day (excluding Saturday, Sunday and holidays), Bank will provide settlement file for all successful debited transactions at Bank end.
 6. IRCTC will upload the settlement file in the Common Payment Gateway (CPG) dash board on (T+2) day for reconciliation with CPG.
 7. On T+3 day, UTS will do the reconciliation process based on the settlement file provided by IRCTC to
 - a. Ensure that all recharge transaction money is credited to IRCTC bank account.
 - b. Those recharge transaction which are Payment Requested at the UTS end, but success as per the settlement file will be considered as recharge success and passenger money will be recharged immediately.
 - c. Those recharge transaction which are Payment Requested at the UTS end and not listed in the settlement file will be Updated as Payment Failed – Transactions not listed in CPG settlement will be treated as Failed txns and No refund will be initiated for such txns as they are not settled, UTS has to update these txns as Payment Failed.
 - d. Sent refund initiate request to CPG/IRCTC. – Transactions for which payment is settled , but unable to recharge at UTS, due to any exception or limit exceed, will be initiated for refund request.
 8. IRCTC will initiate the refund process with the banks and refund the money to the passenger bank account.
 9. Bank will sent refund confirmation file on (T+5) day which contain list of transaction for which the money is refunded successfully. The (T+5) day may vary, depending on different banks process.
 10. IRCTC will process refund confirmation file and verify with CPG.
 11. UTS refund validation process will get the file from CPG and update the status from refund initiated to refund complete.

14.0 Surrender of R-Wallet

(a) If R-Wallet is surrendered before recharging the money i.e. having zero balance then no money will be charged. (This has been referred to Railway Board for confirmation).

(b) If R-Wallet has a balance amount and the passenger wants to surrender, then the closing of Railway Wallet (R-Wallet) will be handled as under:

1. The passenger has to initiate the surrender request from the mobile app.
2. The passenger will get secret code as SMS.

3. The passenger will go to any of the suburban Railway stations UTS counter.
4. The passenger has to provide the mobile number and secret code to the booking operator.
Upon verification in the system, the passenger will get remaining balance of his/her R-Wallet after deducting clerkage charge.
5. The system will generate surrender receipts wherein passenger will put his/her signature which will be kept at the UTS counter.
6. Surrender acknowledgement SMS will be sent to the passenger's mobile as a token of receipt of refund.

Reactivation of Surrendered R-Wallet

1. If passenger surrenders as per (a) above and he/she wants to reactivate the R-wallet again, then R-wallet may be reactivated with zero balance.
2. If the passenger surrenders R-Wallet and gets refund after deduction of surrender fee as per (b) above then R-Wallet will be reactivated with zero balance.
3. If the passenger initiates R-Wallet surrendering request, but not get the refund, his/her request will be rolled back.

Reactivation requests can be made by the passengers only thrice in a year with an interval of two months. However reactivation request should be made within thirty days once R-Wallet was surrendered.