eTCD

electronic Ticket Control Database

What is eTCD?

eTCD, electronic Ticket Control Database, is a centralised, real-time passenger ticket management system developed by UIC with the support of Hit Rail B.V., for use by railway companies around the world.

The service is defined by UIC IRS 90918-4, the common specification for the exchange of control information on railway tickets between ticket issuers and passenger carriers.

What does eTCD offer?

The service helps railway companies to control non-reservation barcode ticket information onboard trains for all rail travel. Information is exchanged in real-time between ticket issuers and passenger carriers.

This means:

- Ticket issuers receive up-to-date information on railway ticket verification and usage and
- Railway carriers receive complete information on the lifecycle of tickets, including when tickets are checked by other organisations and/or cancelled by the issuers.

Thanks to eTCD, ticket security and fraud prevention is increased with real-time exchange of information on:

- Cancellation and refunding of tickets after ticket inspection on trains
- Refunding of tickets in another country at ticket offices
- Re-use of tickets on the same train or on subsequent train journeys

In addition, the eTCD service also communicates information on the extension of validity, delay confirmation, declaration of non-used tickets, class upgrades and downgrades as well as ticket gate checks.

What are the benefits of eTCD for passenger rail travel?

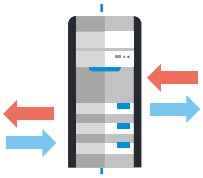
The eTCD service enables full paperless ticketing, thus marking the end of paper train tickets. This increases ticket security, prevents fraud and reinforces electronic ticketing capabilities.

In addition, this smart ticketing technology facilitates seamless multimodal door-to-door mobility, combining rail journeys with urban and local transport modes, and giving passengers a wider choice of multimodal travel options.

eTCD offers numerous advantages for rail passengers in terms of security, flexibility, cost and convenience.

The service enables faster boarding, helps cancel and refund tickets more easily, and informs passengers of changes to their tickets in real-time, thus enhances the overall travel experience and more effectively meets customer needs.

Background and Implementation



With the aim of making multimodality a more favourable option for transport users, UIC's Global Passenger Forum has undertaken significant work on the implementation of IT distribution channels for integrated multimodal ticketing.

After just one year of design work, the eTCD service has been in operation since February 2020, and is being implemented as an important cornerstone of UIC's distribution eco-system.

It incorporates the former Passage Control System (PCS), which did not process information in real-time.

The eTCD service now allows UIC members to exchange information with the central system, involving less complexity and lower implementation costs on their side.

A number of European ticket issuers and passenger carriers have either already established connections to eTCD or will be connected from 2022.

State-of-the-art technology

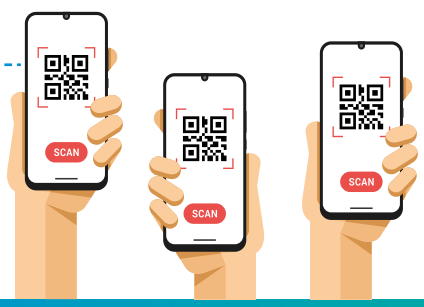
The eTCD service is provided in a Software as a Service (SaaS) mode. The technical components of the solution are deployed in a fully virtualised, leading edge, enterprise-grade cloud environment, for a high degree of flexibility in response to varying loads and future changes.

While advanced, these technologies are conceived for corporate use, offering high scalability, performance and availability, all while maintaining a reasonable cost.

Enhancing transport journeys across Europe

UIC is pleased to be able to bring to its members and stakeholders all the necessary IT tools and technical specifications through its suite of IRSs, to facilitate the journeys of European passenger travellers.

UIC technical documents for a sustainable rail transport system make a positive contribution to the environmental, social, and economic sustainability of the communities served by railways.



Further details on the eTCD service can be found at:

uic.org/passenger/passenger-services-group/passenger-experts-subgroup