

Customer Experience Platform, Mobile App & Website - Commerce

G-Cloud 13 - Service Definition Document

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1. Onboarding with Passenger

Passenger's customer experience platform for public transport operating companies and local authorities is accelerating the UK's journey towards sustainable, shared mobility.

Delivered through multi-operator mobile ticketing apps and transport information websites with contactless journey information, bulk ticket sales, user verification services, journey planning, real-time information and micromobility integration.

Why Passenger?

PTG's Passenger platform is currently powering the most-used and [highest-rated public transport operator mobile ticketing apps](#) by App Store review, in the UK. It also powers websites for some of the UK's most well-known operators, including the Go-Ahead Group, [Nottingham City Transport](#), [Transdev](#), [Cardiff Bus](#) and [Reading Buses](#).

Apps and websites that are powered by Passenger's Customer Experience Platform continue to be improved under a SaaS product license, through a programme of continuous development and updates.

Experienced team

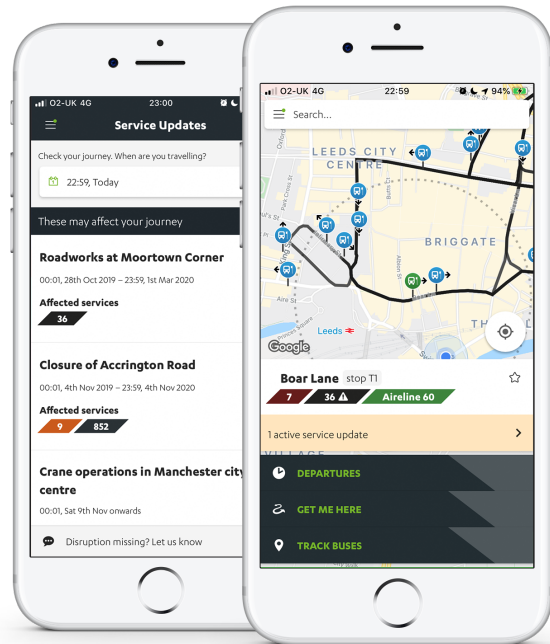
The Passenger team has extensive experience in delivering large scale systems to transport operators and authorities, including smart-card management, fully PCI compliant mobile app ticketing, network dataset management and real-time journey planning.

We provide a seamless ticketing, multi-modal RTI and route planning experience across digital channels; smartphones (iOS and Android), websites, smartwatches and voice technology.

Product benefits overview

There are multiple benefits to launching mobile apps and websites with Passenger, including:

- Customers receive a personalised ticketing experience on their smartphone with an easy to use, reliable and intuitive interface, increasing customer satisfaction. Passenger's iPhone and Android apps typically deliver a 99.5% crash-free user experience.



- Customers can purchase tickets at their convenience, including on the web and on mobile, for immediate use through one single online account.
- Fast track development and testing of marketing and ticket pricing initiatives.
- An online verification service is now available for concession & student passes offering time efficiencies for operator staff and customers.
- Benefit from a reduction in boarding times, especially at peak periods, as customers:
 - Have already purchased their ticket
 - Do not need to seek travel advice from the driver
- A lower cost of transactions vs other payments (e.g. cash, smartcards). Operators negotiate independent PSP rates directly with Stripe to get the best value.
- Access to a customer support desk, open 24 hours, 7 days a week with a dedicated support number and email. Operates with 4 hour standard response time.
- The Passenger Travel Portal enables operators to offer business customers a secure e-commerce system to order large volumes of mobile app tickets in minutes.

Operator/LTA feedback

"At Go-Ahead, we're committed to improving each customer's journey from start to finish. Technology is such a vital aspect of our passengers' lives and we need to ensure we're providing them with a high-quality, cutting-edge app that helps them to be in control of their journeys. We're very pleased to have rolled out new apps & websites across our bus companies in conjunction with Passenger. In partnership with Passenger, we're continuing to set standards for innovation, technology and sustainability."

Kanwar Brar, Group IT Director at The Go-Ahead Group, 2021

"Working with Passenger on our new app and website has been a great partnership for us. We now have a user-friendly app that integrates perfectly with the website, making it easier for customers to find travel information, buy their tickets, and improve their overall journey experience. Passenger delivered great products for us, to a tight timescale, with a smooth transition process. We're very pleased with the end result and look forward to a continued successful partnership."

Christine McGlasson, Managing Director at Xplore Dundee, 2021

"Passenger has made things so easy for our customers that they're more than happy to jump aboard. We've seen a huge uptake in mobile ticketing since we launched the Passenger app – the

numbers have grown exponentially. It has also sped up boarding, improved people's perceptions of the bus and, from a revenue protection point of view, it makes things much easier for our drivers."

Matt Harrison, Marketing & Communications at Transdev, 2019

Engagement programme

A key factor in the success of Passenger products has been our ongoing programme of engagement with customer stakeholders. The programme provides a regular forum for our product and engineering teams to work closely with staff from a range of roles within operator and local authority teams.

The programme creates the time and space for all stakeholders to collaborate, with the shared objective of translating business needs into effective software development and delivery.

Like our products themselves, this programme evolves to ensure it continues to support the diversity of stakeholders within our customer's businesses.

Day-to-day contact

From the beginning, the Passenger team are on hand to support you through a regular point of contact:

- Onboarding Specialist; responsible for a successful launch
- Nominated Customer Success Manager; single point of contact for the account and technical queries.

Help Desk

- Dedicated Customer Help Desk number and email; 24 hour, 7 days a week

Monthly forums + workshops

Monthly forums will provide an opportunity to share regular updates on functionality development and enable stakeholders to shape feature priorities, based on evolving opportunities and business challenges. The forums are led by our Product team and designed to give regular guidance to our engineering team.

The sessions include relevant workshops, designed to provide context to discussions and facilitate a shared understanding of relevant challenges and opportunities. These will include presentations and training from external organisations, where applicable. Each session is open to

up to 3 attendees per OpCo/LTA. Attendance is not limited by role type, allowing those with cross-functional roles to attend the most applicable sessions to them.

The aim of these sessions is to facilitate collaboration, communication and build trust so that together we can stay one step ahead.

Annual conference

To help guide product development, through a shared understanding of industry and technology challenges, we hold an annual conference, Innovation Day, for customer teams to shape the Passenger roadmap, meet with industry peers, transfer knowledge and best practice.



Passenger customers sharing insights with the Passenger team at 'Innovation Day' in Manchester, 2017

2.

Commerce

Getting people moving with product discovery, display and delivery

Our Commerce capability combines the following:

- Digital / mobile ticketing
- Contactless Journeys Portal
- Travel Portal
- Verification Service

Digital / mobile ticketing

Secure mobile ticket purchase and delivery

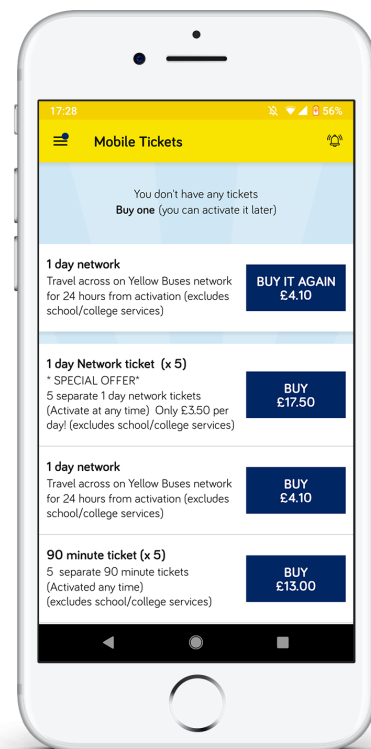
The Mobile Tickets view displays all available ticket types for travel – both available tickets and tickets already purchased by the user. Using Mobile Tickets, users can purchase new tickets, or activate and use the tickets that they have already purchased. Our iOS and Android apps enable users to purchase tickets via Apple Pay and Google Pay as well as credit and debit cards. By default, customers have up to 12 months to use unactivated tickets but this is configurable.

Available ticket types

Tickets can be configured as required from the following available ticket types:

Adult

- Day ticket, 24 hour or traditional day (e.g. until 03:00am next day)
- Period pass, e.g. 7 day, 30 day, 90 day.
- 30 mins, 1 hour ticket, usually sold as a 'single'
- Peak / off-peak availability



Student / Child

- Self-service; customer adds a photo and personal details via the app
- A customer account requires one-time verification
- Ticket types not available to unverified accounts
- Peak / off-peak availability

Group tickets

- Multiple passengers
- Period pass, e.g. 1 hour, 7 day, 30 day, 90 day.
- Peak / off-peak availability

Carnets

- Multiples of other tickets (e.g. 10x one hour ticket)
- Peak / off-peak availability
- Lower transaction fees through bulk purchase

Recurring payment / Subscriptions

Operators can easily set up a regular subscription for any ticket product available for sale. This uses Continuous Payment Authority with a customer payment card.

Web-to-mobile eCommerce

Web-to-mobile functionality facilitates mobile app ticket sales via the website. This provides a number of new sales opportunities including, for example, those that buy tickets for others and those planning ahead online.

Ticket gifting

Customers can gift any available ticket from the mobile app, or website, to another user. Buy a ticket as normal and then enter a valid email address to send it. The ticket can be claimed by redeeming the gift code received and activating as normal. This helps users to look after dependents without needing to give them cash or a debit/credit card, whilst opening up public transport to a whole new generation of travellers through the safe use of a mobile app.

Discount codes

Operators can offer discount codes to customers providing a percentage or monetary discount off any ticket available for sale. Customers simply enter a discount code during checkout, and if eligible, the discount will be applied to the ticket price.

Buy again

Customers are shown recent purchases at the top of the Mobile Ticket selection view. Given that most customers regularly make the same journeys, this prompt in the user flow makes it easy to repeat a ticket purchase using the customer's saved card details or Apple Pay and Google Pay.

Coverage areas

Coverage areas allow your customers to easily view on a map where a ticket is valid. We support three different types of coverage areas:

- Area – for tickets that cover a particular geographical area
- Service – for tickets assigned to specific services
- Academic – for tickets related to schools, colleges or universities

Categorisation

Tickets can be grouped into customisable categories. This can be anything from ticket types, such as Child, Young Person and Adult tickets to different geographical areas or operators.

Ticket validation

QR codes

- Integration with ETM supplier
- Automatic validation
- Customer photo appears on verified tickets (e.g. student, child)

Flash pass (alternative to QR codes)

- Easy to validate design
- Driver validates on board
- Animated watermark incorporating date and time to mitigate fraud
- Boarding code, updated daily
- Customer photo appears on student/child tickets

Heartbeat and Login Lock fraud-mitigation

Customers can move to a different device simply by logging in. This removes their tickets from the previous device and allows customers to continue use on the new one. Easy movement of tickets helps customers to quickly change devices when they upgrade or lose their phones, without the need for a Customer Service intervention.

Login Lock is one of the automatic systems Passenger Cloud uses to monitor potential abuse of this functionality, through the attempted sharing of active tickets on more than one device. If the system detects that a customer is logging in and out of their account more often than expected,

an automatic 'login lock' is applied to the account for a pre-defined period (e.g. 8 hours), with an alert sent to the registered email warning of suspicious activity on the account.

During an active 'login lock', the customer can continue to use their tickets on the device that is already logged in, but any further logins will be blocked. The system sensitivity can be configured, including lock time, and all 'login locks' can be manually overturned in Passenger Cloud by authorised admins.

Heartbeat requires customers to connect to the internet in regular intervals so that tickets can be remotely verified and any tickets removed that have been blocked/hotlisted via customer service tools.

Ticket Product API

Passenger's Ticket Product API allows selected external organisations to list Passenger Cloud-managed ticket products in their own applications. Deep links included within the API enable users to launch the operator's app, or web-based checkout equivalent, to complete a ticket purchase.

This capability enables third parties, such as MaaS providers, to embed direct links within their applications, to ticket products that can be purchased and used instantly on a mobile device.

Contactless Journeys Portal

Our Contactless Journeys portal is designed around the concept that, if it is easier to buy a product and feel in control of a purchase, it is more likely that the interaction will be repeated. By making it easy for customers to pay, travel and understand their transactions, the portal encourages repeat patronage.

A real-time window into accounts

Hand power to users: riders can easily access a summary statement of all journeys and transactions on their contactless card using our Contactless Journeys portal on browser or mobile, helping them to better understand a service and come back to it time and again.

Make life easier for customers

Those consumers accustomed to contactless pay, online accounting and the convenience of smartphone technology will encounter fewer barriers to public transport when using the Contactless Journeys portal, either on browser or smartphone.

Present a unified experience

Our Contactless Journeys portal appears directly alongside Passenger’s existing tools of journey planning, real-time information and disruption messaging. Riders have everything they need for travel right at the tips of their fingers.

Feature	Description
Direct access	Contactless Journeys is present at the top level, to reflect its importance in the rider's preferred mode of travel.
Associate multiple cards with their existing accounts	The rider can associate the cards they are using to travel with their existing account.
Secure by default	Card details are not seen or stored by the portal.
Visibility across web and app	The rider is able to view their contactless journey history on both the website and the mobile apps.
See journeys	The rider is able to see the journeys that have been made using each card, including the route and where they boarded and disembarked (where tap off is supported).
See fares	The fare for the journey is visible as soon as the rider starts their journey, and updated as they complete their travel.
See capping / fare escalation	The rider is shown where the fares for their journeys have been capped.
See transactions	The rider can see the charges that have been made to the contactless card, and what journeys and fares were used to calculate it.
Real-time	Information is available in real-time and updates as the rider continues to travel.
Display incomplete journeys	The user will be shown where they have made a journey and forgotten to ‘tap off’, resulting in a max fare being applied.
Customer Service access in Passenger Cloud	The Customer Service agent is able to view the journeys, fares and charges made once a card has been associated with the account by a rider.
Expenses export	The rider is able to export their recent journey history to a document format for other use, such as expenses submission.

Notifications	The rider will receive personalised notifications to be proactively alerted about different elements of their journey history.
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Travel Portal

Operators/LTAs can offer their business customers a secure e-commerce system that enables them to order large volumes of mobile app tickets for their employees, hotels or students in minutes, through the Passenger Travel Portal. This removes the need to process and distribute paper tickets and smartcards.

The web-based system will be customised with your branding so you can promote a premium service to your business customers. You can even offer discounts and products that aren't available for general sale too.

Verification Service

Verifying customer accounts

You can offer discounted travel options through verified accounts on the app. Customers simply buy a ticket and follow the in-app steps to complete the verification, including taking a photo of themselves and completing any necessary details. Once the customer has been verified, they will be able to activate the ticket they have bought as soon as they are ready. They will also be able to buy additional tickets in the future without the need for verification again until the verification expiry date has been reached.

In-person verification

To verify in person, using accepted forms of ID, the customer presents at a specified location, e.g. a travel centre or travel shop. For operator staff, when a customer requests you validate their account, you can do this via Passenger Cloud by simply logging in and searching for the customer account using their email address. An expiry date can also be set for the verification.

Secure online verification (in-app)

Users are now able to verify online via their app. We have developed a secure, GDPR compliant online verification system, which will allow customers to access tickets quicker than ever before without the need to travel in person with their ID. This is an optional service, which reduces the

staff resource needed to verify these ticket types. The service operates on a cost/successful verification model, billed monthly by PTG.

3.

Customer Experience Platform

Create once, publish everywhere

Passenger Cloud

Passenger Cloud is our web-based management platform. Designed specifically for bus companies and local authorities managing transport services, Passenger Cloud enables all departments to understand its customers and makes it simple to deliver an integrated customer experience. We provide an easy to use interface with functionality to successfully manage apps, websites, wearables and voice technology through one integrated platform.

Passenger Cloud is responsible for the transport data and digital content management that underpins all our web and mobile app-based deployments. Mobile apps and websites built on the platform consistently outperform competitive digital technology solutions, with all current mobile app implementations (including Transdev, Go North East, Reading Buses, Yellow Buses, Nottingham City Transport, Blackpool Transport, East Yorkshire) rated highly (5*) by the majority of customers, on both App Stores. Full training in Passenger Cloud will be given as part of the onboarding process.

Benefits summary

Launching with Passenger Cloud provides multiple benefits over other data management systems:

- **Improved network update management** with network changes updated instantly into the apps and websites, via Passenger Cloud.
- **Improved management information** via Passenger Cloud, via an integrated dashboard to manage network data and ticketing options
- **Improved customer service tools** with full administrator auditing, customer account histories and ability to instantly provide complimentary tickets

Designed for operator and transport authority teams

Passenger Cloud works for network planning teams, customer support agents, and staff on the front line of marketing. It helps the whole business to understand its customers and makes it simple to deliver an integrated customer experience.

These days bus operator teams need to be superhuman. Their daily duties cover operations, customer service, ticket sales and marketing – all rolled into a few highly pressurised roles.

Create once, publish everywhere

Manage network updates across multiple channels, promote the brand, manage complaints on social media, developing new payment channels and technologies – to name but a few. Until now, this has been managed across multiple systems, resulting in a fragmented customer experience.

Digital / mobile ticketing

Provides the following functionality:

- Creating, editing and removing tickets for sale;
- Managing ticket coverages;
- Managing resellers;
- Giving complimentary travel;
- Viewing payments and gift codes;
- Payment Service Provider support to take revenue for mobile ticket sales;
- Viewing and reporting: gross sales, reseller payments and balance transfers; and
- Reconciling transactions.

Payment service provider integration

All e-commerce transactions through our platform use the payment service provider, Stripe. Stripe is a technology company that builds economic infrastructure for the internet. Businesses of every size—from new startups to public companies—use their software to accept payments online. Stripe has enabled Passenger Cloud, apps and websites to be fully compliant with Payments Services Directive 2 (PSD2) EU regulations around Strong Customer Authentication (SCA), ahead of its enforcement. Stripe also enables Apple Pay and Google Pay, which are included by default in all Passenger apps.

Operator network information and branding

Provides the following functionality:

- Upload and management of TransXChange/GTFS files;
- Schedule updates to routes and services;
- Line assets and groupings;

- Management of contact information including: company logo, branding colours and geographic boundaries;
- Setup and management of links to mobile apps; and
- Setup and management of email addresses customer feedback is sent to.

Contextual disruptions

Provides the interface to enter information on travel disruptions on the network and share this information through multiple channels with bus users.

Staff management

Provides user management including:

- creating new staff members,
- updating staff roles; and
- viewing the audit history for users.

Customer support

Provides the following functionality:

- Mobile device management;
- Viewing feedback from customers;
- Viewing and adding notes to customer accounts; and
- Customer account management including: changing email address, deleting accounts and blocking mobile devices.

API data sharing

Enables network data, ticket data, fare data, geographic data and bus stop information to be shared with websites, mobile apps and 3rd party systems.