SWIPE & RIDE

MVV*swipe* simplifies checking in and out of public transport down to a single gesture

Swipe and ride – with the MVV*swipe* app has been in operation at the Munich Transport and Tariff Association (MVV) since December 2024. This check-in/check-out solution developed by MENTZ is multi-client capable and makes public transport more readily accessible to the more than four million passengers in the Greater Munich Area.

START

MVV*swipe*'s timely launch on 2 December 2024 garnered considerable media attention and was assisted by Bavarian Transport Minister Christian Bernreiter and Munich Mayor Dieter Reiter. The MVV and the Munich Transport Authority (MVG) are currently using the system productively. Several weeks after its launch, the 100,000-journey mark had been exceeded – surpassing even the highest of expectations.

Simple Registration and Full Flexibility
Customers register through their local transport authority's app. The MVV Gullivr app has a special advantage: in addition to MVV*swipe*, on-demand transport can also be booked directly in the app.
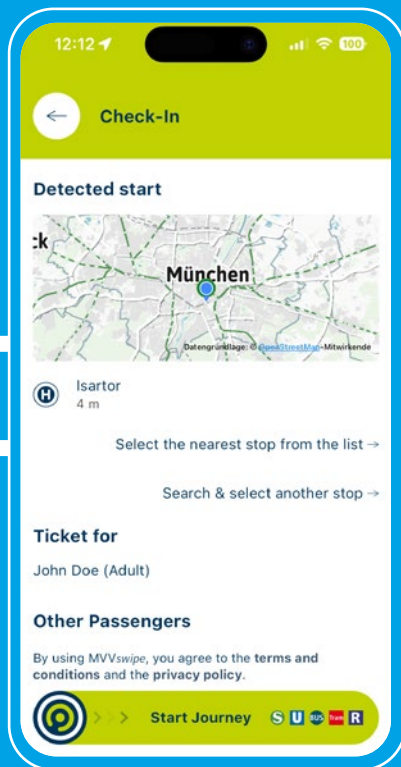
Always Ride for the Best Price
During check in, a boarding stop must be selected. MVV*swipe* then automatically suggests the closest stops within a radius of 500 meters. This selection can be modified, if necessary.

The registered customer is automatically saved as the main rider and can add additional passengers. The MVV fare differentiates between three groups: adults, under-21s, and children. Up to four adults, four U21s, or eight children are permitted – in any combination. Check in is completed by simply swiping right.

KEY FEATURES OF MVVSWIPE

Name: MVV*swipe*

Function:
App-based check-in solution for MVV journeys

Special feature::
Automatic best-price billing on a daily basis

Target group:
Occasional riders, spontaneous users

Advantage:
No knowledge of the fare system necessary, easy to use

After checking in, a digital ride authorization is generated with a QR code. It is valid for a maximum of five hours for the entire MVV network and complies with the VDV KA Standard.
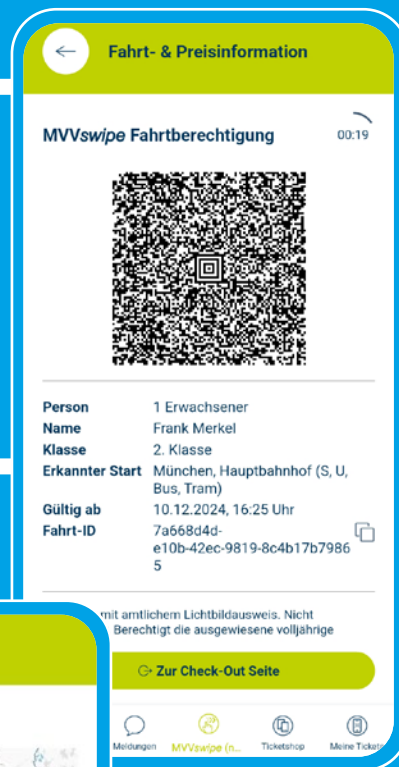
Intelligent and Seamless Journey Tracking
MVV*swipe* uses GPS tracking, but can be complimented by Bluetooth beacons to track journeys more precisely – even in subterranean route sections.

MVV

RVV So fahr ich gut.
Regensburger
Verkehrsverbund

Topic:
Check-in Check-out / MENTZ Ticketing

Client:
Munich Transport and Tariff Association (MVV)

Project/Product:
MVV*swipe* / In-out systems

Contact :
Gregor Bauer, Frank Merkel

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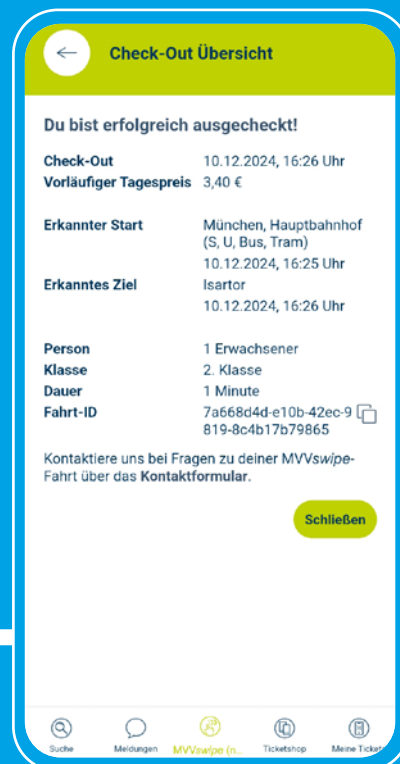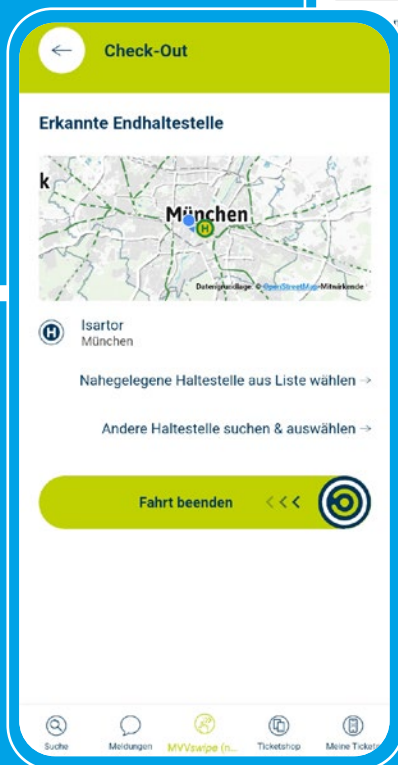At check-in, the stop is automatically recognized

02

Display of the MVVswipe ticket

03

When checking out, the stop is is also recognized automatically

04

Overview after check-out

The collected GPS data is sent to the backend every 10 minutes where a journey is reconstructed using real-time information from the electronic journey planner (EFA).

Important Functions:

– Recognition of transport networr borders: a customer gets notified when they approach a network border. If they go outside the network, check out is automatic.
– Forgot to check out? If a customer forgets to check out, they receive a reminder on their smartphone.

A trip can be ended at any time simply by swiping left.

Automatic Best Price Invoicing
Price calculation is based on the actual distance traveled and number of passengers selected. Thanks to a best price logic, customers never have to pay more than the price of a group day pass. All journeys taken during a day are analyzed together to calculate the least expensive ticket. Invoicing takes place once and at day's end.

Transparency: the current day fare is displayed in the app after each check out.

Data Privacy at the Highest Level
There are two separate portals for customer support:
– Service portal
  (personal customer data)
– In-out-backend
  (movement data and tracking histories)

The systems are physically separate from each other and fulfill the requirements set out in the General Data Protection Regulation (GDPR). An anonymized ID can, however, still be used to process requests consistently.

Additionally, the backend allows journeys to be recalculated – like for erroneous pick-ups or stops. Corrections are forwarded to customers in the form of credit.

MVV*swipe* – An Advanced System with a Bright Future
MVV*swipe* is multi-client capable and can be seamlessly integrated into existing ticketing apps. As a result, existing customers can use their current account without having to reregister.

Our first client outside the MVV network, the Regensburger Transport Association (RVV), went into live operation on 31 March 2025. And because Gullivr and the MENTZ ticket shop have been in operation at RVV for some time, the swipe component is a seamless fit in the app.

Special features of the transport network are supported that are different from the MVV. These include support for trips with vehicles from outside the network into transport zones in the network. The Augsburg Transport and Tariff Association (AVV) represents another customer ready to start with Swipe.

In the near future, MVV*swipe* can be used for on-demand transport like FLEX in Munich and ELMA in Regensburg.
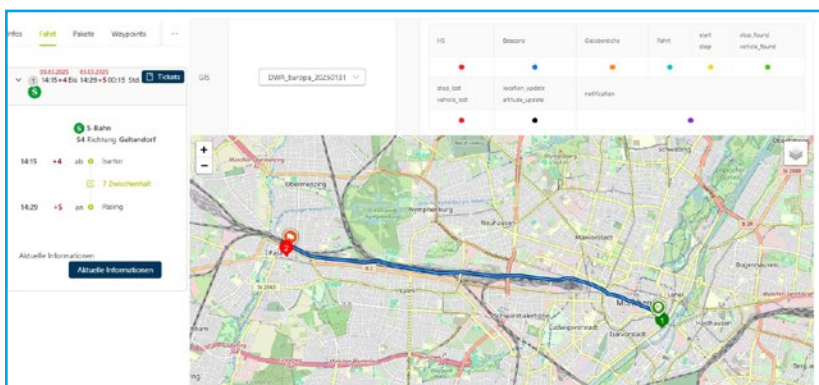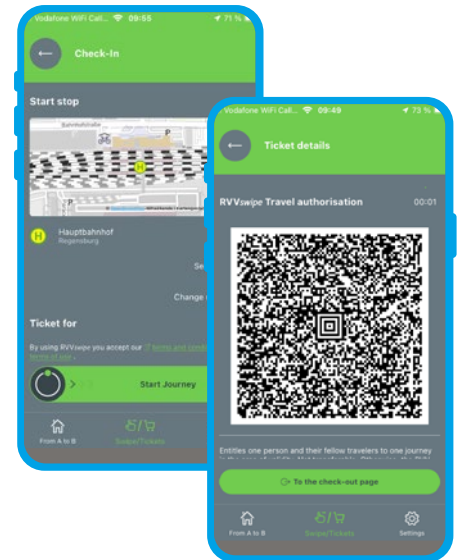
Route display for
customer service

Digital, convenient, and fair: how the MVV's innovative system has increased ridership of public transport

Public transport should be uncomplicated, fair, and digital – at least this is what many riders have come to expect. When the Munich Transport and Tariff Association (MVV) launched "MVV*swipe*" they provided a system that fulfills this demand: one-time in app registration, swipe when boarding a vehicle – and at the end of the day, the best fare price is computed automatically. This innovative approach to ticketing facilitates use of public transport and sets new standards for pricing. In an interview with the MVV, we want to take a closer look at the project's background, its launch, and what is to come.

Dr. Bernd Rosenbusch
Managing Director of the
MVV Munich Transport and
Tariff Association

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Dr. Bernd Rosenbusch
Managing Director of the MVV Munich Transport and Tariff Association

MVV*swipe* makes riding public transport more accessible than it has ever been. What has changed specifically for users?

Bernd Rosenbusch: MVV*swipe* relieves customers of the need to figure out ticket prices, or how many zones or route sections they need to purchase. The immediate goal is to make taking public transport as simple as possible. The greater goal is to increase ridership and to reduce traffic loads in the region.

Many riders wonder what goes into calculating a fare? Can you briefly explain the computation model?

Bernd Rosenbusch: One of the most intensively discussed aspects of pricing was whether we should implement a fare based on distance or use existing fares. We opted to keep the existing fares and are very pleased we did: there are not two different fares, there are no distortions that would lead to complaints, and there are no losses as result of optimization by users. In effect, a normal fare also applies to MVV*swipe*, but purchasing has been vastly simplified. From our point of view, purchasing tickets is a major part of using public transport and must be made as simple as possible. What matters most though is that the fare needs to be fair. You should not have to pay more than when you pay using other methods, meaning there should be a daily price cap.
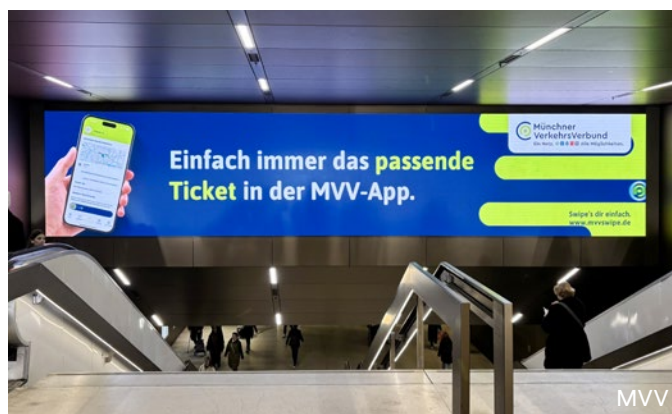
MVV

To get a bit more granular, prices are calculated using the Fraunhofer IVI fare calculator. After each trip, the MVV*swipe* app transfers the day's trip history to the fare calculator, which determines the least expensive ticket combination for a passenger on that day and sends its results back to the app.

MVV*swipe* was launched on time – which is never a sure thing for IT projects of this scale. How did the launch go and what made a timely launch possible?

Bernd Rosenbusch: We successfully launched the system on 2 December 2024 in the presence of Bavarian State Minister of Transport Bernreiter, Munich Mayor Reiter, Ebersberg District Administrator Niedergesäß, and Ingo Wortmann from the MVG, which has taken over operation of the system. Sales figures have steadily grown since then, and particularly after an advertising campaign was launched. Since the beginning of December, there have been over 380,000 trips taken in the MVGO and MVV apps. Around 30,000 new customers have registered in the MVV app.

Close collaboration and precise coordination by all parties (Mentz, MVG, and MVV) was crucial to meeting our project goals in a timely manner.

MVV*swipe* has started – and is far from the end of its development cycle. What are the next steps in its development? What is next on your agenda?

Bernd Rosenbusch: A number of developments have already been planned for the MVV*swipe*, which range from the more involved, like integrating on-demand transport into trips and routes, to smaller improvements like having an option to register/login using biometric data. In addition, we are also working to improve location detection and digital accessibility to make using MVV*swipe* as simple and reliable as possible. We hope to continue to expand the Swipe "family." To this end, the next two clients (RVV and AVV) just launched at the beginning of April.

What kind of feedback are you getting from the public – and how are political decision-makers reacting to the new offering?

Bernd Rosenbusch: MVV*swipe* is an important step toward making public transport systems more digital. Customer feedback has been overwhelmingly positive and the number of queries has decreased. For example, during the initial pre-project phase (Swipe and Ride), we received approx. 7 queries per 100 users. Now that percentage has dropped to less than 1.5% after three months of operation. The next goal is to reduce it down to 0%. Politicians have also been very supportive of MVV*swipe*, so we want to continue to improve it.

Many thanks for the interview!

END