



FOR NEW AND EXISTING VEHICLES

Passenger Information Plus

The leading innovation:
better informed for a better travel experience
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Passenger Information Plus (PI+) – an innovation for tomorrow's smart cities

To optimally manage the challenges of multimodal mobility concepts in a smart city, public transportation has to be made as attractive as possible. The innovative Passenger Information Plus (PI+) system developed in collaboration with Wiener Linien (Vienna's public transport operator) is an important part of the attraction. PI+ consistently combines the latest digital information and makes it easier for passengers to orient themselves in the metro network – which in turn speeds up operations and improves performance.

U3 nächster Halt: Landstraßer Hauptstraße U4 S3 S2 S1 SIMMERING

74A	Stubentor	3	S3	Wiener Neustadt Hbf	
74A	Rochusgasse	4	S3	Hollabrunn	
O	Quartier Belvedere	7	S2	Mödling	
O	Praterstern	3	S2	Laa a.d. Thaya	
U4	Hütteldorf	1	S1	Matzleinsdorfer Platz	
U4	Heiligenstadt	1	S1	Floridsdorf	

Landstraßer Hauptstraße Beatrixgasse

Exit side: Doors open on this side

Non-exit side: Doors stay closed on this side

SIMMERING nächster Halt: Landstraßer Hauptstraße U4 S3 S2 S1 U3

Map showing the Vienna Metro network with the current location (Landstraßer Hauptstraße) and the next stop (Landstraßer Hauptstraße) highlighted.

PI+: Service and comfort for passengers

Expect more

Conventional passenger information systems generally offer passengers abstract, static information with only the occasional dynamic update, which makes comprehensive route guidance impossible. As a result, passengers exiting a train often remain standing near the vehicle doors while they try to figure out which way to go, causing congestion and even bottlenecks on platforms. The pandemic isn't the only reason for avoiding this situation: It also has a negative impact on the subjective feeling of comfort and on passenger flows.

Just imagine ...

Rush hour. Seated and standing passengers are densely packed together, making it difficult for you to make your way through the aisle. It would really help if you could always know where the train was located at any given moment, whether you should be preparing to exit, and what the shortest route is from the vehicle doors to your transfer connection (or the elevator) – reliably and for each individual car and every door. That's the idea behind PI+: targeted, detailed information based on each passenger's current location in real time.

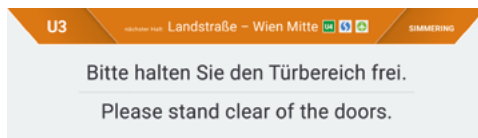
PI+ sets new standards

With the new PI+, route guidance begins even before the train's arrival at the next station. Passengers are provided with the latest transfer options and information on the locations of stairs, elevators, exits, and connections. The information is displayed above each door, clearly visible, in multiple languages if appropriate, and specific to the door's location on the train. Optimally informed before arrival, passengers already know which direction they'll need to go when they exit the train, resulting in shorter exit and transfer times. And unlike an app on a mobile device, passengers always have this information in their field of vision without having to obstruct other passengers while they stop and search.

PI+: Benefits for your passengers

- Optimal passenger information customized for each door creates a sense of safety and increases trust
- Connections and local destinations can be found more quickly
- Passengers with limited mobility are always shown the shortest route to the elevator
- Information changes based on the operating phase
- Related information is displayed, like events/trade shows near the current station
- Internationally standardized symbols to simplify orientation when there are language barriers

The PI+ principle of operating phases



Doors close

Once the boarding and deboarding process has been completed, a message to stand clear of the doors is displayed.



Departure

When leaving the station, PI+ monitors indicate the exit side for the next stop. The message "Exit on this side" appears on the displays on the exit side.



Mid-journey

Next, detailed information on the next station is displayed. Passengers see what direction they'll go to reach their destination if they exit from this particular door.



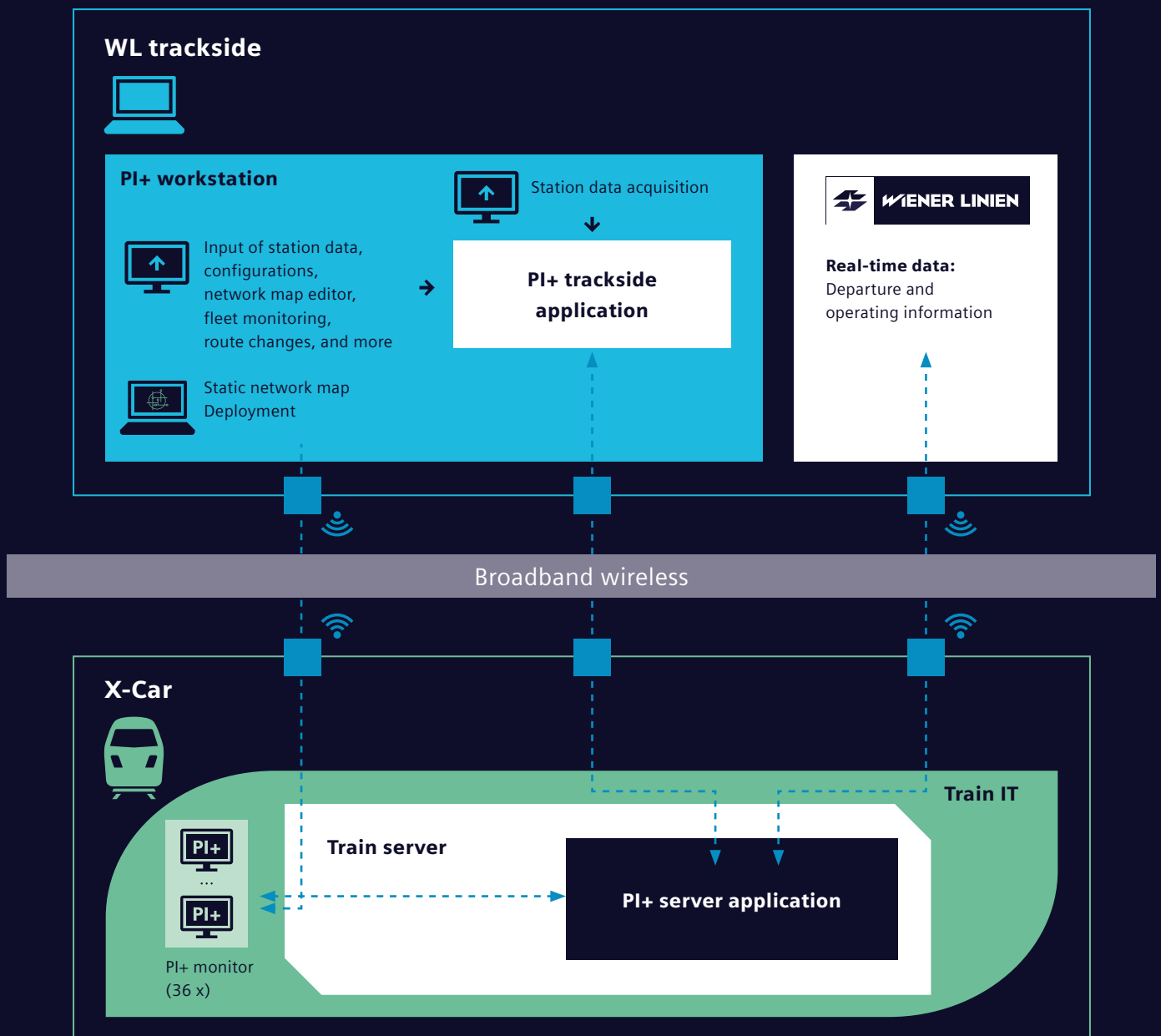
Deboarding

Once the doors open, information is reduced to the essentials to support a faster vacating of the vehicle. Only high-priority transfer options, current stations, and the symbols of the metro line are displayed in this phase.

A seamless passenger experience with a smart information architecture

Make better use of information

As the operator of a transportation system, you possess a lot of detailed information that could be of interest to your passengers – information that's usually stored in a number of different databases and isn't being used. PI+ collects this information in a digitalization solution and links it for the benefit of your passengers and to create value – in real time and based on the exact location of the specific passenger and train. The organization of this data, the clarification of interfaces, and data management are all part of the PI+ concept.



Sensibly structured for practical use

PI+ was developed for the X-Car in collaboration with Wiener Linien, but it can also be retrofitted to many existing vehicles. Its strong practical orientation ensures maximum comfort and security for passengers and contributes a unique quality to the way they experience their journey. But PI+ has more important benefits for you as an operator that helps you improve the performance of your transportation system. It isn't just a matter of faster passenger flows, although a few seconds often makes all the difference when you're trying to shorten headways during peak periods.

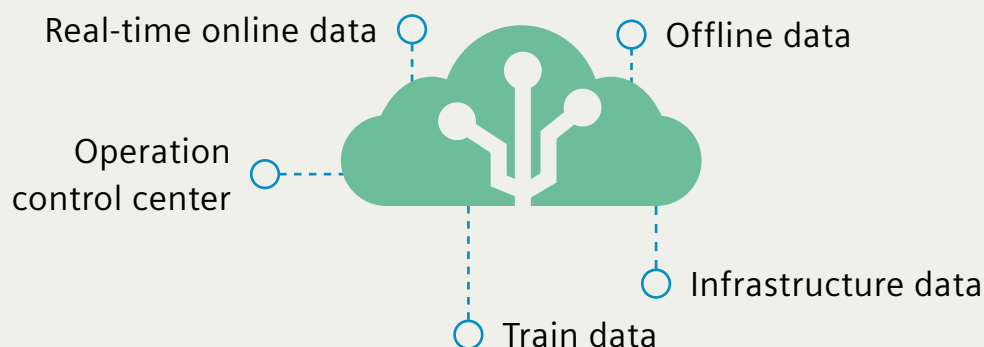
Assist your passengers with the right information at the right time

Real-time information isn't just something that's nice to have: It can also make a means of transportation more attractive. Winning more people over to a multimodal transportation concept depends on the availability of the right information at the right time. Not to mention the fact that it can be critical for people with limited mobility to know that an elevator isn't available on the current platform and that they'll need to exit at another station. Now you can assist these passengers with a customized digitalization solution that provides them with the right information right when they need it.

PI+: Your benefits as the operator

- Faster passenger flows, thanks to optimal passenger information specifically tailored to each operating phase (boarding, mid-journey, deboarding) at each door
- Real-time information in the vehicle and at the station makes the mode of transportation more attractive
- Optimal guidance to connections and local destinations for passengers in the vehicle and on the platform
- Shorter stops enable shorter headways, resulting in higher capacities during rush hours
- Optional advertising or related information, for example, on events/trade shows near the current station or in the city
- Previously untapped information creates added value – and it's highly automated and always up to date as a custom digitalization solution
- Available for all new Siemens vehicles and many existing vehicles

PI+ data fusion





Your path to **PI+**

A customized digitalization solution

Mass transit and metro systems are largely tailored to a city's needs. Their operators also adopt a custom approach in order to keep the benefits high and the costs low. That's why we provide you with comprehensive advice on how to design PI+ for your city and metro network and on how this kind of digitalization solution can support your operations. What information should be made available when and where and via what interfaces? What information should even be considered for the system? What information is relevant for your passengers where and when, how can it be maintained, and more?

A joint implementation

Once the interfaces have been clarified, it's just a matter of designing the information in the vehicle. That's where we can offer you comprehensive support – naturally, while also integrating your existing corporate design concepts in order to boost user recognition of the different modes of transportation in your fleet. We then work with your experts to determine what information should be displayed along the route when, where, and in what form. We recommend matching the display to the operating phase: for example, in the form of text in mid-journey and as an instantly recognizable icon when arriving at a station.

For more information on PI+

For information on PI+, visit
[siemens.com/passenger-information-plus](https://www.siemens.com/passenger-information-plus)

We look forward to hearing from you.

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