



ivanto
IT for urban mobility



Digital transformation in urban mobility

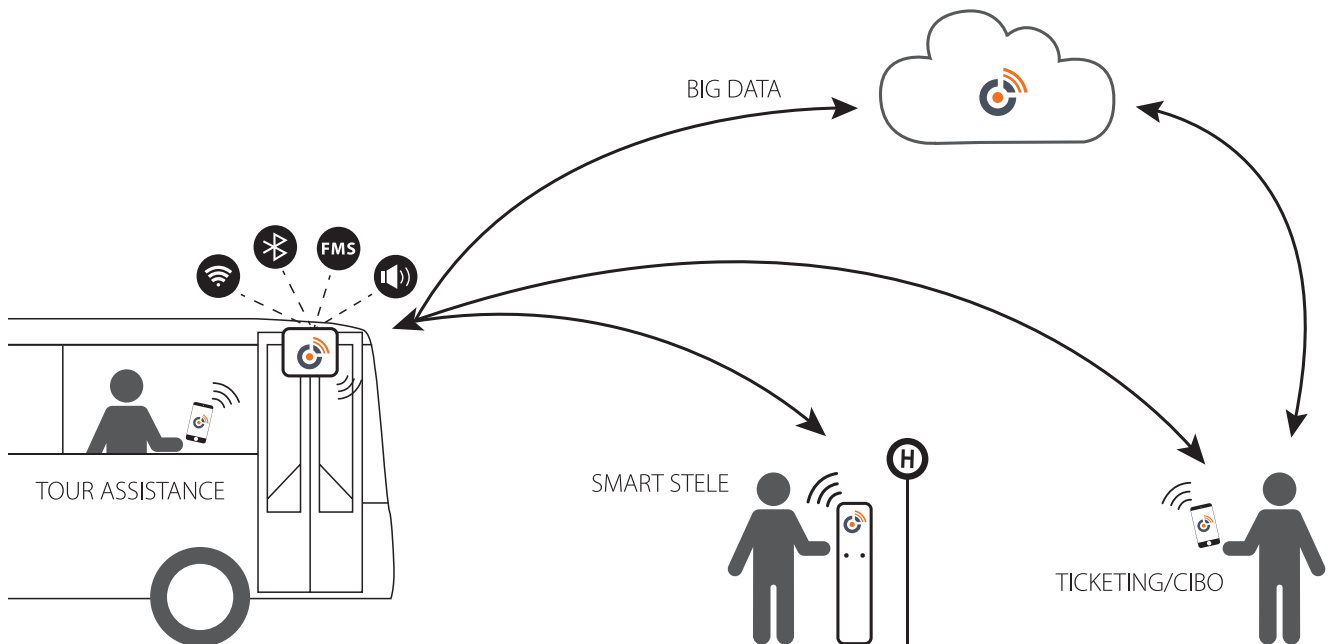
Reducing entry barriers

The increasing digitalisation provides a promising basis for innovative urban mobility services. It brings new opportunities to public transport companies to better meet individual customer needs.

Passengers expect more and more intermodal mobility services; merging public and individual means of transport. Clear information, uncomplicated ticketing & payment, and the reliance on smart devices for door-to-door travel assistance and good accessibility are nowadays required.

In addition to architectural measures, ivanto offers digital, interactive value-added services that reduce access barriers and achieve the legally required accessibility for urban mobility.

As smartphones become remote controls for the Smart City of the future, ivanto turns vehicles, stations and regular stops into smart objects that are accessible to everyone and support the user's commute – Internet of Things for urban mobility.



ivanto is an integrated system solution for innovative, urban mobility services. It removes barriers and improves travel information for passengers. By streamlining operational processes, ivanto also helps reduce costs. The needs of the visually impaired and people with reduced mobility

are regarded as the highest standard in terms of usability and accessibility demands. The intermodal routing engine, the ivanto white-label smartphone app, the ivantoConnect hardware module and the Mobility Data Cloud are the key components of the system.

ivanto Smartphone App

The ivanto app for smart devices is the centrepiece of the ivanto urban mobility solution; a cutting-edge personal mobility companion for innovative public transport companies and mobility service providers. The smartphone app is the transport companies' mobile

communication channel to their customers. It delivers the right information and the right services, at the right place and at the right time. It is easy to use and enables a bidirectional interaction with the public transport infrastructure.



- *intermodal route calculation*
- *interactive map with live positions of vehicles*
- *pervasive travel companion with assistive mode*
- *push notifications for users*
- *indoor guidance for station buildings*

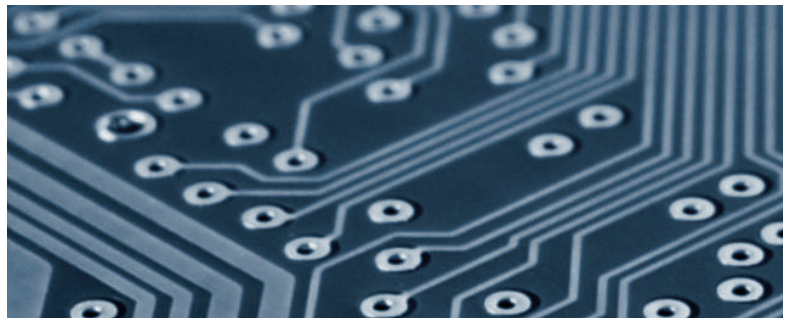
ivantoConnect Hardware

The ivantoConnect smart communication module enables bidirectional communication between smartphones and public transport vehicles in real time. ivantoConnect also supports accessible vehicle-interaction for passengers

without smartphones at stations and stops.

The ivantoConnect has many communication modules and sensors that provide the data base for numerous functions.

- *vehicle radar and passenger Wi-Fi*
- *remote control of vehicle pushbuttons*
- *BiBo (be in - be out) and CiBo (check in - be out) travel data*
- *fleet management system and live-tracking of vehicles*



ivanto Mobility Data Cloud

The ivantoConnect anonymously collects access, tracking and interaction data of passengers, which is then processed and analysed in the Mobility Data Cloud.

Our web portal provides easy access to the ivanto Mobility Data Cloud that features services for remote device

administration and fleet management. Furthermore, it is the source for innovative value-added, data-driven services, including mobile ticketing and passenger counting. User travel-data is continuously recorded and aggregated to advance traffic management and urban planning.



- *remote device administration*
- *portal access for fleet management*
- *anonymised data collection*
- *BigData analysis tools*



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