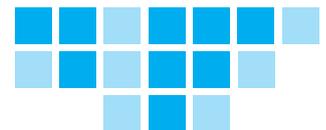


# IVU.suite at Grupo Express del Perú



## INFORMING PASSENGERS AND MANAGING FLEETS IN LIMA



### INITIAL SITUATION

11 million people live in Peru’s capital Lima on almost 2700 km<sup>2</sup> (equaling the size of Luxembourg). Urban bus routes cover great distances, easily stretching over 60 km or more. In rush hour traffic journey times often double or triple in the South American metropolis. The result: a big variety of journey time patterns challenges fleet management and passengers. Lima’s public transport is also characterized by strong competition between around 200 bus operators, the so called „micros“. Routes are often served by several overlapping operators, because the city does not issue permits for specific routes. To face the challenges in this market, transport operators like Grupo Expres del Perú (GEP) have to offer superior service and customer experience to their passengers.

### OVERVIEW

<b>Employees</b>	600
<b>Vehicles</b>	150
<b>Transport services</b>	40 million passengers/year
<b>Operations</b>	Urban Transport
<b>Objectives</b>	Informing Passengers, managing fleets, selling Tickets Make public transport more attractive Compete with other bus operators
<b>Special features</b>	Strong competition between transport operators Extremely dense traffic Long routes No printed timetable Low level of reliability of competitive transport operators Static distance-based fare structure
<b>IVU products</b>	IVU.timetable, IVU.run, IVU.duty, IVU.fleet, IVU.cockpit. IVU.box, IVU.realtime

## OBJECTIVES

GEP was aiming to implement newest technologies in order to offer superior service to their passengers and stand out from their competitors. GEP was looking for a real-time passenger information solution to enable passengers to plan their journey and arrival times more accurately and make travelling on public transport more convenient.

The new IT-systems were also supposed to facilitate operations: in timetable planning and run scheduling as well as fleet management. Furthermore GEP was looking to implement a modern ticketing system that was able to manage fares, document ticket earnings and support ticket sales on-board while being apt for future e-ticketing solutions.

## SOLUTION

GEP chose the integrated software and hardware solutions of IVU.suite to digitalize their operations. Besides the resource planning system IVU.run and the fleet management system IVU.fleet, GEP commissioned its technology partner IVU with the implementation of a central system to real-time information (IVU.realtime) as well as the development of a mobile passenger information app.

With „bus.altoke“ IVU developed an app, which not only displays nearby bus stops, but also predicts expected journey and arrival times based on real-time data. Fleet management and ticket sales are supported by one of IVU’s hardware solutions, the IVU.ticket.box.



The „bus.altoke“ App, developed with IVU.realtime.app, makes exact journey planning possible.

150 buses of GEP are equipped with the newest device generation. It doubles as on-board unit and e-ticketing terminal and sends position data feeds to IVU.fleet, the fleet management software, that processes the data and provides current vehicle positions of all vehicles to the operational control center.



IVU.ticket.box doubles as on-board unit and ticket printer/e-ticketing terminal. It feeds the operational control centre with vehicle information, keeps the driver well-informed while en route and supports him in selling tickets.

## OUTCOME

By using IVU.run, it was possible to base planning and scheduling on no less than 48 different journey time patterns. Differences in traffic volume can now be considered in the planning process. Thanks to vehicle position data provided by IVU.ticket.box, the operational control center is aware of the current state of traffic at all times. Analyzing statistical data delivered by on-board units brings valuable insights into passenger flow and route profitability.

After the introduction of IVU.ticket and a new „flat rate“ fare, supported by the background system IVU.fare, the sum total of earnings grew.

„Bus.altoke“, the free of charge, real-time passenger information app, acquired over 10.000 satisfied users within weeks of its release and was labeled as one of Peru’s “apps of the week”.

“We are striving for nothing less than revolutionizing public transport on Lima’s streets. To achieve this we are counting on advanced technology to support our operations and above all, to offer great service to our passengers. By choosing IVU.suite we can rely on an integrated solution and IVU as a strong partner to achieve our goals. We’ve come a long way already and I am looking forward to everything we are going to set in motion together in the future.”

**Otto Sarmiento**

CEO | Grupo Express del Perú