

IVU.suite at GEP

INFORMING PASSENGERS AND MANAGING FLEETS IN LIMA



INITIAL SITUATION

11 million people live in Peru's capital Lima on almost 2700 km² (equalling the size of Luxemburg). 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. At bus stops, printed timetables do not exist. They would not be dynamic enough for Lima's vibrant streets, anyway. 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

Employees	600
Vehicles	150
Transportation capacity	40 million passengers/year
Operations	Urban Transport
Ziele	Informing Passengers, managing fleets, selling Tickets Make public transport more attractive Compete with other bus operators
Specific details	Strong competition between transport operators Extremely dense traffic (frequent delays occur; up to 50 different journey time patterns for the same route) Long routes No printed timetable Low level of reliability of competitive transport operators Static distance-based fare structure

IMPLEMENTED PRODUCTS OF IVU.SUITE

SERVICE PLANNING	RESOURCE PLANNING	DISPATCHING	FLEET MANAGEMENT	TICKETING	PASSENGER INFORMATION	CONTROLLING
IVU.timetable	IVU.run	IVU.vehicle	IVU.fleet	IVU.fare	IVU.realtime	IVU.control
IVU.pool	IVU.duty	IVU.crew	IVU.cockpit	IVU.ticket	IVU.journey	
		IVU.pad	IVU.box	IVU.validator		

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.



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

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**. 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.

RESULTS

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