

5 years after Pickcel collaborated with NEC for the ambitious BRTS venture, here is a rearview to the successful project

Pickcel designed the Passenger Information System (PIS) for the awardwinning Bus Rapid Transit System in the Indian cities of Ahmedabad & Hubli-Dharwad.

SINGAPORE, March 31, 2023 /EINPresswire.com/ -- In October 2009, India's first high-level Bus Rapid Transit System was inaugurated in Ahmedabad under the Smart City Initiative by the Central & Gujarat State Governments of India.

A Bus Rapid Transit System or BRTS is a sophisticated transit model that uses



A BRTS bus stop screen showing real-time bus information in the Hindi language using the Pickcel PIS

various ICT systems to improve the services of buses, make them more disability-friendly, reduce delays, automate fare collection, and make the bus commuting experience convenient for the passengers.

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The development of the Intelligent Passenger Information Display System (PIDS) for BRTS was a complex project. It was a great opportunity for us to showcase Pickcel's expertise to the world."

Basudev Saha, Co-Founder & CTO, Pickcel

In 2017, global tech giant NEC received a tender to develop an Intelligent Transit Management System (ITMS) for the Ahmedabad BRTS (also called 'Janmarg').

The IMTS utilized various integral systems such as:

- Automatic Fare Collection System (AFCS)
- Automatic Vehicle Location System (AVLS)
- Passenger Information System (PIS)
- Vehicle Planning Scheduling and Dispatch (VPSD)

- Depot Management System (DMS), among other software.

"Each one of the subsystems had a specific role; for example, the AVL system used GPS trackers installed in the buses to monitor their real-time locations. This data allowed predicting the vehicles' estimated time of arrival and departures," says Basudev Saha, CTO & co-founder of Pickcel. "Pickcel's role in this project was to design the passenger information system that would publish accurate bus ETAs and bus information for the passengers at the bus stops."

A team of highly-qualified experts from Pickcel integrated their digital signage software with NEC's AVLS. Besides the bus ETA information, the PIS displays at the bus stations were also used to display the following:

- Bus routes
- Bus numbers
- Destinations
- Advertisements
- Information about bus passes

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A BRTS bus stop screen showing real-time bus information in the English language using the Pickcel PIS



A distinction of <u>Pickcel's passenger information system</u> was that the information relay maintained a latency period of only 2 seconds.

"A latency period of 2 seconds means that the software takes just 2 seconds to source the live bus details from the AVLS and publish it on the screens at the passenger's end. That's a remarkable level of accuracy that we achieved," explains Basudev.

Another interesting feature of the PIS software was that it could relay all the information multilingually in Hindi and English (the two most widely spoken languages in India.)

Key benefits of the Pickcel software in the BRTS-PIS project:

Remote network management

Currently, the PIS drives 144 screens at various BRTS bus stations. As the Pickcel software is hosted at a central server, the network administrators can remotely monitor the status of each PIS screen, troubleshoot, and preview the content rendered on screen.

Ease of integration

Pickcel PIS management software has been built on an open, flexible architecture, allowing the customer to integrate diverse third-party applications like AVLS, LED hardware, internal Infrastructure monitoring systems, etc.

PIS device performance management

The PIS devices at bus stations operate in harsh environmental conditions (high temperature, humidity, 24/7 operations). Pickcel PIS server can monitor and manage the devices' health conditions, perform automated reboot & cache clearing, and schedule the devices' sleep & awake functionality.

Content scheduling

The Pickcel software enables the admins to schedule static content (advertisements, bus fare information) on the screens. This type of content automation saves the management staff a lot of time.

Content Quickplay

The Pickcel software has a unique feature called 'Quickplay' that allows the users to override scheduled content and play an emergency message on the assigned screens. This is particularly useful in the public transit sector, which is known to witness road emergencies and blockage.

Custom user-role creation

The BRTS is a large-scale setup involving multiple admins using the same application for different tasks. To have a clear demarcation of roles & rights of each user, the network admin has the option to create custom user roles with designated access and control rights.

Before the Ahmedabad Janmarg project, Pickcel had already successfully deployed the PIS for the Hubli-Dharwad (Karnataka) BRTS project. The HDBRTS was also the undertaking of NEC India.

Both the Ahmedabad and the Hubli-Dharwad BRT systems won numerous awards and accolades at national and international levels. The Ahmedabad Janmarg was recognized as the most successful BRTS in India. The UNCC observed a profound socio-economic impact of the Ahmedabad Janmarg; there was a significant increase in female travelers, indicating public trust in transit safety.

Currently, the Ahmedabad BRTS corridor is 101 km long. There are 275 AC buses carrying nearly 1.6 lac (0.16 million) commuters daily. As of now, there are 150 operational electric buses, and the authorities plan to deploy more in the future.

The official Ahmedabad BRTS website notes the environmental impact of this project with the following data:

- Total fuel saved 4186824.15 Liters
- Total GHG emission reduction 5289224.01 Kg

About Pickcel

<u>Pickcel digital signage</u> is a leading SaaS brand specializing in digital display software solutions. Since 2014, the brand has empowered private and public sector organizations to communicate effectively through digital signage. Today, Pickcel is partnered with over 1500 medium & largescale businesses across 30+ countries, powering 80,000+ screens. The brand offers an extensive range of modern signage solutions like queue management, visitor management, interactive kiosks, and digital menu boards.

The company has offices in Bangalore (India) and New York (USA). Some of the top clients of Pickcel are Amazon, Hindustan Unilever, Asian Paints, JW Marriott, Radisson Hotels, and Mercedes-Benz. With its remarkable global presence, Pickcel has emerged as one of the most cosmopolitan and sought-after brands. You can read some of their <u>customer success stories</u> to see how Pickcel's years of expertise can help your business grow.

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