

# SMRT Buses develops innovative solution to improve travel experience

New technology proves to be first of its kind in the way it challenges conventions by using telematics technology and data analytics for evidence-based and proactive training



Tan Kian Heong of SMRT Buses Ltd

With more than a million of commuters relying on SMRT Buses to get around the city every single day, the company has been a household name in Singapore for years.

As one of Singapore's largest public transport operators (PTO), SMRT Buses' main focus is to deliver the most reliable bus service at the highest customer service standards. Tan Kian Heong, Managing Director of SMRT Buses, says by collaborating with leading technology partners, the PTO is able to tap on the latest tech innovations to ensure that its people are well-equipped to deliver the standards that the company seeks to deliver.

SMRT Buses is also employing Internet of Things (IoT) technologies, according to Tan. In line with the company's IT masterplan, Tan says its state-of-the-art PROLEARN training and management system was developed to improve travel experience.

## PROLEARN Transforms Conventional Learning and Training Approach

PROLEARN stands for "Professional Learning and Training Management System". Tan says PROLEARN is a first of its kind innovation that transforms conventional learning and training approach using telematics technology and data analytics for evidence-based and proactive training.

According to Tan, SMRT Buses installs telematics on all its buses to track its Bus Captains' driving performance in real time. Using the data captured in the system,

Tan explains that the company proactively provides customised training to help each Bus Captain improve on his or her driving skills. "This serves as evidence for us to reinforce positive driving behaviour, and improve the habits of each Bus Captain," Tan says.

"Our Bus Captains are sent for refresher training twice a year; With the driving-profile of each Bus Captain analysed by PROLEARN, we are able to proactively identify the driver who requires proactive intervention training," Tan adds.

## PROLEARN Benefits Millions of Passengers

"The PROLEARN system performs high-speed and high-precision analysis of large-scale data and discovers patterns hidden in vast amounts of data," Tan says. "With the system, we are able to constantly monitor, manage, train and develop our bus professionals to equip them with the relevant operational and commuter-centric competencies," he adds.

The PROLEARN system has more than 30% accuracy in risk identification, which enables proactive intervention training and reduces accident occurrence.

PROLEARN has won the Singapore Business Review Award 2016 in the Technology category. "More than just recognising our innovation, the award is testament to our constant pursuit of service excellence to improve the safety, reliability and comfort for our passengers," Tan says.

## Commuter-Centric Innovations

Meanwhile, Tan says one of the biggest challenges SMRT Buses is facing is the unpredictability of local traffic conditions,

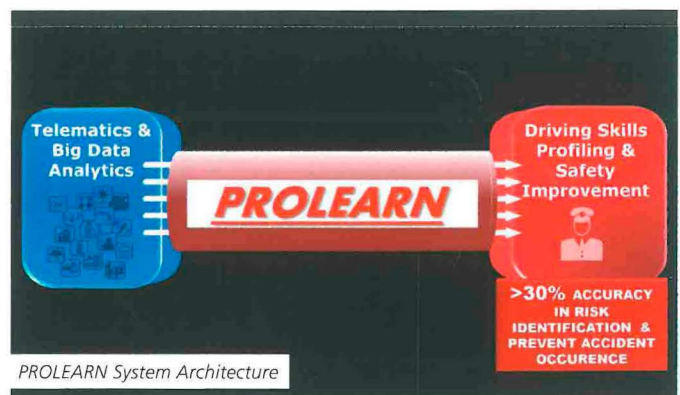
making regularity of bus services in the local operating environment challenging. The failure to regulate buses efficiently leads to longer-than-expected waiting times, bus bunching, and results in inconveniences to commuters.

To tackle the challenges, Tan says SMRT Buses adopts a multi-faceted approach, including the Singapore Bus Training and Evaluation Centre, where the company runs simulation training for its Bus Captains and Service Controllers.

"At the centre, our Integrated Driving & Service Control simulation training system uses state-of-the-art simulation technology to provide a realistic scenario and team-based training for our Bus Captains and Service Controllers," Tan explains.

"In addition, we are employing high-performance computing methodology to analyse vast amounts of data on traffic conditions and travel patterns to improve bus scheduling and enhance service control of buses," he says.

The data enables us to adopt a more scientific approach to improving the travelling needs of commuters" Tan says. Recognising that commuter expectations and needs are constantly evolving as the industry undergoes restructuring, Tan says SMRT Buses will continue to invest strategically in its people and technology so as to set the best in class standards for service reliability and customer service.



PROLEARN System Architecture

**"The award is testament to our constant pursuit of service and organisational excellence."**