



Mobike and Gemalto Drive the IoT Bike Sharing Boom

We are experiencing the biggest wave of urban growth in history, with millions of people flocking to fast-growing cities around the world. By 2030, the United Nations estimates that 60 percent of the world's population will dwell in cities, up from 54 percent today. People are drawn to urban areas for better job opportunities, proximity to rich cultural resources, and to enjoy the diverse pleasures of city living. But how will millions of additional people get to work, restaurants and museums every day without massive traffic jams and over taxed infrastructure?

Providing sustainable public transportation is a critical challenge for city planners who are seeking to expand access and services while preserving air quality and protecting the environment. The Internet of Things and the emerging sharing economy are providing a solution that is helping to ease the burden on public transportation systems as well as improve the air we breathe.

Mobike Teams up with Gemalto

Mobike, an innovative IoT start-up, launched a groundbreaking bike sharing service that provides affordable, emission-free public transportation in urban environments while solving the first and last mile challenge. Distinguished by their unique five-spoke orange wheels, Mobike are the first to

invent an IoT-based, cashless dockless system that greatly improves convenience and access for users. The company teamed up with Gemalto, the global leader in digital security and IoT technology, to provide secure IoT wireless connectivity for Mobike's global fleet of smart bicycles.

"Innovation has put Mobike in the leading position and made us the largest smart bike-sharing service provider in China, and the world. Our next milestone is to launch our IoT based solution in more countries worldwide. Gemalto's track record in delivering end-to-end secure connectivity and pre-certified solutions help make seamless connections within the global market. Gemalto is with us in China, and as we expanded into international markets – Singapore, United Kingdom, Japan and Italy. Our ongoing collaboration with Gemalto will greatly help us expand across the globe."

Mobike co-founder and CTO Joe Xia.

Mobike and Gemalto Drive the IoT Bike Sharing Boom

Booking a Bike is a “snApp”

To book a bike, customers download a free smartphone-based Mobike app and register a digital wallet, credit or debit payment method. The app provides a map of the nearest available bikes. With a single “tap” on a smartphone, users can scan a QR code on the bike’s handlebars to release an innovative wheel lock before riding away. Customers are charged approximately \$.2 (in China) for every 30 minutes of bike use and payment is handled without exchanging cash or swiping a card. To end the trip, customers simply close the lock once it’s placed in any standard legal bicycle parking area. Customers can also use the app to check the distance they traveled, the calories burned or view their account balance and top-up their in-app wallet.

Gemalto’s Cinterion EHS5 M2M module and Machine Identification Module (MIM™) are embedded in the smart bike’s locking mechanism to securely send data over cellular networks including GPS location, duration of use and routes traveled. The solution also receives from the Mobike cloud commands that operate the remote locking device. The Gemalto components are certified with all major global wireless network operators and they operate seamlessly with Gemalto’s On Demand Connectivity platform providing fast and easy wireless service when new bikes are introduced into the marketplace.

Mobike Coming to a City Near You

Mobike launched its first fleet of bikes in Shanghai in April 2016 and quickly expanded across China and global markets. It now operates over 7 million smart bikes in over 160 cities in China, Singapore, and the United Kingdom. The company recently expanded service to Italy, launching fleets in Florence and Milan with plans to expand to 200 cities worldwide by the end of 2017. The service has attracted over 100 million registered users to date and supports roughly 25 million rides a day. By April 22, 2016 (Earth Day) Mobike users had combined traveled over 2.5 billion kilometers on Mobikes in one year, equivalent of saving the environment over 610,000 tons of harmful carbon emissions.

“Mobike has experienced tremendous success in China and we feel this can be replicated in other markets with growing demand for more convenient and environmentally-friendly commuting,” says Suzanne Tong-Li, SVP Greater China and Korea for Mobile Services and IoT, and China President, Gemalto. “Connected bikes hold huge potential for additional mobility capabilities, such as on-demand connectivity, biometric authentication, user-preference-based personalization services and other mobility services.”

Easy access to bicycles gives people in crowded urban areas a quick and cost effective way to get to their train stop on time or attend cultural events without adding to traffic strain and air pollution. The rise of the sharing economy and Mobike demonstrates the power of IoT and smart infrastructure to improve convenience while reducing emissions and protecting our environment.

