

SmartMove...

SUCCESS STORIES FROM THE TOLLING INDUSTRY

Agency

Roads and Transport Authority, Dubai, United Arab Emirates

Project

Salik Open Road Tolling System Expansion Project

Purpose

To reduce traffic congestion on Dubai's main roads by encouraging diversions to alternate routes.

Vital Stats

- US\$6.6 million budget, funded with internal resources;
- 14 Open Road Tolling lanes (one zone in each direction at seven locations).
- More than 1.4 million Salik accounts.
- About 1.5 million transactions per day.
- 43 percent reduction in off-peak traffic volume and 16 to 22 percent reduction in peak volume on Airport Tunnel corridor.
- 43 percent reduction in off-peak traffic volume and 10 percent reduction in peak volume, as well as a 13 to 30 percent reduction in off-peak travel times, on the Ittihad Road corridor.

History

Faced with serious congestion on Dubai's main thoroughfares, the Roads and Transport Authority expanded the Salik Open Road Tolling System with three new tolling points to encourage diversions to alternate routes. Salik means 'open' or 'clear' in Arabic, and this project involved the construction of six new electronic toll collection gates, four on Ittihad Road and two on the Airport Tunnel Corridor.

The project was designed to minimize the use of highway rights of way, with sensors placed on two over-road gantries and processing and support equipment housed in a 5.0 x 2.5-meter (16 x 8-foot), air-conditioned roadside enclosure. The sensor array included overhead video scanning, designed to maximize vehicle image capture across seven lanes of fast, free-flowing traffic, to support enforcement and protect revenue. The system must operate efficiently and reliably, at temperatures up to 85°C (185°F) and speeds up to 140 kilometers (87 miles) per hour, without interfering with the United Arab Emirates' GSM900 mobile phone system.

Results

Operating in often severe desert conditions, the Salik Open Road Tolling System Expansion Project delivered:

- The world's largest open-road, multi-lane, free-flowing tolling point;
- The world's widest single-direction, free-flowing tolling zone, at more than 44 meters (144 feet);



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- The world's first 870 MHz toll system;
- One of the world's first SMS customer notification systems; and
- Complete over-road maintenance capacity inside cladded gantries, so that road closures are never needed for routine maintenance.

Between January and December 2014, the Roads and Transport Authority sold more than 690,000 Salik tags. As of December 2014, the system was processing 1.6 million transactions per day.

In 2014, the Salik Open Road Tolling System Expansion Project earned IBTTA's Toll Excellence Award for Technology.

Key Success Factors

“The Roads and Transport Authority completed the project on time and on budget, with no service interruptions for highway users. The Salik Toll System is running with 99.98 percent up time, in spite of the severe operating conditions it must sometimes accommodate. More than 95 percent of users say they're satisfied with the new highway. And for electronic payments, customers can choose from more than 2,400 payment options and find a recharge point within 150 meters of any location in Dubai. We're proud that the Salik Expansion Project has succeeded on all of these critically important dimensions.”

The SmartMove series highlights innovative and proven solutions to funding and maintaining transportation infrastructure. Visit www.IBTTA.org/MAF for more IBTTA member SmartMoves.

Source: 2014 Toll Excellence Award for Technology.

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