

**SMART  
MOBILITY**

# TOLL SYSTEMS

With more than 20-year experience in the development of toll systems, SICE implements solutions in many countries with designs adapted to each specific situation.

The services and solutions offered by SICE to the usual requirements in this area are:

- A secure toll collection control solution that supports all operational models and technologies to be integrated.
- Open, modular and flexible technical architecture that offers scalability and growth possibilities with minimal investment.
- A proven, tested, robust and operational technological solution which can be adapted to local features with only minor changes, reducing risks and lead times.
- Human resources with very extensive knowledge of toll business, technology and project management which can collaborate with the client when defining their business processes and strategies, etc.

SICE develops, manufactures, installs and integrates all the subsystems associated with a toll system. In addition, it maintains, provides technical support and participates in system operations.

The solutions offered by SICE in various application areas are: Conventional Toll, Multi-Lane Free-Flow Toll, Shadow Toll, Mixed Toll and associated BackOffice subsystems.

## ALL KINDS OF SOLUTIONS

SICE can provide solutions for any type of toll system during all business phases.

A leader in the international multi-lane free-flow toll market, SICE carries out projects with more than 10 million transactions/day, making it the most reliable company in the toll industry at an international level.

In the past few years, SICE has introduced the mixed toll system as a new business area, which is a combination of Free-Flow and conventional toll roads.

This type of system has been successfully installed and approved on the Humber Bridge in Hull, United Kingdom.

## CONVENTIONAL TOLL

With this model the road user pays for use at the toll stations located along the infrastructure.

Through the following tasks, SICE makes it easy to adapt to requirements for centralized management, based on standard hardware and its own software applications:

- Sizing of stations and selection of road types (manual, automatic, toll, etc.)
- Selection of payment methods (cash, credit card, TAG devices, etc.)
- Design of auxiliary systems (CCTV, pre- and post-classification, communication, interphone system, queue detection, etc.)
- Development of software for all equipment
- Supply, installation, maintenance and remote control of system equipment.
- Centralized validation and consolidation of toll transactions.



## SICE BACKOFFICE SYSTEM

SICE's commercial BackOffice (BIS) provides flexibility in terms of products, services and task management and it has been designed for multi-concession and multi-service scenarios (tolls, parking, etc.). It allows complete integration with SICE toll solutions and focuses on low operational costs.

It is made up of an Operational BackOffice and a Commercial BackOffice.

The Operational BackOffice includes the adaptation and consolidation of toll transactions, video processing if required and the generation of operating reports.

On the other hand, the Commercial BackOffice converts traditional toll information into business information through the following functions:

## SHADOW TOLL SYSTEM

Payment is made through governmental agencies by the contracted Concessionaire which use the infrastructure, without interfering with the flow of traffic.

SICE offers solutions to measure the quantity and quality of traffic, as well as audit systems and control center solutions. It also provides the following services:

- Data acquisition stations (DAS), video audit system, communication equipment, auxiliary equipment and a control center
- Development of DAS software, communication and the control center.
- Installation, commissioning and maintenance of system hardware and software
- Integration with the SICE traffic management ITS application (SIDERA).

## MULTI-LANE FREE-FLOW TOLL SOLUTIONS

The Free-Flow toll system manages electronic payment without interfering with the flow of traffic, using license plate recognition or electronic devices (tag).

SICE offers complete or partial solutions for Multi-Lane Free-Flow tolls, including road equipment (technical doors and booths, detection and classification equipment, antennas, cameras, auxiliary equipment.) as well as operations management, customer systems, accounts management and communication with external entities.

- ✓ Collection of information recorded by on-site equipment
- ✓ Data verification, validation and finalization
- ✓ Pricing and billing
- ✓ Management of unauthorized vehicles
- ✓ Report generation
- ✓ Supply of a large number of customer services (SMS, fax, website, etc.)
- ✓ Communication with external entities (Other concessionaires, traffic infraction/debt management agencies, collection agencies, banks, customer contact channels, etc.)
- ✓ Management of stock and life cycles for different payment methods (TAGs, concessionaire cards, etc.)