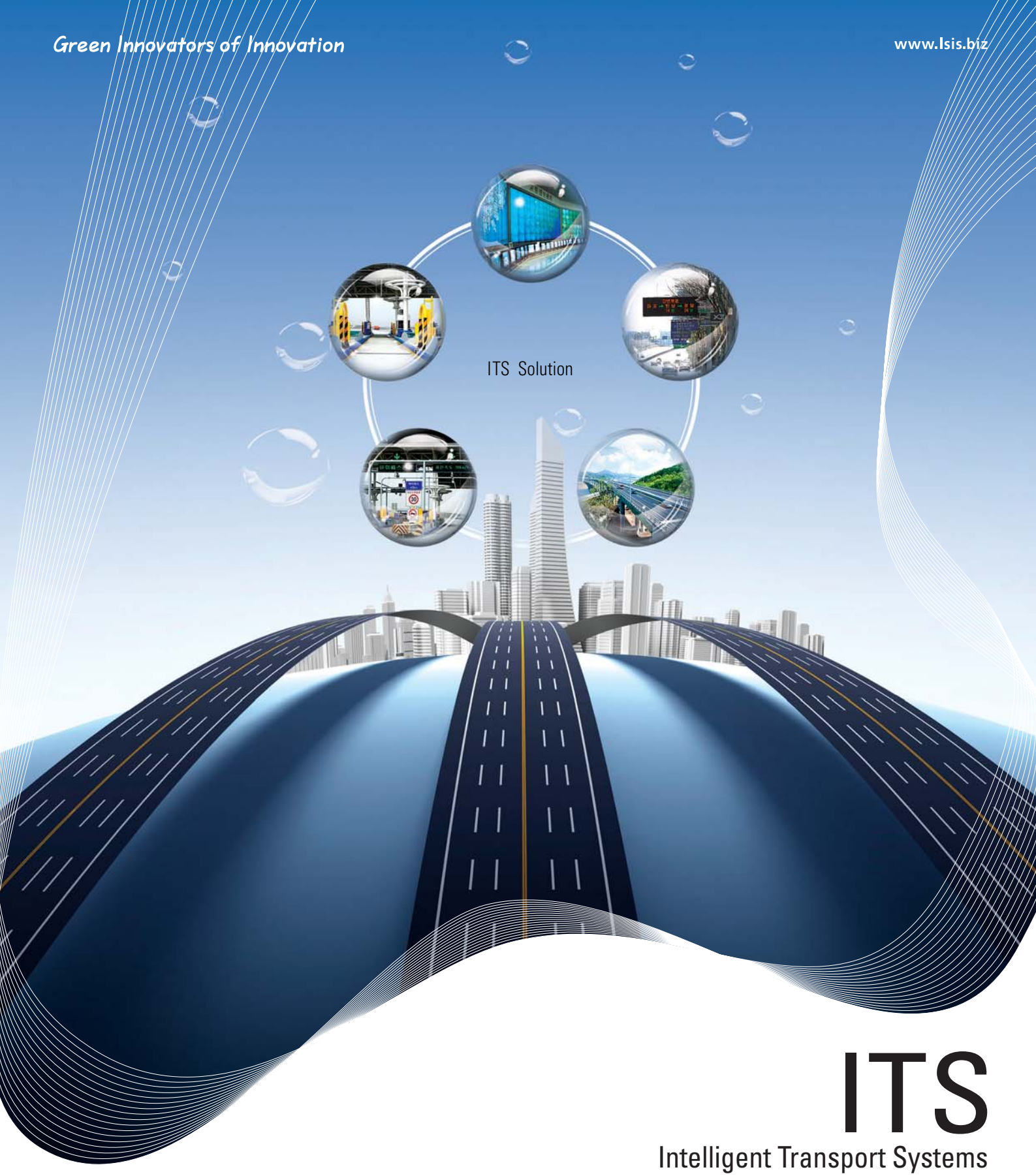


ITS

Intelligent Transport Systems

Solution for the Sustainable,
Low Carbon Oxide Development

LS IS

C . O . N . T . E . N . T . S

UTMS
Urban Traffic Management System

DSRC
Dedicated Short Range Communication

ATES
Automatic Traffic Enforcement System

FTMS
Freeway Traffic Management System

TCS/ETCS
Toll Collection System/ Electronic Toll Collection System

Leading You Toward a Greater Future than You Imagine

LSIS' transportation system solution helps to build a faster, safer, more eco-friendly transportation system by incorporating cutting-edge technologies of electronics, electricity, control, and information communication fields into a transportation system, such as UTMS, DSRC, ATES, FTMS and TCS/ETCS.

Experience our transportation system solution, the fittest of all in the ever-evolving ubiquitous environment.


Speed Enforcement Camera
통행권을 받아가십시요

UTMS
Urban Traffic Management System

DSRC
Dedicated Short Range Communication

ATES
Automatic Traffic Enforcement System

FTMS
Freeway Traffic Management System

TCS/ETCS
Toll Collection System/ Electronic Toll Collection System

UTMS Urban Traffic Management System

"Communication with the Road" enabled by High-Tech System

Developed with cutting-edge technologies, LSIS' UTMS provides drivers with more comfortable traffic environment, and operators with more convenient operation environment.

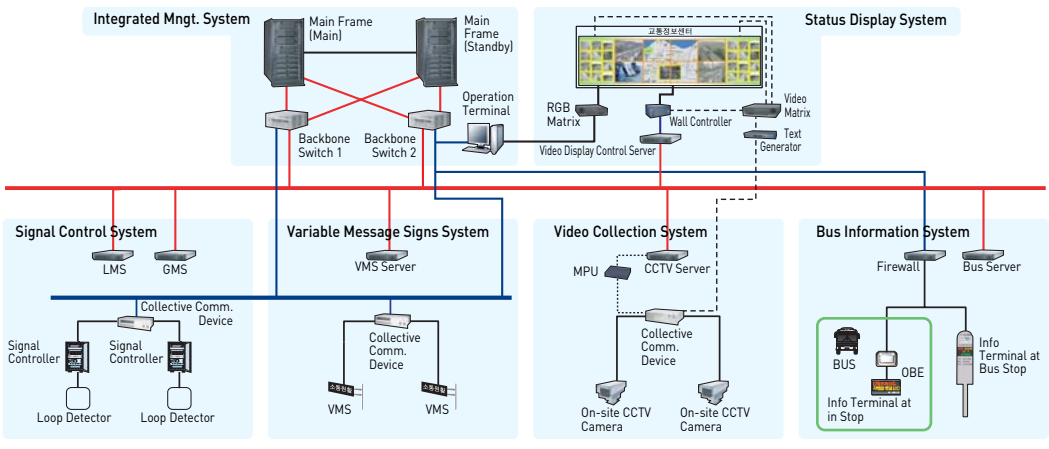
The UTMS

is a system which, using a number of devices, collects, operates, and manages various traffic data of the downtown and adjacent areas to improve road efficiency, and to provide road users with more convenient transportation environment.

Features

- Enables a center to monitor the traffic conditions of major intersections and other roads in the city in real-time.
- Detects and responses to traffic congestions and accidents on the road in real time.
- Facilitates the construction of a highly-reliable city transportation management system.
- Monitors the system status and I/O-related on-site operation conditions in real time.
- With full graphic resources, it provides a user environment that allows optimal monitoring and control of the traffic conditions and the system.
- Supports various operating environments including Unix and Windows.
- Long-term data storage and efficient information management using a relational database.
- Provides a system environment that facilitates building an external linkage system with other systems.
- Provides various formats of a report to satisfy the user's needs.
- Provides freeway users with the information of various types – text, image, etc. – through ARS, web, mobile phone, PDA, etc. (optional)
- Web-based monitoring function (optional)

System Structure



Components

Subsystem	Components	Description
Integrated Management System	• Main frame • Integrated operation terminal • Network devices, etc.	• Periodically processes the data collected by detectors and compiles statistics. • Monitors various system operation statuses and manages the DB.
Status Display System	• Status display (DLP, LCD, etc.) • Wall Controller, etc.	• Monitors the entire road conditions, and displays all the task and status of the system for an operator.
Signal Control System	• Traffic signal control system • Signal control server (LMS, GMS) • Vehicle detector (loop), etc.	• Collects real-time traffic conditions data, such as traffic volume, occupancy rate, speed, etc., from the road, and sends them to the signal control server. • Processes the collected data according to the signal control algorithm, and controls the intersection coordination and the timing of each signal based on the results.
Bus Information System	• Information terminal in a bus/ at a bus stop • Bus information collecting device, etc.	• Collects, processes and provides the bus information in real time.
Variable Message Signs (VMS) System	• Variable Message Signs (VMS) • VMS Server, etc.	• Provides road users with useful information using a roadside sign board.
Video Collection System (CCTV)	• CCTV camera • CCTV server, etc.	• Collects and provides the real-time on-site video through CCTVs.

Function

Data collection / processing	• Collects the traffic conditions data and compiles statistics. • Monitors the operation status of on-site devices and the system. • Collects and processes the location/operation data of buses.
Situation response	• Identifies and responds to traffic congestion, accidents, and restrictions in real time. • Collects the real-time traffic data of intersections and roads, and operates the optimum signal control.
Information delivery	• Provides immediate reports on various information including traffic and settings information. • Provides road users with the information of the traffic conditions, accidents, restrictions, etc on a specific section of a road. • Provides the bus location information, etc. in real time.

Integrated Operation System Screen
- Viewing/ management of traffic information
- History management
- Management of statistics and other information

High-tech Traffic Signal Control Screen
- Real-time remote control of signals
- Viewing the information of each intersection
- Uploading/ downloading of the intersection DB.

VMS Operation Screen
- Real-time monitoring of VMS messages
- Editing of VMS messages
- Remote control of on-site VMS

Status Display System Operation Screen
- Display of road and traffic conditions
- CCTV screen display
- Status display that suits the user's needs.

Web Information Display Screen
- Road and traffic conditions
- Traffic accident/ restriction status
- Real-time road images
- Estimated time to arrive at the destination

Report Screen
- Daily/monthly/ annual reports
- Access to various statistics DB data
- Enabling an operator to write a list that suits his/her needs

The DSRC

Powered by roadside equipments capable of short-range two-way communication, the DSRC collects and processes the data delivered from hi-pass terminals installed on running vehicles, and then provides the resulting information to road users.

DSRC Dedicated Short Range Communication

The DSRC Transportation Information System facilitates a high-tech transportation environment that is more accurate and more intelligent.

So far, the transportation information systems have had adopted the one-way communication with image/loop detectors to collect data, which put inevitable limitation on the reliability and the usability of the data. The DSRC Transportation Information System, however, can collect accurate data through hi-pass terminals installed on vehicles, and deliver interactive, diverse content services through the two-way communication, laying the groundwork for a high-tech transportation environment.

System Features

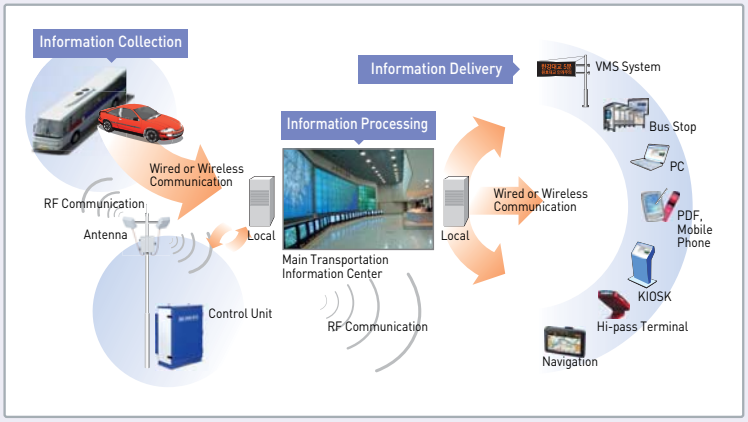
Accuracy [99% or higher data reliability]
- 99% or higher communication success rate
- 99% or higher spatial detection accuracy
- 99% or higher accuracy of provided transportation information

Extensibility [A variety of application services available]
- Hi-pass-equipped vehicle tracking service
- Congestion toll collection function for urban areas
- Parking fee collection function can be added.
- Gas station payment solution can be added.

Affordability [No need for a communication system for each service]
- All is needed is to install roadside equipments.
- Various services can be applied using only one communication platform.
- Reduced cost by employing a Master/Slave structure
  (A solar power generator system is applicable. Wireless communication through CDMA.)

DSRC
DEDICATED SHORT RANGE COMMUNICATION

- Freeway/arterial road transportation information VMS
- Bus Information System (BIS)
- In-vehicle display of real-time transportation information (A high-pass terminal providing transportation information)
- Provides reliable real-time road information using various IT devices
- Provides specialized transportation information for each section



Service

Real-time Transportation Information Delivery Service

Information delivery to a hi-pass terminal

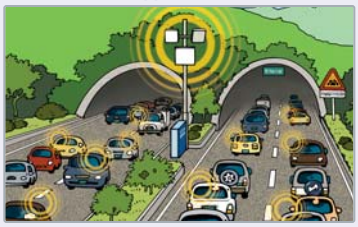
Information delivery to VMS and IT devices

BIS (Bus Information System) Service

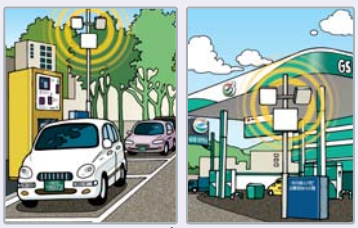
Information delivery to bus stops

Operation management system

Toll Collection Application Services



Congestion toll collection



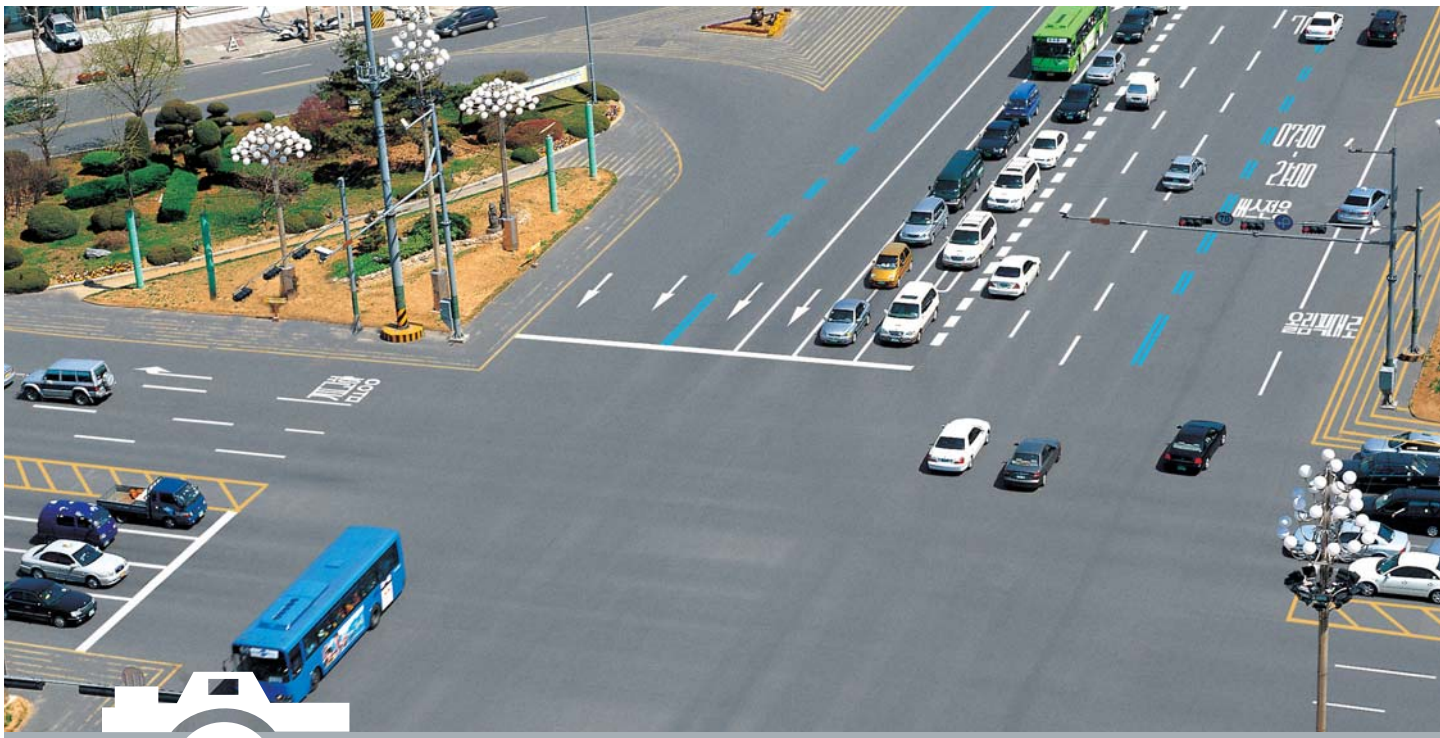
Unmanned parking fee/ gas price collection

Control Unit

Item	Description
CPU	32bit 400 MHz or higher
RAM	128MB
Flash Memory	128MB
External storage device	2GB or more (SD Type)
OS	Embedded Real-time OS
Operation Temperature/Humidity	-34℃~74℃ (20%~90%)
Housing	470×740×287, IP-66 waterproof
Cooling method	Natural convection method

Antenna Unit

Item	Description	
Broadcasting frequency	5.8GHz (5.795GHz~5.81GHz)	
Channel bandwidth	8 MHz	• Covers up to 10 lanes for information collection • Software RF output, gain, and adjustment functions • Main channel switching function
Transfer rate	1,024MBps	
Power	DC 24V	
Weight	2 kg	
Operation Temperature	-35℃~55℃	
Housing	IP-66 waterproof	
Performance	• RF automatic temperature adjustment function	



ATES Automatic Traffic Enforcement System

"The Protector of the Road" for Safe Driving

The high-performance ATES equipped with LSIS' accumulated technologies of electronics, information and communications facilitates safer and more pleasant transportation environments.

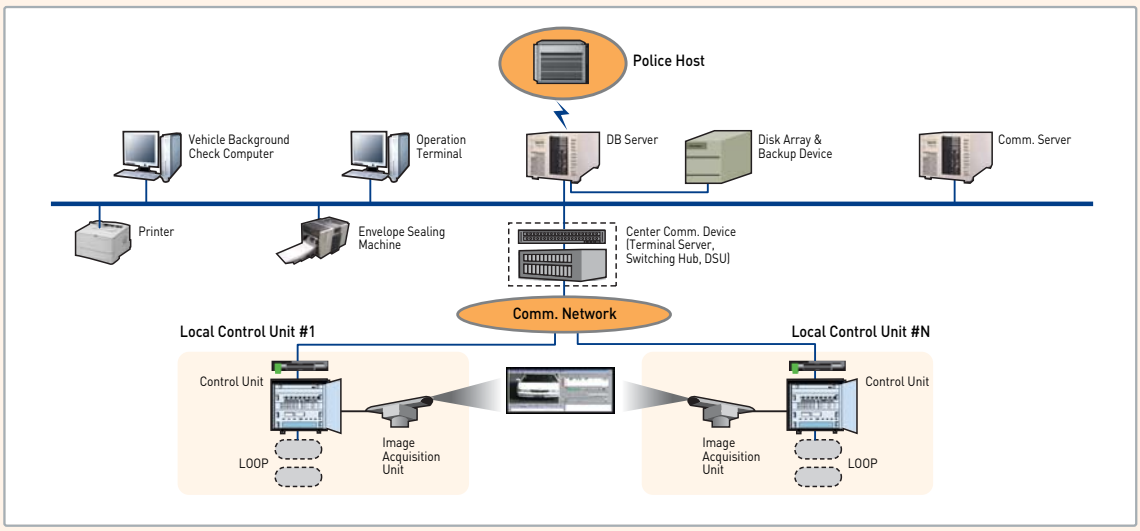
The ATES

is a system which identifies violations of traffic regulations, such as speed limits, signals, bus lanes, etc. in real time, and automatically processes them administratively.

Features

- Enforces an 80km speed limit on freeways against freight cars over 1.5 tons
- Simultaneous enforcement of speed limits and bus lanes
- Simultaneous enforcement of speed limits and traffic signals
- In case of traffic congestion, complete compensation for signal interference by a vehicle in the back in case of traffic congestion
- Stable enforcement of traffic regulations in all seasons and weathers
- Identification of all vehicle registration plates that can be easily changed by upgrades.

System Structure



Components

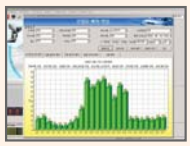
Subsystem	Components	Description
Center System	• DB server • Vehicle background check computer	• Stores the enforcement data for each year, month, day and site. • Checks/prints/stores the background information of a vehicle that violated the regulation. • Provides various statistical reports to suit the user's needs, and remotely controls a local controller.
On-site System	• Speed detection unit	• Calculates the speed with high reliability by using a loop detector. • Perfect compensation for abnormal traffic patterns, such as traffic congestions.
	• Image acquisition unit	• Acquires high-quality, high-definition images, even of vehicles running at high speed. • Minimizes obstruction to drivers' view caused by lights. Fast recharge.
	• Control Unit	• Directly controls on-site equipments or check their status. • Identifies a license plate using acquired images, and send the results to the center in real time.
	• Identification Software	• Identifies a license plate in a fast and accurate manner by employing an efficient identification algorithm. • Continuous upgrades to identify all versions of license plates.

Function

Speed enforcement system	• Enforces speed limits in freeways, national roads, and city streets
Bus lane enforcement system	• Enforces bus lanes in freeways and city streets
Multifunctional enforcement system	• Enforces traffic signals and speed limits in city intersections and crossroads.

Image Acquisition/ Identification of a Violator's Vehicle
- Acquires the images of a violator's vehicle
- Secures and processes high-quality images

Real-time Enforcement Data Transfer
- Real-time data transfer
- Communication control and error detection



Statistical Data Display
- Displays the annual/ monthly/daily statistical data
- Displays statistics for daytime/nighttime.

Easy-to-Use Maintenance GUI
- Menu configuration convenient for on-site use.
- Various H/W control menus

Vehicle Background Check
- Automatic/manual check function

Remote Control of a Local Controller
- H/W remote control (to change a target lane)
- S/W remote control (to change the enforced lane)

FTMS Freeway Traffic Management System

Further Evolved "Ubiquity on the Road"

With faster, more accurate information, LSIS' high-tech freeway traffic management system facilitates safe driving and efficient communication on the freeway.

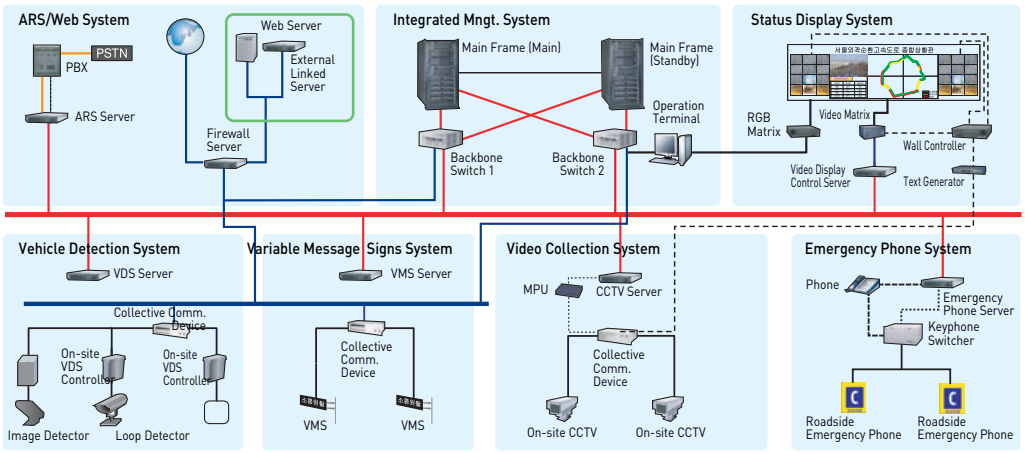
The FTMS

is a system which monitors traffic conditions, collects the information, and provides them to freeway users using vehicle detectors, data processing devices, etc, to maximize the efficiency and the capacity of the freeway.

Features

- Allows a center to monitor the freeway conditions of the entire section in real time.
- Automatically detects traffic congestions and incidents in real time, and respond to them in a rapid, safe manner.
- Facilitates a reliable FTMS that meets the user's needs.
- Provides real-time monitoring of the system status and I/O-related on-site operation conditions.
- Supports various operating environments including UNIX and Windows.
- Long-term data storage and efficient information management using a relational database.
- Provides a system environment that facilitates building an external linkage system with other systems.
- Provides various formats of a report to satisfy the user's needs.
- Provides freeway users with the information of various types – text, image, etc. – through ARS, web, mobile phone, PDA, etc.
- Web-based monitoring function (optional)

System Structure



Components

Subsystem	Components	Description
Integrated Management System	• Main frame • Integrated operation terminal • Network devices, etc.	• Processes the data collected by detectors and compiles statistics periodically. • Monitors the communication conditions and automatically detects traffic incidents and restrictions. • Monitors various system operation statuses and manages the DB.
Status Display System	• Status display (DLP, LCD, etc.) • Wall Controller, etc.	• Monitors the entire road conditions, and displays all the task and status of the system for an operator.
Vehicle Detection System (VDS)	• Loop detector • Image detector • Ultrashort wave detector, etc.	• Collects in real time the traffic conditions data, such as traffic volume, occupancy rate, speed, from the road, and sends them to the center.
Variable Message Signs (VMS) System	• Variable Message Signs (VMS) • VMS Server, etc.	• Provides road users with useful information using a roadside sign board.
Video Collection System (CCTV)	• CCTV camera • CCTV server, etc.	• Collects and provides the real-time on-site video through CCTVs.
Emergency Phone (EP)	• Roadside emergency phone • Keyphone switcher, etc.	• Allows road users to contact the Traffic Information Center from the road in case of emergency.
ARS/Web System	• ARS/Web server, etc.	• Provides road users with various real-time traffic information through the ARS or the Internet.

Function

Data collection / processing	• Collects the traffic condition / system operation data in real time using various devices. • Processes and provides the data for operators and road users in real time.
Situation response	• Identifies and responds to unpredicted situations caused by accidents, natural disasters, etc. in real time. • Identifies and responds to traffic congestion in each section of the road in real time.
Information delivery	• Provides road users with useful traffic information in real time. • Provides operators with useful road/system operation information in real time.

Traffic Monitoring System
- Traffic condition monitoring screen
- Accident/restriction monitoring screen
- On-site system status monitoring

VMS Operation Screen
- Real-time VMS message monitoring
- VMS message editing
- Remote control of the on-site VMS.

Accident/Restriction Response Screen
- Identification of and response to traffic accidents and restrictions
- Editing and display of VMS emergency messages
- Road restriction status management

CCTV Operation Screen
- Monitoring of the on-site video
- CCTV control
- Video input/ output control

Web Information Display Screen
- The traffic conditions
- Traffic accident/ restriction status
- Real-time road images

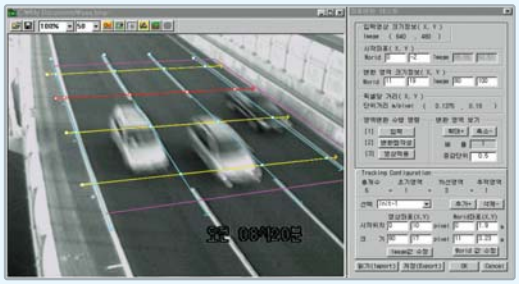
Report Screen
- Daily/monthly/ annual reports
- Various statistics DB reports print-out
- A report that meets the user's needs.

Image Detector

An image detector is a traffic data measuring system which accurately measures the information (traffic volume, speed, vehicle length, etc.) of a vehicle on the road in real time using a video camera, and then collects, analyzes, and saves the information at a minimum time unit to provide them to a VDS server and a host computer.

Applicable Areas

Traffic information collection system, traffic accident auto-detection system, traffic signal controller, unmanned monitoring system (speeding, traffic signal violation, etc.), and other ITS-related devices and applications.



Features

- Reliable accuracy
- Extensibility in terms of the traffic operation
- Easy adjustment of the detection range
- Simultaneous detection of several vehicles
- Easy maintenance
- Reduced maintenance cost

Camera Unit

Camera	1/4"CCD, NTSC, 570 TV lines or more
Lens	F1.4~360, C/CS Mount
Housing	Aluminum, Built-in heater (temp. management function)
Bracket	Stainless, Loading capacity of 10 kg or more

Local Type

Center Type

Control Unit

	Local Type	Center Type
CPU	Pentium or higher	
RAM	128MB or more	
I/F	4 Serial, 2 Parallel, 1 LAN, 4 Digital I/O	
Real Time Clock	1/100 or less Built-in battery backup function	
Control Type	On-site control	Centralized control by a center

Loop Detector

A loop detector is a traffic information collection system which detects the occupancy rate, the speed, the traffic volume, etc. of a vehicle passing through a loop coil installed on each lane of freeways, national roads, and city streets. It also saves and analyzes the vehicle information detected by a loop detector controller, and transfers the information demanded by the center.

Applicable Areas

Traffic information collection system, traffic accident auto-detection system, traffic signal controller, unmanned monitoring system (speeding, traffic signal violation, etc.), and other ITS-related devices and applications.

Features

- Sends the Main Control Center the lane information – traffic volume, speed, occupancy, vehicle length, etc.
- More-than-95% reliability of the collected information, such as volume, speed, occupancy, etc.
- Incorporating a 4-channel loop detector card.
- Can be used as a detector to verify the video VDS.

Detection Unit

Coating Material	A single/multi-layer insulation made of polyethylene or equivalent
Operation Temperature	No damage to the outer surface at the temperature above 200°C
Loop Inlet Line	600m or shorter

Control Unit

CPU	32Bit, 66MHz or more
Center Interface	RS-232C / Ethernet
Number of input channels	up to 32 channels (max. 16 lanes)
Operation Temperature	- 34℃~ +74℃
Housing Material	Stainless
Input Power Voltage	AC220V±10%, 60Hz±1Hz
Data Management Function	Analyzes/saves in real time the traffic parameters at a time interval predefined by an operator.
Self Diagnosis Function	In case of initial operation, a short circuit, or restoration, a self-diagnosis program checks RAM, ROM, and Watch Dog Time.
Data Collection/ Management Function	Upon request from the main device, it transfers the computed data required for statistical analysis of the main device, such as the average vehicle speed (km/h), traffic volume (number of vehicles/h), occupancy rate (%), and the vehicle length.

TCS/ETCS

Toll Collection System/
Electronic Toll Collection System

Fast, Convenient, Unfettered "Low Carbon Oxide Tollgate"

With enhanced reliability, functionality, and extensibility,
LSIS' TCS/ETCS greatly reduces congestion and wait time at a toll gate.

The TCS

is a system which collects tolls, measures traffic volume, and carries out all office tasks related to the toll collection. It also enforces traffic regulations and gathers traffic information.

The ETCS

is a system which collects tolls using the wireless communication between an on-board unit (OBU) installed on a vehicle and a roadside antenna, allowing a vehicle to pass through a tollgate without any hassle.

Features

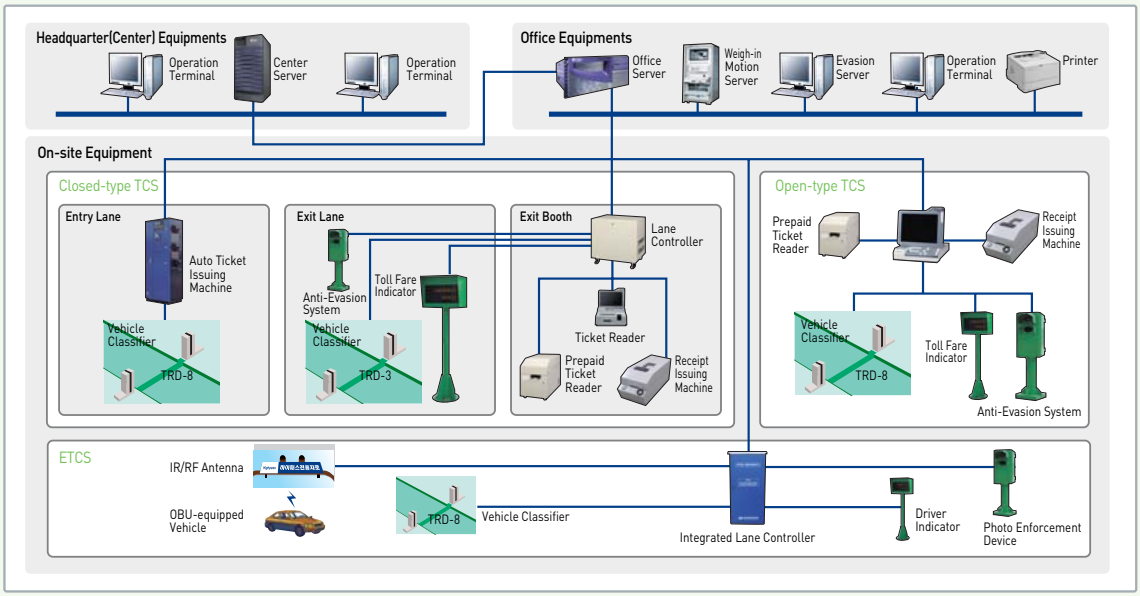
TCS

- Reduces time necessary to process toll payments to improve users' convenience
- Accurate, easy toll collection process based on a reliable system
- Minimizes the workforce size by streamlining the work process
- Enables various modes of payments by employing an electronic card (compatible with ETCS)

ETCS

- Eliminates wait time by enabling a driver to make a payment without stopping at the tollgate
- Safe toll collection based on a password authentication method
- Reduces operation cost by adopting an unmanned system.

System Structure



Components

Subsystem	Components	Description	
Headquarter (Center) Equipments	Center server	Processes and stores the collected operation data based on various algorithms	Common
Office Equipments	Office server	Prepares reports based on the data shared with the lane equipments. It also stores the data, transfers them to a upper-level computer, etc.	Common
	Weigh-in-motion server	Processes the data transmitted from a weigh-in-motion lane to enforce the weight limit	Common
	Evasion server	Stores and processes the data uploaded by the anti-evasion system.	Common
On-site Equipments	Automatic ticket issuing machine	Automatically issues a user with a ticket containing information, such as the vehicle type, the office number, etc.	Closed-type
	Vehicle classifier	Classifies a passing vehicle as Type 1 -6 to provide the information to the lane controller.	Closed-/ open-type
	Vehicle detector	Calculates the number of entering vehicles	Closed-type
	Lane controller	Processes and stores various data, and controls all the peripheral devices.	Closed-type
	Ticket reader	Verifies the information on the ticket received from a user, and carries out an attendant's responsibilities.	Closed-type
	Prepaid ticket reader	Processes a freeway card, subtracting and printing out the toll fare.	Closed-/ open-type
	Receipt issuing machine	Prints out and issues a receipt showing the information processed by the ticket reader.	Closed-/ open-type
	Anti-evasion system	Prevents toll evasion by photographing the license plate of a violator's vehicle.	Closed-/ open-type
	Toll fare indicator	Indicates the vehicle type and the toll road price.	Closed-/ open-type
	Toll terminal	Processes and stores various data of an open-type road. Controls peripheral devices and carries out an attendant's responsibilities.	Open-type
	Integrated lane controller	Oversees every process of ETC-type toll collection and every equipment on a lane. Complies with the standards for an ETCS Integrated Controller that is compatible with both IR and RF methods.	ETCS
	IR/RF antenna	A wireless device mounted on a gantry in the lane to communicate with an IR/RF OBU installed on a vehicle.	ETCS
	Photo enforcement device	Photographs a violator's vehicle when It passes through a tollgate.	ETCS
	Driver indicator	A display that provides necessary information to a driver driving through a lane.	ETCS

Function

TCS (Toll Collection System)

Accurate toll collection	Enables precise toll collection by more than 99.7% accurate categorization of the vehicle type.
Various payment methods	Facilitates freeway users to make payments using various methods (cash, credit card, prepaid care, etc.)

ETCS (Electronic Toll Collection System)

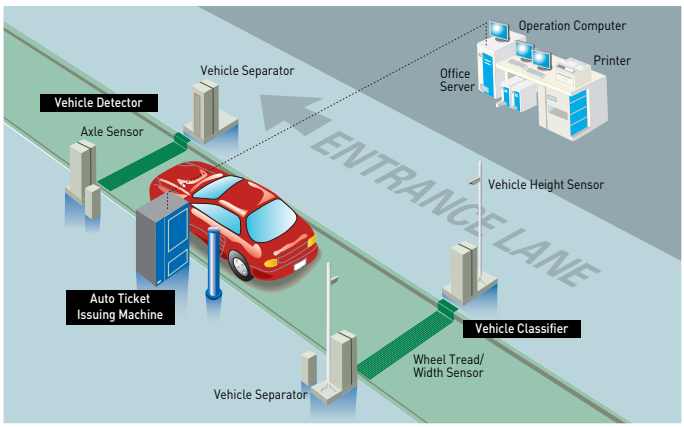
Fast, accurate toll collection	Enables fast, accurate toll collection by allowing a driver to make a payment without stopping the car.
Reduced operation cost	Reduces the lane operation cost by adopting an unmanned toll collection system, and minimizes pollution caused by car idling.

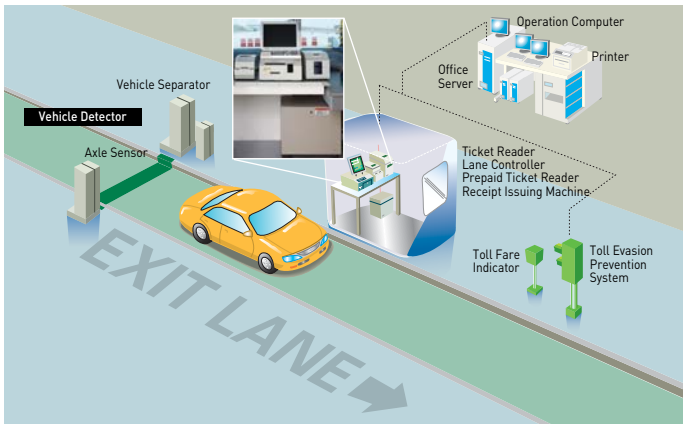
TCS (Toll Collection System)

The TCS is a cutting-edge system which collects tolls, measures traffic volume, and carries out all office tasks related to the toll collection. It also enforces traffic regulations and gathers traffic information.

Closed-Type System

A system collects tolls which based on used distance





Automatic Ticket Issuing Machine
- Automatically issues a ticket
- Controls peripheral devices and communicates with the office server
- Fast issue of a ticket (less than 1.5 sec.)
- Ethernet communication and easily extendable memory
- Facilitates easy operation with total 4,500 tickets equipped

Vehicle Detector
- Detects an axle, and notifies the lane controller whether a vehicle has passed or not
- More than 99.9% accuracy when linked to an axle sensor

Vehicle Classifier
- Identifies the type of a passing vehicle
- Detects the vehicle height to determine the appropriate ticket issuing machine
- Classifies a vehicle with more than 99.7% accuracy
- Treadles durability: more than 10 million axes (based on the number of passing vehicles)

Ticket Reader
- Processes a collected ticket
- Magnetic recording and printing of the information of a user vehicle.
- Equipped with a durable magnetic head that can read up to 2 million tickets
- A button can be added by applying a touch panel.

Common Equipments of Closed- and Open-Types

Lane Controller
- Processes and stores various data
- Easy operation by adopting a maintenance panel
- Controls peripheral devices and sends/ receives data to/from the office server
- Ethernet communication and easily extendable memory

Toll Evasion Prevention System
- Photographs the license plate of a toll evader's vehicle
- Photo accuracy of more than 97%
- More than 97% TCS connection
- Adjustable camera, lens, and lights to suit the surrounding environment

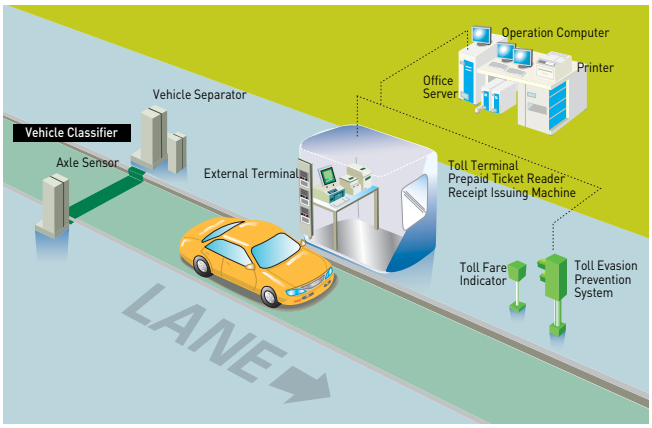
Toll Fare Indicator
- Displays the vehicle type and the toll amount to a user
- Displays the toll amount within one second after reading the ticket
- Self-luminous, high-brightness LED

ETCS (Electronic Toll Collection System)

The ETCS is a system which collects tolls using the wireless communication between an on-board unit (OBU) installed on a vehicle and a roadside antenna, allowing a driver to make a payment without stopping a vehicle.

Open-Type System

A system collects tolls which based on fixed distance



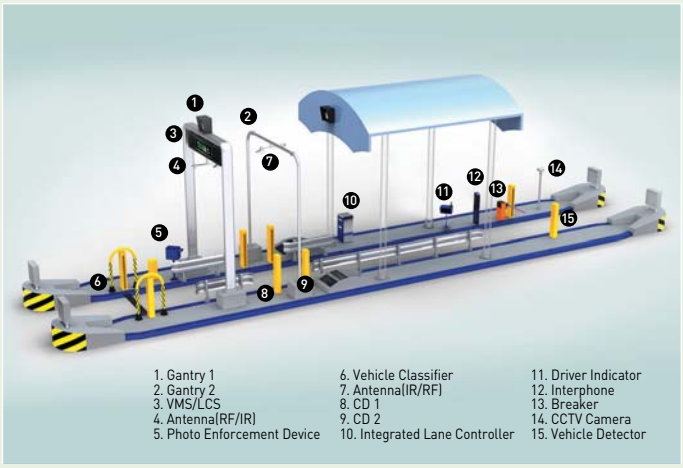
Vehicle Classifier
- Identifies the type of a passing vehicle
- Treadles durability: more than 10 million axes (based on the number of passing vehicles)
- Classifies a vehicle with more than 99.7% accuracy

External Terminal
- Enables swipe card payment
- Voice message function and ergonomic design to make swiping a card more convenient
- RF antenna durable for 100,000 uses

Toll Terminal
- Processes and stores various data
- Controls peripheral devices and sends/ receivesdata to/from the office server
- Provides an operator interface screen
- Built-in e-card payment function

Receipt Issuing Machine
- Issues a toll payment receipt
- Easy-to-operate auto-cutting type
- Detects a shortage of print paper
- A thermal print head durable for 500,000 tickets.

Features



- Eliminates wait time by enabling a driver to make a payment without stopping at the tollgate
- Safe toll collection based on a password authentication method
- Reduces operation cost by adopting an unmanned system.

IR/RF Antenna
- Wireless Communication with an IR/RF type OBU
- Reports the toll collection results to the lane controller

Vehicle Classifying System
- Component: Vehicle seperator, Car detector 1,2,3
- Automatically Identifies the type and location of a passing vehicle
- 99.7% accuracy, Treadles durability More than 10M axes

Integrated Lane Controller
- Controls the authentication process for toll collection
- Controls peripheral devices and sends/recieves data to/ from the office server
- Standard : Korean Express-way Corporation(Can be designed various standard)

Driver Indicator
- Indicates the vehicle type and payment amount
- Indication : LED Display, Siren, Signal etc

Photo Enforcement Device
- Photographs the vehicle Licence plate a violator's or a uninstalled OBU
- Automatically to Suit the surraunding environment and Transmission to the image server

On-Board Unit (OBU)
- Wireless communication device for the toll collection
- LCD and voice message
- Compatible with Various card system
- Certification : Korean Expressway Corporation

YOU HAVE OUR PROMISE THAT LSIS WILL ALWAYS BE A COMPANY THAT GROWS ALONGSIDE ITS CUSTOMERS.

Innovators of Innovation

Vision 2015

"How to Grow"

World Class 3P

People/Product/Process

A Culture of Openness

Flexibility/Faithfulness/R&R/Harmony

LSIS establishes fast, safe and environmentally-friendly traffic systems by applying highly advanced technologies to them, including electric, electronic, control, information & telecommunication technologies. As it develops and supplies cutting-edge systems related to traffic management, control, and the flow of traffic information such as its UTMS (Urban Traffic Management System), DSRC (Dedicated Short Range Communication), ATES (Automatic Traffic Enforcement System), FTMS (Freeway Traffic Management System) and TCS/ETCS (Toll Collection System) the company is getting a clear picture of what infrastructure future traffic environment will require before anyone else. Furthermore, LSIS' ITS (Intelligent Transport System), which was created with a wide range of systems, brings innovative change to traffic management, ensuring smoother traffic, fewer traffic accidents, shorter operating hours, and decreased operation & management costs.

Korea is the No. 1 nation in semiconductors and shipbuilding Now, LSIS will continue the legend in a new field

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Head Office

Cheongju Factory

PT&T

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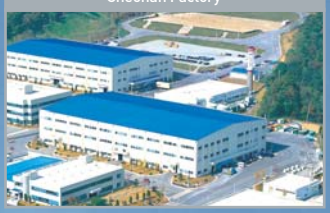

Busan Factory

Electric Power | Electrical Equipment, Electrical Systems

From low voltage to ultra high voltage, LSIS's wide-ranging devices and systems have been recognized worldwide for their efficient design and superior quality. We have acquired not only ISO9001 and 14001 certification, but also accreditation from such testing agencies as KEMA, TUV, CESI, ASTA, and KERI. We offer only the finest quality products made in accordance with various international standards, including IEC, UL, ANSI, CCC, JIS, and KS. LSIS is a total-solution provider of electrical systems, from engineering, design, manufacturing, installation, and operation all the way to diagnosis and rationalization.

Automation | Automated Equipment, Industrial IT

LSIS is Korea's first PLC, inverter, and DCS developer.
A longstanding pioneer in Korea's automation industry, LSIS uses its abundant experience in the industrial facilities sector to provide the very best control equipment and systems requiring state-of-the-art technologies. We offer total solutions in automation through the application of various products.

New Businesses

Set to play a key role in distribution innovation, our RFID business provides advanced technologies optimized for application in our clients' fields. We operate a reader production line with an annual output of 100,000 units and a tag production facility with an annual capacity of 100 million. We are also building and operating a pilot production line for power semiconductors, a core component in power electronic devices. LSIS continues to uncover new business areas, including eco-friendly energy-saving automobile parts and electrical energy conversion devices.

Power Testing & Technology Institute

Our Power Testing & Technology Institute is a KOLAS-accredited facility providing world-class testing and evaluation services, with a wide range of testing equipment including Korea's first privately-owned 1,600MVA short circuit tester. Our testing center offers international credibility through strategic alliances and mutual recognition of test results with the US's UL, EU's CE, the Netherlands' KEMA, and Italy's CESI.

Green Innovators of Innovation

LS IS Co., Ltd.

Intelligent Transport Systems

LS Tower, 1026-6 Hogye-dong, Dongan-gu, Anyang, Gyeonggi-do, 431-848, Korea

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