ITS Suite



ITS

Advanced Transportation Management Platform

ITS Suite is a modular and flexible platform designed to serve as the backbone of an intelligent transportation environment. It provides access to a wide range of ITS applications, CAD/AVL and passenger information systems, planning and scheduling, real-time regulation and control, ticketing, *Eco-Driving*, CCTV, Business Intelligence, and much more.

The open architecture of *ITS Suite* fosters collaboration among multiple stakeholders, creating an ecosystem where each integration adds value. This flexible, standards-based platform is ideal for evolving with the industry's changing demands, ensuring that every component, application, and partner benefits from mutual enrichment.

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PRODUCT BENEFITS

ITS Suite helps increase passenger numbers by improving the punctuality and reliability of transportation services. With a passenger-centric approach, ITS Suite generates precise, real-time information and distributes it through a multi-channel communication strategy, ensuring up-to-date and accurate information to enhance the travel experience. Additionally, *ITS Suite* guarantees interoperability by complying with industry standards such as SIRI, ITxPT, GTFS, TransXChange, NeTEx, and bus CAN, among others. This allows seamless information sharing between systems, whether the data is provided by GMV or third parties. This feature enables ITS Suite to integrate into multimodal environments and intelligent mobility initiatives.

MODERN, SCALABLE ARCHITECTURE

ITS Suite has been developed using the latest software technology to ensure high robustness and scalability. It is a cloud-native solution based on microservices. Each component functions independently, allowing quick and efficient addition of new functionalities while adapting to technological advancements without compromising platform stability. This architecture ensures high availability, scalability, resilience, and load balancing. The web interface allows access from anywhere via a browser, including mobile devices and tablets, offering full flexibility in user space and a professional design based on Material Design principles.

THE PLATFORM

ITS Suite offers a range of modular applications that enable:

- System configuration: designed to meet the needs of both large transportation consortia and smaller operators.
- Operations planning, scheduling, and assignment: allows operators to manage the entire operational cycle and handle unexpected situations.
- Real-time monitoring: optimizes service operations through complex regulatory decisions and temporary diversions.
- Business intelligence: provides predefined historical reports, service playback, and service performance graphs.
- Bidirectional communication: supports group and individual voice and data communication, both for static or dynamic groups.
- Alert and incident management: notifies the control center of any incidents affecting vehicle operations.



SYSTEMS

AUTOMATIC VEHICLE LOCATION (CAD/AVL)

ITS Suite enables real-time monitoring and optimization of operations, ensuring schedule adherence and quick response to incidents. It identifies delays and diversions, suggesting dynamic adjustments for more reliable service. It also provides operators and authorities with accurate data on fleet performance, optimizing resource use and reducing costs.

TICKETING

ITS Suite offers great flexibility by supporting multiple payment methods, including contactless cards, mobile phones, and QR codes, improving the user experience. Its multi-channel approach allows passengers to manage their accounts and top-up through web portals, mobile apps, physical ticket booths, or vending machines, offering maximum convenience.

With high adaptability, it supports dynamic pricing and advanced policies, such as daily or monthly capping. The flexible payment model (Pay-as-you-go) ensures users pay only for what they use, with no upfront purchases and maximum fare limits.

The open platform allows the integration of additional services, such as combined transport ticket and parking or bike rental purchases, offering a complete mobility solution.

PASSENGER COUNTING

Data from passenger counting sensors is sent to the Operations Control Center, where real-time decisions are made regarding occupancy levels or route adjustments. This process is powered by advanced technologies and AI algorithms, improving overall efficiency.

CCTV: VIDEO SURVEILLANCE

Systems onboard and at stations ensure greater safety for passengers, reduce risks, provide evidence, and help analyze past accidents to prevent future ones. Video feeds are transmitted in real-time to the Control Center and stored on buses. In the event of an emergency, the system automaticallycontacts the relevant emergency response services.

REAL-TIME PASSENGER INFORMATION

Provides accurate, real-time transport service information through various channels: onboard, at stations and terminals, customized websites, mobile sites, and apps. For better accessibility, *ITS Suite*'s passenger information module also delivers travel updates through public announcement systems onboard and at stations and stops.

ECO-DRIVING

GMV's onboard devices collect driving quality data from the CAN bus, allowing transport companies to make informed decisions that enhance passenger comfort, reduce maintenance costs, promote eco-friendly driving habits, and ultimately increase safety for both passengers and drivers.

ANALYSIS AND OPTIMIZATION

ITS Suite facilitates operational optimization by analyzing key data such as schedule adherence, vehicle occupancy, and fleet performance. It enables data-driven decision-making, identifies areas for improvement, and offers opportunities to optimize routes and services. Transparency is maintained through detailed reports for authorities and stakeholders, and operational inefficiencies are identified and addressed to reduce costs and improve efficiency.







