



## Intelligent Transit Management System for Surat

**Surat Municipal Corporation (SMC) recently awarded the contract to design, implement and operate a city wide integrated platform for its various transportation needs, to ARS Traffic & Transport Technology (ARS T&TT). The scope includes operations of public transportation including BRTS and city buses and management of vehicles operating for other civic services such as solid waste, engineering and emergency services. Through this engagement SMC aims to enhance its operational capability, citizen's satisfaction, reliability and on-time availability of its services offered through various departments; and to bring in best-in-class operational efficiency and automation to its operations capability.**

The Intelligent Transit Management System (ITMS) currently being implemented by ARS T&TT shall enable SMC to meet its objectives of enhancing service standards, optimizing planning and operations, integrating transit systems and bringing about a paradigm shift in the quality, availability and consistency of its services. The system, when commissioned fully shall help SMC to automate its operational processes with respect to mobility management and provide better insight into its operations, one of its key business needs. The other key business objectives that SMC aims to achieve with the implementation of the system are noticeable economic benefits and convenience to the citizens through reduced journey times and increased reliability, improvements in safety and quality of air, easier service accessibility, increased citizen trust in civic services and better operations management capability.

As a part of this contract ARS T&TT is entrusted to manage the real-time tracking of 160 BRT buses, 200 city buses and over 500 other departmental vehicles such as such as solid waste, engineering and emergency services. The scope also includes management of four BRT bus depots for SMC. It is also within the scope of ARS T&TT to manage the delivery of real-time travel information about bus service numbers, arrival/departure times, unplanned and scheduled changes etc for commuters through over 100 passenger information displays installed at the BRT stations and over 800 displays installed at city bus stations in Surat. Commuters can also access this information through the SMC website & mobile app provided by ARS T&TT.

The key components of the comprehensive city management platform for SMC include Automatic Vehicle Location, Public Information Display, Depot Management, Incident Management, BI and Enterprise Management. All the ITMS functions of SMC shall be centrally managed by a Central Control Centre operated by ARS T&TT.

ARS T&TT has adopted a staged approach for the implementation of the ITMS system for Surat.

The basic infrastructure which includes the Central Control Centre and the automation of the BRTS is being implemented in the first stage. The integration of the city bus operations and other department vehicles such as emergency services and other civic services shall be a part of stage two.

The integrated mobility platform which forms the heart of the control centre helps SMC to manage planning, dynamic routing and scheduling of vehicles and drivers efficiently. The system translates SMC's operational business processes into intuitive GUI based system functions which help the dispatchers to make prompt and informed decisions that optimize the operations. Various parameters such as working time directives, shift scheduling, vehicle maintenance scheduling and customer constraints are taken into account for arriving at optimal decisions. For ensuring the smooth operations along the managed routes, alerts regarding potential delays due to unforeseen conditions such as traffic congestion or breakdowns are sent to the stakeholders from the system.



The Central Control Centre shall play a major role in consolidating the vehicle management of other civic services in the next stage of the implementation. It shall also help in optimizing the response times in attending to incidents by providing GPS based dispatching and navigation assistance to the concerned vehicles such as ambulances, cranes, fire engines and police vehicles. Traffic data collected from various sources shall be transformed to meaningful and actionable information to help authorities make well informed business decisions. Enterprise Management Systems deployed along with other ITMS components shall help SMC to improve operational efficiency, reduce cost and elevate user/stakeholder experience without compromising on reliability.

### Further enquiries

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