US

Atlantic City Brigantine Connector (ACBC).
Central Monitoring & Control Software (CMCS) System.

The South Jersey Transportation Authority (SJTA) awarded Kapsch TrafficCom a contract to provide an upgrade to the Central Monitoring and Control software used by SJTA to cost-effectively manage traffic and operations for the 2.5 mile Atlantic City Brigantine Connector (ACBC) Tunnel that connects the Atlantic City Expressway with Route 87 in southern New Jersey.

Kapsch's DYNAC® ATMS/SCADA software modernizes tunnel operations, improves incident management, tracks and maintains field resources, enables efficient sharing of traffic data with other regional agencies, and disseminates traffic related info to motorists. The innovative software platform foundation also prepares SJTA for the future emerging Vehicle-to-Vehicle (V2V) and Vehicle-to-Infrastructure (V2I) market, making SJTA controlled roadways V2X ready.

DYNAC serves as the backbone for integrating the various tunnel monitoring and control systems currently used by SJTA into one system. Integrating these Supervisory Control and Data Acquisition (SCADA) based systems allow road operators to control ventilation (jet fans and dust collectors) and monitor air quality measurements, alerts, fire detection and alarms. Additionally, staff can monitor and detect traffic density, accidents and emergency communications such as emergency telephones, all critical elements in preventing an emergency from becoming a crisis situation.

Tunnel ventilation systems play a key role in maintaining healthy air quality standards within the facility and provide smoke control in emergencies such as tunnel fires. Other functions of the system include control of jet fans to regulate the amount of emissions exhausted from tunnel portals and ventilation shafts, operation of the system at full design duty under elevated temperature conditions, and cooling of the tunnel environment if high temperatures occur.

Additionally, the streamlined system allows control room personnel to manage ITS devices such as CCTV, Dynamic Message Signs (DMS), tunnel Over Height Detection (OHD), and tunnel Lane Control Signs (LCS). With the use of a scalable NTCIP compliant software package such as DYNAC, Kapsch was able to utilize existing SJTA ITS field devices even though it involved devices manufactured by different vendors.

South Jersey Transportation Authority (SJTA) was established by the Legislature in June 1991 to assume operational responsibilities for the Atlantic City Expressway, Atlantic City International Airport terminal, and parking facilities in Atlantic City. As a successor to the New Jersey Expressway Authority and Atlantic County Transportation Authority (ACTA), the SJTA serves six counties — Atlantic, Camden, Cape May, Cumberland, Gloucester, and Salem.

System features

- DYNAC® Software
- Decision Support Management
- SCADA
- Vehicle Incident Detectors (VIDS)
- Tunnel Over Height Detection (OHD)
- Tunnel Lane Control Signs (LCS)
- Integrated Audio Management
- CCTV
- DMS
- Portable VMS
- Browser-based User Interface
- NTCIP Compliant
- Video Wall Integration
- Integrated Rail Signal & Gate System

References

Client	South Jersey Transportation Authority
Location	Atlantic City, New Jersey

Kapsch TrafficCom.
Kapsch TrafficCom is a provider of intelligent transportation systems (ITS) in the application fields of road user charging, urban access and parking, road safety enforcement, commercial vehicle operations, electronic vehicle registration, traffic management and V2X cooperative systems. We cover the entire value creation chain of our customers with end-to-end solutions. From components and subsystems to their integration and operation. Our core business is to design, build, and operate electronic toll collection systems for multi-lane free-flow traffic.

About Kapsch Group.
Kapsch is one of Austria's most successful technology corporations to specialize in the future-oriented market segments of intelligent transport systems (ITS) and information and communications technology (ICT). Kapsch. Always one step ahead.

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