

# Cubic Transport Management

The Future of Integrated Transportation Management





# The Evolution of Integrated Transportation Management

**Cubic Transport Management is an innovative, next-generation cloud-based traffic and transportation management, information and control platform designed to collectively support all aspects of transportation.** By replacing out-of-date components with current strategic level technology, Cubic Transport Management enables the management of all customers' assets such as road, train, light rail, buses and ferry through a single open platform and shared operational view.

The platform for this flexible and scalable environment allows transportation management centers to proactively manage multimodal transportation networks and provide safe, secure and reliable journeys for all users. Reliable public transportation and the resulting environmental benefits create a more liveable city for everyone: authorities, businesses, and citizens.



...Cubic Transport Management enables the management of all customers' assets through a single open platform providing a shared operational view.

Our extensive product development program ensures that existing products meet changing customer requirements and new products are developed as technology changes. With Cubic Transport Management, an integrated single-system platform with real-time traffic/transportation management, Cubic is reinventing the global transportation industry.

### Cubic Transport Management offers:

- **Improved network efficiency** - eliminates the overhead of managing multiple unconnected systems
- **Demand management** - provides a real-time view across all modes of transportation to allow travelers to make better informed journey decisions

- **Improved utilization of resources** - supports multimodal networks, infrastructure and workforce
- **Increased availability of customer assets** - improves incident management and clearance times
- **Improved situational awareness across all transportation networks and modes** – enables more informed strategic decisions to assist and support in times of crisis and in an ever-changing world

### Holistic view

With Cubic Transport Management, the processing, monitoring, controlling and management of all traffic/transportation elements using numerous disparate systems is integrated into one platform. Data analytics and visualization are combined across multiple modes of travel and presented to the operator through one common operating picture. This web-based picture is accessible by authorized staff from anywhere, on a tablet or mobile device. An added benefit is the use of combined reports and integrated data analytics for communication to key stakeholders and for future planning.

### Built to evolve with user needs

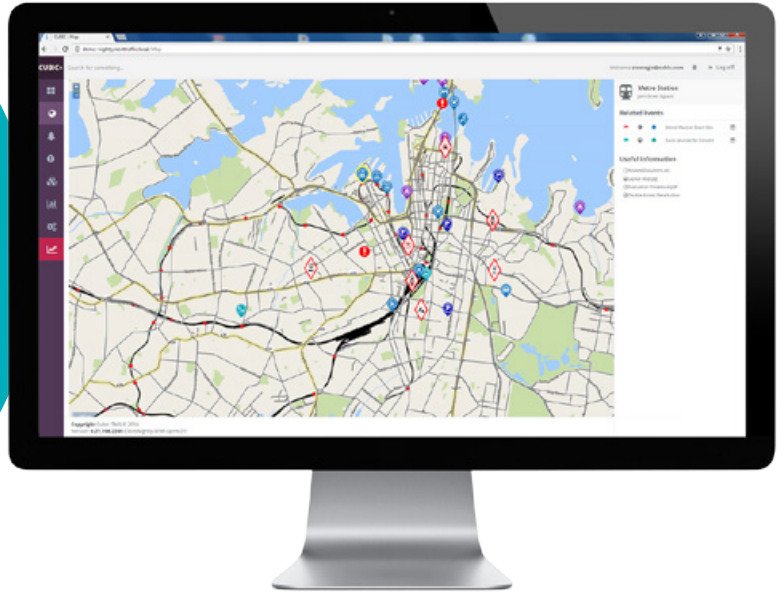
The platform is built using current industry-standard software components to provide an open data-sharing environment. This allows your system to evolve as new operational requirements are needed and the latest advancements impact the traffic/transportation management landscape. Key modes of travel such as roads, rail, light rail, bus and ferry can be integrated with this fully modular and scalable platform.

### Protect your existing investment

By integrating your legacy systems and third-party products into one environment, the result is a future-proof, scalable solution providing more consistent door-to-door journeys for end users.



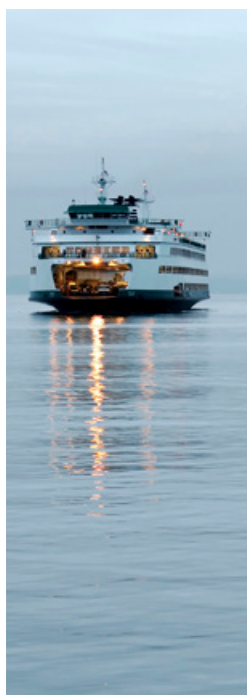
- Scalable and cost-effective
- Easy legacy systems integration
- Flexible and open architecture
- Needs-based hosting options
- Customizable solutions



### Influence traveler behavior

With this single user interface, emerging issues and disruptions across an entire multimodal network are identified in real time. This information in turn can be communicated to travelers through a variety of channels, allowing them to adjust their route or timing of their trip. Customers changing their journey results in improved efficiency of the network and lessens traffic congestion which in turn leads to a reduced impact on the environment. Ultimately the number of traffic injuries and fatalities also decrease when travelers avoid congested and weather-affected areas.

The platform for this flexible and scalable environment allows transportation management centers to proactively manage multimodal transportation networks and provide safe, secure and reliable journeys for all users





## Cubic Transport Management



| Applications                  |                      |   |                              |                                  |                              |                              |   |
|-------------------------------|----------------------|---|------------------------------|----------------------------------|------------------------------|------------------------------|---|
| Traffic Signal Management<br> | CCTV<br>             | Detectors<br>                                 | Connected Vehicle Portal<br> | Adaptive Ramp Metering<br>       | Variable Speed Control<br>   | Dynamic Lane Control<br>     | Integrated Corridor Management<br>                      |
| Changeable Message Signs<br>  | Video Management<br> | Asset Management/<br>Maintenance Dispatch<br> | Weather Sensor<br>           | Traveler Information Systems<br> | Real-Time Data Analytics<br> | Communication Monitoring<br> | Other Existing and Future Transportation Management<br> |

◀ DATA FROM DISPARATE SOURCES IS INTEGRATED INTO ONE COMMON OPERATING PICTURE PROVIDING ENHANCED SITUATIONAL AWARENESS AND THE ABILITY TO MAKE MORE INFORMED DECISIONS

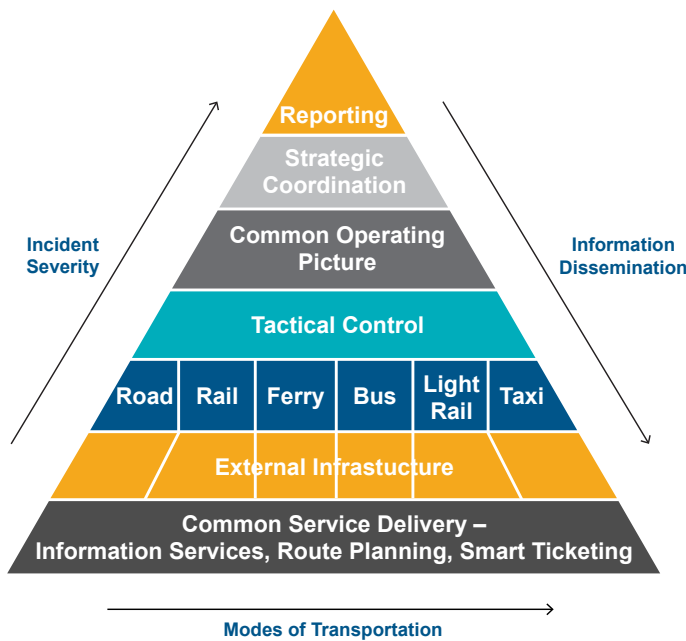
As the system integrator, Cubic will configure the right solution to integrate all subsystems for an agency's long-range transportation strategies and systems including:

- Integrated corridor management
- Traveler information
- Demand management
- Transportation model
- Connected vehicles and urban automation
- Smart sensors
- Urban analytics
- Innovative mobility services
- Assistive technologies for disabled travelers
- Autonomous vehicles
- Other transportation systems

Cubic's integration platform provides the architecture to combine existing and new commercial-off-the-shelf (COTS) solutions to provide traffic/transportation management, data integration and collaboration-assist logic for decision-support processes.

The common interface provides intuitive, map-based access, facilitating a high degree of integrated situational awareness across all systems. This includes fusing data for all modes of transportation, implementing signal plans and control strategies that affect changes in the overall transportation system, and disseminating transportation information to those that need to know. Integration with the predictive models allows incident responses to potentially be identified in advance of their occurrence enabling operational interventions to be made to minimize the potential impact and reduce any adverse impact of travel times.

## Cubic Transport Management Scalability



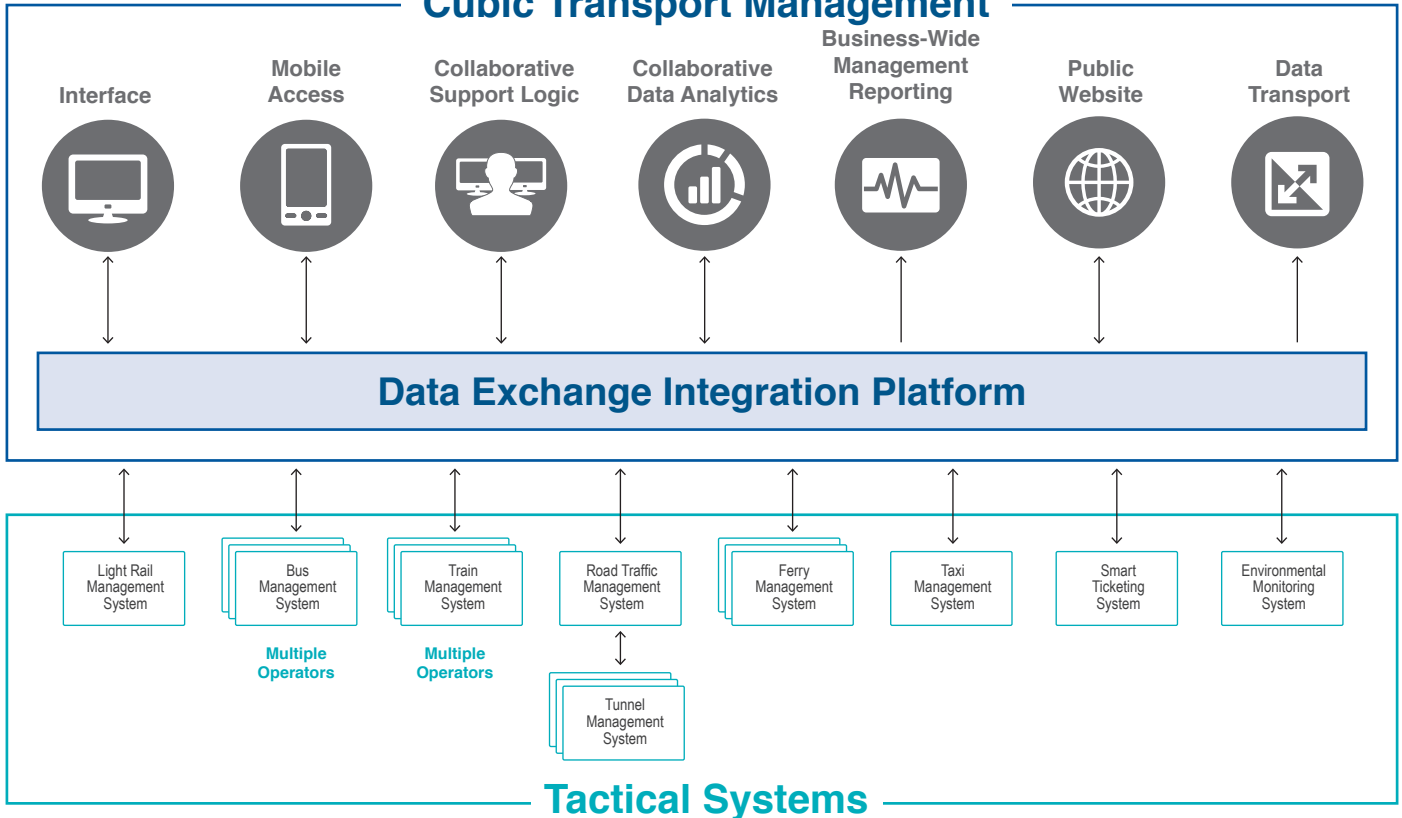
- **Expandable in terms of assets and geography**
- **Capable of managing a single city or an entire region's transportation issues**

◀ AN INTEGRATED VIEW OF THE ENTIRE NETWORK ENABLES STRATEGIC TRANSPORTATION MANAGEMENT ACROSS MULTIPLE MODES

### Customizable solutions

**Cubic Transport Management is a base integration platform which serves as a foundation for solutions structured to meet the specific operational needs of multimodal network clients.**

# Cubic Transport Management



◀ EXISTING SYSTEMS ARE INTEGRATED INTO ONE PLATFORM ALLOWING OPERATORS TO STRATEGICALLY MANAGE ALL TRAFFIC/TRANSPORTATION ELEMENTS

The platform enables new business and operational models by taking advantage of cloud-hosting benefits for Software-as-a-Service (SaaS) and Platform-as-a-Service (PaaS) offerings widely available on the market today in other domains. Cloud hosting and flexible operations options lead to cost savings in equipment and personnel, and quicker and more efficient disaster recovery performance.

## NextCity – building a smarter tomorrow

Cubic Transport Management Platform is inspired by NextCity, Cubic’s vision for city management and integrated traveler payment and information that centers on three core principles: the delivery of an integrated customer experience, one account and integrated operations and analytics.

As the world’s population moves to urban centers, the result is greater traffic congestion, frustrated travelers and lessened productivity. Intelligent and actionable information is the key to ensuring that everything is running as smoothly and efficiently as possible within the travel networks – and will empower travelers to make smarter, more informed decisions based on facts.

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NextCity provides a roadmap for a coordinated framework –using legacy and emerging payment methods and information systems to integrate all travel information and payment, customer experience, operations and analytics in the region for all modes of transportation.

The NextCity vision is built on a model for real-time data gathered across a transportation network through payments, sensors and other touchpoints, increasing travel efficiencies without losing individual authority flexibility. For travelers, this means personalized, actionable information sent directly to their mobile device, all supported by a single account to pay for their entire trip.

### Cubic – a leader in intelligent travel solutions

At Cubic, we believe our identity is intrinsically linked with our customers, and the people our customers serve. How they get from one place to the next – how that impacts their lives, their fellow travelers and their cities – and how it feels along the way.

That’s why we’re passionate about developing transportation solutions that improve the way we move throughout cities. Innovation is in our culture, and our history speaks for itself. In our 45-year history, we’ve delivered transit fare collection systems to over 450 operators, including 20 regional back office systems, and traffic and transportation management systems for major cities and regions on four continents.