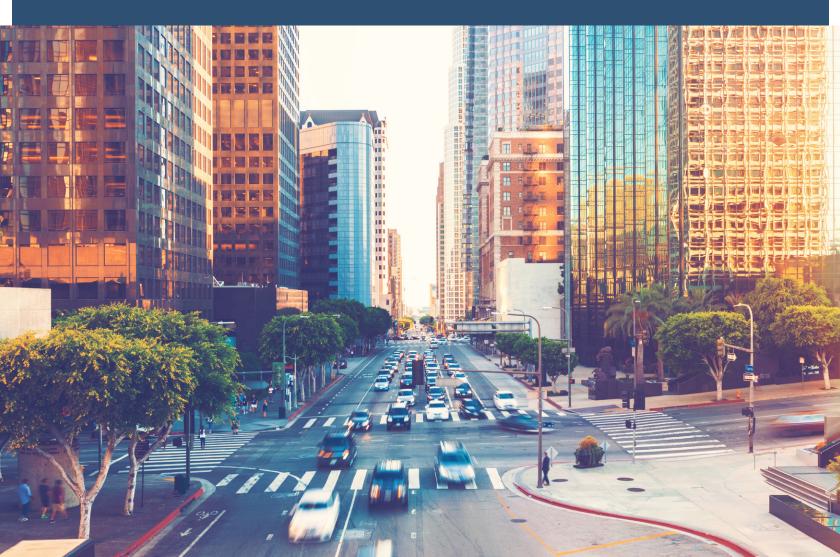**CONDUENT**
Transportation

Road Usage Charging Solutions

A complete suite of tolling and congestion management solutions
for increased mobility

While cities and regions continue to face problems with congested roadways and increased traffic, there is a lack of funding to support needed infrastructure upgrades to relieve this congestion.

On behalf of government agencies and tolling authorities, Conduent Transportation delivers mission-critical road usage charging, management, and back-office processing solutions that improve automation, ensure accurate and timely payment transactions, and enhance decision-making. This experience and tolling solution set allows us to support our clients by helping to streamline operations, increase revenue, and reduce road congestion while creating seamless experiences for travelers.

For more than 25 years, Conduent Transportation has supplied tools, technology, and guidance for launching successful transportation solutions that are at the forefront of congestion management. As the transportation challenges have evolved, so have our solutions. When a tolling solution is not enough, Conduent Transportation also supports full-scale congestion management solutions that take a holistic, multimodal approach to improving mobility for constituents within a city.

Tolling Solutions

Road managers and agencies are faced with the ever-changing challenge of improving the daily mobility of people, freight, and other commerce. Conduent Transportation has an array of tolling solutions to increase and manage your traffic flow. We can help you design, implement, and operate the best combination for your agency.

Electronic Toll Collection Roadside System

Electronic Toll Collection Roadside System
It's in your best interest – as well as ours – to increase operational efficiencies wherever possible. Conduent Transportation will install all required hardware and related software needed to deliver a fully functional tolling system. Our complete Electronic Toll Collection Roadside System for ORT/AET lanes provides accurate, reliable, and fast vehicle transaction processing and outputs high-quality images optimized for manual and automated license plate recognition. Our system ensures the transactions are accurate and the most revenue can be collected on behalf of the city.

Tolling Insights Solution

Tolling Insights Solution

Our Tolling Insights Solution provides the client with a fully integrated, cloud-based account management and video processing solution that can handle all back-office functions of tolling processing. Key functions include:

• Browser-based client application
• Full-featured contact center application with omnichannel communication options with customer service representatives
• Electronic tolling video and invoicing
• License plate recognition image processing
• Case management
• Data storage
• Financial reporting, analytics
• Performance monitoring of the management system

By combining electronic toll collection and intelligent transportation system technologies, we've created a best-in-class traffic management system with configurable business rules and parameter-driven functionality.

Capture example of Vehicle Passenger Detection System

Vehicle Passenger Detection System

Conduent™ Vehicle Passenger Detection System (VPDS) can determine HOV status with automated accuracy of 95%, and accuracies above 99% when combined with our state-of-the-art Image Review System -- all this at speeds ranging from stop-and-go to 100 mph. The system uses video analytics and geometric algorithms to detect whether a seat is vacant or occupied. If the setting on the HOT lane transponder doesn't match with the number of occupants, the system will take a snapshot of the vehicle's license plate and alert law enforcement to the violator. VPDS has been awarded multiple patents for the use of video imaging, computer vision, and machine learning in the detection of occupants using its geometric algorithms to reduce false detection due to fraud or abuse via non-human riders (i.e., dummies, animals). This system has been proven at multiple installations around the world and is "live" in numerous cities in the United States.

Automated License Plate Recognition

Automated License Plate Recognition

Automated license plate recognition (ALPR) is an essential aspect to any toll collection program. While most vehicles traveling on toll roads will likely have a transponder, others will not. If there isn't a way to identify the vehicles accessing the toll roads, tolling agencies lose revenue that could be reinvested into transportation projects. Conduent™ Automated License Plate Recognition has been awarded 19 patents in the use of computer vision and machine learning algorithms for its extremely accurate Optical Character Recognition (OCR), able to detect differently designed plates across various states and in various lighting conditions.

Urban Congestion Management Solutions

As cities and regions face clogged roads and revenue shortfalls, new tolling techniques are emerging to combat these challenges. Congestion pricing is a new technique in which toll fees may dynamically fluctuate depending on the amount of congestion in an area of a city or a highway. As an alternative to tolls being based on a flat fee, congestion pricing techniques may encourage drivers to take alternative methods of transportation during peak times of congestion. At Conduent Transportation, we believe that the future of traffic management is more than just congestion pricing – the future is entire congestion management solution—taking a holistic, multimodal approach that includes more than just tolling. Agencies also need to think about transit connections, curbside management, enforcement and how highly automated vehicles will change things in the near future.

Dynamic Mobility Solutions

Dynamic Mobility Solutions

Conduent Transportation's Dynamic Mobility Solutions is a complete set of congestion management solutions that work to reduce traffic and gridlock in cities and regions, improving mobility for constituents. Conduent Transportation has the only solution that can combine road usage charging, curbside management, transit, and violation processing into one single mobility solution. We integrate human-centric design, dynamic pricing, advanced imaging, and platforms that can stream data from multiple sources to create the most advanced congestion management programs for your city or region. Use of multiple charging techniques (cordon, zonal, and road usage) and pricing techniques (dynamic, time of day, variable) to encourage drivers to take alternative routes and different ways to travel, reducing congestion on the main roads.

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