

Transit Tech Spotlight™:

Trip Planning – Fare Payment – Integration

Technology is changing the way transit agencies help individuals plan and pay for trips. Integrating innovative planning and payment solutions can help agencies streamline operations, improve customer service, and support overall ridership growth. However, adopting the right technologies and figuring out how to pay for and integrate those technologies can be a daunting task.

The Coalition for Smarter Transportation assembled this Transit Tech Spotlight for a variety of trip planning and fare payment products. We included information which highlights how different Federal funding programs can be used to plan and pay for technology integration. In addition to this tech spotlight, CoaST will be developing a series of webinars that focus on the products and services below.

This paper will highlight three types of products:

Trip Planning

Trip planning products and services provide real-time information to users that helps them plan multimodal trips. Providing customers with real-time data and information in an easy to access form helps users make better transportation choices and encourages transit ridership.

Fare Collection and Management

These products come in a variety of forms that improves user access and payment for transit. Use of innovation can help agencies set fare policies, integrate multi-modal options, and market transit through interested stakeholders such as developers and employers. These products allow users to easily pay for transit and other forms of transportation through a seamless and easy to use process that increases transit ridership and reduces the cost and hassle of fare collection.

Planning and Integration

While hardware and software are critical aspects of Smarter Transportation, agencies should also recognize they need assistance with developing and implementing a roadmap to success. These companies can help agencies create and execute that roadmap.



Contents:

Using Federal Transit Administration (FTA) Funds for Innovation in Transit

Spotlight: Trip Planning

- TransitScreen
- RouteMatch – RouteMatch Mobility
- Iteris – SafeTravel

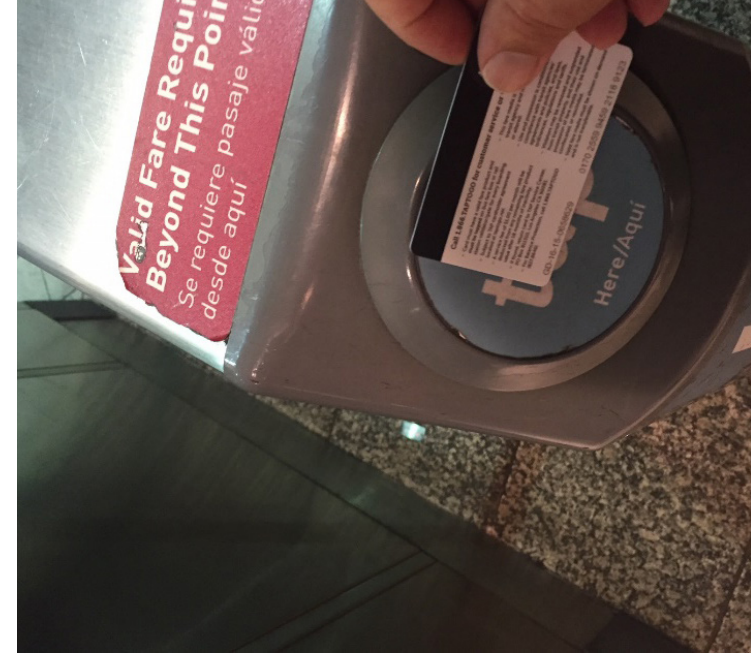
Spotlight: Fare Collection and Management

- Cubic - Next City - Urban Revenue Management
- Anaheim Resort Transportation - Ride ART
- Conduent - VPE 430 universal validator
- King County - Transit GO Ticket
- RouteMatch – Routematch Pay
- Masasbi – Just Ride
- Edenred Commuter Benefit Services - Commuter Benefit Solutions
- Carma – Pool Rewards
- TokenTransit
- RideAmigos

Spotlight a Planning and Integration

- Engie - Navineo ITSS (Intelligent Transportation Systems and Services)
- Intueor - Fare Collection and Integration Consulting Services
- Conduent - ATLAS fare collection back office

CoaST Policy Recommendation



Using FTA Funds for Innovation in Transit:

Procuring Technology

Almost any FTA formula funds can be used to procure trip planning, fare payment, or integration technology. Under the transit title of US code, the term capital project includes: “the introduction of new technology, through innovative and improved products, into public transportation”.

Additionally, discretionary programs such as ‘[Bus & Bus Facility](#)’, ‘[Mobility on Demand Sandbox](#)’, and the Department of Transportation’s ‘[Advanced Transportation and Congestion Management Technologies Deployment](#)’ program are all programs that can be used to pay for such innovation.

Planning for Innovation

Like procuring technology, most FTA formula funding programs can be used by an agency for planning and partnering with eligible firms to assist with the selection and integration of technology.



TRIP PLANNING

TRANSIT SCREEN

TransitScreen

TransitScreen is a data company that provides real-time information about how people get around cities. Its main product, TransitScreen, is a software showing all the nearby mobility options and arrival times for a given location. It is often found in apartment or commercial lobbies and can be installed on any television. TransitScreen's other product, MobilityScore, is a 0-100 scale measuring how easy it is to get around a particular location without a car. It considers not just public transportation but also newer mobility options such as bikeshare, carshare, and ride-hailing services.



Partnership Opportunities:

Open to a variety of partnership opportunities

Value/Benefits:

The benefits can vary depending on the customer, but at the most basic level TransitScreen is increasing ease of commuting. TransitScreen creates an overall better experience for the user by providing them with information and options in real time from the comfort of the home, office, or wherever TransitScreen is.



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ADDITIONAL CASE STUDIES:

<https://pittsmartliving.org>

<https://blog.transitscreen.com/transitscreen-completes-modernization-of-bay-area-transit-information-screens-for-mtc>

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TRIP PLANNING

Routematch

Routematch Mobility

Routematch's Mobility Platform is a flexible suite of integrated solutions that facilitate a rider-centric approach to providing personalized mobility services. It goes beyond simply providing microtransit or on-demand services; it facilitates a mobility ecosystem that allows for the creation of innovative multiple services across a community such as direct services (a.k.a. curb-to-curb) and transit feeders (curb-to-hub) to fixed route replacements (hub-to-hub), and intermodal (first/last mile).

Partnership Opportunities:

Pilot programs available; Partnerships and Contracts are inclusive of technology and services (consulting, implementation, etc.)

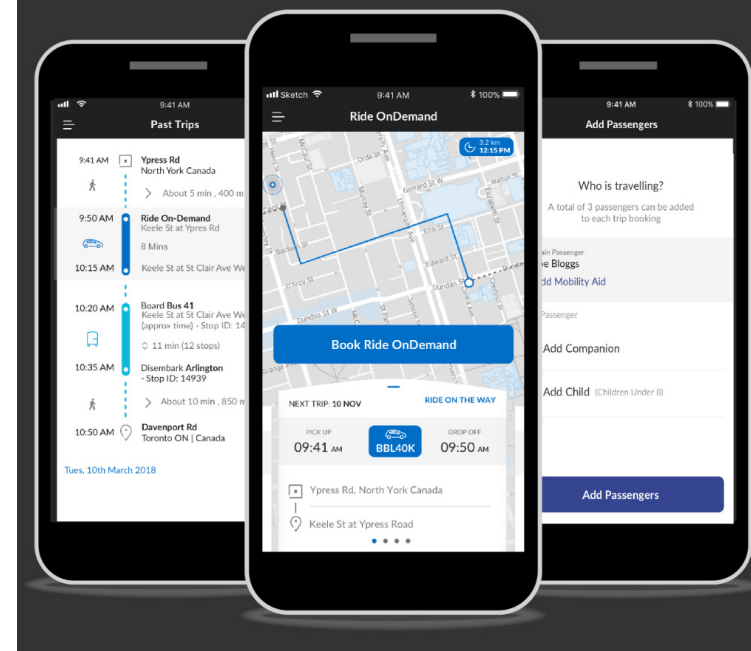
Value/Benefits:

Routematch's Mobility Platform is equipped with purpose-driven tools that measure the impact that service innovations have on riders and a community from health and environmental to socio-economic outcomes and more. Moving beyond traditional operational metrics is a necessity in the mobility landscape. Measuring outcomes are possible with tools like a rider dashboard that aggregates data for insight into the types of trips taken (medical vs. other), or the ability to gauge how your riders feel about themselves, or trend line views in order to know how you're progressing at any given time.



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ADDITIONAL LINKS:

<https://www.routematch.com/solutions/transit-operations/mobility/>

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TRIP PLANNING

iteris®

SafeTravel

SafeTravel is a one-stop-shop for your mobility needs. Iteris SafeTravel Mobile App features multimodal trip planning including transit, parking, bikesharing as well as highway conditions. Our app is able to provide information on both traditional lanes as well as HOV/Bus lanes so that consumers can determine how much time they will save riding the bus or sharing a ride.

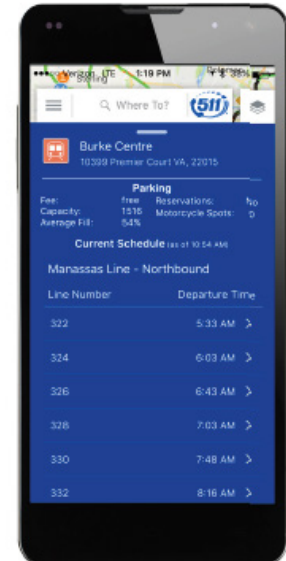
Partnership Opportunities:

Numerous partnership and contract opportunities available

Value/Benefits:

Through the understanding of increasingly complicated relationships between real-time mobility information, informatics creates the capability to provide contextual, real time, and accurate information to the traveling public enabling actionable information for more informed routing decisions, be it for parents to get to their kids or freight services optimizing routing from ports to points of sale.

Designed with the target audience of drivers, with the concept being to get a group of people that otherwise would not consider transit to think about their options, by putting the other options in the tool they already use to get their driving traveler information.



CONTACT



www.iteris.com/services/traveler-information



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TRIP PLANNING

rideamigos

RideAmigos

RideAmigos provides the leading cloud-based commuter management solutions for regional, corporate, and campus commuter networks. Top employers, universities and governments use our multi-modal travel dashboards, certified transportation commute compliance survey tools, mobile trip trackers, incentive management system, advanced location-based reporting, and more.

The customer-focused team is committed to supporting you with the best tools and program templates.

The RideAmigos Academy unites users with learning resources and other commuter management professionals to share best practices and discover collaboration opportunities.



Partnership Opportunities:

We are always looking for opportunities to collaborate with other industry leaders to make customers successful.

Value/Benefits:

RideAmigos helps business, government and educational organizations connect commuters in trusted networks, provide access to smart transportation options, and incentivize and reward sustainable choices.



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ADDITIONAL CASE STUDIES:

<https://rideamigos.com/portfolio>

CONTACT



<https://rideamigos.com>



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Fare Collection & Management



Next City - Urban Revenue Management

Cubic provides agencies and operators with a single solution for revenue collection across multiple transport modes, that reduces costs, improves customer experience, and enables the transformation to Smart Cities. Cubic's solutions cover all modes of transport including metro, bus, road, ferry, and rail.



Partnership Opportunities:

Cubic has many contracting models that fit the budget and scope of the agency from service based to traditional capital contract.

Value/Benefits:

By providing a single solution supporting a range of payment options, we enable our customers to avoid the costs of multiple solutions, multiple back office systems, and multiple customer service interactions. A core capability, One Account provides deeper insights into passenger behavior and a route to implementing Smart City scenarios, such as sustainable transport incentives.



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ADDITIONAL CASE STUDIES:

Bay Area-A Region on the Move

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Fare Collection & Management



Ride ART

The Anaheim Transportation Network (ATN) ridership is growing and more connected than ever to their mobile devices. Our ridership demands instant access to transit alternatives that provide cost and travel duration. In addition, riders primarily utilize public transportation to access events, theme parks, restaurants and hotels that requires the ability to purchase tickets for theme park or parking access prior to arrival. It is ATN's intent to provide transportation and travel information and the ability to purchase services through a single mobile application. When users purchase transit and travel services through the application, a processing fee for those services is shared between ATN and the mobile app developer. This profit-sharing agreement, will over time, reimburse the app developer and will allow for future revenue to continue/sustain the application. Additionally, it will provide a revenue stream for ATN to sustain or to deploy additional transit services.



Contractor:

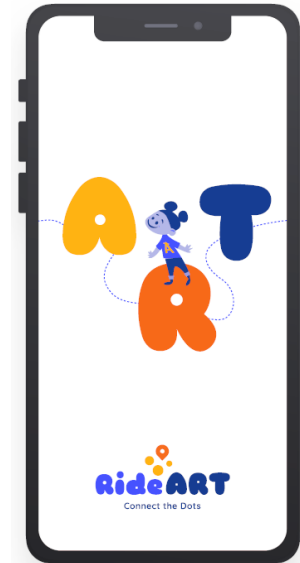
Routematch – Public Private Partnership (Shared Revenue)

Value/Benefits:

A multifunctional mobile ticketing app, on-demand and high frequency transit paired with a shared revenue business model provides a win-win-win the agency, users, and contractors. Through this program we believe ridership will increase and make it easy for residents and visitors alike to utilize the system. The revenue share model provides contractors with a performance based-up side.



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Fare Collection & Management



VPE 430 universal validator

Capable of reading all types of contactless media, the VPE 430 is a multifunctional, interactive validator attractively designed to resemble a mobile communicating device. Two versions are available: on-board and fixed for integration into a terminal or gate controller.

Partnership Opportunities:

SaaS contract and other partnerships

Value/Benefits:

Thanks to its display, sound and data input functions, the VPE 430 universal validator invites passengers to validate their journey, informs them of their ticket status, provides a map to help them choose their destination zone, thanks them for their patronage, etc. It displays and audibly announces the next stop, disseminates passenger information, broadcasts video clips, and even conducts on-board surveys.



Contactless card

ISO/IEC 14443 (A, B, B' type)

ADDITIONAL CASE STUDIES:

Pueblo Mexico

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Fare Collection & Management



Transit GO Ticket

Transit GO Ticket provides a mobile ticketing option for King County Metro bus, Sound Transit Link light rail and Sounder commuter rail, King County Water Taxi, Seattle streetcar, and Seattle monorail. Transit GO Ticket was introduced in 2016 as a fare payment option for infrequent customers to reduce on board cash payment.



Contractor:

Bytemark

Value/Benefits:

Metro has two primary goals with this product: improve customer experience and to speed boardings. In a survey of 2,000 users, 77% of customers reported being satisfied with the app and plan to use it again. As to reducing cash payment on the bus, 30% reported using cash in the past, while 25% reported using Transit GO Ticket as a backup to the ORCA card when their ORCA account ran low of funds. Metro is still collecting metrics on the impacts of reducing dwelling times at bus stops due to a reduction in cash fare payment.



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Initial Activation



Activation



On Tap



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Fare Collection & Management

Routematch

Routematch Pay

Routematch Pay is a cloud-based automated fare collection (AFC) solution offering a wide range of payment options for fixed route, demand response and paratransit services. Three core components of the Pay system can simplify and modernize your fare collection and management process. Riders enjoy the convenience of a secure, user-friendly system to manage their payments right from the web or their smartphones. Drivers are free from collecting and handling cash, allowing them to focus more on customer service and delivering a safe rider experience. Agencies experience a modernized back-office management system to easily oversee all fare collection and customer accounts

Partnership Opportunities:

Pilot programs available; Partnerships and Contracts are inclusive of technology and services (consulting, implementation, etc.)

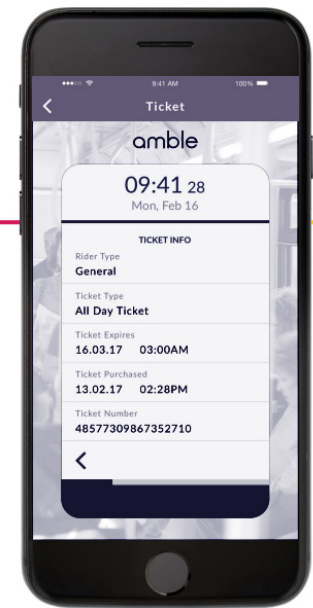
Value/Benefits:

The Routematch Pay solution modernizes your operations and reduces expensive cash management costs. Agencies benefit from reduced vehicle dwell time and enhanced visibility of fare collection. Routematch Pay increases rider loyalty by transforming the rider's experience – and at the same time provides your agency with additional insight into how riders use and pay for services.



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ADDITIONAL LINKS:

<https://www.routematch.com/wp-content/uploads/2017/09/Brochure-Payments-2017.pdf>

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Fare Collection & Management



Masabi - Justride Mobility Platform

Masabi provides Software-as-a-Service (SaaS) ticketing and payments to public transport agencies of all sizes around the globe. Whether looking for a mobile ticketing system, want to enable Mobility as a Service (MaaS), or require an account-based full fare collection solution using a contactless bank card, mobile device or smartcard, Justride is the platform for you. Account-based full fare collection ticketing systems used to take years to deliver and cost hundreds of millions, or even billions, to deploy. This is no longer the case with Justride. Masabi is the category creator for transit mobile ticketing and with over 40 clients across 4 continents the Justride mobility platform is the most widely deployed end-to-end mobile and account-based ticketing solution in operation, serving the largest agency in the USA to the smallest bus operator. It has offices in New York, London and Cluj and investors include Mastercard and Keolis.

Partnership Opportunities:

All partnerships and service contracts

Value/Benefits:

Justride helps reduce the total cost of fare collection for agencies while helping connect public transport to private mobility for seamless passenger journeys. Our system removes the need for riders to wait in line for tickets, increases agency efficiency and enables rich data insights. Because we are a SaaS platform we are constantly updating and improving the system.



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ADDITIONAL LINKS:

<http://www.masabi.com/transportation-case-studies/>

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Fare Collection & Management



Commuter Benefit Solutions (ECBS)

Edenred Commuter Benefit Solutions (ECBS) is the nation's only comprehensive commuter benefit solutions provider and number one resource for commuter savings, providing a total commuting solution for employers and their employees. At its core, ECBS provides a variety of products and solutions that not only provide fare media, but also facilitates tax savings provided through employer sponsored transportation benefit programs. In addition, ECBS provides a host of other programs that provide employees with options, including bicycle benefits, guaranteed ride home programs, and other commuter perks. Edenred Commuter Benefit Solutions' mission is to make tax-free commuter benefits a staple in employee benefits packages nationwide.

Partnership Opportunities:

Service contracts for ridesharing/hailing, parking, broker/referral opportunities and more.

Value/Benefits:

Commuter Benefit Solutions offers programs designed for national organizations, large and medium-sized companies and small businesses. Each program offers a full range of products for employees and specialized commuter benefits support and service for employees and employers. By leveraging the tax benefits provided through qualified transportation fringe benefits, Commuter Benefit Solutions is able to engage employers and work with them to provide a variety of transportation options increasing transit ridership and creating a true multimodal network.



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Fare Collection & Management



Token Transit

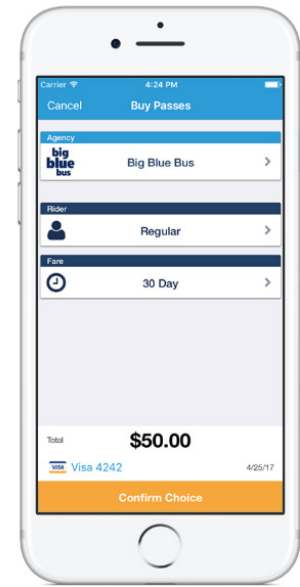
Token Transit is a single mobile ticketing and pass distribution platform for public transit agencies nationwide. Riders download the Token Transit app, buy transit passes and use their phone as fare media. Agencies can launch Token Transit in hours, realize their pass distribution potential and analyze the wealth of ridership data. Token Transit includes a detailed analytics dashboard that allows agencies to track sales, activations and uses. Additionally, the system integrates with existing backends.

Partnership Opportunities:

Seeking Contracting Opportunities

Value/Benefits:

Provides an easy to adapt mobile ticketing platform that has high customer approval and provides numerous data analytics that can be used for planning and customer service. The app works for agencies of all sizes.



ADDITIONAL LINKS:

Partner Agencies

CONTACT



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Fare Collection & Management



Carma TripRewards

Carma Trip Rewards allows agencies to integrate multimodal transportation payment and rewards through one simple app. Carma TripRewards allows municipal governments and transportation agencies to set fare policies based upon a single trip, or dynamically based functions such as time of day, occupancy of the vehicle or physical length of the trip. In addition, Carma TripRewards allows agencies to set multimodal rewards that provide users with credits, reduced fares, or other rewards for carpooling, traveling during certain times, or avoiding major bottlenecks. Carma's technology can be used to verify occupancy of a carpool as well as verify when someone has gotten on or off a bus, allowing for seamless and touchless payment and numerous multimodal operations.

Partnership Opportunities:

Seeking Contracting Opportunities

Value/Benefits:

Provides an easy to adapt payment and rewards platform that can be used to pay for transit as well as incentivize alternative forms of transportation outside of traditional transit.



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Planning & Integration



Navineo ITSS (Intelligent Transportation Systems and Services)

The Navineo ITSS is an advanced CAD/AVL solution aiming at giving dispatchers and operators the tools to best monitor their bus and rail fleet, in real-time. One of the main operations advantages is the headway management features, helping agencies reduce their bus bunching and better manage headway. All information is created and pushed in real-time to any customer facing application for a better communication with transit riders. All data and information are stored in the database for deep analysis, helping agencies optimize their system from data driven action.

Partnership Opportunities:

We are looking to work and partner with public transit agencies to improve bus and rail operations through technology.

Value/Benefits:

Our Navineo solution helps transit agencies and operators improve their operations efficiency and passenger experience, by providing real-time operations management and information update to travelers.



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ADDITIONAL LINKS:

[www.masstransitmag.com/
article/12389185/boosting-operations-
efficiency-thanks-to-cad-avl-data](http://www.masstransitmag.com/article/12389185/boosting-operations-efficiency-thanks-to-cad-avl-data)

[https://www.youtube.com/
watch?v=zRgN4G1LZt4](https://www.youtube.com/watch?v=zRgN4G1LZt4)

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Planning & Integration



Intueor Fare Collection and Integration Consulting Services

Intueor Consulting, Inc. provides strategy, operations and business technology consulting for the private and public sector. Specifically, Intueor can assist transit agencies and other municipal governments develop a roadmap to plan for, procure, and implement smart transportation solutions related to trip planning, integration, and fare collection. Specifically, Intueor helps clients with (a) Strategy Formulation and Development (b) Strategic Planning and (c) Organizational Design and Organization Structure.

Partnership Opportunities:

Partnership, Teaming Arrangement

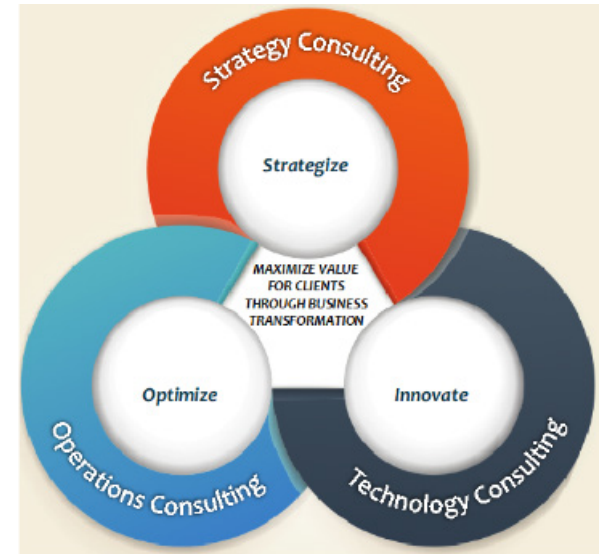
Value/Benefits:

Our work is simply value based, and is backed by years of proven experience, deep insights into industries and their nuances, and seasoned consultants who are committed to changing the status quo. We offer a multitude of services across three core practices – Strategy, Operations and Technology. Our strategy services for clients lead to proactive business transformation. Operations Consulting: We help public sector agencies review, examine and assess their business operations to determine if their performance is on par with their mission, OR in tune with the changes occurring inside or outside their organizations. Technology Consulting: We ensure that our clients realize the fullest value from their technology investments and assist them in implementing innovative technologies to support their business priorities – in a cost-effective, and low-risk fashion.



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Planning & Integration



ATLAS fare collection back office

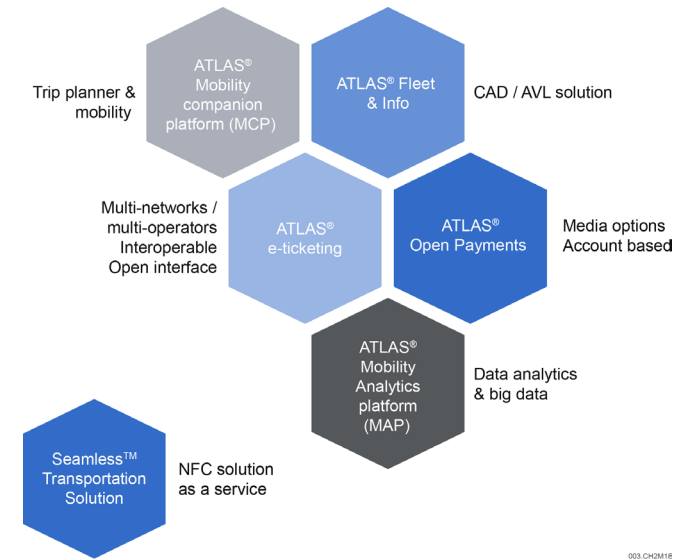
Conduent provides the ATLAS fare collection back office which is a multi-tenant, account-based platform serving agencies and riders. Open architecture APIs allow interoperability with multiple third-party providers. The service is built on proven e-ticketing base module supporting all payment types. Modular design supports many levels of function based on agency needs.

Partnership Opportunities:

SaaS contract and other partnerships

Value/Benefits:

The Atlas fare collection back office solves complicated technical issues that can prevent ease of use for the customer. By providing an open platform, agencies can provide riders with seamless payment options for their transit needs.



ADDITIONAL CASE STUDIES:

Conduent Transit Systems

CONTACT



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Policy Recommendations

Increased Investment in Innovation is Smarter Transportation – Technology is improving the way we do almost everything, yet in many ways, transportation agencies are yet to fully embrace innovation. Innovative technology and business practices need to be tested and deployed. A smarter transportation system includes focused investment and policies that encourage innovative solutions and business practices.

Federal Policy

- Establish an Innovation Grant Program that allows agencies to focus on integrating innovative transportation business practices and solutions
- Promote and require open data sharing between public and private organizations to encourage additional collaboration and integration
- Additional technical assistance and guidance should be offered by the FTA including best-practices and technical assistance to agencies looking to implement innovative trip planning and payment technologies

Local Policy

- Transit agencies and municipal governments should place a priority on establishing multi-modal trip planning and payment programs that allow for consumers to plan for and pay for multimodal trips
- Local land-use and development policies should include provisions that require developers and employers to provide multi-modal trip information for their tenants/employees



Join CoaST

Why your organization should join CoaST

The Coalition for Smarter Transportation is the only organization dedicated solely to providing advocacy, education, and outreach regarding smarter transportation policies at the Federal, State, and local level.

Who Should Join

- Private sector mobility companies
- State and municipal governments – including planning agencies
- Transportation stakeholders, consulting firms, and business organizations
- Universities, and;
- Other transportation organizations dedicated to CoaST's goals.

What Do We Offer? How Can We Help You Achieve Your Goals

CoaST provides education, outreach, and advocacy for Federal, State, and local policies that make our transportation system smarter. CoaST realizes that in some cases, the will to enact smarter transportation policy is there, it is technical assistance that is needed. That is why we have assembled experts from around the world to help implement and execute Smarter Transportation. Whether you are a local government seeking assistance to identify the best in smarter transportation policies or you are researching the best practices to implement smarter transportation solutions, we can help you.



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