Accenture Fare Management Solution

A Digital Payment Platform for Transit Operators
As a transit operator, I would like to...

Enhance the Rider Experience
- Stay connected with my customers
- Personalize my fare products and services
- Provide a seamless experience across multiple modes of transport
- Reward my loyal customers

Stay Relevant
- Adapt to evolving technology trends
- Build a solution that grows with my business
- Provide my customers with choice
- Capitalize on the developer community to create new applications

Increase Operational Efficiency
- Simplify cumbersome processes to collect revenue and data
- Enable interoperability with other agencies
- Improve my day-to-day interactions with my partners and vendors
- Obtain insights to improve my transit planning and operations
- Reduce fraud
In an increasingly connected world, transit operators face challenges in meeting travelers’ expectations. And they must do so while under increased pressure to reduce costs.

Legacy infrastructure and IT systems may not have the flexibility to adapt to fast-moving trends, such as mobile devices, bank-issued contactless payment media, interoperability and customer analytics that will help address travelers’ expectations. How can transit operators adopt and incorporate these and other new trends? (See Figure 1.)

A seamless and personalized travel experience

Accenture Fare Management Solution (AFMS) is a digital payment platform that manages fare collection and customer service across multiple transit authorities and modes of transport. It accepts virtually any fare payment media. Whether passengers are riding a bus or a train, crossing a river by ferry, driving through toll gates, parking their car, or using a bike or car-sharing service, AFMS enables a seamless experience.

Connect with your riders

AFMS has been designed from the ground up to connect with customers at each step of their journey. It offers and supports a large catalogue of self-service functions via Web, mobile applications, interactive voice response (IVR) and kiosks, enabling travelers to purchase fare products, top up payment cards, and manage account profiles and details. This multichannel approach allows transit authorities and transport operators to offer a consistent customer experience and better inform, respond to, and anticipate customer needs.

Figure 1. Transit operator wish list

As a transit operator, I would like to...

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Increase Operational Efficiency

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Source: Accenture Analysis
Enabling change and flexibility

Complex market conditions and rapidly changing customer preferences dictate the need for a flexible and adaptable solution. With this in mind, AFMS has been designed based on a service-oriented and open architecture. An open architecture provides the agility transit operators need to evolve with the latest technology innovations, change vendors when needed and meet growing expectations from riders. As a result, AFMS offers a number of application program interfaces (APIs) that ease the integration with a complex environment involving many different systems. (See Figure 2.)

APIs enable interoperability across:
- Multiple transit schemes, fare device vendors and fare media
- Integration with multiple customer channels
- Various vendors and business partners like banks, smart card producers, payment gateways and tokenization agents

With a growing public demand for better access to information and services, APIs also support transit operators with their open data strategy. In addition, they promote an innovative environment for third parties to create new services via mobile applications that will improve the overall customer experience and can generate new revenue streams.

More with less

Transit operators are under increased pressure to reduce spending. They need to find ways to continually improve their services to meet the needs of increasingly demanding customers—all while reducing the fare collection systems’ total cost of ownership.

With this in mind, AFMS has been built upon a robust commercial off-the-shelf ERP solution and includes preconfigured industry-standard functions. It also incorporates automated processes that enable predictable delivery and accelerated implementation timelines. With a modular design, AFMS helps transit operators unlock a road map of industry-relevant features and innovations. Data related to customers, transactions, and payments provide transit operators with rich insights to identify troublesome operational areas and better understand customer behavior.

What’s in it for me?

Travelers

Because transit is for a multitude of people, travelers will expect a multitude of payment choices. Whether the traveler is an all-digital and always-on commuter or a more traditional and occasional rider, AFMS transforms the traveler’s experience by providing the choice of fare media and fare products along with a comprehensive customer service across multiple channels. With smart media, bank cards and NFC-enabled mobile phones, riders no longer need to worry about misplacing tickets, running...
out of cash, or waiting in long lines. They can board public transit quickly and easily using the payment means of their choice. Travelers can use a prepaid e-purse account or a transit pass regardless of the type of media, or they can just pay as they go using bank-issued cards. They can personalize their travel experience by registering their profile, managing multiple media on their account, setting up preferred payment options, and tracking their loyalty and transaction history via the web or their mobile phone.

Transit Operator Personnel
AFMS helps to improve operational efficiency and reduce the total cost of ownership of fare collection. For customer-facing employees, AFMS provides a central source of valuable traveler information and service request management capabilities to support call center operations. The 360-degree view of the traveler includes contact details, fare payment history, and product and service history. It enables customer service operators to provide a quick and personalized response to traveler requests.

For back-office operations, AFMS streamlines fare collection with automated processes such as transaction validation and fraud detection, financial reconciliation, commission calculation and revenue apportionment, electronic funds transfers and payment processing, fare media orders, and inventory management. It allows transit operator personnel to focus on higher-value activities to improve operational performance.

AFMS also offers a wide selection of pre-built reports and analytics capabilities covering operations and strategy, such as sales performance, traffic analysis, daily settlements, payment exceptions, fraudulent transactions and bank reconciliation. These reports help the staff to better understand their riders, plan the day-to-day operations and help executives to make fact-based decisions, driving continuous improvement.

AFMS Modules
Addressing changing business requirements and rider expectations isn’t easy in the age of the digital consumer. AFMS is packaged with a set of pre-configured modules to address these challenges head on by tracking and executing all business transactions, processes and services. Its modules have been designed and built using industry standards and leading practices and can be operated as stand-alone entities or delivered in parallel to support business needs as they mature and grow.

Customer Relationship Management
The CRM module is able to capture all elements of customer interaction, whether sales or service-related. It centralizes all customer and account data and allows transit operators and agencies to draw on key customer insights and analytics for decision making. This module forms the backbone of the Integrated Call Center tool.

Partner Relationship Management
The PRM module gives business partners (vendors, merchants) a view into the business and select access to key sales and service functions. Such functions may include service request management, system monitoring and key reports. This module is designed to alleviate pressure on help desks or other partner service channels by increasing self-service options.

Sales & Distribution
The module enables organizations to manage the sales lifecycle from forecasting to billing, create new products and services, and update prices from the product catalogue.

Media Lifecycle Management
The Media Lifecycle Management module manages the entire fare media lifecycle, from card personalization and activation to post-issuance activities and expired media. These activities also include usage, card replacement, block/unblock cards and hot-listing media.

Inventory Management
Through this module, operators can manage the inventory of fare media to better align to demand, develop accurate forecasts and maintain optimal stock levels with a configurable schedule and notifications including automatic stock replenishment. It can also track financial asset depreciation over time, the rolling and operating stock levels of fare devices, and service orders for maintenance activities.

Financial Operations
The Financial Operations module helps operators maintain a clear and transparent view of fare payments, bank settlements and transaction reconciliation. Users can manage various financial activities from billing to payment, refunds, float management, transaction clearing and bank settlement. This module has been enhanced to include risk and revenue protection rules for open payment transactions and fraud detection on incoming transactions.

Fare Calculation
This module performs the transaction acquisition and validation and executes the fare business logic established in the system. It includes the fares and network topology configuration. It supports a multitude of fare rules and fare products, such as flat, distance-based, zone-based, transfer windows, peak/off-peak, period passes, concessions and loyalty discounts. It can also handle transfer agreements across multiple transport network topologies.

System Management
The System Management module receives and transmits data from servers, applications and devices in order to maintain and operate the overall system. This module allows for user and identity management, data integrity and privacy management, monitoring, audit, and logging and master data administration.

Reporting
This module uses analytics to provide interactive data visualizations and dashboards. This flexible and customizable tool allows organizations to view and easily make fact-based decisions. The solution comes packaged with a set of pre-built reports that can also be easily customized to suit specific business needs.

Source: Accenture Analysis
A Differentiated Solution

AFMS is built upon Accenture's 20-plus years of ticketing and transportation service experience. Discover how AFMS can help reduce your total cost of ownership compared to traditional fare collection systems:

**Commercial off-the-shelf package**
AFMS is a pre-configured, ready-to-deploy platform using leading commercial off-the-shelf software. It harnesses the power of Microsoft Dynamics AX with supporting Microsoft technologies and solutions to evolve with business needs.

**Open**
AFMS is based on an open, service-oriented architecture that gives operators the flexibility to integrate third-party systems easily with legacy systems, as well as the agility to adapt to rapidly changing market conditions.

**Modular**
AFMS has been designed as a flexible solution. The modular back-office architecture enables organizations to set a plan for deploying one or several modules as businesses mature and grow.

**Scalable**
AFMS is architected for both vertical and horizontal scalability. This scalability allows operators to minimize up-front costs by procuring only the hardware it currently needs while allowing flexibility so the system could evolve in line with growing ridership.

**Configurable**
AFMS is pre-configured with a number of modules. These can be easily configured to support the needs of individual transport operators. Complex business logic can be embedded into the application with ease, minimizing risk.

**Flexible**
Operators have a choice between an innovative Software-as-a-Service (SaaS) offering based on a "pay as you go" business model or on-premise deployment. Both offerings are fully customizable to suit organizations' specific needs.

**Intuitive**
AFMS is based on the Microsoft Dynamics AX ERP, which uses the familiar Microsoft Outlook interface and works seamlessly with Microsoft Office applications, encouraging user adoption.

AFMS in action
Transit operators making the transition to a more customer-oriented service face complex IT challenges and require specialized customer management and analytic capabilities. Accenture has teamed with transportation providers across the globe to better serve their riders. Accenture’s clients include more than 50 percent of the transportation and travel services organizations in the Fortune Global 500. Read how Accenture collaborated with leading transit operators to help them achieve their goal to develop an electronic payment system across multiple modes of transport using AFMS.

**PRESTO**
In 2006, the Ontario Government selected Accenture, through an open and competitive procurement, to lead the implementation of a new fare management system and manage it for 10 years. Accenture has implemented the AFMS system at PRESTO, offering riders an integrated and seamless transit service. The PRESTO system links ten municipal transit partners in the Greater Toronto and Hamilton Area and as well as Ottawa.

As of early 2014, PRESTO had approximately 8,000 fare devices installed and was being used by over 1 million customers, with many thousands of new customers being added each month. PRESTO has processed hundreds of million in PRESTO taps and fare payments to date.

In the next few years, PRESTO plans to expand the customer convenience as the preferred means for seamless and efficient transit fare payment—and accept new payment media like contactless credit/debit cards and mobile phone applications.

**Trans Link Systems**
Trans Link Systems was established in 2002 as a private company responsible for developing and implementing a nationwide electronic ticketing and payment system for all modes of public transport in the Netherlands. Accenture was part of the team which delivered a nationwide, integrated system that was flexible enough to accommodate changing customer and operator requirements that covered the whole national transport activity. The solution now serves 1.4 billion passenger trips each year, processing six million transactions per day.

The interoperable solution is fully compatible with all device types and allows users to load their fare products on their smartcards on a variety of self-service channels. The application provides common sales, after-sales, CRM processes for all smartcards, regardless of the card origin network. Riders now benefit from a single card to access bus, metro, tram, ferries and trains.
About us

About Accenture
Accenture is a global management consulting, technology services and outsourcing company, with approximately 289,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world’s most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US$28.6 billion for the fiscal year ended Aug. 31, 2013. Its home page is www.accenture.com

About Microsoft Dynamics
Microsoft Dynamics is a line of financial, customer relationship and supply chain management solutions that help businesses work more effectively. Delivered through a network of channel partners providing specialized services, these integrated, adaptable business management solutions work like and with familiar Microsoft software to streamline processes across an entire business.

About Microsoft
Founded in 1975, Microsoft (Nasdaq “MSFT”) is the worldwide leader in software, services and solutions that help people and businesses realize their full potential. For more information, news and customer perspectives on Microsoft Dynamics please visit http://www.microsoft.com/dynamics.

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