### **Understanding the Mobile Ticketing Solution Experience**

Mobile Ticketing is a way of paying for transit services through a mobile/smart phone application and using that same application to provide proof of fare payment to the transit service provider. The mobile application serves to bring together a number of different parties in the process, which include:

- 1. Transit Customer
- Downloads the app which provides account maintenance and fare product management capabilities.
- Creates an account based on personal information within the application
- Enters credit card information, either per transaction or stored
- Purchases fare products
- Can generally review transactions through website account into the application website / device / smartphone access
- 2. Technology Vendor
- Supplies and supports the mobile app
- Supplies and supports the software that supports payment and product
- May supply additional technology to validate fare products or support integration of other offerings.
- Generally continually enhances the product
- 3. Transit Agency
- Provides the transit service in concert with the vendor
- Fields Customer inquiries
- Creates business logic; i.e., manage accidental purchases, customer complaints, refunds, cancellations
- Re-brand product to municipality standards
- Determines the fare products and schedules that they wish to sell to customers through the application; typically single use, day pass, monthly pass or other customized products
- Fare enforcement
- 4. Credit Card Companies
- Accept payment for fare product sold through the application
- 5. Payment gateway
- Authorizes credit card payments
- Facilitates the transfer of information between payment portal (website / app) and bank
- Payment is implemented within the application by the technology vendor

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#### **Customer Experience**

#### Steps

#### **Internet Connection Required**

Download app

Create account on app

Purchase product (e.g. ticket, day pass, monthly pass)

# **Internet Connection Not Required**

Activate a ticket at a Transit stop

Visual Validation – show the activated ticket on the smartphone to the bus driver, Peace Officer

### **Validation Options**

There are a variety of ways to show a ticket is being used. Different vendor technology solutions are available, including visual validation and real time barcode validation.

**Tri-band colour on digital ticket** – Three colours in a band are placed at the top of the ticket app. Each day a new sequence of colours would load at the top of activated tickets. Enforcement needs to know the daily colour scheme.

**Countdown timer** – When a ticket is activated, a countdown timer is shown to indicate the remaining amount of valid time for the ticket.

**Delayed timer** – The countdown timer has a delayed start to prevent customers from only activating tickets when a Peace Officer board a vehicle to verify proof of payment. For example, if the countdown timer is delayed by 5 minutes, a Peace Officer will know if the Customer activated the ticket only when he/she boarded the train.

**QR Code / 2D Barcode** – This requires additional investment in hardware but supports real-time authorizations and electronic validation of fare product. This technology is as robust from a security perspective as traditional a account-based electronic fare collection system.

#### **Fare Product Expiration**

A fare product would expire after use based on the business rules set by the Transit agency. When the ticket nears expiration, common types of notification from the mobile app include flashing on the screen, phone vibration, or an on screen message.

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# An Example of how the mobile ticket application works

# How it Works







