



Accenture Mobility Services
Mobility for Better Business Outcomes

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High performance. Delivered.

IBTTA 80th Annual Meeting & Exhibition

Mobile Tolling Solution & Demonstration

September, 2012
Orlando



Agenda

- **Accenture Overview**

- **Description of Mobile Tolling Solution**

- **Business Case Evolution**

- **Mobile Tolling App Demonstration**

- **Summary**

Accenture's deep transportation industry experience



Every minute, **1,300 vehicles** pay toll through an Accenture toll system



Every minute, **1,500 riders** tap their farecard on an Accenture public transport fare system



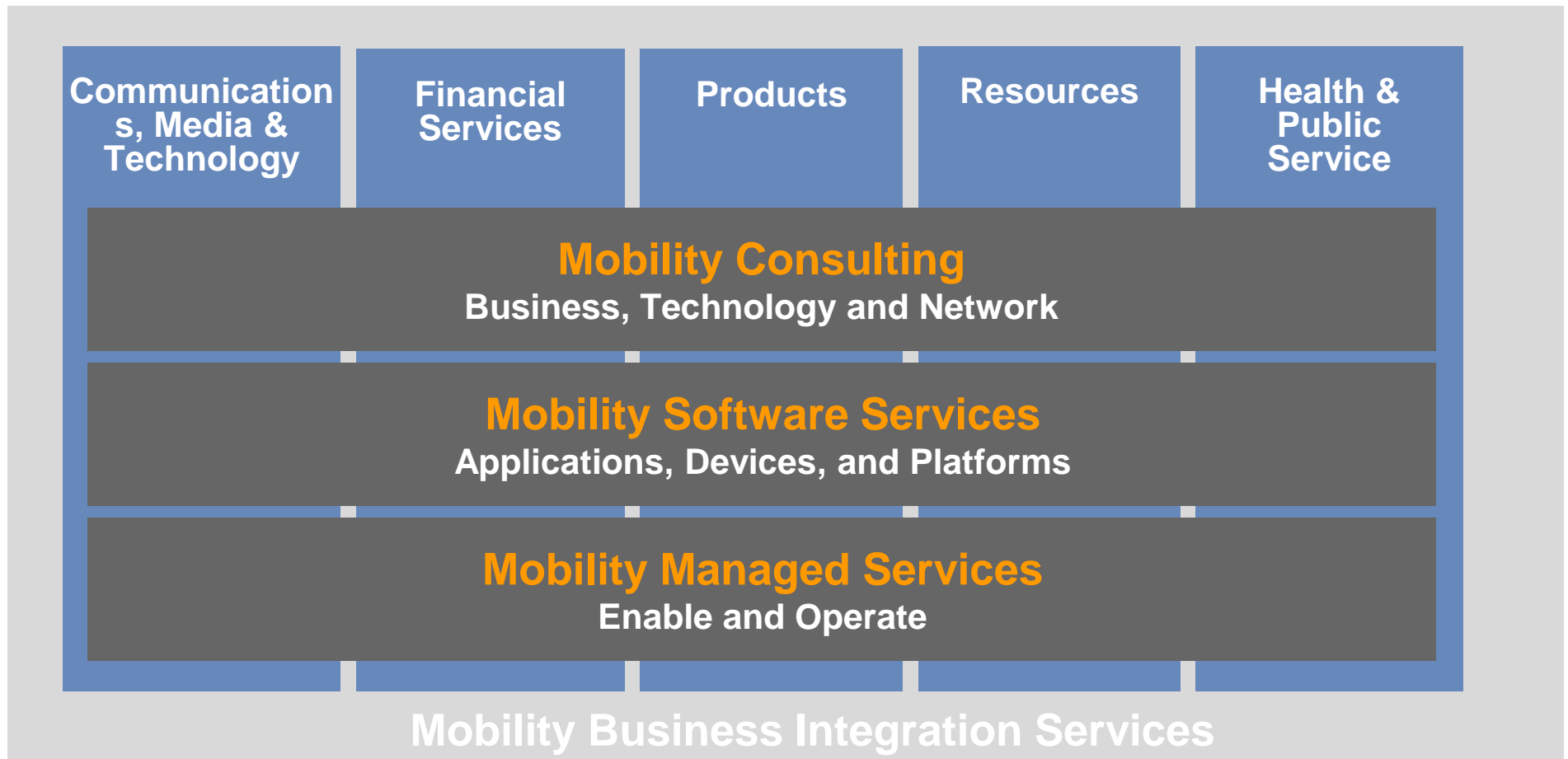
Accenture launched the **first nationwide** integrated e-ticketing system **in the world**



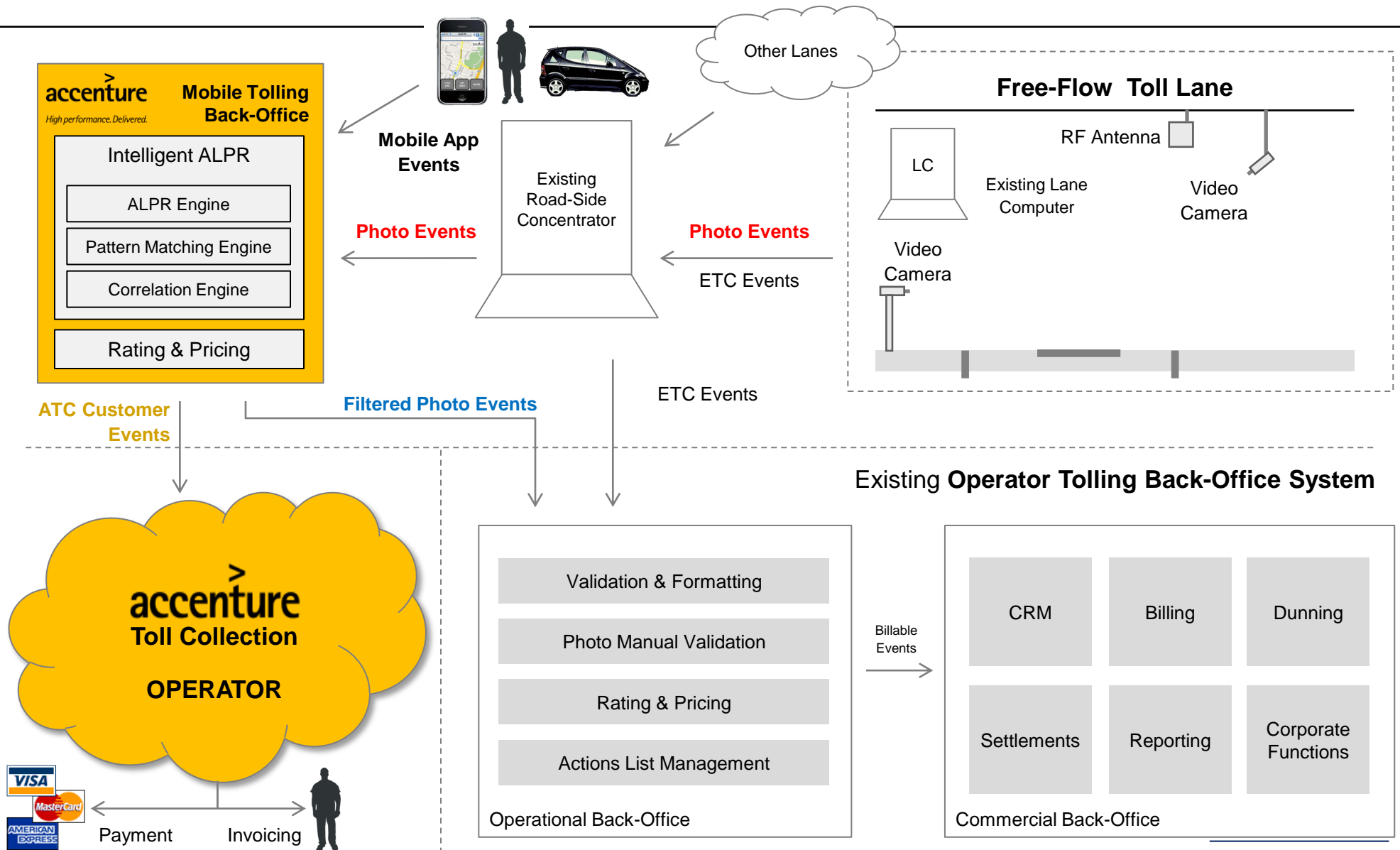
Our clients include **more than 50%** of the Transportation & Travel Services organization in the **FORTUNE Global 500**

We deliver mobile capabilities to a broad range of industries

Business to Employee (B2E), Business to Consumer (B2C), Business to Business (B2B)
Machine to Machine (M2M)

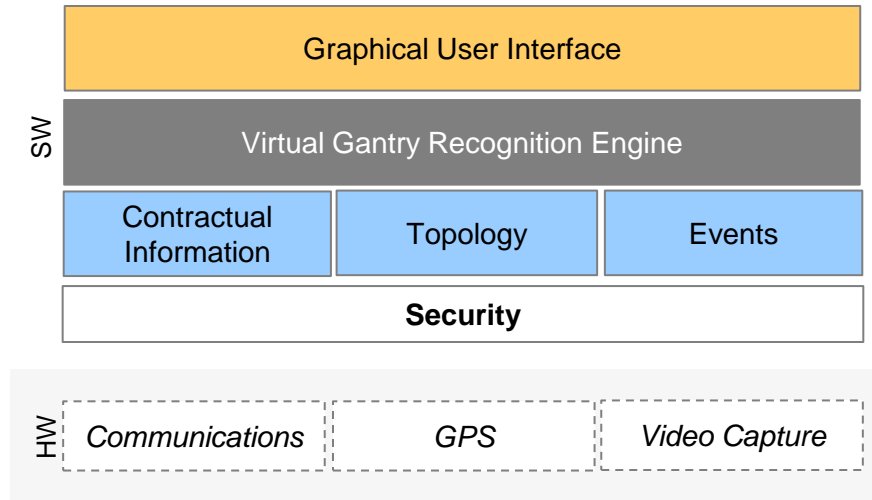


Accenture Mobile Tolling Solution

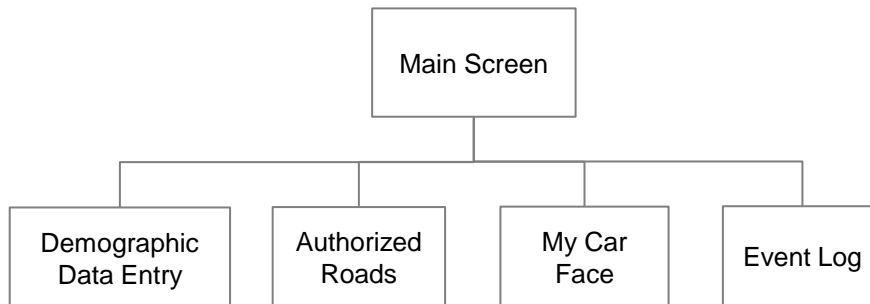


ILLUSTRATIVE

What is required from the Mobile App?



Mobile App Main Modules



Graphical User Interface map

Demographic Data Entry allows the input of User, Payment and Vehicle related information, to be stored in the **Contractual Information** database:

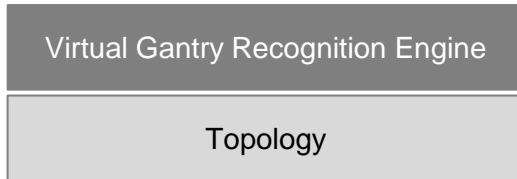
- Customer Name and Customer Address
- Payment Method (Credit Card, Post and Pre-Paid, etc.)
- License Plate, Vehicle Make and Model

The **Authorized Roads** those roads where the mobile service may be used. These roads toll point configuration are stored in the **Topology** database.

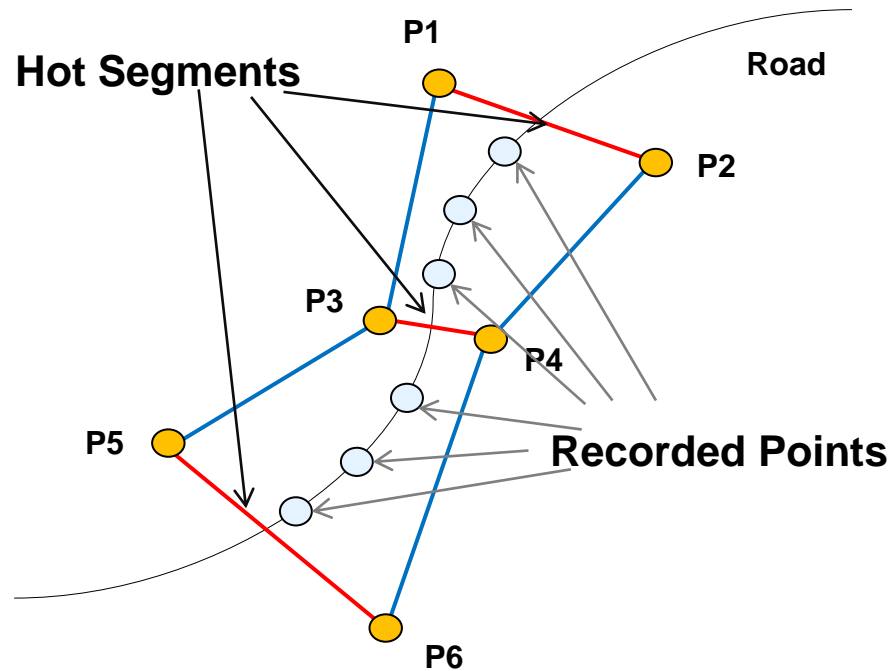
My Car Face is a video capture tool for the vehicle Pattern Signature and License Plate Recognition functionalities.

The **Event Log** provides a historical view of all the billable events registered by the Mobile App. These are stored in the **Events** database.

What is the concept behind the Mobile Tolling App?



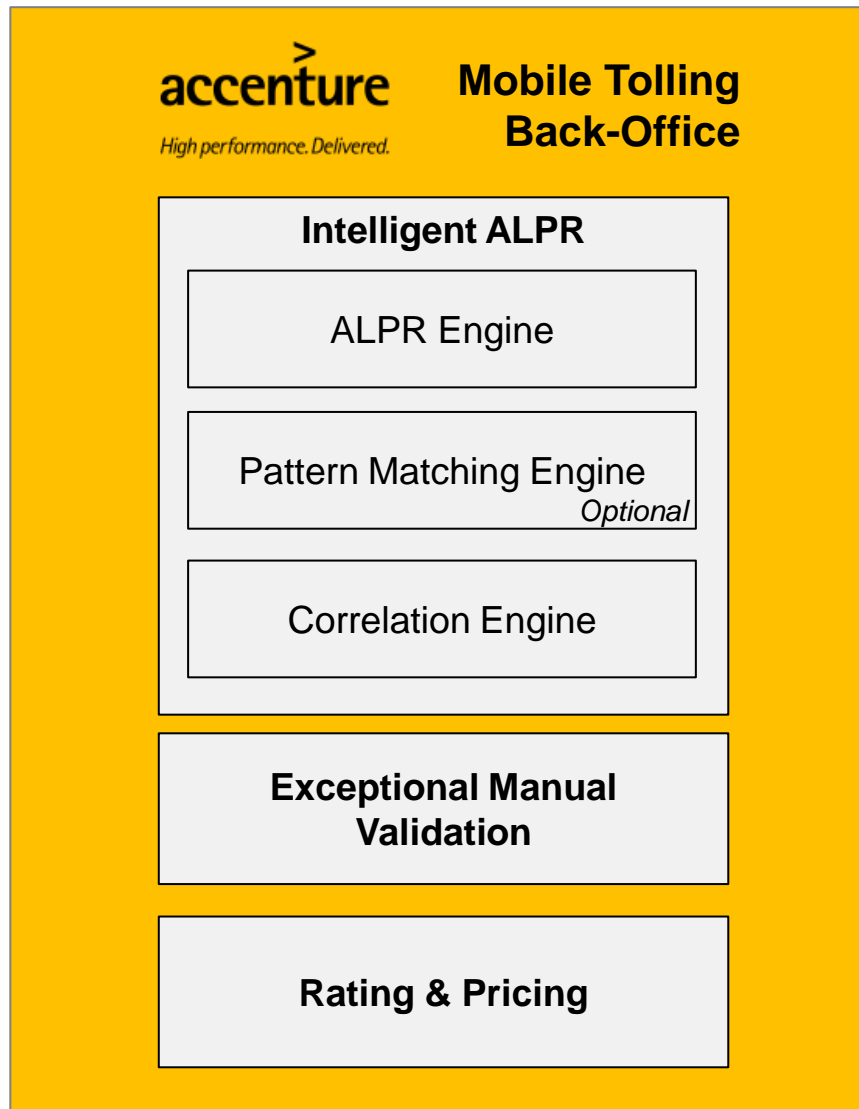
- The Mobile Tolling App holds the configuration of the network Topology Virtual Gantries
- A Virtual Gantry is a geometric area representing a tolling point
- It is composed by 6 GPS points and 3 “Hot Segments”



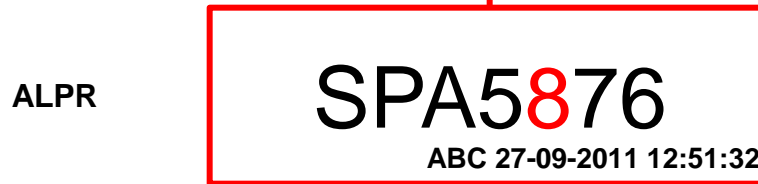
Event Generation

- The Mobile App is constantly checking if the GPS vehicle position is inside any Virtual Gantry area
- The points recorded inside a Virtual Gantry are used to generate a Event
- A Event is generated only when the 3 Virtual Gantry Hot Segments are crossed

What is required from the Back-Office?



APLR Business Problem



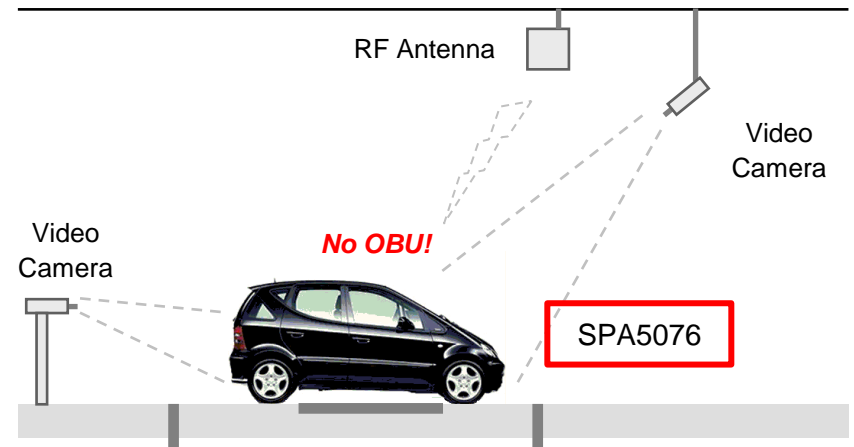
Human Processing

\$ Costly options!

Wrong Billing

DMV access
Complaint processing
Resend notice

Free-Flow Toll Lane ABC @ 27-09-2011 12:51:32



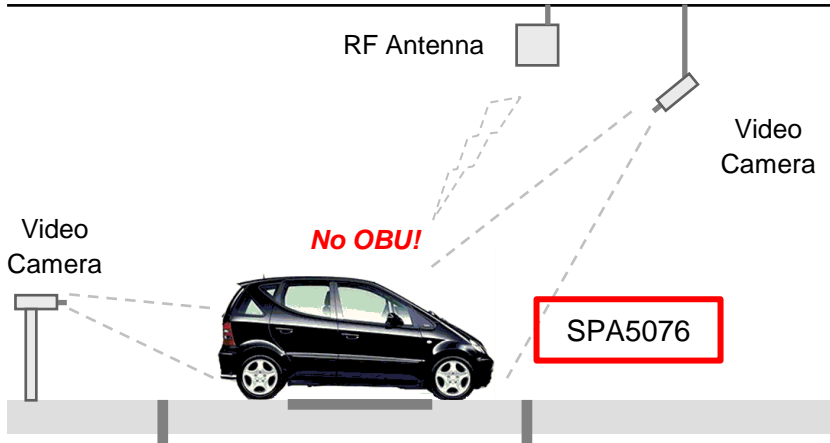
Tolling models comparison

Model (lanes)	Vehicles/Hour	\$/Transaction *
Manual Tolling	200 – 300	\$0.33
ETC w/ Barriers	500 – 650	\$0.15
ALPR (photo tolling)	~4.000 (two lanes)	\$1.90
GNSS (GPS+GPRS)	~4.000 (two lanes)	\$0.24
MLFF ETC	~4.000 (two lanes)	\$0.12

* Includes CAPEX and OPEX. Source IBTTA

Reduced Cost of Operation

Free-Flow Toll Lane ABC @ 27-09-2011 12:51:32



Frontal Photo Shot



Photo Processing



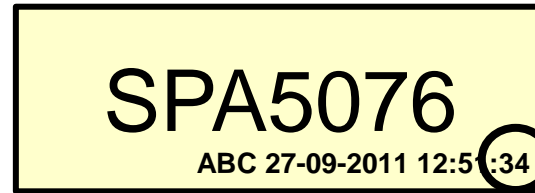
ALPR



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Smart Phone with the Mobile Tolling App



Automatic Correlation

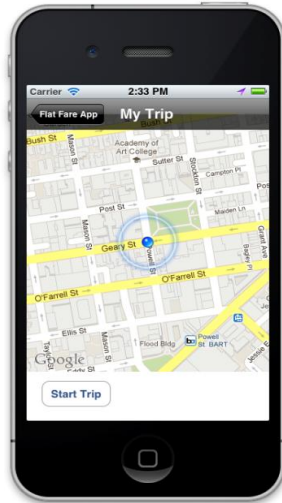
Billable Event!

Mobile Tolling App Demonstration



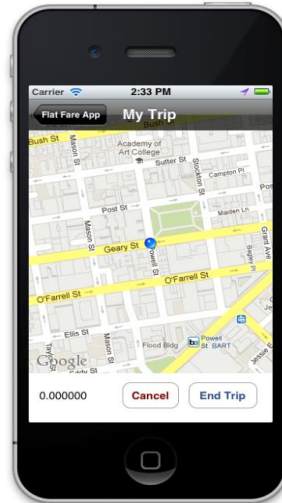
Application Main Menu

- My Trip



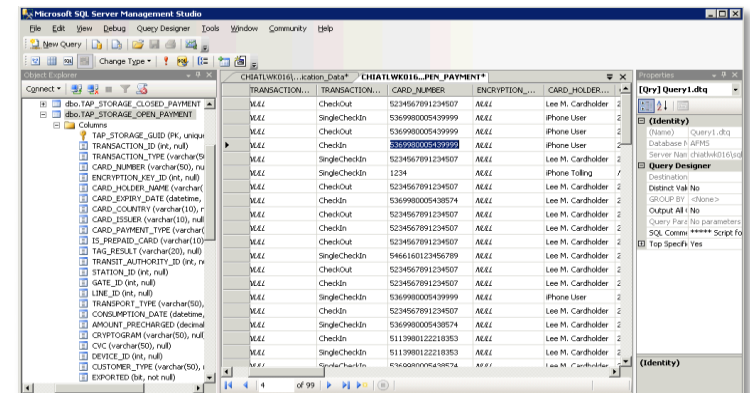
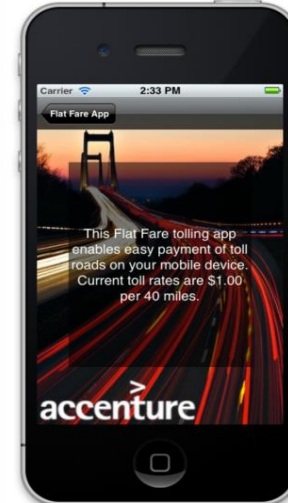
My Trip

- Start Trip
- Collect GPS Data

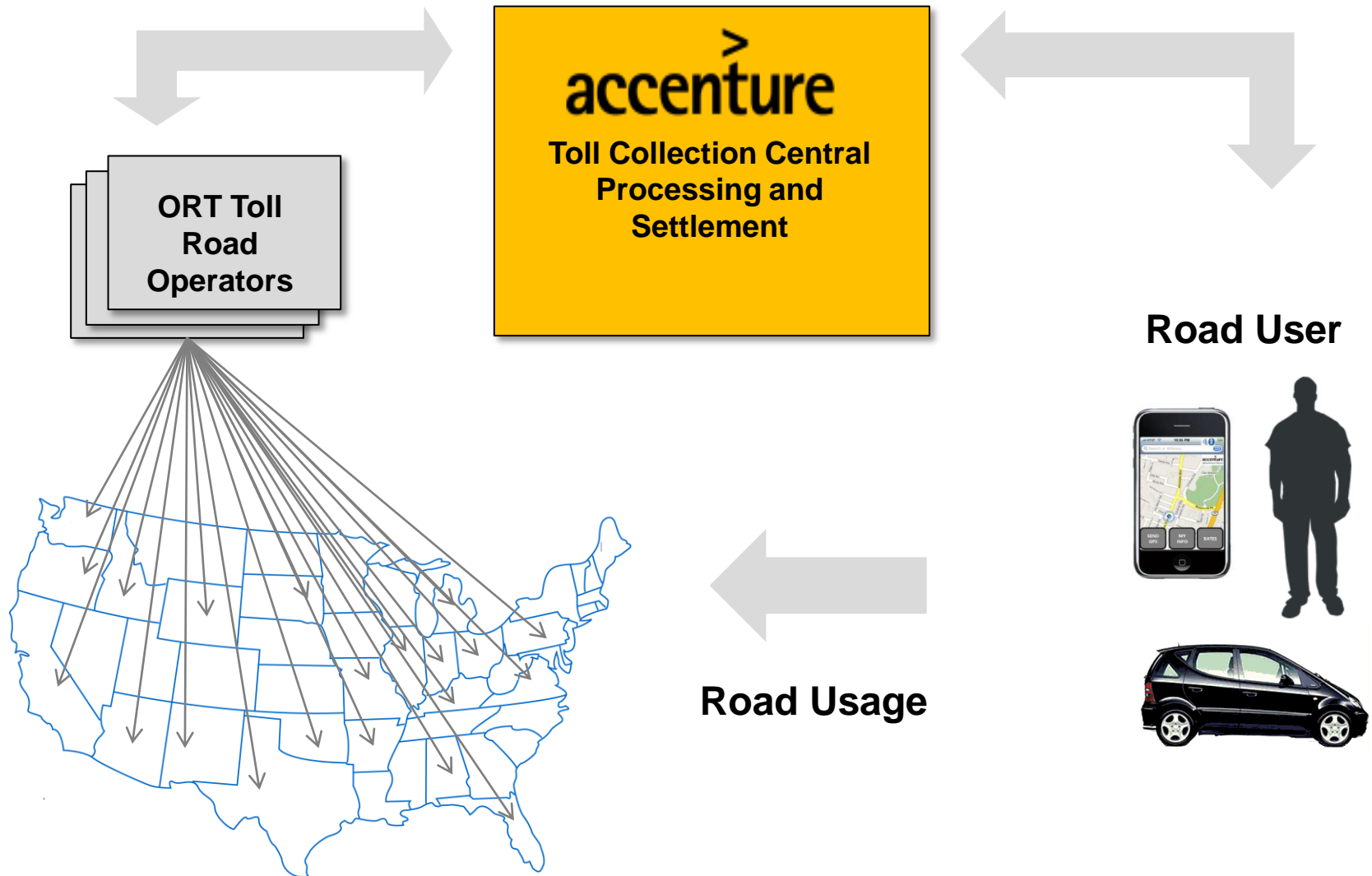


My Trip

- End Trip
- Send Data to backend



Envisioned business model



Accenture's mobile tolling solution provides a low cost alternative for AET

- Eliminates the need to invest in new infrastructure
- Leverages existing enforcement infrastructure
- Provides customers an additional mechanism to pay toll
- Decreases number of billing inquiries to DMV

Cost

No more distribution costs; using their own equipment.

Flexibility

Provide customer choice using pre-existing mobile platforms.
Flexibility to create apps to improve experience.

Accuracy

New technology improves accuracy of mileage traveled from the correlation of multiple data streams.

Revenue

New option simplifies customer registration and improves fees collection.