BillingPlatform

Case Study

The Billing Platform for
PUBLIC TRANSPORTATION
SERVICES

The Billing Platform for
# PUBLIC TRANSPORTATION SERVICES

1.	## The Company

A sustainable public transportation operation, offering bike rentals in eight countries across the globe.

2.	## Overview

The company required a billing system that was standardized across cities, easy to maintain, and supported aggressive go to market abilities for new cities to drive enhanced reach, better competition and increased commerce. Before the launch of the BP system, each city required its own code base in order to support localized requirements for pricing and payment processing unique to each city. In order to scale, business logic needed to be split into different layers; payment and invoicing had to be integrated into one platform; and the time required to establish a billing operation in new sites needed to be eliminated.
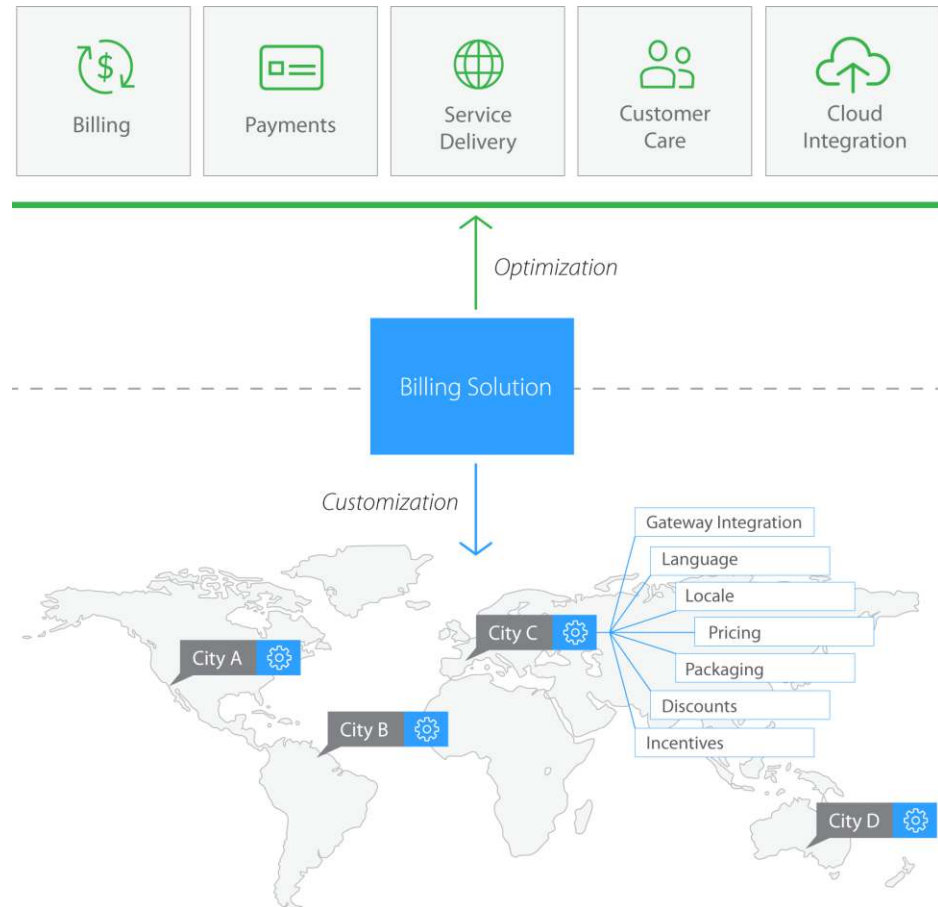
In less than 4 months, BillingPlatform delivered a solution that centralized billing and payment processing for all cities globally addressing over 100 pain points. The solution standardized billing, payments, provisioning and customer care while uniquely supporting each city's specific needs for gateway integration, language, locale, pricing, packaging, discounts and incentives. The unique implementation utilized the platform's Cloud-configuration with workflow, event-based invoicing, custom data model configuration, multiple payment gateway integration, and extensive product management capabilities. With these dynamic features in play, the company can support their new business model and growth objectives in the most efficient way possible.

3. Workflow

A robust workflow configuration was established to quickly implement complex business logic. These workflows automatically adjusted customer and product data to support service limits, discount thresholds and account status based on metrics like payment history, travel routes, return statuses and ride volumes.

Scheduled workflow was used to automate routine record maintenance, and send email notifications to customers as well as internal operations for accounting and product renewal alerts, marketing and promotions.

Workflow web service call-outs ensured interconnectivity across systems to automate business processes and ensure data consistency.

The result was a configurable integration and business logic layer that automated data integrity, interconnectivity, and communications as well as rating and customer management functionality. Leveraging workflow to implement these requirements removed the need for custom code, dramatically reducing solution delivery times while keeping costs low and ensuring a scalable model that is easy to manage and maintain for future growth.

4. Event-Based Invoice Cycles

To automate their rental and usage-based business model, the company utilized BillingPlatform's event-based billing cycle features. This feature allows for the definition of custom events based on changes to data in standard or custom fields to determine how charges are grouped and when their invoices are closed. Amongst other things, this feature helped reduce the overhead and costs of credit card processing by linking close events to

revenue thresholds to process payments in real-time when the charges accumulated to an appropriate level.
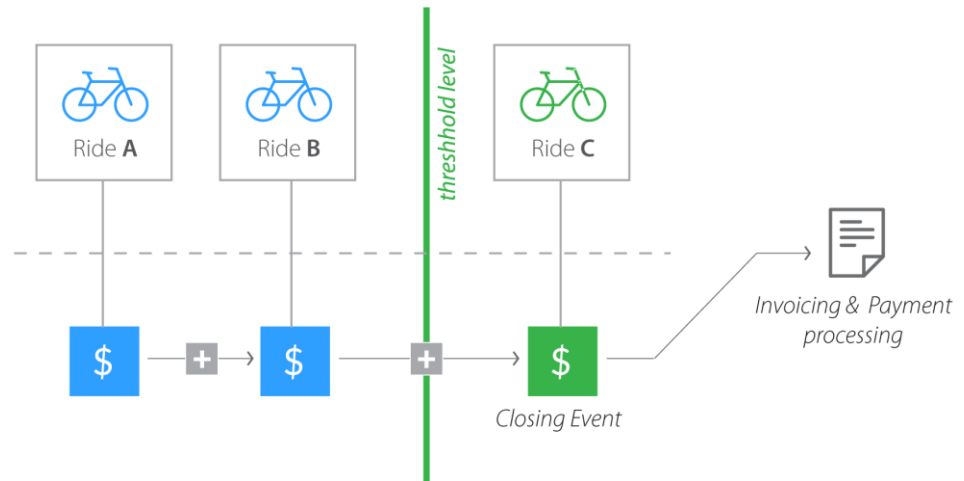
The platform makes it easy for the company to handle initial subscription purchases, subscription renewal purchases, as well as diverse, recurring and metered charges. The grouping and event configuration made it possible to define city-specific configurations and thresholds to augment charging and invoicing behavior.

Event-Based cycles now automate a highly complex and diverse set of processes based on city-specific requirements allowing the company to retire city-specific software applications into one, master system that can be centrally managed at a lower cost. The new system is highly adaptable to varying functional and competitive demands across a growing number of cities and countries.

5.

Custom Data Model

To satisfy highly specialized use cases and automation requirements, custom entities, fields, and relationships were leveraged to create the data structure on which business rules and automation could be made configurable. It also provided an online repository for specific data about customers and products for quick access and reporting.
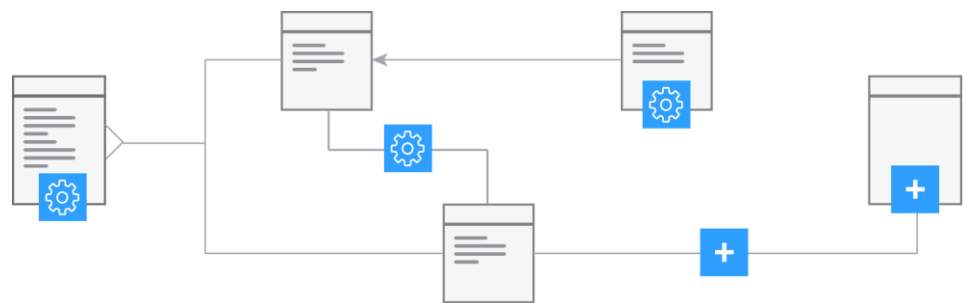

New, custom objects associated with core entities like Accounts and Pricing made it possible leverage workflow and event-based invoicing for automated pricing and discounts, city-specific gateway integration, rout-based, pre-paid charging, and specific, web service integrations.

BP Custom Data modeling capabilities ensures that the system directly reflects the business and allows for future changes in data structure as well as configurable automation.

6.

Web Tool-kit

The highly customized system also needed to be easy for agents at bike rental stations to quickly access customer account data, provision new customer; estimate bike charges based on destination; check in equipment and process payments. The user interface needed to be comprehensive yet simple and intuitive at the same time.
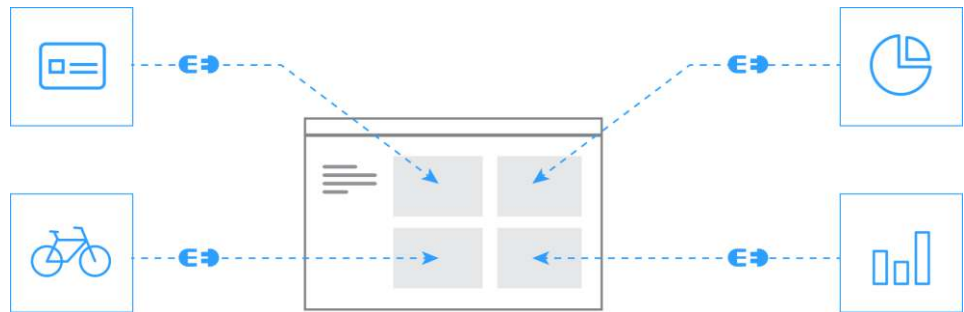
The company leveraged the BillingPlatform Web Toolkit to create a dashboard-style customer management UI that allowed for a 360-view of customer and product data. The new, interactive User Interface brought data from trouble ticketing and support systems via web mash-up, recent transaction activity, invoices, payments, and membership data together in one place to quickly service customer queries and manage payment processing, new signups,returns and pricing adjustments in one place.

7. REST API

Payment processing and membership card swipes from remote terminals and kiosks integrate with BillingPlatform account and payment gateway configurations over dynamic, REST APIs. Because all customizations to the BP data model are instantly exposed to SOAP and REST web services, specific demands for kiosk integration were significantly simplified reducing implementation times from months to just a few days.

Existing information systems now talk seamlessly to the BP billing and customer care system leveraging it as the source of truth for all customer,

product, and financial data. The dynamic API infrastructure essentially exposes the BillingPlatform as a remote database with full CRUD access for unlimited, highly-scalable reporting and ongoing integrations.

8. Multiple, Payment Gateway Integrations and dynamic charging

The platform allows the company to set up multiple, city-specific payment gateways from several different merchant banks. The multi-gateway support combined with workflow and custom data model allowed for multiple ways to capture payments depending on city, as well as transaction volume and revenue thresholds.
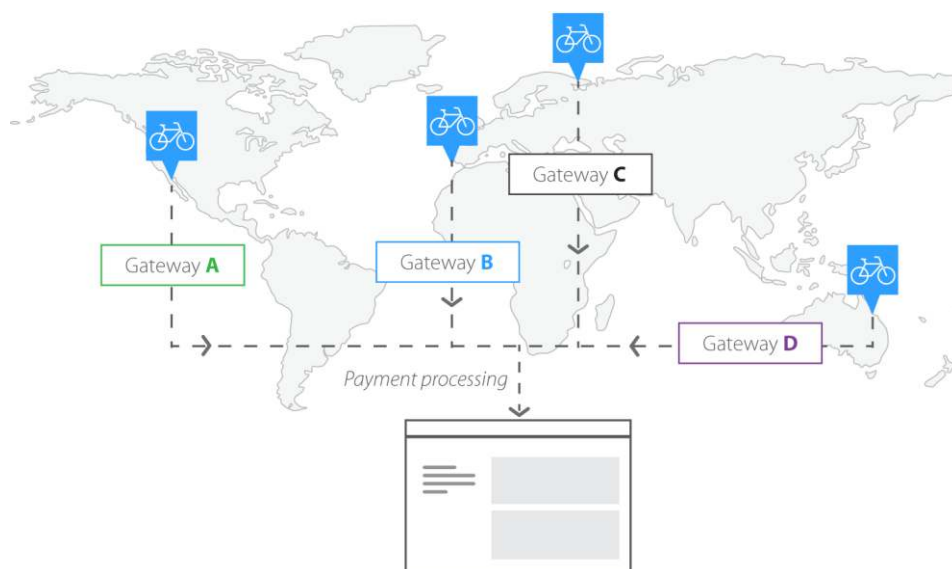
Since each city requires specific payment gateway integrations and each payment gateway has specific integration requirements, this feature became a critical success factor and a must-have for production release as well as for future implementations in new cities.

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9. Multiple Languages and Locale

The billing solution had to support several different languages and locales across several different countries. With the platform, it was easy to associate language and locale as a user preference for user interface translation as well as support city-based locale for invoicing and communications.

10. Single Sign On

The company needed to seamlessly transition from existing ticketing and inventory applications to the new BillingPlatform application without forcing users to remember and supply additional authentication parameters. This was made possible by leveraging the platform's SSO capabilities both as a service provider and identity provider. The system leverages Just-in-Time provisioning to ensure users are automatically provisioned in the system without administrative intervention. The new billing and customer care application was able to harmonize with the rest of the enterprise for a fluid user experience with trivial effort.

11. Online, Self Service Credit Card Payment processing

The company needed to extend the ability for customers to make payments for services online with full PCI compliance, leveraging all their locale and dynamic gateway integrations without custom development. In just a few days this functionality was embedded into the company's public site using BillingPlatform's secure, configurable credit card and ACH payment page that allows companies to customize the data as well as CSS, layout and images

using simple configuration tools.

With the BillingPlatform Payment page, companies can easily configure which payment methods to expose, as well as which related account information to enable for view or update on an unlimited number of endpoints to both process payments and record them against customer balances in the billing application.
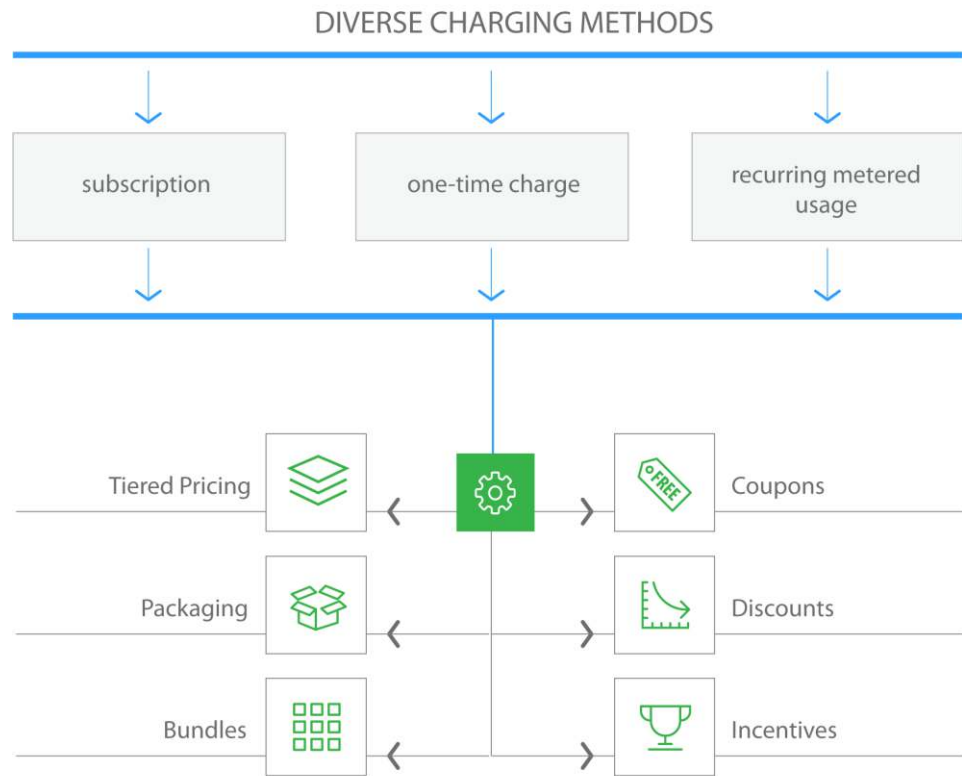
12. Product Management

The Platform offers the most flexible product configuration ability in the world. Not only does it support a wide array of recurring and one-time charging models but it also opens up the custom data model, workflow and formula features to provide endless support for creative pricing, bundling, promotions, discounts, coupons and incentives.

The company has a diverse set of charging methods consisting of subscription, one-time charges, and recurring metered usage fees that include tiered pricing, packaging, bundles, coupons and discounts. It also needed to offer competitive incentives based on different combinations of ride length, cities, service levels and station locations. This complex, matrix-based incentive model was easily achieved without coding, leveraging platform features such as custom rating attributes, pricing formulas and data model customizations.

The enterprise also needed to isolate product offerings by city. To do this, custom fields were added to the product to reference a custom, centralized data store of location metadata also associated to user records and leveraged in workflow and intelligent pricing formulas. Products now have city identifiers that allow segregation of product data to users exclusively in each respective city to help eliminate the need for separate, city-specific billing information systems.

DIVERSE CHARGING METHODS

subscription | one-time charge | recurring metered usage

Tiered Pricing | Coupons
Packaging | Discounts
Bundles | Incentives

13. Conclusion

A leader in bike-sharing technology across the globe now has an efficient billing platform that gives them the power to support their business strategy in the most dynamic and effective way possible. The cloud-based delivery of this new, centralized solution eliminated the need to install separate applications at each new site across a growing number of cities.

Utilizing the platform's workflow, event-based invoicing, custom data model configuration, multiple payment gateway integration, and extensive product management capabilities this transportation leader has the tools to rapidly meet and exceed current and evolving demands today and into the future at a minimal cost.

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