APIs enables the integration of digital channels with complex back-end systems

ABOUT THE CLIENT
UK’s leading foreign exchange supplier offering a range of services including wholesale notes provision, branch supply, Travel Money Online, management of prepaid Travel Money Cards, branch training and marketing.

BUSINESS NEED
• Design and develop a Backend-as-a-Service layer to be used by digital channels such as Mobile and Tablet Apps, Internet Browsers, and other external and internal consumers
• Cache necessary data for certain periods to reduce calls to external paid web services

HCL’s SOLUTION
HCL created a generic API (Application Programming Interface) services layer based on Web Oriented Architecture (WOA) principles for the digital channels. It was built as an extensible framework to:
• Provide various channels and consumers with a secure way to integrate with business functions
• Enable information tracking and end-to-end services management at every stage and across services
• Develop feature driven domain APIs optimized for devices
• Enhance the ability to extend to the chargeback model
MOBILITY DEVELOPMENT – API SOLUTION

The APIs for the Post Office TMC Mobile Application was designed as a Mobile 4-tier engagement platform.

1. **Services Tier** – A flexible services layer built on the Windows Communication Foundation, (WCF) leveraged by apps and by the evolving partner ecosystem, for the consumption and dynamic composition of services. It uses BizTalk BAM, BizTalk BRE for decisioning.

2. **Aggregation Tier** – This tier includes a pile of security services such as Triple DES, Tokenization and more. The master data is hosted in Fidelity Info Services (FIS). There are aggregations such as Google Maps for Branch Location and Master Card services integration.

3. **Delivery Tier** – AppFabric Distributed Caching and RPC/encoded sync services are performed in this tier.

4. **Client Tier** – HCL used wireframes and message contracts from a third party vendor to build JSON contracts. The contracts commenced with stub development and the creation of APIs in parallel with iOS and Android Apps.

**BUSINESS BENEFITS**

- The solution laid the foundations for a WOA framework that is now extendable to various other channels in addition to the originally intended Mobile Apps on Android and iOS
- Distributed caching reduced the usage of paid web services and resulted in cost savings
- The solution exposed the workflows of Top-up, Account Unlocking and other processes and made it reusable on the online application, which performs the same and similar functions
- The API Platform served as Back-end-as-a-Service for App developers, enabling them to build and innovate rapidly
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