

Baker, Gysi and Associates



Integration::South African Bank and China UnionPay

Case Study

In which a major South African institution wishes to acquire cards issued by the massive China UnionPay brand at its primary EFT channels

ABOUT CHINA UNIONPAY

China UnionPay (CUP) is a card association based in Shanghai with around 300 member institutions around the world. CUP represents a vast and growing economy, having switched RMB 7.7 trillion (over \$1 trillion) worth of transactions during 2009. This figure is expected to grow significantly during 2010 following expansion into African, European and other Asian markets.

The number of cards on issue is staggering – the total number is thought to have reached 1.9 billion by August 2009, and according to CUP, an additional 420 million cards were added to the count during 2009. Approximately 90% are debit cards. A significant number of CUP cardholders are based overseas, or travel regularly for business or pleasure.

ABOUT THE CLIENT

The client is one of Africa's largest financial institutions with a proud history of innovation and market-leading services. They have a huge footprint in Southern Africa with a significant presence in other African countries and locations in Europe and the Americas. Enhancing their hospitality to the many Chinese expatriates and tourists in South Africa allows them to further claim a truly international flavour.

THE REQUIREMENT

The client needed to enhance its existing Postillion based EFT network to acquire CUP transactions and switch them directly to CUP. Acceptance at all POS and ATM devices had to be possible. POS merchants had to be able to selectively accept CUP cards (dependent upon their merchant agreements with the client).

CHALLENGES

Integrating with a new and major association always brings complexity. Some of the contributing factors are highlighted below.

Cards—although they conform to physical norms for credit and debit cards, many CUP cards have non-standard Track 2 Data content (e.g. the service code and expiry date fields may not be recognisable) and many bank identification numbers overlap those issued by MasterCard, Visa and other associations. This requires special treatment at point of representation and when switching transactions.

Linked Refunds - in most EFT markets credit card refunds are treated in their own right. Indeed, refunds are not usually linked to a purchase or sale in any systematic way. This is not the case where China UnionPay is concerned. Handling this major difference between conventions introduces significant challenges.

BGA'S SOLUTION

BGA analysed the functional requirement to identify any potential problems. Several adjustments were made to ensure compliance with international and local standards and to add value to the offering. The enhanced solution was then delivered with time to spare.

SOLUTION ELEMENTS

Significant enhancements were made to many areas of the client's system to provide the solution. These include:

- Modifying the Postilion TermApp terminal driving solution to enforce PIN entry for all CUP card types and to ignore service code and expiry date validation.
- Managing the potential overlap between CUP and Visa and MasterCard BINs.
- Integrating the stock CUP S1 interface into the client's particular requirement.
- Routing of transactions initiated by CUP cards from all POS and ATM devices to China UnionPay.
- Implementing a dual destination interchange whereby single-message ATM

and dual-message POS transactions were handled on separate connections to CUP.

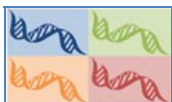
- Ensuring that settlement was optimised to avoid unnecessary use of suspense accounts (thereby reducing the complexity of reconciliation).

ABOUT BAKER, GYSI AND ASSOCIATES

BGA are trusted EFT integration specialists. Our forte is Postilion, but we have extensive experience on many other payment platforms.

We offer a fully featured integration service that spans the entire life cycle of your project – from requirements gathering, through specification (both functional and technical) through to building and testing the solution. We have developed formal methodologies for such niche and hard-to-find skills as securitisation and stress and performance testing and are able to provide constructive solutions to your problems.

Whether your problem is stabilisation of an existing system, or the establishment of a new one, BGA are there for you.



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