

VALid-POS® Value Proposition – Being at the Forefront of Payment Evolution

Payments Overview – Cash vs Electronic

In 2011, cash still remains the dominant payment method for retail transactions. In Europe, the average retail transaction value was €15 (fifteen euro) and payment by cash accounted for 77.5% of all consumer retail transactions in 2010¹. Visa (Europe) accounted for 12.47% of everyday consumer spend in Europe where there are in excess of 408 million cards issued. New Visa (Credit and Debit) cards continue to be issued at the rate of 17,000 per day equating to over 6 million new cards issued in 2010. In the same period, over 10 million contactless Visa cards were issued, signifying a trend that Near-Field Communications (NFC) is already overtaking traditional cards as a form of payment. This is consistent with the global trend in payments towards NFC and other forms of contactless payments. For example, Bank of America (BoFA) started a market trial of mobile payments in New York². BoFA has the highest number of active mobile banking customers of any US bank.

As in Europe, Visa (Inc) 2010 data for the US shows that over 1.8 billion cards³ are in circulation with an average transaction value of \$74. Cash is far less relevant in the US than in Europe.

Electronic Payments Evolution

2011 is seeing the commercial arrival of NFC within the mobile/smart phone which, when combined with the embodiment of the payment card within the mobile phone will mark a significant acceleration in the trend towards electronic payments using the mobile/smart phone. It is anticipated that as mobile phones are adopted by large geographic populations, in particular where many “unbanked” communities rely on such a device for the transfer and receipt of funds, then the

mobile/smart phone will rapidly become the dominant form of electronic payment.

In the context of the convergence of electronic payments towards NFC and in particular the mobile/smart phone, VALid-POS® remains at the forefront of security solutions for single payment devices.



Fig 1. Mobile/Smart Phone is the preferred consumer convergence device

VALid-POS® Overview

VALid-POS® is a telecommunications based security solution aimed specifically at card-present fraud detection and resolution. It is primarily aimed at cross-border fraud, a major problem for Issuing Banks worldwide, but can also operate domestically using different techniques depending on the country of issue. In cross-border mode, VALid-POS® can not only detect potentially fraudulent transactions in real-time but critically, can also identify legitimate transactions with an extremely high degree of accuracy. Retail banks we speak to are clear that reducing false-positive volumes is the cost-effective way to increasing fraud discovery, reducing operational costs and providing cardholders with a vastly improved customer experience when transacting abroad.

¹ Visa Europe Annual Report, 2010, page 18

² The Nilson Report, Bank of America, January 2011, Issues 964, p2 and 9

³ Visa Inc Corporate Overview, 2010

The VALid-POS® Solution

VALid-POS® is a solution based on Proximity Correlation Logic™ (PCL). In short, it uses information about the cardholder's mobile phone to determine the likelihood of a cross-border card-present transaction being fraudulent or legitimate, based on proximity and probability. It is not a Location Based Service (LBS), does not use tracking of any sort, does not use GPS, Lat Long resolution, triangulation or any other measurement technique associated with these services. Critically, VALid-POS® is only concerned with where the cardholder ISN'T, not where the cardholder is. It is invisible to the cardholder, incurs no cost to the cardholder (unless resolution is required) and works with any mobile or smart phone. VALid-POS® is fully compliant with EU Data Protection and Privacy legislation.

Cross-Border Card Fraud

In today's card based payment world, the most significant threat to Cross Border card based transactions is the risk of card "skimming", with the skimmed card being used in a country that does not support Chip and PIN (e.g. the US market). In this scenario the Issuing Bank relies on historical card usage data to determine whether a transaction is likely genuine or potentially fraudulent i.e. when banks are faced with a transaction they believe to be fraudulent, they get it wrong 9 time out of 10 – a False Positive ratio of 90%, the global industry average. VALid-POS® virtually eliminates false positives by providing an Out of Band cross reference check in real-time that determines the proximity of the card holder to the origination of the ATM or POS transaction by virtue of the card holders mobile/smart phone (via the global mobile telecommunications network). The card holders' Issuing Bank maintains the relationship between the card and the customers' mobile/smart phone. Whilst "skimming" is the fraud scourge of the Credit or Debit card, in the converging world of electronic payments towards the mobile/smart phone, concerns around threats such as: eavesdropping; data modification; data insertion; man-in-the-middle attacks; man-in-the-browser attacks, etc, and the continued sophistication of evolving fraud methods, will ensure that banks will always require an Out of Band real-time authentication of the transaction.

Our Key Benefits at a Glance

- The risk of compromise of any device will always require an additional "check" to authenticate the validity of the transaction due to the sophistication of electronic fraud attacks.
- Since in the case of a transaction originating from a mobile/smart phone, the mobile/smart phone must be present, i.e. the payment method cannot be separated from the device, and therefore the VALid-POS® Out of Band validation through the global mobile network will return a "Confirmation" in real time if the SIM card (virtual or physical) is indeed in proximity to the point of origination of the transaction, be it either at an ATM, POS device, or other electronic payment receptor.
- Thus, the false positives that can occur today with VALid-POS® by virtue of the card holder forgetting the phone, or simply forgetting to turn the phone on, are no longer relevant in the converged payment scenario.
- Convergence towards the single payment device also ensures that mobile/smart phone data is automatically maintained and kept accurate – this can be a problem with mobile/smart phone data held in the Issuing Bank's data bases today. Under A convergence model the VALid-POS® proposition for both False Positive reduction and Fraud reduction is stronger and makes targets of 100% achievable.

VALid-POS® is even more relevant in the converged single device scenario.

"As we enter the generation of mobile transactions and mobile payments, the mobile device itself will need to inherently support a multi-layered fraud detection and prevention capability. Convergence is well underway and the mobile device will increasingly be the origination point for electronic transactions. Security is paramount. The evolution towards this strategic goal and the standards that underpin this direction is being shaped by the exciting technology that is emerging in this field."

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