

“Safety in Numbers”



Stepwise fact sheet for web merchants

Lockstep Technologies' award winning Stepwise solution to Card Not present fraud

Lockstep Technologies' Stepwise radically improves convenience, privacy and security for consumers shopping online. Stepwise uses smartcards and similar personal security devices to encrypt account numbers when presented to e-commerce sites, so that the cardholder's details remain private between them and the merchant. Stepwise dispenses with all the extraneous personal details that today are gathered in a futile effort to combat card fraud, and allows merchant servers to process transactions much more quickly. Stepwise streamlines and accelerates the customer experience, reduces ID theft, and enhances privacy.

Card Not Present fraud

CNP fraud is growing globally at around 50% p.a. and is now the commonest type of payment fraud. Australian CNP losses in FY08 totalled AU\$63M (and exceeded £320m in the UK).

Stepwise offers a quantum jump in CNP security, providing merchants the means to trust credit card details as presented. It is the first solution to fully exploit advanced cryptographic technology built into Chip-and-PIN, and create a user friendly EFTPOS-like interface in the customer's browser. At the same time, Stepwise protects consumer privacy, dramatically streamlines backend payment processing, and alleviates merchant risks in holding and safeguarding customer data.

Stepwise in action

Compared with the laborious, error prone and privacy invasive re-keying of personal details in conventional CNP payments, Stepwise works like a POS terminal in the browser. As shown in the figure, once they select their purchase, the customer is prompted to insert their Chip-and-PIN card into a reader and enter their passphrase. There is no need to type in the credit card number, expiry date, billing address or CVV. With less data to verify, a Stepwise payment typically takes the merchant server less than one second to process. The customer receives a receipt almost instantly, in contrast to the unpredictable delays suffered during regular CNP transactions as they are shunted through third party processors.

Merchant enablement

Stepwise-enabled Chip-and-PIN cards have an extra security key loaded during personalisation by the issuer. The extra key does not affect the card's operation in any other setting, but is recognised by participating merchant servers to secure CNP transactions. To enable the merchant, Stepwise can be installed stand-alone with simple changes to shopping cart software, to serve up the new payment option and interface the smartcard to the server's in-built security functions. Alternatively Stepwise may be integrated with the credit card associations' 3D Secure protocol, where it can streamline processing and simplify the user interface.



Stepwise benefits for web merchants

- **Increased consumer confidence; greater use of on-line shopping; fewer transactions abandoned at checkout**
- **Greatly reduced risk of online CNP fraud**
- **Simple, low cost implementation – all processing occurs in the merchant server (shopping cart) software; no connecting to any third party authentication server**
- **Better PCI compliance, less overhead, easier audit**
- **Less aggregation of personal details; reduced exposure to ID thieves raiding merchant databases.**

