

CAMPAIGN TO WIPE OUT COUNTERFEIT CARD FRAUD

MagTek, Inc. is the largest provider of transaction security products to the world-wide payment community, since 1972 shipping millions of units, supporting billions of transactions, resulting in trillions of dollars transacted.

MagTek's sister company [Magensa.net](#), is the largest card authentication service provider in the world, providing instant validation services for credit, debit, stored value, and identity cards. By authenticating the actual magnetic stripe on the card and not just the information printed on it, we're now able to quickly, easily and economically determine if the card presented is in fact the original, or a clever fake made by criminals using either skimming or database hacks.

MagnePrint®

– What is it and how does it work?

MagnePrint® is a dynamic card authentication technology based on the unique physical properties of the magnetic stripe, also referred to as the stripe's digital identifier or (DI). It provides validation that the card itself is genuine and that its encoded data has not been altered.

MagnePrint uses the inherent properties of the magnetic media to provide the authorization algorithm with a reliable means to assess the cards originality. It indicates if the card presented is the original card delivered by the issuer -- not a clone, not a copy, not one that contains altered data on the magnetic stripe, but is the unique original card.

OUR MISSION: Encourage the Payment Card eco-system of banks, processors and merchants, to work together now to wipe out over \$4 billion in annual counterfeit card fraud in a cost-neutral fashion.

OUR GOAL: Significantly reduce counterfeit card fraud dollars going to foreign organized crime by allowing merchants to simply decline any card presented that is not original. Banks win with lower fraud, merchants win with lower chargebacks, and consumers win by knowing that their stolen identities won't be accepted for payment anymore.

4 billion dollars a year going to foreign organized crime, and we can stop it now with no cost or change to the consumer, simply by agreeing to no longer accept counterfeit cards.

THE PROCESS: It's now possible for card issuers to uniquely identify each physical card they send out by analyzing its magnetic signature. By recording this signature, and making it available to be 'reference checked' by merchants at the same time they swipe for authorization, the cards and processes all stay the same, and only the counterfeit cards are declined. To make this happen, the card issuers must agree to read, record and share their card's magnetic signatures, card processors must agree to read, record, and share processed card's signatures, and merchants must agree to use newer terminals (that have been upgraded or are new) that have the ability to read the magnetic signature of the card presented.

By combining the natural uniqueness of the magnetic fingerprint, with the infinite variability of the hand-held swipe, the cards we already have in our wallets deliver the 'dynamic card data' that the PCI calls the ultimate goal.



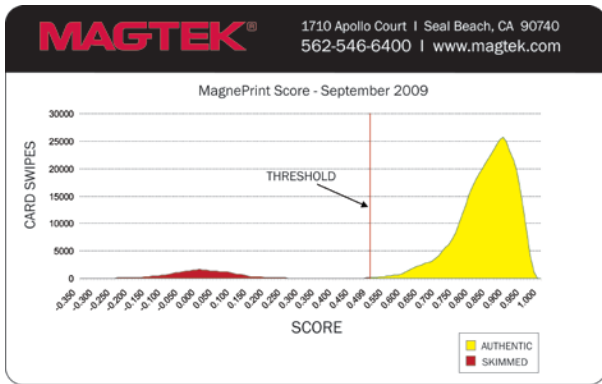
MagTek has purchased the rights to this process, and invested millions to reduce the cost of reading this magnetic fingerprint (called a MagnePrint®) to a fraction of a cent per swipe, making a solution both technically and financially viable today. As the leading magnetic technology provider to the payment card industry since 1972, MagTek is in the unique position of being able to bring this cost saving solution to the payment community.

By adopting this cost-neutral system today, we make our payment systems safer for consumers, while better protecting our critical infrastructure from foreign actors. This same process will detect counterfeit credit, debit, stored-value, identity, health care, driver's licenses, and physical access cards, and is available for home use to improve eCommerce security and privacy on the Internet.

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How to wipe out counterfeit card fraud: Dynamic Card Data and Dynamic Card Authentication – The Process (technical overview):

When a card-present transaction is submitted, the MagnePrint of the card read at the transaction point is transmitted along with the card data and other data. The MagnePrint risk management tool compares the ‘transaction MagnePrint value’ to a ‘reference MagnePrint value’ already present in the authorization database, calculates the degree of correspondence (the match value) between the two values, and makes a judgment about the card’s authenticity based on all available transaction information, including the match value.



During one test, a run of a million transactions with an acceptance threshold set at 0.5 resulted in a “false accept” rate of zero, that is all attempts to process fraudulent cards were thwarted, and the resulting “false reject” rate was only 0.027 percent. In comparing a given ‘transaction MagnePrint value’ to its ‘reference MagnePrint value’, the scoring algorithm assigns a match value between zero (no match) and one (perfect match). The authorization methodology allows each relying party to select an acceptance threshold between zero and one for its transactions, or even to specify a threshold that varies according to the characteristics of the transaction (e.g., more stringent for higher-dollar transactions originating from a fraud prone merchant).

Patent summary: MagnePrint® is a patented, proven technology and was discovered by researchers at Washington University in Saint Louis, MO. MagTek is the sole licensor of MagnePrint and has invested heavily to commercialize the technology for world wide deployment. MagnePrint is a key feature and the foundation of the MagTek secure payment architecture.

MagnePrint (The building blocks): The technology behind MagnePrint has been developed and refined to fit within an encapsulated circuit or Application Specific Integrated Circuit (ASIC) within a magnetic read head. MagnePrint secured devices include card readers (also known as Secure Card Reader Authenticators or SCRAAs, card issuing equipment, encrypting PIN pads, and check readers & scanners and all are available as components to build into other manufacturer’s goods.

MagnePrint is cost-neutral using existing cards, existing equipment, without changing consumer & merchant behaviors, saving merchants \$2 billion per year, and banks \$2 billion per year by drastically lowering counterfeit card presented fraud.

Primary Industry benefits: MagnePrint has been exposed to rigorous test environments of statistically significant size, with quantifiable positive results. Following are some of the most prominent benefits associated with the adoption of MagnePrint as a risk management tool leading to a decline in credit, debit and ATM card fraud losses.

- Decline in direct card skimming
 - Diminished Harm from Data Breaches as counterfeit cards created by breach of a cardholder database are easily detected by MagnePrint technology.
 - Increased confidence and goodwill among both cardholders and merchants leading to lower acquisition costs, lower churn levels and increased card activity.
- Security for **identity cards** such as **driver’s licenses**, and could facilitate better security for **health card, social security, IRS** and other **IDs** needed by Government agencies.

MagnePrint has been fully deployed & tested:

MagnePrint has successfully undergone exhaustive security and operational testing and trials at multiple banks, acquirers, and brands. In addition, MagnePrint has been fully deployed with an initial banking production partner bank to secure their ATM machines. (Full details and test results are covered under our strict non-disclosure agreements, and can be shared as appropriate.)

How to Get Involved:

MagTek’s Chief Security Officer, Tom Patterson, has been tasked with spearheading this industry-wide effort, and is available to speak to all players in the payment eco-system about how adoption could affect their risk profiles. Tom can be reached directly on 562-546-6315, and via email at Tom.Patterson@MagTek.com. We have also created an open resource page at security.magtek.com, where we invite any open comments.

MagTek will be hosting a VIP reception at the November 4th Retail Data Systems conference in Boston, where we will be discussing early stage implementation issues and actions. For a personal invitation, please send a request to CSO@MagTek.com. Invitation is restricted to payment industry executives, merchants, and Federal law enforcement /policy personnel. This is an open, payment industry-wide effort, and we welcome everyone to join us in wiping out counterfeit card fraud.