STEALTH CARD

INTRODUCTION

Development for the Stealth Card began in 2012 when the company founder and CEO, Brian McFadden, observed the global shift towards smart chip card technology to transmit and process credit card/debit card transactions. Additionally, Mr. McFadden witnessed large scale data breaches within the US market from major retailers that compromised millions of consumers' identities. These events made Mr. McFadden realize that there are fundamental vulnerabilities to the way financial transactions are processed and so this motivation led him to develop a solution that will protect consumer identity store on the chips on credit and debit cards.

With Europe and Asia already making the transition away from the magnetic strip to smart chip cards, Mr. McFadden felt the U.S. market would soon have to follow.

However, the smart card has a vulnerability due to the EMV (EuroPay, MasterCard & Visa) standard. While the EMV standard creates convenience, it also created a problem whereby the chip on the card unable to differentiate between a genuine Point-of-Sale (POS) terminal or a smartphone with a payment app installed. What this means is that when the smart card is placed near a reader, it will release the information that is on the chip.

Identity thieves and electronic pickpockets have exploited this request-answer protocol vulnerability by using a smartphone together with an easily available app meaning they can effortlessly harvest an unlimited amount of smart chip credit and debit card information in crowded places by proximity and without contact to the victims.

On October 2015, the U.S. market announced the shift to smart chipped cards and the EMV standard. The cardholder's personal information is stored in the chip and will only be transmitted at the point-of-sale/use. This now opens up the U.S. market to identity breaches on a consumer level. Recognizing this vulnerability, Mr. McFadden was inspired to solve the problem and develop a solution that can protect the information on the chip on the smart card and keep the information safe from identity thieves and electronic pickpockets.

Mr. McFadden comes from a family line of experts in the field of radio frequency shielding. His braintrust, including his father, Jeff McFadden,comprises of a group of engineers who collectively hold over 100 U.S. and International patents in the field of radio frequency shielding, mechanical engineering, antenna technology and materials. Some of the projects they have worked on include, but not limited to projects for Boeing, Department of Defense, NASA, DARPA, Lockheed Martin, etc.

After three years in development, with numerous prototypes, both father and son, together with their team of engineers achieved a cost-effective solution that would protect the consumer from illegal skims, while making the smart chip card invisible to electronic pickpockets and identity thieves.

SMART CARD VULNERABILITY

ABC News: Holiday Shopping Alert
HOLIDAY SHOPPING ALERT
HACKERS OUTSMART CREDIT CARD MICROCHIPS

KOMO 4: Beware of Electronic Pickpo...
KOMO 4 NEWS

Smart cards do make transactions safer. However, the smart card does not distinguish the difference between a POS terminal or an illegal skim from a smartphone with a card reader app. Smart cards adhere to the standards set by EMV, which included various ISO/IEC standards. Yet the standard does not include any security measures against relay attacks or skimming offenses.

Electronic pickpockets have exploited these vulnerabilities with lab tests and independent researchers also demonstrating the ease on how the smart card security can be compromised.

In real-life scenarios, electronic pickpockets use freely available mobile apps together with a smartphone posing as a credit card reader. By walking through crowded areas, they can easily skim and harvest smart chip credit or debit card information by proximity to the victim without physical contact. Personal information is exchanged without the victim's knowledge.

More sophisticated forms of electronic pickpocketing include relay attacks, whereby the attacker relays information between two legitimate parties, without them being aware of the relay. The intercepted transmission is rebroadcast and credit card information is cloned.
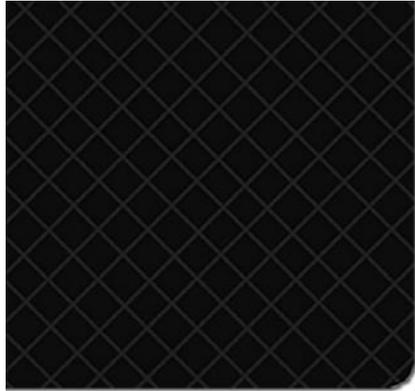
STEALTH CARD TECHNOLOGY

Smart cards contain an integrated circuit that connects to a reader either through direct physical contact, or with a remote contactless frequency interface, i.e. Tap- and-Go cards. The technology behind these cards are governed by EMV and adhere to ISO/IEC standards.

Due to this standardization, Stealth Card is able to target effectively ALL the vulnerabilities known to sophisticated electronic pickpockets and prevent data theft using the Company's proprietary and patent-pending technology.

HOW STEALTH CARD WORKS

POWERGRID

Stealth Card combats illegal scans or skims by generating an electromagnetic shield to provide a preemptive solution via its proprietary technology, PowerGrid.

On the reverse side of every Stealth Card is the PowerGrid. PowerGrid contains a unique compound of precious metals and an antenna design, which works by creating an electromagnetic field similar to a Faraday cage. PowerGrid is powered using incidental radio waves in the atmosphere thus requiring no batteries to operate.

Stealth Card's PowerGrid targets the radio frequency used by the smart cards, by blocking both incoming and outgoing radio waves, rendering the chip undetectable to electronic pickpockets. Any smart card that is within Stealth Card's sphere of influence will be blocked from responding to a skim query as well as broadcasting the smart card's data.

Since Stealth Card only targets a specific radio frequency, other radio frequencies used by mobile phones, bluetooth, and other wireless technologies are not affected.

3.37"/ 85.6mm

0.007"/ 0.01778mm

2.125"/ 53.98mm

Stealth Card is designed to fit easily into any wallet or purse. It measures 85.60 x 53.98 mm (3.370 x 2.125 in) and is only 0.007mm thick.

Stealth Card is made from a plastic polymer that is extremely durable and almost indestructible.

STEALTH CARD VALIDATION & CERTIFICATION

Stealth Card has been lab-tested and validated internally by Home Shopping Network (HSN), who introduced and sold the product on their network in June 2015.

Stealth Card has also been tested and certified independently by The Center for Applied Research & Technology (CART) to successfully prevent smart cards from being read.

In addition, Stealth Card has also undergone further lab testing with MetLab in the USA and is in the process of testing internationally, to increase credibility and validate Stealth Card's effectiveness in blocking all EMV compliant smart cards, as well as other passports with a smart chip, driver's licenses etc.

The product was successful in blocking RFID-chipped*
cards from being read 100 percent of the time when utilized in
its intended orientation with commercially available equipment in
normal operation. A single product was able to protect up to 12
cards when used in its intended orientation…

*Note: RFID-chipped cards include all Smart Cards adhering to the EMV standard.

CART Report

STEALTH CARD IN THE MARKET

Home Shopping Network (HSN)

In the USA, Stealth Card made its debut in June 2015 on HSN after being tested and validated internally by the network for close to one year. Since then, Stealth Card has become one of the fastest selling items on HSN, with sales volume of over 500,000 cards to date. In Q4 2015, Stealth Card became the fastest selling product on HSN twice in November and December, with sales hitting $6,600 per minute on the network.

Currently, Stealth Card has received a 4-Star average positive rating and close to 150 5-Stars on HSN from their shoppers.

Online

www.Stealth.Cards was launched in mid-October of 2015 to coincide with the Liability Shift Mandate in the USA. The website provides information on Stealth Cards, FAQ, as well as an e-commerce store where visitors can purchase Stealth Cards, with free shipping within the USA.

Retail

Stealth Card is currently developing retail partnerships with vendors to sell Stealth Cards within their stores. The full retail presence will roll out in the USA in late Spring 2016.

STEALTH CARD IN THE MEDIA

In addition to appearances on HSN, Stealth Card has been featured in national and local media outlets in the United States. They include Extra! with Mario Lopez, New York Live, as well as The Morning Blend, First Coast Living, Good Day Oregon, etc.

Media coverage plays an important role for Stealth Card, as it provides a platform to educate consumers on smart card vulnerabilities and how to keep their wallet's information safe.

STEALTH CARD ADVANTAGE

Stealth Card provides banks, and credit institutions an effective and elegant solution to protect consumers' information while combating fraud at the same time.

- Proactively blocks incoming and outgoing radio frequency to protect personal information
- Uses atmospheric energy to power itself, without needing batteries
- Does not require line-of-sight to keep smart chip cards within protection
- One Stealth Card has been certified to protect up to twelve smart chip cards
- Targets the specific radio frequency used by smart cards and does not interfere with other wireless frequencies
- Made from plastic polymer that is extremely durable and almost indestructible
- Developed and manufactured in the USA