RFID SECURE
PREVENTION OF IDENTITY THEFT & MONETARY LOSS

WHITE PAPER

Card Clash, RFID Chips, NFC & Security Risks

There has been much discussion recently about NFC and contactless payment in general in the UK. The technology is exciting and impressive in equal measures but, like any new advancement in this sphere, security concerns have come to the surface. RFID Secure Ltd has highlighted the ease with which personal and financial information can be taken from an RFID chip by those with easily accessible kit and know-how. This revelation has thrown some serious questions into the widespread use of the technology, but what are the real implications of this risk, and what can be done to combat it?

Identity theft is a growing problem that knows no borders - in the USA, it is estimated that 7% of adults have been victims of this kind of fraud, a staggering figure. In the UK the problem is also on the rise with 4% of the population fallen victim. Data from Cifas indicated fraud increased by 31% in 2015 alone, with over 59% of those being identity theft. These figures are particularly concerning when we consider that NFC is becoming much more standardised across the world as a method of payment and electronic communication – an accessible technology that potentially makes the job of a fraudster so much easier.

The flaws in RFID lies, somewhat ironically, in its greatest strength - the ability to transmit data wirelessly. A criminal with rudimentary knowledge of the technology is able to find an RFID scanner online with great ease - the scanners themselves are used routinely in industry. They can then use the device to skim the data from a card, transmit this to another location and then make a duplicate card ready for use. The scanners themselves are only designed to be used at extremely close range, but the range of a device is dependent upon its power source - a larger battery and aerial equates to a larger operational distance. In theory it is possible for a thief to swipe your details from across the room - but imagine a device of such a high power that it can be used from a different room entirely. **When it comes to identity fraud, prevention is always key.**

The potential theft of Credit card details is a worrying concern, but the widespread implementation of RFID means that is the tip of the iceberg. **Passports and security access cards** are also using this system; the implications of which are far more serious indeed. Government buildings containing extremely sensitive information are not secured against a thief who has skimmed data from someone with clearance. How easy could it be for a criminal to gain access to financial records, military information or even enter restricted spaces such as the Ministry of Defence or Scotland Yard?

RFID Secure offers an immediate solution to the problem - they produce wallets and sleeves that offer a physical barrier to the RFID chip in the card, shielding it from would be thieves but still allowing normal operation by the owner. They also have simple and effective protection for Access Control cards.
A long term solution to the problem would require serious advancements in the encryption methods used on the chips - something which is creating a need for cyber security analysts, cryptographers and data specialists in the information security sphere. **Yet any new encryption will soon be cracked!**

At this moment in time, our need for greater convenience in our technology is outstripping the security measures available. This is a balance that must be addressed soon before we lose the race altogether - if history has taught us anything it's that you can't stop technology's progress.

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