

What are Smart Cards? Simple solutions for complex needs

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Smart Cards are standard plastic cards, much like any ID or credit card, but with one difference; they contain a microprocessor – a tiny computer chip – that allows them to perform much more sophisticated functions than magnetic stripe or barcode cards.

This microprocessor (electronic chip) is either embedded on the front of the card (known as a *Contact* card) or contained within the plastic (known as a *Contactless* or *RFID* card).

Contact cards are easy to recognise – the shiny gold or silver colored chip can be clearly seen on the front of the card. Contactless chips cannot be seen by the untrained eye. Also known as Tap and Go, they have a tiny transmitter mounted in the card which allows the chip to communicate with the card reader without even touching it. Depending on the use of the card, this could happen from 1 to 20 feet.

When the smart card is inserted into or tapped on or near a card reader, data is read from or written to the chip.

Uses of Smart Cards

The uses of smart cards are so many that just a few are listed here:

- **Campus cards** for secure access to computers, networks, and door or gate access.
- **Electronic purse:** Value is stored on the card and can be spent using POS, vending, laundry, meal plans, photocopying, printing, tolls etc.
- **Parking:** Cards can be used to pay for meters, pay and display or access to prepay or restricted areas
- **eTicketing:** Use your card to pay for tickets and your card becomes your ticket to gain entry to events
- **Loyalty:** Earn points while you shop
- **Biometrics:** Provide additional security

Systems can be expanded and developed over time, without reissuing cards. For any number of users, our Smart Cards provide cost effective, robust and flexible solutions for your business.



Benefits of Smart Cards

There are three main reasons for replacing existing magnetic stripe or barcode cards with smart cards; Security, Privacy and Functionality.

Smart cards are far more secure because the data held on the card is encrypted and cannot be read or accessed by an unauthorized card reader.

Far more data can be stored on a smart card chip than on a magnetic stripe. Just like computers, smart cards come with various memory sizes. Information that previously would have to be stored on a database and then accessed over a network can now be placed on the chip, ensuring that private data is held only on the customer's card, such as Biometric fingerprints.

This greater memory can also store information to access many different accounts, systems and locations. For example, one card could be used as a credit card, company ID card, gym membership card and as an electronic passport.

Smart Cards provide security, privacy, speed, convenience and extra functionality to your card program

Smart cards provide many applications on a single card: simply, affordable and securely.

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