



Smart cards and IT security



The functionality of smart cards has expanded to today include support for authentication to secured applications. If your organization uses smart cards for authentication purposes, IBM offers a PC card solution to meet your needs.

- *Smart cards can be a convenient part of a coordinated security policy, offering both "mobile" and "logical" authentication.*
- *The Gemplus GemPC400 Compact Smart Card Reader Writer from IBM works with ThinkPad® notebooks to conveniently provide smart card functionality through the PC card slot.*
- *The same PC card slot can be used for other devices when a smart card is not in use with the Gemplus GemPC400 Compact Smart Card Reader Writer from IBM, preserving flexibility.*
- *The additional benefit of a secure repository for critical operations is available with select ThinkPad notebooks featuring the IBM Embedded Security Subsystem.*

What is a smart card?

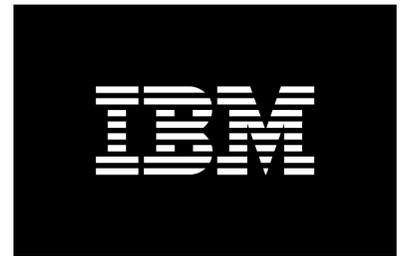
First introduced over a decade ago in Europe, the versatile smart card performs a variety of functions today. Once primarily used as stored value, loyalty or identification cards, smart cards are now being employed by some organizations for IT security purposes.

Although a wide variety of smart cards offering different levels of computing sophistication are available, at their most basic level these cards offer a convenient way to store a small amount of information. Closely resembling a credit card in shape, smart cards rely on nonvolatile memory held between the outer laminates to store (and in some cases process) information. A prominent contact pad on the surface of the smart card allows information to be accessed by a smart card reader.

Uses past and present

Smart cards are widely used around the world, especially for several common purposes. In many countries, disposable stored value smart cards have become ubiquitous, replacing cash for public telephone use and for travel on select public transit systems, among other uses. Smart cards are also a convenient way for companies to gather and store customer information as part of a loyalty program. Similarly, smart cards have gained some acceptance as a form of identification, with more sophisticated cards capable of storing personal information such as a fingerprint.

Smart cards can be useful as a single form of authentication to buildings and to IT applications. To begin with, a smart card can be used to gain access to a particular building or area through doors or gates equipped with smart card readers. This same smart card, already employed as a form of "mobile" authentication, can then also be used for "logical" authentication in the IT environment—i.e., the user's smart card can be required as a form of identification for logon to a computer, office network, VPN or other resource. The requirement for this is that the user's computer be equipped with a smart card reader.



Smart cards and IBM ThinkPad notebooks

To meet the needs of public and private organizations that rely on smart cards for security solutions, IBM offers the Gemplus GemPC400 Compact Smart Card Reader Writer from IBM as a standard option for ThinkPad notebooks. This reader conveniently fits into a standard PC card slot and can be removed when not in use. This modular attribute can be a major advantage when compared to notebooks that sacrifice a PC card slot to integrate a reader. By removing the Gemplus GemPC400 Compact Smart Card Reader Writer from IBM when not in use, a user still retains the flexibility to use the slot for adding functionality such as wireless networking, removable storage or additional ports.

The IBM Embedded Security Subsystem

Authentication—by smart card or other means—is, of course, only part of a sound security policy. To help address data security, select IBM systems incorporate the IBM Embedded Security Subsystem. This hardware/software solution (software download required) helps protect data by offering a secure repository for critical data such as passwords, digital certificates and encryption keys. Sensitive key operations are executed in the security hardware, protecting the keys from a possibly compromised operating environment. This provides greater peace of mind during activities such as data encryption, one of the integrated features of the Embedded Security Subsystem.

IBM. Always there for you.

Whatever security solutions you choose to deploy in your organization, IBM is there for you with extensive experience and innovative products. In addition to the Embedded Security Subsystem, data security offerings range from Rapid Restore™ PC, which can help protect data on your PC, to more secure wireless networking options. If your goal is to deploy and maintain a robust information security program, IBM can help you do so effectively and efficiently.



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