

Prototyping a secure multipurpose, mobile chip

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A powerful, high-capacity chip currently under development has the potential to revolutionise daily life, doing away with many of the identity documents, credit cards and passwords people have to use each day. Due to end in June, the IST programme-funded project SM-PAYSOC has so far created a working prototype of the chip packaged in a smartcard, which in the future could also be incorporated into a USB token or a SIM card.

It allows users to access services and carry out online transactions wirelessly from a mobile phone or PDA, or from a desktop PC or public card reader with fixed-line Internet access. User authentication procedures employing Public Key Infrastructure (PKI) ensure the security of the data on the chip, which could include personal identity information or credit card and bank details.

“The SM-PAYSOC token is a secure personal repository of information that you can plug in and use anywhere on multiple platforms to obtain multiple services,” explains project coordinator Alberto Bianchi at AMTEC-Selenia Communications in Italy. “The user is the owner of the token and can use it without constraints, permitting high mobility and secure access to information and services. Unlike most smartcards on the market today which have 64KB or less memory, our token has 16-128MB of nonvolatile memory.”

The services it offers could be either in the private or public domain, as trials due to be conducted in Spain and Italy later this month plan to

show.

“It could be used by citizens to pay taxes at their local council, students could use it to register remotely for exams or a person could obtain a digital prescription from a doctor and buy the medications at a pharmacy using the chip,” Bianchi says. “We believe it is the first time a chip has been designed for such a comprehensive array of applications.”

In the view of the project partners’ the highest demand is in the banking sector, which will probably be the first industry to use multi-service, multi-platform chips on a wide scale.

“Banks want to be able to offer more services and to do so with greater ease,” the coordinator notes. “In that sense banks and other service providers benefit from increased efficiency.”

On the other hand, end-users gain by having all their information in a single place.

“When we questioned people about a device such as this, the response was overwhelmingly positive, with many saying that they have too many cards to carry around and too many passwords to remember,” Bianchi says. “The chip was therefore designed from a user-centred approach.”

Source: IST Results

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