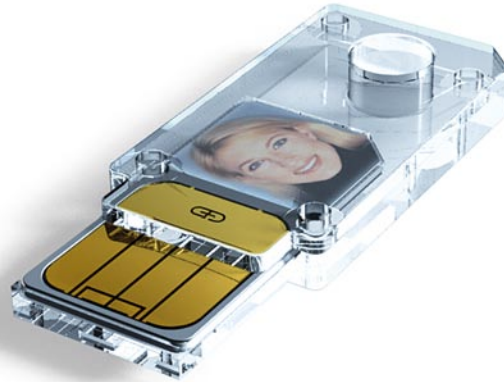




Internet Smart Card

security2go—WebServer



The latest prototype of the Internet Smart Card from Giesecke & Devrient (G&D) sets new standards in smart card architecture. It allows secure and easy access to web-based services such as Internet banking or closed user groups, as well as to corporate functions without the installation of additional software (plug&play).

What is the Internet Smart Card?

The Internet Smart Card is a web server, in other words an active Internet participant.

- The information content can be displayed in website format

- WebServer can generate dynamic HTML pages (CGI, servlets)
- Data security can be ensured through SSL/TLS
- Card and PC (browser) communicate directly via PC's USB port
- The card is a full member of the LAN
- The Internet Smart Card guarantees secure Internet access

Internet technology

The standard TCP/IP protocol is fully supported. The card prepares the data in HTML format so that it can be displayed in a browser on any standard PC. If required the

data transfer can be secured using SSL/TLS. The Internet Smart Card has the advantage that the data is displayed identically on any PC. The card determines the layout of the data displayed—irrespective of hardware.

Other browser-based applications require middleware running on the PC to display data. The Internet Smart Card technology exclusively uses components already installed on a standard PC. It can therefore be used on any computer. Both client and server authentication are possible and can thus prevent man-in-the-middle attacks.



Giesecke & Devrient



Benefits for the card issuer

- Reduced administration costs
- Less roll-out expenditure
 - Uses standard Internet technology
 - No installation of card readers, drivers or middleware required
 - No user training required

Benefits for users

- No need to install new user software (the browser comes with the PC operating system)
- Top security when accessing web-based services (accessing portal operators)
- No need to purchase special expensive card readers
- The individual data and stored applications are transportable (USB token) and can therefore be used flexibly on any standard PC.

Technical information

Card token technology

- Handy size
- No drivers required
- Optical personalization: name, personal number, etc.
- Lettershop capable

Internet protocols

- The Internet Smart Card supports these protocols:
- HTTP/HTTPS
 - TCP/IP/HTTP/HTTPS

Interface support

The card can use both user interfaces and machine interfaces

Communication

- USB 2.0, Full Speed
- RNDIS alternative CDC Ethernet
- ICMP, WINS, DNS
- ARP

Chip

Uses latest 32-bit technology with USB 2.0 and 24k RAM (minimum requirement)

Security

- Standard Internet security algorithms
- SSL client authentication
 - SSL server authentication
 - HTTP user authentication

Software

- Multitasking kernel-based operating system with
 - Multithreading
 - TCP/IP interface
- Central application on the card is the WebServer
- Web application can be implemented on the basis of a servlet engine using common standards
- Servlets can use HTTP or HTTPS connections depending on security requirements
- Servlets can accept secure connections to remote application servers
- Integrated web client for downloading of information from the Internet

Application options

- Secure web access
- Single Sign-On
- Loyalty and bonus software
- Access control
- Health cards
- VPN replacement
- e-learning
- Internet banking
- Corporate ID
- e-voting
- Authentication Gateway

Data storage

- Hierarchical file system
- Rights management for servlets

Giesecke & Devrient GmbH
 Prinzregentenstrasse 159
 P.O. Box 80 07 29
 81607 Munich
 GERMANY

Phone: +49 (0) 89 41 19-23 84
 Fax: +49 (0) 89 41 19-90 93

www.gi-de.com
 Internetsmartcard@gi-de.com

© Giesecke & Devrient GmbH, 2007
 Technical data is subject to modification.
 G&D/GAO patents.

RDN 03/07 E1.000 Art-Nr: 288 6093



Giesecke & Devrient