



# StarSign®

Trustworthy identities  
and transactions



Giesecke & Devrient  
Creating Confidence.

# Giesecke & Devrient: Creating confidence.

Giesecke & Devrient (G&D) is an internationally leading technology provider specialized in security. For 160 years we have been a trustworthy partner in the development and implementation of holistic security technologies. We are available for customers with 58 subsidiaries and joint ventures around the globe.

As a technology expert in the area of banknote production and processing, G&D supplies banks worldwide. It also provides mobile network operators, local public transit authorities, original equipment manufacturers (OEMs), and

other companies with end-to-end solutions complete with hardware, software, and services for mobile security applications, especially in the telecommunication and electronic payment sectors. G&D also provides highly secure travel documents, ID systems, and healthcare cards that serve not only as conventional identification documents, but also as tools for authenticating and securing online business transactions.

Security, competence, and trust are the watchwords of the Group. Its innovative, customer-centric products,

services, and solutions make G&D a reliable partner for governments, central banks, security printers, government agencies, and many others.

We draw on many years' experience and extensive expertise for IT security. We have been setting standards in this market right from the start. The StarSign product family can be implemented anywhere with maximum flexibility and user-friendliness for authentication purposes, encryption and digital signatures.

» StarSign is synonymous with our brand promise:  
Creating Confidence.



# Global protection for intellectual property

People, their business, and their data have never been more mobile or readily available than they are today. For instance, employees can access systems and applications while they are commuting or travelling just as easily as if they were in the office. Powerful portable devices allow the movement of data to cloud services for shared use with colleagues in real time. Customers and external partners also benefit from these flexible and productive ways of working.

However, the downside of this ready availability is an increased risk of exposure and misuse. In order to fully benefit from the new collaborative technologies, organizations need to protect their digital assets with modern security solutions.

## **Watertight solutions**

Shared applications and data are precious intellectual assets. Misuse by third parties not only damages competitiveness but also jeopardizes confidence in the company itself. The greater the number of users and access possibilities, the more comprehensive protection against security leaks needs to be. Additionally, organizations are required to comply with applicable regulations such as Basel II and Sarbanes-Oxley (SOX).

Consequently, corporate security requirements for networks, data, applications, and company premises are ever-growing. The secure authentication of employees is a key issue. G&D's StarSign products fully satisfy these requirements and can be simply integrated into all current IT systems and applications.

A StarSign card used as a company ID card contains the employee's secured credentials. It is multifunctional and can be used for these and many more applications:

- Access to networks
- Contactless entry to secure buildings
- Clocking working hours
- Paying in the canteen

## **Secure e-identities for staff and partners**

A major advantage of the StarSign product family is that it replaces insecure passwords by a much more secure two-factor authentication system that requires both a physical card or token and a PIN. With this card or token, each user has a unique and secure e-identity. This e-identity is reliably recognized by the system and can be traced and centrally managed.

## **Security to enjoy full freedom**

The challenge for any security system is to find the right balance between security requirements and the impact they may have on user-friendliness. If users suffer from restrictions imposed by security, they will find ways to circumvent the system and thereby expose the organization to the risks it intended to avoid.

The solution is an intelligent security system that equips each user with a trustworthy, universally and easily usable e-identity. In addition, the system speeds up operative processes while at the same time appreciably reducing security investment costs: StarSign by Giesecke & Devrient.

# The StarSign product family: Intelligent, cost-effective security

The StarSign portfolio comprises smart cards, tokens, middleware and a broad spectrum of additional services for authentication. StarSign products are perfectly suited for all use cases that require secure identity credentials such as public key infrastructure (PKI) services, electronic transactions, digital signatures, or physical access control. They are easy to integrate into the smart card readers and smart card management systems (CMS) of all major vendors for the above-mentioned use cases.

## StarSign PKI Card

The StarSign PKI Card is a well-established member of G&D's StarSign family. It is seamlessly integrated into AET's SafeSign® IC middleware, another industry standard established worldwide.

In conjunction with the middleware, StarSign PKI Cards are the classic solution for secure log-in, remote access over VPN, digital signature, and document and e-mail encryption in corporate environments. When equipped with a contactless interface, the StarSign PKI Card can also be used for physical access, making it the all-in-one security element for any enterprise.

StarSign PKI Card implements and utilizes standard interfaces. In most common systems (Windows, Mac OS, and Linux®), it does not require any additional drivers and supports all state-of-the-art host operating systems.

The StarSign PKI Card modules have been granted FIPS 140-2 Level 3 certification by NIST (National Institute of Standards and Technology).

## StarSign FIPS 201 Card

The StarSign FIPS 201 Card satisfies the highest standards for dual interface smart cards for Personal Identification and Verification (PIV). It can be used both for PKI authentication and ISO® 14443 compliant contactless applications.

This makes it suitable for logical access to IT networks as well as for physical access to buildings – in compliance even with the rigorous U.S. government PIV requirements for buildings and information systems. The cards can be additionally equipped with numerous on-card security features by G&D.

Enterprises can now secure their assets with the same U.S. Federal standards implemented by the government.



### StarSign Crypto USB Token

The StarSign Crypto USB Token is a powerful member of G&D's StarSign family. It is a secure authentication solution both for the end-user market (e.g. for banking, online gaming, and gambling) and the enterprise market for secure log-in, digital signature, document and e-mail encryption, and much more.

The token implements and utilizes standard interfaces. It does not require any additional drivers and supports all state-of-the-art host operating systems.

The FIPS 140-2 Level 3 certification was awarded by NIST (National Institute of Standards and Technology) for the crypto module and the entire token.

### Middleware

Middleware is the basis for interactions between smart cards or USB tokens on one hand and IT security applications on the other. G&D provides AET's SafeSign Identity Client, the all-rounder for strong authentication, integration, and compatibility, in combination with its StarSign products.

SafeSign Identity Client implements the standard PKCS#11 interface for the most common PC operating systems, and Microsoft's CryptoAPI (CSP) for Windows platforms. It combines compliance with the latest leading industry standards and protocols with a high level of flexibility to reduce deployments costs.

SafeSign Identity Client enables any PKCS#11 and/or CSP compliant application to benefit from smart cards and USB token features on any of the supported platforms.

### StarSign Services

G&D offers many services for the optimum use of the StarSign product family. These include:

- Customized maintenance contracts to ensure that advanced StarSign solutions are always available in updated form for your individual requirements.
- Card-based services such as initialization, personalization, automatic lettershop mailing, and the management of various cards and tokens.

# StarSign benefits

- **Creating confidence:**

StarSign enables organizations to move forward with confidence and the certainty that their data are secure. Our solutions help users to focus on their core business.

- **Trustworthy:**

StarSign technology is founded on our security expertise for national banks, governments, and leading companies all over the world.

- **Secure:**

Security-certified StarSign products for authentication and confidentiality also safeguard the storage of critical data and e-identities.

- **User-friendly:**

With the plug-and-play functions of a USB token, there is no need for a driver.

- **Easy and efficient:**

One device for physical and logical access, payment, time/attendance, and many other functions is easy to handle for both end users and administrators.

- **Flexible and modular:**

Several applets can be preloaded to provide a flexible multi-application platform for current requirements and future needs during the card life cycle.

- **Cost-saving:**

One single system platform, e.g. Sm@rtCafé® Expert 6.0, can serve multiple form factors such as cards and tokens.

- **Compliant:**

StarSign products help organizations to strengthen risk management and observance of applicable regulations such as Basel II and Sarbanes-Oxley (SOX).

» Equipped for the challenges of a mobile, «  
connected society with StarSign





## Giesecke & Devrient

Giesecke & Devrient GmbH  
Prinzregentenstrasse 159  
P.O. Box 80 07 29  
81607 Munich  
GERMANY  
Phone: +49 (0) 89 41 19-0  
enterprise-oem@gi-de.com  
www.gi-de.com

© Giesecke & Devrient GmbH, 2013.  
StarSign® and Sm@rtCafé® are registered trademarks of Giesecke & Devrient GmbH.  
SafeSign® is a registered trademark of A.E.T. Europe B.V. Windows is a registered trademark of Microsoft Corporation in the United States and other countries. Mac and Mac OS are trademarks of Apple Inc., registered in the U.S. and other countries. Linux® is an OSTG trademark or registered trademark in the United States and other countries. ISO® and the ISO logo are registered trademarks of ISO Properties, Inc. All technical data subject to change without notice. G&D patents.