BioSec

BLogin

Biometric Windows login system based on palm vein recognition

Content

Highest security level

Ease of use

Convenience

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General information

Who is BioSec?

BioSec Group Ltd. is one of the leading R&D companies in the field of biometric technology. BioSec develops palm vein recognition based solutions, providing the highest level of knowledge and expertise for its clients. We ensure customised solutions in the field of biometric mass authentication, physical and IT security with almost ten years of experience in development, sales, installation, operation and support.

What is biometric authentication and palm vein recognition?

The biometric authentication system is a technology, which measures and records the individual physical characteristics of a body and uses the data for personal authentication. In our case, the palm vein scanner measures the vein structure within the hand in 5 000 000 reference points by the emission of infrared light. In opposite to other biometric technologies, which use surface characteristics (e.g. fingerprint), the vein structure is an inner characteristics, which is not visible from the outside, thus it cannot be copied, reproduced, stolen or used for secret data collection. Surface injuries on the palm do not influence the identification quality.

Main benefits of using BioSec's biometric technology:

- No need for RFID cards, chips, bracelets, passwords
- The vein ID cannot be stolen, copied, reproduced
- BioSec solutions are easy to integrate into existing systems via standard interface
- Compatibility through standard interfaces
- Cost effective solutions

Security classification of the technology:

 The palm vein recognition based technology and the authentication procedure meets the standards of the Common Criteria Classification, which is the highest technical certificate concerning IT security. The qualification procedure examined the life detection, authentication quality, data protection functions.

What is the BLogin?

BLogin is a biometric logical access control solution based on palm vein recognition, which offers a single-gate biometric identification solution instead of low security passwords for Windows or Linux (on thin clients). By using BLogin, the user only needs his/her hand for computer login, thus password-related security risks and inconveniences can be eliminated with the highest certainty. BLogin is Active Directory compatible, therefore access and right management can be managed on one surface together with domain management. After each login, the maximum password length of Active Directory (127 characters) will be changed with a random password generated from the person's HASH code, thus every AD password is a onetime key. By using BLogin, the administrative burden of IT staff will be also decreased, ensuring increased efficiency for both the IT department and the users. BLogin can be used in only palm vein, palm vein or password or in palm vein and password mode.

BLogin in a nutshell

Highly secure	Simple to use	User-friendly	Active Directory compatible	Easy to integrate	Increased efficiency	Fast authentication

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Main benefits of using the BLogin:

- ⏵ Can be used for fat and thin clients
- ⏵ Unsecure passwords are replaced and managed by a single-gate biometric authentication
- ⏵ Active Directory compatible, thus access and right management can be managed on one surface together with domain management
- ⏵ AD passwords are changed with a random 127 characters long password, each time the user accesses the system
- ⏵ Can be easily integrated with other IT security systems, thus providing a cost-effective solution
- ⏵ Can be combined with other BioSec products, thus one server will serve all solutions (complex security concept can be created, e.g. combining logical access control with physical security products etc.)
- ⏵ Via credential provider custom SSO can be created
- ⏵ Multifactor authentication system can be created, where combining password, token and biometrics enables a higher security level and minimised security risks
- ⏵ Less trouble cases for the IT department, less administrative burden and costs

Main fields of use of the BLogin:

- ⏵ Companies, where employees have to use many passwords (minimized security risks)
- ⏵ Pharmaceutical, chemical industry (protection of intellectual property)
- ⏵ Healthcare, hospitals (preventing misuse of unauthorised access to data)
- ⏵ Justice (preventing illegal access to data, preventing misuse of personal identity via passwords)
- ⏵ State sector/critical infrastructure (IT security on the highest level)
- ⏵ Financial institutes (supporting the work of bank employees)

Technical parameters

Technical details of the BLogin:

- **Used OP system:** Windows 8, 8.1 (32 or 64 bit), Windows 10, Linux Ubuntu 16
- **Can be used for:** fat and thin clients
- **Right management:** Active Directory is necessary, recommended only for corporate clients. On request can be supplied without AD connection/right management
- **Database:** MSSQL, PostgreSQL
- **Active Directory:** complete compatibility
- **Stand alone:** only one person can have access in case of offline mode
- **Domain management:** possible
- **Necessary hardware:** mouse with palm vein sensor or desk terminal + 1 USB port
- **Possible identification procedure:** verification (template + user name), identification (template only)

Main elements:

Hardware:

- **PS Mouse:** Biometric authentication device
- **PS Guide:** Registration desk terminal
- **BioSec server:** Our IDENGINE central identification software carries out personal identification, contains logs, and if there is no Active Directory then the given person may access to Windows after verification of his/her personal identity
- **Active Directory server:** In case of successful identification, it carries out right management. Automatic integration
- **Working station:** Where the user can have access to Windows. The holder of the working station can identify himself/herself even in offline mode, yet in case of Active Directory only online identification is possible
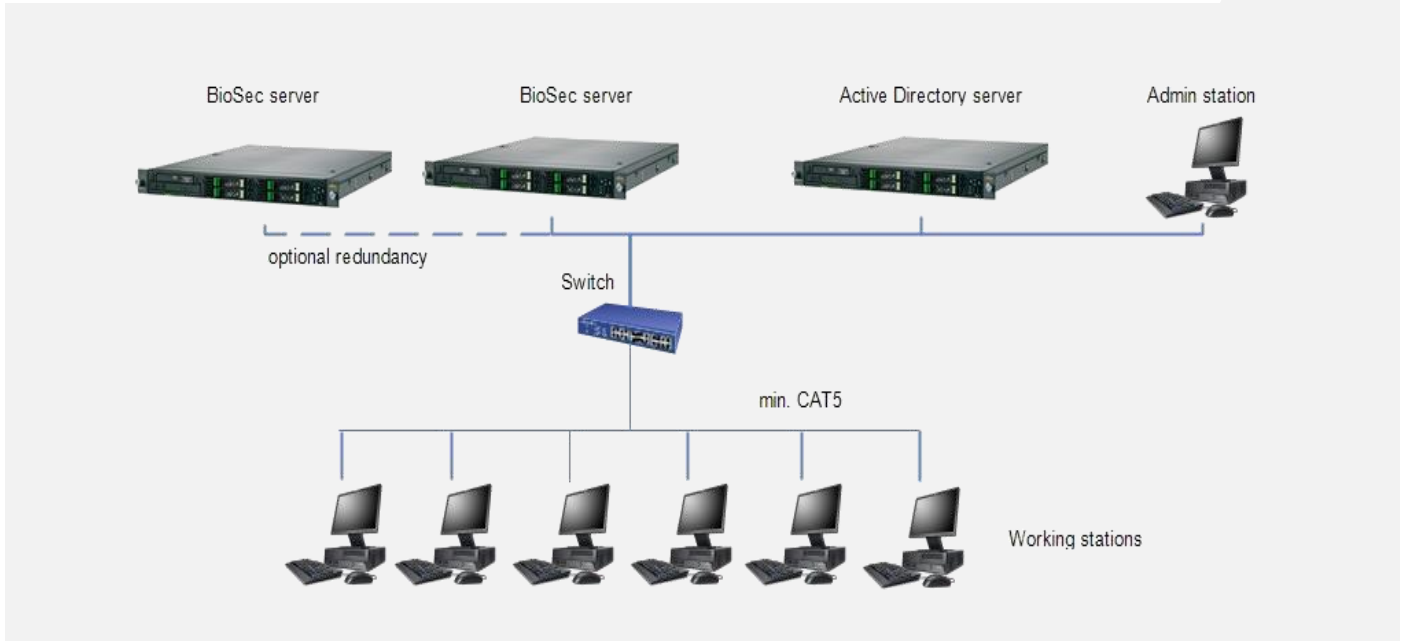
Software:

- **Client SW:** Client software for each working station
- **Server software:** Central server software for system administration, central identification and logging on the BioSec server
- **AdminSuite:** System/user management, registration graphical user interface on the admin station

Security features of BLogin:

- The HASH code is encrypted with AES 256 bit
- The communication is PKI encrypted and the database is also protected
- System management software can be only accessed via palm vein recognition based authentication, no passwords
- Only those users can be biometrically enrolled, who are already in Active Directory. In case deleted from the Active Directory, the user will be automatically deleted from BLogin
- The credential provider at the Windows of the workstation will be modified
- After each login the maximum password length of Active Directory (127 characters) will be replaced with a random password generated from the person's HASH code, thus every AD password is a onetime key (in only palm mode)

System architecture

BioSec server   BioSec server   Active Directory server   Admin station

optional redundancy

Switch

min. CAT5

Working stations

Possible devices for use

PS Mouse - with palm vein sensor

PS Guide – registration terminal

PS Guide Kit – for optimal distance

More information

Besides BLogin, the BioSec product portfolio contains the following solutions:
For further information please visit www.biosecgroup.com

LifePass
Biometric authentication middleware

StadiumGuard
Stadium security- and services solution package

GateKeeper
Biometric physical access control system

CityGuard
Integrated access management

RapidGuard
Rapid deployment biometric authentication

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BioSec Group Ltd. is a dedicated developer of innovative security solutions based on palm vein recognition. BioSec is specialized in biometric mass authentication, logical- and physical access control solutions, ensuring highly secure, simple to use and convenient solutions in every fields of life.

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