

centre hospitalier du nord biometric authentication

Biometric security in the healthcare sector with ID Center

Luxembourg's Centre Hospitalier du Nord (CHdN) has enhanced its network and applications access security policy thanks to a biometric solution from Worldline. Hospital employees now log in with their fingerprints: a convenient and efficient way of combining security with mobility.

Background

When the different health institutions of North Luxembourg were being merged and the hospital's network expanded, Centre Hospitalier du Nord (CHdN) needed to improve its access security. Various challenges were identified. First, the solution had to allow a high level of security, linked to the physical identity of the user. Second, new legal obligations regarding privacy of patient records required strict access control, especially governing multiple-user access to the same workstations. Third, access levels had to be defined in order to provide physicians, nursing and administrative personnel with different access rights. Finally, the solution had to guarantee high availability.

The challenge

Password-based access was problematic and fundamentally insecure. Restrictive regulations make passwords difficult to remember, which leads to an increase in helpdesk activity and the danger of passwords being written down! Moreover, password-based access did not guarantee the physical identity of the user. Smart cards gave similar concerns - as well as the frequent risk of loss. So it was that CHdN turned to biometric identification based upon fingerprint recognition technologies. Because of the uniqueness of fingerprints, these technologies provide reliable protection and an obvious link to the natural identity of the user.



The project

Service Highlights

- Design
- Configuration of ID Center
- Connection with existing applications
- Progressive software integration

The deployment started in December 2004, with every user registering two fingerprint templates on the system in all units of the hospital. In the first phase, 300 ID mouse units were purchased and a stand-alone solution was installed. This solution had its limitations, because only a restricted set of users had access to one machine. And in order to guarantee reliable system access, serverbased authentication had to be installed.

So CHdN opted for the ID Center platform, a server-based solution that stores encrypted biometric profiles in a centralized high-security database; matching them with fingerprint templates scanned by the ID Mouse.

When recognized and authorized, the user is granted appropriate access rights: both network access and access to applications via a Citrix-based system. Because a hospital demands very high availability network access, clustered servers run ID Center. Additionally, biometric identification is applied to applications that require an electronic signature (for example, the issue of prescriptions). When logging in at another unit, users have immediate access to both their applications and the files they were working on previously.

Biometric identification makes password administration easier and less costly

Key milestones:

2004

- Windows login
- Citrix Terminal Server login
- Laboratory information system
- Medical records

2005

- Access software for remote medical offices
- Stock management
- Meal ordering system

2006

- Document management system

2007

- Care station management software

2008

- Planning and appointment management software for polyclinics

2009

- Medical prescriptions and drug administration software

2010

- Merger of Ettelbruck and Saint Joseph hospitals and deployment on second site (1500 users)
- Vital parameter management software
- Over 550 ID Mouse units now in use.

Concerns - and solutions

"Privacy of biometric data was a major concern for our users but the features of the ID Center prevent any abuse" says Georges Wolfers, IT Manager at CHdN. But because biometric profiles never contain images or insecure personal data, but only encoded information, CHdN swiftly gained staff acceptance, having first communicated extensively about the new system before deployment.

"We faced very little resistance, especially as the request originated from the medical personnel", underlines Daniel Scharzt, IT security manager responsible at CHdN. "The deployment was smooth and well accepted thanks to the significant ease-of-use benefits. In over 5 years since then we have had very few calls concerning login problems" added Georges Wolfers.

Benefits

Benefits can be summed up in three words: efficiency, cost and security. Biometric identification makes password administration easier and less costly, while the hierarchy of access rights according to user profiles provides patients with a guarantee of confidentiality. "The solution has transformed security - and mobility between different units throughout the hospital is really simple", comments Daniel Scharzt. These benefits were critical in securing approval for the system from the Luxembourg Commission for Data Protection. What has happened since? Active users have now increased threefold. In fact, the system has also expanded beyond the walls of the hospital - to bring on board over 30 contract physicians who work at CHdN but have their own offices off-site.

The future

Now that fingerprint technology has been agreed as CHdN's sole authentication solution, all other programs will now be adapted to use biometric authentication: a sure sign that this system is now 'business as usual' for this 21st century, state-of-the-art hospital provider.

Next steps

To find out how biometric solutions from Worldline can secure your important data and transform your working environment - in whatever sector - contact us to find out more.



Efficiency:

"I don't have to bother about passwords or tokens anymore. My finger is the key to all my data."

Tom Peiffer, User

Cost:

"Password change requests just vanished. The time we spent on these can now be used for more productive tasks."

Georges Wolfers, Head of IT

Security:

"With biometric identification, we can be sure that the person identifying is the real person in front of the screen"

Daniel Scharzt, Security Team

About Worldline

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