



HiFive
Finger Vein Authentication Technology



INTERNAVIGARE
SOLUZIONI INFORMATICHE



Our World with Passwords

Don't write them down. Commit them to memory. Keep each one unique. Add some complexity and make sure they're strong. The world of passwords can sometimes ask the impossible of us. We've all experienced the inherent frustrations, often through gritted teeth. But as gatekeepers of our entire digital lives, we know their role is crucial.


In an attempt to overcome some of the user challenges, progressive companies have embraced technology and brought us new methods, most of which will be familiar. Two-factor authentication, encrypted key devices, hieroglyphic doodles and many others have been offered to us as alternatives. Yet each has struggled for mainstream adoption. The overriding reason for this falls at the feet of user experience. In short, too slow, too hard.


We may dislike passwords. And I.T. departments may want to get rid of passwords. Yet they have endured. And remain our preference over any of the new methods currently on offer. Until now.

The Biometric Revolution

This form of authentication, where users always 'have the method on them', uses the body to glean information. While the application of statistical analysis to biological data has been a game-changer, it hasn't arrived without challenges.


Face, iris and fingerprint recognition have all had their moments in the spotlight. But each has been unable to adequately deliver on security, privacy and user resistance. Additionally, ease of use, speed, accuracy, size or cost have been thorns in the sides of at least one of these solutions.


 Many biometrics also need expensive, specialised equipment to function. Microsoft's Windows Hello product, for instance, relies on infra-red cameras in their laptops and tablets. Even then, only an average level of security is provided.


 With password breaches continuing to account for over 80% of all intrusions, the advent of biometrics has still been a welcome one. Hitachi Hand Gesture Technology is now helping it to fulfil its true potential.


The Authenticating Gesture

Succeeding where other biometrics have failed, Hitachi Hand Gesture Technology embraces all the strengths this method carries, without any of the weaknesses. This is how it works.

 Each person's vein patterns are highly complex and unique. Utilising an ambient light spectrum to highlight the vein pattern within your fingers, Hitachi Hand Gesture Technology is able to biometrically authenticate who you are.

 It asks the user to perform one simple gesture - raise the hand. A standard laptop or desktop camera (720p or better will do) can capture the image.

 The software will conduct high-accuracy biometric matching of the finger vein pattern against the registered user template. Once verified, it performs Windows authentication in under five seconds and allows the user access.

 This provides us with a straightforward and superior experience. The benefits of this system are much more far-reaching than ease of use and verification alone.

Your Money or Your Life

The highwaymen of the cyber world aren't particular about what they target. If it has a password, it's on the radar: Bank accounts; Credit cards; Online shopping; Event tickets; Libraries; Clubs; Personal emails; Work data; Social media. Practically everything we do is waiting to be ambushed.

With so much at stake, and in the absence of credible alternatives, the emergence of Hitachi Hand Gesture Technology couldn't be more timely. It is the first safe, reliable, non-invasive biometric solution to provide fast and highly accurate identity authentication for access to data or secure areas. As you might expect, central to its development has been the idea of reducing the risk of breach or compromise. With Hitachi Hand Gesture Technology as a computer login, users can now guard against illegitimate access or information leakage. But why the veins? Finger Vein is a tried and tested biometric method where capturing patterns without the user's co-operation is significantly harder than with fingerprints. As they function internally, the blood veins in your fingers are very hard to replicate.


 Added layers of security are also enforced using AES-256 bit encryption for all user biometric information. As well as proven, built-in, anti-spoofing technology.


 The result? You can expect reductions in phishing attacks, password theft and stuffing, brute force attacks, keyloggers and shoulder surfing.

Monitoring Workplace Traffic

Hitachi Hand Gesture Technology is capable of being integrated into almost any existing corporate system. For example identity management with a single sign-on can give users simple access to applications.

Easy to implement, it circumvents the need for multiple passwords without compromising security. Similarly, all your employee time and attendance, site security and software requirements can be combined into one fast, accurate security management system.


 Identifying who is entering buildings or rooms and controlling access to computers or files is an essential security element for many companies, not least financial institutions.


 Adding biometric identification to a smart card solution enables proof that the identity of the card holder matches the unique, finger vein template of that person. When restricted areas like vaults, data centres or secure payment areas are breached, authorities need to be alerted. Discretionary or mandatory control, and policies allowing access by role, job title, or time scale can all be configured.

The Value in Versatility

Cost control and convenience are important to the success of any new technology solution. Hitachi Hand Gesture Technology is a biometric that uses standard equipment, yet provides a class-leading level of security.

It offers device-less biometric login for your Windows 10 (version 1809 and above) and Office 365 environments. That means no specialised hardware. No smartcards. And no biometric readers. This makes it a highly cost-effective solution that's also easy to deploy.

 Hitachi Hand Gesture Technology will work with your existing Active Directory and can be deployed centrally, with offline authentication functioning while you're away from your network FV. Credentials storage can be done locally or remotely too, via an 'enrol once authenticate anywhere' capability. While credential management will support your Joiners-Movers-Leavers processes.

 No matter how you choose to implement Hitachi Hand Gesture Technology, you'll have eliminated the need to continually remember and input passwords, with a single movement of the hand. It's a gesture, by the way, that you won't be asked to frequently change.