

Silent authentication: a seamless customer experience in a connected world

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In a world of increasing connectivity and digitisation, our interactions with devices and services demand highly secure identity authentication for access – and yet signing in with usernames and passwords has never been more disruptive or difficult. Help is at hand, however, as the pace of technological innovation is addressing the need for simple authentication which also protects your information. With consumers searching for trusted, fluid, and personalised services to help them navigate their way through an increasingly connected and digital world, various techniques (including machine learning and artificial intelligence) are providing the answers.

Scandals involving the sharing of personal information for targeted advertising and continued breaches have led consumers to question how we share our data. We still want to access digital services, but we also want to do so in a secure, seamless, or even silent way.

A relatively new and pioneering concept in the Internet of Things (IoT), silent authentication, promises to do just that.

The mechanism is based primarily on machine learning and authenticates consumers through multiple channels, including behaviour, habits, geolocation and surrounding signals. Simply put, silent authentication occurs when a person is authenticated by intelligent systems in a transparent way in order to access services. With silent authentication, you no longer need a username and password – you, yourself are the master key.

With recent improvements in machine-learning systems, it is now possible to build multi-dimensional profiles of individual customers. This includes behavioural biometrics and other context-based signals to deliver risk-based authentication that analyses and correlates—in real time—data, comparing with expected customer patterns. This allows secure authentication of every person whilst creating a seamless experience where service access is not held up by repeated checks. In simple terms, it means you can log on and access the things you need without any inconvenience; you don't have to remember that password.

Although originally designed for risk-based authentication for online banking transactions, the concept is quickly being recognised as a useful tool in many other scenarios where silent authentication can improve everyday interactions.

Other examples go further and include the personalisation of retail services with customer-tailored promotions and remote control of smart home devices, including alarms, access and smart gadgets. And the customer journey of online shopping can be facilitated via silent authentication, from order validation, to payment and delivery; imagine the convenience of firing up Takealot or a similar site and doing all your shopping without entering any passwords or usernames.

Today is one thing, tomorrow quite another. People are clearly interested in the “search for seamless” (just think how much easier your life would be without passwords); globally, people believe silent authentication could play an important future societal role.

A [study recently conducted by Gemalto](#) on connected living revealed that personalisation is key, with silent authentication being critical or important in order to have personalised services for six in ten (60%) consumers.

The most likely reason people accept silent authentication is greater convenience (62%); closely behind convenience, people also say they would accept silent authentication if it improves ease and/or speed of access, suggesting they want a fluid experience.



And such an experience is expected in various locations between now and 2030, and for different use cases including airports (47%), banks (47%) and/or railway stations (47%). This suggests an element of trust in silent authentication, given how security sensitive these locations are.

This is evident in the growing introduction of biometric technologies in South Africa and around the world. Just last year, [FNB introduced the first biometric ATM](#) and the Department of Home Affairs [launched](#) its Automated Biometric Identification System. While it may take some getting used to using an ATM without a card, the convenience of using your thumb to access your accounts is sure to catch on rapidly.

However, Gemalto's global study also revealed that organisations still have a long way to go until people are completely trusting of this technology. Concerns include risk (66%), privacy (59%) and/or data misuse (55%).

Education is clearly required on the methods involved in silent authentication as well as reassurance that their data is protected to increase confidence and trust.

Although there are challenges to address in terms of regulation, transparency and ensuring consumers remain in control of their data, silent authentication is paving the way for a new world of seamless, hassle-free access. It has great potential to revolutionise the way we use devices and services in the years to come.

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From secure software to biometrics and encryption, our technologies and services enable businesses and governments to authenticate identities and protect data so they stay safe and enable services in personal devices, connected objects, the cloud and in between.

Gemalto's solutions are at the heart of modern life, from payment to enterprise security and the internet of things. We authenticate people, transactions and objects, encrypt data and create value for software – enabling our clients to deliver secure digital services for billions of individuals and things.

Our 15,000 employees operate out of 114 offices, 40 personalisation and data centers, and 35 research and software development centers located in 47 countries.

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