PRESS RELEASE

Is this (finally) the end of the password?

A revolutionary new personal authentication system being offered free** to sites like Facebook and Twitter – promises better protection for all in the information and remote services age, as well as vital additional security for the Internet of Things

A UK start-up believes it's succeeded in doing something the tech giants have always failed at miserably – coming up with a secure and easy-to-use alternative for humble passwords.

In so doing, they may have created something which puts control firmly back in the hands of users, while making life harder for hackers, scammers and thieves. It may also help to protect all the connected devices which recent headlines show are so vulnerable. And once it's sufficiently developed, the developers want to donate it to big public websites interested in improving user security and login experience.

Savvy computer users have known for years that fixed passwords no longer offer good protection. Hacking technology and modern methods of interception have rendered them virtually useless as a security measure, and according to its 2016 report, US telecoms giant Verizon concluded that 63% of all data breaches were in some way connected with password vulnerability.

Added to that, users have for a long time increasingly resented being forced to manage and input increasingly complex passwords, and rankled at having the responsibility heaped upon them when security was not deemed to be high enough. Meanwhile website and network designers have had little choice but to keep on building in password entry boxes.

Shayype^{TM}, developed by two innovators based in Cambridgeshire, UK, hopes to fix all these problems with a disarmingly simple on-screen solution, which works on pretty much any device with a display. Shayype

conveys a different login or ID code to the user - which can also be a connected device - every time. It requires no additional hardware to be carried, not even a phone, and its creators claim it's much easier to use than traditional passwords.

Jonathan Craymer, Jon Beal and their company Cloud-pin Ltd now aim to bring Shayype to market via a crowdfunding exercise, inspiring others who are as concerned as they are to support them as they hire additional programmers, carry out security testing and everything else they need to get Shayype 'out there'.

"The problem with passwords or PINs is that they can so easily be copied, cracked or obtained by social engineering, and once they're in the wrong hands, there's no way of telling if they've been entered by the proper user or a hacker," explained Mr Beal, Shayype's Chief Technology Officer.

"This is a problem which has been swept under the carpet since computing began. Bill Gates famously predicted back in 2004 that passwords would soon disappear, yet it never happened. Passwords are still used in an estimated 99%+ of all logins. Plenty of attempts have been made to transmit one-time codes to users in the past, but they've almost always depended on users carrying additional hardware, such as key-fobs or mobiles running soft token software, which instantly reduced the convenience and probably explains why such things have never really challenged the password's dominance."

"With Shayype we set out to create the best-of-all-worlds solution," added Mr Craymer, Shayype's co-inventor and chairman. "In the words of Jack Palance's character Curly in *City Slickers*, we wanted to produce 'one thing, just one thing' that would make all the difference. But it absolutely *had* to be hardware-less, usable by millions in large installations, fast and secure, good looking, and above all easier to remember and use than passwords. We're pleased to say with Shayype we've succeeded in ticking every box.

"You could also say we've also taken a leaf out of Steve Jobs' book, using an age-old and now very generic 'masking secret' technique - dating back to early cryptographic message senders like Julius Caesar - then updating it and working it up into a world-class solution able to do an amazing number of things."

Users of Shayype create a pattern or shape, which they mentally apply to a little grid of squares filled with random numbers. This "simple trick" (as

Craymer calls it) gives them a different 'one-time' code every time – which even if intercepted by a hacker or machine, won't work again even if entered instantly. This simple front-end is supported by what Beal and Craymer believe is a world-class 'back end', offering security and high-speed logging in for large numbers of users.

The pair are about to launch their crowdfunding initiative via the UK-based LEOcrowd website https://www.leocrowd.com/projects/730/Shayype:-Redesigning-Passwords .

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Shayype is about to start a programme of user trials, using a purpose built online test site. It will then mount a second trial phase – and this is where it needs public and business support - on a number of actual websites, commencing in its home city of Peterborough, UK.

Shayype had support in its infancy from development agency Opportunity Peterborough, which in turn was awarded £3 million by the UK government's Smart Cities Demonstrator programme to develop projects able to power cities of the future.

Mr Craymer added: "Shayype is a bit like the invention of the wheel. It looks simple at first, but once you get into what it does, it's huge. For instance, in this day and age, we ought to be able to identify ourselves anywhere in the world without carrying documentation or smart devices, and without having resorting to often hard-to-answer 'big data' questions.

"Imagine you were in some far-flung country and everything including your passport, driving licence and phone was stolen, meaning you had to ring your bank or travel company for help. Isn't it crazy that the only thing they can do is ask a bunch of questions about previous transactions, which refrigerator you bought five years ago, or where you lived 10 years ago?

"Whereas with Shayype, they could direct you to a web screen showing a matrix, they could text one to someone else's phone, fax one to you or even read out a set of numbers for you to write down – and you could respond with a one-time code and be identified immediately. This shows how badly we *need* a better way to identify ourselves in the modern world.

"Shayype allows you to identify yourself or confirm your authorisation to do something, without giving away any details about yourself that someone else could use. In growing areas like virtual currencies, that aspect is extremely important. It would also be very useful, once we've been authenticated by big data questions the first time we speak to something like a call centre, if we could by-pass all that time-wasting stuff with a simple code.

"Shayype could prove invaluable in helping to establish trust when service providers, utilities, financial services companies and their call centres need to make official calls. Then there's checking the right person is receiving a door-step delivery, or premise security…. The list goes on and on!"

** Free in this case means "at cost" – ie. as long as Shayype's costs in providing software media for them to use on their servers etc. are covered.

Release date: Immediate

For further details contact Jonathan Craymer at Shayype (jcraymer@shayype.com), and David Johnstone at LEOcrowd (david@leocrowd.com).

About Shayype

In 2015 Shayype's development was kick-started by a grant from the UK Government's Smart Cities Demonstrator programme, administered locally by development agency Opportunity Peterborough. Last week a GB patent was granted, covering a key part of the way Shayype stores users' secrets. By employing simple graphical patterns or shapes (eg 'ticks', L-shapes etc) - which are set up just once at the outset and never change, users are able to read off 'new' login codes from small grids of squares containing random numbers. This in effect gives new login codes every time, without the need for extra hardware. The company was incorporated in Peterborough in 2013 by Jonathan Craymer (chairman) and Jon Beal (chief technical officer). Jonathan has spent the last 12 years developing innovative information assurance solutions, while Jon is a specialist in electronic engineering, software design and web-site creation who has completed projects for Philips, IBM, BT and others.

About LEOcrowd

LEOcrowd is a global reward-based crowdfunding platform based in London that connects Project Creators with Project Backers from across

the world, whose purpose is to 'set entrepreneurial spirits free'. With its existing global footprint, its acceptance of Digital Currency as a payment method and the education and support provided, it aims to become one of the world's largest business incubators. LEOcrowd is fast becoming a collaborative hub for entrepreneurs, start-up businesses and those with ideas to launch to the world. For more information visit www.leocrowd.com