

Eyelock :Myris

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ABSTRACT:

Never type a password again Myris is a USB powered Iris Identity Authenticator that grants we access to our digital world. It's portable, lightweight, fits in the palm of hand and is as easy as looking at a mirror.Myris uses patented technology to convert our individual iris characteristics to a code unique only to we, then matches our encrypted code to grant access to our PCs, e-commerce sites, applications and data—all in less than 1 second. No two irises are alike, and outside DNA - the iris is the most accurate human identifier.[2]

Keywords:

MYRIS; VPN; DNA

1. Introduction

1.1 What is Myris?

Myris uses the unique pattern of human irises to verify identity of a person. Its record of how irises look like is stored in encrypted form in secure hardware inside the device, which can store credentials for up to five people. EyeLock is a leader in iris authentication, provides the highest level of security with EyeLock ID technology. The company's proprietary, embeddable technology enables the convenient, secure authentication of individuals across physical

and logical environments. EyeLock's software has been integrated across consumer and enterprise platforms, eliminating the need for PINs and passwords.. EyeLock's technology provides an unprecedented level of convenience and security with unmatched biometric accuracy, making it the most proven way to authenticate ones identity aside from DNA.[5]

1.2 History of Myris

EyeLock was established in 2006 and has historically provided iris-based identity authentication solutions to organizations, including Fortune 500, 100 and 50 firms. The company claims that myris is the first device of its kind to be simple enough for the consumer market. -- EyeLock Inc., a market leader of iris-based identity authentication solutions, today announced it has entered into a licensing agreement with Wistron NeWeb Corporation (WNC) (TSE:6285) to embed EyeLock's patented iris authentication technology into a broad array of consumer and enterprise devices for applications across PCs, set-top boxes, network devices and automotive sectors. "EyeLock and WNC will make iris identity authentication technology accessible to people around the world on the devices they use every day," said Anthony Antolino, Chief Marketing and Business Development Officer, EyeLock, Inc. "We objective has

been to change the way people access and protect their identities and the information most important to them. Delivering embedded solutions across consumer products creates easy, safe and ubiquitous identity access to the devices and services we use most," continued Antolino. "As one of the world's most recognized and innovative ODMs, we partnership with WNC brings us one step closer to that reality." [5]

2. How Myris works

2.1 Components of Myris:

The Myris is a squat, palm-sized cylinder that connects to our PC with a USB cable. Its underside has a small mirror in the center with a small camera lens next to it. Any time we meet a login screen after the device has been set up, we hold up the Myris in front of our face so that both eyes are visible in its mirror. A few seconds later, a green ring lights up to signal that we've been recognized, and the device's companion software will log we in without our having to touch a key. We can do that for websites, for desktop applications, or to log in to our user account on a computer. When we scan the correct eye, the light around the Myris mirror glows green and we're in. No, using a video of someone's eye in front of the device won't work: Myris has "live" sensors and can recognize photographs or dead eyes. [1]

EyeLock uses infrared LEDs to illuminate our face with invisible light, by which an infrared-sensitive camera captures video to inspect the texture of our irises. The company says its technology reduces false positives by a factor of 30 relative to the fingerprint reader in Apple's mobile devices, and that it can distinguish a real eyeball from an image of one. EyeLock already sells iris recognition devices for access control to

buildings; its customers include Bank of America. [1]

Once our eye has been scanned and recorded, EyeLock's software acts as a password manager. When it's time to log in somewhere, we can just look at the scanner, and the software will use our iris to unlock the password of whatever service we're trying to access. The Myris is compatible with Windows PCs, Macs and even Chromebooks. It supports up to five different users. [4]

Myris is about the size of a makeup compact and is cloaked in a blue cloth exterior. On the backside, there's the camera that's lined with a light ring, changing color to indicate where you are in the scanning process. It starts light blue, then changes to dark blue at the start before finally showing green when it's complete. Once connected to the aforementioned port on your laptop or PC, the device takes a scan of your eyes to set up its defenses with the help of a companion app. That capture takes about 15 seconds while moving the camera toward the eyes from arm's length and then backing it away.

2.2 Design

The design of Myris, with its compact size and triangle form mapped on a circle, delivers EyeLock's proprietary video-based technology right in the palm of our hand.

Myris looks like the size of a hockey puck and it measures 3 inches in diameter (76.2mm) and it is 1.18 inches thick (30mm). Its top surface is covered in an attractive, light blue soft-touch material with a small EyeLock logo. It fits comfortably in my hand to the rounded top rim, and it weighs just 3.2 ounces (90.1 grams). On the bottom, the Myris has a black translucent plate with a circular mirror near the center. Above that is the lens for the scanning camera. The sturdy USB cable is a generous

4.5 feet (1.4 meters) long and has a handy Velcro tie that will keep it from getting tangled.[3]

2.3 Actual working of Myris:

Setting up the Myris is easy. When we plug it in for the first time we are prompted to install the companion software, which can integrate with the Chrome, Firefox, Internet Explorer, and Safari browsers. Whenever we log in to a website—say, Facebook—the software will ask if we want the Myris to store those credentials. Next time when we visit the site, we can pick up the Myris and log in with our eyes instead. It can't be wearing eyeglasses when we register we eyes with the device for the first time, but we can leave them on any time it needs to recognize we after that.



2.4 Features and Benefits of Myris :

- FAR (False Accept Rate) is 1 in 1.5 million (single eye)
- Video-based system
- USB powered Authentication occurs on device.
- Multiple user capacity—*up to 5 people per device.
- Secure communication and encryption (AES256).
- Easy set-up—user-friendly application Software included.

- Compatible with Windows 7 & 8, 8.1 and Mac OS 10.8 +.

Benefits:

- Fast and easy to use—as easy as looking into a mirror.
- No recharging, works with any USB device.
- Protects privacy—no personal information is transmitted.
- Only DNA is more accurate.
- Only one device needed per household.
- Easily manage access to digital networks.
- Works with most PC and tablet operating systems
- Information is kept safe and secure[2]

3. Applications

Myris works easily with digital networks, including online bank accounts, social media accounts, Internet VPNs, email and more. On the back end, we can set passwords as complex as we like. Once we link myris, we can forget them. Myris is robust and reliable enough to secure workstations, high-value transactions, critical databases, and information systems for enterprise and small business. Myris lets we manage our passwords with our eyes.[6]

4.CONCLUSION:

The technology seems to work as promised, and that it can be more secure than typing passwords or even using password manager software such as Dashlane or LastPass. But it seems convenient. We have to look down and pick up the device, then hold it in front of our face for a few seconds while it recognizes us. It will be much better if it built into laptops or other devices. Being

able to move our eyes to the top of our screen to authenticate could offer the convenience needed to get people to adopt it.[1]

Although Myris is initially slow to develop, the technology has matured and offers significant advantages. Among other things, it is more accurate than fingerprints and easier to use.

5. FUTURE SCOPE:

Myris claims to be the first consumer-facing solution to password fatigue that is both safe, simple to use, and relatively cheap.

Although right now EyeLock is selling its technology to consumers through a dongle, its software has been certified by the Fast Identify Online Alliance (FIDO). With this approval and partnerships in the works, the company plans to start integrating its tech into mainstream devices in the future. Linux support is stated for a future release.[3]

6. REFERENCES:

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