

EUR 4 million for the innovators in online authentication

The European Commission has launched a new Horizon Prize: "Seamless authentication for all". EUR 4 million is available for inventing secure, privacy-friendly and affordable authentication methods for smart objects available to everyone.



European Commission

Innovative authentication for smart objects

People rely on passwords and similar means on daily basis to access online services. They need a secure and personal way to identify themselves to access e-mail, online banking, social media networks and the likes. The access to these online services requires authentication, i.e. the process of identity verification. The existing methods can be cumbersome and come with substantial security risks, like online fraud and identity theft. Also, quick development of the Internet of Things (IoT) has allowed connected smart objects to become autonomous and include self-adapting and intelligent decision-making. There is a clear need to develop identity links between people and their smart objects (e.g. smart household appliances, smart cars).

To tackle this, the European Commission has launched "Seamless authentication for all" Horizon Prize to stimulate innovation and come up with solutions to problems that matter to European citizens. A Horizon Prize is a challenge prize offering a cash reward to whoever can most effectively meet a defined challenge. In order to win, participating innovators have to come up with digital solutions that

will best enable users and their smart objects to seamlessly authenticate (i.e. prove their relationships, identities, privileges and rights) across a wide range of services, applications, systems and devices within IoT ecosystems.

Ready to compete? Here is what is expected!

The proposed solutions will need to be faster and more secure compared to the existing technologies, and must incorporate a privacy dimension in all aspects of the solution. The solutions must comply with relevant EU legislation, and meet appropriate testing and technology-related standards.

All the ICT concepts proposed will have to prove their usability for a wide range of users and be affordable. Additionally, they should be applicable in multiple IoT ecosystems, and work in at least two of the following critical sectors: health, transport, finance, telecom, government and energy.

The "Award criteria" are detailed in the Rules of Contest, published on the Participant Portal.

Here is how to apply!

Eligible parties interested in participating in the contest should submit their applications between the 28 September 2017 and the 27 September 2018 via the Participant Portal. The proposals will be evaluated by an independent jury. Please read the Rules of Contest in order to have all the details.

This EUR 4 million prize will be split in three awards: EUR 2.8 million will go to the winner(s), EUR 700,000 to the first and EUR 500,000 to the second runner-ups.

Background

Why do we need these solutions?

We are now entering a new era of digital services where concerns over trust, data security and privacy are increasing, as we are sharing more and more private data online. To shape a 'Next Generation' human-centric and trustworthy Internet, we must develop people-centered technologies focussed on users having control for their smart objects (e.g. smart mobile devices and household appliances, wearable gadgets, smart cars). To this end, innovative authentication solutions have to be developed for all people and make sure that their smart objects become enhance their lives further.

Password protection has been the default method of authentication online to date. This simple mechanism has many advantages, but the use of usernames and passwords in practice is severely flawed in both security and usability. Other solutions (e.g. smart cards, PKI - Public Key Infrastructure certificates, biometrics, RFIDs - Radio Frequency Identification Devices) typically employed in conjunction with passwords in a multi-factor approach, usually improve the robustness of the authentication. However, the increased security of multi-factor authentication has come at the price of limited usability and privacy concerns for individuals and increased costs for providers.

Overcoming these shortfalls of existing technologies is the goal of the European Commission by encouraging the development of innovative, simple, secure and privacy-friendly ways of seamlessly authenticating individuals and their smart devices.

This prize is part of the Commission's contribution to the Cybersecurity contractual Private Public Partnership (cPPP), which aims to develop Europe's strengths in cybersecurity & digital privacy and to foster the widespread adoption of services and products in the Digital Single Market.

To know more and get involved follow #HorizonPrize on Twitter and visit the prize website.

If you have further questions, please send us an email.

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