



Ravel Technologies Launches Cutting-Edge Homomorphic Encryption Technology

A definitive and innovative answer to one of the most important strategic and economic issues our society is facing: data protection in the cloud.

23 September 2019, Paris France – Heraldng a game-changer for banks, retailers and other utilizers of big data in an era of unprecedeted vulnerability to consumers and online data, Paris-based Ravel Technologies unveils the first definitive homomorphic encryption technology for protecting large-volume of information in the cloud: an eponymous proprietary homomorphic encryption technology that allows calculation over encrypted data without the need to decrypt them. The technology, Ravel Homomorphic Encryption (RHE) is now available for demonstration to the media*.

Until now, homomorphic encryption at an industrial scale has existed only at a very limited scale because of prohibitive costs and poor performance. Ravel realized a major breakthrough with RHE (Ravel Homomorphic Encryption) by drastically improving performances compared to the state of the art technologies from IBM, Microsoft and pure players in homomorphic encryption.

The more complex and voluminous data sets are becoming, the more efficient RHE becomes, democratizing homomorphic encryption and enabling industrial-scale cloud applications.

Thanks to RHE's groundbreaking capabilities, Ravel is developing a new range of big data products integrating homomorphic encryption such as fully encrypted relational databases and secured multiparty computing with performances close to the ones of plaintext data processing or efficient ,secured and privacy-preserving machine learning over encrypted data.

Ravel will release in Q4 its SaaS solutions powered its proprietary technologies.

According to Chief Technology Officer Michel Koskas, “The rise of big data and cloud technologies led to the storage and processing of massive volumes of often sensitive personal and commercial data. As numerous high-profile security breaches and privacy violations have demonstrated, cloud infrastructures are vulnerable and cannot guarantee the protection of the data. RHE allows us to successfully focus our technological effort on the efficiency and scalability of our solutions”.

“Ravel is the first to meet those serious and growing challenges by bringing a radical solution to companies that is as innovative as efficient, which we see as a major opportunity not only for companies to come into line with new privacy laws and standards – such as the European GDPR (General Data Protection Regulation), the US HIPAA (Health Insurance Portability and Accountability Act) or soon-to-be Californian CCPA – but to offer an unprecedeted degree of

security to customers and users with cutting-edge technologies. We believe protecting privacy and solving the long lasting issue of security and confidentiality of personal and industrial data in the cloud is good business” says Mehdi Sabeg, CEO of Ravel Technologies.

Today, cryptography offers encryption technologies that only protects data at rest and in transit. Because these technologies make data unusable, their processing axiomatically necessitates their decryption to be performed and therefore expose them at this step, leaving them vulnerable to attacks, data leakages or abuses which can be disastrous for both individuals and companies.

Homomorphic encryption allows data to be processed while encrypted, removing the need for decryption for this critical step. During all its life cycle in the cloud, from its transmission through its storage and processing and back to its reception, data remains always encrypted, solving the long lasting problem of security and confidentiality of data processed by third parties such as cloud and/or services providers.

Ravel is a Paris-based company developing innovative SaaS products and applications for data protection in the cloud.

*RHE's demonstrator available upon request.

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