



LEDGER ENHANCES BLOCKCHAIN APPLICATIONS SECURITY USING INTEL TECHNOLOGY

Creation of a virtual, secure hardware wallet,
which can be based either on a computer or on the cloud

23-Oct-2017, in Paris – Ledger, a leader in security and infrastructure for cryptocurrencies and blockchain applications, and Intel are proud to announce a unique collaboration. The innovative, joint solution will allow Ledger to integrate its Operating System (BOLOS) into Intel® Software Guard Extensions (Intel® SGX).

Eric Larchevêque, CEO at Ledger, explained: "We have seen an increasing demand from the market for secure solutions to manage crypto assets over the past couple of years. Following the launch of a line of hardware wallets based on our operating system integrated in a secure chip, working with a leading player like Intel is a unique opportunity to keep providing our growing client base with innovative solutions for cryptocurrency and blockchain applications."

Rick Echevarria, Vice President, Software and Services Group, and General Manager, Platforms Security Division at Intel, commented: "Intel applauds Ledger's focus on protecting user privacy and security. In deploying Intel SGX, Ledger security for blockchain solutions gain instant scalability across Intel 8th Generation Core™ Platforms."

The solution will first be deployed within cryptocurrency software wallets such as Electrum and [MyEtherWallet](#). Owners of any cryptocurrency must protect their private keys against unauthorized usage in order to safeguard their digital assets. With this unique solution, all sensitive information will be secured within an Intel SGX enclave rather than on the application, thus mitigating possible software attacks. The solution presents end-users with an interesting balance between existing software wallets, and hardware wallets like the [Ledger Nano S](#).

Intel-based computer users will simply be prompted to download the enclave, promoting ease of use. Private keys will be automatically generated and all cryptocurrency transactions will be signed within the Intel SGX secure enclave.

Intel SGX is an extension built into Intel processors to increase the security of applications code and data, by allowing developers to safeguard data from attack by storing it in an enclave on the device. [More information on Intel SGX here.](#)

Ledger Blockchain Open Ledger Operating System (BOLOS) is a unique Operating System which was designed for cryptocurrency and blockchain applications and can be integrated in any secure element, whether it is a secure chip or a hardware security module (HSM). [More information on Ledger BOLOS here.](#)

Ledger has a Software Development Kit (SDK) available to allow third party developers to leverage Intel SGX enclave for their blockchain use cases. Code samples and documentation are available on: www.github.com/ledgerhq.

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ABOUT LEDGER

Founded in 2014, Ledger is a leader in security and infrastructure solutions for cryptocurrencies and blockchain applications. Headquartered in Paris and San Francisco, Ledger has a team of 62 professionals developing a variety of products and services to safeguard cryptocurrency assets for individuals and companies - including the Ledger hardware wallets line already sold in 165 countries. More information at www.ledger.fr

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