Written by Marco Attard
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The blockchain might look like the perfect means for keeping transactions secure or digital delivery notes, but it does bring concerns over data privacy and the environment. **Uniscon** says it now has an alternative-- the
Sealed Trust Anchor Network
(STAN).

The blockchain, or distributed ledger, consists of a distributed database in which all participants in a network agree on the order of a series of transactions. All participants have constant access to the most recent version of the database, making for a decentralised data management structure with considerable transparency, as well as independence from intermediaries and, ultimately, a high level of tamper protection.

However **maintaining a distributed ledger consumes a high amount of energy**, since the proof of work processes allowing for contribution involve extremely processor-intensive tasks. As such, both performance and scalability of the blockchain are restricted.

A distributed ledger also arguably provides inadequate data protection, as well as a lack of accountability for many legal constructs. Uniscon points out the blockchain, as multiple, independent and thus permanent storage, is questionable from a data privacy perspective. How so? **Permanent storage conflicts with the "right to erasure" (Article 17 GDPR)** and the obligations relating to the restriction of processing (Article 18 GDPR) and rectification (Article 16 GDPR).

So, what makes the STAN a better alternative? One feature involves a blockchain variant often used in the corporate sector known as
permissioned blockchain

. This adds important functions to STAN, namely significantly lower energy usage (since it needs no proof of work) leading directly to higher scalability. Lines of responsibility are also clear, allowing for legal implementation of new business models, and data confidentiality and integrity are in place not only during storage, but also during processing at the network nodes. Finally, data erasure is also possible, allowing for further data protection.

“We originally developed STAN as a tamper-proof key service for our Sealed Platform," Uniscon says. "However, the distributed network can also perform other tasks, such as an inventory service for the commissioning of devices on the Internet of Things (IoT) or as a distributed ledger for keeping transactions secure."

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