

Tech Talk: around the block

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As blockchain's potential becomes apparent, the travel industry is beginning to pay attention

From its 'dark web' associations to its erratic price valuations, Bitcoin has been a troublesome poster child for blockchain. Yet things may be improving, with blockchain now being more widely debated by banks and its benefits starting to make their mark in other sectors. Many start-ups and case studies are emerging; but the fast pace of change means the technology is not without its challenges.



Although most of the innovation has come out of the finance sector, travel is proving to be a fertile ground, with companies such as Winding Tree, VChain, Loyyal and Currency Alliance setting their sights on airlines, hotels and agents.

According to blockchain.com, blockchain is a “publicly accessible ledger that allows people to securely transfer the ownership of units of value using public key encryption and proof of work methods”. In 2009, the Bitcoin network was the first successful implementation of the technology. Custombuilt platforms, such as Corda, Hyperledger and Ethereum, offer varying degrees of privacy attractive to larger corporations. Ethereum is a decentralised platform that runs “smart contracts” – applications that, according to the Ethereum Foundation, “run exactly as programmed without any possibility of downtime, censorship, fraud or third-party interference”.

Swiss-based Winding Tree is one of the travel-focused start-ups that uses Ethereum, and is working with airlines to explore how blockchain can streamline distribution. Notable areas for development could include identity, baggage tracking, payments and loyalty schemes.

Winding Tree hopes its focus on distribution will help airlines with booking, rebooking and travel itinerary information. It announced its partnership with Lufthansa in October, and co-founder Pedro Anderson told BBT: “We met Lufthansa at an event in the summer. They had hired a blockchain lawyer, which showed they wanted to do it right. We published a proof of concept, and did a short crowd sale [to raise funds].” A month later, it teamed up with Air New Zealand and the airline’s chief digital officer, Avi Golan, said at the time that blockchain “may offer a streamlined way to retail airfares and ancillary products alongside our current channels”.

The technology is here to stay, Anderson says. “Blockchain allows us for the first time in history to build the ideal platform without the risk of monopolisation – it radically reduces cost.” He affirms that Winding Tree’s mission is “not necessarily to cut out the middleman; it’s to help start-ups and facilitate long overdue innovation. Existing businesses don’t have to go, but archaic models do.”

High energy demand

Blockchain technology may be evolving quickly, but so, too, can its problems – technical or otherwise. Energy use is one. Digiconomist reports that the estimated power use for a single Bitcoin transaction is almost 300kWh of electricity – enough to boil 36,000 kettles full of water.

Can this energy usage harm blockchain’s image? Jon Har-Ewen, domain architect at CWT, says there is “no question this is a critical issue to resolve”, but he is confident it will not hinder blockchain’s prospects in the medium to long term. “Proof of work uses a lot of computing power and is inefficient,” he says. “There are other algorithms that have been created, such as proof of stake, that are not dependent on computing power.

Proof of work effectively stops false Bitcoin transactions. It will be a while before other algorithms can be proved to be as effective.”

However, at least two major Bitcoin exchanges suffered cyberattacks last year. “Security is always a concern, especially when sensitive information such as PII data or PCI data are involved and this is one major reason why it will take quite a long time for the industry to accept a blockchain solution to replace long-standing systems such as the GDSs,” Har-Ewen argues.

As well as major platforms Ethereum, Corda and Hyperledger, smaller niche platforms are launching. Andrew Sanders is a vice-president at tech consultancy DataArt. He says while it can be advantageous to have a variety of systems, in terms of performance and price, it may be confusing. “A blockchain system that works in one way may have benefits for certain applications over others. We see this as a risk for the [travel] industry in having too many options – and operators in the middle may need to develop or acquire expertise to work with blockchain.”

Exploring possibilities

So what is next for the travel industry? Sanders points out: “Our position is that blockchain – in concept – is not going away. Companies should be actively exploring pilot or proof of concept (POC) projects to learn about the technology, build an internal and external network of resources, and potentially influence their marketplace, instead of being disrupted by a competitor.”

With such a fast-paced technology, small steps are encouraged. Sanders adds: “An organisation has to find the appropriate business case, and therefore application area. Then they should develop a POC, and at this stage it would be a big struggle to handle all this internally. Third, the POC needs to move to a limited trial, before going into production. If travel companies have to run as fast as they are already to maintain their competitiveness, adding this new learning curve would be a big investment. Experienced consultants can help accelerate each of these phases.”

Har-Ewen agrees: “Start with POCs to solve small business problems and then expand, as opposed to building a large system in a big-bang approach. You can learn a lot from this so as the technology matures you can be quite nimble with rolling out and testing new blockchain releases. Also, feel free to experiment yourself. Blockchain implementations are available relatively cheaply as a service in the cloud.”

DataArt has worked on more than 20 blockchain projects, and co-chairs the blockchain working party for the hospitality industry’s standard body Hospitality Technology Next Generation (HTNG). At a recent HTNG event in Prague, Sanders recalls hearing a Winding Tree presentation: “They could, in fact, end up being a huge disruptor to the OTAs,” he says. However, Anderson says it’s more about opening the market for true competition, as “anyone can access Winding Tree, it’s completely permissionless. This is a huge step forward.”

Travel companies of all sizes, it seems, should be embarking on their own blockchain journey. And with some experts comparing its advent to that of the internet 20 years ago, it’s a journey on which few will want to be left behind.

Original article can be found here: <https://buyingbusinesstravel.com/feature/1128225-tech-talk-around-block>