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Google and Apple like Ripple's Interledger Protocol for interoperability - and because it's not Visa

Ripple chief technical officer Stefan Thomas gave some insights about W3C's Web Payments Working Group.

By Ian Allison

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Up until now big technology companies like Apple and Google have shown little interest in blockchain – but that might be changing, according to Ripple, the distributed ledger financial company.

As a co-chair of W3C's Web Payments Working Group, Ripple comes in regular contact with big tech companies and there is "a lot of interest" from them about Ripple's Interledger Protocol (ILP).

Ripple chief technical officer Stefan Thomas gave his take on this, and in the process provided some interesting strategic insights from behind the closed doors of the working group.

Thomas said the likes of Google, Apple, Mozilla and others have been coming together to try to find a better user experience for payments on the web, and one of the big hindrances for that is the reliance on the card networks.

Thomas told **IBTimes UK**: "At these forums is where we run in to them [Google, Apple etc] and we obviously notice the issues that they are having with the card networks and we think that Interledger is a really good solution. We see their interest, and the fact they keep asking us to give presentations about it.

"From a sort of business strategic perspective, the big tech companies absolutely hate the card issuers, because they are another powerful player and something the big tech companies don't like is sharing market power."

Thomas said the majority of the big tech players' ire is directed at Visa, which is now competing directly with PayPal, Worldpay and some other user-facing solutions with Visa Checkout. Suggesting there is not that much love in the room between these large companies is putting it mildly, he said.

"The tech companies would much rather be able to move themselves. I think what they are lacking, what they need is some way to interoperate with each other. That's the thing the Visa has that they don't have, the interoperability. That's why we think having a protocol that gives them that interoperability is going to unleash complete hell on Visa."

Thomas said a goal of Interledger is to create a money network that can connect cryptocurrencies, which he hopes will be done by the end of 2016 or early next year. Connecting crypto is a proving ground for ILP, he said.

"By the end of the year we will hopefully have a solid integration with all the major cryptocurrencies and some traffic going through it, some real money going through it between different cryptocurrencies. We think that is the signal companies like Google are waiting for to take the next step. Then maybe we will see some adoption from tech companies as well."

Some time ago Ethereum inventor Vitalik Buterin commented that he had fielded interest in blockchain from almost every sector save the big technology companies. Thomas said he has been thinking of how to articulate some of the reasons for this in his blog.

"I think that blockchains are actually kind of difficult to work with and they are certainly difficult to scale; everyone who has worked with blockchain knows this. And that's the reason tech companies have largely ignored blockchain, I think. They are immediately looking for 'how efficient is this, how scalable is this' – and it just isn't there.

"Perhaps the reason finance has been so open to it is that they are used to fairly arcane and complex systems, so they have a higher tolerance to that.

"Now I think Interledger is a lot closer to the web protocol. It's much more like HTTP than it is like Bitcoin and so it has that sort of lightweight efficiency."

Thomas explained that ILP is modelled like the internet; a routing algorithm runs on top that can essentially reach from any ledger to any other ledger just by finding the series of hops that connect the two in the network. As well as connecting blockchains, it can provide interoperability for any type of ledger, so for centralised systems as well.

He said one of the most important design goals in the Interledger Protocol is that you are only exposed to risk from the ledger you are on. "You are not exposed to any risk from either the connectors, which are the systems that connect ledgers, or any of the other ledgers. The way that we do that is by using escrow at each hop of the payment.

"So for instance, if you are on Bitcoin you would be putting money in escrow and then you get proof that the ultimate recipient has received your money. That is basically proof that the recipient has to provide, then the money is released to whichever connector that you chose."

"If we look at the connectors in between, they are basically sitting between two ledgers, which they have to trust anyway because they need money on both. They see the same condition on both sides of them; they see the same condition for the money coming in, as for the money going out.

"All they need to do is take the fulfilment of that condition – whatever signature it is or hash – they take that and pass it on to the other ledger. That's how our Interledger Protocol works."