HSM BLOCKCHAIN
VIDEO TRANSCRIPT

Hi there. Thanks for coming on the podcast. Can you tell the audience your name and also a little bit about yourself and what you do on the Accenture Innovation Programme?

I am Sarah Francis and I am currently running our UK Innovation Programme in London. I've been at the company for nearly seven years and in that time focused primarily on software development, so very much in the large system integration space of things, across industry. And, in the last couple of years I've been focusing primarily on Innovation, so that has been in the Blockchain space, most frequently. But most recently, working across emerging technologies within the Innovation Programme. And the Innovation Programme is where we take innovative ideas, we shape them through our methodologies; we then find a number of KPI's and client relevance; we then take those into a rapid prototyping phase and we push those out into our showcase environment which is our hub.

Today we are talking about Blockchain and HSM, which is currently there at the minute, and one of our baby prototypes that we have out of the Innovation Programme.

As you know, as you've been in the Hub and seen it, it's all themes about reimagination and how that kind of thing helps ideation and innovation and links back into the way you work. So, I have a little gift for you. A little bag of sweets. The hub is all around going back to your childhood, and looking at that type of thing; it's almost a bit sweetshop, toyshop.

This one is all about Blockchain and HSM, what is it all about?

So Blockchain is a bit of a hype subject for the last couple of years in the market. We, at Accenture, are very active in the Blockchain space. There are a couple of concerns out there in the market around two main areas of Blockchain. So, the first is, is it scalable? The idea of a Blockchain as a distributed ledger, the number one use-case is if you and I were two banks and we wanted to move some money between. Right now, in the world, there might be a time delay or a fee that we need to pay.

It is a logistical nightmare balancing off that liquidity pool between two corporates in order to settle those balances and you get your money and I get my money. So Blockchain as a distributor ledger; if you had a copy of the ledger and I had a copy of the ledger and we were able to move money real-time with each other and that transaction made it onto the ledger that you and I could see, we have a mutable audit trail of those transactions that have happened. We can see from the bitcoin Blockchain, bitcoin being a digital currency that is out there at the moment.

There are potentially some scalability issues around if I were wanting to use that ledger technology on a corporate scale, am I actually able to use it to the volumes of transactions that we need every day? If we think about how many transactions Visa, MasterCard, Barclays, HSBC, the names go on, have to settle with each other every day, it's absolutely huge. Scalability was one key issue that we tried to tackle and the second is around security. In order for us to utilise the Blockchain, we need a digital identity and we need a digital wallet. That wallet essentially holds whatever currency may be, or smart contract or any file that we want to move across that ledger needs to live in a digital wallet. There have been many instances out there in the press, around digital wallets, with

them being hacked, with people losing bitcoins from being hacked, for example. Our clients are very keen on understanding digital wallet technology in a way that is safe and secure and gives their customers benefits.

What we did was take some experts in the Blockchain space and we said, wouldn't it be great if we could definitely secure the Blockchain and also ensure more saleability. We partnered with one of our clients called Thales and Thales have a product called a hardware security module. A hardware security module is a piece of hardware that sits in a data centre attached to a rack, attached to an Ethernet cable with a burly man on the door and it's very very hard to get into data centre and essentially, could cause havoc. Not only is it hard to get into a data centre, these devises, these hardware security modules (HSMs) are military grade technology so in order to get into them it is very very hard difficult indeed and in fact they are protected devices that are extremely hard to get into.

So, what we did was, we made a hardware security module talk to a Blockchain. Now what that really means is that when a Blockchain instigates a connection with the hardware security module, we are relying on the hardware security modules to do the cryptography part - the encryption and the decryption of our digital identity, the you and the me. That enables us to essentially do a transaction like a bank does today. HSMs are using my banks right now as regulation. What it allows you to do is have that real-time transaction between us, we get the audit trail but we've put all the security aspects in this HSM, stuck in a data centre, very hard to get into. That addresses both the security and scalability - we believe we can get many transactions through that.

We have currently handed over that prototype over to our tech lab in France and we are waiting to find the results of the scalability answer there but it went out to press at the end of February. We presented it at the RSA conference, along with Thales and we're working on the go-to-market plan on that.

It's in our hub in the sweet shop, in the cool creative zone. You may think that that they don't fit, Hardware Security Modules sound a bit scary and a bit real but actually, the way that we came up with the use case was using design thinking; it was trying to address real-world problems in a creative manner, through a facilitated session, and out the back of that we've really got a business-relevant prototype that we're very proud of.

I am presuming as well, that actually, a lot of the hub is around customer experiences, streamlining process, and making things easier; and the journey people go on easier. And, having the Blockchain and the HSM piece there, that is going to make the journey easier. The Ledger means people can see it afterwards in an easy way and they can log in and log out and see the appropriate thing, so it should make life easier for lots of people out there in different organisations.

That's what we imagine. We are a fair way off utopia of Blockchain sitting in capital markets or in the banking sector with all parties on-boarded but there is nothing holding that back from happening in the future. The idea of this ledger being shared, albeit it will be a permission ledger, so not everybody would be able to see everyone else's transactions and all the details of them, but the idea that you could do more automatic reconciliation reporting off the back of them; potentially the regulator having some sort of access to it increases the transparency and increases hopefully the optimisation of those organisations being able to do their day-to-day business.

If you look into other industries where it may not be financial transactions, can you see a purpose for it there?

Absolutely, we are doing a lot globally in the Blockchain space that is cross industries. In terms of the HSM and the prototype we built in the Innovation Programme, financial services was the natural fit. We used a format type

almost like a IOU payment that happens right now in the various payment plumbing systems that are available. We did that because we know by regulations that banks need to use these HSMs, so it was a natural fit in terms of you could plug and play essentially if you have this HSM we've done the integration with Blockchain you can plug and play.

In terms of Blockchain for other industries, absolutely. A lot going on around digital identity. A lot going on in the telecommunications space, so we really are seeing a lot of industry-wide adoption and also out of the prototyping stage now as well, so real implementations outside of the financial services industry, for sure.

What makes people so excited about this now? As Blockchain is not super new, and wasn't developed in January and suddenly, and suddenly, we've got something for it in February, and we are jumping on that. What is so different about what we have done and makes people want to talk about it and excited by it?

They're excited because centralising the security aspects of this into military grade regulatory approved hardware, makes this feel absolutely doable and it makes it feel doable in the near term. Other applications of Blockchain, albeit it very innovative and interesting, feel far off and they feel like a bet in terms of the infrastructure holding it up, and the firewalls and the serious IT stuff that corporates need to consider. This is allowing plug and play into a piece of kit that many of our clients, cross-industry, have right now. I think that makes it very interesting.

Brilliant, that's a great overview of the Blockchain demo, so thank you very much for that.