

Citi Digital Dispatch Podcast, Episode 8: The Future of Borderless Networks with Tom Zschach

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Guest: Tom Zschach, Chief Innovation Officer, Swift

Transcript:

(00:02) Ryan Rugg

Welcome to Citi's Digital Asset podcast series, a show about all things digital asset from the team here at Citi. I am your host, Ryan Rugg, Head of Digital Assets for Treasury and Trade Solutions at Citi. This podcast is for everyone: entrepreneurs, corporate treasurers, strategists, and policy makers. We explore digital assets in the financial sector from tokenization, digital money, evolving regulatory market, insights from experts, and much, much more.

Until now, payment networks have been siloed without the right interoperability. We believe the future of networks will be multi-asset, multi-jurisdiction and we are inviting a handful of industry experts to talk about their predictions for what this future will look like and how they think we're going to get there. The future of treasury requires an interconnected global system of networks and industry coordination is critical. Our new miniseries, The Future of Borderless Networks, features industry experts who are at the forefront, driving innovative, real-time solutions into national and cross-border payment systems.

Welcome to The Future of Borderless Networks for Digital Dispatch. We're very excited to have our next guest, Tom Zschach, Chief Innovation at Swift. Swift has been leading a lot of innovation when it comes to networks of networks. In this miniseries, we're talking about the future of networks. We'd love to hear a little bit about you and what you've been working on.

(01:26) Tom Zschach

Thanks for having me, Ryan. It's nice to see you. The future of networks is a pretty broad topic and we're pretty comfortable that Swift has an important role to play in the future of networks. And we've had a pretty busy year. There's a lot going on. We've made really good progress in the first half of the year, but we want to continue to build on that momentum. And I think, when we kind of think about the future, it's probably a good idea to start with our strategy and what we intend to do today. And today really our strategy is based on and our mission is really to deliver instant and frictionless transactions worldwide. And Swift is an important part of the market infrastructure in the way that values moved around the world. So, it's important to us, there's a lot for us to build on top of. We think the starting point is a good one. When you think about cross-border payments, for example, and the fact that 50% of the credit in the beneficiary account, you know, happens in 5 minutes today, and that's not real time. It's not 100%. But it's good progress. We've done a lot of work to add to the transparency and the tracking across the network. That's worked pretty well obviously in payments with things like GPI, but also in security. So, we feel like we're in a really good position. We're making progress. We're not kind of waiting for the future to do something, but it's pretty clear we're not done. And there's a lot more to do there and I think this is where the work that we're doing on digital assets, digital currencies really come into play. You know, we've got really good encouragement from our community to work with them, to try to explore and figure out what this looks like and how do we do it together.

(03:07) Ryan Rugg

For those who don't know fun fact about Swift is Citi was one of the early founding, you know, members of it and look forward to kind of look, thinking about this future and how it's going to evolve. And you know the problem statement that our clients have come back with time and time again is they want that frictionless commerce. They want 24/7, 365, always-on infrastructure. They want their money to move at kind of the speed of e-commerce. And how do we match it up like no holidays, no banking, you know, no outages, like always-on and yes, to your point, like 5 minutes for the most part is pretty frictionless, but you know, as we move to that future, how does digital asset kind of play into that? What are some of the major friction points you see today? Like what is preventing some of adoption of this and, you know, the future?

(03:49) Tom Zschach

In terms of digital assets?

(03:50) Ryan Rugg

Yes.

(03:51) Tom Zschach

I think there's, we all see some things that need to get worked out, right, of regulatory clarity, I'd say kind of industry issues. You know, what exactly is it, how is it going to be regulated? You know, how can it be used? I think, you know, technically there's still some work to be done as well and some of it's fairly basic when you look at things like scalability. And everything we do at and Swift in our community is about scale, right. So, it's very different to, you know, to do an experiment or do a single transaction, you know versus you know, doing that, you know, at scale in a secure, resilient, robust way, you know, with the performance that you'd expect every day. And so, I think that there, there's some things that need to be overcome both in terms of the process and the flows and but also in terms of the technical infrastructure that needs to support that. There's a lot of work being done on an interoperability, so you know, how do you get different networks to speak to each other and in a way it's a bit ironic because that's where Swift started now 50 years ago was that domestic payment systems couldn't talk to each other, right? So how could you transact and credit an account, you know, in another country? And so, it's a little bit ironic that 50 years later, we're there again, but the benefit we have now is experience.

(05:06) Ryan Rugg

You see how like history repeats itself, right? Here we are kind of going full circle to think about the future of networks and like bring us back to some of like the early pain points.

Can you talk a little bit about some of the experiments? I know that you guys have done a massive amount on interoperability. You've worked with Regulated Liability Network. What are some of the learnings you've had and like some advice you have to our listeners?

(05:28) Tom Zschach

Yeah, we've been very active and again we're trying to anchor the work we do on the value that we add and look for new opportunities for what can Swift do and, you know, as you know, payments and currencies, and assets go digital, right? And we don't want to try to figure that out ourselves. We've made some, also, we've made some investments since we've rolled out some capabilities. I would reference our Transaction Manager which we launched

last year and in that we really move from kind of traditional messaging to being able to orchestrate transactions. And so, there's also some kind of technical capability or foundations that I think need to be built to allow us to move in those situations and figure out how we can play, how we can play a bigger role. In terms of the experiments, we really started with kind of trying to figure out as much as we could, you know, on our own, we, we've exhausted that. We continue to publish our results to kind of check our work and to get people to come along with us. The feedback that we had, you know, earlier this year we launched oh, sorry we published the CBDC sandbox Phase 2 report and again the work that we have done has been anchored on interoperability and probably one of the most obvious asset classes for us to start with was the digital form of a national currency, of CBDCs. And that's worked really well. We've gone a couple different rounds in terms of experiments. We got much deeper in terms of the use cases and how CBDC could be used and how would that interoperate with other digital networks, with other CBDC networks, as well as the existing payment rails. And so, it's been a really good result. We've had pretty broad, might it be the single largest experiment that's been done, you know, with CBDCs worldwide. And we're happy to be in a position we can help the community think through some of these issues. We've also done work on tokenization. We've done work too and some experimentation on how could you use your access, how can our community use their access to the network to get into public blockchains or private blockchains, or hybrid, you know, blockchains or permission ledgers? Generated a lot of interest and we've learned a lot, to answer your question, we've learned a lot in terms of, you know, how would a bank or regulated institution, or market infrastructure, how would they use that, you know, what is that business flow? What is that use case that people are looking to try to solve? And so, it's been really enlightening. We've got really good encouragement from the work that we've done and want to continue to build on that momentum.

(08:09) Ryan Rugg

You brought up CBDCs, so you know, that was one of the first projects I worked on back in 2015 at my R3 days. And, you know, they were siloed. Every country was like, you know, creating their own central bank digital currency, how they were going to interoperate. They were on different ledgers, different protocols, different, you know, wholesale, retail, use cases, it was really interesting kind of see that evolution. And then, you know, so you think about the evolution of digital assets overall from like the early Bitcoin days to stablecoins, to tokenized deposits, CBDC. Do you see a world where all that interoperates, like with the multiple different players in that space?

(08:45) Tom Zschach

Absolutely. And our priority has always been, you know, regulated assets or sovereign currencies. We, you know, we're interested and we monitor what happens in the in the crypto market, but it's really not a priority for us. Our work has really been focused on kind of these new forms of value, new forms of money. And as you said, there's kind of no shortage of what could be done or what, how people are thinking about, you know, creating networks of value here. So yeah, there's a lot of different activity that's out there. I think in these situations you need to be really specific. You know, and I know you've done a ton of innovation as well and you mentioned are through, you know, we spoke to a number of the central banks when we had some ideas and we're looking for ways at what Swift could do and how we could help our community. And we saw the same thing you did, right? Different protocols, different approaches, different, you know, different domestic policies, monetary policy. So, everything's kind of different. So, we've taken kind of agnostic approach to the technology.

We don't have a view, or we don't advocate the creation of any digital currency or digital asset, that's not our role. But we saw those differences and when we spoke to the central banks, who said we understand and, of course, you set the priorities and, of course, your priorities are probably going to be domestic in many cases, right, which is what we've seen across the, across the industry. But when that happens, if you launch a digital version of currency, you could end up with in a situation if you don't have the right type of connectivity and interoperability or you don't drive the full kind of value because it lacks adoption. And if you want to kind of take it one step further, you might be creating digital islands, right? And so, there's so much work happening today to try to take friction out of the system and to avoid fragmentation, right? The last thing we're going to do is as new digital asset networks come online, is to create a whole another generation of fragmentation. And when we kind of spoke to them and talked about that and talked through that with them and what we're trying to explore and to learn with our banks, you know, we got a really good reception on that, and I think that's one of the reasons we had so much momentum and enthusiasm behind the CBDC work that we did.

(10:59) Ryan Rugg

And I'm sure Swift being a global entity, you know, when I was, you know, it's interesting to me all the different jurisdictions and regions how differently they view digital assets, and some are much more I would say open and others are more reluctant and also, you know, reserve currencies and protecting their, you know, it's been interesting to see. Like where do you think that you'll see adoption for this first and kind of in this space, like globally, like digital assets?

(11:24) Tom Zschach

Digital, that's a good question in terms of where the take up is going to be. I think we're in just in terms of kind of the innovation curve it feels like we're, in some ways, especially when you think about digital assets and the blockchain, we've kind of started with the *here's a new technology, it can do everything*, right? And the blockchain you could probably think of it more as an infrastructure, right? As opposed to a product. And so, I think there's some parallels. I think there's some parallels. I remember Marc Andreessen, one of the Internet pioneers, said this one time, he said, you know, if you actually, it was something to the effect that if you actually created everything that was launched during the dot com, now it would all work, right? And so, some of that's the fact that it's ahead of its time, but it takes time to get what you need for people to develop products on it. In that case it was broadband, for example, right? Everybody didn't have broadband like we like we did today. You didn't have these e-commerce channels. You didn't have e-commerce giants that were kind of built on top of that, right? So even though you have the kind of the core infrastructure like you do with the blockchain, you know, that's not a product and then a lot of things need to be built around it, so you can actually create products and really create value, and therefore drive adoption. And so, I think it's all going to happen, but I think we're, you know, I think it was a little, we got off to a little bit of a false start and we just said: oh here's a blockchain, it can do everything, they can solve world hunger, and it's the best thing since we decided to put bee in a can, right? Which, you know, over time might be the case. It took 20 years in the US to get 20% of retail sales online. The iPhone was launched in 2010, right? So even some of the greatest inventions and the most impactful things we've seen, they just take time. And I think, I think the blockchain might be going down that path and what you're not going to see is in a day where you kind of just flip the switch and we're on a brand new shiny digital, a digital network and digital service. It's going to take time, but you need to build things around

it and you need to come up with products that truly add value to be able to do that, whether that's part of market infrastructure in the wholesale markets or some that's more consumer and retail based.

(13:38) Ryan Rugg

And I think people forget that sometimes, right? Like the innovation curve and how long things actually take to get, you know, adoption and all that, you know talking about, you know, bringing retail on it's, yeah. So, you know, I've been involved in this space since 2015 and it feels like, you know, approaching 10 years now, it feels like it's been, you know, a slower adoption than I would have thought. But it's gone through iteration from like the original days with like Satoshi and the white paper, and Bitcoin to like where we are now, around more regulated digital assets and like what's the underlying pain point that we're trying to solve, right? People want frictionless commerce to be able to, that was like, what Satoshi originally wanted. You know, you talked about innovation, and you have a really, you know, kind of interesting purview at Swift, you know head of, Chief Innovation Officer. So, you see, I'm sure, a multitude of different innovations that coming out there, if it's AI, quantum, blockchain. Do you see a convergence of that in the future? Like do you see them coming together for the future of networks?

(14:32) Tom Zschach

I do and, you know, just to build on the point before when you talk about it's a new technology, LLMs kind of feel like that in a way, right? Where they've rolled it out and they go, it can do everything. And then, and then, you know, some people accept that and want to go faster. And some people find a more negative kind of outlook for that. And then you get even doomsday scenarios, right, with that. But, you know, a large language model, pre-trained foundational large language model, you know, to say can do everything like what does that mean and how do you actually make it useful to a bank or to an enterprise, or to an institution, or to a consumer, right? And so, people could, and again, I think with the with the, the blockchain, people could look at it and say: hey, that's really clever and I like it but yeah, it's not for me. So, in a way you see a lot of, there's, it's not identical, but you see a lot of parallels now where people are experimenting with it. They're doing expiration, you see kind of highly, high potential use cases with customer service and that sort of thing. But then the next breath is, well, that's really interesting but you know I'm not ready for that for my business. And so, you know, I wouldn't say this exact parallels in both those things, but in some ways that kind of infrastructure technology that has all this potential you need to work through and you need to have capabilities for people to get to it to find the value. And yeah, I do think there's going to be a convergence. It's kind of funny, you know, when we talk about the different categories of emerging technologies and for us, I think at Swift, the kind of the two transfer most transformational things that we see for the industry with kind of a longer-term time horizon are digital currencies and digital assets, and AI, and AI again. It's a big broad, a broad topic, but if you think about one of the things we just recently announced is a pilot with our banks for really the first AI powered solution ever from Swift, in a project we call the Payments Control Service which assigns a risk score. And it's kind of interesting that all of the talk about new digital networks and new digital assets, we're not talking about using anomaly detection and fraud detection on for the digital assets, right? We're kind of not there in the conversation yet. So, there's absolutely going to be a strong case for the convergence of those things, not, not everything for everything, but something, you know, as I think, as obvious as anomaly detection for things like detecting an operational problem in payment flow or even a potentially fraudulent transaction. We're doing that work now and at the same

time it hasn't really kind of crossed over and there's no cross-pollination in the in a lot of the work and a lot of examples that we that we see today in the industry, that's pretty interesting.

(17:15) Ryan Rugg

That's really interesting. It brings me back to when I was at IBM, we built a solution called Excelsior Pass for New York State. It was during COVID. It was essentially a digital identity wallet, right? And New York wanted to open its borders again, so we loaded a PCR test, COVID test, and you'd scan your digital identity into a bar, restaurant, venue to be able to go into it. And when we built it for New York State, we had APIs built to hospitals and labs, and we cross-reference with, like, you know, numbers for, you know, the vaccinations. But then we moved into enterprises and there was a lot, at the time people were very apprehensive to get like COVID vaccinations. But you know, a lot of companies were requiring it. So we found that there were a lot of fraudulent like vaccinations out there in the same way that we do use AI to have a predictive score based on, you know, backtracking a verse like that when the when it was issued verse or second one and came up with a score and then we take that score and either a human would interact with it and validate it, or we'd process it onto like the blockchain with the identity piece. So, it's interesting to see that. I think that in the future, like with AI and blockchain, like the programmability of the blockchain, like the conditionals, right? *If this happens, then do that*, you can imagine the two technologies at some point coming together.

(18:31) Tom Zschach

And that's one of the kind of the most promising things about the blockchain, right, is the programmability and really kind of driving to automation. You know, you mentioned before, how do you do this 24/7, right? And how do you do that in an automated way? Well, that's, I mean, that's probably one of the, you know, two or three things that has the most promise in terms of the blockchain and how we get there, and it when you get this working properly and you're solving real problems that you kind of the benefits associated with that. I think the other one's probably transparency, right? You know, that's a goal for everybody in finance. The G20 has published targets around things like transparency and transparency, inclusion, that sort of thing and the blockchain actually lends itself really nicely to that.

(19:15) Ryan Rugg

You heard it first from the Chief Innovation Officer at Swift. Blockchain's going to be one of the most innovational technologies out there. Tom, thank you for your time. We really appreciate it.

(19:23) Tom Zschach

Thanks for having me.