

Citi Digital Dispatch Podcast 10 Transcript

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 policymakers. 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 their right and our ability. 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. Today we have our next guest, Yuval Rooz, co-founder and CEO of Digital Asset. Welcome to the show.

Yuval Rooz:

Thanks, Ryan. Thanks for having me.

Ryan Rugg:

So to kick things off, can you tell us a little bit about Digital Asset and Canton Networks and what you been working on in the last couple of years?

Yuval Rooz:

Sure, you're reminding me earlier on that it's 10 years. So Digital Asset really saw an opportunity in 2014 to take an inspiration from crypto markets and really rethink the way that capital markets manage their assets, whether it's payments, settlements of equities, fixed income products, but also processing some, you know corporate actions and any kind of financial. It's been a long journey and I think that really the main difference for us was that we thought that the world is not really homogeneous, meaning you can't just say the world is either permissionless or permissioned. The world has no privacy or privacy. So we've been through a very long journey to think. What does the technology stack of such a world where you can do everything on chain needs to look like and for us, privacy and permissioning, not necessarily by default, but the ability to permission was a key component, so we've been building a smart contract language called Demo, which was really designed how to build enterprise applications on chain. And then fairly on and very quietly, we've been building a layer one called Canton, and we'll talk more about it, but really the big picture is that Canton inspires to be a public L1 and I want to be very careful not to say a public permissionless L1 but a public L1 very similar to the Internet. That allows different applications with different privacy model with different access models to coexist and then eventually be able to interoperate.

Ryan Rugg:

Yeah. For the listeners that don't know you, Yuval and I met back in 2014/2015. At the time we were, I guess, I want to say, collaborators, collaborators slash competitors. Right? I was at R3. You were at Digital Asset - at the time it was called Jamal. And both of us were trying to build protocols, networks and, you know, pretty early on realized like large, highly regulated institutes could not be on public chains and how we've seen that evolve is really interesting. Which brings kind of the next point. What have you been working on in financial services, what are the key use cases that you've seen on your L1, as well as the pain point you're solving.

Yuval Rooz:

Yeah. So so I think that most of our clients are for the most part highly regulated, even though today we even have clients that are not necessarily regulated but are extremely conservative and then kind of inherently take characteristics of a regulated entity, not, not because a regulator told them, but just because of their kind of like, you know, risk profile and kind of their state in the prospective market that they operate in and we started by first of all trying to tackle problems where you have either an industry or a set of participants that are you know participating in an activity and and I'll be more detailed in a second. But participating in an activity, we're generally speaking, there is no disagreement on, you know what are the life cycles or what does a trade mean? What are the cash flows that need to be. But they're all implementing, you know, their view of the market independently. And really this idea of using blockchain to create one source of truth and as a result of that reduced the reconciliation, make settlement more efficient, you know, would be beneficial for those for those markets. So just to give examples. We've done a project around managing collateral for the repo market with Broadridge and there they're doing, you know, over \$100 billion of transactions on a daily basis. We've done a project with I Capital, which is one of the largest feeder fund provider to again bring some normalization and and kind of consistency into private equity management which suffers from quite a lot of reconciliation. I was not appreciative of that physical net, gas trading, syndicated loans, tokenizations of bonds, and I think that what we're super excited about going forward is really the the world of collateral and payments which you know gets involved in almost every business transaction in capital market in some shape or form.

Ryan Rugg:

And that's what I found when I was at R3. Like we tokenized everything under the sun as you mentioned, from bonds to equities to real estate. But we always had to go back to Trad 5 rails to settle, so you know, with Citi starting on kind of the payment side of the house with Citi Token Services, you know has kind of led us down that path for liquidity management as well as payments. But you know, we don't want to create a silo. Token the whole, otherwise you don't need a blockchain, right? The whole idea is the thesis statement of our clients is they want multi bank, multi border, always on infrastructure. And how do we create that right? So when you start thinking about like Canton and all these various networks out there like this, is this miniseries is on the future of borderless networks. And, you know, there's many of them out there, like, how do you differentiate them?

Yuval Rooz:

Yeah. So I think I think kind of going back to where we started is Canton's basic assumption is borderless, doesn't mean permissionless. Borderless doesn't mean no regulation. Borderless to me

means hey, currently there are silos because of how the technology was created. And as a result of that it creates friction. And I think a very good example maybe to kind of get inspiration from is if you think about what Platt did to open banking, right? So if you were a fintech and somewhere in your life cycle you wanted to have your clients send you money or you wanted to send them back money or you wanted to do something with money, it was really hard. Right. Integrating to a bank was really hard. So you didn't have this borderless opportunity to create fintechs because there was quite a significant technological barrier of entry. And then came open banking and Plaid came, and suddenly you have borderless opportunities - if I can use the name of the of the series - to create fintechs and and when you start thinking about, you know, open banking and Platt coming into the ecosystem, you saw this explosion of use cases that you didn't even think about, you know better meant all these things that we think about today. Coinbase, all of these things that do need to interact with the bank now suddenly are possible because again, these barriers have been removed. So when we start thinking about Canton. You wanted to have this interaction. The problem is when you start thinking about money. The ability to prove to a regulator that the money or the asset is going to be used in a compliant manner is much more challenging, right? And when we started building Canton, that was kind of the thought process in order to make this borderless, we need to create a foundational layer that gives the asset power. All the capabilities to control kind of their requirements. What I mean by that is if I'm Citi and, whether I like it or not, it's not really the question here. I am regulated by the OCC, I'm regulated by the Fed. I have multiple regulators all over the world. And I in order to maintain my license have requirements. Meaning if you're not KYC, AML, you cannot use Citi money. If I'm not meeting, you know if I do a transaction over \$10,000 Bank Secrecy Act in the US means that you have to report that transaction. If you're on the OFAC list, you can't touch our money. All of those things are requirements that you as Citi, if you wanted to issue money, you have to comply with them and you have to show to your regulator. That you are compliant with. There might be someone else, whether it's a stablecoin provider or someone else that at the moment does not need to adhere to those regulations. And again, I'm not here to talk about, Is it fair? Is it right or not? But here I just gave 2 examples of two types of money that have different requirements and what we wanted to do with Canton is to give issuers the dynamic tools to configure those rights and obligations that are associated with the assets that they want to. And then prove that as long as someone interacts with that asset on the network, whether it's through you or just because the asset is now borderless on the ecosystem, you as the issuer have the confidence that all of these requirements will be held. And by doing that, you're effectively doing what open banking did, because today, because the ecosystems are so closed, you have to almost be involved with every type of innovation that someone wants to do around your asset, and what we're trying to do, is again create this similarity to open banking where you have the confidence that the asset that you issue, in this case money, would always adhere to the restrictions and the requirements that Citi have as an issuer of money. But now anybody on the network that is willing to adhere to those requirements can take advantage of this, this money, and by doing that make, you know, Citi money, borderless in the ecosystem.

Ryan Rugg:

Yeah, I mean safety, soundness, scalability is key for us. We do not operate in the area to your point, unless it's very clear, you know, regulatory permission for us to do. We're not going to do it.

So. So it sounds like you envision a world that there will be, you know, tokenized inner branch. You know, cash. There'll be stable coins, other CBDC. How do you envision all these interoperating on like, how do you like getting the regulatory approvals because, you know all the permissions within the different entities?

Yuval Rooz:

Yeah, it's it's a great question. And I think what I want to remind to the listeners is we operate already in that kind of world today. It's not necessarily interoperable, but you know, if I open a bank account at Citi, I have some kind of counterparty risk and some kind of protection via FDIC. If I open an account at, you know some other like community bank, I'm taking a different counterparty risk and still getting the same action and if I was so lucky to be able to open an account at the Fed, I would have a different level of protection or versus holding cash in my house and then similar Zelle, Venmo, and we can start thinking about all these types of what we think is the same money, which it's not, right? So we have different permutations of money. That already exists today and our exposure to every one of them has benefits and characteristics or risks that are associated. With it, we think about Canton no different. I mean the goal with Canton is to allow these different types of assets, in this case money, to coexist next to one another. And the reason why you would transact with one versus the other would have again benefits or risks that are associated that you would say. Better to use this versus the other. What we're trying to do with Canton, and this is I think really where most of our effort is to get to a point, to get regulators comfortable, no different than how they got comfortable with the Internet. So when we think about the Internet today is the Internet is a public network and we hear every day about all the bad and horrible things that happen on the Internet. Yet still Citi and, you know, major financial players are conducting a big portion of their business on the Internet. And I think the reason we got it to this point and it wasn't like necessarily a trivial process is that you were able to educate regulators that the protocols of the Internet still allow a bank. To operate in a safe and sound manner on this open protocol, even though a lot of bad things happen in that same protocol and what we're trying to do now is get regulators to understand that on Canton I can build. You know, applications like issuance of money or digital money that would still adhere to all the things that a regulator would expect from an issuer of money. And I think once you're able to do that, I think you will see kind of like glorification of these use cases and and all kinds of different types of money that coexists and can interoperate on Canton.

Ryan Rugg:

And you hit on a really good topic about, you know, onboarding to a bank. You know, we do all the KYC AML sanctioned check and that's now table stakes that we do for all of our clients and then there's enhanced due diligence with anything around digital assets. When you start thinking about, you know you're talking Canton is permissioned, do you think there's an opportunity do, do you see a world where you connect the public and permission change together or do you see that large financial institutions that are highly regulated will always say kind of on the permissioned version.

Yuval Rooz:

Permission version. Yeah. So maybe I want to maybe just explain what I mean by permission. So to me, permissionless application is still permissioned but it's permission because permissioning is also just it's a verb, right? That leads to an outcome that could be permissionless or permit. So in

Canton, we want to give the ability to permission an application to be either permissionless or permissioned. Meaning to me, permissionless needs to be a choice, not something that you're mandated to do. So I can set my level of permissioning to be permissionless and I can set my permissioning to be more restrictive and where we want to get to a point with Canton is that everything exists on a public network. But my application, let's say I'm Citi, I have to permission that application. Again kind of using that analogy to the Internet. Everybody can connect to the Internet. Everybody can find Citi.com. It doesn't mean that I can use Citi.com. I can. I can see that it exists on the network, but to me Citi.com is a permissioned application that exists on a public network and that that is the vision where we're going with Digital Asset. It's not to bifurcate the world into permissioned network versus Open network. It's actually to say no, no, we should have some common protocol that can reach to all of those different applications. But some applications due to who is running those applications and the characteristics they want to have of those application would be permissioned. So what I want to get to is the ability to have Citi Token on Canton that everybody knows exists. But just because it exists doesn't mean that me, Yuval, without opening an account with Citi being KYC to AML by Citi, my wallet will never be able to put its hand on a Citi token because the Citi token knows that I cannot. I cannot take advantage. That's directionally where we're going with.

Ryan Rugg:

Which makes a lot of sense. Like we're on a private permission version of Ethereum, and for that reason within Citi's four walls right now. Right? Because one from again focusing on that safety of our clients like you know that's kind of first and foremost for us. But you know when you think of Canton and like public open source like Ethereum networks, do you see yourself in the future connecting to those or do you view only one network is going to rule all networks and the same goes with other networks that are popping up there – RLN, MTN, Vtap, whatever the case is, do you see yourself interoperating in like a global network or having, like, there's going to be one?

Yuval Rooz:

So first of all, I want to make just a small distinction. To me, RLN would be an application and it's definitely an application that we would like to run on Canton. But if the question is more about at the protocol level, do we see interoperability between Canton and Ethereum, for example, meaning I build an application on Ethereum and I want now that asset that I tokenized on Ethereum to be able to be usable at Canton. The answer is absolutely yes, we are. We are seeing that opportunity. You know, I'm going to say something that I said very similar to to some regulators is if you, tomorrow, tell some of our clients that you could use Ethereum or Ethereum assets as eligible collateral within a few weeks, you will see us working very hard on making that interoperability a reality. I think that a lot of people are wanting interoperability and I totally understand where it's coming from, who wants to take a bet on one horse if I can bet on, you know, the whole stable. Like that's nice. But the reality is that, you know, both L1s and even us that are now Canton is part of an open source foundation. We need to prioritize where we're putting our bets from an engineering investment perspective and we have proven that we can interoperate with Ethereum. We've done some work to prove it, but until there is a compelling, you know, business case why to do it, we're not going to invest. You know, too many engineering resources into it. We want Canton to be the protocol where everything runs on of course, but we are also very realistic that that either might

take a very long time or will never happen, and then we will need to collaborate. So we're happy to collaborate. A lot of our stakeholders ask us in many times to collaborate. We've done recently an announcement with ONERA. There's different ways how to interoperate. You can interoperate at the protocol layer. You could use acid bridges. You could use message bridges that you can do so many different ways to do that. But again, I keep on coming back to the idea that there needs to be a compelling business reason to do that and that's kind of our view as a company.

Ryan Rugg:

No, I think I think that's right from, you know, build based on client needs, not just what we think you know. I think I made that mistake in a few startups ago that you know, I built what we thought was best. But actually once the widget was built clients didn't actually want it. So I think it's important to build based on that. So you mentioned like some conversations like about with regulators that you're having, you know you have a global client base. I think you mentioned you have 20 plus people on Canton today. You know different enterprises. How are you navigating the global kind of regulatory permission to kind of landscape out there. It's very complex.

Yuval Rooz:

I think that the industry, me being one of them, have made a mistake early on, effectively saying, look, blockchain, crypto will change financial services. We will create a better, newer, faster, quicker financial ecosystem. And I think that if you put yourself in the shoes of a regulator that in most jurisdictions is few versus many with very limited capacity and headcount saying something like that is extremely terrifying and it almost creates a, um, this persona of someone who's very naive. What do you mean? What's wrong? What's wrong with capital markets today? Like, why do you need to create a new capital market system? So I think that maybe the big difference for me was starting to talk to a regulator, but we understand what it is that you're trying to do. And we have an appreciation for that. And we're not coming here, just saying, like, oh, we're just going to change everything. I'll give you just a small anecdote. Like I said, I think collateral for us is extremely important. And you're seeing a lot of people that are very excited about collateral. And, and let's say we we use Citi token to to fund variation margin with with prime brokers or clearing houses. And then you come in and you say, look, we can settle things 24/7 real time. And then someone comes and says but can you prove that your asset is bankruptcy remote and you go like you could do what? And then you can say can you show us how you perfect title under you know UCC and things like that and they're like you do what? And I think that that to me is is kind of the the the point is we are now coming into regulators much more prepared understanding from the financial crisis from all kinds of events which are the events that don't usually happen. But when they happen, if you haven't thought about those edge cases, that's when the real trouble begins. So we've done quite a lot of work with regulators. Recently, we've done some pilots and we worked with, you know, some very prominent law firms to actually show perfection of title settlement like there's no probabilistic settlement. There's either settlement or there is no settlement. Can you actually prove that if you're using an asset for collateral, you do have bankruptcy remote protection, because otherwise nobody will use it as collateral. So coming into regulators and saying we understand what you care about. We understand and have an appreciation for what you care about, and here's how we believe that our technology could adhere to those things and not through some funky tricks, zero knowledge proofs, like all kinds of things that are not here and sound too futuristic, but actually just explaining.

We release information on a need to know basis. We don't just replicate data to every participant and hope that encryption will protect it forever. Like coming at it from, you know, the principles that regulators are used to talk about, I think helps a lot with regulators when you're having conversations.

Ryan Rugg:

I would say that's been like the last 10 years. The journey right, a lot of it's been education - trying to demystify, you know, the technology from the crypto elements of it, to show that it's actually like, yes, it's immutable record, but you can actually trace it easier than, like, kind of our conversation off the record. Right. Like it's you could actually trace, did you ask crypto trades? You know, movement easier than you can actually trash like you know, we don't know if someone has a suitcase of money going overseas, right? It's like it's actually easier to track. But demystifying some of that with the technology.

Yuval Rooz:

That's a that's a great point. A lot of times what I tell regulators is you do realize that this technology gives you the ability to actually regulate markets in real time rather than to get a bunch of big files with a lot of non standardized data as an after fact and then hope that you will figure out what happened in that market later on. I totally I think that that's a that's a very good point.

Ryan Rugg:

Well, I'm getting the look, so I know that we're like overtime. So the last question that we've been asking all of our guests, what is the boldest prediction for the future digital assets that you have?

Yuval Rooz:

Yeah, I've been thinking about that. So to me, I think that within the next five years, my market is that 25 to 50% of tradfi activity will run on chain.

Ryan Rugg:

Wow. I like it. I like it. Well, Yuval, a pleasure as always. We appreciate you coming on the show.

Yuval Rooz:

Thank you for having me.