LendIt Fintech

Welcome to the Fintech One-on-One Podcast, Episode No. 375. This is your host, Peter Renton, Chairman and Co-Founder of Fintech Nexus.

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Peter Renton: Before we get started, I want to tell you about a new event we are hosting in London on October 17th and 18th called Merge. It is focused on the intersection of traditional finance and Web3. Regardless of the price of crypto tokens, the technology being developed by Web3 startups has the potential to completely transform the financial system. Our event will be bringing together leaders from Web3, fintech and traditional finance to discuss how this transformation will take place. Find out more and register at fintechnexus.com.

Today on the show, I'm delighted to welcome Dan Doney, he is the CEO and Co-Founder of Securrency, that's S-e-currency or securrency.com is the website. I wanted to get Dan on the show because Securrency is doing some super interesting work and I think important work. On their Home Page, they will say "imagine a world of effortless compliance, borderless transactions and newfound financial fluidity."

Now, you might think "effortless compliance" is an oxymoron and if you listen to this podcast through the end you will find it is not so. He said that it's actually not that complex, it's not a difficult thing to kind of codify a lot of the compliance rules, I am not just talking about US compliance rules, we're talking about multiple jurisdiction because they operate globally. We talk about the initial use case for their technology and how that's rolling out, talk about some of the traditional banks that are backing them and much more. It was a truly fascinating episode, hope you enjoy the show.

Welcome to the podcast, Dan!

Dan Doney: Hey, Peter, a pleasure.

Peter: Okay. So, looking at your background, I don't think I've ever had anyone on the show that's had quite the same background as you in different intelligence operations, it seems like, you function. So, why don't you give the listeners some of the highlights of what you've done in your career.

Dan: Yeah. So, I've got several degrees which are seemingly now irrelevant (Peter laughs), economics degree, control systems engineering degree and then a graduate degree in nuclear engineering. All of that actually is deeply rooted in some of the things that we do so it's a useful piece of background, but that was way back in the day. Spent a number of years in the US military, in the Navy as a Submarine Officer, pretty easy tour as I ended up teaching at the Naval Academy for a period of time to wrap up my time in the military. Got out of it, started having children and left the Navy, went to work for a startup.

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My undergraduate thesis was on the use of AI controllers for nuclear reactive control so I've done work in neural networks back in the day and I begun doing work in asset pricing models using own nets so we're the first startup doing consulting, among other things, with companies like Marriott then 9/11 happened and I was recruited to the NSA to do things in Artificial Intelligence. Worked there for the bulk of my career in advanced research which is some of the brightest minds, frankly, working on really core problems on how we understand and value information, again, keep challenges on natural language and knowledge itself so that was a fantastic time for me, I focused specifically on machine systems and performance systems.

After leaving the NSA went to Department of Homeland Security and worked, among other things, on identities systems there and enterprise delivery frameworks. I learned a lot about how you work with the coalition in many different parties, you've got systems that can communicate with each other as the Department of Homeland Security has actually many different mini agencies that have to come together and have their systems work. That's very true with the banking sector and some of the work on identity actually turned up a little in our approach in the marketplace.

Was part of the team that won the Excellence to Government Award in 2012 and how you do identity proofing to allow citizens, US persons, frankly, to access government-held privacy data so you shouldn't be able to see my data and I shouldn't be able to see yours, but we should be able to see data that the government knows of us. So, the way you have to do this is through identity proofing, that's pretty important and turns out in regulated transactions on blockchain networks so you can see how these things are shortly building.

With that work in my career I got a really cool chance to be the Chief Innovation Officer at the Defence Intelligence Agency, was introduced to blockchain as a technology among other really cool things and then the founding story of a co-founder came off the challenge on leases. So, there's a party that lease rental income, but needed to borrow against that rental income to avoid losing their assets and so there was no easy way to borrow against leasing.

I've been working with blockchain, liked blockchain so I built a tool and actually take and tokenize leases where you can bundle them together into a package and issue shares against that securitized package of leases that were dividend-paying currencies, that concept of a security that had the benefits of a currency that it was using to transact, but was a dividend-paying. We got a patent on that way back in the early days and backed security/currency gave rise to the company Securrency.

Peter: Okay. So, it's an amalgamation of those two words then, yes. So then, that was kind of the impetus, I guess, to get going, but what was the broader problem you were trying to solve and where do you see the opportunity?

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Dan: So, the broader problem was actually how do you make illiquid things liquid so it was a whole series of things that's required. A lease is a thing which produces revenue, but you can't easily trade and transact with that form of value so have to take and convert that form of value to something that can be easily transacted with, transferred from one party to another or converted to another form of value, that is the essence of liquidity so we set out to solve that problem. As I applied it to leases we then found out it can apply to mortgages and it can apply to insurance policies. By the end of that summertime, I built a platform and I thought, geez, this could be KKR and Goldman Sachs and AIG all in a box, I probably should form a company around this. So, we did and then discovered what the real challenge was.

So, liquidity is, in fact, the core challenge across finance, still to this day for many assets that bring the challenge, but in order to get liquidity, you must have compliance. In other words, if I'm going to easily and conveniently transact in forms of value, I must have compliance, it follows that same pace and that really meant being able to automate many aspects of compliance that others would have considered to be untouchable. I built the tokenization platform in, frankly, just a couple of months, I think and figured it would be easy for us to tackle the compliance problem.

Four years later, we finally had a solution, but it took a lot of work to build out that core component and then along the way we found other key challenges. You can't have liquidity without interoperability, you can't have liquidity without sufficient pricing and that requires sufficient data so all of these challenges come together into repurposed capital markets where you really have efficient transactions at any level, everything from custody all the way up to training services, asset management and issuance and then brokerage functions, customer-facing matters. So, we built out a very comprehensive core financial services infrastructure, think of ....as there are many who do Banking-as-a-Service, this is reliant on capital markets as a service framework, leveraging blockchain to enable a service.

Peter: Okay. So, maybe I'd love to get a sense of who's your end customer here and what are you actually doing for them?

Dan: Most of our customers, our target audience are financial service providers/financial institutions who were looking to re-tool to the new digital age and for me the kinds of services, comprehensive services that don't compromise on two principles so risk management, compliance, etc. We recognize to be able to bring these assets to market, we needed this comprehensive framework associated with compliance, etc., etc. Most of the world in the blockchain space were saying, regulations, why do you worry about that, let's just take stuff and get it to market and folks were getting to market quick and making money and losing people's money. We chose to go a very different path here to tackle the core value propositions, the core challenges to finance, the problem was we couldn't sell that to general and uninformed users.

To fully appreciate what we had done, it required a very sophisticated buyer who, frankly, have the needs and that was hard to find at first, people working in institutions were so afraid of

blockchain, they would lump you in the category of the people who were doing it fast, easy, who ignored the rules, etc. so it's hard to break through that. Fortunately, we connected with a real visionary in the space in WisdomTree, both a visionary and a party who is experiencing an imperative. That world, the ETF world, asset management generally, is experiencing substantial fee compression so new business models are actually required to survive in that world and they saw that what ETFs have done to mutual funds, in terms of being a more effective wrapper, they saw that tokenization of exposures would be the thing that would displace ETFs in the new market.

But they needed the kinds compliance tools that will protect their brand and so they came in, they're going to invest and actually we are releasing now the first of their tokens into the market. It's a quiet launch targeting a specific territory here in the US, but it's a brand new kind of asset in a tokenized form that's available to the general public where they can benefit from the benefits of blockchain so it's an exciting offering, but that shows that financial institutions can enter this space.

When supporting them, we were introduced to other major clients, U.S. Bank, State Street and they saw, in terms of what we could do for WisdomTree, an opportunity to transform their bank back office and middle office functions through blockchain in the right way. So, they've paved up on these sets of tools and infrastructure and now, we're finding repeat sales broadly because financial institutions recognize you can do things much better, much faster and at a much lower cost with blockchain solutions if you have the right tools and the right components built into it. So, suddenly now, we've got a huge uptick of financial services customers.

Peter: I mean, obviously we know how ETFs work, okay, interesting. So, can we just go back to the WisdomTree example, that's really interesting. You say you're doing like a soft launch, but they're publicly traded securities, like it can be obviously anything from gold to equities to bonds to what have you so the underlying asset can vary. It sounds like you're creating the next thing, can you just describe what you're actually tokenizing?

Dan: So, WisdomTree is bringing to market several exposures, the dollar-based exposure, a gold-based exposure, treasury exposure and then others. They have a pipeline of anything that is an ETF can be brought into tokenized form, the thing is WisdomTree's ETFs are very liquid, they're among the most liquid assets and the problem that we're solving here is not a liquidity problem directly. Liquidity in the US markets is fantastic, liquidity in the European market, specifically in the UK, is fantastic, they want global liquidity, you want their exposure to be able to trade to be held by an investor in Singapore directly and so there are very indirect channels by which a party might get to that asset.

So, problem number one is how do you do global distribution? To do global distribution, the asset needs to contain the compliance rules such that it can be properly handled in any one of these jurisdictions, you can't do that with legacy assets. Tokenized assets actually make them

smart so they know what they're allowed to do in various jurisdictions and so this creates the opportunity for global distribution, but just as important to the business model there and what we're doing with them is part of this release. They're using our core platform to blend the payments process with the investing process so imagine that you have a position in treasuries, just earning you better interest than you would get into your savings account say, you go to Starbucks and buy coffee, convert some treasuries to cash automatically directly as part of that conversion and pay for your coffee and whatever else, just as an example.

That linkage you can do in tokenized form very efficiently as it makes a couple of hops along the way and ultimately comes up in a traditional channel. With that experience, I can now take my investing component, one way I already have my account in let's say Schwab and can easily engage in a payment, you can see it in a neobank model where I can get better yields, I can have my money at rest earning money for me and I can still do payments like I would on normal payment rails. That creates a new asset management experience, a new investing and banking experience made possible through powered blockchain, a layer of compliance and a layer of interoperability that allows WisdomTree, an asset manager, to go direct to consumer instead of having to go through a series of intermediaries. Normally, they would only be able to touch somebody through their Schwab account.

Peter: Right.

Dan: That transforms their experience as well and the value benefits in terms of the automation. For example, treasuries are frequently used as collateral in other transactions turns out through blockchain, collateral or processes can be automated in a very efficient way for things like lending. So now, if that asset is in tokenized form, it can be used as collateral efficiently against lending also in tokenized form so you open up all kinds of new business opportunities in the new decentralized world for the assets that traditionally couldn't have entered these channels.

Peter: Right, right, that's super interesting. So, I want to go back to the compliance layer because to me it seems incredibly complex. So, you just used the example of the investor in Singapore because every country has their own regulations of what you are and what you're allowed to invest in and the different investment opportunities are made available. So, you just made it sound very simple, you just make it available globally, but, you know Singapore is different to the UK which is different to the US and then there's 200-odd jurisdictions on the planet so obviously it is finite, but it is also very large so maybe tell us a little bit, like have you just maybe the top five markets and trying to kind of make them into, you know, you're not trying to boil the whole ocean, are you?

Dan: It sounds intractable, doesn't it?

Peter: It sounds difficult, that's for sure, maybe not impossible, difficult.

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Dan: It is difficult for even the best global financial institutions to control right now, in fact, it is intractable for many financial institutions to work through this, but the principles are fairly straightforward which will particular here in short order and then we'll go into a little bit more detail in terms of how we do this. The basic principle always comes down to this, there is an asset, there are certain rules for handling of that asset, let's just say it's a US Reg D offering, there are specific rules as to who might be qualified to handle this.

Similarly, let's say it's in the UAE for an exempt fund, there are specific rules as to who can handle it and what they must do associated with that asset so tied to the asset and the jurisdiction under which it was launched there is a series of rules that apply for that asset. Similarly for an investor, so investors enter the financial ecosystem through an intermediary so a broker, for example, or a bank has a responsibility of knowing that customer, extracting, as part of the process, their qualifications. So, are you an accredited investor are you a professional deemed investor, you know, these are different jurisdictions definitions of what's required to perform certain types of financial transactions.

So, brokers, gather that information, we call these Attestations about a party, they also gather and receive a BOD test, etc., this is universal, everyone has some form of these tests, the attributes are different, that is, the specific in the US, it's called accredited investor. The means by which you obtain that actually is different, but the qualifications are actually very easy to express. So now, I can tie to a wallet a set of attestations so I know the owner of these wallets, I don't need to know his name or her name, I can attach the attestations, those are the qualifications assigned by a licensed financial institution to that wallet and now and then a wallet engages in a transaction. We see it as a token, send as a token, placed as an order, I can evaluate those qualifications against the qualifications necessary to engage in the transaction of the asset.

So, what we do is we take a token as a very straightforward thing, everything that it does, it does through a smart contract and now, for every one of those things that it does, you can attach a policy. A policy is the following rules apply for this to occur, the policy is really were the gem is here. The means by which we take a regulatory policy and encode them in a machine readable form, it allows me to do what's known as pre-trade compliance, it's the secret sauce. So I'm able to take the regulations and it sounds super complex, turns out it's not that hard to take US Reg D rules, US Reg S rules, US Reg CF rules, UK rule sets, the Australian rule sets associated with small investors, each one of those are quite tractable.

Now, what we do is find those, smart contract consults with the required rules sets prior to allowing a state change to occur. Those recipes are generated by law firms and we have an easy drag and drop mechanism where you can actually create these rule sets. Once a rule set is used and it becomes precedent in a jurisdiction, the next party simply comes along and says, I've got a Reg D asset, I want to attach the Reg D rules, I'll make checks to make sure they're right, off we go. So, you're able to create this repeatable use of automatically enforcing rules

that govern peer-to-peer transactions, it will decide whether my wallet is able to conduct this transfer to your wallet based on the nature of me, the nature of you and the nature of the assets that are involved in the transaction.

It's certainly a long description, there's a lot of detail behind this, but before your process that we were talking about, the end result now is parties can enter the global liquidity pool via, all the brokers are really doing is tagging wallets with attributes that are they allowed to assign and once that's done, now you and I can trade peer-to-peer and the rules are being enforced through the assets.

Peter: Do you actually go and enable new jurisdictions or do new jurisdictions come to you to try and use kind of your code, use your system, which way does it go or is it both?

Dan: So, it's issuers. Issuers are looking for the benefits of tokenization, the broad benefits of tokenization. You want to bring your asset in and one of two things will be true, somebody's already encoded this to like them or you've got to encode this together, that's when we would work with the legal team and the legal team can take and encode up those rule sets, typically for a fee. We're working on the whole monetization model where a legal team can actually generate these and when they get used, get paid in order to simplify things. It's not eliminating responsibility to the issuer to properly identify the rule sets, but here is our experience as a private company prior to this.

We would go around and talk to five different law firms and get ten different answers of what the rule sets were where we actually have a repeatable testimony of these rules and, again, not to take my word for it, the regulator can actually come in and test the rules and say, yep, I'm going to run this scenario and did it block this transfer, yep, and we've actually done these experiments with regulators. You know, in the best case they can endorse the rule sets in a slightly, they can at least no action these rule set and then you can simply have precedent where a hundred people used this before me and it seemed like it was okay. And so, there's varying regulators typically don't say yeah, that technical solution is good, in some jurisdictions they will, but in any case, the issuer has the tool set where you at least can see and test on your own what has been used previously.

Peter: Right.

Dan: You're not left with that question of exactly how do I interpret this, how am I going to go to the market with this, it gives very verifiable and testable components which can be combined.

Peter: Right, right. So then, let's just sort of go through an example, I mean, I don't know what states your systems are in, like buy the MetaMask wallet, can I go and connect with the WisdomTree offerings that way and make the investments there? How does it work and where are you at in that process?

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Dan: In WisdomTree's soft launch of this product it is a much more contained process which they are, at least, in these first phases acting as the front door by which parties get to these assets. The system is set up in such a way that when they want to, they can open this up to other brokers who can register wallets. So, imagine your MetaMasks scenario, you've got a MetaMask wallet, you've got your Ledger or Nano wallet, you think it's awesome, you work with a broker, broker conducts KYC or maybe they already know you and they conduct the process, determine your qualifications and as a licensed entity they're authorized to write those attestations associated with your wallets, that's what we call the Wallet Registration Service.

Now, it didn't matter that they are re-posting your wallet as long as you prove that you are the actual owner of that wallet, now you're free to engage in these transactions associated with it, peer-to-peer and when the rule sets are applied this token may only go to a wallet whose party has been KYC-ed by the licensed entity, for example, like the simplest of all rules, it has the means to do it. So, this is not central hosting, it's a very important point, you like your MetaMask and think it's very creative and we happen to think it is and very innovative and very powerful, you can keep that. You can now interact with financial assets of any type from any jurisdiction according to whether or not you have the proper qualifications.

Peter: Really interesting. I mean, obviously we're at the top of the first inning, right, where are we today as far as, you know, what is actually available? I mean, it sounds like you said like WisdomTree wanted to be the gatekeeper, you go in through a traditional mechanism, it sounds like, when will we be able to go through like our own wallets and connect some of these things?

Dan: Let me start with the world is not. So, we have very fragmented capital markets so there are certainly really efficient markets like the US equities market and, you know lots of liquidity there, but that's separated from private so public and private markets are separated, debt and equity markets are separated, crypto and non-crypto markets are separated, settlements, securities and payments markets are separated in these and all of these amounts to t+2 settlement in the best of the markets,T+30 worse and if you want to global scale, not even close, right. We have the framework for a unified global liquidity pool so we have the framework, the pieces in place to make this possible where any asset from any jurisdiction can sit in the pool such that any party who is qualified, may engage in a transaction with that asset.

We have the basic ecosystem to enable a global liquidity pool, however, one step at a time (Peter laughs), how do you unlock the capabilities. The technical capabilities are there, we're now engaging in the process with our clients of opening up this liquidity pool in such a way that's, again, first thing that need determined was necessary unlike many in the space who've done tokenization. Lots of people have tokenized things which aren't by their nature liquid, like in other words, they don't have sufficient data. I'm going to buy a piece of real estate on an openly trading market, I better have enough information that I know I'm not a sucker who bought

a piece of real estate or an interest in real estate that just was overrun by mold, how are you going to know that, you know, if you don't know that why would you trade in the asset.

And so, fundamentally, the things that people try to tokenize or they have tokenized are not the kinds of places where you want to start, if you want to create a liquid market. Where you want to start is high quality assets that are easy to price such that institutions can park their value there and engage in other transactions from that spot and that's where we've unlocked with WisdomTree and will spread out to our other clients as well.

Peter: Are you ignoring the crypto space as far as all the assets that are there, obviously it was worth $3 Trillion not that long ago, what's your perspective on tokenizing digital assets?

Dan: In general, we love crypto, it's not our focus area, it is an important form of value so when I talk about a global liquidity pool, you better have crypto, that would be a silly oversight on the space. So, what we believe is with proper controls you can trade crypto, you can trade utility tokens, you can trade securities, you can trade commodities, you can trade debt instruments, you can trade a private asset, you can trade an individual piece of art in maintaining a pool as long as you have the proper controls in place and that's what we're targeting here. We are not fans of the way that the crypto market has evolved with respect to their delivery of what we would consider to be securities and we think we've been proven right the past six months regarding this.

So, for example, when someone is engaging in a lending protocol, the extent to which a party's deposited assets are encumbered is actually a regulated activity, there should be reporting requirements against the extent to which I can withdraw and be assured that there is sufficient reserves for me to withdraw, there are rules for this and there should be rules for these. The fact that so many people are doing this outside of regulatory frameworks, there are some great offerings to be sure, there are some battle things.

What you don't want is every investor to have to be a smart contract coder, that's a terrible battle, people are taken advantaged of in that framework so we've always believed in trading these things as regulated assets which means there are sufficient controls and accountability associated with this, that people are held accountable when things go wrong, minimums are a requirement. But in order to do that we would say, we don't want slow speed compliance rules that don't scale globally that are characteristic of the legacy financial services. So, if we automate that, why can't we do all of these as efficient securities to trade in a global pool where there's proper accountability so we're heavy on that and, again, each one of these events is like see, I told you so (Peter laughs).

Peter: Right, okay. So, I want to end with a two-part question, you've kind of done a little bit, but I want you to paint a vision of how this sort of tokenized world will work in reality and then what are the challenges that need to be overcome for that vision to become a reality?

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Dan: The vision here is that ultimately, any party globally should be able to have access to sophisticated financial services that are highly reliable, that's the end vision. In order to make that possible and by efficient this means automating many aspects of the processes so our partner banks, State Street, U.S. Bank, they are determined to re-tool a back office and middle office functions to make them much more efficient and we're working in-depth with them on those types of challenges.

Let me give you an example, triparty collateral is a great tool, it's common across every major financial institution. You, typically, you have a triparty collateral process that will hold treasuries, those are legal processes, a part of it that will do some alternative assets so maybe this is for mortgages, those are all in individual systems separately through smart contracts and our particular contribution here is composability. I can take those individual financial processes and bind them together to give you a fully automated bank back office and middle office with compliance built into it. When you can do that, suddenly, you can bring the most sophisticated processes to any user anywhere at a scale that is not currently achievable in legacy systems. We're determined to do that, but it starts with tokenization of assets, that's step one.

Next component, of course, you can see is the compliance that falls along with this then composable financial processes and then a global network of we call them Verification Agents people wil call them banks or brokers or any other party who has sufficient compliance processes. They will onboard parties, all of those parties coming to the global financial pool, the global universal liquidity pool. Those are the challenges we're working to overcome. Regulatory consistency, reliability is an obstacle so an informed regulator is our best friend so we're going to be able to work closely with regulators and show them that their concerns are valid.

Nobody is saying there shouldn't be regulators, nobody from our team is saying there shouldn't be regulators, they're performing an essential function. Every time people step on the side of regulatory boundaries, you get a Terra event or some other horrific event that occurs, stay in those boundaries, the rules are there for a good reason. What we need to show regulators and we do show regulators is not only can we meet those standards, we can exceed them, we can automate them such that they have greater oversights of the activities that are going on, but if they don't understand the technology and give you a blanket no, it doesn't matter if you can do it better so we need to take the time. We invest heavily in training, teaching regulators showing the possibilities and making sure that they recognize that this isn't a lower standard, it's a higher standard. That's been a big area we have been investing heavily.

Peter: Okay, we'll have to leave it there. I really appreciate your coming on the show, Dan, that was a fascinating conversation and you've obviously done a lot of work already and there's so much more to be done. So, anyway, best of luck.

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You know, Securrency is really the first company I've come across that I feel like hasn't shied away from any of the big challenges here, In fact, what Dan said after we stopped recording is we've gone in-depth into the really hard things, that's talking about the compliance piece. I've often seen the, you know, De-Fi community paint a picture, kind of like what Dan described there, but there's always been the missing piece and that's been the compliance piece and how you're going to do this in a borderless way that regulators are going to be comfortable with.

I feel like this is the first time I have really, had articulated to me anyway, a system that is borderless, that also checks all the boxes on compliance and regulators can be comfortable with. And so, I think they've done a tremendous amount of hard work already, there's much more hard yards ahead, but you can really see, at least I can see now, there's light at the end of the tunnel where we will be able to operate in a world like many people have described that I think will be a fantastic thing for investors, for consumers, for small businesses, for governments everywhere.

Anyway on that note, I will sign off. I very much appreciate you listening and I'll catch you next time. Bye.

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