FINTECH ONE-ON-ONE PODCAST 397-RHOMAIOS RAM

Welcome to the Fintech One-on-One podcast, Episode No.397. This is your host, Peter Renton, Chairman & Co-Founder of Fintech Nexus.

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Before we get started, I want to talk about our flagship event, Fintech Nexus USA, happening in New York City on May 10th and 11th. The world of finance continues to change at a rapid pace, but we will be separating the wheat from the chaff covering only the most important topics for you over two action-packed days. More than 10,000 one-on-one meetings will take place and the biggest names in fintech will be on our keynote stage. You know, you need to be there so go ahead and register at fintechnexus.com and use the discount code "podcast" for 15% off.

Peter Renton: Today's episode was recorded at the Merge Conference in London on October 17th & 18th where I interviewed Rhomaios Ram, he is the CEO of Fnality. The title of our session is "Increasing the Velocity of Money with Real-Time Settlement," and that's basically what Fnality has done. They're owned by a consortium of banks, these banks have come together to create a real-time settlement mechanism for bank-to-bank transfers, they are going underway now with the Bank of England and super interesting technology. This is something that potentially could be rolled out globally so very much think everyone here should have to listen because I think it's groundbreaking work they're doing. Hope you enjoy the show.

We're talking about the Velocity of Money with the CEO of Fnality.

Rhomaios Ram: Thanks, thank you, Peter.

Peter: Of course. Why don't you give a quick intro and a little bit about what Fnality does.

Rhomaios: Yes. So, just a little bit about me, I'm the CEO of a company called Fnality, it's national, we've been in existence since 2019. It's owned by a consortium of banks and other financial market infrastructure, many of which you'll have heard of. My background is actually banking, I came from the traditional banking world, I spent 22 years at Deutsche Bank, I worked in many areas of foreign exchange. I basically ran the electronic trading business in the early 2000's and in the late of 2010's, I was running different parts of product management for transaction banking. So, all the payments bits, trade finance, the custody and securities businesses and trust and agency.

Peter: Okay. So, maybe you can talk a little bit about, in relatively layman's terms, what it is that you are building.

Rhomaios: Yeah. So, what Fnality is building is basically a private sector answer to Central Bank digital currency. So, effectively, we are creating a settlement asset that has all of the same credit quality as Central Bank money, has something called Settlement Fnality, hence, our name which basically means that when you pay someone, your contractual obligations are discharged.

So, effectively, we are creating something very close to a Central Bank Digital Currency, we're doing it by effectively opening up accounts at the various Central Banks we're working with in the UK, in the US and Europe, for the time being. We have Japan and Canada on the sort of further horizon, we'll open up a special type of account with them, funds will be deposited in those accounts and they will be the funds that essentially back the settlement that happens on a blockchain.

Peter: Okay. So then, let's just dig into, like what's a use case, can you give us like a practical use case. Is this just for really, you know, large investors, what are we talking about?

Rhomaios: So, as you might have guessed from the types of investors we have, the genesis of this was really from large banks wanting to make their kind of capital markets businesses and so on much more efficient than they currently are. So, all of these banks were really looking for a way to rationalize their operations, etc. The company formed in 2019, but I started doing the research on it back in 2017 and as we looked more into the overall project, we realized that having a settlement asset on chain would actually enable the banks to release a lot of capital from their balance sheet so, faster payments overall and the removal of intermediaries would mean that you could lower the buffers on your balance sheets, and that would be really beneficial for the banks.

So, to answer part of your question, it's all aimed predominantly at wholesale. The types of use cases that we're going for are really about something versus payments so in the traditional finance space we called Security Settlement with a security is delivered at the same time as the money, TVP. So, one of our main use cases is TVP and that means that you eliminate the risk between the security getting delivered and the money getting delivered.

In the foreign exchange market it's called PvP, Payment versus Payment, for the same reason. You can imagine it like, you know, in this old style kind of spy movies, when you walk the prisoners across the bridge, everyone's kind of making sure that they get their side of it and then, obviously, in order to do any of that we have to do straight payments, but we don't think the market for that….there's one use case, in particular, where there is actually quite a significant reason to do it. But, in general, payments work reasonably well in wholesale markets so there's not a big use case for that.

The reason the banks want all of this is because currently to do PvP and TVP, you need multiple other entities involved in the transaction which basically mean that you end up splitting your liquidity and having a whole bunch of operational checks that you need to carry out to make sure that, you know, the funds and the timing are all correct. If you get rid of all of that, remove the need for these intermediaries using, you know, DLT touch solution, you can basically take all of that cost away and if you can make it all instant, you start to reduce the amount of liquidity that you actually need to make all of the payments.

Peter: Aren't the banks…their entire system is built on this T+2 kind of, it's not instant, all of the systems are designed this way, I mean, how do you move from T+2 to T+0?

Rhomaios: There's sort of two questions there. Why are we T+2, how hard is it to move to T+0, I mean, why do they want to do it? So, the reason we're in that phase is actually, it's all to do with, you know, how computers evolved, right. So, back in the like in the 80's when the banks really started to put a technology into be able to settle their transactions, it was basically mainframes, and you need to

batch processes. And so, it necessitated the banks to be able to net all of their transactions together so that next day when the computer had run over and kind of netted out, all the accounts out, they could settle in one go. So really, it was computer science that drove them down the path of T+ something.

As computer science has improved, obviously, the possibility of going to instant has increased and you don't necessarily need blockchain to do instant today. There's obviously instant payment systems that already exist, but as you rightly say, most of the systems, the core systems in the banks are still setup for T+ something. The banks don't want to do that because if they continue to have T+2 there's two days where the settlement of whatever transaction is are outstanding and so they need to have some sort of balance sheet buffers in order to compensate for the risk across those two days. So, you know, there's interest charge, and kind of all the rest of it so they want it to come down, but they need the whole market to change at the same time, they need a catalyst for that to happen.

And so, they see what we're doing and the entire kind of DLT or blockchain thing is a catalyst for driving the market towards much faster settlement across all of the different assets, in general. The last part of what you're saying is how are they going to do it? It's definitely not going to be an easy thing, I think this is actually the hardest part of what we're attempting will be getting the banks to gradually migrate all of their systems and processes to something that's much more real-time. My suspicion is they'll do it piece by piece so they'll bite off a piece of one business and try that out, see how it works, you know, kind of like everything else, you can't do it all in one big bang, they'll do it piece by piece over time. I think that time could be, you know, several years as they kind of evolve it.

Peter: Right. So, maybe you can tell us a little bit about the state of play. I mean, I think you said you ran a pilot early this year, like tell us a little bit about that and how the progression has gone because I imagine you're not quite ready yet to be processing billion dollar transactions, right?

Rhomaios: Yeah, yeah, yeah. So, one of the hardest things that we've had to do is persuade the authorities, basically the Central Banks, that this is all a thing that actually is going to add value to the overall market. So, in the last three years, we've been spending lots of time with the various Central Banks in order to progress our account applications, etc. and I guess the most I can say is, in my opinion, it's all definitely going to happen and now it's a kind of a question of time of when that does happen. We've run proof of concepts because one thing is, will the regulators ever accept it? I think tick, it is going to be accepted.

The next question is okay, well you've done all of that stuff, the people are going to pay for it, want use cases, etc. in order to make the business cases within their own bank. So, because of the way banks are organized, they're not organized around their whole balance sheet, they're organized into separate businesses so each business needs to have a reason why it wants to make this happen. And so we've been running use cases - the one you're particularly referring to is around intraday FX swaps to show how the banks could use our platform to make their lives much better.

Peter: Right, okay. So, I'd like to just spend a moment to dig into the weeds here. I know you're not like a super technical guy which is good because you can then explain it to the rest of us, but I think you're using an instance of the Ethereum blockchain, is that correct, and then how you're settling? Just maybe take us through the different stages of that, of the transaction.

Rhomaios: So, it's not just a technology question actually, it's kind of a law question as well so let me take you through a bit of how that works. So, like I said, we're going to open up this account at the Central Bank, it's going to be, in the UK we refer to it as an Omnibus Account, in the US, it's called a Joint Account, but basically, there are multiple owners of the funds inside of that account. We are the operator of the account so we're, you know, imagine if you and your husband or you and your wife open up a Joint Account, like whose money is it? It's kind of both of your money, right, so this account has both of their money.

So now, what they do is create a "We" for them, create a rulebook that specifies the rules under which that money is apportioned, right. And so, then, depending on what the state of play of rulebook is, they have different amounts of money there and we use the blockchain basically as the accounting record of what's in that account. So, Bank A might have, you know, 50 Pounds in there, Bank B might have 70 Pounds, if that's recorded in the blockchain the rulebook says that record is the amount that they own respectively, but the funds are actually still sitting in the Central Bank account. And for this reason, because they collectively own the money in the Central Bank account, there's no bankruptcy issue kind of with us, you know, if we went bankrupt it's still their money and the record on the blockchain is still the record of what they own and so on.

Peter: Okay, okay. So then, how many banks you got, like 13 or something?

Rhomaios: There's 15 banks.

Peter: 15 banks.

Rhomaios: Two infrastructures and an ETF sponsor.

Peter: Okay. So, you've got banks already, they're part of the consortium, are they….you need a buyer and a seller, right, you need to be able to have two parties on the transaction. Are you just looking at your existing 15 banks to kind of roll this out, I mean, what about other banks that are interested in coming in?

Rhomaios: I mean, the long term goal is to have other banks, you know, in fact, all banks be able to participate in the system, but you've got to kind of start somewhere and so kind of the most user-friendly banks are our existing investors. So, they are going through all the teething problems that you would have with a new system and helping us discover, you know, all of the issues around onboarding and so on. So, you know, all 15 of our banks are in various stages of onboarding to our platform.

Peter: Right, right, okay. I heard someone talk about your platform the other day and say, well it's really like a synthetic CBDC. It seems like if what you're doing is successful, does that just obviate the need for like a retail CBDC?

Rhomaios: So, we're definitely not retail.

Peter: I know you're not retail.

Rhomaios: Yeah, yeah. So, retail would have to be whatever it is, but in the wholesale space I guess my answer would be we'd like to be the only one, but there's no reason why there couldn't be other competitors. I would say, synthetic CBDC could be a way of saying it, the way I say it is more private sector answer to CBDC and if you look at, you know, like the US or Europe, they actually have payment systems where they have a public sector answer to Central Bank money. So, in Europe, it's Target, but they also have a private sector answer to it which is EBA Clearing, and those two thing co-exist pretty nicely. There's a handful of, or actually more than a handful, but many banks that basically settle on EBA Clearing but those banks also settle on Target when the need is…the reasons are, you know, might be convenience or features or whatever.

The same thing in the US, the US has something called Fedwire which is run by the New York Fed, but there's also a system in the US called CHIPS which is a private sector system run by a company called the TCH, the Clearing House, which is basically owned by a consortium of banks. So, again, it has the same model where there's a private sector answer and the public sector answer, that are both doing pretty much the same thing and they've been co-existing for many years so the European answer has been, you know, basically since the late 90's I think whenever the ECB came online and the US answer has been around since the 70's, I believe TCH came around in the 70's.

Peter: Right. And we're still working on a new version of that. So then, let's talk about, I mean, this is a problem that exists in pretty much every country, right. I mean, you're here in the UK, you're working now with the Bank of England and the British banks, are you talking to Europe, are you talking to the US, Japan, like where are you at with those conversations?

Rhomaios: So, the main three that we talk to pretty often is UK, US and Europe. Current funding should take us to Japan and, you know, the business plan is basically Japan and Canada as well so we have Canadian and Japanese banks in our shareholder group. Assuming all of that is successful, ultimately, we'd like to roll it out to other jurisdictions that we're interested in, and we have kind of a franchise model in mind that would allow it to be rolled out to other jurisdictions or regions.

Peter: And maybe just touch on how are you actually making money, is this like a SaaS-type product, is there a transaction fee, what is the business model for Fnality?

Rhomaios: So, predominantly, it's a SaaS-type product like you pay some, you know, whatever, a few hundred grand and you can do as many payments as you like. We are going to charge per transaction though for things that you can't do today. I was referring to effects of Payment versus Payment, right now, you can do the T+2, which is what we were talking about earlier so we wouldn't charge you for that, but if you want to do instant Payment versus Payment then we would charge you for that. And the reason that we would do it that way is because actually that's when you start to get all the balance sheet savings so actually we're trying to line ourselves up with the incentive that, you know, the banks have with our incentive. So, the more that you use it for the thing that really going to give them the savings then we'll also benefit from that.

Peter: Right, right, okay. So then, we're talking about the Velocity of Money here and Real-Time Payments, do you have any sense of how much can be unlocked here with a new system like the one you're doing? Is this, like will it mean to have faster velocity of money, what will it mean than not have to have all this, you know, it's cost and time on the balance sheet, have you had……..

Rhomaios: Well we've looked at the liquidity savings and we think, you know, if every bank did it and they all optimized, that it could be of the order of like 15/16 Billion per annum in the market, that's excluding all the operational savings, but, of course, we're not going to get to a situation where everyone does it perfectly.

Peter: (laughs) Right.

Rhomaios: And also that's a little bit of an estimate, but that doesn't take account, you know, kind of all the stuff that might be composed on top of it. So, I think there are a lot of really interesting creations in the DeFi space that could actually come to the wholesale market via a mechanism like ours that will actually unlock even more value for the participants and, you know.

Peter: Say more, what are the DeFi space, what are some of the things that……

Rhomaios: Yeah. So, one thing I was thinking about is you want to buy a security, but you don't have the money for it, even if you're a bank, so you can go out and you have to go out and borrow whatever you got to do, you know, some sort of repo, but actually you could do, you know, I guess it's called Flash Loans in the DeFi space, but you could do something that actually exists in the current market.

You can do order collateralization where you take the securities you're about to buy, put them into a pledge, you know, basically a smart contract, get the funding for that, pay for it in like the whole thing, kind of…so that's kind of one example, but I'm sure, you know, there's many other examples that are coming about. I can't imagine right now that we'll transform the industry.

Peter: Well, we have a few questions coming in here, like how do you scale Fiat payouts? Is the onus of liquidity and float management on the financial institution?

Rhomaios: Yeah, yeah, yeah, So, there's two ways to….that's a great question actually, that relates really to the title of the presentation. So, there's two ways this can go. One way is kind of the way that it goes right now which is you have sort of netting window, so right now, for some of the payment systems out there, it's over a couple of days, you get all the transactions together, people figure out what the net is and they already make that single payment, you can obviously speed that up and reduce the netting cycles to like hour by hour or something like that. You probably wouldn't go to minute by minute because it wouldn't be enough payments happening in any given minute to get meaningful netting. So, that's kind of the traditional way of doing it.

My background actually, I think I mentioned earlier, I was from electronic trading and so I saw capital markets basically transform itself from a very manual process where people traded bigger sizes over time, to trading much more frequently, much smaller sizes. So, I came from the world of FX, you know, the average transaction size in like 1998 was about $2 Million and by the time I'd left FX in like 2004, we were down to like $50,000, but of course, the volumes have quadrupled or maybe even got up by factor of six at that point, like went up to like factor of eight or nine by 2008. And so, you're getting much more volume just like much smaller size going through much more frequently, the same things have actually also happened in the equity markets.

So, I have a view that actually if you could settle to match what's happening on the trade side, you would actually speed up the velocity of money through the system and you would use less liquidity so basically that $50,000 will just like recycle through all the banks much faster. You know, we've done some modeling on it and actually it kind of works basically just as good, but less risky than the current model. The participants are going to do whatever works from a financial perspective, but I suspect the settlement side, given all of this new technology, will start to catch up to the trade side and will match that functionality.

Peter: How significant are the savings compared to SEPA and CHAPS, etc. are the transactions limited to the banks' countries where you have established partnerships?

Rhomaios: So, SEPA is like an ACH and CHAPS is basically RTGS for the UK. I don't think there's that much savings, I mean, for straight payments it's essentially free. You're charged, you know, whatever, a few hundred grand a year for you to do it. So, if you're going to do the same thing as you're doing in CHAPS it will be much cheaper, and you can do whatever volume you want. The transactions are, it will limited to banks so there's a specific reason for this. Our vision actually was much wider than banks when we first started out, we wanted to go to, you know, through a buy side and eventually to corporates.

The issue with that, at least in the short to medium term, is monetary policy. So the Central Banks are understandably, nervous about allowing something that's very close to Central Bank money to be not in the hands of banks because they would find it difficult to control money supply by, you know, interest rates and so on, they don't regulate corporates or asset managers or hedge funds, etc. So for that reason it's limited to deposit-taking institutions. Even with that if we could expand out the number of deposit-taking institutions on our platform across the globe, you'll still get a lot of the benefits that I'm talking about so it is limited to banks. For countries, is just a question of which country you can go to fast enough to get it all set up and then we'll make it work.

Peter: Right. Follow-up to the float management and liquidity question, is Fnality essentially creating a closed-loop ecosystem to optimize the Swaps? Are there any plans for inter-operability?

Rhomaios: So, I described at the beginning how funds go into this Omnibus Account and then you do whatever you've got to do, but the funds can be taken out of the Omnibus Account by the participants so there's no liquidity trap, your liquidity isn't trapped at all in our system. If you want to go and take it somewhere else as long as you've actually got the liquidity, you can take it out and do whatever you want. So, I wouldn't say that it's closed-loop at all.

The second thing I'd say is there's lot of different words around meanings of inter-operability. When I use the word inter-operability, what I mean is can we link up to other settlement systems and provide PvP and TVP for this kind of atomic settlement feature? And the answer is, yes, but I'm not 100% sure that's what the question's asking for.

Peter: You have an instance of the Ethereum blockchain, right, I mean, and their scaling issues there. I imagine you wouldn't have chosen it if you felt they wouldn't be able to the scale.....

Rhomaios: Yeah. So, right now, we're comparing ourselves to, you know, like a regular RTGS and we can easily do the same, you know, whatever, max out a hundred transactions per second. So, Target in Europe does like I think 50 or 80 transactions per second so we're well within the range of doing something like that, and I think CHAPS in the UK is lower, like 30 transactions per second so we can definitely do all of that stuff.

We believe that it'll be relatively straightforward to scale in the future, we'll look at how the whole Ethereum world kind of evolves, but one obvious answer is you could shard into various fragments and then have each of those shards settle different parts of the transactions for you. So, I think scaling is not a problem for what we want now, and there is a path to a much faster, much greater scaling if we need it.

Peter: Right, right. And then just a question here about refunds or charge backs, how would that work in your system?

Rhomaios: Yes. I think that's really a retail thing so we don't really have that problem. Like I said, I used to work at a big bank and we were known quite famously, you can probably look it up on Google for sending, you know, 50 Billion Euros to the wrong person, they just have to send it back, you know. And generally speaking, they do, so.

Peter: Right, right, okay. Maybe we can close with, you know, I'd love to get sort of you to paint a vision for us of what this can look like say in five to ten years time where, you know, all the major banks are using this. Tell us a little bit about what that's going to look like.

Rhomaios: You can imagine a world where we have one of our systems operating in each, let's say 50 jurisdictions. So, all the banks are able to inter-operate and do FX and security settlement as they want, so if you were a bank and this audience obviously isn't full of bankers, but if you were a bank you'll have a situation where let's say you were Swiss, you could be securing order funding in Switzerland which is where you have an advantage over funding. You can go to the Central Bank and you have all of your assets in Swiss, if want to do something in the US, you don't need to keep money in the US.

That's basically a wasting asset and, you know, you have the credit problems of holding it with a correspondent bank, etc., you just FX instantly into the US and then you buy whatever shares that you wanted to buy straightaway. You can see all of the banks kind of doing this on a real-time basis, and really speeding up essentially the velocity of money.

Peter: Okay. That's a great place to leave it. Thank you very much, Rhom, a fascinating conversation.

Rhomaios: Thank you, thank you.

Peter: Best of luck, appreciate it.

(applause)

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