

diffusetap
Virtual Event Series

Next Generation Crypto Apps

WITH MULTICOIN CAPITAL

Guest Speaker:

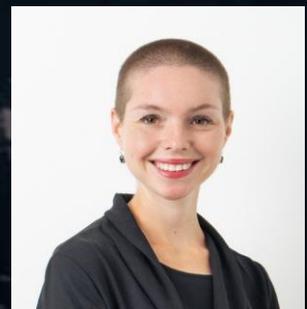


Kyle Samani
Managing Partner
Multicoin Capital

Hosts:



Kenny Estes
CEO & Founder
Diffuse



Ayla Kremb
COO & Co-Founder
Diffuse



DiffuseTap: Next Generation Crypto Apps with Multicoin Capital

Last time on DiffuseTap, Kyle Samani, Managing Partner of Multicoin Capital, talked to us about what composability is and how it's going to spawn the next generation of crypto apps, how we leverage composability in Web 2.0 compared with Web 3.0, and some of the risks that come with it.

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DiffuseTap

This networking session is part of our weekly virtual events series. Networking (you'll bump into at least a dozen high caliber fund managers) meets purposeful (you'll tap into brand-new sources of ideas) ... straight from your armchair like a boss.

Meet the Speaker



Kyle Samani is the Co-Founder and Managing Partner of [Multicoin Capital](#), a thesis-driven investment firm with a global footprint that invests exclusively in the crypto ecosystem. Multicoin Capital manages several billion in assets across various hedge funds and venture funds. With a strong background in software engineering, Kyle leads technical thesis formation and diligence at Multicoin and is widely recognized in the industry for his writing and system-level analysis. LinkedIn: [@kylesamani](#)

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KENNY ESTES: Our speaker of the day is Kyle Samani. Kyle, would you mind giving us a minute or so and talk about your background and what you're up to over Multicoin Capital?

KYLE SAMANI: Sure. Hi, everyone. Pleasure to be here. My name is Kyle. I'm a co-founder and managing partner at Multicoin Capital. I grew up in Austin, Texas. Fortunately, my dad was a programmer, and I grew up around computers. I studied finance at NYU where I met Tushar Jain, my co-founder. We've been very good friends for 13 or 14 years now. I got into crypto in 2016.

I discovered this thing called Ethereum. A week or so before I discovered Ethereum, I was fooling around with Stripe APIs. Even back in 2016, Stripe was a fairly hyped company. I started fiddling around with it and I was very unimpressed. I didn't think being able to take credit card payments was very interesting. And then, a week later I started hearing about Ethereum and I thought, "This is cool. I can do anything with this."

That's when the light bulb went off. I discovered what it means to have permissionless, programmable finance. I don't think I could have quite expressed it in those words at the time; but in hindsight, that was when the lightbulb turned on. Over the course of 2016, I spent an increasing percentage of my time reading, learning, and thinking about the crypto ecosystem, as well as investing my time and money.

By the spring of 2017, I had developed it into a full-time hobby. In May of 2017, I made the decision to turn that hobby into a profession. We launched Multicoin on October 1 of 2017, we're about four and a half years old. Today, we're one of the largest firms focused on crypto investing in the world, and we like to invest in a lot of cool, crazy stuff. We have a hedge fund, we have a series of venture funds, and we like to buy things with the goal of not selling. It turns out, not selling is a lot harder than people think.

AYLA KREMB: Awesome. I'll hop in straight into the questions because the topic of today is a little bit more on the technical side. What is composability, and why does it matter? Why is it valuable?

KYLE: Computers work because software are composable with each other. There are different angles to think about composability. For example, the login with Google button, or login with Facebook button are examples of composability for authentication. On the internet, those are a stateful form of composability. There are also other forms of composability that are just for online APIs, which are not really stateful.

For example, if you have an app that integrates Twilio to send an SMS, that is another example of taking these Legos or building blocks and recombining them. There are different forms of composability, which are stateful and non-stateful. Again, a stateful example would be in Web 2.0, like the login with Google button or the login with Facebook button that you see all over the internet. Those buttons leverage your existing Google or Facebook identity to do a new service.

Another example would be Twilio, or when a developer integrates Twilio. It's not really stateful. It's just a way to send an SMS to someone's phone. We've had composability in software for a long time. One of the defining hallmarks of software is you can compose these things together. The entire Web 2.0 internet



today functions on composability. But all of them are more or less permission-based. We have API keys for all of these major services and such.

But what does composability mean in a [Web 3.0 sense](#)? What's interesting about blockchain is, the point of a blockchain is to track the global state of the system, or a global "state" of the world, I should say. Or if you want to phrase it in layman's terms, it keeps track of who has how many coins. That's all blockchain really is. It answers the question of who has how many coins right now.

It turns out that a lot of pieces of state have relationships with other parts of the state. This is fairly true in financial markets. For example, you've got spot trading and derivatives. Obviously, the price of the derivatives is mathematically related to the price of the spot asset. And so, those two pieces of state should be coupled. There are other parts of state that have relationships with each other. When I pay you, for example, then my balance needs to go down, your balance needs to go up, and you need to give me some assets in return for the payment.

Today, we're also starting to see new forms of state relationships with NFTs. Although that space is still fairly young and underexplored, when we think about composability in the context of crypto, what we really want to see is developers leveraging novel forms of pieces of state across many types of applications. We also want to see them recombine those pieces in new ways that we couldn't previously forecast, and also be able to expose that in different kinds of front ends that allows us to choose to filter or curate different parts of content. I realize that was fairly abstract, and a mouthful. I gave a talk on this in December of 2021, at the [Multicoin Summit](#), where I elaborated more with some examples. [That video](#) is online.

KENNY: Let's jump in there. We have a question in the chat that we'll pick up here. What are some of the open spaces that you see in composability? You talked a little bit about some of the areas, but I want you to really put your teeth into it. What are some of the areas that you see a lot of room for improvement around composability?

KYLE: Literally in every single sector of software on the internet. You should interpret that statement as broadly as possible. Social media, sports betting, memes, or anything consumer-related can apply this in some form or fashion. For example, there are a lot of people today playing around with these decentralized [Discord](#) things, or decentralized [Twitter](#) things.

It's a very interesting design space because if you look at Twitter and Discord specifically, it's really obvious that there should be ways to have customized filters. If I wanted to have the sports optimized version of Twitter, then it should automatically pull in the score of the games and the play and the stats. Or if you want to have an NFT curator Twitter, then you should be able to have a tweet object that showcases your verified NFTs in some sort of intelligent composable layout. That design space of things that you want to do is fairly rich. You want to have a Twitter stream that everyone goes to. My hope is that there will be this kind of decentralized Twitter where you have people creating all kinds of input into.



And then, you have many different front ends that showcase the various forms of Twitter that already exist today. From a functional perspective, you want to have crypto Twitter, sports Twitter, or even journalist Twitter. And these are fairly unique in how they use it, as well as for the kinds of features they want. But Twitter Inc. can't build the optimized feature set for all of them.

I'm quite optimistic about a new composable future in which you have lots of apps basically writing tweets, so to speak, to something that hosts all this data, and a future in which you have four to ten different front ends for these different use cases. I think that's a very aggressive example of what I'm optimistic about in terms of composability, but there are lots of other use cases.

KENNY: Makes sense. You talked about those in the abstract, and those examples are appreciated. We've completely talked about what composability is, but a follow-up question would be why is it good? Why do you think this is a really good advantage for the future state of technology? What does it enable? What potential is it untapped?

KYLE: If the human brain can think it, we should be able to encode it in software. I like to think of composability as something that basically allows the compounding of human ideas faster.

KENNY: Is that because the underlying building blocks are already there, and you're not reinventing the wheel every time?

KYLE: Yeah, and all the pieces can come together in a novel way. We had cars, and then we got smartphones. And then it turns out, when you put the two together, we've got Uber. You want to enable recombinations of ideas as quickly and seamlessly as possible. I look at stateful composability on permissionless blockchains as the next major frontier of idea recombination.

AYLA: Let's talk about some specifics there. You mentioned something about a decentralized prime brokerage on Solana, and they're asking about that in the chat. Could you dig into that example specifically?

KYLE: Yes. Prime brokerage is the ultimate example of composability in the context of financial markets, specifically. If you don't understand what prime brokers do in traditional markets, I can explain it in 30 seconds, but I don't think you're going to appreciate the importance of it. But basically, any sophisticated trading firm today doesn't trade directly on things like NASDAQ and CME. They trade through a prime brokerage, which is typically firms like Goldman or Morgan Stanley.

Those firms have collateral on all the exchanges, and they basically do cross margining and all these other things. If you actually look at what a prime brokerage does, a prime brokerage is literally composability in a CeFi sense instead of a DeFi sense. You have to have the positions offset across the different exchanges. You have to have everything margined correctly. That's what marginfi does, but instead of doing that in a centralized way, it does it in a decentralized way.



The reason why prime brokerages are banks like [Goldman](#) and [Morgan Stanley](#) is because they have a ton of capital. It's because they are banks, and that consumers have put all these deposits there. And so, they are using the capital deposits from their customers to make all the margining and the netting, and to make everything work across the various venues.

The beautiful part about crypto is that any random person can come to this and lend money to trading firms that want to use it as collateral, and all these things. And you can actually disintermediate the bank itself. Today, the bank is charging margin for broadband service. But with crypto, you can just cut that out. I like how marginfi is really the most sophisticated, most aggressive form of [financial composability](#).

KENNY: We talked about the advantages of composability. Ren, who is part of our team at Diffuse, is asking what are the risks? Yes, you can build things up all the way to castles in the sky with all these building blocks, but what are some of the downsides or potential pitfalls there?

KYLE: Well, if those building blocks were bugging and it explodes, that's bad for the structure as a whole, without question. That has happened and will continue to happen. It will take at least a few more years before all this stuff becomes really robust. It's unfortunate, but this is just a classic thing in human history. It's like building a tall building. If there is a problem in the architecture on the third floor, everything above it can have a problem. It's the same general concept applied to software.

KENNY: Let's dig in a little bit to what you mentioned there. We were talking about the risks of composability, and you gave that example with building the skyscraper. Are there any examples of major exploits that come to mind where the core of the problem has something to do with composability, or not understanding the building blocks themselves?

KYLE: Yeah. There have been a whole bunch of [Oracle attacks](#), for example, on various systems. An Oracle is an input into the function of the system. And so, if you can manipulate the Oracle, you can manipulate the system. That's a great example. There were a whole bunch of those in 2019 and 2020. They seem to have reduced the frequency pretty substantially, as people have come to design better structures. But there certainly was a large class of those.

I really don't follow all the hacks, but you can see a hack every couple of weeks or so. Most of those hacks are a [function of composability](#). There's always some exogenous piece of state in a system that has a price for something, and someone manipulates that in some way to take advantage of the system as a whole.

You could argue that almost all the hacks today are inherently via composability, not just because of a bug in the logic. We've gotten fairly good at identifying bugs in the logic in a closed system and dealing with bugs in an open system where state is exogenous. But you can't think about all the possible state configurations in advance. That's the tricky part, but it's what makes functioning composability possible.



AYLA: Let's dig into some mechanics about your business. Who are your main investors? If you compare today to 2017, at the ICO wake of things, how has your investor set changed?

KYLE: When we started off, we took \$50,000 to \$100,000 checks from anyone willing to. Today, our LP base is a lot more curated. I'd say among our peers, we are probably by far the least institutional. I don't really care about endowments and foundations, or pensions. Not to say we have zero of them as LPs. They're generally considered to be the best LPs by most other asset management firms, but I disagree. They don't do anything other than send money and ask annoying questions.

My preference for an LP base is to have wealthy, influential families. Our LP base today by dollars is probably 80 to 85% wealthy families, and we like it that way. Because then, we can call them up and say, "Hey, we're looking at this thing, and you have some relevant expertise. Maybe you could help out." And they do whatever they can to help out. When you take money from some endowment, they don't ever help you. They just send you money and then ask questions.

KENNY: That makes sense. One last question from Scotty. What is your strategy? You have the VC arm, and you have the hedge fund. How do they feed into each other from a high-level strategic vision, and where do you see Multicoin going in the future?

KYLE: Both funds are the same strategy. They are mechanically different, obviously. But they use the same strategy, which is to buy stuff we like, and don't sell it. That's really the key to our business. Both have an indefinite time horizon because again, we buy stuff with the hope that we will never sell it. Obviously, we do sell sometimes, but we generally try not to.

In terms of the mechanical differences and function, some LPS want liquidity, while some LPS want closed-ended structures. Some people have a higher risk tolerance, some people have a lower risk tolerance. But the core strategy is the same. We have one investment team across both vehicles. Everything is discussed in the same way. It's all focused on long term value, value creation and capture, and business formation.



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Dennis Chookaszian
Corporate Director, CME Group

DiffuseTap: Institutional Grade Governance

Sharing his decades-long expertise on corporate governance, Dennis discussed how to avoid a co-partnership going sour, the problem with overly idealistic CEOs, and the importance of keeping your board in check. [Read on](#)



Susan Brazer
CEO & Founder, LionShare Media

DiffuseTap: Media Metaverse 2022

Susan talked about the 2020 digital media landscape; the evolution of media distribution; how converging, emerging technology points to the metaverse; and the prospect of having an open, decentralized, and free Web 3.0 marketplace. [Read on](#)



Raj Mukherjee J.D.
VP/Global Head of Tax, Binance.US

DiffuseTap: Crypto Taxes Decoded with Binance.US

Raj explained the complexities of the US crypto tax landscape, how he built a dynamic tax information system for Coinbase and Binance from scratch, and how investors can profit from crypto without getting caught in a taxation mess. [Read on](#)

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