TFTC 436

**Marty:** [00:00:00] Rolling. Boom. We're rolling. Rolling, rolling, rolling. Keep those lato rolling. We're back, back with the Atomic Finance team. Well, now the whole team, Matthew, you've been on the show before. Tony, I believe this is your first time.

**Matt:** First

**Tony:** time on the pod. Long time listener.

**Marty:** First time, long time. I'm very excited, uh, for this discussion.

We met up in Miami a couple of months ago now at this point, uh, to catch up on what you guys have been working on at Atomic Finance. And I thought, uh, I thought it was funny cuz you guys did pitch day and you got booed for saying the word yield. Is this true?

**Matt:** Yeah, that's true. Well, I, I started off with, uh, asking everybody what they thought of.

Um, you know, when I say 8% a p y, uh, what do you think of? And everyone yet in the audience yelled, scam, which was perfect. So, uh, but into, you know, there's different types of yield out there. Some, some, uh, some types are [00:01:00] better than others. Yes.

**Marty:** As we, as we've come to find in this market over the years, but before we jump into what you guys are building at Atomic and what you've been iterating on over the last couple years, Matthew's been what, like one and a half, two years since you've been on the show.

So why don't we start just giving the fruits of refresher about what Atomic Finance is, how it works, why you guys founded it, what your backgrounds are to, to level set the conversation. Yeah,

**Matt:** absolutely. May, maybe I'll start with, um, I know I talked about this previously, but I think it was two and a half years now, but I'll start with like maybe where, where we got into Bitcoin, how we, how we met each other.

Um, I actually originally got into it back in 2014. It was my, my dad that introduced me to Bitcoin. And, uh, he's a bit of a gold bug. And so something like Bitcoin was really interesting to him because, uh, obviously it's, you know, outside of government purview, just like gold. And so, uh, [00:02:00] back in the, back in the day, I was just in, you know, I was in high school, I was just managing his, uh, you know, bitcoin for him and I kind of forgot about it for a couple years.

Uh, fast forward three years later, uh, I was at the University of Waterloo, um, and I, I meet, uh, I meet this guy here, Tony. Uh, he was my roommate and basically I wouldn't, wouldn't shut up about Bitcoin to him. Um,

**Tony:** and, uh, oh, yeah, I mean, you're quite the persistent guy in terms of trying to show me Bitcoin.

But, uh, there was just a span of three weeks. I remember like, um, where, you know, first week you were like, Hey, Tony, you know, there's this Bitcoin thing. Went from 1000 to 7,000 in the last couple months. Maybe you should check it out. I was like, eh, I don't know. Like, it sounds kind of scammy. I heard about the Silk Road thing, not so sure about it.

And then second week, I, I remember you changed tactics on me. You were like, Hey, like, you know, you might want to get into this earlier rather than later. There's this kind of fork that's happening, this SEG two X [00:03:00] thing. This was back in 2017. And then I, I remember you were like, Hey, like, you know, if you buy Bitcoin now, it's a buy one get one free.

You get two. You got two kinds of Bitcoin afterwards. I was like, okay, that sounds kind of weird. And then third week, um, Matt was like, Hey, um, There's also this thing called Ethereum, you know? And, uh, you know, you can start using it to write smart contracts. You can, you know, run code on it and then you can kind of start coding on it just with knowing like JavaScript, right?

And then start building decentralized, uber decentralized apps, decentralized everything. And I was like, well, I was, mind you, I was like this 20 year old computer science kid, um, didn't know much. I was like, Hey, that sounds kind of interesting. And that was what, how I actually fell down the rabbit hole by my first little bit of e first little bit of Bitcoin.

And then fast forward a couple of years by that point, I think both of us. We had aped into numerous shit coins got [00:04:00] wrecked. Uh, at that point I had worked at a traditional finance, um, insurance company. Then we both worked, went to work at this Ethereum company called Consensus. Um, and we even started working on a defi project of our own.

Um, in our defense, I guess it had a bit of a Bitcoin twist to it, but all in all it was quite shit pointy. It was cross chain. There was lots of ea smartt contracts involved. And I would say like for both of us, our come to Bitcoin moment. Did not really happen until, um, summer of 2020. That was like the whole defi summer thing.

You know, if you were in any way associated with e defi, you got a longit token. You gotta set up yield farming and use that to, you know, bring in liquidity. You gotta hype up the token as much as possible. That was the only way to stay in the game when it came to Eve Defi. And for us it was like, you know, I don't know, like, I don't feel so comfortable with this whole thing.

Isn't the whole point of Bitcoin to just stop the money printing? Why is, why are all these guys [00:05:00] like just getting up and printing out a token and, and doing these pump and dump type things, you know, didn't seem right. And around that time, that was also when, uh, I personally started reading the Bitcoin standard at that point finally, and then really started understanding money, um, started understanding how, hey, you know, Bitcoin isn't this, Just stock like investment where you're waiting for it to pump and then you're gonna sell it for fiat.

It's something fundamentally different. You know, it's this new monetary system, it's a more sound money. It's, you know, a money where folks can actually have full transparency. Uh, everything's verifiable and, you know, we can control it and secure it without the need for a bank or a custodian. And of course, you know, other aspects of it was that, hey, Bitcoin, you know, there's a true supply cap.

There's no, you, no figureheads or anything like that. It's truly unique amongst all the different cryptos out there. And so at that moment, I remember pretty vividly, I was like sitting in my chair in our office. I was like staring at the [00:06:00] ceiling. I was like, holy crap. Like, what have we been doing? You know, what the hell have we been doing the past few months building on Eve doing this cross chain stuff?

You know, I, I, I got up, I called Matt, I was like, Hey Matt, you know, I think if we're gonna build Bitcoin financial tools, We've gotta build it on Bitcoin. You know, if we're gonna build non-custodial sound finance, we've got to build it on the soundest money out there, right? And so that was kind of how we both kind of started going.

Bitcoin only at that point and what kind of led us to the current incarnation of what we're building at Atomic. Um, and in terms of what we're doing at Atomic, well basically it's Atomic Finance is a mobile app where Bitcoiners can earn a yield on their Bitcoin while holding onto their keys. We never take custody, there's no bs.

You know, reation and users have full transparency all the way through. And before I kind of dive deeper into, I guess, how [00:07:00] that's possible, maybe take a step back to talk about, you know, kind of longer term vision, why we felt it was important to do what we're building, you know, longer term. What we really wanna do here is.

Make atomic finance, uh, the one stop shop for non-custodial sound finance for Bitcoiners around the world. Uh, you know, sound finance for sound money, what does that mean? Well, for us it means building financial tools that are self-sovereign, transparent, and verifiable. Uh, and whether that's earning a return, taking out, you know, line of credit backed by Bitcoin, hedging price, uh, downside in bull market, be able to do all that stuff and still hold your keys, uh, where you know your risks are fully transparent and you have private and secure control over what happens with your own money.

Um, and ultimately, kind of like the way that we arrived with at that was we just asked ourselves, Hey, what can we build in Bitcoin that we would personally actually desperately wanna [00:08:00] see exist? You know, what's, what would we actually use our own Bitcoin with? Right? And after being in the Bitcoin space for a bit, one thing was immediately clear.

Clear and was that, hey, these current. Bitcoin financial tools, they suck. They suck a lot, you know? And after last year, I think a lot of us in the Bitcoin space have kind of learned that hard lesson. You know, if you want to do anything beyond self custody in your coins, say you're interested in taking out a loan or earning a yield with block fi or Celsius, you're handing over custody and the moment you give up that custody of, of your coins, the moment you quote unquote lend to them, you're just a number that, that, that's just a number on the screen, right?

You no longer own that Bitcoin. You don't have any control over it at that point. And it's just a promise. It's just an IOU to pay you back and you're opening up your yourself to lots of counterparty risk. It's a complete black box as to you know, what they go and do with their coins after that. And it turns out that a lot of them were just random bets, right?

Like with Celsius, they were doing Eve staking Terra Luna [00:09:00] with block Fi. You know, it turns out that. They lent some of their customers funds to ftx. I mean, we, we still don't even know like the whole picture, right? And, um, it's just a black box, layers and layers and unknown risk. And, uh, you know, we kind of wanna take a different approach, right?

We want to build robust and easy to use non-custodial alternatives. Um, because until non-custodial alternatives come, you know, these guys are gonna keep popping up. They might be a different name, might be a different founder, but, you know, custodial financial tools are gonna keep popping up until we do something different.

And so that's kind of why we're doing what we're doing.

**Marty:** Hell yeah. And before we dive into, The dynamics of the discrete log contract and how you guys are providing your end users with yield, uh, which has become a dirty word, but, um, freaks do bear with us. I do think the way that [00:10:00] the atomic team is set up their D L C is very interesting. Uh, in terms of allowing Bitcoiners to make some more Bitcoin on their Bitcoin if they're willing to lock it up.

Um, but before we get into that, I mean, you mentioned like Defi Summer and all these token projects were spinning up and doing cross chain sort of bridges to, you know, commingled collateral to provide these defi products that were promising crazy AP Ys. Um, before we move into discrete log contracts and the products you guys are building, I think it's important for the listeners out there who have heard about these complex defi chains and the bridging and the cross chain compat compatibility to understand like, what in your mind doesn't work there?

Like, why don't you think that works in the long term? [00:11:00]

**Matt:** Yeah, that's a really good point, Marty. I think for that it real, like there's, there's multiple aspects. There's the. There's the, the Ethereum, um, ecosystem and why those challenges with Ethereum. And then there's the whole cross chain. So on the Ethereum bit, you've got these smart contracts that exist, right?

And everyone's heard about, oh, 80 million hacked here, a hundred million, you know, um, hacked from this defi application. And it's really because if you think of a, a smart contract on Ethereum, there's a really large surface area of attack, right? Um, you're writing all of this, you know, uh, solidity code with all of these different functions in it, and there's, and you never know what the end state is.

Um, so you might have an, you know, a multisig admin that's able to change kind of the parameters of it that they're upgrading the smart contract. Um, and you don't know what type of hacker is gonna come in there. And lastly, the other thing is everyone's pulling their money into one place, uh, which is, which is [00:12:00] really, uh, concerning.

Um, and then on the other hand, you try to have these, you know, call these cross chain solutions. Um, that are, you know, trying to provide a way to, you know, build between all these different chains. But the, the problem is, you know, how are you, how are you achieving that? At the end of the day, it's, it's really, um, custody with extra steps.

Uh, they like to say it's, oh, multi-party computation, um, but you know, who are the parties that are custodying it at the end of the day? So I think it's really just a challenging environment to work in. Whereas if you look at something like Bitcoin or building on Bitcoin, um, you know, generally the surface area of attack is, is much smaller.

**Marty:** Yeah. Then you can combine like the fact that with all these tokens, they have varying liquidity profiles and it just creates this extremely high risk environment where if you're. Using multiple forms of collateral within these contracts. And one of the tokens is highly illiquid. [00:13:00] It creates very precarious situations if somebody decides to dump the coin for some reason or another, which, I mean, obviously Luna Terra is probably the most popular example of that over the last few years, where that is how they met their demise ultimately.

**Tony:** Yeah. Did you, do you hear about the project where the Oh,

**Matt:** I was just gonna say, do you hear about the project where the, where the founder had, uh, like 30, like he had like 40% of the tokens and in, uh, as collateral, basically in a defi loan, which is just, just craziness. But, uh, yeah, sorry, Tony, you were gonna say?

**Tony:** I was just gonna say like, um, the other, the other, the other issue with like the whole yield farming thing in terms of like, ew, giving you a token, giving you tokens to kind of incentivize usage is that, you know, there ended up being like a bunch of these. Basically whales in the eef defi space that were really just mercenaries, right?

They were like, they just, you know, move their coins around to these different defi [00:14:00] protocols depending on which was giving the best, you know, yield farming incentive. And for these projects, like there was no way really for these builders to kind of tell whether they actually had product market fit or not.

Like whether or not what they were building was actually meaningful or useful beyond, you know, the free yield yield farming that they provided to these kind of mercenaries. And so that was an, as a builder, that's also another kind of major issue that I think, um, the e defi guys ran up against Gaines.

**Marty:** Yeah, it's a bit Cock and Annie very complex. And then a lot of the ones that become what they would deem very successful ha have. Essentially falling back to centralized, stable coins, driving the collateral, which really makes it interesting to market yourself as defi when a lot of the smart contracts that are powering your platform are wholly dependent on a fully centralized, stable coin that can be regulated out of [00:15:00] existence at the snap of a finger.

**Matt:** Yeah, a hundred percent. I think like something like Maker Do is a good example of that, where at one point they had 70% of, of Dai was backed by U S D C and um, you know, and then you have situations that occur where something like Silicon Valley Bank goes down and now U SDC is deep pegged, you know, it's 90 cents on the dollar.

Um, and so, I mean, I mean really what, you know, I, there's a lot of, there's a lot of nonsense I think in Defi that exists and you know, most of these like financial applications that you want to build in. And Bitcoin or that you want to build in general, you know, really can be built using very simple primitive primitives directly on Bitcoin itself without kind of all the nonsense.

Um,

**Marty:** yeah, and I, that's a great segue into like the point that I think everybody should take from the chaos within the Ethereum defi world is you need to eliminate like [00:16:00] touch points and points of failure within your model. And the best way to do that is just to wholly encapsulate your products with one currency, which is what you guys are doing at Atomic, leveraging DLCs to create these financial products for Bitcoiners using Bitcoin natively.

So I guess using that as a jumping off point. We've talked about discrete log contracts many times on this show, but the show's grown. We have a lot of new listeners out there who may not be aware of what a discrete log contract, which we will be referring to, uh, as a dlc, uh, throughout the conversation.

For anybody listening, what are they and how are you guys leveraging them?

**Matt:** Yeah, that's a great question. So I think, uh, so what is a dlc? A DLC is really just, it's just a simple Oracle contract on top of Bitcoin. So imagine, imagine you and your friend want to enter [00:17:00] into a bet, for example, um, you know, maybe you want to bet on the, uh, the Super Bowl, um, and you know, how would you do that today?

Maybe you and your friend would just be sitting there and you'd say, Hey, I bet one Bitcoin on, on this team. And your other friend says, oh, I'll bet one Bitcoin on the other team. And then it, then it comes, you know, comes time to pay up and your, your friend doesn't have the money. Okay, well you can solve that by having a third party that maybe, maybe custody is that Bitcoin for you and says, Hey, I'll custody it for you and I'll give all the Bitcoin to the winner.

But, uh, you know what happens if your, your friend's a little shady and you know, they don't, they don't actually, you know, end up paying out the money and they run away with the Bitcoin. Well, that's not great either. And so what something like A D L C allows is it, is it gives a way for, um, essentially for you to lock your, your Bitcoin into a contract where rather than, you know, your friend having to take custody of it, you and the counterparty and, and the other party have shared custody of it.

And there is, there's an oracle, an [00:18:00] external party that can report on the event that happened, an Oracle. Um, that, you know, uh, basically announces, you know, what occurred and that can allow for, you know, either party to, uh, get access to the funds that, that they were due in, in part of the bet. And so it solves, you know, the problem of custody.

It solves the problem of, um, counterparty risk. Um, and, and these simple contracts can actually be used for much more than just betting. You can use it for bets, you can use it for futures contracts, you can use it for options, contracts. Um, a lot of the different like financial instruments that you really, you know, need for Bitcoin can all be built using, you know, one of these, uh, simple contracts.

And one of the great things about it is that, um, the on chain, you know, footprint of it is really tiny. Um, you know, on chain it just looks like a two of two multisig. Uh, and, and so, you know, from a privacy perspective it's, it's really nice too. So,

**Marty:** [00:19:00] yeah. Yeah. It's, again, there's encapsulating it. Within a Bitcoin transaction essentially, cuz that's essentially what a DLC is, is you create a special conditional transaction, which is like, Hey, I'm gonna put my Bitcoin up here.

The Counterparty's gonna put their Bitcoin up as well. Here are the conditions that would release the Bitcoin to one address or another. Uh, and to determine where that Bitcoin ends up, you pull a hash from the Oracle that basically determines, all right, if the Bears win today, send the Bitcoin to this address.

The person made the, the bet on the bears. If the Eagles win, send it to the address of the person who made the bet on the Eagles. It's really fascinating and, and um, like Matthew said, you can build more complex products on top of this, which is what you guys are doing at Atomic with your passive strategy, which is, I guess the, the first product out the door, [00:20:00] many to come.

And so di diving into that, what. Are you guys giving your customers access to, in terms of leveraging DLCs to, um, allow individuals to get a return on Bitcoin? We we'll use return instead of yield. Mm-hmm.

**Tony:** Yeah. Um, so one of, so the first thing that we thought about was like, okay, so like, is there a way for folks to be able to kind of use DLCs in a way to earn a passive return on a portion of their Bitcoin stack?

Right. Without giving up custody to a third party and basically like, Uh, the way that we kind of thought about thought or thought about it is that, okay, well DLCs can be used to represent things like futures and options, but the key is, you know, who are the folks that were targeting early on, like long-term bitcoin holders that don't wanna be staring at like, monitors all day long trading and all [00:21:00] day long.

And so basically that's kind of where we got the idea of turning these DLCs into what we call passive strategies. Um, and the first passive strategy that we wrote out a few months back is the covered call passive strategy, where basically you earn a return or a premium, um, an exchange for selling a call option.

It's not completely risk free. There's a possibility of, you know, losing some upside if Bitcoin rips up in a very short period of time. But the difference from block five or CFI is that, you know, you're not risking your whole stack to earn, uh, and collect a couple percent, right? But the cover call.

There's no possibility of being rugged to zero and wiped out to zero on your stack. There's no leverage, there's no margin call with a cover call position. There's only two outcomes, right? You either get more Bitcoin or you increase the u s d value of your stack. There's no outcome where you don't add to your stack or get more usds.

So it's conservative in that way. But at the same time, you know, when we were kind of like testing it out with Bitcoiners, [00:22:00] you know, one of the things that we heard was that, uh, I don't know, like it still still sounds a bit, it, it sounds conservative, but like it still sounds like trading, right? It's, I don't have time for, or the time temperament to stare at monitors and, and, and kind of, you know, keep tabs on the market, right?

And so to make the experience as passive as possible, um, we were like, okay, how can we build an experience where folks can get started? You don't need to know the ins and outs of trading or keep tabs on the market all day and earn a return for the long term. And the way that we did that was. The passive strategy aspect.

So use, you know, some stats, statistics and back testing. Look at market data going all the way back to 20 11, 20 12, and use that data to kind of identify points in the market where statistically speaking, you know, it's most likely to, uh, be a downtrend or a sideways trend for Bitcoin. And that's when the strategy enters a covered call.

Um, all that is fully automated by the strategy. No need to keep tabs on the market and folks can [00:23:00] get started in minutes. And while it's not completely risk free, you know exactly what's going on, the risk that you're taking, and you know that the strategy is backed by historical data.

**Marty:** Yeah. Let's dive into that too, because the strategy is looking to identify.

Price points of which there's a sta statistical probability using, um, back testing to predict when the price of Bitcoin will go down or stay flat. Um, two questions. How much value is at risk in any given point in time? Another way to say that is like, what is the downside risk per cycle for an individual, um, using atomic finance?

And then two, how do you guys think about like the idea of hyper ization and the point at which like the backtested data may not compute with how the market's reacting to Bitcoin's relative scarcity, uh, and the, [00:24:00] um, attention around the networking. Essentially the point at which people have the light bulb go up and, and go, oh crap, I need, I need a ton of Bitcoin.

**Tony:** Yeah. I think the way to think about like the way that we think about it is that, um, cover call strategy, the cover call strategy is a way to be able to kind of monetize Bitcoin's volatility. You're it at first glance, you know, a lot of folks hear about cover calls. They're like, oh, that sounds like betting against Bitcoin, right?

Um, but the reality is, you know, Bitcoin doesn't go up in a straight line, right? There's a lot of kind of downtrends and sideways trends that happen, um, you know, over the course of time. And these kinds of strategies are an interesting way to be able to kind of capitalize on market inefficiencies, uh, what to capitalize on sideways trends and, and downtrends.

And so, like, you know, moving forward, I think cover calls are just one kind of strategy. There's different ways to monetize volatility, uh, too. [00:25:00] Um, but uh, it's cover calls are one of the more conservative ways of doing it because, um, You are, uh, you know, you, you're still kind of like either growing your Bitcoin stack or basically like increasing the value of your, of your, of your, um, the increasing U s D value of your, of your Bitcoin.

And basically like in, uh, in the context of, you know, any particular, uh, cover call position, say, you know, let's take a sound. Uh, let's take a, like an example where, okay, um, by, I'm gonna sell a call option that expires at the end of the July, um, for 40,000, uh, at a strike price of 40,000. Well, basically what happens, what, what you're saying there is that, okay, well if Bitcoin remains below 40,000, then obviously you just earn the premium.

Uh, there's no other issues or, or anything. But then if Bitcoin does go above 40,000, well that's where, uh, basically your upside gets capped, uh, at the 40,000 level. Um, and so. [00:26:00] Um, basically like there is the, there is the risk. The risk there is to that you're capping the upside, uh, at a predetermined point.

Um, and so, um, yeah, it's like with Bitcoin there's no, the, the thing to remember is that, you know, there's no guaranteed yield on Bitcoin, right? That's the thing that was sketchy with block fi and with Celsius, you know, because you can't earn a return on your Bitcoin without taking some risk, right? Um, in Bitcoin there's no risk for you rate, there's no lender of last resort.

And, uh, if a, if a Bitcoin bank does screw up, right? That's why I think bi centralized Bitcoin banks, they're worse than even ratify in some ways. Because, you know, when, at least when Silicon Valley banks screwed up, there was still a backstop, right? There was, the US government came in, they were like, Hey, don't worry, you know, we're gonna protect your funds in Bitcoin.

There's no such thing. There's no such thing if a custodian screws up or, uh, you know, a lending company screws up. And so basically like. When it comes to [00:27:00] earning a return, it's always a question. Okay, is there return worth the risk? Right. And there's, uh, I think it depends on the, the answer to that question depends on the person.

And there's always gonna be a spectrum of folks who are, Hey, I'm gonna ho only, um, everything in cold storage, not Hitachi for like 50 years. And then there's folks who are, you know, more interested in, you know, putting a portion of their, their stack to work and, you know, earning a return on that. I think people, there will always be people at different ends of the spectrum.

The key is having that optionality, having the choice to be able to, you know, do these financial tools and use them and earn a return in a transparent, self sovereign, verifiable way. Um, and. Kind of like the, the thing that we've seen is that hey, users come in, they're like, oh yeah, I don't know. I, maybe I'll start with like, you know, the smallest possible amount, 0.01.

And then basically they st slowly kind of make their way down the risk curve, uh, down the spectrum over time. And as they get more confident, [00:28:00] understand what's going on with DLCs and, you know, all that kind of stuff. So yeah, it's, it's, it's, uh, uh, it's a, it's an interesting question, but there's no risk free rate in Bitcoin.

You know, you're always taking some amount of risk, uh, to earn a return.

**Marty:** Yeah. And it's important to be straight up with that in the beginning, like you mentioned, the block five and Celsius of the world. I mean, I'm pretty sure there's a pretty popular clip of Alex Hinky sitting down with to conveys and safe.

Yeah, saying no, it's, it's a guaranteed 8% return and safe and toner. Like, you literally cannot guarantee that like it's hundred

**Tony:** percent. But anytime anyone's mentioning guaranteed yield on Bitcoin, you know, run away.

**Marty:** Well that could, uh, another thing too, I mean obviously there's an oracle necessary to basically provide a hash to determine what's going on at the completion of the dlc.

What are you guys using for or [00:29:00] for an Oracle, or are you leveraging, I mean, that's probably another thing we should touch on. The way DLCs have been designed, you can, you can leverage multiple oracles to make sure that there's some redundancy there in terms of the data that's being served to the contract.

**Matt:** Yeah, that's a great question. Well, and Oracles are really the, um, kind of the, the failure point of DLCs, right? Like, um, if you wanna have any type of financial contract on Bitcoin, you need some type of external data. Um, so the way our contracts are set up right now is we've got, uh, we've got an external market maker that, um, takes care of, you know, the other side of the contract.

So, uh, you know, any type, any, anytime a user, you know, takes a cover call position. The market maker is taking the other side of that. And then we currently run the Oracle. Uh, but we're planning to transition to, uh, multi Oracle in the future and what that can look like. There's a couple different, you know, options of what you can have for multi Oracle and DLCs.

Uh, you [00:30:00] can have, you know, say like a two of three model or a three of five model where essentially, you know, you need to have at least, you know, two of the oracles that agree, or at least three of the oracles that agree on the price point. And as long as that is the case, you'll be able to go and execute the D L C and, and, uh, retrieve your funds, you know, directly fund.

And so that can really reduce that, you know, central, you know, point of failure in the long term. And so that's something we're definitely excited to, to move forward, um, uh, move towards in the future.

**Marty:** Yeah, no, it's really exciting when you begin to add multi oracles in the mix. Cuz that's one thing. What was the project on Ethereum?

Um, that really ran with like prediction markets? I forget. I think Auger Auger was, oh yeah. They were marketing that they had solved the Oracle problem. But I've become pretty convinced over the years of observing all of this is that the Oracle problem is something that can never really be fixed. I [00:31:00] believe Chainlink is trying to say that they've solved that problem too.

The most that you can do is just mitigate the risk by creating, um, eliminating single points of failure by leveraging one Oracle and creating that, that multi Oracle setup that you just described, Matthew.

**Matt:** Yeah. Well, I think the other thing too is that anyone who's claiming to have solved the Oracle problem or, hey, we've built decentralized Oracles, uh, the more likely thing is you've just distributed it to a bunch of different parties and you don't know whether those parties are the same person, right?

And so, uh, you know, in general, simple is better. Just like multis synq, right? Simple is better. Um, it's not better to put your Bitcoin into a 900 of 99 out of 999 signers, right? It's better to have maybe a two or three, that's simple. Uh, same thing, you know, with something like, like DLCs. It's better to have, um, you know, some, something simple where you know, you know exactly what the risk is and who are the [00:32:00] parties that you're trusting versus having something that's overcomplicated and really just being custody plus extra steps.

Um, yeah.

**Marty:** Yeah. So this gets. To the question that's been lingering in my mind. I mean, I've been fascinated by DLCs for many years. Written many bents on the subject, recorded many podcasts on DLCs. And I'm just curious from your perspective, what is the current state of discrete log contracts and what may be on the horizon that would make them better, more efficient, more reliable?

Cause I know, what was it? Digital garage or crypto garage outta Japan came out with DLCs Ever Lightning using extension signatures. Um, what in your mind are you guys excited about right now? What's currently been improved within the DLC landscape since we last spoke?

**Matt:** Yeah, I think the main, uh, kind of innovation that's been going on [00:33:00] lately with DLCs is, um, really, yeah, first based, uh, you know, just more implementation around multi Oracle.

But the other one is, uh, moving DLCs to lightning. And so there's been some developments in the space around that. Um, you can actually, uh, you know, we currently do DLCs on chain, but it is possible to move DLCs over to Lightning in a manner where, Um, where you actually have a lightning channel, and it can be used both for DLCs as well as for lightning payments.

And so that's really cool because what, what you can do is you can convert a wallet that is, you know, just focused on DLCs to actually a lightning wallet and allow for payments to be done with it in addition to, uh, actually entering into these type of, you know, financial contracts. And so that's definitely something that we're planning to transition to, uh, down the road, uh, probably, you know, late, uh, this year or early next year is move towards a lightning wallet.

And once you've got [00:34:00] something like a lightning wallet, you can do really interesting things. Uh, one of those is, is something called stable SATs that allows for essentially you to be exposed to the, um, the sta Like basically it's like you're holding U S D and you basically just do a, a one X short, you just short Bitcoin.

Um, and so you could imagine this being used in a Lightning wallet to allow for folks to, hey, you know, say, Marty, I want to send you, um, you know, $10, right? And, uh, you know, let's say in a, uh, alternate universe, you know, you're not a, you're not a Bitcoin maximas. You don't even know about Bitcoin. Well, I could send you $10 of U S D, right?

In essence, and I could send that over the Lightning Network. And on your phone you could go and enter into, uh, sta stable stats, basically, which is, uh, like, you know, just the stable value of, of Bitcoin. Um, and, you know, that becomes really interesting for being able to onboard, uh, merchants, of course. So that's gonna be really exciting.

Um, and there's more applications being built on [00:35:00] Bitcoin and DLCs too, you know, uh, Bitcoin backed loans being done by lava ten ten one finance is working on futures contracts, so the ecosystem is slowly but surely being built out. Yeah

**Marty:** think, I think stable SATs, I think there's gonna be many ways to solve it.

Obviously before we hit record, we were talking about Galo and what they're doing with Blink Wallet to bring stable SATs there, though they leverage K X to create that, that stable value. So there's an external third party involved. I was mentioning that I recorded with Cody Lowe from Fetty yesterday, and they were talking about the stability pool.

He was talking about the stability pool module that they're gonna be rolling out, which allows you to do exactly what you just described within, uh, a fetty min, within a Chian mint. Um, but completely agree once that problem solved, and there may be multiple solutions to that problem that people get to choose from, depending on their particular risk profile or [00:36:00] comfortability with each solution, that once a they hit the market, it's gonna be be.

Massive benefit for, for the ecosystem at large. Cuz like you mentioned, there's a lot of people who really don't care about Bitcoin, um, and cannot stomach the volatility that comes with it, but we gladly use it as a payments rail if they were able to get stable value at the end of the day.

**Matt:** Yeah, absolutely.

Well, and imagine if the process like for a, say a merchant using something like stable stats. Imagine if the process of buying Bitcoin was just closing a dlc. Right? Uh, and so, and so the, and, and so you basically get a way to be able to easily convert, you know, the cash that you've received, which is really stable stats, and then just convert that into Bitcoin at basically, you know, no cost other than if you're on chain network fees or if you're on Lightning, um, you know, the, the cost of um, you know, a couple milli Satoshi's, um, which is really cool.

**Marty:** [00:37:00] Yeah. And diving deeper into using DLCs on lightning. Is the latest cutting edge that extension signature work around that, that crypto garage came up with about a year ago.

**Matt:** Yeah, so, um, one of the guys at Crypto Garage, uh, Tebow, he's been doing some really great work on, um, essentially implementing, uh, what's called DLC channels.

Um, and, uh, it uses that, uh, signature workaround and, and essentially what it enables is, is of course, is he's building that ecosystem out in Rust dlc, right? And we've prob we've heard there's quite a big ecosystem being built in Rust. We've got Bitcoin Development Kit, bdk, lightning Development Kit ldk, and now Rust dlc.

And I think what's gonna be really cool that we're gonna see in the next little while is more and more applications being able to be built on top of that foundation. Um, so Rust DLC allows for both on chain DLCs as well [00:38:00] as DLC channels, which is really just, you know, DLCs on Lightning. Um, and so, uh, I think we're gonna see a really nice ecosystem being being built out there in, in the future.

**Marty:** Yeah, but from what I understand, it's not, it's a workaround as you described it, right? Like, it's not like the ideal way to build DLCs on Lightning, or am I wrong in assuming

**Matt:** that? Uh, I ibel I believe that's the correct for Rust dlt, but I know that ten ten one finance built on top of that, where essentially what they did, um, not to go too technical in the weeds, is, uh, you can have both a, uh, DLC channel as well as a, a lightning channel by using a parent commitment transaction.

And so, um, if you think about it, you have that parent commitment transaction that, uh, then can be split off, um, into either a Lightning channel or a DLC channel, and then you can actually close it, um, into the original Lightning Channel. Um, so that's what ten, ten One Finance has done, but that's, that's what was built on top of, um, [00:39:00] rust dlc.

But that's not in, uh, rust DLC to my understanding right now. Um, so, uh, I, I believe ten ten one Finance has, has implemented in a manner that is. Not a workaround. And that, of course, I expect to be coming to Rusty lc down down the line, but that's something that we're planning to investigate more in the coming months.

Hell yeah.

**Marty:** So what else, beyond this passive strategy, how are you guys approaching product development for Atomic right now? What are, what are your thoughts of ideas that you have on the horizon beyond transitioning to Lightning when possible that, that are getting you guys excited?

**Tony:** I think like, you know, it comes back to, you know, longer term we want to be a one-stop shop in the medium term in, in terms of not just limiting ourselves to these passive strategies.

Uh, you know, being able to, you know, offer maybe le Bitcoin backed lending or stable stats as Matt mentioned. Um, but, uh, in the sh in the shorter to medium term, you know, I think there's tons of [00:40:00] interesting kind of. Ways to offer additional strategies, whether that's, you know, right now we have a covered call strategy, but, you know, could we offer a short put strategy moving forward?

And that might align with some, uh, some folks market sentiment around being bullish on Bitcoin and, and whatnot. Um, uh, the reason we didn't start off with the short put strategy was because basically, uh, you know, Bitcoin has a tendency to, when it has a really, when it has, you know, a kind of covid crash day, you know, you're talking about going down 30, 40% in one day, and, you know, if you're in a short put strategy, like that's probably not a good day for you.

And so, um, Kind of the tendency to, uh, for Bitcoin to dump massively, but in a very short of time, uh, period of time is, is the reason why we kind of chose to start with, um, you know, cover call strategy. Um, but uh, uh, beyond short puts, you know, there's interesting, um, ways to hedge price downside, you know, with [00:41:00] a, you know, with different types of strategies in a bull market.

Say, Hey, you know, Bitcoin's now at 250 K. Uh, yeah, it's, feels a little bit bubbly right now. And, you know, everyone and their, everyone of my friends and their grandmas are asking me about Bitcoin. Well, maybe it might be some time to kind of, you know, take some off the table or, uh, and before, you know, before you know, all these kind of tools came about, you know, the only ways to kind of take stuff off the table was, you know, to sell it.

But, you know, there's some interesting, uh, Uh, potential ways with options and with DLCs to be able to actually hedge in more creative ways with like, things like color strategies where, you know, um, you're, you're, uh, you know, hedge below a certain price if Bitcoin's price falls and stuff like that. And so I think there's some really kind of interesting use cases, um, for, uh, options and DLCs in the short to medium term that we're really excited to kind of start building out, um, especially in advance of the next, you know, major [00:42:00] bull run.

And, uh, you know, I think the sky's the limit when it comes to all that kind of stuff. But, uh, longer term, I think, um, definitely even strateg, uh, things beyond the strategies themselves, like, uh, stable stats to, to what, uh, Matt was mentioning earlier.

**Marty:** Mm-hmm. And do you guys think with what you're building with 10, 10 0 1 s building, do.

Really proving that you can do this type of sound finance on Bitcoin. Do you think there will be a shift in sentiment in the broader market looking at at crypto to have an aha moment? Like, oh crap, like maybe like have the aha moment that you had in 2020, Tony, like, oh, we're doing it all wrong over here.

Like do you think it's getting to a state within the sound finance arena of Bitcoin where it can be more attractive than the defi yield farming that's going on over there?

**Tony:** I certainly hope so. You know, like one of the things when we did that pivot [00:43:00] back in the day, um, It was, I mean, we could have, we could have like stuck with Eve launch the token.

It, it would've been a lot easier to make a quick buck. But like, you know, kind of like our, our, like our whole thing was that, you know, we don't want to do anything that compromises our, our, you know, what we see as Bitcoin's main value prop, which is like stopping money and printing and, and all this kind of stuff.

We didn't want to do all that yield farming stuff. And, but like, you know, the thing, the thing is like, um, for a lot of folks in the crypto, wider crypto space, I think that, um, the view on Bitcoin is that oh yeah, you know, Bitcoin, you know, they might have Bitcoin, but Bitcoin is just kind of a pet rock. You know, it's something that kind of folks buy and then just ho hoddle and stow away.

Um, for the rest of time. I think that, like, the way that I see kind of Bitcoin evolving over time is I kind of see it like, um, like electricity in a way. Like basically like, okay, [00:44:00] electricity, light bulbs. That was the first killer use case. But after that, you know, there were vacuum cleaners, there were electric, uh, you know, electric, uh, uh, uh, washers and stuff like that, right.

With Bitcoin. I think the clear first killer value prop that we've really discovered as a community is that, hey, it's the best, um, self-sovereign store value out there. Right? That's the first killer app, but, you know, what's our version of electric fans and irons, right? May maybe it's gonna become the unit of account that we spend in.

Maybe it's the thing that we do commerce in and conduct finance with. And you know, our view on it is that there should be a finance component, right? We should be able to do, uh, we should be able to have a non-custodial infrastructure to enable more finance to be done natively on Bitcoin and do so like non-custodial transparently.

And so that's kind of our whole view on it, you know, longer term.

**Marty:** Yeah. And using. [00:45:00] That view to juxtapose. What, what are your, I know you guys have been out of that world for quite some time, but the view on a state of Ethereum since we spoke last, spoke Matthew. They made the transition to proof of stake. Uh, the, the staking environment isn't interesting. Interesting.

Insofar as like, it's just fun to observe from afar what's going on there. It seems like there may be some centralization risk. What, what are you guys seeing?

**Matt:** I think the biggest thing we've seen for the, the, the move to proof of stake, well, first of all, it took, took them long enough. Uh, and then once they actually did, um, you know, we all knew that what proof of stake was gonna do is was it's just gonna move the, the power from the miners.

To, uh, to the exchanges. And I think we've seen a situation where that has essentially occurred where you've had a lot of centralization around Ethereum and a lot of concerns around that. Um, and [00:46:00] so I, I think, I think like with something like Ethereum, you can have a lot of progress, but a lot of progress on the wrong things.

And so, um, and I, I think there's this belief in Ethereum as well that proof of stake is going to solve scalability. But I, I don't, but I think, I don't necessarily think that's the case because you have so much state on chain. You have such large blocks, you have such, so much information that is stored in the chain itself that, you know, over the long term, I think it's gonna be, uh, almost impossible to scale.

Um, I think, Tony, you were mentioning that, uh, there, there was an issue with the Lido Lido contract as well on Ethereum, right?

**Tony:** Yeah, I mean, like right now, one of the big discussions in Ethereum community that I, that I know about is that, um, you know, Lido, which is this kind of large staking service, um, that a lot of, uh, eth holders, EEF Beholders are staking their eth with.

Well, that's basically now like, uh, [00:47:00] taking up a very large portion of, uh, the eve staking power. Um, and basically there's lots of centralization. There's, you know, increasingly, um, even Ethereum Max's are like, kind of ring the, the, the alarm bells and saying, Hey, is this really good for Ethereum and stuff like that.

Um, and so, you know, but that's the kind of, that's like, uh, you know, EEF is gonna tr continue to trend towards centralization because they may, they've turned it into this proof of stake where, and everyone's just incentivized to kind of stake with, you know, these large services where it's easy and, and it's, it's, uh, convenience.

And so basically like I don't see that issue really. Going away. And that creates like a large pressure point for say, state or nation, state kind of actors to, um, you know, potentially, uh, push EF in a certain direction one way or another.

**Marty:** Yeah. And isn't Lido marketed as like the decentralized staking validator?

Isn't that the goal is like, get a bunch of individuals to [00:48:00] put up their eth steak vido and wave a wand and it's somehow decentralized,

**Tony:** essentially? Yeah. Um, but my understanding is, um, uh, to be honest, I don't know that it's, uh, I, I, I can't, I can't comment on it that much, but, uh, yeah, that's, that's, that's essentially, that's essentially what, what, uh, what the point is, but like the, the, yeah.

I, I, I, yeah. Kind of blank for there, there for a moment.

**Marty:** It's all good. So what else, uh, what else have we, haven't we touched on that we should bring up while we have the freaks engaged? Because this is, again, this is very exciting. I, I do agree that like, in some capacity, we're gonna need financial products on Bitcoin.

If they're gonna be on Bitcoin, they should be leveraging the native [00:49:00] properties and giving end users transparency and the ability to validate what's going on at any given point in time. But it's still like a scary proposition for people in the huddle mentality, which is like, Hey, we're still in the early stages of the monetization process.

Um, is it really worth it to engage with these types of products right now? Is there an order of operations to all this and does. This sound finance product fall on the back end of those operations?

**Matt:** Well, well, I think Marty, I think it really comes down to, you know, just, just looking at, um, you know, what are the different layers that need to be built in Bitcoin in general, right?

You've got self custody, right? You've got people that are, um, that are locking their, you know, bitcoin, um, in their cold storage wallet. Then the next layer is maybe your payments on lightning, but why is it to do [00:50:00] anything related to finance? The next thing is going to an exchange, right? That just seems insane.

And so if we want to avoid people being rugged by exchanges, then we need this, you know, sound finance layer. Uh, I was chatting with a, with a company recently and, um, you know, here in Canada and they, they u they were using BitMEX back in the day just for hedging, right? So people buying and selling Bitcoin and they were just using it to hedge, that's all they were doing.

Um, and what happened was obviously BitMax ended up being banned in Canada, and then they went on and, and they, they ended up using switching to using ftx. And of course FTX blows up and they, uh, entirely lose a portion of their balance sheet. But if, and honestly, that was, that was really heartbreaking for me because I was like, well, what, what's even, what's the, if we can't allow for, for companies to be able to hedge in a non-custodial manner, well what's the point?

Right? Um, and so it, to me it was just like, [00:51:00] wow, we really need to hurry up and allow for these folks to be able to, to do these type of things because that's, that's really what's missing here. Um, but I think, I think the other thing that's like really interesting about these layers is, um, you know, we're getting DLCs on chain.

We're getting DLCs on lightning. But at the end of the day, where, where does this go? You know, how do we, how do we scale this? Because there's not gonna be enough space on chain for every, you know, individual to have a U T X O, let alone a payment channel for lightning. And so where does that leave DLCs?

And so the, I feel like the, you know, there's this ethos, right? We have this ethos around, you know, non-custodial and this ethos around self custody, but, you know, how does that scale over time? Which I think are some of the really big questions.

**Marty:** Yeah, completely agree. And that's, I was at the Lightning Summit in Nashville last week, and the last panel with Tony, uh, Tony from [00:52:00] Mutiny, Lisa from Blockstream and Base 58, and Alex from River.

I think that's what they highlighted. What's one thing I really appreciate about Bitcoiners is yes, we have these grandiose ideas about where things are going and the possibilities that lay before us, but there's also whether people wanna recognize it or not, a lot of silver recognition of the limits that we have as we're trying to do all this.

And one thing that's becoming abundantly clear with lightning is that it has limits itself. It's not gonna be the only solution that onboards the world to Bitcoin. And that's why I was really excited. I had that conversation with Cody from Fedie yesterday. And the way he prefaced lightning was sort of the IP layer of the second layer on top of Bitcoin's protocol, where you'll have many complimentary second layers like Fed mints, lightning liquid, and you'll basically be able to [00:53:00] interconnect them using the Lightning network.

And I think what Fedie meant, The open source project and what Fetti the company are doing to create a scaling solution within these Shami mins is really creative. And one thing we should really be focusing in on and doing more research around is like, all right, how do we create scaling solutions on the second layer beyond lightning, um, that really make it so you don't have to touch the chain as much as possible to either move Bitcoin or open up channels.

**Matt:** Yeah. Well, and I think this brings up really interesting questions about, you know, scaling long term. We just saw, you know, a couple months ago, uh, lightning completely broke, um, you know, based on, on chain fees going up substantially. And so then what are the solutions? Well, we have solutions like, like Fed Mint that exists, but there's some considerations around, um, you know, how are the funds in, [00:54:00] um, Amphetamine mint or in the mint being secured, right?

Is there a potential for a fractional reserve Bitcoin to emerge from that? Uh, then we see, you know, large discussions around things like arc, which might allow for, you know, um, this is oversimplification maybe, but like a, um, you know, a non-custodial version of Fed Mint, but with, uh, very high capital requirements for, for the business running, um, arc.

And so, um, and I, so I think this brings up a whole notion of questions around how is Bitcoin gonna scale long term and, and are we gonna end up in a system where, like the majority of Bitcoin is e cash or are we gonna end up in a system where we still have non-custodial solutions? Um, but there're that non-custodial is just at an, an upper layer.

And then can we, can we then, after we do that, can we build. Financial tools on top of that. But, um, I don't know. I think we have to be [00:55:00] really careful to not end up with systems that we, we think are, um, are, you know, are are safe, but end up, you know, being rugged in the long term. Yeah.

**Marty:** Yeah. It's a bit unnerving, but also exciting too, cuz there's so much to explore, so many ideas to test out.

And again, I think that's one thing that I appreciated toward the end of the Lightning Summit and something I think everybody should internalize is, hey, like we're, we're not exactly sure how this, how this baby's gonna scale at the end of the day. Like, we're still figuring it out on the go. Um, there's no panacea right now, but what gives me confidence is that there's an incredible number of smart individuals like yourselves really focusing on these problems.

To, to make sure that it does scale. And if Bitcoin's history has taught us every anything, it's that we'll hit these limits, these scaling limits and say, all right, here's where [00:56:00] we need to improve. And then people go back to the drawing board and say, all right, let's, let's try this out.

**Matt:** Yeah, absolutely.

Well, when I think that you bring up a really interesting point there, which is around, um, you know, well, I think that's what we hope, right? We hope that when we hit these limits, there will be, you know, there's smart people working on solutions that will allow for, you know, bitcoin to scale without compromising on our ethos too much, right?

Like one of the big ethos for Bitcoin is, is self custody, right? But does self custody scale from both a, uh, from a social perspective, are people willing to self custody, but also does it scale from a technical perspective? And the thing is, the default for this is, is failure, essentially, right? Like, the default for this is that Bitcoin scales by largest institutions custodying it.

Um, and us ending up with a situation where a state, a state actor can end up rugging a lot, a large number of, of people. And so I think, and, and so [00:57:00] then this brings into an interesting question around, you know, ossification, right? Um, the, there's a new group of people that believe that just Bitcoin should not change ossification, maximalist.

But the situation is, if, if that is true, if Bitcoin does not change, then that dark future of Bitcoin just being cudi by institutions is the default. And so, um, I agree with you Marty. I think there are a lot of people working on scaling solutions, incredibly smart people. Um, but it, but I, I guess the hope is that we don't ossify bitcoin too early, right?

Like, I'm not saying change Bitcoin like crazy. Absolutely not. That's Ethereum, right? We don't want to go into that. But if we can make some small changes, then maybe that just allows us to avoid that, that default outcome. Um, I don't know. What are your thoughts, Marty?

**Marty:** I agree. I mean, I think ossification at some point could be advantageous.

And I do think the term ossification is not really, is descriptive of what [00:58:00] is needed because there's always going need to be maintenance. We know we need at least one hard fork because of the Unix timestamp bug. Um, and I, I don't, I do think, like, if we're being honest, you probably wanna leave the ability to change Bitcoin open in case there's some unforeseen unknown that we encounter in the future that, um, essentially forces us to fix something on the go.

But I do agree, like we shouldn't be Ethereum, we shouldn't be changing just the change, but um, yeah, if we do. Any more soft forks or hard forks in the future, we'll have to do at least one reminding everybody out there. Um, it's gonna, I mean, and that's the weird part about distributed consensus too, is like, even if we wanted to, what would we be able to, but these conversations have to be approached extremely seriously and there's gotta be a lot of open discussion around it, obviously.[00:59:00]

**Matt:** Yeah. It's a question of how do you do governance on a, a distributed protocol? Right. And you know, it is funny, Marty, I was, I was talking to, um, I was, I was trying to orange peel some, I went back to my old high school and I was trying to orange peel some kids there. And, and one of these kids, one of these kids in grade 12 came up to me and she asked me, oh, well how do you, how do you make changes to Bitcoin if no one controls it?

And I was like, well, you, you just asked the question that we're like, all of us have been trying to figure out for 14 years. So, uh, there you go.

**Marty:** Yeah. Well, on that note too, are there any. Sort of changes that are being talked about right now that could potentially be merged into Bitcoin that you guys are excited for, would be willing to back with your reputation?

**Matt:** Oh geez, Marty. Well, if you back anything and then it goes sideways. Uh, but, uh, you know, I think, I think in general, there's a couple interesting ones. Like obviously the one, the biggest ones that come to mind for me are really, you know, a p [01:00:00] o and, and ctv obviously. I think, um, there is this viewpoint for, um, and for those that don't know, APO is any pre out.

So it's, you know, just a small change to Bitcoin that allows for you to. Commit to, uh, changes in, uh, in the future. So we would allow for, you know, a better version of Lightning Network without the penalty. Um, so obviously something like APO I think is interesting, but then we originally thought that APO would enable a scaling solution like arc, and then we realized, oh, um, you know, the founder realized, oh, actually that's not gonna work.

We need APO plus something else. Um, the one that's really interesting to me, and, and I've been following for some time is ctv, because ctv, um, not only, uh, you know, would enable for, uh, interesting, you know, um, like, like scaling capabilities in Bitcoin. But also has cool applications for DLCs too. You could have, uh, right now if you want to enter into a dlc, we basically like [01:01:00] have to have the user have, you know, some type of hot wallet, like say on their phone or on their desktop or something of this nature because there's so many signatures that need to be created.

If you imagine like a futures contract or an options contract, you need to create a signature for every single one of the possible outcomes. So imagine trying to use a hardware device. Imagine trying to use a cold card and like clicking to go through each of those to create a, a signature. You know, you'd be there all day creating 5,000 signatures, um, whereas something like C T V could allow that to be done with one click and could also reduce the time to enter a, you know, A D L C from, you know, one or two minutes down to like, you know, two or three seconds.

So I think that one's really interesting. Um, and I think it's really fascinating how the community was kind of initially opposed to CTV until, um, you know, more and more. Interesting applications started relying on it, and then now that restarts the discussion. So, um, I'm not saying like CPV is perfect or there aren't maybe like some flaws with it, [01:02:00] uh, but I do think it enables some particular, um, use cases that are, that are really compelling.

**Marty:** Yeah. And if I recall correctly, to the controversy around CTVs activation when it was being broached last year or the year before, wasn't necessarily about what it would add to the protocol. It was the, um, the mechanism that essentially allowed it to get merged into, um, into Bitcoin. So like the, the consensus mechanism of speedy trial, I believe is what they ran with.

And we just did speedy trial with taproot and a lot of people are not happy with how that went. And so I think again, talking about. The concept of ossification. I think the biggest hurdles to getting something like a p o or c T V moving forward be coming to consensus about the activation mechanism that actually gets it into the code base.

**Matt:** Well, when I find it funny for something like taproot [01:03:00] too, something that's, that was very uncontroversial at the time. Um, it wasn't that people couldn't agree on what changes should be made, but how to activate those changes. And that seemed, and, and I don't, I don't think we've come any closer to, uh, to, to coming to a consensus on what the activation method should be.

And so I think there's a likelihood for that, you know, there to be kind of two sides of the equation, like b i p eight or vip. Nine, like for speedy trial versus the others of, you know, what, what's gonna be activated? But I think you act, that actually brings up an interesting thing as well, Marty, which is, um, you know, now there's new people coming out there that are like, hey, um, taproot and, uh, SegWit we're a mistake cuz they enabled ordinals, which I think is, is, is pretty wild because if you just looked at each of them individually, you would never expect something like Ordinals to come from them.

But then the, the addition of, you know, uh, SegWit like the, um, the discount plus taproot, um, increasing the script size enabled [01:04:00] something like Ordinals. And so, you know, that just put fuel on the fire for the ossification maximalists that are now like, well, should we, um, should, should we, you know, not change Bitcoin?

Uh, it's just crazy.

**Marty:** Yeah. And then you add in the fact that Bitcoin adoption is growing and so more people are joining the network. And then you just have a, a bigger coordination problem as that happens. So that's, that's the other thing I think about when it comes to upgrading Bitcoin in the future.

Like obviously we believe that others like ourselves or other people who have not rocked Bitcoin to date will begin to grow it and therefore adopt it. And there'll be more full nodes added to the network and more stakeholders within the distributed consensus. And that makes it even harder to change.

And it's, yeah, it's a, it's really a, a mind fuck when you begin to fall down the rabbit hole of all the nuances that go into that stuff. Yeah.

**Matt:** Marty,

**Tony:** that's why media, sorry. That's, [01:05:00] that's why, that's why content creators like yourself, Marty, are so essential to our ecosystem, right? Like community, like.

Bringing in, uh, you know, experts talking about, uh, you know, talking about what's happening and like educating the folks the freaks. Um, that's, that's what it's all about. Well,

**Marty:** that's a good point too. And it's, I, it's scary too, like Matthew, like you mentioned, like the combination of SegWit and Taproot created these unforeseen abilities and I was a big advocate of SegWit and taproot and I am not technically competent enough to actually audit the code and think deeply about the interactions of those two different upgrades.

And, uh, looking back in retrospect, like I was a big cheerleader of taproot. We talked about it on rabbit hole recap, week in and week out, leading up to the activation. And we put our thoughts out there and looking back, I'm like, God, maybe I like it. I think moving forward, I will [01:06:00] definitely be more calculated in the way, uh, I quote unquote cheerlead for, for upgrades and be more upfront with like, Hey, I actually don't understand the math or the code that makes this stuff.

I mean, I understand parts of it, um, but in terms of like thinking about complex interactions of multiple changes, it's something that's above my pay grade.

**Matt:** Well, well, well, wait, wait, so hold on Marty. So you're, you're a fan of Segway and you're a fan of Taproot. Wait, is it, are you're an ordinal lover? No, I'm just kidding.

Crazy though, right? Because like, There's a very small number of people that can actually audit all the code, right? So, um, you know, you might say, oh, I can't, I can't audit the code myself. But even like most lightning developers, right, that are actively building with Bitcoin, that have a technical [01:07:00] understanding of Bitcoin, don't understand all, all parts of core, all parts of the, you know, underlying, you know, protocol of Bitcoin.

And so there's such a small number of people that can see. And then the other thing is trying to think of these edge cases ahead of time is almost impossible, um, for, you know, a change upon a change that could, you know, lead to this outcome. Like nobody foresaw, ordinals. Um, but before we, we got to this point.

And so, um, you know, it's, it's a, it's, it's a hard problem and I, I don't know, I guess it just requires more, more education and people, people talking about it, people being creative, I guess, and coming up with ideas and what's, what's possible if you, if you do this change or what's possible, if you do that change, if we have more creative creativity and ideas, you know, before we merge it, then maybe we have a better idea of that.

But it's hard. Yeah.

Yeah.

**Marty:** I mean, you mentioned Barack and Ark earlier, but he's the one who broke Lightning Network twice, uh, via taproot. [01:08:00] Maybe that's what we need is just more robust testing environments before something gets merged and then sending people like Barack in to do weird things like create a 998 of 999 multisig to see what breaks on top of that.

**Matt:** Yeah, but I, I think even that's hard too because most people don't pay attention until there's money on the line. Right? You could have the most elaborate scaling solution or elaborate, um, uh, like well tested, um, you know, new soft fork for Bitcoin on a, uh, you know, on CNET or on Testnet. And people could be, you know, testing it out.

But at the end of the day, people aren't really gonna pay attention to that until there's money on the line. And I think that's what it make, makes it so hard is the, the, the testing process. And so I guess we just need people earlier on in, you know, in, in the stages of development to look at those things and maybe more money going to, um, you know, earlier stages of development.

Uh, I dunno, yeah,

**Marty:** again, big problems. [01:09:00] It's, uh, unnerving but also exciting is on the cutting edge of all this stuff. But I mean, a lot is at stake, like, I mean, we have it. On the agenda to talk about the inflation numbers, uh, up in Canada. And I mean, they're coming in low, but I think you two would argue that they're being severely under-reported.

And I would agree. Uh, I would, I would say I think that's happening here in the US to an extent too, if you've been to a grocery store in the last couple of months. Um, and that's, yeah, the weird balance that we face is people building out this network. And the layers above it is we deeply believe, intuitively believe that it's essential for, for freedom in the digital age and providing humanity with, in monetary good that will preserve value and respect people's savings.

But it's also like, oh, it is a software project, a open source software [01:10:00] project, uh, bringing a distributed system to the world that's very hard to maintain. And, um, Again, people don't like to talk about the boogeyman scenario of getting down the line and being like, oh shit, this actually doesn't work. But, um, you gotta have these conversations, you know?

**Matt:** Yeah. Well I think it's like with, with something like Bitcoin, it's like there's, there's, it's like we only have one shot at this, right? We've got one shot to make the most found, like the, the most impactful and foundational money for humanity. And we, and, and there's going to be millions, billions, trillions of humans in the future that could be relying on what we're doing today.

Right? Like, no. Cause like if, I mean, if humanity expands, right, if we, if, if um, if the agenda for depopulation doesn't happen, then uh, then, you know, then

**Tony:** we'll be able to, you

**Matt:** know, then we'll have that many people. So [01:11:00] that many people are dependent on us doing it. Right. So we gotta get that right. Um, you were talking about Canada, uh, Marty, like Yeah, I mean it's, it's crazy for us up in Canada here because, you know, there's talks of, we just had Covid tyranny for three years and then, you know, the talk of cbdc and they like to lie to us about the, uh, the inflation rate.

And so, uh, geez, you know, you guys down in Texas are, are, you know, it's looking better and better every day.

**Marty:** So what are you guys seeing on the ground? I mean, uh, what was the inflation print? 2.2

**Matt:** 0.88%.

**Tony:** Yeah. And anyone, anyone who's been living in any of the big cities here, I think would strongly disagree with that.

I, I, I read, I actually like dug into it a little bit. It was like they were saying like, oh, you know, The reason why, um, inflation rate has come down is because, uh, you know, your cell phone bill got cheaper and, and this, this got cheaper. But I was like, my, I don't know of anyone's cell phone bills in my circles.

I got cheaper. But I think the way that they're doing it is just saying that, hey, [01:12:00] like, oh, you're getting more data for the same price, or, you know, uh, and that kind of stuff. And that's the way that they're justifying, you know, oh, a decrease in, in pricing. And, uh, and you know, that, that it's, it's just manipulated out the va wazo, you know, it's just like when it comes to c p I, it's probably the most manipulated thing there is from the government.

**Marty:** Yeah. Yeah. It's, it's almost like a humiliation ritual. It's like, don't believe your lying eyes. It's 2.8%.

**Matt:** Yeah. And we, we've got a leader that's in, that's obviously in bed, you know, with the, the, the w e f, you know, it's, uh, the, the young global leader, you know. So we're hoping for maybe Paul Everett to get in here.

He's the, he's the, the potential, you know, the, the pro Bitcoin guy, although he, he went out there and he, he, uh, you know, promoted Bitcoin. And then the other, the other side of the aisle's been, uh, been after him for saying that for the past, like, you know, two years. So we'll see what happens. [01:13:00]

**Marty:** It's also tiresome, gentlemen, it's also tiresome.

Mm-hmm. I mean, we have RFK pumping Bitcoin trying to restructure treasury bonds by embedding Bitcoin into them, which is an exciting proposition by potential president. But again, I'm not holding out hope that the, uh, the politicians are gonna solve this.

**Matt:** Well, I, I'm excited that there's at least a politician that is in the process of being Orange Bill.

I, I think that's very bullish. I think, you know what, what did he tweet today? He was saying, Hey, you know, I would have the US dollar partially backed by Bitcoin. Um, I think, you know, maybe that's a good stepping stone, right? But the reality is if you just have the dollar backed by Bitcoin, it's not convertible, then you, you, you just run to the potential for the same fractional reserve system we have today in the long term.

Um, but if that's, if that's his stepping stone for becoming orange pill, then, then maybe that's a good [01:14:00] thing. Uh, I don't know.

**Marty:** Yeah, I'll take as many orange pilled po politicians as we can get. Again, don't wanna depend on them, but if they're pumping Bitcoin and making it more palatable for individuals who have historically been under the persuasion that it's some sort of Ponzi scheme, that's, I think, a net benefit overall.

**Matt:** Absolutely. Well, we just, we just need more folks, folks like that, that are that're pushing for, pushing for freedom, pushing for, uh, you know, being able to hold your own coins, pushing for making sure that a 61 0 2 doesn't happen ever. Um, you guys, you guys, I'm pretty impressed actually, the United States and what you guys are, you have two senators that are pro Bitcoin.

You have RFK people on both sides of the aisle that are pro Bitcoin. Um, you know, Canada has a lot of catching up to do, I think in that regard.

**Marty:** Don't worry. We'll come save you guys up in Canada one day. We'll, we'll annex [01:15:00] the good parts of Canada, US, but when the crime is right,

**Matt:** we're looking, looking forward to it. Marty. We'll, we'll be America's hat, you know. There you go.

**Tony:** Hey, I mean, if you guys, if you guys get rid of capital gains tax on Bitcoin, we'll, we'll, we'll move down there ourselves, you know.

**Marty:** Hey, Texas is open. You just have to come to the southern border, um, illegally.

**Matt:** Fair enough.

**Tony:** Oh man.

**Marty:** Uh, gentlemen, this has been a great conversation. I'm excited for you guys. It was great to catch up in person in Miami and I think you guys are working on one of the most interesting parts of Bitcoin and underscored parts of Bitcoin, which is DLCs. Again. I've been very excited about DLCs for many years, and to see you guys building products that actually leverage the technology is extremely exciting and it works.

I've used it.

**Tony:** [01:16:00] Yeah. No, and it's not easy. It's not easy, you know, building on Bitcoin, um, doing things non-custodial, it's, it's not a easy thing to do. Um, but, uh, you know, we're excited more than ever to kind of. Keep focusing on Bitcoin to keep building out non-custodial financial tools for folks. And, uh, yeah, really enable kind of a financial layer, uh, non-custodial sound, financial layer to be built, uh, on sound money.

And so, uh, yeah, excited for lots to come.

**Marty:** Where can, uh, the freaks find out more about you two Atomic, what you guys are building? How can they help?

**Tony:** Yeah, absolutely. Um, check us out on Atomic Finance. Uh, that's our url. Um, you know, I always encourage, encourage folks to kind of start by learning with like a very, very small portion of their stack that they feel comfortable using and learning with.

You know, it can be as small as [01:17:00] 0.1%, 1%, you know, see how you feel. You know, it gives you, it's enough to kind of give you incentive to. Dig deeper into the tech, learn what DLCs are, what's happening here, and you know, take a step further into being a true Bitcoin native, participating in the Bitcoin, wider bitcoin economy.

Right? Whether you have options, experience or not, doesn't matter, right? Cuz we built it to be ridiculously simple to start with and you just need 0.01 BTC to get started. So that might just be one dca, see if you like it, right? And, you know, that's how a lot of us got started in Bitcoin anyway, right? Just by trying it out with a small amount.

Um, and, uh, yeah, would love to kind of see, um, freaks out there on Atomic finance and checking out the app. Uh, in terms of on Twitter, uh, we're, uh, trying to tweet more now. Um, we're, my, me personally, I'm on Tony Kai underscore, um, Matt's Matthew J. Black. And our company Twitter account is at Atomic Finance.

**Marty:** Awesome. We're gonna link to all that [01:18:00] in the show notes. Matthew, anything that end it on here.

You're, you're muted.

**Matt:** Thank you. Thank you. Um, I was just gonna say, you know, I, I think Marty, it's uh, it's time for, uh, time for people to stop getting rugged. It's time for us to build the layers that Bitcoin needs. It's time for us to, you know, believe in self custody, self sovereignty. So, I dunno, I'm just excited to build it and I hope more people, I hope the people from Ethereum that are building, building nonsense right now, they, they realize what's important and we get more of them over in Bitcoin and building sound finance for sound money.

Yeah.

**Marty:** Building sound finance for sound money. That's a good bite. It's a good bite. Gentlemen, I like that. It's a good sound bite.

**Matt:** Thanks Marty.

**Marty:** Sound, sound finance for sound Money is a good sound bite.

**Matt:** We, we can't call it defi, you know, defi is too tainted. [01:19:00] You want sound infrastructure for, for Bitcoin, you need sound infrastructure.

That creates sound finance for sound money. That's, you know, we're not, we're not building nonsense anymore.

**Marty:** Well, you heard it here first freaks, or maybe you heard it on another podcast or on Twitter, but sound finance for sound money. Matthew and Tony, thank you guys for coming on. It's always a pleasure and who knows when.

I'll see you next in person, but can't wait for that day.

**Matt:** Absolutely. Thanks for having

**Marty:** peace of love freaks.