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Virtual Event Series

Cracking into Crypto Mining

Guest Speaker

Charlie Faulkner
CEO
EdgeMode

Hosts

Kenny Estes
CEO and Founder
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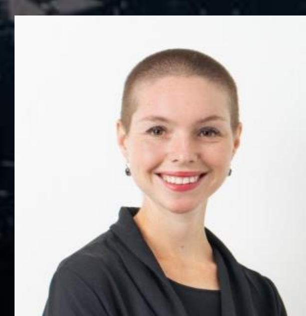

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DiffuseTap: Cracking into Crypto Mining

Last time on DiffuseTap, Charlie Faulkner, CEO of EdgeMode, talked to us about the requirements, risks, and returns of running a crypto mining business, the impact of China's recent crackdown on crypto mining, and preparing for the industry's Armageddon scenario.

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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

CHARLIE FAULKNER is CEO and co-founder of EdgeMode, a cryptocurrency mining and high-performance computing infrastructure and solutions provider located in Chicago and London. A global digital veteran and Silicon Valley angel investor with extensive experience, he is also an advisor to several tech companies and funds in Europe and North America.

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KENNY ESTES: Charlie, I love this photo. You're doing the rock smolder thing, which is absolutely brilliant. Would you like to briefly introduce yourself?

CHARLIE FAULKNER: Thank you, Kenny. Pleasure to do this. I appreciate the invite, and it's great to meet you guys. Charlie Faulkner. I'm the CEO of EdgeMode. That photo is several years old, so there are a few more gray hairs now. I'm absolutely looking forward to telling you all about the wonderful world of crypto mining.

A little bit about EdgeMode. We've had a really interesting year this year, which took us from inception and our first raise to the verge of becoming a publicly listed business and the rationale and logic around all those steps we took, and I suppose our vision for the future as well. Happy to answer any questions you guys have.

AYLA KREMB: Awesome. I might take it from that exact spot. Do you want to share a little bit at a high level about what EdgeMode does, and why you chose the public route at the moment, in the middle of everything that's happening?

CHARLIE: Sure. There are currently two answers towards that. The first answer is that we're a cryptocurrency mining business. We deploy hardware into data center environments, and we mine cryptocurrency. The second answer to that question is phase two of the business, which is to add a second layer of revenue. We will be scaling our cryptocurrency mining business and adding a high-performance compute element to the business. What that means in layman's terms is, we're monetizing our hardware not just for mining, but also for traditional data center demand.

For the purpose of this call, we'll first talk about cryptocurrency mining. The rationale behind going from private business to public is three-tiered. One, I feel like it legitimizes us as a business. And in cryptocurrency, that's important. I think it's less important now than it was maybe a year or two ago, but I still believe it adds some legitimacy moving forward that will help us raise capital. And cryptocurrency mining especially is a very capital intensive business.

It's not so much labor intensive or resource intensive, where you need to hire a big team and grow in that way. But it does require capital to invest into hardware, because hardware is expensive. The more hardware we have online, the more Bitcoin or cryptocurrency in general we can produce. Hence, the more processing power we have, the more revenue we generate.

In a way, it's a little bit of an arms race that requires capital. Being a publicly listed business helps us raise capital. I think it's quite a topical question to ask today, because H.C. Wainwright just raised an $80 million private placement for Bit Digital, which is a similar business to ours. These things are happening quite frequently, and they're being spent in the same way on infrastructure and hardware, which is important to us. And lastly, there are significant valuations in the public market for businesses like Edge Mode in mining.

This is now a billion dollar-plus industry, and some of these businesses have several billion-dollar valuations. Clearly, that's attractive to us. So, again, the three reasons are raising capital, legitimacy, and investor shareholder liquidity through the public markets.

KENNY: That makes sense. I guess the core operating business of EdgeMode is currently doing a lot of crypto mining. But to me, crypto mining is a little bit of an amorphous blob. I know there are a lot of them, but it's not really clear what distinguishes one from the other. What do you think differentiates your business model from others, other than the fact that you do the hard work of accessing the cheaper capital from public markets?

CHARLIE: The reason why you want to access capital is you need to invest into your contracts, and therefore you need the contracts in place beforehand. Our edge (no pun intended), or our differentiator is that we've secured scale through our contracts in both hosting and hardware. A business like EdgeMode requires scale. And that scale means, can you deploy hardware at scale? In order to do that in a very constricted market, you need confirmed contracted access to hardware.

We actually have a two-year purchase agreement for over $125 million of hardware. We have that secured. However, it’s useless if we don't have an environment to deploy that into. And by environment, I mean a data center environment. You also have to look at the regulatory side of things, in terms of where is the best place to have this. It's obviously not China. Everyone knows that right now, it's impossible. But thankfully, there are other options, we've chosen the US.

More specifically, North Carolina, Texas, and we have a data center operation in New York state as well. We feel that there is an advantage in those places from a regulatory perspective, and a price perspective. We've got 600 megawatts, and I'll quantify why that is an important number later, but we've got a lot of scale secured which will enable this business to grow. That's actually a very hard thing to do in a very constricted and competitive market.

To succeed in this business model, you need to scale. And in order to do that, you need to have scalability for your hardware and hosting contracts. A lot of heavy lifting was done this year by us, to secure those contracts. Now, our job is to finance those contracts. We need to invest in them. Hence, that’s one of the reasons why we're listing publicly. So yes, it is a simplistic model. But it's difficult in the sense that you need those two ingredients. It's difficult to execute because you're not the only one trying to secure those agreements, when there is only a limited supply of both of those components.

AYLA: That makes sense. Let’s talk about that part where you stated the things that need to be in place for a business like EdgeMode to be successful. Many people in the room here are investors, and they're always looking for ways to allocate capital into something. Looking at the mining businesses that you've seen, and even looking at EdgeMode, what kind of due diligence should investors be doing to know whether a business can scale? Do they need to look at what contracts the companies have in place?

CHARLIE: Yeah. Cryptocurrency mining is an interesting industry. You need to certainly dig below statements and conjecture. Looking into contracts, which is an obvious thing to talk about, is very important. That includes our contracts with the right partners. The risk we have as a business, our execution risk, is really on our partners, because they are both the hardware manufacturer and the environment that we're deploying the hardware into. The question is, are they good partners to have?

It's not just about the diligence for EdgeMode, or a company like EdgeMode, but it's also about the diligence who they've secured these key contracts with, the validity of the contracts, and the experience and expertise of the partners. Because that's where the execution risk really exists.

And then, it's also more of an economic analysis. What is the price of your operation? Typically, the biggest factor to consider is the cost of your power. Often, there's also a question of what type of energy you're using. We've decided to try and push quite aggressively in the renewable sector. Also, do you buy well? Do you have hardware at the right price, in the right volume? Again, the diligence is about your partners, the validity of the contracts, and the forecast. You have to take into account a sensitivity analysis on the price of Bitcoin. And not only the price of bitcoin, but the hash rate and the difficulty of the network.

Bitcoin is currently at $50,000, but what happens if it drops to $20,000? We don't think it will, but if it does, and it even remains there for the next five years, is your business still a profitable business? In our case, it still is, and quite significantly. Because we've built the operation to be robust enough to perform in that way, in terms of the cost of our hosting capacity, and hardware and resources. Looking at your worst-case scenario is a good idea in any investor's diligence, and certainly in a volatile market like Bitcoin and crypto.

KENNY: You mentioned hardware a couple of times, and you also talked a little bit about China. For a long time, we've had a dearth of GPUs. And now, we might have a bit of a glut going on. I'm not entirely sure. How are you seeing the Chinese regulatory factors impacting things? Does it result in better, or worse prices?

CHARLIE: The simple dynamics are that there is a load of demand coming into North America. That's because these miners now have redundant hardware that they need to deploy. There are not a lot of options available for them to deploy. Kazakhstan is one. I think that has been taken into consideration, in terms of hosting capacity. Russia is another one. There are some significant question marks on the logic in doing that. I don't think the Russian government is risk free and who is going to finance equipment that is collateral in Crimea?

So, North America has become in heavy demand, and there is therefore greater demand for hosting capacity than there is for supply. It's a very difficult industry to join at this point, I would say. Because you're joining a little bit of a crowded market, which has gotten busier because of the Chinese coming into the U.S. to look for these hosting contracts.

We're fortuitous, and did a good job of securing contracts and increasing our contract length to prepare for when the Chinese exodus happens. We're fully in the knowledge that the value of our contracts would grow in the next six months. We've actually been approached by a lot of Chinese businesses who want to buy contracts, or do some sort of creative joint venture deals we're not particularly interested in.

I think it's done a lot for the North American market, in terms of how demand has now come in. It has intensified the value of the hosting contracts. Hardware is still not an easy thing to get. You need to be placing orders now to take equipment in Q1 and Q2 of next year. Our decision was to not put all our proverbial eggs in one basket and only buy from one provider. We also didn't want to be solely reliant on the Chinese market from a supply chain perspective.

There are also some things we don't really like about some of the Chinese customer support, which you do or don't get. So, we've sourced hardware and placed contracts with a new US manufacturer, which helps us gain access to U.S.-based hardware. In addition, we also have a hardware order with a Chinese manufacturer via our hosting partner.

So, it's a long-winded answer of saying, yes, it has had an impact. It's had a big impact on the scarcity of supply, and it's made the value of our contracts probably greater because we secured them before. Hardware is so important, and it would probably be foolish to only have one hardware contract with one supplier, because of the risks involved.

AYLA: Talking about hardware, and the energy that the hardware consumes, maybe we could dig a little bit into the ESG question, which I think is in everybody's mind. What are the solutions people are using either to become more efficient or to use renewable energy, such as solar solutions, etc.? How do you approach the ESG side of things?

CHARLIE: My view on this is you shouldn't dress it up any differently. This is an energy intensive business. I think it would be disingenuous not to acknowledge that, or simply offset your conscience by buying carbon credits. Our view is, we need to accept that we have a facility that currently is producing close to 100% of our hash rate and our revenue, which is 93% hydro-powered.

We've heavily steered towards renewable energy as we're moving forward and as we scale. It's inevitable. We'll be bringing on 600 megawatts, which is a huge provision of energy. It's inevitable that a portion of that will be non-renewable, but our forecasts with our partners is 65 to 70% will be renewable. So we're doing quite well. In terms of how we buy, we're certainly focused on buying renewables where possible, but we need to meet our scale objectives, which involves a lot of energy. We acknowledge it. We don't pretend it isn't. But we try to buy as best we can.

Currently, we're at 93% renewable, and I think we should be commended for that. But as we scale, until there's greater deployment of solar — which is happening in places like West Texas and Texas in general — we'll always be buying a blend of energy resources.

KENNY: I have a question from the chat. You mentioned earlier that it was hard to get into the crypto mining game right now, given the scarcity of hosting and hardware. What about home-based options? Is it still even feasible to just do some mining on your own PC and profit?

CHARLIE: I mean, you could be a hobbyist and enjoy the process, and raise enough money to buy a few beers at the weekend, but I don't think it's going to raise your retirement fund. If you're serious about doing that, I suggest investing in a business which is doing this at scale. Now is a great time, by the way, before we go public. But I won't pitch too hard about that. Again, yes, you can do it at home. But set your expectations that it will be the same money you probably make on a milk round, or a paper round.

KENNY: Well, okay. That's a fair question. Returns is an annoying business. Obviously, it has a lot to do with the price of crypto. We had a rally this morning up to 55 or something like that on Bitcoin, by the way, so good for you. But what type of returns are there from an investor's hat? To your point, it doesn't sound like it's going to be great for the hobbyist. But what are the returns for those who run major operations, like what you have?

CHARLIE: Yeah. If you don't mind, we'll talk more about what we know: The cost of mining Bitcoin for EdgeMode typically varies between $4,500 to about $6,500. The variance that occurs is the difficulty on the network, it’s the number of miners which are currently mining, and the price of Bitcoin. To prepare for a worst case scenario, we've modeled what we call the Armageddon scenario, which includes a $20,000 mark that I mentioned earlier. If Bitcoin drops to $20,000 and remains there for five years not leaving a cent up, EdgeMode continues to be profitable for about $4,500. We would still be operating a nice profitable business in a pretty terrible scenario.

As Bitcoin rises to where it is today and above, obviously the business will become more profitable. However, our cost of mining will also increase marginally to around $6,000. We're not going to mind too much when Bitcoin is 90 or 95% profitable for us. That's from an operational perspective. From an investor's perspective, it depends when you choose to invest. If you choose to invest in a business like that, you have to consider at what stage of their life they are at.

In our case, we are at 40 million in our current raise, which is open for another week or two before we move forward with our listing. There's 40 million pre money valuation. The current valuations we’re seeing in the public markets for businesses that look a little bit like us are a bit more advanced. They're 12 to 24 months ahead of us, but they actually have similar ingredients in terms of the contracts and the scale that they'll be achieving.

But as I said, some of those companies are 2-to-4-billion-dollar businesses. You can see there is a lot of growth opportunity if you invest early enough in a business which has the ingredients to compete and be listed, and potentially be valued over a billion dollars. I'm biased, but I think it's a good idea.

AYLA: What about the risks of your business, like Bitcoin crashing and other things? Also regulatory, which is breathing down your neck. What are some of the main risks, and how should investors think about them when making decisions?

CHARLIE: The price of bitcoin is the biggest risk which will affect one's profitability, as I described. For us, who have a $4,500 to $6,000 breakeven point, you're looking at execution risk. As I said, the partners that you're working with, the hardware manufacturers — you need to choose and build a relationship with the right hardware manufacturer to get the reliability and predictability of delivery of machines. It's the same with your hosting partners. Diligence and risk associated with your partners certainly exists.

For us, we made the decision not to only be a Bitcoin-only business, hence why I described us having two phases. Phase one today is Bitcoin or cryptocurrency, and phase two, which will be next year, will be providing a hedge to Bitcoin by also monetizing our hardware through high performance compute capabilities.

What that really means is we have invested in GPU hardware, which we've already monetized. We've paid for them, and now we could turn a profit by using the processing power we have for other means, be that video rendering, streaming, data storage, or any application that requires processing power. I think that's a great differentiator for us, frankly, which we'll market and publicize to the investor community in general. It does give us a bit of comfort that we're not only reliant on Bitcoin as a driver of revenue for the business.

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