

IOTA AMA with Dom

A. Introduction

1. As said last week, we need to find a better intro!
2. Interesting proposal: we have amazingly-creative people in the community, and I have a really big white wall behind me—let's put art there.
 - a. Art challenge: winner's art will be placed on the wall.
 - b. Would prefer something physical that can also be an NFT later.
3. Exciting week: Firefly beta version and a chance to test Chrysalis test network
 - a. Feedback has been tremendous. Will talk more about Firefly on Friday, maybe with Charlie.

B. Starting the AMA

1. Who is the main competitor of IOTA?
 - a. Vitalik always said that Ethereum was its own biggest competitor, meaning the upgrade of Ethereum, with breaking changes to their applications, forces dApps to go through an uncomfortable process of upgrading. If it does not go smoothly, applications will go elsewhere
 - 1) We are seeing cross-chain building applications, which is exciting for us because we want to be cross-chain
 - 2) Ultimately it is about community, and we have a great, large community.
 - b. Not really seeing a big competitor who is focused on Internet of Things, Micropayments, and Data transfer. We are leading, and are building more on top.
 - c. I would say our Smart Contracts protocol is a direct competitor to Polka Dot, Cardano, Ethereum, but we are trying to build bridges. We don't see ourselves as competitors but are trying to make the pie bigger.
 - 1) We think a handful of protocols will be successful and will share the ecosystem among them.
 - d. Private blockchains/cryptocurrencies might be a competitor to the whole DLT space. Amazon is testing a stablecoin, for example. If large companies do their own token, they will fragment the ecosystem even more and hurt interoperability.
 - e. Biggest advice for a young entrepreneur: stop analyzing the competition and focus on building. We look at competitors but focus on us and on what we do well. Which use cases can only IOTA enable?
 - 1) Free payments-no transaction fees-is what we alone offer. This is where we will be the first production-ready DLT enabling that. It can power other use cases, such as car payments.
2. What are your favorite projects other than IOTA?
 - a. Ummm, IOTA. I only hold IOTA tokens-I'm a maximalist in that sense.
 - b. I do have respect for other projects. I think Polka Dot has done a great job in building up its ecosystem-I like their approach. They're really focused on protocol and the tech rather than chasing DeFi dreams.
 - c. We see ourselves as a bridge builder-the Cartesi announcement, the Horizen announcement-so we are trying to make the pie bigger.

3. When will IOTA be production ready?
 - a. To us production ready means you can reliably build on top of our protocol and there will be no significant breaking changes, and you can build your application and it will work reliably with no interference, no fees, and your transactions confirm reliably.
 - b. After Chrysalis the last remaining part for us is removing the Coordinator. In other words, the cryptography, signature scheme, transaction layout, and libraries will largely remain the same. Most of the concepts will stay the same for app developers, so I would argue that after Chrysalis we are production ready.
 - c. It takes large companies several months to get started. Post-Chrysalis we will put more emphasis on reaching out to past partners and to new partners to start building on IOTA.
 - d. After Coordicide we will be fully production ready. “We will have at least 1,000 TPS; hopefully many fold more.”
 - e. Everything is a Proof of Concept in the DLT space. Innovation playgrounds. After Chrysalis you can start building reliably on top of IOTA.
4. How long will it take to fully test the Nectar network?
 - a. Not sure. Our objective is to launch network in the next few weeks (recommend the GoShimmer repository).
 - b. Depends on community feedback-how many people we can incentivize to participate and attack, and also the sort of progress with making node implementation more production ready.
 - 1) For instance we have two mana implementations implemented in GoShimmer. With Nectar we will launch with GoShimmer, but then have to implement in Rust and Go. The Bee team is working closely with the research team.
 - 2) After Chrysalis the engineering team will be focused on Coordicide.
 - c. Nectar testing should be several months, but the big objective is still Q4 for Coordicide on the mainnet.
5. Are you in talks with the Swiss National Bank SNB and Bank of International Settlements to help them out with their DLT project called “Project Helvetia?”
 - a. We do not talk with Central Banks right now
 - 1) Primary reason is we are not ready yet (need Chrysalis and Smart Contracts)
 - 2) Our expertise is not in the banking sector, central banks, or lobbying
 - (a) They will want a permissioned network where they can control the nodes, reverse transactions, and so on.
 - (b) I don’t think they will use any public platform for years.
 - b. We are moving closer to the financial sector. The best-case scenario is for us to focus on the core protocol and empowering the ecosystem, and we will get some partners (like a big consultancy) who have a lot of experience with banks who can push IOTA.
 - 1) Our focus will be to partner with “multipliers” and help them go out and make the point.
6. Concerning the Attack-a-thon. . . finding bugs that could ruin IOTA should be worth a lot more.
 - a. Fair question, but it was a mistake on our part. This looks like a bug bounty program, but it is not. If we had launched it with the intention of doing a bug bounty, we would have had a minimum of \$25-\$50K for top bounties.

- b. We just meant to provide some incentives for the users who were engaging with us to give them some rewards.
 - c. We have 60 or 70 talented engineers and we have done lots of cross review, plus external audits.
 - d. We intended to have a fun community activity, but it came across as something serious. We don't need a bug bounty program right now.
7. Comment about the great art
- a. We have an amazing UI/graphics/UX team, lead by Sabi. He was one of the very first people to join the IOTA project, and has been part of our journey since the beginning. We also have Alexa and Marco.
 - b. We are hiring a lot right now, including graphics. We have 20 or 30 job openings at jobs.iota.org and want to help people reach their potential. We define objectives and leave it up to team members to achieve them in the best way they deem possible. We have such a strong vision and an amazing project that we attract amazing people.
 - c. Leave a comment on Discord for things you appreciate. It's all about teamwork-IOTA would not be here without everyone.
8. How will Coordicide affect confirmation time? What about multiverse?
- a. Multiverse will launch with FPC, not multiverse, because it is more researched. We are exploring different consensus mechanisms
 - b. Current plan is about 5 second confirmation time. Ultimate goal is to bring it down.
 - 1) I find subsecond confirmation times of other projects disingenuous because they are not true. Subsecond finality? I highly doubt it.
 - c. Once we open the floodgates with Nectar I think you will be amazed
9. What features are most important post-Coordicide
- a. Data sharding-that would be half of the current use cases for corporate
 - b. Fully sharding for value transfers that will enable us to run globally for the machine economy and beyond
 - c. Optimizations to the protocol, including hardening the protocol, new consensus approaches, and leading the standardization of the protocol.
 - d. Smart contracts, since they are one of the most exciting avenues. There is a lot of unrealized potential in the IOTA ecosystem when it comes to smart contracts
 - e. World domination 😊
10. When will NYC residents be able to purchase IOTA tokens?
- a. Go on Discord and complain to Dan! 😊
 - b. It is in the making. We are speaking with some of these parties, and IOTA is "sort of approved" by some of these regulatory bodies. Our rating from the Crypto Ratings Council, showing we are not a security.
 - c. Post-Chrysalis we will speak more closely with these parties to list IOTA.
 - d. We realize it is painful to acquire iotas in the U.S., but we have a big focus on enabling this, so be patient.
11. Question about updating the roadmap
- a. In a couple of weeks the new roadmap will be ready.
 - b. The biggest value is to see where we are heading, even if timelines are not fully accurate.
 - c. We need to update the roadmap to reflect not just the time tables, but objectives

- 1) Disingenuous for us to make an estimate and then for you to hold us to that estimate—we don't want to put undue pressure on the team.
- d. Use the roadmap for guidance on where we are heading; on how we are achieving technological maturity
- e. Discord is the best place to get up-to-date information on what we are doing. You can ask us about any software we are working on, or when something will be released.
12. Comment about the technical, environmental, and financial greatness of IOTA, and being glad to be part of the community, and a hope that Chrysalis “silences people like Dan H”
 - a. One important thing: IOTA did have a very bad reputation because of some of the mistakes we made. We owned up to the mistakes, and made smart decisions and got a new focus.
 - b. Some individuals still have a very strong opinion. Some individuals may be convinced by the progress we are making (and there is more to come), while some individuals cannot become convinced because they build their persona around hating other projects. It is easier to burn something down than to build something.
 - 1) I would just not pay attention to that stuff. I try to lead with compassion and not go on fights or rants with other, but just focus on building.
13. Can you provide some simple examples on the website of what the IOTA future will look like?
 - a. I think things can constantly be improved, but you always run into resource constraints
 - b. Our focus is to be a real-world protocol, but that is not very tangible. TCIP enables data transfer of the internet. In the same way, IOTA will enable value transfer for the machine economy and beyond.
 - 1) IOTA can really be the connective tissue for the human economy (digital identity, Firefly) and the machine economy (M2M payments and enabling the future).
 - 2) IOTA fits into three distinct categories:
 - (a) you will need iota tokens to secure the network and enable your use case. It becomes a digital asset that powers our infrastructure
 - A large company that wants to use iota for M2M or data transfer can enable their application if they hold iota tokens.
 - (b) Feeless micropayments. IOTA is the only protocol today that can enable feeless machine-to-machine payments
 - (c) Digital assets, tokenized assets, NFTs, smart contracts being empowered on top of IOTA.
 - c. The iota token is the centerpiece of the IOTA network. Enabling the machine economy is our big vision. We are not trying to fight against the banks. There is no machine economy today, and banks cannot enable that. We are opening up completely new opportunities.
 - 1) It is core to our mission to partner with other financial institutions because they can really benefit from using IOTA.
 - 2) Problem with EV charging is lack of standards. We intend for one token to enable the entire machine economy, through our standardized, open protocol.
 - d. We will do more work around token economics, staking, and more related to tokenomics.
 - e. He read an answer from drtm4 that was posted in response to the question. “Very good answer! I'm going to give you an upvote.”

- 1) It's all about focusing on getting the protocol really hardened and getting it adopted-Zebra technologies, supply-chain tracking, digital identity. We want big companies to integrate IOTA into their existing systems.
 - 2) We overestimate the impact of technology over a 2-year span and underestimate the impact over a 10-year span. We do not know what the impact will really be- we are working on validating our assumptions about the machine economy.
 - (a) We are in an environment with a lot of change-industry disruption-and big incumbents are in a dire need to innovate.
 - (b) How can they transform their large companies for the new world? IOTA enables them to be more efficient, and enables more use cases.
 - (c) We have focused on giving companies quantifiable metrics of how much money they will save, or make, or how much more efficient they will become. When we can prove real-world adoption, then other adoption will follow.
 - 3) I recommend reading up on the digital spectrum and how spectrum management works.
14. How has the current solution to dust protection changed the effectiveness for IOTA to support micro transactions?
- a. Dust protection we are really looking at for Coordicide, and it will be different in Coordicide, but I would say it is not going to have an impact because as long as you load 1 Mi you can receive micro transactions.
 - b. Flash channels are one of the first things we did: bi-directional payment channels between machines, without settling on the protocol, and that is how we are going to extend the protocol itself.
 - c. It protects the entire network, so it is important, but we have had no negative feedback on the current solution.
15. Question about whether there are any plans for small level of inflation.
- a. No plans. A value proposition of IOTA is that it is NOT inflationary. Basically all other projects have inflation. Large investors, hedge funds and so on, should take a position in IOTA because it is not inflationary.
 - 1) We can think about what we can do in layer 2, providing incentives to nodes to receive staking rewards and application fees.
 - 2) The biggest incentive for you to set up a node today is that you are a community member and are supportive, and it is cheap to do, but another reason that applies to large companies is that setting up nodes will enable your use case while securing transactions of others.
 - (a) Mana provides more incentives baked into the protocol.
16. 2nd question from same person: regarding Charles Hoskinson statements
- a. I think anyone with a very strong opinion about something either has a certain agenda or a certain misunderstanding.
 - b. We are one of the largest R&D organizations, next to Cardano. Nearly 150 people in the IOTA Foundation, a huge ecosystem, working with a lot of universities. I can only recommend to Charles and others to look at what we are doing with Coordicide, with mana, with rate control, and how we can achieve security and fairness while enabling feeless transactions.
 - c. Yes, someone has to pay, but we have taken a calculated approach of fine-tuning the protocol so that those who pay are not the end users. If you have transaction fees

- going to miners it will always go towards centralization. Is that the kind of environment you want to build your business case on? I don't think so.
- d. The network, securing each other, covers the costs. Nature also has self-healing processes that are not about a central entity (miner, validator, staking farm), but every node securing the network. Check out our research!
17. When will smart contracts be ready in mainnet? Any talks with dApp creators?
- a. Yes, we are talking a lot with potential dApp creators. It is a big focus, because we currently have the alpha release and need to improve it so it can launch on GoShimmer, and we are starting to work with integration of an Ethereum virtual machine.
 - b. Plan to launch it on GoShimmer. No specified time before launching on mainnet. We have specifications for digital assets ready, so once they are fully reviewed and agreed upon we can think about how soon we can get it onto the mainnet. No promised timelines.
 - c. All of you can start building already.
18. Will there be sharding soon on the mainnet?
- a. We are still in the theoretical stage—don't get your hopes up anytime soon. Our primary focus is launching Chrysalis and launching Coordicide. After Coordicide we can talk about sharding. Already doing 10 things at once.
19. Any plans on being certified about being climate neutral, like the NEAR Blockchain?
- a. First, great job to the NEAR team, and I applaud them!
 - b. There are pros and cons to offsetting your carbon emissions. We do know a company who would help us. We could do certification, but currently our focus is on applications we could build that could enable markets for CO2 emissions.
 - c. Rather than virtue signaling, our primary focus is on creating impact, on solving problems. I'm not opposed to certification, and we will do more research on crypto energy use.
 - d. The biggest bullshit is that Bitcoin is some kind of battery that allows you to offset carbon emissions, and that Bitcoin is being utilized to reduce carbon emissions because so much money is being invested in Greentech. That is the most idiotic thing that has been said in the blockchain space.
 - e. We are making sure that our tech, and that the entire space is moving towards helping fight climate change rather than having a detrimental effect on the climate.
20. Why is auto-peering not included in Chrysalis?
- a. That would have made life so much easier!
 - b. The main reason is that the post-Coordicide solution involves mana, which is not implemented on the mainnet.
 - c. We are working on it.
21. A question about whether there are concerns about China adopting something else and insisting that it be the standard
- a. I am not an expert in China and cannot give an opinion on this question.
 - b. In Q3 and Q4 we are going to spend a lot of time in Asia—there is a lot of ecosystem and community building we need to do as IOTA and with smart contracts on top of IOTA.
 - c. There is a lot of unrealized potential when it comes to Asia and IOTA

- d. In regards to competitors, we do not focus much on competitors. If others work with big companies, great—that creates credibility and value for this space. It’s all about making the pie bigger. We are confident in IOTA, in the tech we are building, and in the roadmap we have to solve real problems. I’m not worried.
22. How do you plan to market more to the United States?
- a. Superbowl ads! Just kidding, we don’t advertise.
 - b. We just need to do more work, getting on Coinbase, Gemini, Grayscale, and so on
 - 1) Getting on exchanges does half the job
 - c. Focused on use cases: integrating IOTA into Smart Cities, enabling people to build smart contracts
 - d. With Chrysalis out of the gates we can push the adoption and education and awareness more. Get on some news channels—we will make that happen.
 - e. Do you have an app on the wallet like Strike by Zap
 - 1) Not too familiar with that, but I think it is a centralized payment solution, not built on the Lightning network.
23. Will digital assets be added to Chrysalis because of extra time
- a. No—we have a feature freeze to reduce risk
 - b. Digital assets is in a request for comment stage. It is implemented in GoShimmer already and could make a token exchange for tokens you make.
 - c. Once it has been tested and implemented we can think about getting onto mainnet.
24. Someone who thinks a Mana Marketplace is not good for decentralization of mana.
- a. It is a possibility, not a given. It is to provide freedom to exchange mana. It gives freedom to corporates who do not want to hold iota tokens.
 - b. We will figure out what works and what doesn’t work as we test it.
25. Question about competing with VeChain in IoT supply chain management, health care, manufacturing, food safety.
- a. I don’t know much about them and don’t want to talk bad about them.
 - b. They have built a product around their platform and are trying to get adoption for that. I don’t think we are really competing with them. We are really succeeding already in supply chain management and have great partners like Zebra technologies and Evrythng. They are utilizing IOTA in the real world and are convincing others to use IOTA
 - c. I’m not worried about other players. We are building the machine economy. It’s not just about a single use case—the machine economy is everything: smart cities, mobility, supply chain management, Industry 4.0, real estate, . . .
26. Question about running a node
- a. You don’t need to run a node to use Firefly.
 - b. If you want to run a node for fun, do it on something that is on 24/7. I would recommend Hornet over Bee, because it is more established. Bee is on Rust. We have both Rust and Go for security reasons—if there is a bug in one node implementation, it will not likely be in the other.
27. What is expected TPS after Chrysalis?
- a. Ping Murkser on Discord!
 - b. We have not done a stress test, and TPS numbers can be disingenuous. Hopefully we have more TPS with Chrysalis, but I am not putting any pressure on our engineers

and don't want to give you any false expectations. I think within a year we can do thousands of TPS.

- 1) I don't think we will need anything more than 1,000-2,000 TPS in the next year—
think of the entire Ethereum network running on 20 TPS
- c. Within 5 years we will have sharding and you will not be limited by TPS. But until then I doubt we will need more than 1,000 TPS.

C. Conclusion

1. If you have not tried Firefly, give it a try.
2. We are on a very exciting trajectory, and you can see it in the market. I don't like to talk about price on this show. I think we should stay focused on what we do best-on building. That is how we are going to create this future with IOTA as the backbone of this machine economy. We are on an exciting path to deliver.