
Multicoin Capital Management, LLC.

Entity: Name (or first name if applying as a natural person)

Multicoin Capital Management, LLC.

Entity: E-mail address

factom@multicoin.capital

Team member introductions

Kyle Samani, Managing Partner

Kyle is a serial tech entrepreneur from Austin, TX. He's a thought leader in the crypto ecosystem who is widely recognized for his unique insights. He has been programming since he was 10 years old.

Prior to founding Multicoin, Kyle founded Pristine, which built software for Google Glass for use by surgeons. Under his leadership as CEO, Pristine grew to millions in revenue and raised over \$5M in venture capital before being acquired.

Kyle holds degrees in Finance and Management from NYU Stern.

Tushar Jain, Managing Partner

Tushar is a serial tech entrepreneur from NYC. Prior to founding Multicoin, Tushar founded ePatientFinder, a healthcare IT company specializing in data science to identify patients who are eligible for clinical trials. Tushar served as the COO of ePatientFinder, leading the development of the technology platform, the data science processes, and managing the day to day operations of the company. Tushar helped raise over \$10M in venture capital for ePatientFinder and grew the company to 25 employees, over 2 million patients and hundreds of clients nationwide.

Tushar holds degrees in Finance and Political Science from NYU Stern.

Myles Snider, Associate

Myles has been involved in the blockchain space since 2014. He began doing academic research on blockchain networks while still in college, and continued writing and publishing pieces afterwards. He joined Multicoin at launch as the first employee and authored many of the research reports the company has released, including our research on Factom. He has also built open-source tools including a stablecoin data dashboard.

Tim Ogilvie, Infrastructure Partner

Tim has spent 20 years starting and operating technology companies. Most recently, Tim founded Y-Combinator-backed Think Gaming, a SaaS data platform focused on mobile games. Previously, he was founder and CEO of AdBuyer.com, an early demand side platform (sold to Mediaocean), and was a pre-launch employee at two successful consumer internet companies, Interactive Search Holdings and Pronto (both sold to IAC/InterActiveCorp). He graduated from Yale University with a B.S. in Computer Science.

Seth Riney, Infrastructure Partner

Prior to working in the blockchain space, Seth architected and implemented large-scale big data pipelines and devops systems on AWS at Paytronix, a provider of loyalty solutions, and OM1, a health outcomes and

registries company focused on the measurement and prediction of treatment outcomes. Previously, Seth was the CTO of Haystagg, a real-time ad bidding technology start-up. Seth has considerable experience consulting on cloud security and compliance in the Financial Services/Securities industry. He graduated from Yale University with a B.S. in Astronomy & Physics.

Ryan Emmick, Engineer

Ryan is a blockchain engineer with experience setting up and running nodes on multiple blockchains, including Factom. He also has extensive experience in blockchain-based data science.

Introduce your Entity/Company

Multicoin Capital is a leading thesis-driven investment fund focused exclusively on cryptoassets with more than \$50M AUM. We are long-term investors in tokens and projects that will reshape entire sectors of the global economy. We are known within the crypto community for our approach to the space which focuses on rigorous fundamental analysis based on first principles and proprietary access to the best dev teams. We conduct detailed diligence of blockchain protocols, teams and market opportunities to deliver venture capital economics with public market liquidity.

How many nodes do you envision to run on the Factom Community Testnet (or other testnets?)

2

What type of legal structure does your team use?

LLC

Will you operate as an incorporated company?

Yes

If yes to the above, where are you/will you incorporate? Are you already incorporated?

We are a domestic limited liability company registered in Texas.

Are there any major shareholders (>10%) other than the members in your application?

No

Do you and/or your team members have previous experience running a business or managing large capital? If so, make a short writeup of your experience below.

Our team has extensive experience running several businesses, as well as managing significant amounts of capital.

Kyle Samani and Tushar Jain were both successful entrepreneurs who founded companies, raised venture capital, and whose businesses were ultimately acquired. Between the two of them, their prior companies generated over \$10 million in revenue, raised more than \$15M in venture capital, and managed more than 60 employees.

Matt Shapiro has raised almost \$1 billion in institutional capital to create new companies and support management teams seeking to acquire assets and grow their businesses.

Brian Smith helped raised hundreds of millions of dollars at Bazaar Voice through its Series D fundraising and IPO.

Multicoin currently manages over \$50 million in liquid cryptoassets on behalf of some of the most prominent investors in the world, including Marc Andreessen, Chris Dixon, and David Sacks. We have developed proprietary custody solutions to secure the cryptoassets and are actively managing our investment portfolio to mitigate risk and maximize upside in volatile market conditions.

[What has your team done to ensure a proactive approach to managing the financial aspects of your business?](#)

Multicoin is a profitable, well-capitalized business with 10 employees that's generating millions of dollars in revenue. We have the financial wherewithal and management expertise to successfully manage our operations.

[Clarify your commitment to the Factom protocol? What have you brought to the table already, and what will you bring in the future?](#)

Multicoin has deep expertise and passion for the Factom protocol. We have conducted significant research on Factom and are intimately familiar with its key technologies and features. Our commitment to the protocol is not something new or driven by short-term economics. Over 7 months ago we published a comprehensive 16-page report that outlined the features and vision of the Factom protocol. That report alone has been downloaded over 1,000 times, significantly raising the awareness of the Factom protocol and its mission. Furthermore, we recently published a post that explores the innovative token design of Factom as one of the optimal ways to tie protocol usage to token value.

Multicoin has built a strong grassroots brand within the crypto community and we have the ability to leverage our network to bring awareness and exposure to the Factom protocol. We have strong expertise working with protocols and developers to launch complex protocols. We also have key relationships with potential enterprise users, as well as crypto-native liquidity providers.

Multicoin is a founding member of the Austin Blockchain Collective and is committed to helping increase the adoption of crypto more broadly.

Tushar has a goal of helping bring Factom to the clinical trials industry where he has a deep background. Just like the mortgage origination industry, clinical trials keep paper records because auditors trust paper more than databases. Tushar has had extensive conversations with several top clinical trials companies and believes that Factom can help save hundreds of millions of dollars in the new drug development process.

[What is your/your entity's motivation for applying for hosting Factom Authority servers?](#)

Multicoin believes that Factom is one of the few protocols leveraging one of the fundamental attributes of blockchain technology - namely an immutable series of records - to solve a massive, global problem: data integrity. The ethos of the community has been encouraging to witness over the last year. We would like to continue our support of the project by helping to stabilize its launch and directly contribute to the success of the network.

To that end, we'd like to help increase the liquidity for FCT. We have white-glove, institutional relationships with all the major exchanges and OTC desks. We've conducted over \$250M in trades with various counterparties. As a result, we have access to decision makers at these firms. We'd like to leverage our credibility as a Factom Authority Node operator in our discussions with them to encourage them to trade FCT.

Furthermore, as we participate in the broader capital markets, we believe we bring substantial credibility to the Factom protocol by publicizing that we're actively involved in its operations and maintenance.

What vision do you/your entity have of the future of Factom?

Multicoin wants to help make Factom the global standard for honest and transparent records on the blockchain. We believe Factom has wide-ranging applicability and the potential to fundamentally disrupt and transform many industries that suffer massive operational costs from altered, fabricated and lost documents.

What will your efficiency be with only one node?	0,400000000000000002
What will your efficiency be with two nodes?	0,400000000000000002

Node #1 Type	Virtual Private Server (VPS)
<i>Node #1 Location (VPS: Provider, Region // Other: Country, City, Datacenter)</i>	Google Cloud, US East 1, // Moncks Corner, South Carolina, USA
<i>Node #1 CPU, Number of cores</i>	4
<i>Node #1 CPU, type & clock-speed</i>	2.5 Ghz Intel Xeon Platinum 8175
<i>Node #1 RAM, amount in GB</i>	32
<i>Node #1 RAM, scalable if < 24 GB</i>	Not applicable (>= 24 GB)
<i>Node #1: Storage, RAID type</i>	We store multiple copies of the blockchain on each container. If a volume fails, we throw them out and restore from backup. This takes a little bit of time(2-10 mins, depending on chain), so we deploy redundant nodes that use different volumes to ensure f
<i>Node #1: Storage, Disk type</i>	SSD
<i>Node #1: Storage, Free Size in GB for Factom</i>	250
<i>Node #1: Storage, Do you have a separate factom volume/disks?</i>	Separate volume(s)
<i>Node #1: Connection & uplink speed (not just your NIC speed)</i>	2GB

Node #2 Type	Virtual Private Server (VPS)
<i>Node #2 Location (VPS: Provider, Region // Other: Country, City, Datacenter)</i>	Google Cloud, US Central 1, Council Bluffs, IA, USA
<i>Node #2 CPU, Number of cores</i>	4
<i>Node #2 CPU, type & clock-speed</i>	2.5 Ghz Intel Xeon Platinum 8175
<i>Node #2 RAM, amount in GB</i>	32
<i>Node #2 RAM, scalable if < 24 GB</i>	Not applicable (>= 24 GB)
<i>Node #2: Storage, RAID type</i>	We store multiple copies of the blockchain on each container. If a volume fails, we throw them out and restore from backup. This takes a little bit of time(2-10 mins, depending on chain), so we deploy redundant nodes that use different volumes to ensure f
<i>Node #2: Storage, Disk type</i>	SSD
<i>Node #2: Storage, Free Size in GB for Factom</i>	250
<i>Node #2: Storage, Do you have a separate factom volume/disks?</i>	Separate volume(s)
<i>Node #2: Connection & uplink speed (not just your NIC speed)</i>	2 GB

Add any other information relevant to server specifications and hosting, including planned availability of your maintenance team and how you would propose to handle an unscheduled restart.

All of our infrastructure is orchestrated by Kubernetes. Everything runs in containers and we don't let any container live for longer than 24 hours. Put differently, unscheduled restarts are part of routine function for us and we handle them gracefully.

We have centralized logging, monitoring, and alerting functionality. All logs go into SumoLogic and we use Prometheus & Grafana for performance monitoring. Alerts are generated on 5-6 "typical" issues, including nodes out of sync with the network or each other, hardware or network outages, et al. Those alerts are connected to webhooks that can automatically deploy fixes for routine issues. E.g. Deploy a container in a different availability zone if the current AZ is showing issues. We have 24x7 coverage to handle non-routine issues.

Which date did you join the Factom community testnet (approximate date is ok)?

3/22/2018

How does your team administer the nodes (more options possible)?

We have an in-house team responsible for development and administration of our nodes & Kubernetes manifests, with Tim & Seth principally responsible. We also have a full-time team in a separate time-zone to handle off hours support.

How many people in your team are able to operate the servers (including direct hired personnel, but excluding hired fallback companies)?

3

How many years of combined experience does your team have on running production servers?

40

Could you elaborate on the production servers your team has managed (amounts, OS-types, purpose)?

Today we run validation nodes on other blockchains including Tezos, EOS and Ethereum. 4 servers are responsible for our staging and production Kubernetes cluster, 2 servers for centralized logging and monitoring, and 12 servers handle block validation. We use auto-scaling groups in cloud providers for nodes that are publicly accessible while block production is on highly secure servers that typically use hardware signing modules. In the past, our technical team has run large-scale real-time bidding servers for the ad-technology market. This involved bidding on more than 20 billion ad impressions daily using 20+ servers.

Have you run follower nodes outside the qualified-node pool on the testnet? If so to what effect? Other contributions to the testnet?

No

Have you run any mainnet nodes? If yes, please elaborate why, and for how long

No

How are you going to make sure your nodes operate securely?

We will run two sets of guard nodes that sync with the network: one courtesy node that sits behind a load balancer and can be used by the network broadly. We will also run a backup responsible for snapshotting the chain and have the ability to scale these nodes very quickly via auto-scaling. Another guard node syncs privately with the chain in the event our primary load balancer is under DDoS attack. Guard nodes are in a VPC and go through a NAT gateway to access the internet. Authority nodes have no access to the internet. They use a VPN to connect through the VPC gateway and sync with the external nodes. We use an encrypted vault to handle all keys.

How are you going to make sure you are able to respond quickly?

Our monitoring system alerts us to common issues that face nodes very quickly. Many issues are resolved automatically, by launching a new container or other actions we have scripted in Kubernetes. If it's a new

issue, or the automatic fixes don't work, we have a dedicated team that receives alerts immediately and will respond. Our team is experienced in blockchain validator nodes, so we can typically resolve issues quickly.

Could you provide a picture on how you would see your ideal auth node infrastructure?

See attached image for a diagram of our auth node infrastructure.

Free-text. Add any additional information deemed relevant.

Add any application supporting files here

<https://drive.google.com/open?id=1c1lXFnt-G1g9VkYoqZAWA9oGQxquOGXR>