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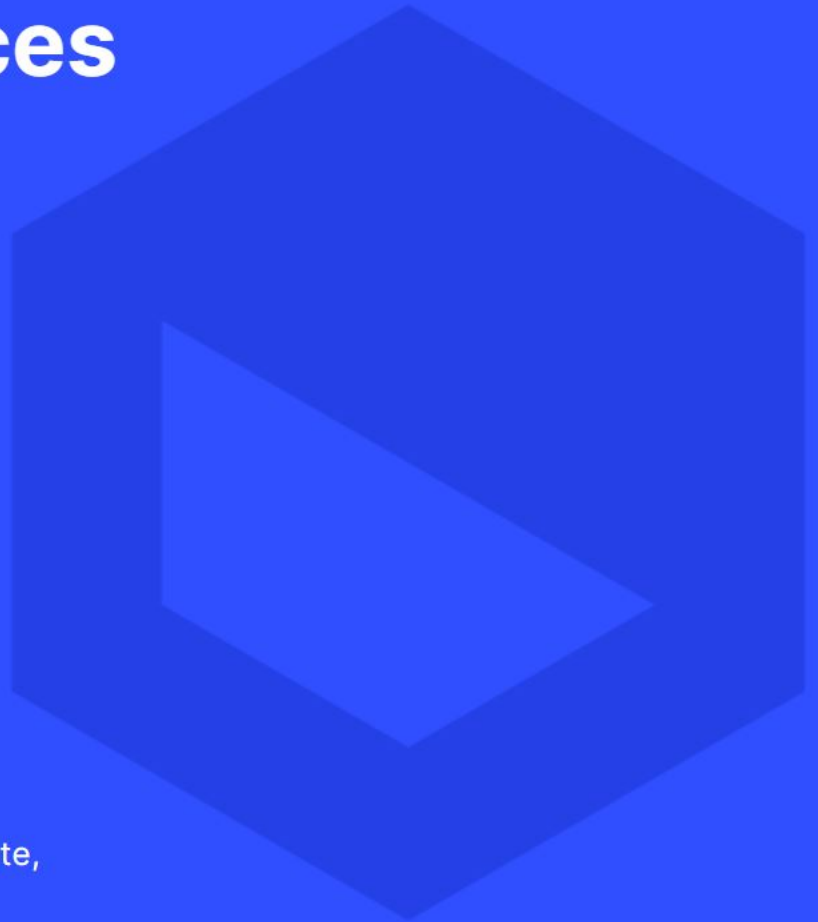
Powerful Software and Services for Crypto Mining at Scale

- TITAN POOL
- TITAN SOFTWARE
- TITAN NETWORK**

Buy, sell and trade hashpower.

We're building a smart contract protocol for provable, programmable hashrate, making global mining smarter and more efficient.

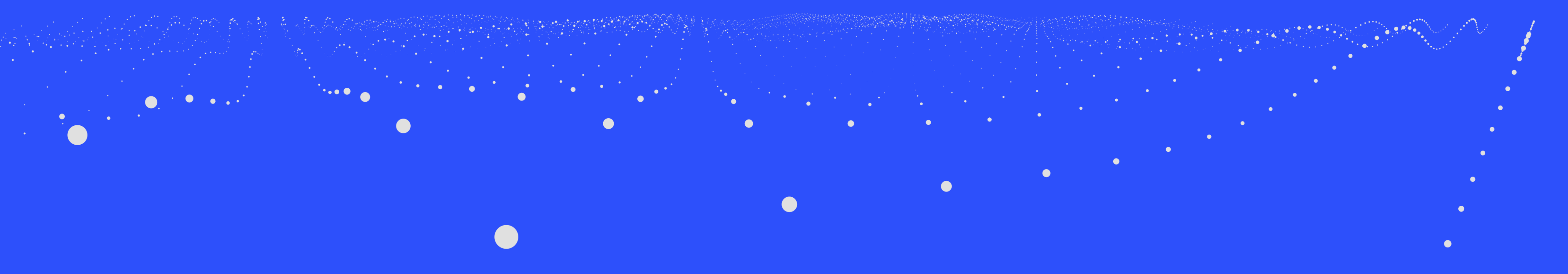
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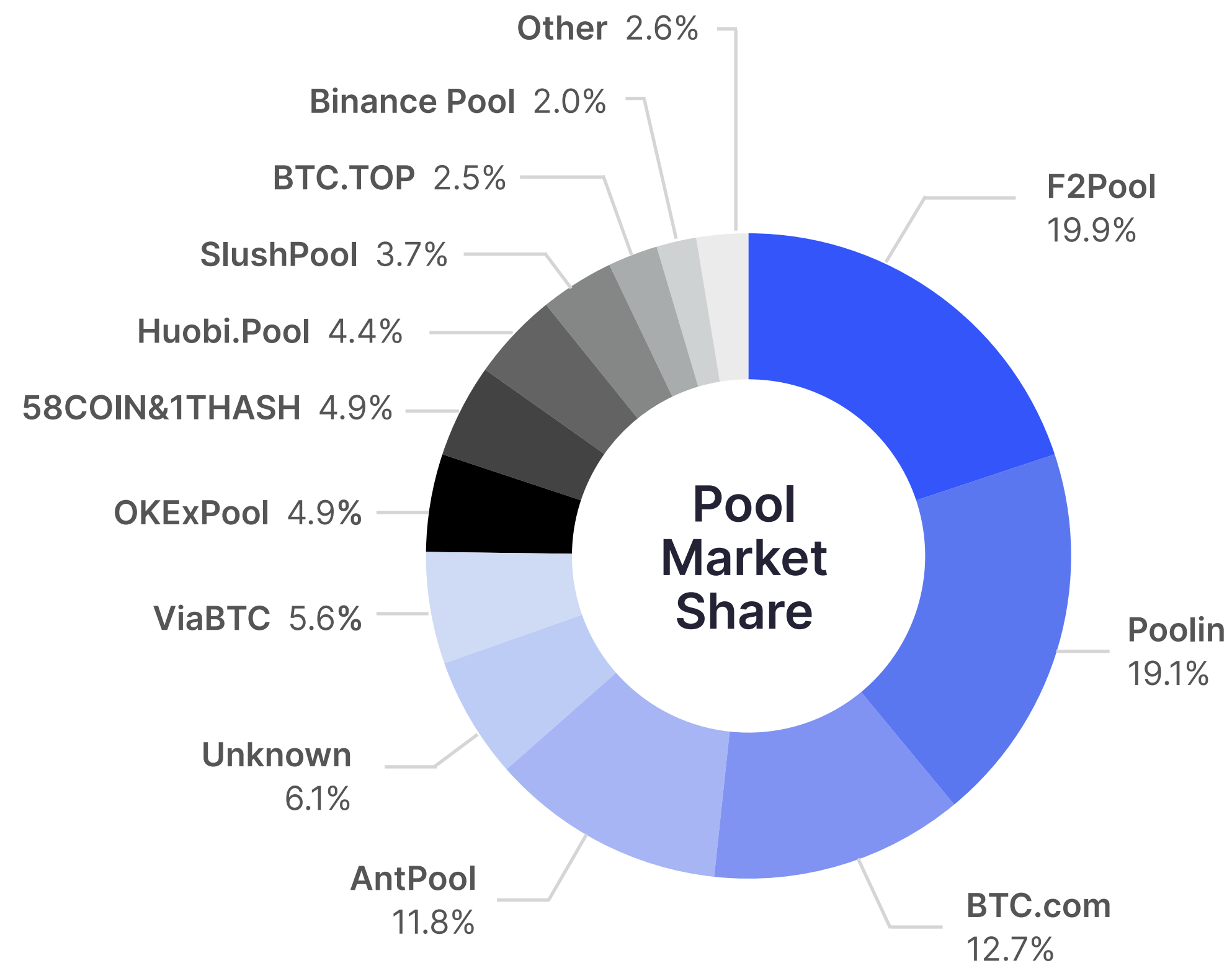
Coinbase Mining Pool
Partnership



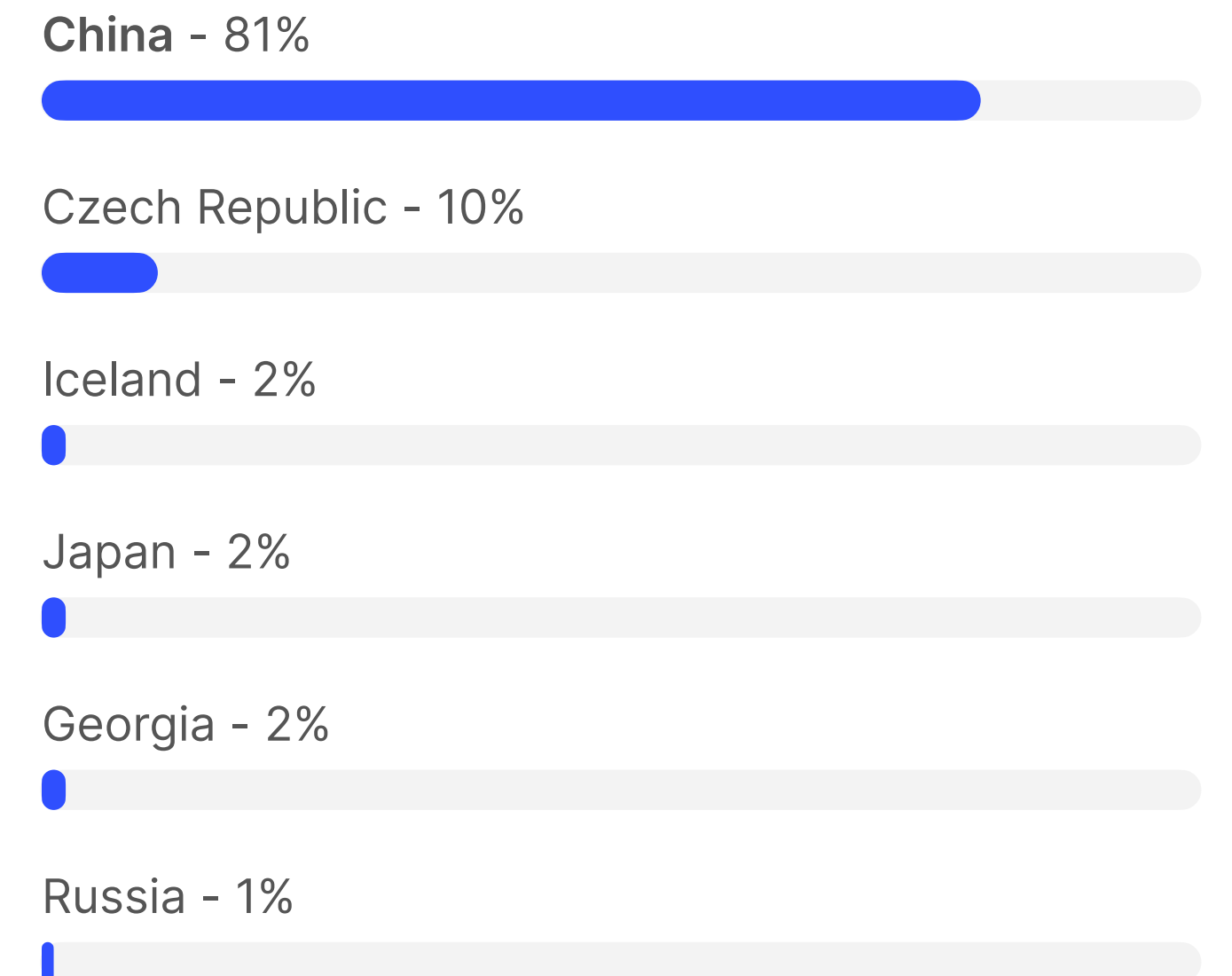
Mining Pool Industry

The mining pool industry is valued at \$6 Billion per year and predominantly based in China.

Global Annual BTC Market Size: **\$6 Billion / Year**



Pool Concentration by Geography



Problem & Opportunity

Significant opportunity to build a US-based mining pool that can benefit Coinbase via increased opportunity for custody, exchange, OTC, lending.

Problems in Mining Pools Today

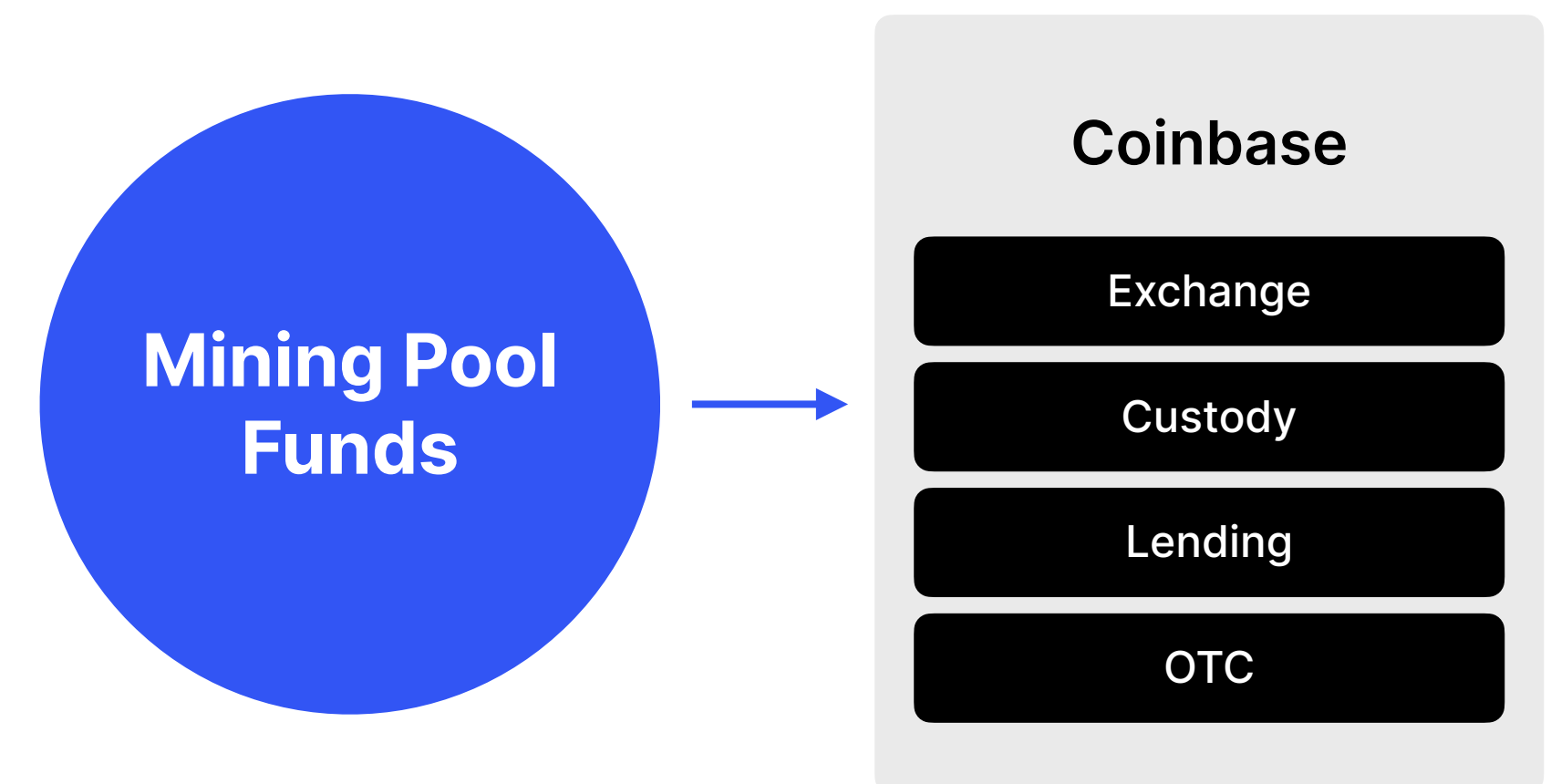
- ✗ Lack of US-centric pools
- ✗ High latency / poor reliability
- ✗ Non AML / KYC complaint tools

Opportunities

- ✓ Transparent Pool
- ✓ US-based Mining Pool
- ✓ High Frequency Mining

Why This Makes Sense for Coinbase

- Miners stay inside Coinbase ecosystem
- Miners leave funds inside Coinbase wallet
- Vertical integration & increased revenue from existing client base
- Opportunity to cross-sell and up-sell OTC, trading, custody, lending, and other value-add services
- Pool fees can be subsidized to incentivize exchange services/margin, capturing and retaining a new and significant client base.







Titan Pool





From Farm to Table

Integrated device optimization software and mining pool for Titan & Coinbase's clients

Titan Pool:

-  Lower transparent fee structure and better reliability for industrial mining firms
-  Dedicated Titan pools for transparent block rewards
-  Performance pools with low latency, local and robust connections
-  Integrated, end-to-end solution from mining device to block reward

Differentiation:

-  Dedicated pool with known participants for ultimate transparency
-  Local pools and nodes for low latency and potential for high frequency mining
-  Data with metrics to prove transparency in hash rate and payouts
-  US-based mining pool

Business Model: Pool Fee & Subscription Services

Partnership Proposal

Titan + Coinbase Partnership Model

Go-To Market Strategy

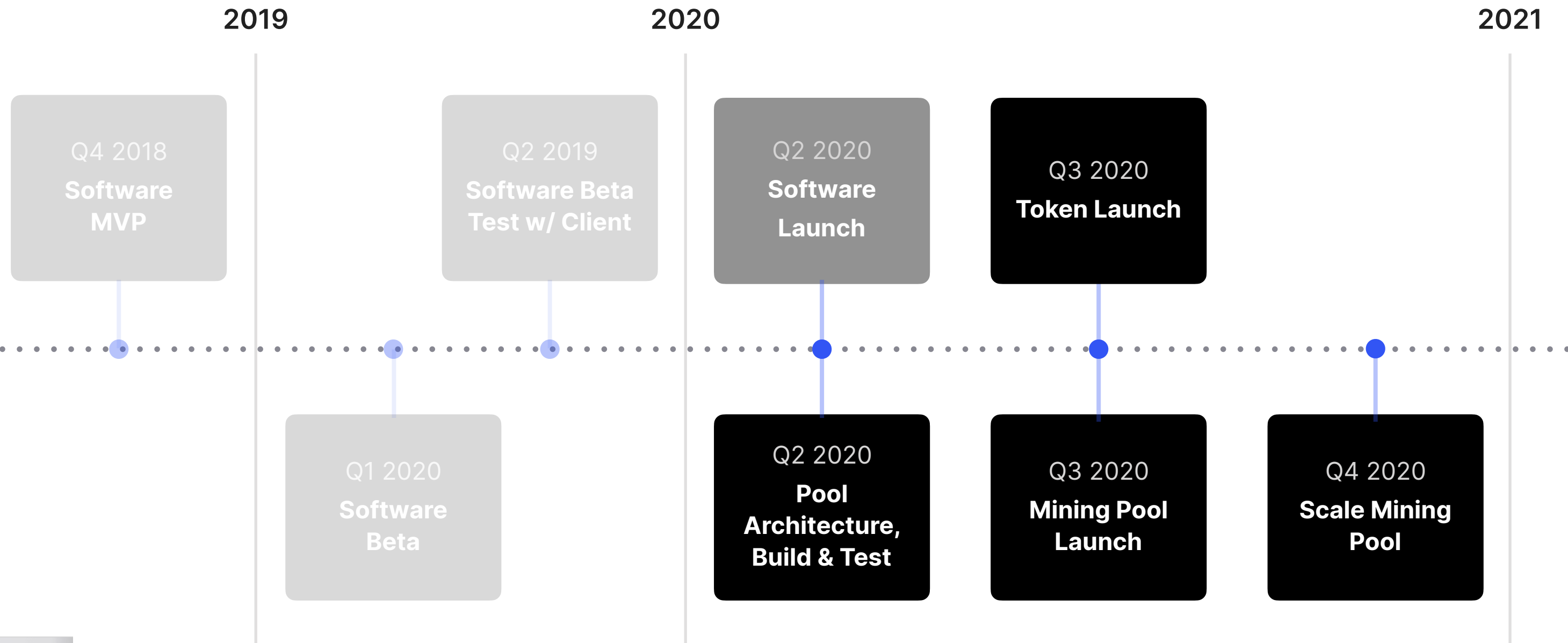
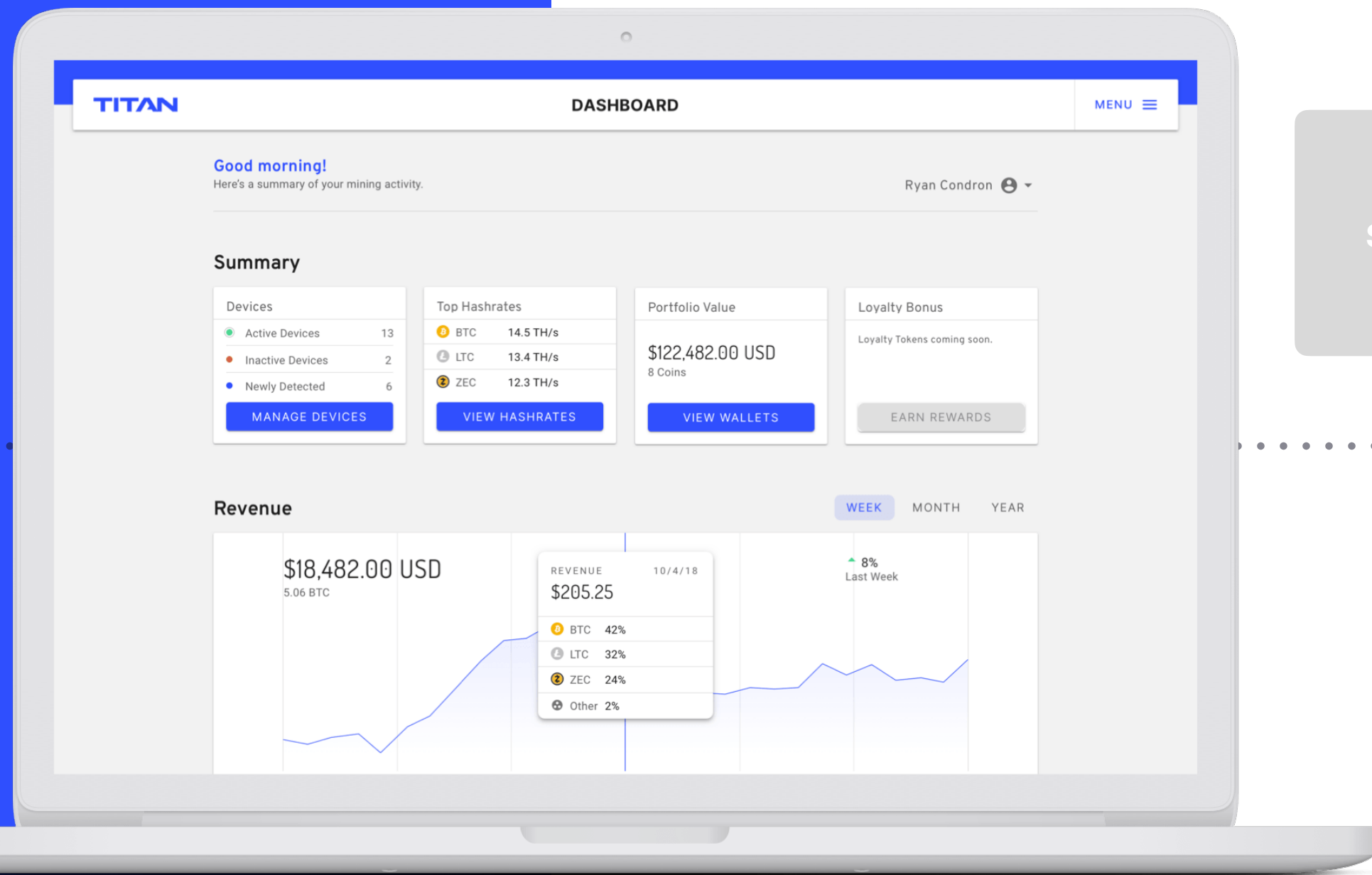
Titan Provides:

- ✓ Pool architecture and infrastructure
- ✓ Ensure security, stability, and reliability of mining pool
- ✓ Run, manage and maintain pool over time
- ✓ Customer service and support

Coinbase Provides:

- ✓ Coinbase Wallet
- ✓ Value-add Custody, Lending, and OTC services to miners
- ✓ Integration of pool into Coinbase UI
- ✓ Coinbase mining customers

Timeline



Our Expertise in Mining Pools



Ryan Condron CEO & Co-Founder

Ryan is the creator of the first mining profitability calculator Coinwarz, customize-able profit switching mining pool supporting 80+ alt-coin mining pools Poolwarz and Rigwarz in 2013 — a mining hardware comparison site. He has been a software engineer for over 15 years and, a CTO at multiple software startups and ran his own software company for over 5 years.



Jethro Grassie CTO

Jethro has over 20 years experience leading technology teams developing bespoke and mission-critical software for a range of sectors including banking at Citi and Barclays, communications at Sigfox and Verizon, healthcare, and governmental agencies. In crypto, Jethro contributed code to Monero, developed a highly-efficient mining pool implementation and created a number of related mining projects.



Sean Seymour Senior Engineer

Sean has over 10 years of experience as an software engineer. He is a senior C# .NET developer formerly working in the medical devices and online education industries. Sean is a full-stack developer and is the primary engineer on the Titan Agent and hardware interfacing.



Duncan Evans Senior Engineer

Duncan has over 18 years of experience working within many different fields of computers, technology, and software engineering. He has a focused expertise in enterprise level application architecture, full-stack development, database architecture, and end-to-end product development within financial and blockchain technologies.



Jed Bridges UX / UI Designer

Jed is the a lead designer, and has been working as a UX/ UI designer working with a variety of startups and clients to create and scale digital products eventually used by hundreds of thousands of customers. Jed has worked with fintechs, banks, and various credit unions.



Alice Lin Corporate Development

Alice leads corporate development and investor relations. She spent several years at Deloitte in Tech & Strategy consulting in payments and blockchain verticals working with institutions in financial services (RBC, TD, CIBC, Interac, HKMA), luxury hospitality (Four Seasons), and healthcare/pharmaceuticals (GlaxoSmithKline, PHAC) providing strategic, product, and operational advisory.



Matthew Roszak Co-Founder

Matthew is co-founder and chairman of Bloq, a leading blockchain enterprise software company. He is also founding partner of Tally Capital, a private investment firm focused on digital assets and blockchain-enabled technology with a portfolio of over 100 investments. Matthew also serves as chairman of the Chamber of Digital Commerce.



Jeff Garzik Co-Founder

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Pool Fee Comparison

Pool	Hashrate Share	Hashrate	Blocks Mined	Tx Fees % of Block	Pool Fee
Network	100.00%	110.71 EH/s	408	4.76%	
F2Pool	19.85%	21.98 EH/s	81	4.96%	2.5%
Poolin	19.12%	21.16 EH/s	78	4.77%	2.5%
BTC.com	12.75%	14.11 EH/s	52	4.43%	1.5%
AntPool	11.76%	13.02 EH/s	48	4.59%	2.0%
ViaBTC	5.64%	6.24 EH/s	23	4.14%	2.0%
OKExPool	4.90%	5.43 EH/s	20	3.93%	N/A
Huobi.pool	4.41%	4.88 EH/s	18	5.18%	N/A
SlushPool	3.68%	4.07 EH/s	15	4.84%	2.0%
BTC.TOP	2.45%	2.71 EH/s	10	4.62%	N/A
Binance Pool	1.96%	2.17 EH/s	8	6.80%	2.5%
SpiderPool	0.74%	814.02 PH/s	3	2.65%	N/A
Bitcoin.com	0.49%	542.68 PH/s	2	1.97%	N/A
NovaBlock	0.49%	542.68 PH/s	2	7.23%	2.5%

TITAN MINING SOFTWARE

Titan software makes mining easier and more profitable

Bring your entire mining facility online in minutes. Use powerful device management tools to save you time while Titan optimizes your performance and profitability.

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TITAN NETWORK

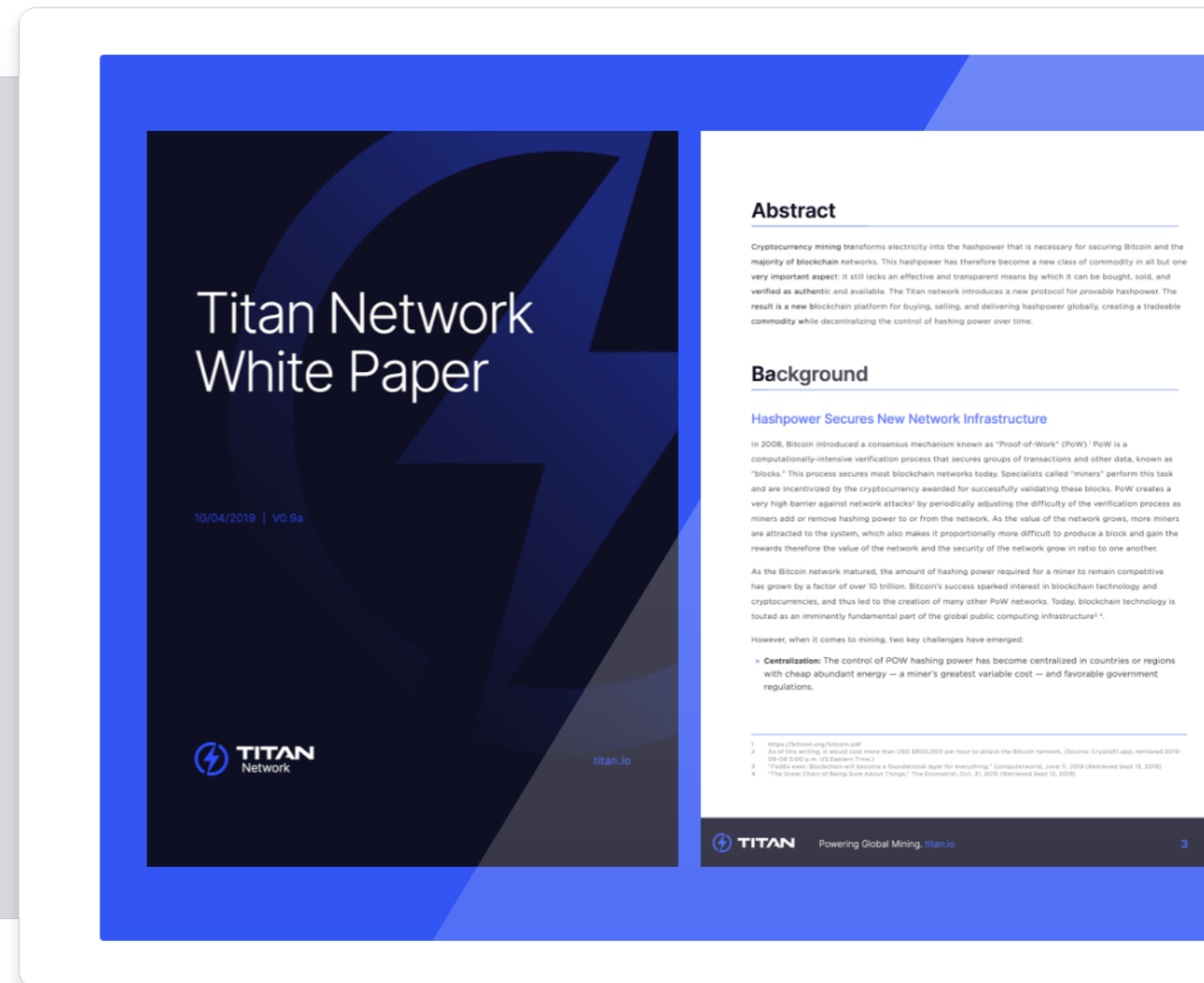
Our Vision for Global Mining

Mines that use Titan today will be the first to participate in our greater vision for the future of mining and the evolution of hashpower.

Read our Whitepaper

Tokenizing hashpower — and providing a path toward a decentralized protocol for trading it — makes it possible to put much-needed transparency into the mining marketplace. Our whitepaper on the Titan Network describes this and much more.

READ THE WHITEPAPER



Watch Our Presentation

In January 2020, Titan Co-founder and CEO Ryan Condron joined Bloq Chairman and Co-founder Matthew Roszak to discuss Titan's vision at The North American Bitcoin Conference. Hear our story directly from our founders.

Interested in learning more?

CONTACT US

Join our Social Communities:



News & Updates

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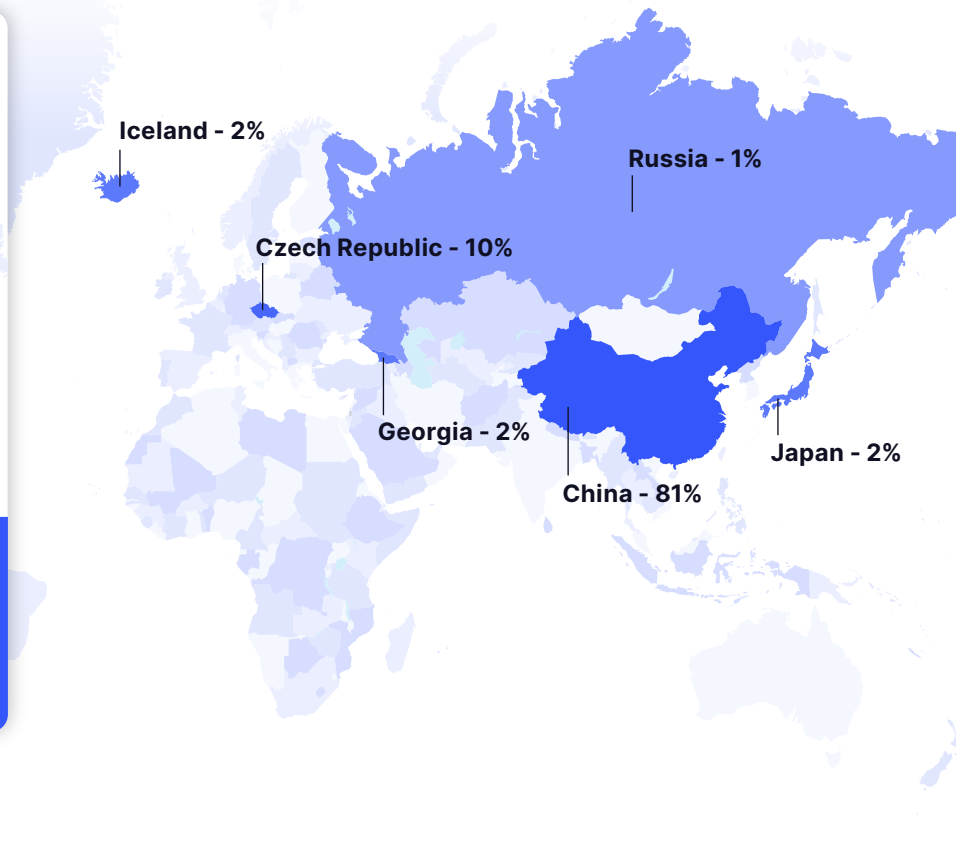
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As the global crypto economy matures and becomes more mainstream in the United States, there will be increasingly greater demand for proof-of-work (PoW) mining pools - akin to "Visa Networks" for currencies like Bitcoin - that serve as the global backbone and settlement infrastructure.

Today, 81% of mining pools are currently located in Asia. As this category matures with an increase in US-based miners, there comes a greater need for greater trust, lower latency, reduced cross-border risk, and closer proximity to infrastructure will drive demand for US-based mining pools.

Pool Concentration by Geography



Problems in Mining Pools Today

- ✗ Lack of US-Centric Pools
- ✗ High Latency / Poor Reliability
- ✗ Non AML / KYC Compliant Tools

Opportunities

- ✓ Transparent Pool
- ✓ US-Based Mining Pool
- ✓ High Frequency Mining

Vision & Objective

In partnership with North American based exchanges, mining facilities, and hardware distributors, Titan's goal is to become a compliant, US-based, top-five mining pool, targeting 10% market share in year one. We intend to dominate the US mining industry in the gap between hardware (the mining devices) and the exchanges by building an alliance of North American-based partners dedicated to furthering the PoW cryptocurrency ecosystem in the western hemisphere - a digital co-operative.

North American Pool Alliance



Exchanges



Industrial Mining Farms



Hardware Distributors

Titan's revenue model is based on capturing a percentage of the miner rewards, including the block subsidy and miner transaction fees.

Benefits

- ✓ US-Based Mining Pool
- ✓ Local Pools and nodes for low latency and potential for high frequency mining
- ✓ Data with metrics to prove transparency in hash rate and payouts
- ✓ Dedicated pool with known participants for ultimate transparency

Why Join the Alliance



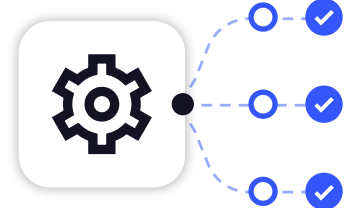
For Exchanges

The ability to produce bitcoin directly into the exchange's wallet and custody from the moment it is produced (minted) in the pool provides captive liquidity and new customers for the exchange / trading / lending products. An exchange-based pool can capture both a percentage of the miner rewards and customer acquisition for related exchange products.



For Miners

The opportunity to join a transparent, North American-based mining pool is a strong move for the ecosystem, de-risking the concentration of transaction processing from mining pools in China, and future-proofing for compliance is essential.



For Hardware Providers

The opportunity to join and become the leading provider of hardware for the enormous amount of hashrate coming on in North America over the next 6-18 months (8+EH) is substantial.

Cooperative or co-op-er-a-tive

Adjective 1) working or acting together willingly for a common purpose or benefit.

Partner Incentives

Alliance partners will pay a declining fee based on volume of hashrate contributed to the mining pool.

Partners will also receive daily Titan (TTN) loyalty token payouts based on the daily ratio of hashrate contributed.

Exchanges

Receive a proportion of daily payout pool

Miners

Receive tokens proportional to daily hashpower contribution

Hardware Providers

Affiliate token bonuses on pool and software referrals

Team Titan



Ryan Condron **Chief Executive Officer**

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Alice Lin **Strategy**

Alice leads corporate development and investor relations. She spent several years at Deloitte in Tech & Strategy consulting in payments and blockchain verticals working with institutions in financial services (RBC, TD, CIBC, Interac, HKMA), luxury hospitality (Four Seasons), and healthcare/pharmaceuticals (GlaxoSmithKline, PHAC) providing strategic, product, and operational advisory.



Phil Gomes **Marketing & Communications**

Phil's quarter-century of experience encompasses both emerging and enterprise companies on a global scale, starting with ten years in Silicon Valley focused on the semiconductor industry. At the Edelman PR firm, he guided the company's initial steps across two fundamental technology shifts – social media and blockchain. Starting with Bitmain as a flagship client, Phil ran Edelman's global blockchain center-of-excellence prior to joining Bloq.



Matthew Roszak **Co-Founder**

Matthew is co-founder and chairman of Bloq, a leading blockchain enterprise software company. He is also founding partner of Tally Capital, a private investment firm focused on digital assets and blockchain-enabled technology with a portfolio of over 100 investments. Matthew also serves as chairman of the Chamber of Digital Commerce.



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TITAN POOL

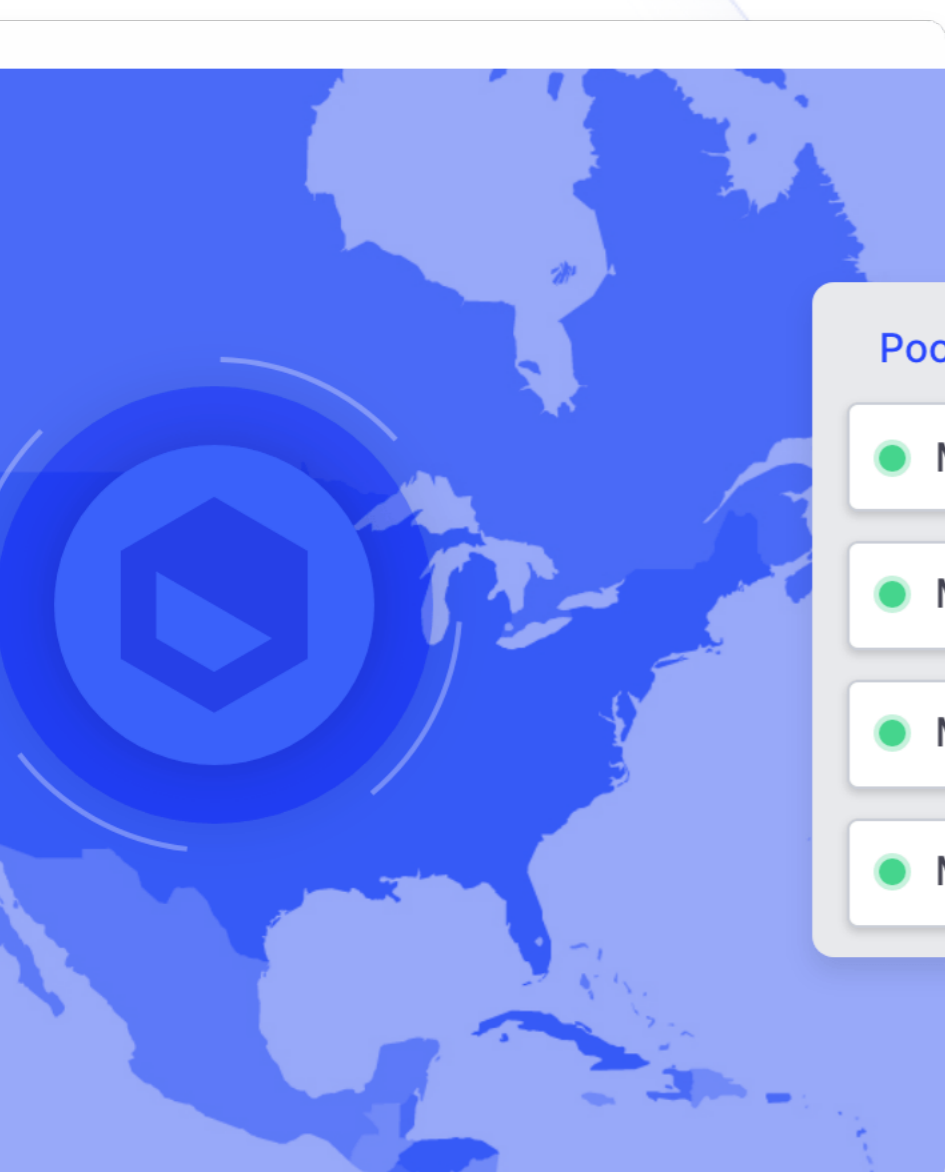
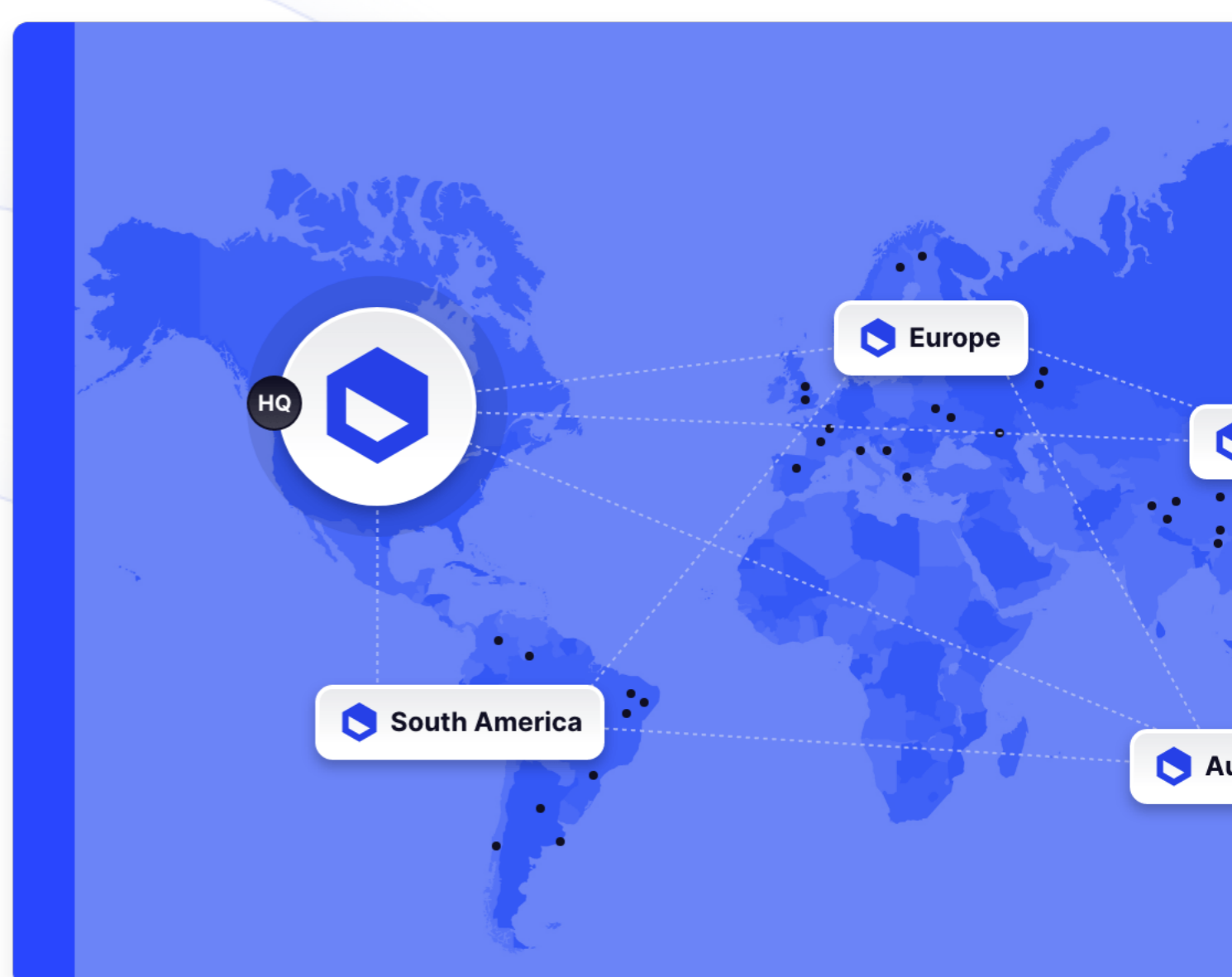
Next Generation Mining Pool

The Titan Pool offers a powerful North American alternative and a way for the continent's Bitcoin miners to achieve the efficiency and scale enjoyed by miners in other regions.



Greater Efficiency

Bitcoin miners are in a global race to submit a block before any other pool or miner once solved. Based in North America and with nodes all over the world, Titan Pool members have a greater chance of submitting and propagating solved blocks in a timely manner, increasing their chances of earning rewards.



Pool Members	
Member A	Confirmed
Member B	Confirmed
Member C	Confirmed
Member D	Confirmed



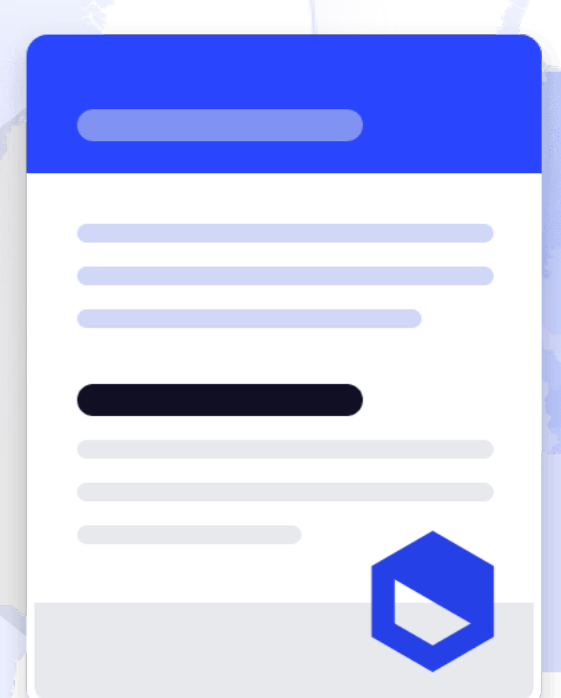
Greater Transparency

All users of the Titan Pool receive full reporting of the statistics, work share, fees, and rewards via both the pool website and an API.



Greater Simplicity

The Titan Pool reduces jurisdictional and support issues for North American miners, who previously may have entered into potentially complicated, trans-national agreements.



Interested in joining the Titan Pool?

LET US KNOW

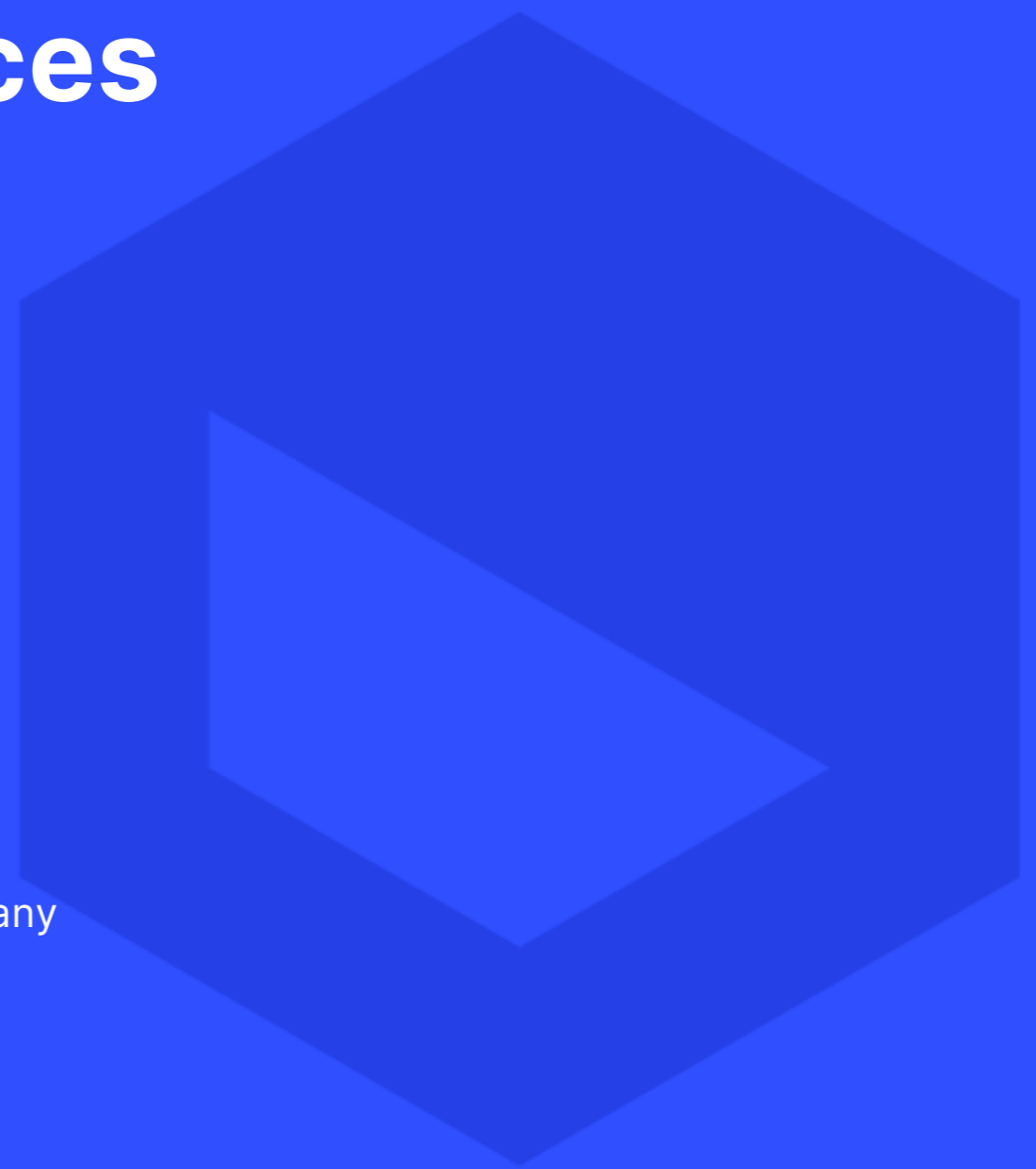
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Powerful Software and Services for Crypto Mining at Scale



TITAN POOL

TITAN SOFTWARE

Massively better mining.

Our software monitors, manages, and optimizes your mining operations at any scale.

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TITAN NETWORK

CUSTOMERS:



NEWS:



Join our Social Communities:

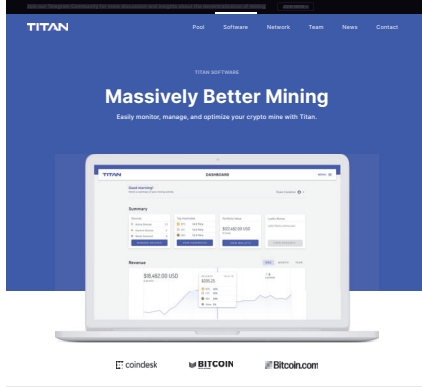


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Email Address

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Titan software makes mining easier and more profitable

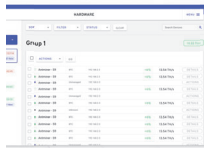
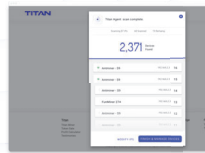
Bring your entire mining facility online in minutes. Use powerful device management tools to save you time while Titan optimizes your performance and profitability.

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Single-click Setup

Whether your mine 20 or 20,000 devices—scan your network and start mining in minutes.



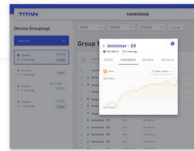
Powerful Control

Save time and money with bulk actions, device grouping, device locations, advanced filtering and reporting.



Smart Optimization

Let Titan automatically adjust your devices' parameters for maximum efficiency and profitability.



Built by miners, for miners like you.

- Optimization**
Automatically direct devices to mine for best profitability.
- Management**
Remotely command and control your devices.
- Monitoring**
Know when your devices are doing from click speed to top alert.
- Device Grouping**
Allocate your devices into groups to control them more effectively.
- Device Location**
Track and display mining hardware of thousands.
- Reporting**
Get real-time data or generate custom reports.
- Automatic Payouts**
Set up automatic daily savings withdrawal.

This is only the beginning. Titan's software is but the first step in a vision for a transparent, efficient marketplace for hashpower.

[LEARN MORE](#)

How it works

Getting started with Titan is easy—our team is ready to help.

[REQUEST BETA](#)

- Install the Titan Agent**
Download and launch the Titan Agent on any OS.
- Scan For Devices**
Use the Titan Agent to automatically detect and configure hardware on your network.
- Start Mining... Better**
Run a well-managed, optimized mine while Titan keeps your devices at top performance.

Join our Social Communities:



News & Updates

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Titan Software Features Booklet

April 2020



Massively Better Mining

Introduction

Titan is a robust, intelligent mining management software suite, hashpower marketplace, and tokenized smart contract network that not only increases the ease, efficiency, and profitability of cryptocurrency mining, but also increases the accessibility, control, and transparency of mining on a global scale.

Aimed to solve the most pressing challenges for crypto miners, Titan software focuses on automating hardware configuration and management, optimizing performance and power consumption, and maximizing profitability and hardware longevity.

Accessibility for new miners and liquidity for existing miners is solved via the Titan Marketplace which provides an intuitive platform for buying and selling short term device rentals and long term cloud hashing contracts.

With Titan, miners can rapidly scale and manage any mining operation while ensuring maximum control and profitability. Titan is built by miners for miners to make mining easy, profitable, and scalable.

Titan Software Overview



Titan Agent

Cross platform automated hardware discovery, configuration, management, monitoring, and optimization.



Titan UI

Multi-platform intuitive user interfaces on web across windows and linux - mobile and desktop are coming soon.

Product Suite



Titan Software

Plug and play mining management software with automatic hardware detection, configuration, and monitoring to optimize profitability.

1. Monitor

Real-time device stats and monitoring across network

2. Manage

Remote commands, auto configure, and controls

3. Optimize

Optimize chip clocking, temperature, fan speeds, and profitability between coins and pools

Mining Management in Minutes

Titan software makes mining more easy and profitable for institutional miners.

1. Monitor

Remotely check the status of all miners configured on the network

View **real-time stats** from devices

Devices can be managed network-wide, in groups, or individually

2. Manage

Remotely issue commands to devices in a network

Auto configure and control devices

Ping and physically identify devices; collect and share data

3. Optimize

Monitors chip clocking, temperature, and fan speeds, and **adjusts accordingly** to maintain optimal output

Profitability switching between different coins, pools, and strategies

In real time, **autonomously adjusts miners** towards the most lucrative opportunities



Titan Software - Agent

A locally run management application available for Windows and Linux that automatically discovers, configures, secures, monitors, and optimizes your locally connected mining hardware.

Core Features of Titan Agent



Optimizes mining operation balancing time, variable electricity costs, fan speeds and chip clocking



Extends profitability of existing hardware investment



Automatically switches to mine the most profitable blockchain

Titan agent runs a benchmark to obtain the unoptimized hashrate of a device, immediately followed by device-specific optimization algorithms. Managing and optimizing hashrate with Titan costs the user 1% of their mining revenue applied as a pool fee.

Statistical Data Collection

- Temperatures (Chip & PCB)
- Fan Counts & Speed
- Hashrates
- Firmware Version
- Chip Count
- Pool Connectivity



Optimization Strategies

Titan optimizes for hashrate and profitability by monitoring temperature, chip clocking, and share submission.

Benchmarking

When a device is first on-boarded into Titan and periodically thereafter the Titan Agent will run a stock benchmark on the device to determine its base stats. All clocking strategies from that point on will refer to those base stats for reference.

Fan Regulation

While most mining devices have internal fan regulators based on chip and PCB temperatures Titan can act as a secondary monitor to make sure fans are not mismanaged. In the event that the device does not regulate fan speed, Titan will provide the regulation necessary to optimize energy usage while maintaining optimal device temperatures.

Hashing Spectrum

As part of the benchmarking process but still notable enough to mention separately is the hashing spectrum analysis process. No two devices function at the same levels, because of this Titan fingerprints each device individually using a process of adjusting voltage and clock speed inputs while monitoring temperature and hashrate outputs to build a comprehensive hashing spectrum and custom performance optimization plan for each individual device.

Overclocking (coming soon)

While overclocking is known to cause a decrease in chip lifespan and provides a vector of management risk, the degree of overclocking initiated and controlled by the agent will be at or well below conservative and safe thresholds. Even with a more aggressive overclocking strategy the chip lifespan will still far exceed the relevancy of the hardware given the ever increasing difficulty of the POW networks.

Underclocking (coming soon)

While overclocking increases hashrate and energy consumption, underclocking does the opposite. During times of peak energy costs Titan can adopt an underclocking strategy to greatly reduce expensive energy consumption while still providing mining revenue.



Titan Software - User Interface

Initially launching with a web interface internally referred to as the “Cloud UI”.

Current Features of Titan UI



Overview Dashboard

- High level stats from each section of the app
- Chart showing account summary of revenue
- Recent account activity including: payouts, withdrawals, & profitability adjustments.



Hardware Page

- All devices controlled by your Titan account grouped by Agent installs
- Customize agents & device names and security settings
- List of device performance, stats, and share volume in real time
- Filter, sort, and apply bulk actions to devices



Mining Page

- All devices controlled by your Titan account grouped by hashing algorithm
- Aggregated hashrate and share submission chart for each algorithm
- List of devices currently mining that algorithm
- Device hashrate and connectivity stats



Wallets Page

- List of cryptocurrency wallets and their balances
- Withdrawal balances or setup auto withdrawal options
- Mining payouts and withdrawal history



Groups Page

- List of groups and all devices added to groups
- Customize group with user permissions, custom names, and sub wallets
- Group charts of device types and real time aggregated hashrate
- List of device performance stats
- Bulk action options



Profit Switcher Page

- Create custom profit switchers and add devices to the switchers
- Select which coins the switcher will focus on
- Select how and when the switcher will perform a switch



Report Page

- Hashrate Report
- Payout Report
- Device Health Report
- Custom reports (Coming Soon)

Upcoming Features



Infrastructure

- AWS Migration
- Mobile App
- Redis Data Migrations
- Titan Agent Hardware
- Titan Pool
- Titan Marketplace



Server & Services

- Agent / Proxy Link
- Backup Agent Pattern
- Mining Proxy
- Share Work Validation



Device Management

- Clocking Schedules
- Custom Temp Thresholds
- Custom Triggers & Macros
- Device Auto Clocking
- Device Maintenance Logs
- Fanspeed schedules
- HTTP Management
- Profit Switching
- GPU Support
- CPU Support



Reporting

- Advanced Accounting
- Custom Reports
- Customizable Charts
- Reports API
- Tax Reports



Account Controls

- 2-factor Authentication
- KYC/AML
- Sub Account Siloing

Team Titan



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