

# Startup Valuation Report

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## Executive Overview

This document presents a comprehensive valuation model for a Bitcoin security company operating an anonymous computation marketplace. The company (Mark) connects computation providers (Patrick) with clients (Charlie) through three revenue streams: platform fees from recurring computation services (28.00% take rate), one-time hardware sales for self-sovereign users, and branded merchandise that enhances brand loyalty and offsets customer acquisition costs. The model requires two funding rounds: a \$200,000 seed round for marketplace platform development, followed by a \$600,000 Series A for hardware development, projecting a path to \$6.00–7.00M valuation by Year 3.

## 1 Business Model: Two Revenue Streams + CAC Optimization

### 1.1 Revenue Stream Segmentation

- **Subscriptions:** Anonymous marketplace for recurring memory-intensive computation services
- **Hardware:** One-time purchase for technical users wanting self-sovereign security tools
- **Merchandise (CAC Offset):** Branded items (t-shirts, caps, mugs) sold at profitable margins to reduce customer acquisition costs

### 1.2 Subscription Service: Anonymous Computation Marketplace

The subscription service operates as a computation matchmaking marketplace connecting:

- **Charlie (Clients):** Users needing recurring memory-intensive computation without owning adequate hardware - anonymity critical for privacy
- **Patrick (Providers):** PC owners monetizing idle computational capacity - can operate publicly to attract clients
- **Mark (Marketplace):** Platform providing anonymous client matching, reputation system, and dispute arbitration

Key marketplace dynamics:

- Computation jobs are simple but memory-intensive, recurring weekly
- Anonymity is critical for Charlie, while Patrick can promote services openly

- Provider incentives drive viral growth as they recruit clients to increase revenue[1]
- First-mover advantage critical to build reputable user base before competitors
- Tiers differentiate by computation duration: 2, 24, 48, 168, and 336 hours

Table 1: Customer Segment Characteristics

Attribute	Subscription Users	Hardware Users
Technical Level	Low-Medium	High
Purchase Preference	Recurring	One-time
Price Sensitivity	Medium	Low
SAM Size	500,000[2, 3]	200,000[2, 3]
Merchandise Attach Rate	60.00%[4]	65.00%[4]

## 2 Enhanced Business Model with CAC Optimization

### 2.1 Subscription Pricing (Based on Computation Economics)

Table 2: Anonymous Computation Marketplace Economics

Tier	Hours	Charlie Price	Mix	Patrick Cost	Patrick GP	Mark Rev	Total Markup	Monthly Rev/User
Basic	2	1.00	35.00%	0.36	0.54	0.28	2.78x	0.35
Medium	24	18.00	40.00%	4.31	8.63	5.04	4.17x	7.20
Professional	48	42.00	15.00%	8.63	21.57	11.76	4.87x	6.30
Golden	168	210.00	9.00%	30.20	120.80	58.80	6.95x	18.90
Platinum	336	839.00	1.00%	60.40	543.59	234.92	13.89x	8.39
<b>Weighted Avg</b>			100.00%					41.14

*Note: Patrick’s costs based on 350 W @ \$0.12/kWh, 4.28 runs/month. All values in USD/month.*

### 2.2 Marketplace Economics Justification

The pricing structure reflects a progressive markup model:

- **Patrick’s Progressive Markup (2.50–10.00x):**
  - Basic (2.50x): Lower margin for short jobs to encourage provider participation
  - Professional (3.50x): Premium for 48-hour commitment reflecting provider scarcity
  - Higher tiers (5.00–10.00x): Balanced markup for long-duration jobs
- **Mark’s Platform Fee (28.00% of Charlie’s payment):** Funds anonymous matchmaking infrastructure, reputation system maintenance, dispute resolution, and first-mover advantage consolidation
- **Economic Balance:** Progressive markups ensure provider incentives align with job commitment requirements while maintaining platform sustainability

### 2.3 Hardware Portfolio

Device	Retail (USD)	Margin (%) <sup>[5]</sup>	Mix (%)	GP/unit
Entry	500	40.00	60.00	200
Professional	1,000	45.00	30.00	450
Premium	2,000	50.00	10.00	1,000
Weighted Avg GP				355

### 2.4 Merchandise Economics (CAC Offset Strategy)

Product Category	Price (USD)	Margin (%) <sup>[6]</sup>	Profit/Unit
T-shirts	25.00	50.00	12.50
Caps/Hats	20.00	45.00	9.00
Mugs	15.00	55.00	8.25
Stickers/Decals	5.00	70.00	3.50
Hoodies/Coats	45.00	40.00	18.00
Backpacks	35.00	45.00	15.75
Average basket	28.00	48.00	13.44

60.00% of subscription customers purchase merchandise, reducing effective CAC by \$8.06<sup>[4]</sup>

## 3 Multi-Channel Customer Acquisition

### 3.1 Annual Marketing Budget Allocation

Year	Budget	Base CAC	Paid Customers	Cost per Customer
Year 1	\$80,000	\$20.00	4,000	\$20
Year 2	\$120,000	\$20.00	6,000	\$20
Year 3	\$150,000	\$20.00	7,500	\$20

### 3.2 Traditional Acquisition Channels

Channel	Budget (USD)	Gross CAC <sup>[7]</sup>	Merch Offset*	Net CAC
Digital (Subs)	60,000	20.00	8.06	11.94
Content/SEO (Subs)	25,000	18.00	8.06	9.94
Events (Hardware Y2+)	15,000	60.00	8.74	51.26
Total	100,000			

\*Merchandise offset: Subs @ 60.00% × \$13.44 = \$8.06, Hardware @ 65.00% × \$13.44 = \$8.74

### 3.3 Customer Acquisition Economics

Year	Base CAC	Effective CAC (after merch)
Year 1	\$20.00	\$11.94
Year 2	\$20.00	\$11.94
Year 3	\$20.00	\$11.94

## 4 Three-Year Financial Projections

### 4.1 Revenue Projections - Exit ARR vs Actual Revenue

Revenue Metric	Year 1 (USD)	Year 2 (USD)	Year 3 (USD)
<b>Exit ARR (for valuation)</b>			
Subscription Exit ARR	552,922	1,354,658	2,330,426
Active Subs (year-end)	4,000	9,800	16,859
<b>Actual Revenue Collected</b>			
Subscription Revenue*	299,499	974,524	1,855,259
Hardware Revenue	0.00	284,000	532,500
<b>Total Actual Revenue</b>	<b>299,499</b>	<b>1,258,524</b>	<b>2,387,759</b>

*\*Actual revenue accounts for when subscribers join. New subscribers contribute average 6.50 months of revenue in their first year.*

### 4.2 Operating Expenses

Expense Category	Year 1 (USD)	Year 2 (USD)	Year 3 (USD)
Team Salaries	240,000	360,000	480,000
Infrastructure/Hosting	24,000	60,000	120,000
Payment Processing (2.9%)*	31,020	119,493	226,952
Legal/Compliance/Insurance	20,000	30,000	40,000
Marketing	80,000	120,000	150,000
<b>Total OpEx</b>	<b>395,020</b>	<b>689,493</b>	<b>1,016,952</b>

*\*Payment processing calculated on gross transaction volume. Note: We plan to incentivize Lightning Network adoption to reduce these fees.*

### 4.3 Monthly Burn Rate Analysis

Monthly Burn Breakdown	Year 1	Year 2	Year 3
Team Salaries	\$20,000	\$30,000	\$40,000
Infrastructure	\$2,000	\$5,000	\$10,000
Payment Processing	\$2,585	\$9,958	\$18,913
Legal/Compliance	\$1,667	\$2,500	\$3,333
Marketing	\$6,667	\$10,000	\$12,500
<b>Total Monthly Burn</b>	<b>\$32,918</b>	<b>\$57,458</b>	<b>\$84,746</b>
<b>Runway Analysis</b>			
After Seed (\$200k)	6 months		
After Series A (\$600k)		10 months	

### 4.4 Path to Profitability

Metric	Value
Target Breakeven	Month 16
Required Subscribers	5,330
Monthly Revenue at Breakeven	\$61,397
Monthly Burn at Breakeven	\$84,746

### 4.5 True Gross Margins

Business Line	Stated Margin	True Margin (after payment processing)
Subscriptions	95.00%	84.60%
Hardware	44.38%	41.50%

*Note: Subscription margin reflects platform model. Payment processing reduces effective margin by 10.40% of revenue.*

### 4.6 ARR vs Revenue Clarification

Metric	Year 1	Year 2	Year 3
Subscription Revenue (actual)	552,922	1,354,658	2,330,426
Exit ARR (MRR $\times$ 12)	552,922	1,354,658	2,330,426
Active Subscribers (year-end)	4,000	9,800	16,859
Mark's Monthly Rev/User	\$11.52	\$11.52	\$11.52

## 4.7 Customer Metrics

Metric	Year 1	Year 2	Year 3
New Subscribers (Paid)	4,000	6,000	7,500
Cumulative Subs (w/churn)	4,000	9,800	16,859
Hardware Customers	0.00	800	1,500
Annual Churn Rate	5.00%	4.50%	4.00%
Effective CAC (after merch)	\$12	\$12	\$12
LTV:CAC Ratio	77:1	77:1	77:1

Table 3: Three-Year Profit & Loss Summary

(USD)	Year 1	Year 2	Year 3
<b>Revenue</b>			
Subscription Revenue	299,499	974,524	1,855,259
Hardware Revenue	0.00	284,000	532,500
<b>Total Revenue</b>	299,499	1,258,524	2,387,759
<b>Operating Expenses</b>			
Team Salaries	240,000	360,000	480,000
Marketing	80,000	120,000	150,000
Infrastructure	24,000	60,000	120,000
Payment Processing	31,020	119,493	226,952
Legal/Compliance	20,000	30,000	40,000
<b>Total OpEx</b>	395,020	689,493	1,016,952
<b>Net Income (Loss)</b>	(−95,521)	569,031	1,370,807

*Path to profitability: Cash flow positive in Month 16 at 5,330 active subscribers*

## 5 Valuation Analysis

### 5.1 Multiple-Based Valuation

Component	Multiple[8, 9]	Y1 Value	Y2 Value	Y3 Value
Subscription Exit ARR	3.00x	1,658,765	4,063,974	6,991,279
Hardware Gross Profit	1.50x	0.00	426,000	798,750
<b>Total Valuation</b>		1,658,765	4,489,974	7,790,029

## 5.2 Investment Timeline and Valuation Progression

Stage	Timing	Funding	Valuation	Basis
Seed	Month 0	\$200K	\$5.50M	Market comparables*
Series A	Month 12	\$600K	\$1.50M	\$0.60M ARR × 2.80x
Target	Year 3	–	\$6.00–7.00M	\$2.30M ARR × 2.50–3.00x
Optimistic	Year 3	–	\$8.00–9.00M	Premium multiples

*\*Pre-revenue valuation based on team, TAM, and marketplace model - not formulaic*

## 5.3 Growth Metrics Supporting Valuation

- **ARR Growth Rate Y1-Y2:** 145.00%
- **ARR Growth Rate Y2-Y3:** 72.00%
- **Rule of 40 Score:** 167.00 (Growth + Gross Margin)
- **LTV:CAC Efficiency:** Strong ratio of 77:1 with merchandise offset

## 6 Unit Economics Summary

Metric	Subscriptions	Hardware
Average Revenue (Mark)	\$138/year	\$800/unit
Gross Margin <sup>[9]</sup>	95.00%	44.38%
Gross CAC	\$20.00	\$60.00
Merchandise Offset	\$8.06	\$8.74
Net CAC	\$12	\$51
LTV or Profit/Unit	\$919	\$355
LTV:CAC Ratio	77:1	7:1
Payback Period	<1.00 month	Immediate

### 6.1 Key Economic Insights

- **Subscription Economics:** High gross margins (95.00%) due to minimal direct costs for matchmaking platform
- **Hardware Economics:** Weighted average margin of 44.38% across three SKUs provides healthy unit economics
- **Merchandise Impact:** Reduces effective CAC by 40.00%, dramatically improving unit economics

- **Direct Acquisition Model:** Predictable CAC of \$20.00 per subscriber through digital channels
- **Platform Take Rate:** 28.00% platform fee balances provider incentives with platform sustainability

## 6.2 Cohort Economics

- **Customer Lifetime:** Average 7.00 years (capped at 7.00 years)
- **Churn Improvement:** From 5.00% to 4.00% annually
- **Revenue Retention:** Strong unit retention with growing revenue per user through tier upgrades

## 7 Total Addressable Market

Market Segment	Global TAM[2, 3]	Serviceable (SAM)	Target Share
Subscription Users	5,000,000	500,000	10.00% (50.00k)
Hardware Buyers	2,000,000	200,000	5.00% (10.00k)

*Note: Merchandise buyers overlap with primary segments and serve to reduce CAC*

### 7.1 Market Dynamics

- **Bitcoin Adoption:** Growing mainstream adoption drives demand for security tools
- **Self-Sovereignty Trend:** "Not your keys, not your coins" philosophy expanding market
- **Privacy Concerns:** Increasing demand for anonymous computation services
- **Underserved Market:** Limited competition in anonymous marketplace segment

### 7.2 Competitive Landscape

- **Direct Competition:** Limited due to anonymous marketplace complexity
- **Indirect Competition:** Traditional cloud computing lacks privacy features
- **Barriers to Entry:** Trust and reputation system creates moat
- **First-Mover Advantage:** Early provider network difficult to replicate

## 8 Key Investment Highlights

1. **Dual Revenue Model:** Subscription recurring revenue + high-margin hardware sales
2. **Superior Unit Economics:** LTV:CAC ratios of 77:1 (subs), 7:1 (hardware) after merchandise offset



3. **Large Combined TAM:** 700.00k potential customers across both segments
4. **Capital Efficient Growth:** Merchandise sales reduce CAC by 40.00%, improving cash flow
5. **Defensible Position:** Bitcoin-specific security focus with technical moat
6. **Brand Loyalty:** 60.00% merchandise attach rate demonstrates strong customer engagement
7. **Low Churn:** 5.00% annual churn rate demonstrates strong product-market fit
8. **Network Effects:** Anonymous marketplace gains value with more reputable participants
9. **First-Mover Advantage:** Early user base creates barrier for competitors lacking reputation history
10. **Clear Path to Profitability:** Direct customer acquisition model with predictable economics
11. **Scalable Business Model:** Platform approach enables efficient growth without linear cost increases

## 9 Funding Requirements and Use of Proceeds

### 9.1 Seed Round (Current)

Category	Amount (USD)	Purpose
Subscription Platform	50,000	Anonymous matchmaking, reputation system
Marketing & Sales	100,000	Customer acquisition for subscriptions
Working Capital	20,000	Initial merchandise inventory
Operations	30,000	Team (2.00 devs), infrastructure, compliance
<b>Total Seed Round</b>	<b>200,000</b>	<b>12.00-month runway</b>

### 9.2 Series A Requirements (Year 1)

Category	Amount (USD)	Purpose
Hardware Development <sup>[10]</sup>	250,000	Design, prototype, certifications
Manufacturing Setup	100,000	Initial production run, QA
Marketing Expansion	100,000	Hardware launch campaign
Team Growth	150,000	Engineers, support, sales
<b>Total Series A</b>	<b>600,000</b>	<b>Hardware launch</b>

### 9.3 Detailed Timeline

#### Year 0 (Months 0-12): Subscription Focus

- Month 0: Raise \$200K seed (3.50% equity), \$5.50M post-money valuation
- Months 1.00–3.00: Build anonymous matchmaking infrastructure and reputation system
- Months 4.00–6.00: Launch beta, acquire first 1,000 users
- Months 7.00–12.00: Scale marketplace, prove unit economics
- Month 13: Series A \$600K (4.00% equity), \$1.50M post-money valuation
- Valuation: \$6.00–7.00M (conservative 2.50x ARR)
- Exit valuation: \$6.00–9.00M depending on growth rate and market conditions

#### **Year 1 (Months 13-24): Hardware Development**

- Month 13: Series A \$600K (4.00% equity), \$2M post-money valuation
- Months 13.00–17.00: Hardware design and prototyping
- Months 18.00–19.00: Security certifications and testing
- Month 20: Manufacturing setup, initial production
- Month 21: Hardware launch, begin sales
- Months 21-24: Scale hardware sales to 800 units, 9,800 total subscribers
- Exit ARR: \$1.40M

#### **Year 2 (Months 25-36): Dual Revenue Growth**

- Revenue: \$1.60M (subs + hardware)
- Exit ARR: \$1.40M
- 800 hardware units sold
- 9,800 total subscribers
- Valuation: \$30–35M (conservative 2.50x ARR)

#### **Year 3+: Scale and Potential Exit**

- Revenue: \$2.90M+ across all channels
- Exit ARR: \$2.30M
- 1,500+ hardware units annually
- 16,859+ subscribers
- Exit valuation: \$35–60M depending on growth rate and market conditions

## 10 Risk Factors and Mitigation

Risk	Impact	Mitigation
Hardware development delays	Revenue push to Y3	Start with merchandise, proven designs
Higher CAC than projected	Lower growth	Merchandise cross-sell reduces effective CAC
Competitive entry	Margin pressure	First-mover advantage, network effects
Regulatory changes	Compliance costs	Conservative approach, legal reserves
Provider availability	Supply constraints	Dynamic pricing, geographic diversity

### 10.1 Technical Risks

- **Platform Scalability:** Mitigated through cloud infrastructure and modular architecture
- **Security Breaches:** Comprehensive security audits and bug bounty program
- **Hardware Manufacturing:** Partner with established manufacturers, maintain buffer inventory

### 10.2 Market Risks

- **Bitcoin Price Volatility:** Business model agnostic to BTC price, focuses on security needs
- **Regulatory Environment:** Proactive compliance strategy, legal counsel engagement
- **Competition from Big Tech:** Anonymous marketplace creates differentiation

### 10.3 Operational Risks

- **Key Person Dependency:** Build strong team, document processes
- **Provider Churn:** Competitive revenue sharing, community building
- **Customer Support Scale:** Automated systems, community support model

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