



Crypto asset risk mitigation services

January 2018

“We [insurers] are *scrambling* to figure out what insurance coverage can be provided for crypto assets”



– Consistent theme across 100+ insurance and financial services industry discussions

Executive Summary

- BlockRe will provide “**custody**” **insurance** for crypto currencies/ assets including currency exchanges, wallet providers, large financial institutions, market utilities, and traditional custodians
- Addressing **\$500B+ market**, growing rapidly
- BlockRe will be an early entrant and **go to market as an MGA** (Managing General Agency) deriving revenue from premium
- **Competitive advantage** is a unique, difficult to replicate team
 - Highly specialized, deep crypto-domain networked, and industry recognized leadership team
 - Insurance industry veterans with operational, C-suite, and startup experience
- **Seeking \$3.5M** investment to fund operations for 24 months

Team



Jared Harwayne-Gidansky, CEO

- **Bank of New York** – Helped run, lead, and build BNY's Blockchain team and explored crypto asset custody for world's largest custodian bank
- Led development of multiple Blockchain POCs
- Oversaw disruptive technology strategy and explored new revenue/business opportunities
- Drove multiple Blockchain industry initiatives for Bank of New York and represented BNY
- **Credit Suisse** Blockchain team
- **EEA** Founding Member – core member who coordinated EEA's incorporation and governance
- Cooper Union, B.Eng. Electrical Engineering (cum laude); Yale, PhD EE



Ty R. Sagalow
Chief Insurance Officer*

- Founder, **Innovation Insurance Group**
- 35+ year senior insurance executive
- **Lemonade** Founding member, Chief Insurance Officer (retired), and board member
- Led development of multiple insurance products including Y2K, (Entity Cover) D&O, Reputation, Cyber, Collectible Authenticity, and IP Collateral
- **AIG**, 25 year career spanning multiple roles including Chief Underwriting Officer, General Counsel of AIG Executive Liability (D&O, E&O), Chief Operating Officer of AIG eBusiness Risk Solutions (Cyber insurance) and President of AIG Product Development
- Former Chief Innovation Officer of **Zurich** North America and Chief Innovation Officer of **Tower Group**
- Georgetown Univ. Law (cum laude)
- * Chief Insurance Officer role upon funding



Sandro Ro
Board Member*

- Former Executive Director, Head of Digitization at **CME Group**
- Led CME Group's digital assets and blockchain/distributed ledger initiatives
- Previously Head of FX/Metals R&D
- Responsible for global development of CME Group's FX and Metals solutions for listed and cleared OTC products
- Founding Partner/COO, UWIN Corp
- Industry recognized blockchain thought leader
- 15+ years of global capital markets, derivatives and market infrastructure experience
- Yale, BA History; London Business School, MBA
- * Role upon funding



Raymond Zenkich
COO

- Founding partner, **Red Chalk Group**, a financial services and technology-oriented management consulting firm started in 2006
- President, ClearBridge LLC, insurance startup focused on full-service IP risk management
- **EEA** Member
- ABA/BAFT Blockchain Technology Working Group
- **McKinsey & Co.** and **Accenture**
- Adj. Professor, Northwestern Univ.
- Northwestern Univ., MS Ind. Engineering and Operations Research, BA Political Science, and University of Zurich



Luke Sully
Global Head of Audit & Investigations

- First Global Blockchain lead at **IBM Security**
- Formerly Director for Intelligence and Investigations at **PwC LLP** and founding member of PwC's Blockchain practice group
- Worked with public sector clients on enforcement, monitoring and investigative methodologies in crypto currencies
- Former Vice-Chairman of the UK Cyber Security Work Group at Innovate Finance, the UK's FINTECH lead organization and Board member, **Chicago Bitcoin Center**
- Regular author and speaker on the topic internationally



Gregory Hoeg
Dir., Insurance Operations

- Vice President, Insurance Practice. **J.D. Power**
- Formerly Chief Strategy and Administrative Officer of Companion P&C and SVP Senior Vice President, Group Strategy and Business Efficiency of **Willis Group Holdings**, Ltd.
- Over 30 years of experience in the insurance and reinsurance industries
- Widener University School of Law, JD; Pace University Lubin School of Business, MBA; Purdue University, BA
- * Role upon funding

Advisors



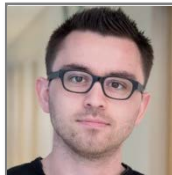
Frank Fanzilli
Board Member*

- Seasoned software veteran and advisor to early- and late-stage software companies
 - Previously held the post of Global Chief Information Officer and Managing Director at Credit Suisse First Boston (CSFB), where he grew the technology business into a \$2 billion division with operations in all major financial centers.
 - Multiple board seats including Linux Foundation and technology startups
 - Founder of nLayers, Inc., acquired by EMC in 2006
 - Director of PeopleSoft (sold to Oracle) and Avaya (sold to Silverlake/TPG)
 - Advisor to venture capital firms
 - MBA Finance NYU, BS Mgmt. Fairfield University
- * *Role upon funding*



Susan Joseph
Insurance Legal

- Advisor to insurers, InsureTech startups, and insurance consortiums regarding Blockchain applications within risk and asset management
- Assisted IBM on development of its Blockchain Identity practice
- Former GC for a specialty insurer
- Former Executive Director of ID2020 (legal identity solutions for people in third world countries)
- Former GC for RaiseWorks (fintech startup)
- Co-founder Blockchain Diversity Group (MIT)
- Pro bono advisor to UN Blockchain Working Group
- JD Pace Univ., MBA Tulane, BS Cornell



Deian Stefan
Security

- Assistant Professor in the UCSD CSE Department
- Co-Founder and Chief Scientist at Intrinsic, a web security start-up
- Worked on GPU and FPGA crypto implementations
- Security technology background with focus on browsers, language runtime systems, programming language techniques, and analysis
- Member of the W3C WebAppSec and the Node.js Security working groups,
- Ph.D. in Computer Science at Stanford; B.E. and M.E. in Electrical Engineering at the Cooper Union



Chami Akmeemana
Regulatory/Blockchain

- Director of regulatory/govt. affairs, ConsenSys
- Fintech Advisor, Ontario Securities Commission
- Managing Director, Fintech and blockchain at the Global Risk Institute
- Chairman, Blockchain Association Australia
- Faculty at Blockchain Research Institute
- Blockchain and AI Specialist
- MS Bioceramic Engineering at Queen Mary, University of London
- Board member at Humaniq, Stack, and Liberland


Opportunity

- **Custody insurance infrastructure** is a key missing component in growing \$500B+ crypto asset market
- **Incumbent insurers** lack highly specialized talent (and will continue to struggle to attract talent) needed to properly underwrite and price
- **Future adoption/growth** of crypto asset market will amplify need for custodial services and related insurance coverage

Market Overview

- **Exponentially** growing market
- Crypto currencies/assets moving **mainstream**
- Greater **adoption hindered** by lack of “industrial-grade” custody services and insurance coverage they require
- **Strong demand today** for relevant insurance
- **Greater future demand** as regulated, traditional financial institutions offer crypto asset related products

Market



\$500B+ crypto
currency market

- **0%** under custody of world's major custodians
- **100%** of major custodians are trying to change this all of whom will need insurance
- **\$1B+** estimated premium market size in 2018

BlockRe Solution

- BlockRe will be a **Managing General Agency (MGA)** deriving revenue from premium written
- **Ability to write premium today** through broker partnership
- **Highly specialized crypto and insurance team** providing “custody” insurance for crypto currency exchanges, wallet providers, large financial institutions, market utilities, traditional custodians, and other crypto asset holders
- **Crypto asset infrastructure play** longer term by providing digital asset support services

Product

We will be **writing policies** to protect against crypto currency/asset risk exposures

- Operational risk
- Compliance risk
- Credit risk
- Strategic risk
- Reputation risk

Enabled through underwriting excellence

Example Risk Exposures

Crypto assets and operations present multiple, sizeable areas of risk exposure (in line with existing, traditional custody risk exposure) that will only increase

Example custody risks that extend to crypto assets/operations¹

Operational

- Risk to earnings or capital from fraud, inadequate internal processes, human error, or systems failure

Compliance

- Risk to earnings or capital arising from nonconformance with laws, rules, regulations, prescribed practices, internal policies, or procedures

Credit

- Risk to earnings or capital arising from an obligor's failure to meet the terms of any contract with the bank or otherwise to perform as agreed

Strategic

- Risk to earnings or capital arising from adverse business decisions, improper implementation of decisions, or lack of responsiveness to industry changes

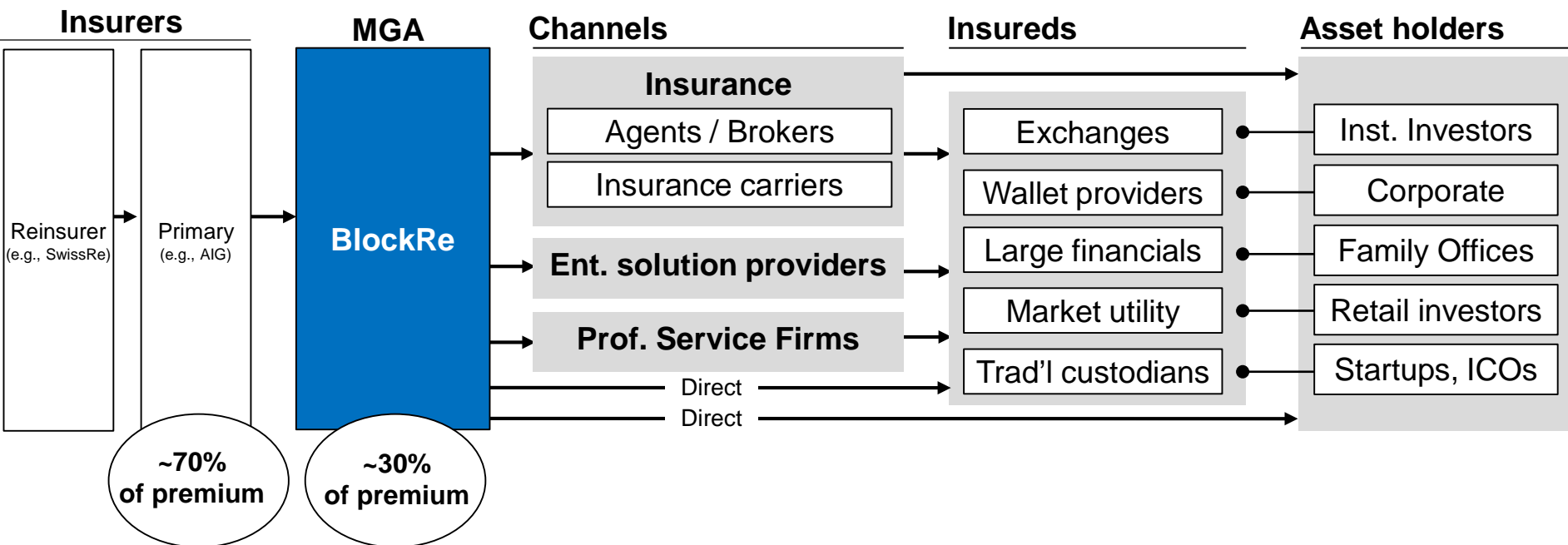
Reputation

- Impact on earnings and capital arising from negative public opinion thereby affecting ability to develop new business or servicing existing business

1. "Comptroller's Handbook", US Dept. of Treasury, Comptroller of the Currency, Administrator of National Banks, January 2002, Updated May 2012
<https://www.occ.treas.gov/publications/publications-by-type/comptrollers-handbook/custody-services/pub-ch-custody-services.pdf>

Distribution/Business Model

Traditional insurance distribution model with BlockRe MGA keeping 30% of net written premium



Competition

- Insurance Carriers
- Reinsurers
- Brokers
- Specialty Brokers
- MGAs/MGUs
- Self/No insurance

Competitive Advantage



**Early
entrant**



**Unique crypto and insurance
team, difficult to recreate**



Speed

Long Term Vision

Leverage BlockRe visibility across broader crypto market to build off of initial insurance platform into adjacent areas that will likely require specialized tools and other solutions

Expanded risk mitigation services

- Security assessment
- Remediation
- Disaster recovery
- Storage best practices
- Additional coverages (e.g., D&O)
- Threat Intel & Analysis
- Asset tracking

Compliance/Audit services

- Regulatory
- Legal
- Financial
- KYC/AML

Platform support (e.g., trading, custody, wallets)

- Selection/setup
- Configuration
- On boarding
- Integration

Market-facing services

- KYC/AML white listing
- Privacy/mixing
- Fraud activity monitoring

Financial Summary

- Seeking **\$3.5M investment** to fund operations for 24 months
- Targeting **written premium in 2018** to confirm value proposition, pricing, and carrier interest
- Projected **~70% IRR** over 5 years (in base case scenario)

Financial Model – Base Case

**~70% IRR
(5 year)**

Model components	Value	Year				
		2018	2019	2020	2021	2022
Crypto currency market size	\$	500,000,000,000	\$ 650,000,000,000	\$ 812,500,000,000	\$ 975,000,000,000	\$ 1,121,250,000,000
CC market growth rate		30%	25%	20%	15%	15%
Targeted crypto currencies*	75%	\$ 375,000,000,000	\$ 487,500,000,000	\$ 609,375,000,000	\$ 731,250,000,000	\$ 840,937,500,000
Institution/Near Inst. held**	50%	\$ 187,500,000,000	\$ 243,750,000,000	\$ 304,687,500,000	\$ 365,625,000,000	\$ 420,468,750,000
Rate on line		0.60%	0.60%	0.60%	0.60%	0.60%
Premium market size	\$	1,125,000,000	\$ 1,462,500,000	\$ 1,828,125,000	\$ 2,193,750,000	\$ 2,522,812,500
Market Adoption Rate (%)		1%	10%	15%	25%	40%
Market Adoption Rate (\$)	\$	11,250,000	\$ 146,250,000	\$ 274,218,750	\$ 548,437,500	\$ 1,009,125,000
BlockRe Market Share (%)		30%	30%	25%	20%	15%
BlockRe Market Share (\$)	\$	3,375,000	\$ 43,875,000	\$ 68,554,688	\$ 109,687,500	\$ 151,368,750
Loss Exposure (BlockRe)	\$	562,500,000	\$ 7,312,500,000	\$ 11,425,781,250	\$ 18,281,250,000	\$ 25,228,125,000
BlockRe Gross premium	\$	3,375,000	\$ 43,875,000	\$ 68,554,688	\$ 109,687,500	\$ 151,368,750
Primary carrier expense	\$	(2,446,875)	\$ (31,809,375)	\$ (49,016,602)	\$ (77,329,688)	\$ (106,714,969)
BlockRe Revenue (Commission)		27.5%	27.5%	28.5%	29.5%	29.5%
BlockRe Revenue (\$)	\$	928,125	\$ 12,065,625	\$ 19,538,086	\$ 32,357,813	\$ 44,653,781
Operating Costs (ex. commissions)	\$	(3,186,900)	\$ (5,287,550)	\$ (8,168,800)	\$ (9,639,184)	\$ (10,738,051)
Broker commission	10%	\$ (337,500)	\$ (4,387,500)	\$ (6,855,469)	\$ (10,968,750)	\$ (15,136,875)
Net	\$	(2,596,275)	\$ 2,390,575	\$ 4,513,817	\$ 11,749,879	\$ 18,778,855

* Expected basket of largest crypto currencies by valuations (e.g., BTC, ETH, XRP) currently targeted at 75% of total market

** Concentrated crypto currency holdings -- entities that would seek custody solutions and related insurance

Financial Model – Aggr. Case

**~220% IRR
(5 year)**

Change from base case

Model components	Value	Year				
		2018	2019	2020	2021	2022
Crypto currency market size	\$	500,000,000,000	\$ 900,000,000,000	\$ 1,440,000,000,000	\$ 2,160,000,000,000	\$ 3,024,000,000,000
CC market growth rate		80%	60%	50%	40%	30%
Targeted crypto currencies*	75%	\$ 375,000,000,000	\$ 675,000,000,000	\$ 1,080,000,000,000	\$ 1,620,000,000,000	\$ 2,268,000,000,000
Institution/Near Inst. held**	50%	\$ 187,500,000,000	\$ 337,500,000,000	\$ 540,000,000,000	\$ 810,000,000,000	\$ 1,134,000,000,000
Rate on line		1.20%	1.20%	1.20%	1.20%	1.20%
Premium market size	\$	2,250,000,000	\$ 4,050,000,000	\$ 6,480,000,000	\$ 9,720,000,000	\$ 13,608,000,000
Market Adoption Rate (%)		1%	10%	15%	40%	40%
Market Adoption Rate (\$)	\$	22,500,000	\$ 405,000,000	\$ 972,000,000	\$ 3,888,000,000	\$ 5,443,200,000
BlockRe Market Share (%)		30%	30%	25%	20%	15%
BlockRe Market Share (\$)	\$	6,750,000	\$ 121,500,000	\$ 243,000,000	\$ 777,600,000	\$ 816,480,000
Loss Exposure (BlockRe)	\$	562,500,000	\$ 10,125,000,000	\$ 20,250,000,000	\$ 64,800,000,000	\$ 68,040,000,000
BlockRe Gross premium	\$	6,750,000	\$ 121,500,000	\$ 243,000,000	\$ 777,600,000	\$ 816,480,000
Primary carrier expense	72.5%	\$ (4,893,750)	\$ (88,087,500)	\$ (176,175,000)	\$ (563,760,000)	\$ (591,948,000)
BlockRe Revenue (Commission)		27.5%	27.5%	28.5%	29.5%	29.5%
BlockRe Revenue (\$)	\$	1,856,250	\$ 33,412,500	\$ 69,255,000	\$ 229,392,000	\$ 240,861,600
Operating Costs (ex. commissions)	\$	(4,461,660)	\$ (7,402,570)	\$ (11,436,320)	\$ (25,525,866)	\$ (26,240,590)
Broker commission	10%	\$ (675,000)	\$ (12,150,000)	\$ (24,300,000)	\$ (77,760,000)	\$ (81,648,000)
Net	\$	(3,280,410)	\$ 13,859,930	\$ 33,518,680	\$ 126,106,134	\$ 132,973,010

* Expected basket of largest crypto currencies by valuations (e.g., BTC, ETH, XRP) currently targeted at 75% of total market

** Concentrated crypto currency holdings -- entities that would seek custody solutions and related insurance