



# **HYPER LEDGER BASED FINTECH BROKER SYSTEM**



**ASSURAXE**

# HOW DID ASSURAXE EVOLVE?

1

**MICHAEL HYMAN FOUNDED GH ASSET MANAGEMENT (GHAM) IN LONDON, UK** top-ranked global bond investment firm by Piper, Pensions and Investments and has been in the investment management industry exceeding 25 years

2

Founder **IDENTIFIED AN OPPORTUNITY TO REDUCE OPERATIONAL RISKS AND HEADCOUNT/COSTS** that plagued investment firms through system automation in the GHAM mid and back-office operations.

3

**FOUNDER DEVELOPED FOUR GENERATIONS OF THIS SYSTEM;** this initiative will be generation five

4

**THE SYSTEM PROTECTED GHAM FROM HIRING ADDITIONAL OPERATIONAL STAFF AND REDUCED HUMAN ERROR** (e.g., 'fat finger' mistakes) while gaining new investment mandates

5

Founder recognized the proprietary operational risk platform provided a significant competitive advantage in protecting the firm's profit margins and business risks, providing comfort to its institutional clients

6

Fifth generation architecture developed by Daniel Brody, a seasoned Chief Technology Officer (CTO), Using Blockchain and highly secure and scalable Azure PaaS

# WHAT IS OPERATIONAL RISK?

## **OPERATIONAL RISK**

is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. (AIMA, 2016)

# KEY INDUSTRY TRENDS AND THEIR IMPACT



+



+



=



## SINCE 2008 CREDIT CRISIS

Economic environment

&

Business dynamics



**OPERATING COSTS HAVE RISEN DRAMATICALLY**

## FINANCIAL REPRESSION



**30%** of all global government bonds have negative yields

Expected to persist for the next 10-20 years (McKinsey Report, 2016)

**COLLAPSING PROFIT MARGINS**

**LOWER INVESTOR EXPECTATIONS**

**EVERYTHING HAS CHANGED**

# WHAT FEATURES DO WE PROVIDE?

1

**AUTOMATE**  
the investment  
operations'  
factory floor

Eliminate  
paperwork



2

**BETTER  
MANAGEMENT  
OF THE  
BUSINESS  
RISKS  
AFFECTING  
the enterprise**



3

**PROTECT  
PROFIT  
MARGINS**  
for  
investment firms



4

**CONVERT  
A BACK-  
OFFICE  
VARIABLE  
COST**  
(diminishing  
marginal returns)  
**INTO A  
FIXED COST**  
(enabling  
scalability)



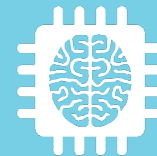
5

**MINIMIZE  
HUMAN  
ERROR  
RISK**



6

Introduce  
Blockchain and  
Artificial  
Intelligence to  
**PROTECT  
CLIENT  
MANDATE  
BREACHES**



7

**PRE-EMPT  
STAFF AND  
COUNTER-  
PARTY  
MISTAKES,**  
preventing failed  
trades



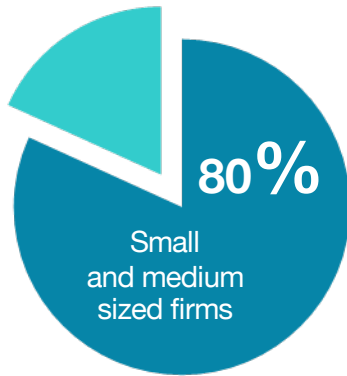
# OUR COMPETITION

PLATFORM ATTRIBUTES	COMPETITORS						
	ASSURAXE	SUNGARD	RISKMETRICS	ALGORITHMICS	MISYS	MUREX	CALYPSO
Fund Accounting		●					
Portfolio Management		●			●	●	
Performance Measurement		●				●	
Trade/Order Management		●				●	●
Risk Information/Data			●		●		
Reconciliations					●		●
Risk Management				●	●		
Regulatory Compliance		●					
Real-Time		●					
Business Risk - Automate - Value/Settle/Admin - Accounting/Derivatives /Interpretation - FX Overlay + Hedge	●						

ASSURAXE IS THE ONLY



INTEGRATOR FOR BUSINESS RISK MANAGEMENT



## OUR TARGET MARKET

TARGET SMALL FIRMS

TARGET MEDIUM-SIZED FIRMS

Assets Under Management (AUM)

Defined AUM\*  
\$500M USD to \$1B USD

Defined AUM  
\$1B USD to \$10B USD

### PRIMARY TARGET

- Family offices, asset managers, broker-dealers, insurance companies, banks, treasury operations, government and non-government public institutions.



We are targeting small and medium-sized investment management firms, as they are distressed from global financial repression and rising operational costs.

#### Small and medium firms



1,800 (Toronto)



200,000



+11,500

### MICRO TARGET

Family Offices

Small and medium sized investment firms

Bank investment departments

Investment departments of insurance companies

# OUR DISTRIBUTION STRATEGY



**POTENTIAL MARKET SIZE**  
600 thousand plus users



Representing trillions of dollars  
traded daily through aging system

## FINANCIAL DATA VENDORS

### SUBSCRIBERS

**60%** of  
the  
overall global  
market

310,000  
Bloomberg

300,000  
Thomson Reuters

Integrated system  
with Bloomberg

300,000 USERS

There are over 200,000 small and medium sized investment firms in the US alone that are facing falling profit margins from higher operating costs and reduced fees.

## CUSTODIANS



Custodian  
banks

HAVE

\$200  
TRILLION

OF ASSETS UNDER  
CUSTODIANSHIP

\*Represents nearly 100% of the 600,000 Bloomberg and Thomson Reuters subscribers



# OUR ROADMAP: GO-TO MARKET STRATEGY

GO

1

BETA TESTING

Start with initial word-of-mouth sales campaign in



Toronto

Markets

2

Integrated system with Bloomberg information systems



+310,000  
USERS

Primary targets for our initial subscription sales

Small and medium sized investment firms

Family Offices

Insurance Companies

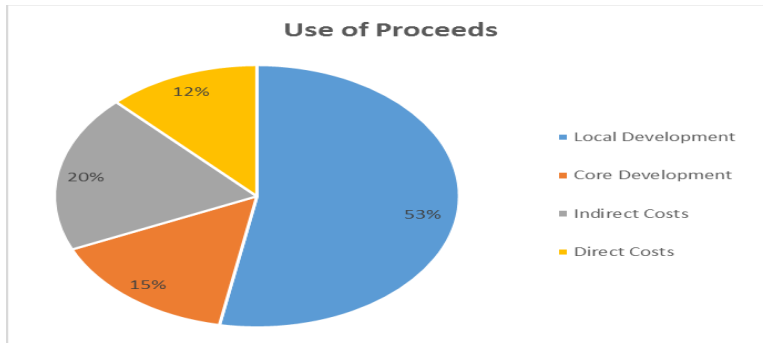
Banks

3

Our go-to-market sales strategy of the direction of the company will depend on our exit strategy

THE COMPANY WILL SEEK A POTENTIAL FUNDING IN A SERIES A ROUND IN JANUARY 2018

# USE OF PROCEEDS



## FUNDING

### USE OF FUNDS

### SEED ROUND

### SERIES "A" ROUND

Q4  
2016

DEMONSTRATION  
SYSTEM

Seed Round  
\$1.5M USD

Q2  
2017

LAUNCH BETA  
PRODUCT

Series A  
\$6M USD

Q3  
2017



RELEASE 1  
READY FOR  
MARKET



- \$225K USD Invested**
- Required: \$1.5M USD
  - 3M Shares @ 0.50 USD
  - \$50K USD per investment unit (30 units)



- \$6M for Commercialization**
- \$6M USD – multiple closings
  - Minimum Investment: \$150K USD



ASSURAXE

# Functionality Demo

# Trade Ticket



Trade Date

Settlement Date

Linked/ Unlinked Trade

Instrument/ Security Icon Drop

Client Code Name	Nominal Amount	Price	Counterparty	Custodian/ Settlement	Portfolio Manager

**<HELP>** for explanation.  
 Gray indicates prior day value

Index **BTMM**

Change Country: US TREASURY & MONEY MARKETS 16:06:42

12/5	FED FUNDS	4W	0.01	0.00	0.02	0.01	3M	2.2500	3.0000	O/N	0.15	0.05	
BID/ASK	<sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>8</sub>	3M	0.01	0.00	0.02	0.01	6M	2.7500	3.7500	1W	0.35	0.10
LST/OPEN	<sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>8</sub>	6M	0.20	0.00	0.21	0.20	1Y	2.7500	3.7500	2W	0.40	0.15
HIGH/LOW	<sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>8</sub>	1Y	0.52	0.00	0.52	0.51				1M	0.40	0.15

DJIA	8635.42	259.18	S&P 500 FUT	872.40	24.90	CCMP	1509.31	63.75				
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US BONDS YLD/BID/ASK/CHG				DEALER CP		90D EUR\$ FUT		FUNDS FUT		LIBOR FIX			
1 <sup>1</sup> / <sub>4</sub>	11/30/10	0.922	100-20	100-20+	00	15D	1.140	DEC	97.96	DEC	99.73	1W	0.91875
2	11/30/13	1.694	101-14	101-14+	00	30D	1.900	MAR	98.04	JAN	99.69	1M	1.86750
3 <sup>3</sup> / <sub>4</sub>	11/15/18	2.704	109-01	109-02	00	60D	2.440	JUN	98.04	FEB	99.67	2M	2.04063
4 <sup>1</sup> / <sub>2</sub>	05/15/38	3.125	126-09+	126-10+	00	90D	2.530	SEP	98.00	MAR	99.62	3M	2.18563
						120D	2.560	DEC	97.88	APR	99.55	4M	2.31063
						180D	2.750	MAR	97.86	MAY	99.47	5M	2.42250
												6M	2.55125
												1Y	2.69250

SPOT FOREX		CRB	208.60	-9.39	10yr Note Fut	SWAP RATES	Key Rates				
JPY	92.7450				CBT 123-01+	-1-10	3Y	2.355	Prime	4.00	
EUR	1.2724				CRUDE OIL	5Y	2.673		BLR	2.75	
GBP	1.4745				NYM WTI	40.81	-2.86	10Y	3.011	Discount	1.25
CHF	1.2189										
MXN	13.6267										
CAD	1.2690										

Date Time	Event	Survey	Actual	Prior	Revised	
12/5 8:30 US	1) Change in Nonfarm Payrolls	NOV	-335K	-533K	-240K	-320K
12/5 8:30 US	2) Unemployment Rate	NOV	6.8%	6.7%	6.5%	--
12/5 8:30 US	3) Change in Manuf. Payrolls	NOV	-100K	-85K	-90K	-104K
12/5 8:30 US	4) Average Hourly Earnings MoM	NOV	0.2%	0.4%	0.2%	0.3%

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000  
 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2008 Bloomberg Finance L.P.  
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# Trade Ticket



**Execute**

**Mandate Review**

**Trade Date**

19/9/16

**Settlement Date**

20/9/16

**Linked/ Unlinked Trade**

**Instrument/  
Security Icon Drop**

US Treasury 2.25% 8/46    Nominal Amount: \$20,00,000    Price: \$100.25    ISIN Code: 1285962

Client Code Name	Nominal Amount	Price	Counterparty	Custodian/ Settlement	Portfolio Manager













# Risk Management Report

## Portfolios Risk Report

- Leverage Limit to 3X Capital
- No securities are greater than 10% of outstanding issue
- Maximum 20% of portfolio outside G-20 countries
- No securities lower than BB+ (S&P)
- VaR amount not to exceed \$100K

## Signals

- Non-Compliant
- Compliant
- Compliant
- Compliant
- Compliant

Scenario  
Review



<b>Total Assets</b>	\$50,000,000
<b>Leverage</b>	\$151,000,000
<b>Leverage Ratio</b>	3.02
<b>VaR Limit</b>	\$100,000

## BONDS

Security	Currency	Description	Nominal	Sett. Date	Price	Total Cost	Market Price	Market Value	P&L	FX Rate	P&L (Source FX)
UST 2.25% 08/46	USD	UST 2.25% 08/46	\$20,000,000	20/09/16	94	\$18,800,000	\$95.5	\$19,100,000	\$300,000		\$300,000
UKG 0.50% 7/22	GBP	UKG 0.50% 7/22	\$10,000,000	20/9/16	99.25	\$9,925,000	\$99	\$9,900,000	-\$25,000	1.3	-\$32,500

## REPO

Repo Security	Trade Date	Buy/Sell	FX	Sett. Date	Nominal Amount	Price	Repo Rate	Market Price	P&L	FX Rate	P&L (Source FX)
Bund 0.50% 2/26	19/09/16	Buy	1.118	9/16/20	\$10,000,000	110	0	104.5	\$955,000	1.12	\$1,069,600

## FUTURES

Security	Trade Date	Number of Contracts	Price	Market Price	P&L	P&L (Source FX)
US Treasury Bond Future	16/09/16	10	166-00	167-16	15000	15000

## Foreign Exchange

Currency	Trade Date	Sett. Date	Transaction Price	Destination Amount	Destination Currency	Source Amount	Market Rate	P&L
USD/GBP	19/09/16	20/09/16	1.3	\$9,925,000	GBP	\$12,902,500	USD 1.31	\$75,763

## TOTALS

Market Value  
\$151,000,000

P&L  
\$1,276,337

# Holdings Report



Country	Asset Class	Security	Nominal Amount
USA	Fixed Income	UST 0.75% 8/18	\$10,000,000.00
		UST 1.508/26	\$12,500,000
	Equity	IBM	\$1,250,000
		Intel	\$525,000
UK	Fixed Income	UKG 1.75% 7/19	\$5,000,000
		UKG 1.50% 7/47	\$8,000,000
	Equity	Tesco	\$585,000
		BT	\$1,250,000
	FX	Aviva	\$850,000
		Hedged	\$12,500,000
		UnHedged	\$2,685,000
Germany	Fixed Income	GER 0.50% 4/19	\$10,000,000
		GER 2.50% 8/48	\$5,000,000
	FX	Hedged	\$15,500,000

# Portfolio Balances By Client / Currency



End of Day Credit/Debit Process 





# Portfolio Balances By Client / Currency

End of Day Credit/Debit Process ●

## Credit/Debit Report As Of IDate1

Transaction Number	Notes	Transaction Date	Instrument Code	Amount Closed/ Matured	Price	Closing Transaction Number	Counterparty	Capital Gains	Accrued Interest	Total Profit Credited	Total Loss Debited

## Portfolio Balances By Currency

USD

	Balance	New Balance
1. Portfolio Cost	\$50,000,000	---
2. Accrued Interest	\$5,521,000	\$5,555,325
3. Accrued Interest Money Market Fixed	-\$250,855	-\$258,321
4. Accrued Interest Bonds	\$5,470,995	\$5,297,004
5. Accrued Interest Total	\$5,560,000	\$5,568,250
6. CapitalGains Money Market Negotiable		
7. Capital Gains Bonds	\$10,250,000	\$10,250,000
8. Capital Gains Equities	\$8,322,250	\$8,452,503
9. Dividend Equities	\$1,325,000	\$1,325,000
10. Capital Gain Commodities	---	---
11. Capital Gains FX	\$325,223	\$325,223
12. Capital Gains Futures and Options	\$1,851,230	\$2,055,250
13. Capital Gains Total	\$20,748,703	\$22,407,976
14. Margin / Collateral	\$1,000,000	\$1,500,000
15. Realized P&L	\$26,308,703	\$27,976,226





## Settlements Report For [Date]

### Money Market Transactions

Transaction Number	Transaction Date	Sett. Date	Instrument Code	Instrument Name	Closing Transaction Number	Maturity Date	B/L	Nominal Amount	Transaction Rate	Counterparty	Accrued Interest To-Date	Total Market Position
20092016001	20/09/16	20/09/16	TD	Time Deposit		31/12/2016	L	\$10,000,000.00	0.40%	JPM		\$10,000,000

### Bond Transactions

Transactions													Monies Received/Paid		
Transaction Number	Transaction Date	Sett. Date	Currency	Instrument Code	Instrument Name	Closing Transaction Number	Buy/Sell	Nominal Amount	Price	Accrued Interest	GRY	Counterparty	Clean	Accrued Interest	Total
20092016002	20/09/16	21/09/16	USD	UST8/26	UST 1.50% 8/26	15082016003	Sell	\$10,000,000	97.25	\$16,500	1.65	BarCap	\$9,725,000	\$16,500	\$9,741,500
20092016003	20/09/16	21/09/16	GBP	UK7/26	UKG 1.50% 7/26		Buy	£5,000,000	105.85	£7,500	0.88	JPM	£5,292,500	£7,500	£-5,300,000

### Foreign Exchange Transactions

Transaction									
Transaction Number	Transaction Date	Sett. Date	Instrument Code	Instrument Name	Closing Transaction Number	Counterparty	Transaction Rate	Source Amount	Destination Amount
20092016004	20/09/16	21/06/16	USD/GBP	USD/GBP		NT	1.3	\$6,890,000	£5,300,000

Total USD \$9,741,500  
Total GBP -£5,300,000

Total USD 0  
Total GBP -£5,300,000

Total Balance USD \$10,256,000

## Transaction Listing On [Date]



BONDS								Transaction				
Transaction Number	Transaction Date	Closing Transaction Number	Notes	Settlement Date	Instrument Code	Instrument Name	Nominal Amount Bought	Nominal Amount Sold	Price	Accrued Interest	GRY	Counterparty
19092016002	19/9/16		Hedge 1	20/09/16	UK7/47	UKG 1.50% 7/26	£12,000,000		104.75	£32,400	1.6	SGN
19092016004	19/9/16		Basis 1	20/09/16	US826	UST 1.50%	\$10,000,000		98.2	\$15,000,000	1.7	BarCap
Futures / Options Transactions												
Transaction Number	Transaction Date	Instrument Code	Notes	Bought	Sold	Closed	Closing Transaction Number	Contract Date	Price	Counterparty		
19092016005	19/09/16	USZB	Basis 1		1000			12/16/16	166-00	BarCap		
Foreign Exchange												
Transaction Number	Destination Amount	Source Amount	Closing Transaction Number	Notes	Transaction Date	Transaction Rate	Sett. Date					
19092019003	£12,602,400	\$16,383,120		Hedge 1	19/09/16	1.3	20/9/16					

# Valuation Report For [Client]

Report Date: [Date]



Bond Valuation							Transaction				Market			Profit/Loss			
Transaction Number	Transaction Date	Sett. Date	Instrument Code	Instrument Name	Buy/Sell	Nominal Amount	Price	Accrued Interest	GRY	Counterparty	Price	Accrued Interest	GRY	Gross	Accrued Interest	Net P&L	Notes
16062016005	16/06/2016	17/06/2016	GE1020	GE 0.25% 10/20	Buy	€ 10,000,000	100.25	€ 2,500	-0.4	JPM	103.5	€ 9,000	-0.6	€ 325,000	€ 6,500	€ 331,500	H 2
17062016001	17/6/16	18/6/16	SP1026	SP 1.30% 10/26	Buy	€ 5,000,000	99.5	€ 11,700	1.2	GS	101.5	€ 22,750	1.14	€ 100,000	€ 11,050	€ 111,050	
22072016002	22/7/16	23/7/16	US846	US 2.25% 8/46	Sell	\$10,000,000	96.5	\$4,500	2.38	GS	95.5	\$33,750	2.4	\$100,000	\$29,250	\$129,250	

Basis Trade Positions							Transaction				Market			Profit/Loss		
Transaction Number	Transaction Date	Sett. Date	Instrument Code	Instrument Name	Buy/Sell	Nominal Amount	Price	Accrued Interest	GRY	Counterparty	Price	Accrued Interest	GRY	Financing Cost (as %)	P&L	Notes
18082016002	18/8/16	19/8/16	US846	US 2.25% 8/46	Sell	\$20,000,000	102	\$4,500	2.25	JPM	95.25	\$36,000	2.44	0.5	\$1,322,500	Basis 3
Transaction Number	Transaction Date	Instrument Code	Buy/Sell	Number Contracts	Contract Date	Transaction Price	Corr. GRY	Market Price	Corr. GRY	Counterparty					P&L	Notes
18082016003	18/8/16	USZ	B	210	12/16/16	165-16	2.4	163-00	2.45	JPM					-\$525,000	Basis 3
<b>Total P&amp;L</b>															\$797,500	

Foreign Exchange Positions							Transaction				Market			Profit/Loss		
Transaction Number	Transaction Date	Sett. Date	Instrument Code	Instrument Name	Transaction Rate	Destination Amount	Source Amount	Counterparty	Market Rate	Destination Amount	Source Amount	P&L Destination Amount	P&L Source Amount		P&L Source Amount	
17062016002	16/6/16	17/6/16	USD/EUR	USD/EUR	1.31	€ 4,986,700	\$3,806,641	NT	1.2	€ 4,986,700	\$4,155,583	€ 418,730			\$348,942	

### FX Hedge Position Report

Hedge #2 (ref: H2)

Transaction:	Buy US	Amount	(Destination)	Amount	(Source)											
Cash Position																

Transaction Number	Transaction Date	Sett. Date	Instrument Code	Instrument Name	Transaction Rate	Destination Amount	Source Amount	Counterparty	Market Rate	Destination Amount	Source Amount	P&L Destination Amount	P&L Source Amount			
16062016006	16/6/16	17/6/16	USD/EUR	USD/EUR	1.3	€ 10,027,500	\$7,713,461	NT	1.2	€ 10,027,500	\$8,356,250	€ 2,005,500	\$1,671,250			

### Hedge Position

Transaction Number	Transaction Date	Sett. Date	Counterparty	Destination Amount	Source Amount	Transaction Rate	Market Rate					P&L Destination	P&L Source			
16062016007	16/6/16	17/12/16	NT	€ 10,027,500	\$7,713,461	1.29	1.3		1.2	€ 10,027,500	\$7,773,255	€ 752,062	\$582,299			

<b>Annualized Hedge Efficiency: (% Of Principal)</b>	7.00%
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## Valuation Report - Totals

<b>Total Portfolio Cost</b>	\$50,000,000
<b>Collateral Allocation:</b>	\$1,000,000

<b>Total Portfolio - Unrealized P&amp;L</b>	
Capital Gains	\$2,042,593
Accrued Interest	\$46,800
Dividends	
Net	\$2,089,393

<b>Total Portfolio - Realized P&amp;L</b>	
Capital Gains	\$3,568,250
Accrued Interest	\$102,500
Dividends	
Net	\$3,670,750

<b>Total Portfolio - P&amp;L</b>	
Capital Gains	\$5,610,843
Accrued Interest	\$149,300
Dividends	
Net	\$5,760,143



# Performance Matrix

## Performance Report For [Client] on [Date]



Value Date	Days Since Portfolio Inception	Adjustments To Portfolio Costs	Current Portfolio Costs	Accrued Interest Earned As At Value Date	Capital Gains Positions Earned At Value Date	Added Value Since Start Date	Added Value Since Last Line	Total Non-Annualized ROI	Total ROI
21/9/16	240		\$50,000,000	\$149,300	\$5,610,843	\$5,760,143		12%	18%
22/9/16	241		\$50,000,000	\$25	\$10,250	\$5,770,393	\$10,275	12%	18%

## Management Fee Report

Fee Charged (bps)	Date	Client Name / Number							
100	1/1/16	Example							

Days Since Portfolio Inception	Market Value	Fees	Currency	Daily Fee	Annual Fee To Date				
241	\$55,770,393	100	USD	\$1,528	\$368,238				



ASSURAXE

Thank-you