What is the Beacon Platform?

Beacon is a cloud-based platform designed to empower developers, quants, data scientists and business users to scale technology and achieve their business goals. Beacon is the only vendor who gives clients the underlying source code, a developer platform, and infrastructure services so that clients can own the full technology stack. The Beacon platform will enable corporate innovation and fit your business needs today, tomorrow and in the future.

Our mission is to accelerate technology.

Beacon is the future-proof platform that empowers our clients to innovate and succeed.

Why Beacon?

LEGACY SOFTWARE AND INFRASTRUCTURE IS THE BIGGEST TECHNOLOGY COST.

- Typical bank spend is 80-90% BAU (Business as usual maintenance) and 10-20% Innovation.

- This is a huge disadvantage.

- Financial Institutions have purpose built systems on '90s architecture. They are unable to share code and data without enormous and risky reengineering efforts since they have to keep the lights on.

- Hard to integrate new technologies like NLP, ML, Cloud.

- Internal IT spends are disconnected from the business. Beacon connects them, reduces TCO and accelerates time to market.

Kirat Singh
CEO + FOUNDER

Mark Higgins
COO + FOUNDER

Kirat and Mark take their vast experience to create a flexible, end-to-end, cloud-based platform.

Kirat Singh starts his career at Goldman Sachs, as a core developer of SecDB.

Beacon is not another iteration of previous platforms. Beacon is the culmination of our founders life work to create the only platform your business will need.

Securities Database, known as SecDB, is developed and becomes the backbone of Goldman Sachs.

Kirat and Mark move to JPMorgan to start Athena, its cross-asset market risk, trading and quant platform.

Kirat begins at Bank of America as managing director and head of global risk systems, building the Quartz risk and trading platform.

Mark Higgins joins Goldman Sachs as a Strategist building functionality in SecDB.

1992 **1997** **2006** **2010** **2014**

Goldman Sachs

JPMorgan Chase & Co.

BANK OF AMERICA

beacon
ACCELERATE TECHNOLOGY

EMPOWERING DEVELOPERS AND BUSINESS USERS

CLIENT ECOSYSTEM

Our clients can "buy and build" - buy the powerful set of Beacon applications, and then use our developer tools to extend our functionality and build brand new tools that run along side ours.

APP STORE + PARTNERS

Beacon clients can sell modules of code to other Beacon clients; and Beacon clients can build applications for their own clients, hosted on their Beacon environment.

FRONT OFFICE SUITE

A cross-asset trading and risk management system, with end user applications and underlying suite of financial data models and analytics, built on Core. All source code is licensed as part of the integrated platform.

CORE

An end-to-end platform designed to supercharge developer productivity. With enterprise-scale elastic cloud infrastructure, a modern data warehouse, collaborative developer tools, automation services, and a robust and controlled production environment.

BEACON IS THE *ONLY PLATFORM* IN THE MARKET THAT COMBINES...

TRADING + RISK MANAGEMENT APPLICATIONS

- TRADER WORKSTATION
- ENTERPRISE RISK MANAGEMENT
- DATA ANALYTICS + DATA SCIENCE
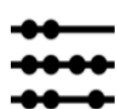
POWERFUL APPLICATIONS

+

TRANSPARENT SOURCE + DEVELOPMENT PLATFORM

- BUILD + TEST
- DEPLOY
- SUPPORT

INNOVATION + COLLABORATION

+

SOFTWARE-DEFINED INFRASTRUCTURE SERVICES

- DATA SECURITY
- DYNAMIC CLOUD INFRASTRUCTURE
- DISASTER RECOVERY

SCALABILITY, EFFICIENCY+ REDUCED COSTS

Client Solutions

INSURANCE
- VARIABLE ANNUITY HEDGING
- ELASTIC CLOUD COMPUTE
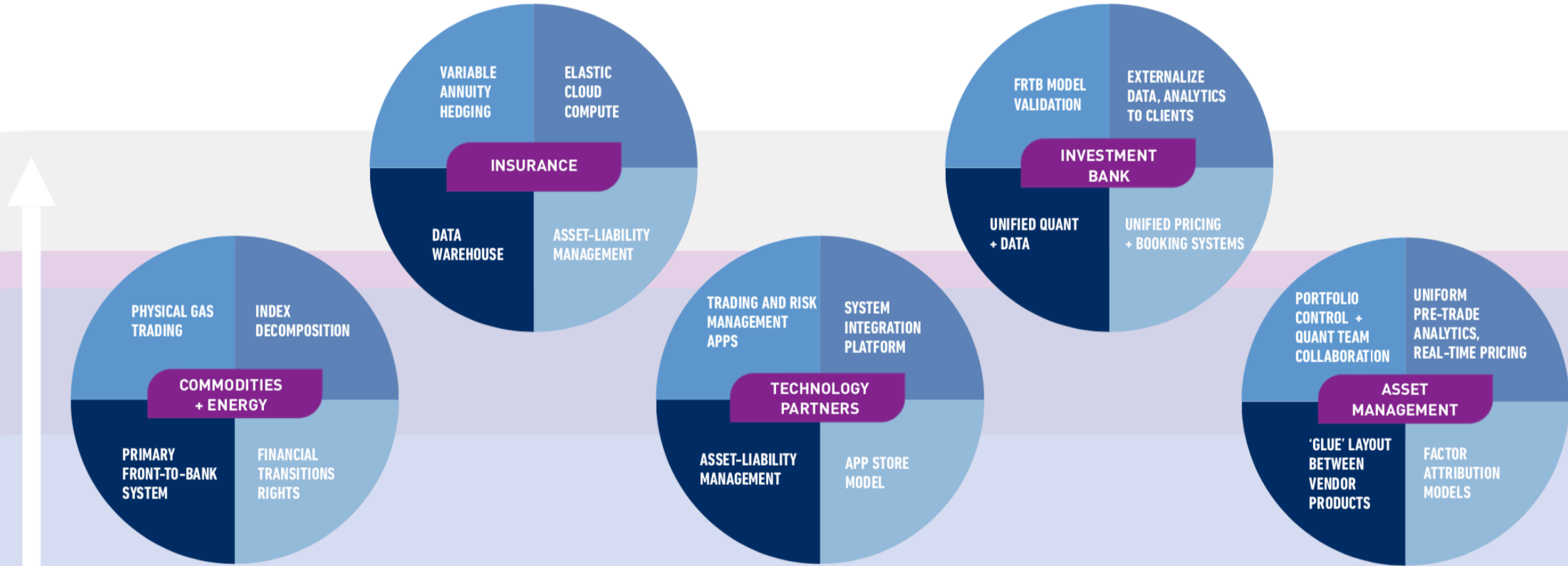- DATA WAREHOUSE
- ASSET-LIABILITY MANAGEMENT

INVESTMENT BANK
- FRTB MODEL VALIDATION
- EXTERNALIZE DATA, ANALYTICS TO CLIENTS
- UNIFIED QUANT + DATA
- UNIFIED PRICING + BOOKING SYSTEMS

COMMODITIES + ENERGY
- PHYSICAL GAS TRADING
- INDEX DECOMPOSITION
- PRIMARY FRONT-TO-BANK SYSTEM
- FINANCIAL TRANSITIONS RIGHTS

TECHNOLOGY PARTNERS
- TRADING AND RISK MANAGEMENT APPS
- SYSTEM INTEGRATION PLATFORM
- ASSET-LIABILITY MANAGEMENT
- APP STORE MODEL

ASSET MANAGEMENT
- PORTFOLIO CONTROL + QUANT TEAM COLLABORATION
- UNIFORM PRE-TRADE ANALYTICS, REAL-TIME PRICING
- 'GLUE' LAYOUT BETWEEN VENDOR PRODUCTS
- FACTOR ATTRIBUTION MODELS

CORE

BEACON CAN INTEGRATE OR REPLACE THE FUNCTIONALITY
OF COMMONLY USED VENDOR SYSTEMS AND PLATFORMS.

CLIENT ECOSYSTEM

APP STORE +
TRADING PARTNERS

SYMPHONY · salesforce · Dash · tableau SOFTWARE · openfin · plotly

FRONT OFFICE SUITE

MUREX · aladdin by BLACKROCK · FINASTRA · Moody's ANALYTICS · SAS · QRM Quantitative Risk Management · CALYPSO · FIS · openlink · eFront · FINCAD · Bloomberg · Aspect Enterprise Solutions · Allegro

CORE

amazon web services · Microsoft Azure · cloudera · Pivotal · Apache Airflow · PyCharm · TIBCO · Google Cloud · ANACONDA · HashiCorp

CASE STUDY – GLOBAL ASSET MANAGER

EMPOWERING QUANT TEAMS TO SUPPORT PORTFOLIO MANAGERS.

PROBLEM

- A global asset manager client wanted to improve its mechanism for deploying its quant teams' proprietary models, analytics, research and applications to its portfolio managers around the world.

- Improving pre-trade pricing for derivatives was a high priority.

BEACON SOLUTION

- In the first 2 weeks, Beacon spun up an instance in the cloud, integrated market data and ingested the client's proprietary quant libraries.

- The parsed market data was stored as a time series and made available for data visualization and other analytics in Beacon's Plot Tool application.

- Within 2 months, the client had a prototype of Quote Tool, a sophisticated web-based derivatives pricing application and market data viewer.

- The client's in-house quant teams then used the Beacon developer platform to extend the application by adding instruments and currencies.

BENEFITS

- Beacon provided the client with a uniform environment for pre-trade analytics and real-time pricing.

- Web-based applications give portfolio managers in regional offices the same access to pricing models and analytics used at headquarters.

- Beacon drastically shortened the quant teams' "time-to-market" for new applications, accelerating innovation.

- Faster and more efficient deployment of risk analytics will improve the implementation of investment strategies, benefitting the asset manager's clients.

CASE STUDY – GLOBAL INVESTMENT BANK

FUNDAMENTAL REVIEW OF THE TRADING BOOK.

PROBLEM

- Fundamental Review of the Trading Book (FRTB) regulations require enhanced trading and risk infrastructure to support complex computational and operational tasks.

- Like many investment banks, the client was relying on manual and ad-hoc processes, leaving a gap in FRTB preparedness.

- Acknowledging the central role of the front office in FRTB implementation, the client selected Beacon as the front office quant platform for rapid development and deployment of analytics and reporting applications.

BEACON SOLUTION

- Beacon and the client's quant team worked together to integrate real-time market data into the Beacon Core platform and trade feeds from the system of record into the Beacon Trade Blotter.

- Beacon also ingested the client's in-house quant libraries, which contained proprietary pricing models. Using Beacon's Glint application development framework, the client's quant team created tailored web-based applications for FRTB-related risk and reconciliation reporting.

- In parallel, the quant team is using the same Beacon developer platform to deliver commercially valuable tools to the trading desk, such as incremental Value-at-Risk and P&L attribution.

BENEFITS

- Implementing an enterprise-quality platform has improved the client's FRTB-related infrastructure and governance of pricing and risk models.

- Using a cloud-based platform with integrated developer tools has allowed the client to deliver tailored applications to business stakeholders quickly, including more advanced and computationally intensive analytics.

CASE STUDY – GLOBAL INVESTMENT BANK

DELIVERING BESPOKE CONTENT TO CLIENTS ON DEMAND.

PROBLEM

- An investment bank's legacy client-facing infrastructure made responding to client requests slow, manual, and onerous. Creating a bespoke report or a customized benchmark required scheduling a change to the legacy system with turnaround times of several weeks. When considering solutions, integration with OpenFin was a must.

BEACON SOLUTION

- Within a few weeks, a small team of quantitative developers used Beacon's Core platform and Glint application development framework to create a Transaction Cost Analysis application from scratch.

- Based on a sample set of market, trade, and client data, the application allowed a coverage person to download PDF reports using pre-canned scenarios or launch a Jupyter notebook for customization. The application was exposed through the web as well as OpenFin.

BENEFITS

- Centralized back end for application development.

- Users don't need to know where to get the data because it's already there.

- Users with minor pandas training could manage the workflow themselves.

- Client coverage teams can be more responsive to client requests and can create customized reports and benchmarks same day.

STREAMLINING TECHNOLOGY: BRINGING DATA AND PROCESSES TOGETHER.

PROBLEM

- Like many insurance companies, the client struggled with performing timely and accurate business-wide scenario analysis across assets and liabilities.

- With data scattered across multiple systems, manual workflows, and an over reliance on Excel, running reliable calculations was challenging and required extensive reconciliations.

- The process of stressing the entire portfolio could only be done quarterly and was prone to errors. As a result, the asset-liability management process did not allow for effective hedging or capital allocation.

BEACON SOLUTION

- Beacon first implemented a complete data warehouse solution for all of the client's liability, asset, and derivatives data, which included versioned and auditable data – both input data sources in a range of formats, and calculated results.

- Our client then used Beacon's Batch Job Scheduler to automate the calculation workflows, taking the time to generate a complete set of business analytics from quarterly to on demand.

- The total implementation time was ~9 months for the data warehouse solution and ~6 months for the workflow automation.

BENEFITS

- Beacon improved the client's asset-liability matching process, allowing for more effective capital allocation and reserves forecasts.

- Beacon gave the client's users access to large datasets (their cashflow projections) via a database.

- Beacon's open architecture allowed the client to integrate data visualization tools (Superset) for enhanced NII reports, actual vs. projected yield reports, and other business intelligence.

CASE STUDY – INSURANCE COMPANY

LEVERAGING THE POWER OF ELASTIC CLOUD COMPUTE.

PROBLEM

- An insurance company's portfolio management team was running CLO cash flow projections serially on Intex Desktop, which could take up to 8 hours.

- These time frames made active participation in the CLO market extremely challenging.

- Procuring new hardware to speed up the calculations would have required significant capital outlays and long wait times.

BEACON SOLUTION

- In 2 days, Beacon helped the client integrate the Intex data and analytics libraries into the client's cloud environment.

- The client then took advantage of Beacon's elastic cloud compute service and integrated WMP Grid Scheduler to spin up hardware on demand in the cloud and run calculations in parallel.

- Note: Beacon is cloud provider agnostic.

BENEFITS

- Beacon's elastic cloud compute solution reduced the client's calculation time from 8 hours to 3 minutes, allowing the client to actively participate in the CLO market and pursue other computationally expensive investment strategies.

- Instead of paying $200k+ for hardware and waiting for 3 months to get it delivered and configured, the client paid $5/hour and ran the calculations on-demand.