

Maximizing Developer Productivity to Generate Compelling Alternative Returns Across Global Markets



Beacon Case Study -
Cross Asset Investment Management

INTRO



“Our objective is to produce compelling positive returns across global macro and commodity markets with low correlations to relevant benchmarks.” Ben Zhu, Head Quant and CTO

Integrated Portfolio Intelligence (IPI), an alternative investment management firm composed of senior portfolio and risk managers, quantitative analysts, and technologists, was evaluating options for a technology platform to support their business. The company is applying sophisticated quantitative methods to investing in global financial markets for institutional investors. Their objective is to combine cutting-edge research, extensive asset management experience, and advanced technology to offer compelling positive returns across the entire spectrum of market regimes, with low correlations to relevant benchmarks and other fund managers.

PROBLEM



“We wanted to build and manage a comprehensive, quantitative, and completely systematic framework that was robust, efficient, and scalable.” Ben Zhu, Head Quant and CTO

IPI's opening objectives were bold: to build a comprehensive, quantitative, and systematic strategic framework for managing alternative portfolios. The team, with decades of combined experience on similar systems at some of the world's largest and most successful financial institutions, were building a 100% proprietary system entirely by themselves. However, they needed to do this with far fewer resources than are typically allocated at a large bank. A critical challenge was to maximize the team's productivity and free them from having to reinvent and rebuild the core IT infrastructure and management.

To build their strategic investment framework efficiently, IPI needed a core technology platform with an integrated development environment that also provided cloud resource management, job scheduling, and data warehousing. The breadth of their system and the global markets they needed to cover encouraged them to look for a platform that could connect and integrate the many moving parts and datasets with minimal integration effort, without creating undesired code or data silos. Three key selection criteria for the platform were:

- ▶ Battle-tested track record to assure staff and clients that the system could meet and exceed their needs
- ▶ Robustness and efficiency in both the development and production environments to maximize productivity and minimize operational costs
- ▶ Scalability to handle the complexity of their models and algorithms and the breadth of their clients' global investment portfolios

SOLUTION



“The Beacon Core system is competitive with and even superior to systems at the largest asset management firms and investment banks.” Ben Zhu, Head Quant and CTO

Based on their collective experience, IPI chose Beacon as their development and delivery platform. Their familiarity with the powerful systems available at large investment banks convinced them that Beacon was the best foundation for their business. Beacon Core provided an efficient, state-of-the-art cloud infrastructure and management tools that would have taken them years to build themselves. Operating since 2014, Beacon’s track record, customer base, and partners assured them that their needs would continue to be met. Using the popular Python language for their development made their R&D efforts efficient and readily expandable.

As they built the investment management framework, IPI’s development team found the broad range of tools and functions available from Beacon to be very valuable. Developers could draw from a variety of resources, including data warehousing, time series algorithms, and financial instrument models, providing useful alternative solutions for their in-house developments. Overall, using Beacon boosted the productivity of their development and shortened the time to develop and deploy their proprietary models and risk analytics.

As they moved from development to a production environment, the robustness and scalability of Beacon’s cloud-based platform really demonstrated their value. Computational and storage resources are immediately available when needed, delivering the responsiveness and returns that they need for even their most complex analytics. These resources are also quickly released when no longer needed, minimizing capital IT costs and keeping operating expenses in line with revenue.

RESULTS



“We have a long term relationship with Beacon, and their platform provides important continuity to our business. These solutions are highly valued by existing and potential institutional investors from an operational perspective, effectively placing IPI in comparable standing to larger and more established firms.” Nick Vasserman, Founder & CIO

Even though they had fewer resources than would have been allocated at a large bank, within 6 months they were able to bring the initial phase to a production environment. The firm’s relationship with Beacon and experience with the technology is providing an additional boost—greater value and credibility with existing and potential investors. They often find that they are placed in comparable standing to larger, more established firms that have built in-house systems more gradually.

Going forward, IPI now has a global R&D program, made up of multiple in-house and joint-venture projects. They are actively growing their developer team and continue to rely on Beacon as the foundation to develop and deploy their innovative proprietary models and risk analytics.