

## CASE STUDY

### PROSHARE ADVISORS: INVESTMENT BOOK OF RECORD SYSTEM (“IBOR”) IMPLEMENTATION

WINNER OF CELENT MODEL ASSET MANAGER 2018  
AWARD FOR CORE TRANSFORMATION

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## CASE STUDY AT A GLANCE

FINANCIAL INSTITUTION	ProShare Advisors
INITIATIVE	Investment Book of Record System (IBOR) Implementation
SYNOPSIS	The implementation of an Investment Book of Record System (IBOR) is a critical component of the infrastructure of ProShares' organization. The goals of their IBOR system were to provide the organization and its operations with the ability to increase efficiencies, reduce risks, and extend the operational capacity of the firm. A successful portfolio management platform will require the following key features: an IBOR platform, clear segregation of duties between portfolio management and portfolio operations, industry standard processes, and strong reconciliation capabilities. This transformational project addressed all three goals of increasing efficiency, reducing risk, and extending the operational capacity.
TIMELINES	12 months to configure systems and set up new data and operational procedures.  4 to 6 additional months to onboard 250+ funds (130+ ETFs and 120+ mutual funds).  Project duration was approximately 16 months. Kickoff in January 2016 and all funds onboarded by April 2017.
KEY BENEFITS	The solution consolidates operational tasks, reduces operational workloads, and implements more detailed reconciliations with ProShares' Fund Accounting groups for more thorough daily closeout processes to ensure accuracy of NAVs.

Source: ProShares

## CELENT PERSPECTIVE

- According to *Pensions and Investments* and *Bloomberg*, passive market index strategies continue to dominate net in-flow growth across collective funds, mutual funds, and ETFs. In 2017 net-inflows for passive funds were approximately US\$6 billion, moving total passive assets under management (AuM) to \$5.5 trillion, a third of all investable assets under management.
- Asset owners have been adjusting asset allocation to achieve investment goals at lower cost, achieving beta through indexing, and pinpointing alpha through very specific active investments.
- Institutional asset managers have been diversifying their portfolios to better achieve investment mandates. However, many asset managers are finding their existing operations and technology are not up to the task.

- Asset managers, whether passive or active, are facing extreme competition. Many need to reengineer their front-to-back investment operations to not only enhance front end decision support (research, portfolio construction, risk, analytics), but also to gain cost and operational efficiencies throughout the whole investment lifecycle.
- Many asset management firms and fund administrators have core portfolio management / accounting systems that contain legacy code and are complex to rip and replace.
- The ProShares implementation of an IBOR solution stood out because of its ability to minimize risk for the organization, streamline operations, and increase efficiency across the firm. The project duration was impressive, particularly considering the complexity of integrating components of two separate vendor systems.

## DETAILED DESCRIPTION

### Introduction

ProShares has been at the forefront of the ETF revolution since 2006. ProShares now offers one of the largest lineups of ETFs, with more than \$30 billion in assets. The company is the leader in strategies such as dividend growth, interest rate hedged, alternative, and geared. ProShares continues to innovate with products that provide strategic and tactical opportunities for investors to manage risk and enhance returns.

Table 1: ProShares Snapshot

PROSHARES	
YEAR FOUNDED	1997
ASSETS	\$33B (as of 12/31/17)
PRODUCTS	ProShares manages 249 Mutual Funds and ETFs.
GEOGRAPHICAL PRESENCE	Offices in Bethesda, MD (HQ) and New York, New York.

Source: ProShares, data as of March 2018.

### Opportunity

Many asset management firms and fund administrators have core portfolio management / accounting systems that contain legacy code and are complex to rip and replace. In order to meet increasing investment demands, a layered replacement approach is being used to take advantage of fintech, open APIs, and cloud offerings for cost-efficiency.

While a complete reengineering is not a solution for everyone, some asset managers are implementing technical architectures which follow an investment book of record (IBOR) approach. Others work with incremental solutions that reduce operational costs with more minimal capital outlays.

In this case, ProShares had a robust and honed process for managing funds and reconciling with brokers, fund accounting, and custody, but the process was manually intensive with significant opportunities for automation and enhancement. The goal was to provide one central repository with the most up to date portfolio information to reduce risk and improve operational efficiencies.

Some examples of desired outcomes included:

- Data Integrity
- Segregation of Duties
- Thresholds and Escalation
- Efficiency through automation
- Scalability
- Enhanced Reporting

## Solution

The ProShares IBOR solution is particularly innovative because it combines Advent's Geneva Portfolio Accounting System with Electra's STaARs Reconciliation product to make critical daily accounting data immediately accessible while having a dedicated bolt-on reconciliation tool to ensure the quality of that data.

**An IBOR system permits the firm to scale in size.** By providing a centralized system where job duties are segregated along functional lines rather than being tied to each desk, the firm can increase both the number and complexity of funds that it offers.

**An IBOR system improves data quality and consistency.** The IBOR system provides a mechanism to ensure that all data is entered centrally and any inconsistencies between data are resolved.

**An IBOR system enhances the reporting capabilities of the firm.** The IBOR system permits firm wide reporting in an easily accessible manner. The data can be accessed readily and with speed.

## Solution — Timeline and Delivery Team

The ProShares' IBOR solution was sponsored by the firm's CEO, CIO, and CTO.

The core team consisted of: 10-12 internal resources, 6-8 external resources at SS&C Advent and Electra.

- Key departments involved: Portfolio Operations, Portfolio Management, IT, Compliance
- Technology vendors: SS&C Advent (Geneva), Electra (STaARS Reconciliation)
- Professional services firms: Implementation Teams at SS&C Advent and Electra

It took 12 months to configure systems and set up new data and operational procedures, and an additional 4-6 months were required to onboard 250+ funds (130+ ETFs and 120+ mutual funds). The project duration was approximately 16 months; the project kicked-off in January 2016, and all funds were on boarded by April 2017.

## Results

ProShares commented that the solution limits risk and enables portfolio managers to focus less on operational tasks and more on creating higher end value. End user feedback has been positive, with the operations teams taking ownership and able to consolidate silo desk-by-desk tasks centrally and providing value proposition to the portfolio management team.

ProShares noted the following benefits:

- Consolidated operational tasks that were previously being done across multiple trading desks into the newly created portfolio operations department.
- Eliminated duplicate work being performed by each of their trading desks.
- Reduced operational workload of the trading desks in order to allow them to focus more time on trading decisions.
- Implemented more detailed reconciliations with their Fund Accounting groups for more thorough daily closeout processes to ensure accuracy of NAVs.

Finally, the solution is particularly innovative because it combines Advent Geneva's IBOR System with Electra's reconciliation product STaARS, thus making it one of the most flexible solutions with two best-of-breed packages in the institutional alternative market.

The solution:

- Combines the top components of two separate vendor systems.
- Provides dynamic error correction allowing instant reflection of modifications or updates to all parties.
- Meets the robust reconciliation requirements of ProShares.
- Processes data quickly and efficiently for rapid end-of-day closes.

## LEVERAGING CELENT'S EXPERTISE

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### Support for Financial Institutions

Typical projects we support related to operations and risk management include:

**Vendor short listing and selection.** We perform discovery specific to you and your business to better understand your unique needs. We then create and administer a custom RFI to selected vendors to assist you in making rapid and accurate vendor choices.

**Business practice evaluations.** We spend time evaluating your business processes, particularly in [list several here]. Based on our knowledge of the market, we identify potential process or technology constraints and provide clear insights that will help you implement industry best practices.

**IT and business strategy creation.** We collect perspectives from your executive team, your front line business and IT staff, and your customers. We then analyze your current position, institutional capabilities, and technology against your goals. If necessary, we help you reformulate your technology and business plans to address short-term and long-term needs.

### Support for Vendors

We provide services that help you refine your product and service offerings.

Examples include:

**Product and service strategy evaluation.** We help you assess your market position in terms of functionality, technology, and services. Our strategy workshops will help you target the right customers and map your offerings to their needs.

**Market messaging and collateral review.** Based on our extensive experience with your potential clients, we assess your marketing and sales materials — including your website and any collateral.

## RELATED CELENT RESEARCH

Innovation in Capital Markets FX Technology  
November 2017

Emerging Trends in Emerging Data: Alternative Data or Market Data 2.0: Trends,  
Players, and Technology  
September 2018

Blockchain Capital Markets  
November 2017 – March 2018

Data Assets Strategy and Int-Data  
October 2017

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