

TANDEM MODELS®



TandemModels® is delivered to investment managers in a single platform environment.

Seamlessly Managing Your Clients Portfolios

A study by Aite Group reported: *“RIA firms (Investment managers) waste an average of two days per week on operational tasks, rather than serving existing clients or acquiring new clients, when they are not using fully integrated systems. An integrated system can boost firm revenue by up to 30 percent by giving them more time to focus on client service and practice management.”*

“Investment Managers that have some integration have close to twice the amount of investable assets compared to RIAs that lack integration.”¹

TAMPS Limited by Software Integration

Unlike Turnkey Asset Management Programs (TAMPs), which provide investment managers with software integration that rely on third party software products, Invest n Retire, LLC (INR) provides managers with a single platform environment, TandemModels®.² Managers use TandemModels® to build and manage portfolios; eliminating the need to integrate third party applications.

TandemModels® provides managers with a vertically integrated solution³ that gives them the ability to trade exchange traded funds (ETFs) and securities intraday with dynamic access to real-time pricing via FIX connections.⁴ Through our system managers realize efficiencies in trading with direct market access (DMA), crossing networks and algorithmic strategies, allowing them to focus more time on client service and practice management.

“We believe investment managers will benefit from leveraging TandemModels® trading proficiencies which aims to minimize market impact and timing risk while improving execution quality and opportunity cost.” Darwin Abrahamson, Founder and CEO, Invest n Retire, LLC

Software as a Service (SaaS)

Invest n Retire® Software as a Service (SaaS) hosting model goes beyond mere software integration; increasing efficiencies while reducing technology costs by 40% or more compared to Application Service Provider (ASP) models and software integration platforms. SaaS eliminates the need to purchase servers and software which require IT support, upgrades, data backup, data security, and disaster recovery.

Wealth Management

INR’s record keeping technology allows professional investment managers to consolidate client accounts into one Master Omnibus Account through a trust company or broker/dealer. Consolidating multiple managed accounts into one Master Account eliminates data transfer and reconciliation problems among multiple custodians and enables clients to drastically reduce the cost for custody services while eliminating trade-away fees charged by the big four custodians.⁵

“Our technological proficiency and working relationship with custodians enables managers to seek best execution without being penalized.” Darwin Abrahamson

¹ Aite RIA Productivity and Profitability: Integration Pays 2013

² TandemModels® is a registered trademark of Invest n Retire, LLC

³ A study by Aite Group: *RIA firms (investment managers) waste an average of two days per week on operational tasks, rather than serving existing clients or acquiring new clients, when they are not using fully integrated systems. An integrated system can boost firm revenue by up to 30% by giving them more time to focus on client service and practice management.*

⁴ Financial Information eXchange (FIX) is an electronic communications protocol for optimizing electronic trading.

⁵ Trade-away fees are charged by the big four custodians when an investment manager or RIA places trades through a broker-dealer other than the one owned by the custodian. The Big Four: Schwab Advisor Services, TD Ameritrade, Pershing Advisor Solutions, and Fidelity Institutional Wealth Services

Exorbitant Trade-Away Fees Charged by the Big Four Custodians

Investment managers desire best execution for clients. However, when you consider that the big four RIA custodians are charging advisory firms giant fees for trading away, sometimes in the tens of thousands, the importance of low custodial cost and the elimination of trade-away fees is magnified.

*“Schwab Advisor Services, TD Ameritrade Institutional, Pershing Advisor Solutions, and Fidelity Institutional Wealth Services are levying what are known as ‘trade-away’ fees to RIA firms that buy exchange traded funds through a broker-dealer other than the one owned by the custodian. The advisor typically chooses to use third parties because they believe that RIA custodians are executing trades poorly along the bid-ask curve and forcing them to make ETF purchases at unacceptably high prices.”*⁶

*“Industry leaders say these new ETF-related fees from custodians are a major problem . . .”*⁷

Chris Romano, director of research and trading with Fusion Investments Group comments: *“We don’t even consider trading away at Fidelity because of the high ticket trade away fee. On the smaller account sizes, it can be a really significant fee. If the fee is \$20 that can really add up.”*⁸

Institutional Trade Execution with Transaction Cost Analysis Reporting

Invest n Retire® provides access to leading institutional execution desks that specialize in sourcing liquidity for equities, options, futures and ETFs. This provides investment managers with Direct Market Access (DMA), a suite of algorithms, block liquidity, NAV executions, and translation trades, which use correlated products to enhance liquidity.

Investment managers will have the ability to adjust execution methodologies to match total order size and timeframe with their objectives. By evaluating several factors such as quantity, liquidity, volatility of the underlying components and market conditions, an institutional execution desk can source liquidity efficiently, anonymously, and with minimal market impact.

Prior to order execution, an experienced institutional execution desk can help determine several factors such as the most cost-effective execution (e.g. is the expected execution price plus risk premium of the ETF greater than the expected execution price of the underlying components plus costs) and the ideal approach to align fill prices with the appropriate benchmark (e.g. closing price, opening price, NAV, National Best Bid and Offer (NBBO).

Upon the conclusion of each trade day, investment managers have access to a best execution report that measures performance against the NBBO, VWAP or other relevant benchmark. For larger, more complex trades, manager may request a market impact analysis.

Self-Aligning Portfolios™

Our patented technology includes a feature within its trading component, Self-Aligning Portfolios™. Instead of investing a client’s cash contributions based on the percent allocation for each investment option within the model, our system analyzes each holding within the portfolio and determines if a holding is under-weighted or over-weighted according to the percent allocation for the model.

After the analysis, the system uses the cash to purchase more shares for any investment that is under-weighted and fewer shares for any investment that is over-weighted. *“By investing contributions using this methodology, each portfolio maintains its balance by self-aligning itself with each cash flow,”* explains Darwin Abrahamson.

⁶ RIA Custodians Charge Steep new ETF-related Fees RIABIZ November 18, 2013

⁷ Ibid.

⁸ Ibid.

Reports and Client Web Portal

TandemModels® provides time weighted performance reporting for clients and GIPs reporting for investment managers. TandemModels® also provides detailed transaction reporting which includes trading costs and SEC fees. Our client Web portal is smart phone accessible and can be customized with an investment manager's logo and colors, at no additional cost.

Summary

SaaS technology is an all-inclusive business architecture which delivers value rather than disconnected software which TAMPS attempt to piece together. With our SaaS hosting model investment managers will reduce their total operating cost and staff hours required to service clients which will increase their firm's net income. And, by reducing custody costs and eliminating steep trade-away fees, managers will be able to add smaller client accounts cost effectively.

About Invest n Retire, LLC

Invest n Retire, LLC is a technology company located in Portland, Ore. INR develops proprietary software for record keeping and trading in qualified tax-deferred retirement plans and taxable managed accounts. Darwin Abrahamson founded Invest n Retire® in 2004 with the objective to build a system which reduces costs while efficiently adding exchange traded funds (ETFs) as investment options in defined contribution plans. INR's patented technology, *System and Method for Managing Tax-deferred Retirement Accounts*, (pat. US 8,060,428 and pat. US 8,639,604) solves a multitude of problems confronting the retirement and wealth management industries. Contact Darwin Abrahamson at darwin@investnretire.com or 503-217-2021 for more information.

Supplement

TANDEM MODELS®

TANDEM MODELS®

The Difference Matters

The Difference Matters

FEATURES ⁹	TANDEM MODELS [®]	ROBO	TAMP ¹⁰
Model Design	Investment managers	ROBO ¹¹	Investment managers
Investment selection	1,500 ETFs, Equities, Fixed Income, and Options	Restricted - 7 to 13 ETFs	Restricted - varies by TAMP
Model selection	Client selects model	ROBO questionnaire determines model	Advisor introduces prospect to investment manager
Distribution	Investment managers, ETF providers and RIAs	ROBO and advisors	Advisors
Investment manager (IM) White Label Web¹²	Manager and portfolio information, ADV Part II, and agreements to open account	N/A	N/A
Open account	IM White Label Web includes eSignature with ACH deposit	ROBO may provide eSignature with ACH deposit	Varies by TAMP
Custodial account	Each investment manager opens one omnibus custodial account	Each client opens separate custodial account	Each client opens separate custodial account
Record keeper	Invest n Retire LLC (INR) ¹³	Custodian	Custodian
Fee	INR monthly record keeping fee Manager charges advisory fee	Advisory fee - may allow free service AUM = 5k to 10k	Advisory fee
System	Single platform environment with delivery as SaaS ¹⁴ for IM, custodian, and clients	Proprietary software to service clients	Integrates separate software products for IM

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⁹ Growth projections vary widely but assets managed ... could reach \$5 trillion over the next decade, according to Citigroup, which believes the uptick will be fueled by the growing wealth of younger, more tech-savvy investors. Robo-advisors mark 'seismic' shift in wealth management, The Financial Times Ltd., reporter Chris Flood, Sept 20, 2015

¹⁰ Turnkey Asset Management Program (TAMP)

¹¹ ... robo-advisors lack both the investment sophistication of established managers and the human touch of investment advisors ... Asset Managers Prepare to Have Your Business Disrupted, Institutional Investor, April 11, 2016

¹² Investment manager white label WEB site provided by Invest n Retire[®]

¹³ ... intermediaries ... offer access to otherwise inaccessible managers ... Intermediaries need to add increasing value to money holders and money managers while keeping costs low ... Asset Managers Prepare to Have Your Business Disrupted, Institutional Investor April 11, 2016

¹⁴ SaaS technology is an all-inclusive business architecture which delivers value rather than disconnected software products.

TANDEM MODELS® vs Vanguard Personal Advisor Services

Features	TANDEM MODELS®	Vanguard Personal Advisor Services ¹⁵
Minimum	\$5,000	\$100,000 ¹⁶
Model Design	Professional Investment Manager (independent managers)	Vanguard Advisers, Inc. (VAI) ¹⁷
Investments	1,500 ETFs, Equities, Fixed Income, and Options	Vanguard Admiral Shares index funds and 4 Vanguard ETFs ¹⁸
Model Selection	Client selects model	Vanguard profiling determines model
Management fee	Ranges from 0.15% to 0.60% AUM	0.30% AUM
Record-keeping fee ¹⁹	Monthly fee \$7.00 < 100,000 \$15.00 > 100,000	N/A
Custodian	Capital Institutional Services, Inc. (CAPIS)	Vanguard Marketing Corporation (VMC) ²⁰
Tax Consequences	ETFs are not subject to short-term gains like mutual funds	Mutual funds; including, Vanguard ETFs which are a share class of Vanguard mutual funds are subject to short-term gains
Trading	Intra-day trading during market hours, FIX connections for best execution to several brokers, crossing services, dark pools, and low latency algorithmic platforms	Mutual funds trade exclusively Market on Close

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¹⁵ Vanguard harvests ... existing clients to VPAS on its website and by phone. ... if client calls asking for advice about their account, the customer service representative will suggest Vanguard Personal Advisor Services as an option. Vanguard's virtual RIA adds \$10 billion in last six months ... RIABiz by Lisa Shidler Jan 12 201

¹⁶ Vanguard requires a minimum of \$100,000 of investable cash or securities in the Portfolio. Source: Vanguard Personal Advisor Services Brochure May 14, 2014

¹⁷ ... investors with more than \$500,000 invested in Vanguard's Personal Advisor Services ... gets his own personal financial advisor; those with less ... are assisted by a team accessible through a toll-free number. A Look at Vanguard's Robo-Advisor, Investopedia by Barbara Friedberg

¹⁸ Unlike other robo-advisors, Vanguard's service doesn't exclusively use ETFs; portfolios are primarily constructed of index funds ... Vanguard says its advisors will incorporate ETFs if the client wants to use them ... Vanguard Personal Advisor Services Review by Arielle O'Shea Feb 3, 2016

¹⁹ Invest n Retire, LLC adds value through technology to keep costs low while giving digital investors access to previously inaccessible professional investment managers.

²⁰ Vanguard ETFs and non-Vanguard securities require you to establish a brokerage account held through Vanguard Marketing Corporation (VMC). You will be subject to VMC's usual and customary fees, markups, commissions, and charges, separate and apart from the advisory fees assessed by VAI in connection with the Service. VMC receives compensation for directing order flow to specific market participants; including, Citadel Execution Services, Citigroup Global Markets, UBS Securities LLC, and Knight Capital Americas. VMC receives payments at an average blended rate below \$0.18 per contract. Payment for order flow is separate and apart from the advisory fees assessed by VAI in connection with the Service. By directing brokerage transactions to VMC, VAI may be unable to achieve most favorable execution of clients' transactions, and this practice may cost clients more money. Source: Vanguard Personal Advisor Services Brochure May 14 2014

TANDEM MODELS® vs Schwab Intelligent Portfolios

Features	TANDEM MODELS®	Schwab Intelligent Portfolios
Minimum	\$5,000	\$5,000
Model design	Professional Investment Manager (independent managers)	Schwab Investment Advisory
Investments	1,500 ETFs, Equities, Fixed Income, and Options	54 ETFs ²¹
Model Selection	Client selects model	Schwab profiling determines model
Fee	Manager fee ranges from 0.15% to 0.60% AUM	No fee - revenue generated from:
	Monthly record keeping fee per account ²²	Schwab Bank Sweep Program ²³
	\$7.00 per month < \$100,000	Trading firms and exchanges ²⁴
	\$15.00 per month > \$100,000	Fee paid by 3rd party ETFs ²⁵
Cash balance	1%	7% to 30% ²⁶
Custodian	Capital Institutional Services (CAPIS)	Charles Schwab & Co. Inc.
Broker/Dealer	Capital Institutional Services	Charles Schwab
Broker	Numerous	UBS Securities LLC
Trading	Intra-day trading during market hours, FIX connections for best execution to several brokers, crossing services, dark pools, and low latency algorithmic platforms	No intra-day trading and may not trade daily ²⁷

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²¹ Of the 54 ETFs Schwab is using, 14 come from Schwab itself and eight come from its OneSource program of outside funds sold on commission. Blog Fight! War of Words Breaks in a Multitrillion Dollar Industry, Matthew Zeitlin, BuzzFeed News reporter March 15, 2015

²² Invest n Retire, LLC adds value through technology to keep costs low while giving digital investors access to previously inaccessible professional investment managers.

²³ Each investment strategy involves the Sweep Allocation to the Sweep Program. The Sweep Allocation ranges from 7% to 30% of an account's value. The Sweep Program is a feature of the Program that clients cannot eliminate . . . This is because . . . clients do not pay a Program fee. Schwab Intelligent Portfolios disclosure brochure 3/30/16.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Schwab expects ... Schwab Bank will earn more income from the deposit accounts than Schwab or Schwab Wealth Investment Advisory will earn from their services or activities in the program, although Charles Schwab Investment Management will also earn income from the Schwab ETFs in program accounts. Schwab tells the SEC its robo-advisor has 30 basis-point fee and big-time cash allocations held by Schwab Bank, RIABiz.com reporter Lisa Shidler Feb 2015

²⁷ Using portfolio management software ... Program monitoring and trading are subject to systems as well as technology constraints and availability, and therefore may not take place daily. Schwab Intelligent Portfolios disclosure brochure March 30 2016

TANDEM MODELS® vs Betterment and Wealthfront

Features	TANDEM MODELS®	Betterment	Wealthfront
Minimum	\$5,000	No minimum	\$500
Model design	Professional Investment Managers	Betterment	Wealthfront
Investments	1,500 ETFs, Equities, Fixed Income, and Options	12 ETFs	7 ETFs
Model Selection	Client selects model	Betterment profiling determines model	Wealthfront profiling determines model
Fee	Manager fee ranges from 0.15% to 0.60% AUM	0.35% less \$10,000 and	First \$10,000 no fee
	Monthly record keeping fee per account ²⁸	\$100 monthly deposit or \$3 monthly fee	0.25% greater than \$10,000
	\$7.00 per month < \$100,000	0.25% from \$10,000 to \$100,000	
	\$15.00 per month > \$100,000	0.15% greater than \$100,000	
Cash balance	1%	No cash balance	Cash balance equal to annual fee
Custodian	Capital Institutional Services (CAPIS)	Betterment Securities	Apex Clearing Corporation
Broker/Dealer	Capital Institutional Services	Betterment Securities	Wealthfront Brokerage
Broker	Numerous	Apex Clearing Corporation ²⁹	Apex Clearing Corporation ³⁰
Trading	Intra-day trading during market hours, FIX connections for best execution to several brokers, crossing services, dark pools, and low latency algorithmic platforms	Intra-day and execute within five minutes ³¹	During Wealthfront trading window ³²

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²⁸ Invest n Retire, LLC adds value through technology to keep costs low while giving digital investors access to previously inaccessible professional investment managers.

²⁹ Apex receives payment from KCG Americas LLC. (KCG), Citadel Securities LLC (Citadel) and Two Sigma Securities (TSS) for directing order flow. Payments received from KCG, Citadel, and TSS averaged less than \$0.0020 per share. APEX receives payment from Instinet, LLC for orders routed that are subsequently executed. The rate for adding liquidity to Instinet averaged less than \$0.0030 per share. Source: APEX Clearing Corporation Rule 606 Disclosure Report 2015Q4

³⁰ Ibid.

³¹ Trades execute throughout the day and as soon as possible. ... this is generally within five minutes, which is the time it takes us to process and execute your order. Betterment WEB site

³² ... trade ... as often as every day throughout the trading window, pausing only for blackout periods. Wealthfront WEB site