

# Aite Matrix Evaluation: Investment and Fund Accounting Systems

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# INTRODUCTION

Over the last two decades, buy-side institutions have gone through several waves of outsourcing of the middle- and back-office functions to third-party providers. One of the commonly outsourced functions is investment and fund accounting, the process that provides accurate position-keeping, valuations, and reporting to end investors of the portfolio or fund. Despite the waves of outsourcing, some firms still have internal accounting systems, in part to keep in-house records and to ensure validity of third-party figures and in part as a backup system in case of loss in service from outsourced providers. In addition, not all firms rely on outsourcing and perform these functions entirely in-house. These two broad buy-side segments are the common users of investment accounting system technology, in which funds are made available, and are focused on achieving greater automation and straight-through processing (STP) rates.

At the same time, fund administrators and larger asset servicers, such as the global custodians, have seen an increase in business as part of the move toward outsourcing. These groups are also big users of accounting third-party vendor systems, with some also being providers of technology to the buy-side market. Vendors of accounting system have the challenge of appealing to both buy-side firms and asset services to maximize business opportunities, especially in an environment of significant M&A activity and industry consolidation.

This Impact Report explores some of the key trends within the investment and fund accounting space and discusses the ways in which technology is evolving to address new market needs and challenges. The Impact Report also compares and contrasts the leading vendors' offerings and strategies, and it highlights their primary strengths and challenges. Finally, to help financial institutions make more informed decisions as they select new technology partners, the report recognizes specific vendors for their strengths in critical areas.

#### **METHODOLOGY**

Leveraging the Aite Matrix, a proprietary Aite Group vendor assessment framework, this Impact Report evaluates the overall competitive position of each vendor, focusing on vendor stability, client strength, product features, and client services.

The following criteria were applied to develop a list of vendors for participation:

- Vendor solutions must have functionality required to meet investment and fund accounting across a breadth of asset classes. This includes capabilities of the platform to be an ABOR for a buy-side firm.
- Systems must be able to calculate or facilitate the calculation of GAVs and NAVs for portfolios and funds.

Participating vendors were required to complete a detailed product request for information (RFI) composed of both qualitative and quantitative questions, conduct a minimum 60-minute product demo, and provide active client references. In total, 38 buy-side and fund administration institutions provided feedback on 16 vendor platforms.

# THE PLAYERS

This section presents comparative data and profiles for the individual vendors that participated in the Aite Matrix evaluation. This is by no means an exhaustive list of vendors, and firms looking to undergo a vendor selection process should conduct initial due diligence prior to assembling a list of vendors appropriate for their own unique needs. Table A presents basic vendor information for the participating solutions.

**Table A: Evaluated Vendors** 

Firm	Headquarters	Year founded	Sample clients
BNY Mellon Data	Wellesley,	1989 (as Eagle	Boston Company Asset Management, MFS
and Analytics	Massachusetts	Development	Investment Management, Federated
Solutions	1110330011030003	Group)	Investors
		о. очр,	
Broadridge	Lake Success, New	2007	Not disclosed
	York		
Calypso	San Francisco	1997	Apex, Banque Pictet & Cie
Carypso	Sall FlallCisco	1997	Apex, banque rictet & Cie
Enfusion	Chicago	1996	Not disclosed
Finastra	London	2017	KAMCO, China RE, Lyxor
FIS	Jacksonville,	1968	Not disclosed
113	Florida	1300	Trot disclosed
FundCount	Norwood,	1999	Paget-Brown Trust Company, The Lupton
	Massachusetts		Company, MBG Capital
IIIIAD Tashaslamı	Davia	2006	Dethackild Asset Management Manteign
JUMP Technology	Paris	2006	Rothschild Asset Management, Montaigne Capital, Crédit Agricole Life Insurance Europe
			Capital, Credit Agricole Life ilisurance Europe
Linedata Icon	Paris	1998	HSBC, BNP Paribas, Scottish Friendly
Linedata Mfact	Paris	1998	Not disclosed
Profile Software	Athens, Greece	1990	Twenty First Capital, Mada Capital, Arrow
Trome sortmane	runens, di ecce	1330	Capital
SimCorp	Copenhagen,	1971	Challenger, UBS Asset Manager, PGGM
	Denmark		
SS&C APX	Windsor,	1986	Ziegler Capital Management
JJQC AFA	Connecticut	1900	Ziegiei Capitai ivianagement
	Connecticut		
SS&C EZE	Windsor,	1986	QQQ Capital, Salt Rock Capital Partners, Kriya
	Connecticut		Capital
	M/in along	1000	Adalahi Casital CACCIC
SS&C Geneva	Windsor, Connecticut	1986	Adelphi Capital, CACEIS
	Connecticut		
Temenos Multifonds	Geneva	1994	Northern Trust, Citi, BNP Paribas

Source: Vendors

# THE MARKET

The following market trends are shaping the present and future of the investment fund accounting technology market (Table B).

**Table B: The Market** 

Market trends	Market implications
Consolidation in the asset manager and fund administrator space impacts the total addressable market.	M&A activity in both the asset management and fund administration spaces impacts negatively on the total addressable market for vendors in the accounting system space. Deals such as the recent Franklin Templeton acquisition of Legg Mason are usually followed up by internal vendor rationalization in a cost synergy drive. In the fund administrator space, groups such as the Apex Group have been heavily active; Apex Group acquired four fund service providers in 2019 alone, with cost measures and removal of duplicate systems a likely consequence. <sup>2</sup>
Outsourcing continues to be a major theme, with vendors now pivoting to meet the demands of oversight operation models and growing calculation of contingent NAVs.	Outsourcing has increased in many clients that use investment and fund accounting systems over the past decade. This has led to vendors in the space looking at supporting the industry in other ways, the most recent being the provision of a lighter accounting system that can support contingent NAV calculations. These systems are less expensive and less strenuous to implement for buy-side institutions. Asset service providers are also looking to offer these systems as an independent check on all third-party administrators.
Exception management and STP are priorities for firms with in-house operations.	For any firms performing investment and fund accounting in-house, the drive is to increase STP rates and focus on exceptions. Platform development in this space has focused on how to best automate dataflows from external systems, calculations, exception handling when errors and occur, and workflows to support fixes. However, firms have incorporated manual processes at key events, such as NAV signoffs. This slows down the daily process but increases the level of human involvement oversight.

<sup>1.</sup> Sophie Baker and James Comtois, "Franklin Deal for Legg Mason Turning Heads," Pensions & Investments, February 24, 2020, accessed March 20, 2020, https://www.pionline.com/money-management/franklin-deal-legg-mason-turning-heads.

Jenna Lomax, "Apex Continues Acquisition Streak With Broadscope," Asset Servicing Times, March 21, 2019, accessed March 11, 2020, http://www.assetservicingtimes.com/assetservicesnews/article.php?article\_id=9357.

Market trends	Market implications
Operational dashboards are the most common development for accounting systems.	Operational dashboards add an extra layer for users to interact with. Most users will only need to work on this interaction layer, as it is fully integrated to feed the accounting engines and perform fixes. These dashboards provide critical information around the status of valuations, highlighting issues, or team burdens from a management perspective. Additional data are also collected with integrated analytics to understand where and why exceptions do occur and helps buy-side firms solve issues to lower the error rates.
Industry shift to alternative assets and illiquid structures creates demand for a unified system that can handle a wider range of investments.	The increasing allocation to alternative investments and illiquid structures such as private equity presents a unique challenge for firms. Institutions tend to have a specialist system to handle these types of investments. For many multi-asset firms, a unified system that can handle all fund structures and instruments types is desired. Many incumbent systems with in-depth public market instrument support can only support illiquid instruments at a shallow level and do not have all the unique workflows or calculations to meet the demands of the illiquid or private investment space.
A single solution for the investment books of record (IBOR) and ABORs is desirable.	A single solution—one that can cover both middle- and back-office book of records, along with an integrated general ledger (GL)—is also becoming more important. This includes corporate actions of processing, performance attribution, and measurement, along with a more real-time view of positions and cash. Many firms have separate systems in place to support the middle office and back office—a setup that could be leading to overlaps and additional costs.
The proliferation of front-to- back systems leads to more competition for systems that do not expand.	Some firms take the further step by looking for a solution that can meet front-to-back office needs, from order management to accounting. This is one step further than the combined middle- and back-office system, with the number of vendors in this space also competing with the traditional accounting engines.
The importance of hosted and cloud deployments for accounting system architecture and deployment is growing.	Capital market firms are all reevaluating underlying technology stacks and have greater desire for at least vendor-hosted systems. The desire to manage technology in-house, especially outside the front-office system, has fallen over time. A step further for buy-side institutions is the acknowledgement of the benefits of cloud-native architecture in the industry's quest for operational and technology modernizations.
Greater focus on oversight and transparency also drive further development in vendor platforms.	Some of the platforms have looked to improve oversight and transparency capabilities for fund administrators in particular. This entails providing buy-side clients of these institutions with some actions with the accounting application, or at least with read-only portals. The functionality usually includes web access to review NAV calculations and controls before signoff.

Market trends	Market implications
Insurance-owned asset manager firms are more likely to have in-house accounting systems than are pure investment managers.	According to market feedback, this segment is more likely to use an in-house accounting system than rely on third-party providers than are traditional investment firms. Insurance firms have unique accounting and regulatory reporting requirements, such as Solvency II.
Regulatory and standards changes impact functional and calculation requirements.	Updates to accounting rules and methodologies drive further development in accounting systems as well. This includes International Financial Reporting Standard (IFRS) 9, effective as of 2018, more recent changes for hedge fund accounting rules, and Solvency II amendments that have significant impact on insurance-based asset managers.
Demand for open systems and real time is driving an API-first strategy for vendors.	Firms often want access to underlying data within systems, and APIs support the ease of data flowing between applications and to and from third parties, which is essential for systems of the next decade.

Source: Aite Group

# KEY STATISTICS AND PROJECTED IT SPENDING

This section provides information and analysis on key market statistics as well as projected IT spending related to the vendor market.

#### **PROFITABILITY ANALYSIS**

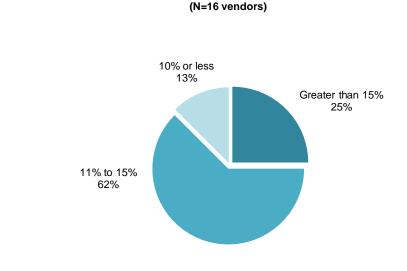
Vendors across the investment fund accounting space have all reported positive profits despite the trends toward outsourcing. This a result of larger firms being supported by multiple product lines and smaller vendors finding the right niche in which demand continues to drive growth opportunities. Moreover, the outsourcing trend seems not to have eliminated opportunities for vendors, in particular for buy-side firms that deploy in-house shadow accounting of outsourced providers.

#### **GROWTH RATE ANALYSIS**

Figure 1 provides a measure for the revenue growth experienced by the profiled vendors. The majority of firms (62%) report growth between 11% and 15% in 2019. Only a quarter have experienced growth greater than 15%, suggesting double-digit growth is something to expect from these vendors, but firms are unlikely to deliver much higher figures than 15%. Lastly, 13% of vendors have reported 10% of revenue growth or less, which reflects the large organizations that have a large revenue basis from which to grow.

Growth Rate Breakdown, 2019

Figure 1: Growth Rate Breakdown



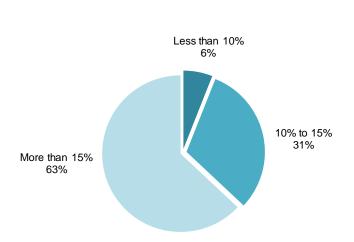
Source: Vendors

#### **R&D INVESTMENT ANALYSIS**

Figure 2 shows that even for a mature market, R&D investment for investment and fund accounting is still vital for firms to keep pace with changing demands. Consequently, most vendors (63%) have invested more than 15% of revenue in the previous year into R&D. Approximately a third (31%) of vendors invested 11% to 15% of revenue. Both groups are likely to keep pace with the demand for operational dashboards, greater workflow tools, and broader asset class coverage. Other vendors are investing to expand the functional capabilities across the front-to-back investment life cycle. Moreover, highly innovative vendors are also likely developing machine-learning-based tools to support greater automation. Only 6% of vendors are investing less than 10% of revenue in R&D and are likely candidates to fall behind other vendors due to the competitive marketplace.

Percentage of Revenue Invested in R&D, 2019 (N=16)

Figure 2: Percentage of Revenue Invested in R&D

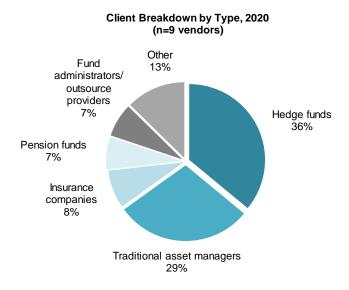


Source: Vendors

#### **CLIENT BREAKDOWN BY TYPE**

Not all providers have given a full breakdown of clients, but out of those vendors, the largest group within the buy-side segment are hedge funds (36%). This is due to a few vendors that specialize in this area and have clients on the smaller side in terms of AUM. This can be contrasted with traditional asset managers, which is the next largest group in terms of individual firms (29%), but they tend to be bigger, often with over US\$50 billion in AUM (Figure 3). The next largest group is insurance companies, a sizeable group that offers a multitude of fund structures that require specific accounting and rules for regulatory reporting needs. Fund administrators and pension funds follow at 7% each; the former is a smaller group in terms of absolute numbers but are major users of investment and fund accounting systems. Other types of institutions make up 13% of the total reported client base and include registered investment advisors (RIAs), corporate treasurers, family offices, and endowments.

Figure 3: Client Breakdown by Type

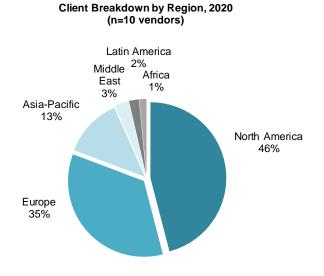


Source: Vendors

#### **CLIENT BREAKDOWN BY REGION**

In terms of regional breakdown of clients for those vendors that have disclosed them, North American (the U.S. and Canada) clients are the largest group, at 46% (Figure 4). Europe is the next-largest group (35%), followed by the Asia-Pacific (13%), the Middle East (3%), Latin America (2%), and Africa (1%). Core markets in North America and Europe continue to be large revenue drivers for vendors, but the higher growth rates have been reported to be coming from the Asia-Pacific region.

Figure 4: Client Breakdown by Region



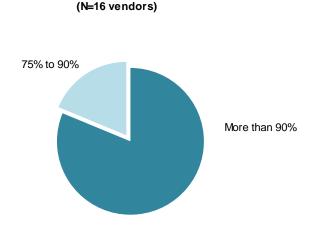
Source: Vendors

#### **ANNUAL CLIENT RETENTION RATE**

Client retention is a good indicator of client satisfaction and stickiness. For investment and fund accounting vendors, the majority (81%) have experienced over 90% client retention (Figure 5). However, nearly a fifth of vendors report client retention of 75% to 90%. This implies there are still buy-side firms transitioning between vendor platforms, even though moves off accounting systems tend to be more sporadic due to the core nature of these platforms and prioritization of other areas for digital transformation for investment.

Client Retention Rate, 2019

**Figure 5: Client Retention Rate** 



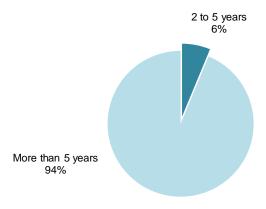
Source: Vendors

#### AVERAGE CLIENT TENURE

The client stickiness in the investment and fund accounting space is demonstrated by the average client tenure for the vendors (Figure 6). Almost all vendors (94%) have average client tenure of over five years, with only 6% of vendors with average client tenures of between two and five years. This reflects the mature nature of the market and lack of new entrants in the markets.

Figure 6: Average New Client Tenure in the Last Three Years





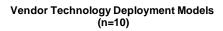
Source: Vendors

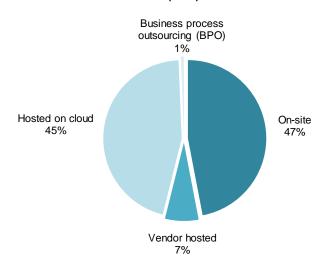
#### **DEPLOYMENT OPTIONS ANALYSIS**

Figure 7 and Figure 8 demonstrate that on-site deployment is the most common type of deployment model, with 47% and 71% of the sample, respectively. The difference between the two numbers reflects the removal of one vendor in the latter figure, which changes the landscape significantly. The removed vendor has a large number of clients and is an entirely cloud-based platform. Inclusion of this vendor figures skews the results toward cloud-hosted deployments. In terms of popular public cloud vendors, Amazon Web Services and Microsoft Azure are most often mentioned by accounting system vendors.

The true global figure is more likely to be a small majority for on-site installations, in between the two figures provided. This is driven partially by the lack of historical availability of cloud solutions and caution around outsourcing technology infrastructure and management at some firms. Moving forward, it is likely that cloud-hosted and full-managed-service models will grow in popularity. This is exemplified by the need to access applications remotely, as during the coronavirus outbreak in early 2020.

**Figure 7: Deployment Options** 

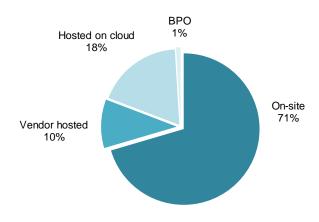




Source: Vendors

**Figure 8: Deployment Options Alternative** 

# Vendor Technology Deployment Models (n=9)



Source: Vendors

# ASSET MANAGER/FUND ADMINISTRATOR CONSOLIDATION

A major trend impacting the demand for investment and accounting systems is the level of consolidation within the biggest user segments—the asset management industry and the fund administration industry. The greater the consolidation, the lower the numbers of potential clients for these system providers. According to data from Piper Sandler Companies, the number of M&A deals globally for asset managers was 263 deals in 2019, compared 262 the year before.<sup>3</sup> The trend in M&A is likely to continue moving forward, considering these numbers.

<sup>3.</sup> James Comtois, "M&A Deal Numbers Flat, Values Down in Tepid 2019," Pension & Investments, January 13, 2020, accessed March 21, 2019, https://www.pionline.com/money-management/madeal-numbers-flat-values-down-tepid-2019.

# AITE MATRIX EVALUATION

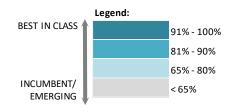
This section breaks down the individual Aite Matrix components, drawing out the vendors that are strong in each area and how they are differentiated in the market.

### THE AITE MATRIX COMPONENTS ANALYSIS

Figure 9 provides an overview on how each vendor scored in the various areas of importance. Each vendor is rated, in part, based on its own data provided when responding to the RFI distributed by Aite Group as well as on product demos and follow-up discussions as part of the Aite Matrix process. Ratings are also driven by the reference customers of the examined vendors to support a multidimensional rating.

Figure 9: Aite Matrix Components Analysis by Heat Map

Vendors	Vendor stability	Client strength	Client service	Product features
	89%	84%	76%	91%
	88%	83%	81%	90%
	84%	96%	90%	84%
	87%	87%	69%	89%
FIS	89%	92%	81%	96%
	76%	92%	85%	81%
	94%	82%	83%	93%
	92%	82%	84%	87%
	87%	90%	70%	92%
	88%	94%	76%	81%
	87%	90%	78%	78%
	91%	98%	75%	89%
	76%	81%	75%	92%
	87%	90%	76%	86%
	82%	92%	81%	81%
	92%	90%	76%	92%



Source: Vendors, Aite Group

#### **VENDOR STABILITY**

The core metrics to be a leader in the vendor stability criteria are financial strength and stability, demonstrated by sizable revenue streams, strong growth rates, profitability, and significant reinvestment in R&D. Also valued is the interaction with and the trust of management teams, measured by the respondent client base. Interviews with clients suggest this interaction has been regarded as mixed from adequate to strong overall. Risk management is also a key measure, such as business continuity plan testing and strong data privacy policies and procedures.

#### **CLIENT STRENGTH**

For client strength, vendors are evaluated against both the number of clients and the diversity of their client base. This includes diversity by client segment and geographical location. Client retention rates and the degree of concentration of the client base are also factors, along with feedback from clients on vendor reputation and their likelihood of replacing the current vendor solution in the near future. All vendors have scored reasonably well in this category.

One of the top-scoring vendors in this category—FIS—has a high number of clients from different segments of the financial services market and beyond and a broad geographic client footprint.

#### **CLIENT SERVICE**

The client service criterion evaluates vendors on the level of client service and support, such as 24/7 support, global and localized support, implementation and maintenance costs, and the vendor's ability to deliver on promises. Also included is the ease of implementation. Client feedback also includes overall perceptions of service and support provided, and value for money. This criterion is one in which all vendors have quite a bit of room for improvement in the area of client service.

#### **PRODUCT FEATURES**

The final major criterion takes into account the range of functionality across the investment and fund accounting requirements. The vendors' support for the fundamentals such as accounting rules and calculations of GAVs and NAVs, and dealing with various pricing or valuation methodologies and with integrated exception management and robust workflow support all impact overall scoring in this category. The range of implementation options is also a small factor, but more importantly, the breadth of investment structures supported and the feedback from client conversations are factors in the final scoring of vendors—in particular for the latter, client scores on the overall features and functionality, influence over product roadmap, and user experience.

FIS scores very well, above the 90% category. This vendor achieved one of the best scores because of the range of functionality on offer, the usability of its solutions, and client satisfaction with its overall features and functionality.

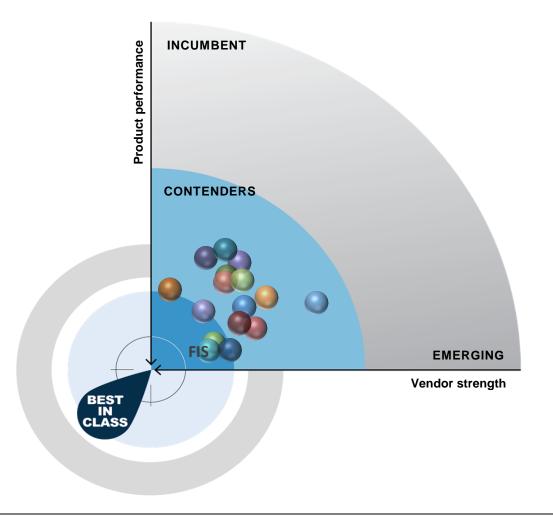
#### THE AITE MATRIX RECOGNITION

To recap, the final results of the Aite Matrix recognition are driven by three major factors:

- Vendor-provided information based on Aite Group's detailed Aite Matrix RFI document
- Participating vendors' client reference feedback and/or feedback sourced independently by Aite Group
- Analysis based on market knowledge and product demos provided by participating vendors

Figure 10 represents the final Aite Matrix evaluation, highlighting the leading vendors in the market.

Figure 10: Investment and Fund Accounting Aite Matrix



Source: Vendors, Aite Group

#### **BEST-IN-CLASS VENDOR: FIS**

FIS and the InvestOne solution score well across the board in terms of vendor strength and client clout, alongside features and functionality of the platform itself. The solution has been developed over many years of operation and is considered an incumbent platform in the market, deployed by large asset service, asset management, and insurance firms across the globe.

Vendor strength: FIS is a large and profitable vendor that has technology solutions
across the financial services universe. At a firm level, it has thousands of clients and
over 55,000 employees in multiple offices across all the major regions. InvestOne is
used by 60 firms and provides a sense of stability with the largest global asset
services on the platform, with a total of US\$40 trillion dollars of assets and funds

- serviced on the platform. An area of improvement for the firm is a greater portion of investment going to R&D.
- Product performance: In a mature market of investment and fund accounting
  platforms, FIS has one of the strongest products in terms of features and
  functionality across asset classes and fund structures. The InvestOne platform is
  praised by clients as a powerful and stable system and covers significant needs
  across the middle and back offices, with a focus on process automation and
  exception management.

# **BEST IN CLASS: FIS**

FIS is an international provider of financial services technology and outsourcing services. The company is headquartered in Jacksonville, Florida, and serves more than 20,000 clients in over 130 countries. InvestOne, Investran, and VPM are the main accounting platforms offered by FIS to the industry. This section profiles the InvestOne solution.

#### AITE GROUP'S TAKE AND MARKET FEEDBACK

InvestOne has a 35-year history, which began in the U.S. market and was initially developed inhouse at an institution looking to expand into mutual funds. The platform was spun out and has evolved significantly over its history. It now has over US\$40 trillion of assets and funds serviced by both asset managers and some of the world's largest administrators, such as BNY Mellon, J.P. Morgan, and Northern Trust. The platform itself is modular and is a transactional-based system that is focused on servicing the needs of middle- and back-office teams.

Depending on requirements, clients can choose from over 30 optional modules, from multiple books of records (up to 11 additional views of an ABOR in real time for a single set of transactions); country-level requirements for specific fund structures, such as unit trusts and open-ended investment companies in the U.K.; and an expense calculator to an exception manager (a customizable rules engine that allows the validation of valuation and accounting data to be automated). The latter has been mentioned by clients as a strong support tool to help firms improve STP and achieve great automation, allowing users to focus just on issues and optimize the fixes when issues arise. While FIS provides its own BI tools, clients can also use external BI tools via RESTful web services or by using the Data Link module to populate a client's data warehouse.

The platform can support multiple fund structures and include multi-share class accounting, share class hedging, and reporting. Users have access to a browser-based HTML interface that is easy to navigate. Firms can also use InvestOne as an IBOR and support different intraday NAV valuation calculations, for example, to exclude or include income in the calculation. The intraday valuation functionality has been used successfully in countries such as Denmark, where there is a requirement to produce multiple intraday valuations depending on the level of capital inflows/outflows. These valuations can also be scheduled in an unlimited frequency. As part of the shadowing or oversight process over third parties, firms can also automate reconciliation for cash, positions, trades, NAVs, margin on collateral, and prices. Reporting needs can also be met through InvestOne, from performance to financial reporting. However, clients suggest the report templates and customization can be improved.

Clients note that the core strength of the solution is the integrated GL and real-time accounting features that take data from a single transactional database. They make note of the breadth of asset coverage and fund structure support that can service a global business—in particular, the support for accounting and reporting needs for popular specific domicile of funds from Ireland to the Cayman Islands, and with users processing and valuing assets in 26 countries spanning from Australia to North America. The platform has also been praised as a stable and reliable system. Clients suggest from a user experience point of view, the system has a fairly steep

learning curve, but once users are trained on InvestOne, users appreciate the power of the system, exemplified by the numbers of assets and funds already serviced on the platform.

#### BASIC FIRM AND PRODUCT INFORMATION

Headquarters: Jacksonville, Florida

• **Founded in:** 1968

Number of employees: More than 55,000

Ownership: Public company

- Key financial information: Annual revenue approximately US\$8.4 billion in 2018, positive profitability, less than 10% of revenue invested in R&D
- Key products and services: InvestOne
- Target customer base: Fund administrators and asset managers
- Number of clients: 60
- Average net new clients per year (or average client tenure): Undisclosed
- **Global footprint:** Offices in the U.S., Canada, Europe, Japan, the Asia-Pacific, Latin America, the Middle East, and Africa
- Implementation options: On-site and vendor hosted are most popular, but FIS has
  offered a public cloud option instead of FIS' private cloud and currently has one
  client implementing this model.
- Vendor provided average implementation time: Dependent on the complexity of the opportunity
- **Pricing structure:** FIS' InvestOne hosted pricing structure has four major components: the annual license fee (incorporates configuration/modules), annual asset-based fee (fluctuates with client's month-end assets), annual portfolio-based fee (fluctuates with volume), and a one-time system implementation fee.

#### KEY FEATURES AND FUNCTIONALITY BASED ON PRODUCT DEMO

- The hosted version of InvestOne gets four releases a year.
- Separate data sets and environments are available to meet different functions, for example, additional environments for training or for UAT. Four different environments are provided on client implementation (or more if requested), and access to data sets is dependent on user permissions.
- InvestOne is a transactional-based system that simultaneously updates the trial balance and integrated GL.
- Navigation bar is used to easily access specific areas for each user, for example, corporate actions, transactions, or pricing valuations.

- Search function brings up intelligent suggestions for inquiry.
- Over 300 standard reports come "out of the box" with a custom reporting toolkit for client report creation.
- Multiple reports are available, such as a portfolio valuation report with a unique account number of each fund or share class and details of funds available through point and click. Fund details can be automated, to some degree, to help with onboarding of new funds as templates can be established.
- A matrix is built for the country of an account and country of a security so that the system can calculate tax reclaim and withholding rates.
- Generator is programmed in the system to automate the creation of specific events or transactions in the solution.
- Validation tool is used for the exception management system. Users can set up tolerance and behavioral alerts. A full history can be provided on the exception, and notes/supporting files can be attached to any specific fix or issue.
- Optional operational dashboard can have greater oversight over daily fund valuations.
- Reconciliation module can pull data from the system and received from custodians.
- Digital portal tool can be used as a client-facing tool or for internal use, providing dashboard capabilities. It is compatible with mobile devices.

#### TOP THREE STRATEGIC PRODUCT INITIATIVES OVER LAST THREE YEARS

- Complex derivatives processing allowing for the processing of complex instruments that have become commonplace in the market
- Increased scalability and flexibility within the technical architecture
- Bulk API for web services and increased efficiency/flexibility to data management

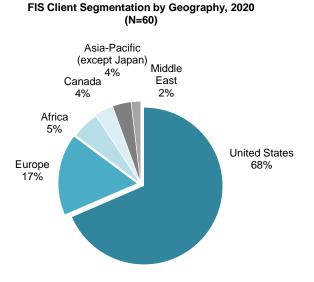
# TOP THREE STRATEGIC PRODUCT INITIATIVES IN THE NEXT 12 TO 18 MONTHS

- Robotics, machine learning, and artificial intelligence (AI)
- Due to the increasing regulatory requirements from national and international institutions, the solution is responding by expanding the utilization of technology and services, such as enterprise data management, to provide an efficient regtech solution.
- Real-time IBOR

#### **CLIENT BREAKDOWN**

FIS services clients globally on InvestOne, but the largest group is of firms headquartered in the U.S., at 68% of the total client base (Figure 11). European firms are the next-largest representation (17%), with the smaller representation rounding out the rest of the client base with firms from Africa (5%), Canada (4%), the Asia-Pacific (4%), and the Middle East (2%).

Figure 11: FIS Client Breakdown by Geography



Source: FIS

FIS's clients are a diverse group, but the full breakdown by client segment has not been made available to Aite Group.

# CONCLUSION

#### **Buyers:**

- Reconsider oversight measures and resilience: If the firm outsources fund and
  investment accounting without an internal backup or validation system, understand
  the risks and potential drawbacks of not having a formal system in place, which can
  lead to reputational damage or even fines for delays or errors in areas such as NAV
  reporting.
- Asset class capabilities and fund structures vary with platforms: Buy-side firms should ensure asset class capabilities when selecting the ideal vendor partner. Many vendors offer multi-asset class support but vary on the degree to which they can support and automate specific instrument types or fund structures.
- Look for a vendor that matches with the future planed operating models: If the firm is looking to consolidate on a few or even onto a single platform, several systems in the investment accounting space can cover a large degree of the front-to-back workflow. Similarly, if the firm is using the internal system to shadow external books of records, pay attention to the shadow framework, the level of embedded reconciliation capabilities, and the provision of oversight dashboards.
- Consider hosted services: Some buy-side firms are slow to move to hosted or cloud deployments because of security concerns. However, many admit that public cloud providers have stronger measures in place to protect against cyberattacks. The current market trend is toward hosted or SaaS-based offerings, which could lower the costs of managing applications and IT infrastructure.
- Large buyers, such as large asset managers and asset servicers, should consider
  processing power and scalability: The largest asset servicers in the world have
  trillions in assets managed administered for buy-side clients across thousands of
  funds. The platforms must be able to support the scale and the valuation cycles
  required by these firm.
- Evaluate the openness of the system and the integrated reporting: Many firms
  prepare reports and documents directly from their accounting system. If this is the
  case, examine the report automation and customization capabilities, or if data is
  extracted from the system to external systems, such as external reporting or BI,
  ensure data can be easily accessed, with APIs becoming the more common approach
  for bidirectional data flow.

## ABOUT AITE GROUP

Aite Group is a global research and advisory firm delivering comprehensive, actionable advice on business, technology, and regulatory issues and their impact on the financial services industry. With expertise in banking, payments, insurance, wealth management, and the capital markets, we guide financial institutions, technology providers, and consulting firms worldwide. We partner with our clients, revealing their blind spots and delivering insights to make their businesses smarter and stronger. Visit us on the web and connect with us on Twitter and LinkedIn.

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