THE
2023
EXECUTION
MANAGEMENT
SYSTEMS
SURVEY

**With special analysis from
Aite-Novarica Group**

Aité Novarica

Buy-side sentiment on the up, but EMS providers are not out of the woods yet

This year's results revealed higher scores across nearly all service categories, with the survey average jumping up to an impressive 5.94 in 2023, the highest on record since the survey first launched in 2013.

Investor concerns following the market volatility and losses of 2022 spilled over into 2023, as apprehensions over inflation and recession remained top of mind for investors. Despite ongoing challenging market dynamics, buy-side respondents to The TRADE's Execution Management Systems Survey appear in general, more satisfied with the way their EMS vendors have adapted this year, compared to 2022, scoring higher ratings across nearly every category. The lowest scoring service area recorded in 2023, was ease of integration to internal systems, although the overall rating remained flat compared to last year. Buy-side firms continue to experience frustration when integrating external solutions with their internal systems, and this score is reflective of the broader changes that asset managers and hedge funds are making to their own internal operating models and systems consolidation, as well as the ongoing evolution of liquidity providers. Product development, which received the lowest score in last year's survey, recorded one of the largest year-over-
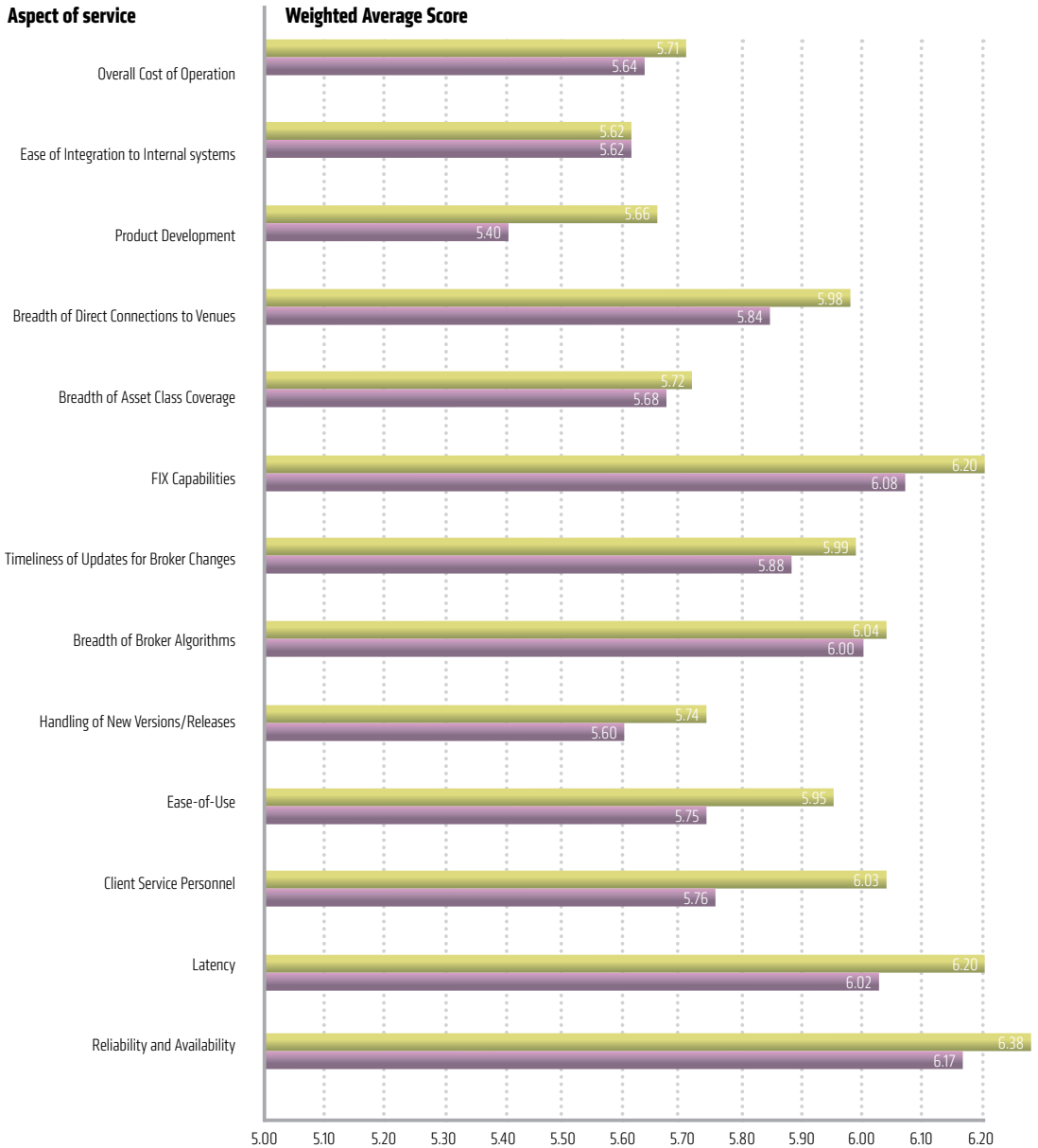
year increases, yet remains in the bottom two categories, suggesting EMS vendors still have plenty of room for improvement when it comes to solution enhancements.

The 2023 edition of The TRADE's EMS Survey highlights improved satisfaction traders and other buy-side respondents have had with their providers over the past year, as scores bounce back from the declines recorded in 2022. This year's results revealed higher scores across nearly all service categories, with the survey average jumping up to an impressive 5.94 in 2023, 14 basis points higher than last year's average of 5.80 and the highest on record since the survey first launched in 2013.

Figure 1 shows the scores

Figure 1: Overall Scores

EMS 2023
EMS 2022

Aspect of service	Weighted Average Score

Overall Cost of Operation
- 5.71 (EMS 2023)
- 5.64 (EMS 2022)

Ease of Integration to Internal systems
- 5.62 (EMS 2023)
- 5.62 (EMS 2022)

Product Development
- 5.66 (EMS 2023)
- 5.40 (EMS 2022)

Breadth of Direct Connections to Venues
- 5.98 (EMS 2023)
- 5.84 (EMS 2022)

Breadth of Asset Class Coverage
- 5.72 (EMS 2023)
- 5.68 (EMS 2022)

FIX Capabilities
- 6.20 (EMS 2023)
- 6.08 (EMS 2022)

Timeliness of Updates for Broker Changes
- 5.99 (EMS 2023)
- 5.88 (EMS 2022)

Breadth of Broker Algorithms
- 6.04 (EMS 2023)
- 6.00 (EMS 2022)

Handling of New Versions/Releases
- 5.74 (EMS 2023)
- 5.60 (EMS 2022)

Ease-of-Use
- 5.95 (EMS 2023)
- 5.75 (EMS 2022)

Client Service Personnel
- 6.03 (EMS 2023)
- 5.76 (EMS 2022)

Latency
- 6.20 (EMS 2023)
- 6.02 (EMS 2022)

Reliability and Availability
- 6.38 (EMS 2023)
- 6.17 (EMS 2022)

Axis: 5.00 5.10 5.20 5.30 5.40 5.50 5.60 5.70 5.80 5.90 6.00 6.10 6.20

recorded from buy-side respondents over the past two years across thirteen functional EMS categories. In 2023, twelve out of the thirteen categories recorded year-on-year increases, the largest of which were recorded in client service personnel (+0.27), product development (+0.25), reliability and availability (+0.21) and ease-of-use (+0.20), suggesting a strong response from providers in

Figure 2:
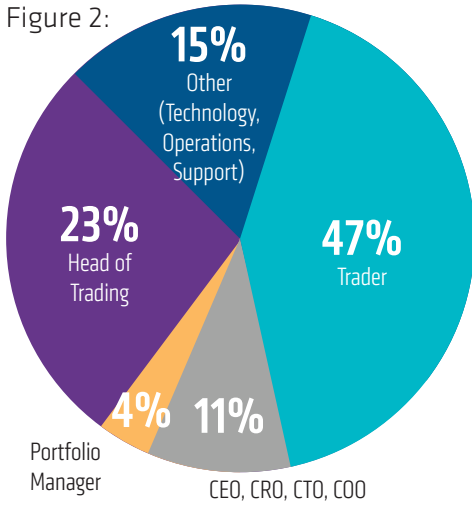
addressing the product and service needs of their buy-side clients over the past year. The highest rated service area recorded in 2023 was once again reliability and availability (6.38) which also notched up a significant 21 basis point increase from last year. Also scoring above a 6.0 – which equates to a rating of very good - was latency (6.20), FIX capabilities (6.20), breadth of broker algorithms (6.04) and client service personnel (6.03) categories. In contrast, ease of integration to internal systems (5.62) logged the lowest score in this year's survey and was the only category in 2023 to not record an increase. Notably, ease of integration was also rated lower than product development (5.66), and as stated previously, reflects the broader frustration buy-side firms have integrating solutions and connectivity to liquidity into their internal eco-systems.

The TRADE focuses its survey's profile on buy-side respondents with hands-on experience of trading technology. The mix of traders, portfolio managers and technology personnel provide a rich perspective on the use of EMS solutions and the impact on the overall front-office business. In this year's survey
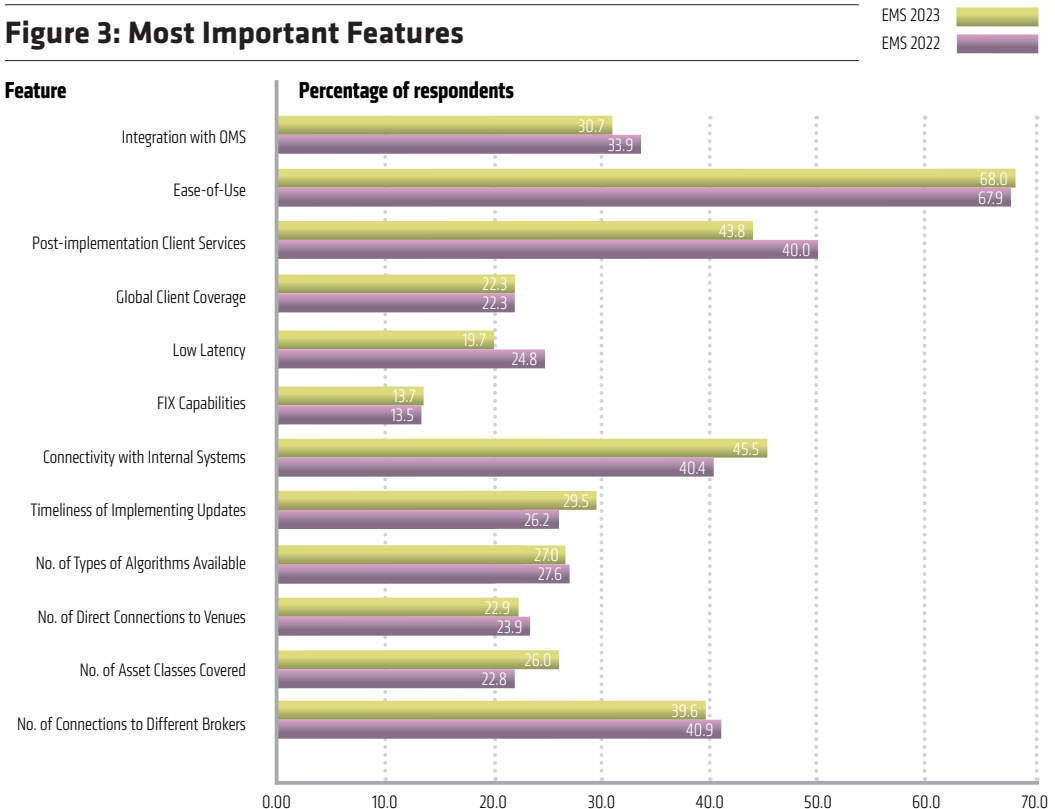
Figure 3: Most Important Features

EMS 2023
EMS 2022

Figure 4: Number of Providers Used (% of respondents)

Provider count	percent_of_respondents 2023	percent_of_respondents 2022
1	60	64
2	31	25
3	7	9
4	2	2
5+	1	1

traders (47%) and heads of trading (23%) once again made up the majority of respondents (Figure 2). Those intimately involved in the trading process often hold the authority on which EMS to use, making them an ideal audience for this survey. The next largest group comprised of those in other roles (15%), including technology operations and support, who like traders, also offer unique insight into how these systems are working within their respective buy-side firms.

Survey respondents were asked to select up to four features of execution management systems that they consider to be most important (Figure 3). Once again, ease-of-use was named as the most important feature of their EMS by around 68% of respondents, followed by connectivity and integration with internal systems at 45.5%, post-implementation client service at 43.8% and number of connections to different brokers at 39.6%. Respondents again noted FIX capabilities as being their least important feature overall, with only 13.7% listing it among their top four. Considering the maturity of FIX connectivity, it's likely that this has become a non-differentiated capability and instead a base expectation for the community. Where we expect connectivity to become a more important feature is in areas of growth in the use of EMS' for example credit and rates trading.

Figure 5: Average Number of Providers by AuM

total assets bnUSD	average number providers 2023	average number providers 2022
Up to 0.5	1.32	1.41
0.5-1	1.47	1.17
1-10	1.45	1.44
10-50	1.50	1.59
More than 50	1.62	1.73

The ways in which buy-side firms rank the most important features of their EMS speaks to the evolving priorities and capabilities of the solutions providers in the market. Coming on the back of significant improvements in product functionality, it is not surprising to see features related to implementation and upgrades jump in importance. In 2023, the most significant year-on-year increases in feature importance was connectivity with internal systems, which rose 5.14%, followed by increases in post-implementation client service (+3.72%) and timeliness of implementing updates (+3.25%). In addition, number of asset classes covered (+3.22%) continued to increase in importance highlighting ongoing demand for expanded EMS functional product capabilities.

While systems consolidation has been an ongoing seismic trend amongst the buy-side it appears EMS systems continue to resist that trend. While 60% of firms responding to this year's survey claim to use only one EMS, 40% claim to use two or more (Figure 4). With the growth in fixed income EMS', the market is likely to see increased use of multiple systems until product evolution allows for true multi-asset class capabilities that can be adopted holistically by the buy-side. In fact, when respondents were asked to indicate their method for connecting for electronic trading, more than one third (36%) stated they use multiple single broker and/or single asset class EMS. In addition, another one third of respondents (33%) noted that they link directly to brokers from their OMS while 13% said they link directly to trading venues via their internal systems.
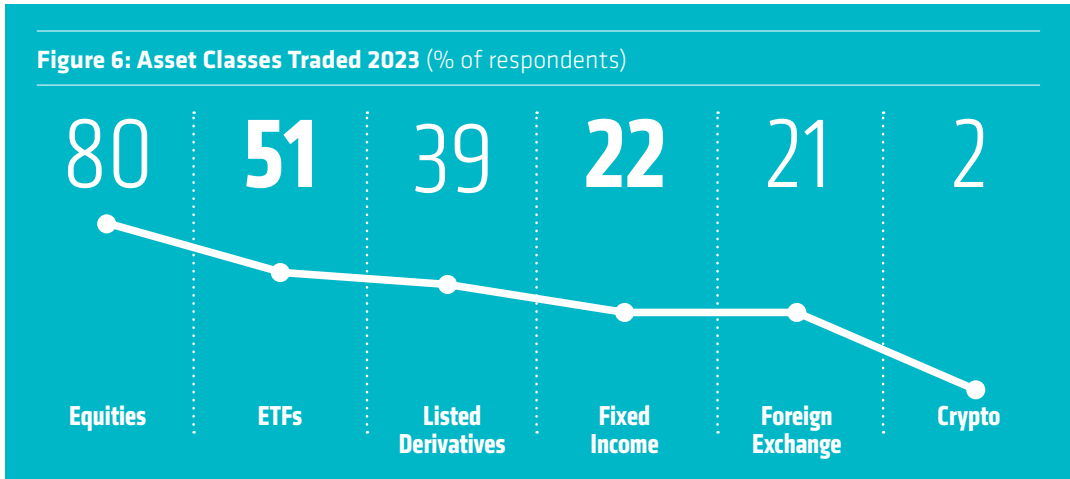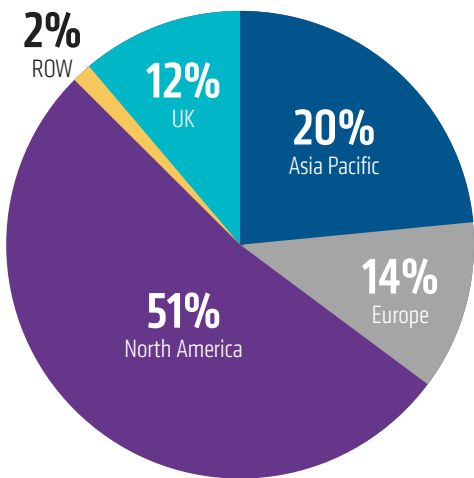
Figure 6: Asset Classes Traded 2023 (% of respondents)

80	**51**	39	**22**	21	2
Equities	ETFs	Listed Derivatives	Fixed Income	Foreign Exchange	Crypto

Figure 7: Regional Distribution 2023

- 2% ROW
- 12% UK
- 20% Asia Pacific
- 14% Europe
- 51% North America

In keeping with prior year trends, the data (Figure 5) shows that, in general, as firms get larger and have more complex strategies, they tend to use a greater number of EMS providers compared to their smaller counterparts. Those differences are not significant, however. This year's survey reveals that firms with more than US$50 billion in AUM used an average of 1.62 providers, whereas those with less than US$0.5 billion in AUM used 1.32 providers.

Once again respondents continued to predominantly trade equities (80%) through execution management systems (Figure 6). Outside of

equities, over half of respondents to this year's survey noted use of an EMS to trade ETFs (51%). Staying with the continued trend towards electronic trading of non-equity asset classes respondents also indicated they use an EMS to trade listed derivatives (39%), fixed income (22%), and foreign exchange (21%). In addition, 2% of respondents also noted their use of an EMS to trade crypto, which as an asset class that has not previously been part of the survey.

The geographic distribution of respondents in this year's survey is shown below in Figure 7. Over half of all respondents were located North America (51%), while the remainder was split primarily among Asia Pacific (20%), Europe (14%) and the UK (12%). One in three (34%) respondents to this year's EMS survey came from firms with over US$50 billion in AUM, while only 17% were with small firms that manage less than US$1 billion.

Without a doubt, the gains recorded in this year's survey virtually erased the declines experienced last year, but it's safe

to say EMS providers aren't out of the woods yet, as this year's scores place them just about even with the results from 2021. Although this year's results are encouraging for EMS vendors, respondents note there is still room for improvement. As competition between providers remains fierce, being able to differentiate one solution from others will become increasingly important. As expected, this year's iteration of The TRADE's EMS Survey reaffirmed the momentum of traders requesting additional asset class capabilities from their EMS as markets such as fixed income continue to modernise and evolve towards electronic trading workflows. In addition, buy-side respondents continued to express frustration with the complexity involved with integrating external solutions into their existing internal ecosystems.

Despite this year's product gains, as the industry wide momentum and use cases for AI expand, opportunities for competitive differentiation are emerging. As buy-side firms look to integrate AI into front-office capabilities, they will look to core solutions providers to create the platforms and capabilities to transform the front-office. Many of the providers profiled have already taken significant steps to embed AI and other automation into their solutions. While bespoke adoption on a broader sense may be slower than expected, capabilities embedded in core solutions and adopted more broadly by peers will see faster adoption. We are also excited to see how the growth in fixed income EMS' in 2022-2023 will begin to impact survey results in the coming year.

This year, nine EMS vendor firms received sufficient responses from buy-side users to warrant a profile in the survey: Bloomberg EMS, Charles River a State Street Company, FlexTrade, Instinet Newport, Neovest, FactSet's Portware, TORA, TS Imagine TradeSmart and Virtu Triton. Among the profiled vendors, six outperformed the overall survey average of 5.94: FlexTrade, Instinet Newport, Neovest, TORA, TS Imagine TradeSmart and Virtu Triton.

Methodology

Survey respondents were asked to provide a rating for each execution management system (EMS) provider on a numerical scale from 1.0 (very weak) through to 7.0 (excellent), covering 13 functional criteria. In general, 5.0 (good) represents the 'default' score of respondents. In total, 332 individuals responded; 512 evaluations were submitted; and more than 20 providers were evaluated. All evaluations were used to compile the overall market review information as well as provider profiles covering the major EMS providers based on responses received. Each evaluation was weighted according to three characteristics of the respondent; the value of assets under management; the scale of business being conducted electronically; and the number of different providers being used. In this way, the evaluations of the largest and broadest EMS users were weighted at up to twice the weight of the smallest and least experienced respondent. In arriving at any overall calculations, the scores received in respect of each of the 13 functional categories were further weighted according to the importance attached to them by survey respondents. The aim is to ensure that in assessing service provision the greatest impact results from the scores received from the most sophisticated users in the areas they regard as the most important. Finally, it should be noted that responses provided by affiliated entities have been discarded and that other responses, where respondents were unable to be properly verified, were also excluded. We hope that readers find this approach both informative and useful as they assess different capabilities in the future. This year's analysis for the EMS survey has been carried out by Datos Insights (formerly Aite-Novarica Group).

Bloomberg EMS

Bloomberg's EMS offering – known as EMSX for equities, FXEM for foreign exchange and TSOX for fixed income, derivatives and futures - is a multi-asset execution management system, which allows liquidity takers to electronically transmit order details and route to market destinations via a variety of trading protocols including manual, electronic and automated. Bloomberg received 100 ratings from buy-side clients in the 2023 survey, down from 122 received in 2022, yet again remains in second place in terms of overall number of ratings received across the survey.

Bloomberg recorded an overall score of 5.49 in this year's survey, which represents a 13 basis point increase from its 2022 score, yet lands 45 basis points under the survey average. On a category level, Bloomberg underperforms the benchmarks in all 13 service areas under review, however year-over-year comparisons are much more positive. Bloomberg showed strong improvement, increasing its score across most categories, including key areas of service such as product development (+0.35), latency (+0.27), breadth of direct connections to venues (+0.22) and ease of integration to internal systems (+0.21). Bloomberg's highest score was once again in the area of reliability and availability (6.18), followed by latency (6.01) and FIX capabilities (5.81).

Bloomberg's EMS offers connectivity to global exchanges, over 1,500 broker/dealer destinations for both OTC and Listed trading, representing 2,800 algorithmic/DMA, program and cash trading destinations. Submissions were received from respondents' located in all regions, with the majority based in major markets across North America (40%) and Europe (35%). Around 35% of clients responding to Bloomberg were from firms managing upward of $50 billion in assets. When asked which additional capabilities the buy-side would like to see from Bloomberg, respondents cited increased integration and connectivity capabilities with other external and internal systems, expanded asset class capabilities, more automation and use of advanced technology like AI and additional TCA capabilities.

BLOOMBERG RATINGS FOR EMS PERFORMANCE

Reliability and availability	Latency	Client service personnel	Ease-of-use	Handling of new versions/releases	Breadth of broker algorithms	Timeliness of updates for broker changes	FIX capabilities
6.18 ▲	6.01 ▲	4.99 ▲	5.45 ▲	5.38 ▲	5.51 ▼	5.57 ▲	5.81 ▲

Breadth of asset class coverage	Breadth of direct connections to venues	Product development	Ease of integration to internal systems	Overall cost of operation	Average score
5.47 ▼	5.56 ▲	4.95 ▲	5.08 ▲	5.37 ▼	5.49 ▲

KEY STATS

6.18
Highest score
(reliability and availability)

4.95
Lowest score
(product development)

+0.35
Most improved
(product development)

-0.07
Least improved
(breadth of broker algos)

Charles River, A State Street Company

Charles River Trader is a multi-asset order and execution management system (OEMS) and an integrated component of Charles River IMS, the firm's cloud-based investment management solution. The OEMS provides a single user interface and blotter to help traders work more productively and offers co-mingling of execution and order data capabilities, automated order routing, pre-trade liquidity analysis and TCA data. Clients are able to manage investments and trading for all asset classes, including bespoke asset class workflows and direct access between buy-side clients and sell-side brokers via the Charles River Network. Charles River counts 300 buy-side clients globally using its OEMS, of which 18 provided feedback in this year's survey (down from 22 in 2022).

Charles River's overall score this year increased 36 basis points, up to 5.01, placing the vendor back in the Good range (5.00-5.99). The company's highest score of 5.80 was recorded in breadth of asset class coverage, which outperformed the category average by eight basis points. This was followed by FIX capabilities (5.75), reliability and availability (5.60) and ease-of-use (5.39), which fell short of the benchmarks by 0.45, 0.78 and 0.56 respectively. Year-over-year performance was very positive, as Charles River recorded improvements across all bar two of the functional service areas measured in this year's survey. The most notable rating increases were seen in breadth of asset class coverage (+0.76), ease-of-use (+0.70), FIX capabilities (+0.63), reliability and availability (+0.59) and product development (+0.52), which all recorded a significant increase in score.

Over 66% of clients responding to Charles River were from large firms, managing more than $50 billion in assets. When asked which additional capabilities the buy-side would like to see from their EMS vendors, clients responding to Charles River noted more sophisticated automated routing and listening logic, better in trade visualisation, total return swap derivatives and algo wheel capabilities.

CHARLES RIVER, A STATE STREET COMPANY RATINGS FOR EMS PERFORMANCE

Reliability and availability		Latency		Client service personnel		Ease-of-use		Handling of new versions/releases		Breadth of broker algorithms		Timeliness of updates for broker changes		FIX capabilities	
5.60	▲	5.21	▲	4.40	▲	5.39	▲	4.52	▲	5.05	▲	4.25	▼	5.75	▲

Breadth of asset class coverage		Breadth of direct connections to venues		Product development		Ease of integration to internal systems		Overall cost of operation		Average score	
5.80	▲	5.29	▲	4.61	▲	4.72	▼	4.49	▲	5.01	▲

KEY STATS   Category Outperformer: ★ X1

5.80
Highest score
(breadth of asset class coverage)

4.25
Lowest score
(timeliness of updates to broker changes)

+0.76
Most improved
(breadth of asset class coverage)

-0.39
Least improved
(ease of integration to internal systems)

FactSet's Portware

FactSet's EMS, Portware Enterprise, is created to be adaptable to the workflows and requirements of complex buy-side trading operations. Portware has continued to enhance its user experience, improving workflows, automation, access to liquidity and integration with third-party technologies. Portware's architecture facilitates integration with one or more OMS platforms or points of order origination, removing the need for any manual re-keying of trade data while also reducing operational risk. Portware received 19 responses from its buy-side clients in this year's survey, down from the 39 that took part in 2022.

Portware's average score of 5.69 in this year's survey puts it 25 basis points below the 2023 overall survey average of 5.94 and 9 basis points below its 2022 score. Despite this, Portware experienced year-over-year increases in seven of the 13 categories assessed in this year's survey with the most notable being client service personnel (+0.31) and timeliness of updates for broker changes (+0.07). Those improvements, however, were overshadowed by its year-over-year decline in ease of integration to internal systems (-0.75), which was Portware's lowest rated category (4.95) and significantly impacted its overall score. The company's highest score in this year's survey was in breadth of broker algorithms (6.39), which outperformed the survey category average by an impressive 34 basis points. This was followed by high scores in reliability and availability (6.16), FIX capabilities (6.14) and breadth of direct connections to venues (6.01), which all scored in the Very Good range (6.00-6.99).

Regarding additional capabilities requested by buy-side clients responding to FactSet's Portware, some mentioned more sophisticated automated routing; improved in-trade visualisations; fixed income direct connectivity to brokers; real-time TCA integration; improving ease-of-use of automated trading functionality; flexibility to deliver implementation of algo updates; and enhancements to the user interface and tools as well as the ability to more easily adjust and customise the blotter.

FACTSET'S PORTWARE RATINGS FOR EMS PERFORMANCE

Reliability and availability	Latency	Client service personnel	Ease-of-use	Handling of new versions/releases	Breadth of broker algorithms	Timeliness of updates for broker changes	FIX capabilities
6.16 ▼	5.85 ▼	5.91 ▼	5.45 ▼	5.11 ▼	6.39 ▲	5.84 ▼	6.14 ▼

Breadth of asset class coverage	Breadth of direct connections to venues	Product development	Ease of integration to internal systems	Overall cost of operation	Average score
5.41 ▼	6.01 ▲	5.32 ▼	4.95 ▼	5.46 ▼	5.69 ▼

KEY STATS   Category Outperformer: ★ X2

6.39
Highest score
(breadth of broker algorithms)

4.95
Lowest score
(ease of integration to internal systems)

+0.31
Most improved
(client service personnel)

-0.75
Least improved
(ease of integration to internal systems)

FlexTrade

FlexTrade is an industry pioneer in broker-neutral execution management trading platforms and offers three buy-side solutions with EMS functionality - FlexTRADER EMS, FlexONE and Spark EMS. Over the past year, FlexTrade has made strides in building out its multi-asset class solution, FlexTRADER EMS, and has achieved strong growth across its products and business overall. Earlier this year, FlexTrade announced the launch of FlexA, a voice-activated application that provides a layer of AI across its flagship FlexTRADER EMS to simplify the interaction between trader and technology to easily and intuitively work with vast swathes of data. FlexTrade received 38 ratings from the buy-side this year, which is up slightly from the 35 received in 2022 and places the vendor fourth in terms of total number of responses to the survey.

FlexTrade recorded an overall average score of 6.04 in this year's survey, which despite falling 13 basis points below its 2022 score of 6.17, lands firmly above the survey average (5.94). FlexTrade outperformed the benchmarks in nine of thirteen functional aspects of service under review, with the most significant being

the key areas of client service personnel and product development, where the vendor scored 36 basis points above the category average. Unsurprisingly other areas of outperformance include breadth of asset class coverage (+0.24) and breadth of broker algorithms (+0.16). Despite strong performance overall, FlexTrade only recorded year-over-year improvements in three areas: client service personnel (+0.17), reliability and availability (+0.13) and breadth of asset class coverage (+0.05). FlexTrade lowest scores in this year's survey were overall cost of operation (5.70) and ease of integration to internal systems (5.71).

Over 60% of clients responding to FlexTrade were from buy-side firms managing upward of $50 billion in assets. In terms of desired additional capabilities from respondents this year, clients noted a need for more sophisticated automated routing and listening logic, enhanced data visualisation and analytics tools, and increased breadth of venue connectivity. Sticking with the AI theme, one respondent requested additional capabilities around using AI/machine learning to come up with trading strategy recommendations.

FLEXTRADE RATINGS FOR EMS PERFORMANCE

Reliability and availability	Latency	Client service personnel	Ease-of-use	Handling of new versions/releases	Breadth of broker algorithms	Timeliness of updates for broker changes	FIX capabilities
6.36 ▲	6.19 ▼	6.40 ▲	5.97 ▼	5.82 ▼	6.20 ▼	5.93 ▼	6.26 ▼

Breadth of asset class coverage	Breadth of direct connections to venues	Product development	Ease of integration to internal systems	Overall cost of operation	Average score
5.96 ▲	6.04 ▼	6.01 ▼	5.71 ▼	5.70 ▼	6.04 ▼

KEY STATS   Overall Outperformer: 🏆   Category Outperformer: ⭐ X9

6.40
Highest score
(client service personnel)

5.70
Lowest score
(overall cost of operation)

+0.17
Most improved
(client service personnel)

-0.39
Least improved
(ease of integration to internal systems)

Instinet Newport

Instinet's multi-asset execution and order management platform, Newport, supports equities, ETFs, futures and options, allowing users to tap into an extensive network of brokers, algo racks and venues to trade 24/6 across 60+ markets and over 150 venues. Instinet continues to focus on expanding and refining Newport's self-service tools, alongside making improvements to its API offering, as well as leveraging the latest technologies and standards (HTML5/FDC3), as the agency broker plans the next generation of the trading desktop, to ensure clients have access to interoperability across apps. Other Newport initiatives include position management integration capabilities, swaps and blotter scraping. Instinet had 25 buy-side clients submit their feedback in this year's survey, in line with the number of responses received in 2022.

Instinet achieved an overall score of 5.96 this year, outperforming the survey average by two basis points and racking up a significant 23 basis point increase from its 2022 score of 5.73. Instinet's highest score was recorded in client service personnel (6.49), which outperformed the benchmark by +0.26. Other areas of outperformance for the vendor compared to its peers in this year's survey were FIX capabilities (6.42) and overall cost of operation (5.94), which outperformed the category average by 22 and 23 basis points, respectively. Year-over-year performance was also very positive, as improvements were recorded across 12 of the 13 categories with the most notable being breadth of direct connections to venues (+0.54), FIX capabilities (+0.46), breadth of asset class coverage (+0.39) and client service personnel (+0.38). The one category Instinet recorded a decrease in its score year-over-year was ease of integration to internal systems (-0.26), which also represents the vendor's lowest scoring service area (5.27).

In terms of AUM profile, responding firms managing over $50 billion in assets make up 64% of Instinet's total. Clients' wish-list for additional capabilities from Instinet included additional functionality for asset classes, customisation, integrated analytics, view real-time TCA without having to access a portal and FDC3 interoperability.

INSTINET NEWPORT RATINGS FOR EMS PERFORMANCE

Reliability and availability	Latency	Client service personnel	Ease-of-use	Handling of new versions/releases	Breadth of broker algorithms	Timeliness of updates for broker changes	FIX capabilities
6.40 ▲	6.29 ▲	6.49 ▲	5.66 ▲	5.74 ▲	6.03 ▲	6.14 ▲	6.42 ▲

Breadth of asset class coverage	Breadth of direct connections to venues	Product development	Ease of integration to internal systems	Overall cost of operation	Average score
5.67 ▲	6.15 ▲	5.32 ▲	5.27 ▼	5.94 ▲	5.96 ▲

KEY STATS Overall Outperformer: 🏆 Category Outperformer: ★ X7

6.49
Highest score
(client service personnel)

5.27
Lowest score
(ease of integration to internal systems)

+0.54
Most improved
(breadth of direct connections to venues)

-0.26
Least improved
(ease of integration to internal systems)

Neovest

Neovest, owned by JP Morgan, is a global, multi-broker electronic trading platform that specialises in equities, FX, futures, options and commodities markets and is designed to service hedge funds, proprietary trading firms as well as large family offices. Neovest aims to exceed client expectations when it comes to scalability and speed of platform delivery, with implementation taking around one month on average. Of the company's more than 600 buy-side clients, 32 responded to this year's survey (up from 29 in 2022).

Neovest received an overall average score of 6.06 this year, which is down slightly from its 2022 score of 6.09, yet still comfortably above the survey average of 5.94. The vendor outperformed the benchmarks in eight of the 13 areas under review; the most notable areas of outperformance include overall cost of operation (+0.41), timeliness of updates to broker changes (+0.36), ease of integration to internal systems (+0.33) and client service personnel (+0.27). Neovest was rated Very Good (6.00-6.99) across most categories and only

scored below a 6.00 in a handful of areas with the lowest score being product development (5.60). When it came to year-over-year performance, the firm's most significant improvements were observed in overall cost of operation (+0.16) and reliability and availability (+0.10).

Over the last year, Neovest continued to focus heavily on its customer experience and started collecting customer satisfaction scores after every production issue is resolved as well as making improvements to its onboarding and post-live interactions. Additionally, Neovest worked to modernise its technology stack with a move to HTML as well as kick off a migration to the cloud and continued to expand its asset class capabilities. With that said, this year's survey respondents still managed to put in a few requests for additional capabilities, including no-touch trading, platform configurability, building out the risk system, improving the front-end and enhancements to the centralised trading functionality.

NEOVEST RATINGS FOR EMS PERFORMANCE

Reliability and availability	Latency	Client service personnel	Ease-of-use	Handling of new versions/releases	Breadth of broker algorithms	Timeliness of updates for broker changes	FIX capabilities
6.30 ▲	6.08 ▼	6.31 ▼	6.10 ▲	5.90 ▼	6.01 ▼	6.35	6.25 ▼

Breadth of asset class coverage	Breadth of direct connections to venues	Product development	Ease of integration to internal systems	Overall cost of operation	Average score
5.90 ▼	5.90 ▲	5.60 ▼	5.94 ▼	6.12 ▲	6.06 ▼

KEY STATS **Overall Outperformer:** 🏆 **Category Outperformer:** ⭐ X8

6.35
Highest score
(timeliness of updates for broker changes)

5.60
Lowest score
(product development)

+0.16
Most improved
(overall cost of operation)

-0.26
Least improved
(handling of new versions/releases)

TORA

TORA EMS is a multi-asset, cloud-hosted platform, providing an all-in-one front-to-back PMS, OMS and EMS solution to around 200 clients on the buy-side. Since the acquisition of TORA by London Stock Exchange Group (LSEG) in August 2022, teams have continued to collaborate and innovate across all areas of the business as TORA becomes more integrated within LSEG. The EMS vendor is helping to enhance LSEG's offering across APAC, North America and Europe, delivering front to back trading technologies across listed derivatives, ETFs, fixed income, FX and equities markets. TORA received 48 responses to this year's survey, down from 67 received in 2022.

We see a strong showing from TORA this year, as its overall score of 6.24, outperforms the survey average by an impressive 30 basis points. In terms of year-on-year performance, TORA's average increased 26 basis points above the vendor's 2022 score of 5.98, with increases recorded in every category bar one – breadth of asset class coverage (-0.06) – where despite being its lowest rated aspect of service, still outperformed the category benchmark by 17

basis points. TORA's most notable year-over-year improvements were in key areas such as product development (+0.56), breadth of direct connections to venues (+0.45) and client service personnel and timeliness of updates for broker changes, which both increased 41 basis points from the prior year.

In addition to its strong year-over-year performance, TORA outperformed the category average in all thirteen areas under review in this year's survey. The most significant of which were product development (+0.56), client service personnel (+0.48), ease of integration to internal systems (+0.44) and timeliness of updates for broker changes (+0.42).

As regards to desired additional capabilities, survey respondents highlighted APIs for analysing data with AI and LLMs, portfolio and pre-trade management, the ability to source borrow directly from brokers, improved availability and functionality on mobile devices, connectivity and integration with internal systems, reducing the time it takes to set up a new product or trade a new country and a centralised security master.

TORA RATINGS FOR EMS PERFORMANCE

Reliability and availability		Latency		Client service personnel		Ease-of-use		Handling of new versions/releases		Breadth of broker algorithms		Timeliness of updates for broker changes		FIX capabilities	
6.61	▲	6.43	▲	6.51	▲	6.21	▲	5.95	▲	6.17	▲	6.40	▲	6.36	▲

Breadth of asset class coverage		Breadth of direct connections to venues		Product development		Ease of integration to internal systems		Overall cost of operation		Average score	
5.90	▲	6.37	▲	6.22	▲	6.05	▲	5.96	▲	6.24	▲

KEY STATS Overall Outperformer: 🏆 Category Outperformer: ★ X13

6.61
Highest score
(reliability and availability)

5.90
Lowest score
(breadth of asset class coverage)

+0.56
Most improved
(product development)

-0.06
Least improved
(breadth of asset class coverage)

TS Imagine

TS Imagine TradeSmart is an all-asset class EMS, that provides interoperability for streamlining workflows, accessing liquidity and improving pre-trade data and post-trade analytics. In an effort to innovate, TS Imagine recently launched a new modular offering targeted at emerging hedge fund managers that can be fused into the TradeSmart application called TS One. It is designed to bring together the combined risk and portfolio analytics strengths of the legacy Imagine Software with the execution management capabilities of Trading Screen. TS Imagine has around 250 buy-side clients using its TradeSmart EMS, 37 of which responded to this year's survey (down from 77 in 2022).

TS Imagine's TradeSmart recorded an overall score of 6.02 this year, which represents a slight drop from its 2022 score of 6.04 but is still comfortably above this year's survey average of 5.94. TradeSmart outperformed the benchmarks in nine of the 13 categories reviewed in the 2023 survey. Its most significant areas of outperformance

relative to the overall industry were ease of integration to internal systems and breadth of asset class coverage, which both came in at 35 basis points above their respective category averages.

Year-on-year, results demonstrate that TS Imagine saw a score increase in seven key areas under review with the most notable being reliability and availability (+0.32), breadth of broker algorithms (+0.17) and latency (+0.14). Reliability and availability (6.57) was also the vendor's highest rated category in 2023 while its lowest was overall cost of operation at 5.36.

Client feedback around additional capabilities was plentiful, with respondents calling for better TCA capabilities, workflows with all the major execution venues for credit derivatives, integration for derivatives with the major OMSs, connectivity to primary platforms, additional multi-asset offerings, more access to market data, an integrated pre-trade analysis tool, improved order lifecycle automation and an enhanced user interface.

TS IMAGINE RATINGS FOR EMS PERFORMANCE

Reliability and availability	Latency	Client service personnel	Ease-of-use	Handling of new versions/releases	Breadth of broker algorithms	Timeliness of updates for broker changes	FIX capabilities
6.57 ▲	6.26 ▲	6.04 ▼	5.89 ▼	5.94 ▲	6.25 ▲	5.99 ▼	6.15 ▲

Breadth of asset class coverage	Breadth of direct connections to venues	Product development	Ease of integration to internal systems	Overall cost of operation	Average score
6.07 ▲	6.05 ▼	5.74 ▼	5.97 ▲	5.36 ▼	6.02 ▼

KEY STATS   Overall Outperformer: 🏆   Category Outperformer: ⭐ X9

6.57	**5.36**	**+0.32**	**-0.36**
Highest score (reliability and availability)	Lowest score (overall cost of operation)	Most improved (reliability and availability)	Least improved (overall cost of operation)

Virtu Triton

Triton is Virtu's global, multi-asset, broker-neutral, dedicated EMS platform which allows clients to trade on hundreds of venues, across over 50 countries and a variety of asset classes, including FX, fixed income, global equities, ETFs and listed derivatives. Its broker connectivity is powered by ITG NET and connects to over 700 brokers and venues. The platform also features native integration with the company's multi-asset class Virtu Trade Analytics, data and reporting platform, providing clients seamless integration and consistent processes across asset classes. Triton currently has over 300 clients on the buy-side, 155 of which provided feedback for this year's survey, ranking the vendor first among its peers in terms of the total number of responses received.

We see a stella performance from Virtu Triton in 2023. Its overall score of 6.34, once again places Virtu as the highest rated EMS provider in this year's survey. Virtu achieved outperformance status in all 13 categories under review, the most significant areas of outperformance compared to the category averages were client service personnel (+0.65), product development (+0.54), ease-of-use (+0.52) and ease of integration to internal systems (+0.51).

In terms of year-over-year comparisons, Virtu experienced marginal declines in just two areas; overall cost of operation (-0.03) and ease of integration to internal systems (-0.01). In contrast, the vendor saw year-over-year improvement across all other categories, particularly in ease-of-use (+0.14) and product development (+0.12). Virtu's highest score in this year's survey was in client service personnel (6.68), while its lowest was in breadth of asset class coverage (5.80).

Speaking to the additional features desired from clients of Virtu, respondents highlighted additional flexibility and user customisation capabilities, a chat function within the EMS to connect to support, API connectivity to internal systems, increased interoperability with other systems, enhanced system stability, real-time TCA functionality, FX algo integration and further expansion of its asset class coverage including crypto.

VIRTU TRITON RATINGS FOR EMS PERFORMANCE

Reliability and availability		Latency		Client service personnel		Ease-of-use		Handling of new versions/releases		Breadth of broker algorithms		Timeliness of updates for broker changes		FIX capabilities	
6.61	▲	6.45	▲	6.68	▲	6.47	▲	6.21	▲	6.46	▲	6.36	▲	6.55	▲

Breadth of asset class coverage		Breadth of direct connections to venues		Product development		Ease of integration to internal systems		Overall cost of operation		Average score	
5.80	▲	6.36	▲	6.20	▲	6.12	▼	6.18	▼	6.34	▲

KEY STATS   Overall Outperformer: 🏆   Category Outperformer: ★ X13

6.68
Highest score
(client service personnel)

5.80
Lowest score
(breadth of asset class coverage)

+0.14
Most improved
(ease of use)

-0.03
Least improved
(overall cost of operation)