

Life in the fast lane

Embracing low latency data

November 2024



Watch



the LSEG webinar:
Embracing low latency market data

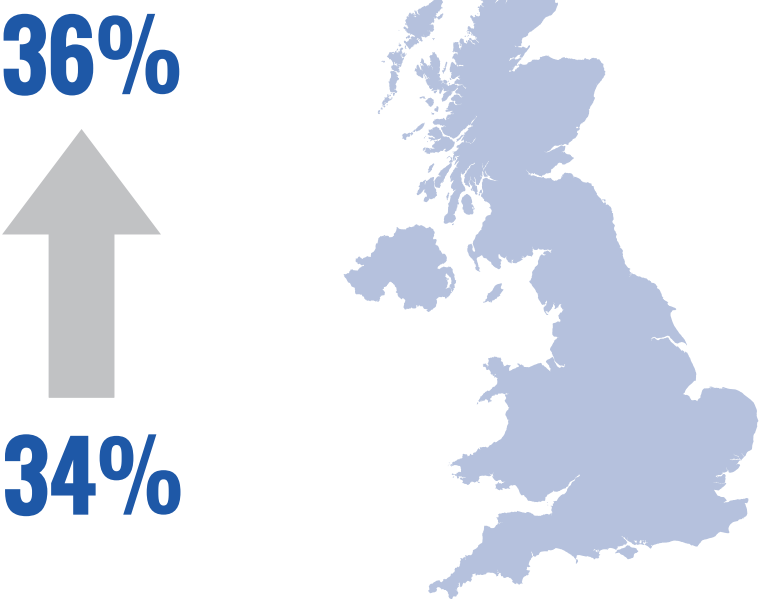
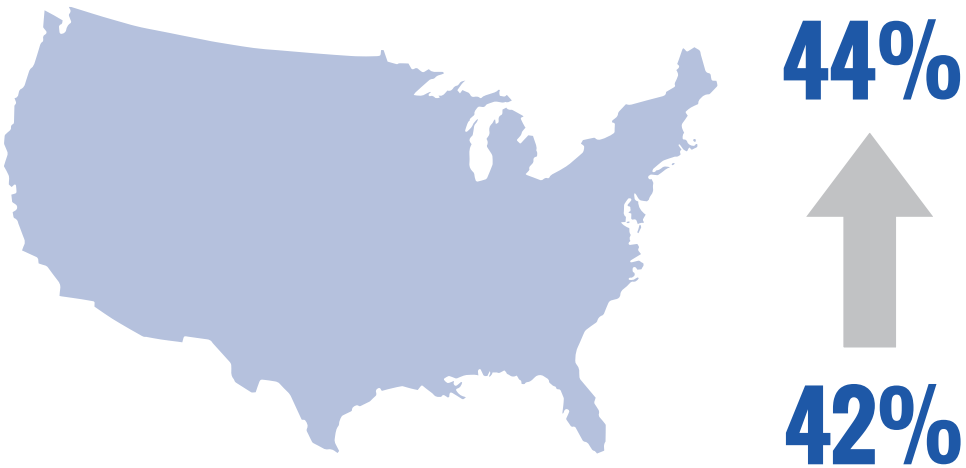
Life in the fast lane

Financial services firms are consuming more data than ever to drive a number of front- and middle-office use cases. These include underpinning algorithmic (algo), high-frequency trading (HFT) and proprietary trading functions, market-making strategies, interfacing with third-party order management systems, and the normalisation of packet capture data for backtesting various trading strategies.

Algo and HFT practices have been part of the capital markets landscape for the better part of 25 years, as investment banks, hedge funds, quant trading firms and specialist buy-side shops sought to gain a head-start on their competitors by consuming and processing the fastest market data with minimal latency and then trading on the back of it.

Continued increase in e-trading

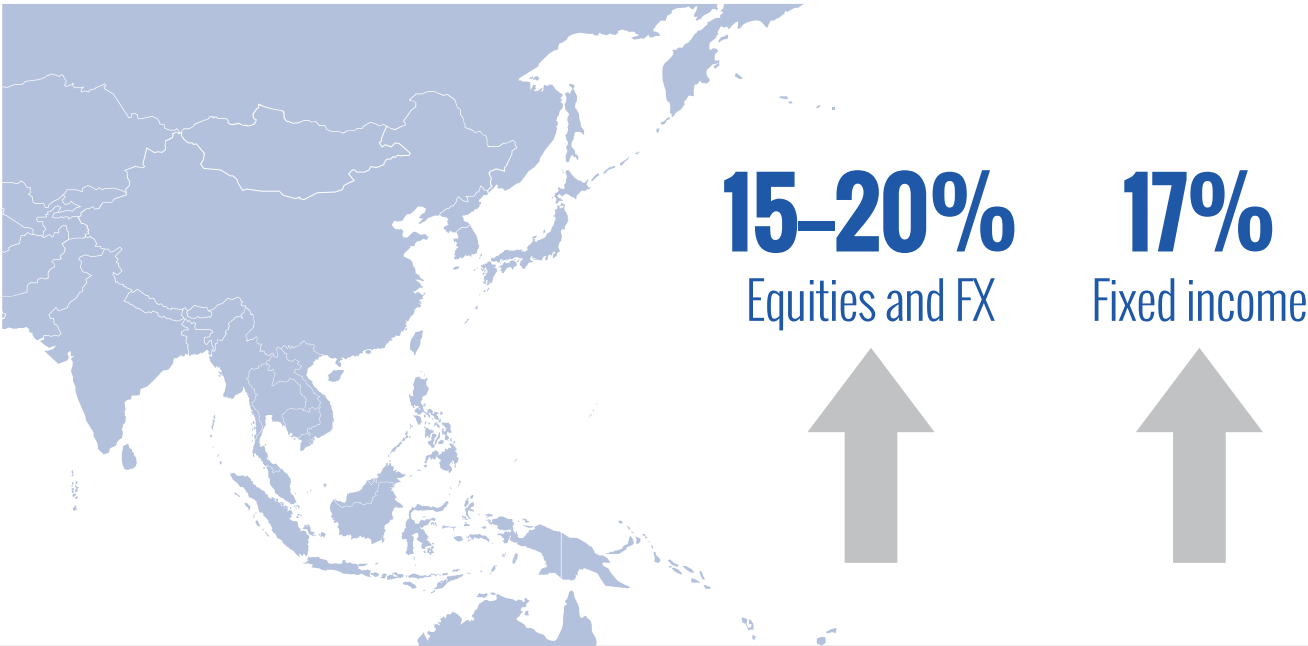
Research from [Coalition Greenwich](#) reveals that, in 2023, buy-side firms employed electronic trading for 44% of their US equities order flow by notional value traded – a modest increase from the previous year’s 42%. Within this, 37% was executed through algorithms and/or smart order routers (an increase from 35%), while 7% was directly routed to crossing networks, maintaining a flat year-over-year figure.



Similar to their US counterparts, European equity investors expect to increase their use of low-touch electronic trading going forward. In 2023, UK-based managers traded 36% of their order flow by notional value via algo strategies, up 2% from 2022.

That figure is expected to hit 39% by the end of 2026.

According to research from [GreySpark Partners](#), e-trading in APAC’s capital markets has exhibited an upward trend between 2020 and 2023, with annual increases of 15–20% for equities and FX, and 17% for fixed income. This accelerated trajectory was expected to continue in 2024 and beyond.



However, while algo and HFT practices can be lucrative for those firms that employ them, they can also be expensive to develop and support on an ongoing basis from a resource and technology perspective. Firms therefore have two options when it comes to supporting their algo and HFT business: develop the technology in-house or partner with a large, global provider that can support all of their current and future data and technology needs.

Traditional routes to market

As demand grew across the industry from firms looking to access the fastest possible market data, so too was there an increase in demand for the underlying technology, such as feed handlers – applications designed to normalise incoming data from exchanges – that would allow them to consume and process low latency market data and act on it. This increase in demand was driven by the growth of electronic trading practices, most notably algo trading and HFT.

Traditionally, capital markets firms had two options when implementing the underlying technology and data infrastructure – they could either build and maintain it themselves or they could partner with a specialist market data provider whose sole purpose was to provide its clients with high-quality market data and ancillary services, while simultaneously taking care of all the underlying data management technology.

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Benefits and drawbacks

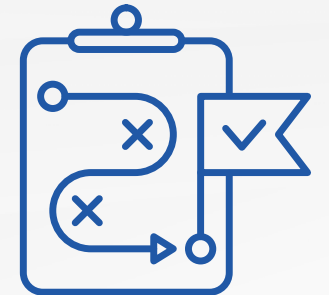
The build-versus-buy proposition has its benefits and drawbacks.

The upside of developing technology internally – and possibly the only real benefit – is that firms tend to end up with exactly what they have specified in terms of functionality and features. The drawbacks, however, can be significant.

As with all areas of technology across the capital markets, developing proprietary data management tools and feed handlers can be complex, costly and time-consuming, often entailing the use of external contractors and consultants for extended periods. Time to market for any new feed or exchange-driven change is similarly poor, while the ongoing operational costs to maintain and support custom feeds can be substantial.

During 2023, LSEG completed more than 1,500 releases. These consisted of:

More than 500 venue-driven changes and other maintenance releases



Capacity upgrades

Data enhancements or other changes



The challenges of maintaining market data feeds

By the end of July 2024, LSEG had already completed more than 300 venue-driven changes, illustrating just how complex and demanding maintaining data feeds can be globally. Additionally, firms managing their own data and trading infrastructure in-house would need to understand, access and test any changes they make to their feeds, all of which is taken care of by LSEG for clients using its feed handlers or low latency feeds.

In the event data and technology specialists leave the firm, there is no guarantee their replacements will have the same or even similar skills to those who developed the original technology and data infrastructure.



Staff turnover and evolving technologies make maintenance and undertaking regular technology updates/refreshes unnecessarily complex and expensive, while simultaneously increasing the risk of failure due to change.

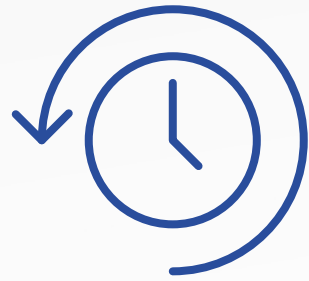


When developing data management technology and feed handlers internally, the bottom line is this: if they do not offer the firm a clear, competitive advantage, the business case for committing the time, technology expertise and financial resources to developing them does not stack up.



Data service prerequisites

For large numbers of firms on both sides of the industry, the buy option has become the logical choice, given that it checks so many technology, operational and financial boxes. Practically, firms tend to look for a number of attributes offered on the back of a data service, although – naturally – the importance they assign to each feature/quality varies from firm to firm.



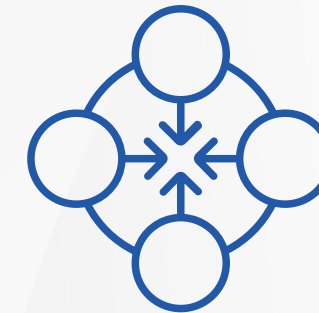
Time to market

Minimal time to market for any new data feed is now expected by almost all firms, regardless of which side of the industry they are on, or their size and levels of sophistication and complexity. The industry is fast moving towards a culture of ‘instant gratification’.



Primary differentiators

The accuracy, reliability and transparency of the data being provided to clients by vendors is also a primary differentiator, given that so many of the use cases centre on the front office and revolve around trading and revenue generation.



Consumption and integration

Ease of consumption and integration/normalisation are critical differentiators in what is an increasingly competitive market. LSEG assists clients in this regard by taking care of all data normalisation, allowing firms to consume and use data with minimal wrangling.



Provider reputation

The provider’s reputation and its ability to invest large amounts of resources in low latency technology, its proven track record in an unforgiving industry, the size of its community of users and the broadness of its market/region and asset class coverage all play a role in vendor selection.

Hosted versus deployed

Increasingly, firms are looking to partner with providers that offer cloud-based services that address a number of challenges, including reduced time to market for feeds and lowered total cost of ownership. Cloud-based services also allow firms to store, consume and deliver information via the cloud without the need to invest in and maintain costly infrastructure, while any challenges around outdated legacy technology/infrastructure are similarly addressed by the cloud model. For example, LSEG's historical market data solutions, Tick History and Tick History – PCAP, are available for customers in the cloud.

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Financial considerations

Financial considerations are always an important criterion for firms when it comes to evaluating the benefits available to them on the back of data services, especially when appraising hosted versus deployed options. As important as pure financial considerations are, they are invariably not the deal-breakers many might assume them to be. Financial services firms generally expect to pay a premium for a service they know has the potential to have a material impact on the efficiency, efficacy and all-round financial performance of the business.

Cloud-based services offer significant benefits over deployed or in-house developed and implemented data platforms, such as reduced time to market for new feeds, a variety of data management and storage benefits, and the fact that a hosted service is typically paid for by the business using operating expenses as opposed to capital expenditure.

Deployed or in-house developed and implemented data platforms tend to also come with a variety of hidden costs, which can make them prohibitively expensive, including for ongoing maintenance, personnel and various hardware costs when performing a system refresh. When you add the need for dual hosting for resilience, these costs will often double, or even triple.

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LSEG's twin offerings

LSEG's low latency solutions support firms' various trading and risk use cases by delivering scale, deep domain expertise, experience, nimbleness and speed (time) to market, while simultaneously addressing all of the aforementioned shortcomings associated with internally developed solutions.

LSEG does this on the back of two offerings: Real-Time – Direct and Real-Time – Ultra Direct, which together provide users with either low latency market data feeds (Real-Time – Direct) or ultra low latency market data feed handlers (Real-Time – Ultra Direct). Both of these offerings can be configured to clients' specific needs.

Learn more about

[Real-Time – Direct](#)

Learn more about

[Real-Time – Ultra Direct](#)

Full latency support

These twin offerings cover the full latency spectrum, offering clients a choice of latency to suit their specific use cases. They feature exchange data that is normalised to LSEG's data model and compatible with other LSEG real-time applications. Ease of implementation is guaranteed by the firm's track record of providing direct data feeds to the market since 2006 and its technical prowess as one of the industry's foremost data providers.

LSEG's scale allows it to partner with the industry's largest players, while its nimbleness enables it to respond quickly to market changes and demands, both of which are high priorities for clients. On the client support front, LSEG provides a global support staff for its two low latency solutions, while its content operations team manages content changes on all exchanges, both of which are available on a 24/7 basis.





One such example of LSEG's nimbleness, scale and global footprint is when it comes to adding data feeds for Tick History – PCAP, Real-Time – Direct and Real-Time – Ultra Direct to new venues.. It recently added feeds to the Osaka Digital Exchange and the FMX Futures Exchange (part of the BGC Group). While the original go-live date for the FMX Futures Exchange had been set for the end of 2024, LSEG's low latency solutions team (with their MayStreet technology assets and expertise) wrote a feed handler to the exchange, which went live on September 23, 2024.

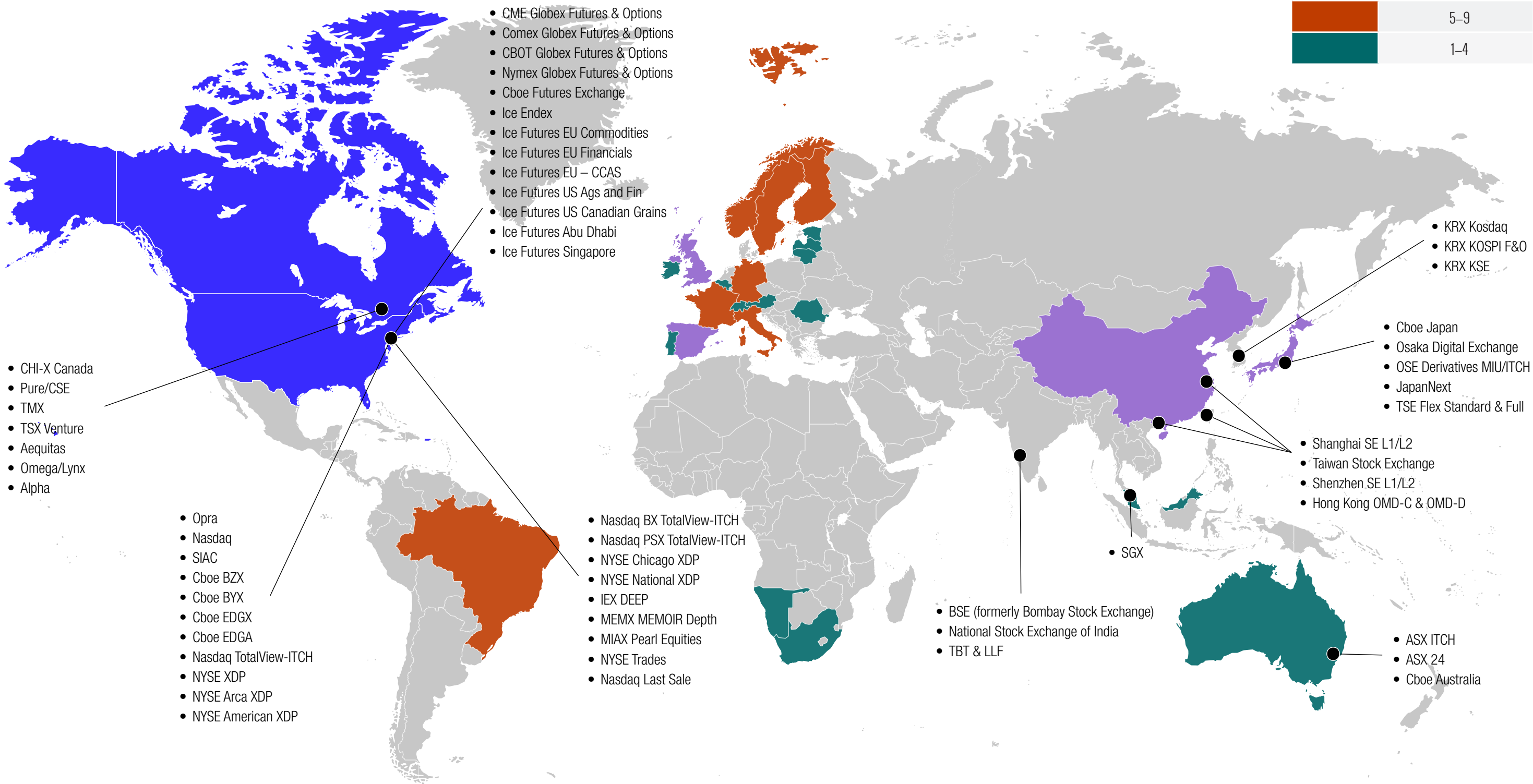
LSEG's Real-Time – Direct and Real-Time – Ultra Direct offerings feature low latency market data feeds and ultra low latency market data feed handlers, respectively, both of which can be configured to clients' specific needs to support a variety of use cases.

Real-Time – Direct and Real-Time – Ultra Direct

Global feed coverage

Real-Time – Direct venue availability	
	denotes Real-Time – Direct venue availability

Number of Real-Time – Ultra Direct feeds	
	31–125+
	10–30
	5–9
	1–4



The road ahead

LSEG's immediate objective is to focus on building out the breadth of its market in the direct feeds space, much of the impetus for which came courtesy of its May 2022 acquisition of low latency technology and market data provider, MayStreet. A key market for LSEG is North America, on which it focused during the first half of 2024. Next, LSEG will look to grow its direct feeds presence in Europe and foreign exchange.

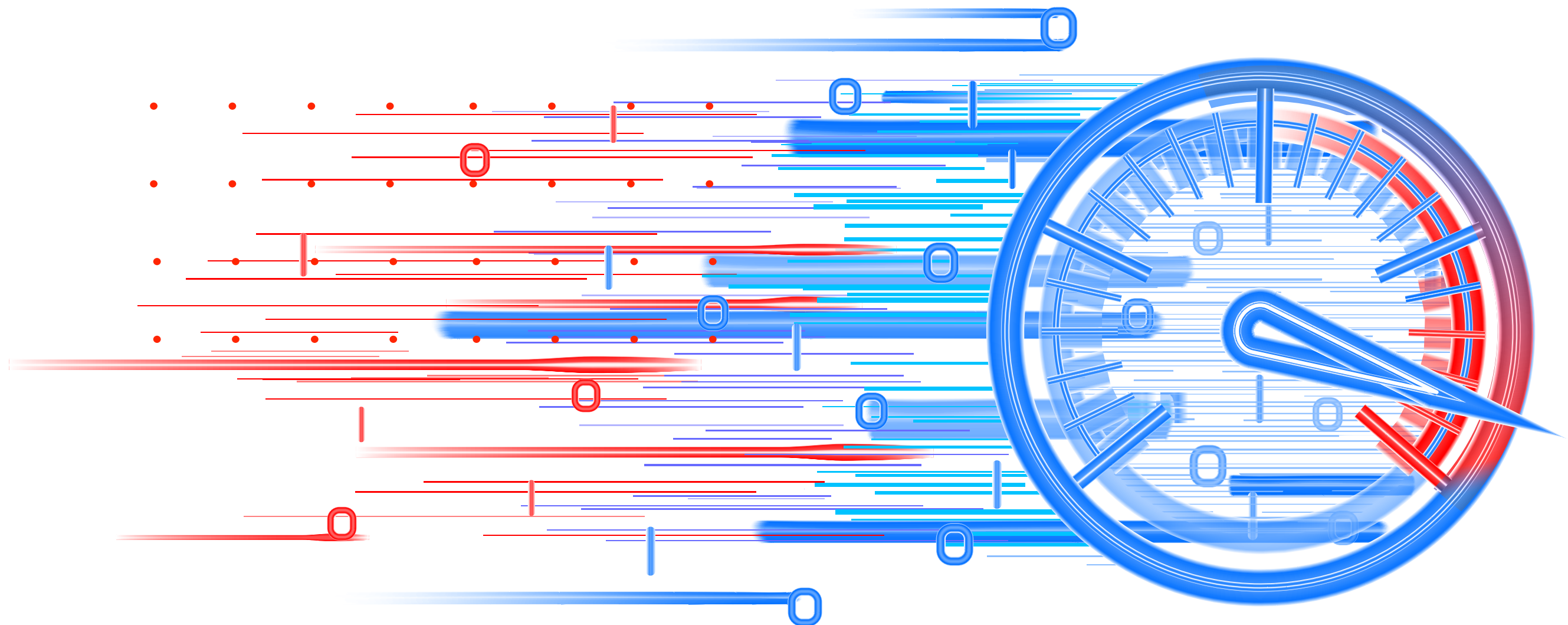
A trend LSEG continues to monitor pertains to independent market data/technology providers, many of which are private equity owned. This indirect reliance on private equity firms is a source of discomfort for large numbers of investment banks, given their exposure to such a critical part of the business: the front office. LSEG's low latency solutions are well positioned to be the obvious, 'safe choice' low latency solutions for those firms looking to change providers.

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Low risk, high return

Key to LSEG's appeal to firms on both sides of the industry are its reliability, the unrivalled latency spectrum it offers through its Real-Time – Direct and Real-Time– Ultra Direct services, and the accuracy and consistency of its exchange data, which is normalised and compatible with other LSEG Real-Time applications, making it easy for firms to consume for a variety of use cases.

The firm's scale, global coverage, deep domain expertise and experience of its subject matter experts, and its reputation all play a role in LSEG being seen across the industry as the dependable choice for large numbers of clients. Relationships between capital markets firms and their data providers tend to be expensive, multiyear affairs that can have a material impact on their profitability and overall efficacy as financial institutions. When entering into a new relationship, it is therefore important for them to know they are in good hands. If they are able to do that while simultaneously rationalising their data vendor numbers and operating costs, then so much the better.



About LSEG

LSEG is one of the world's leading providers of financial markets infrastructure and delivers financial data, analytics, news and index products to more than 40,000 customers in over 170 countries.

We help organisations fund innovation, manage risk and create jobs by partnering with customers at every point in the trade lifecycle: from informing their pre-trade decisions and executing trades to raising capital, clearing and optimisation.

Backed by more than three centuries of experience, innovative technologies and a team of 25,000 people in more than 60 countries, we are driving financial stability, empowering economies and enabling you to grow sustainably.

About LSEG Data & Analytics

LSEG Data & Analytics, one of the world's largest providers of financial markets data and infrastructure. With over 40,000 customers and 400,000 end users across approximately 190 markets, we are an essential partner to the global financial community and redefining the future of data in financial services. We enable customers to draw crucial insights through data, feeds, analytics, AI and workflow solutions. With our unique insights seamlessly integrated into your workflow, you can identify opportunity and seize competitive advantage.

Learn more about LSEG Data & Analytics [data and feeds solutions](#)

