

Hosted Direct Market Access

As futures markets expand globally, FCMs embrace Hosted Direct Market Access (Hosted DMA).

As futures traders continue to seek higher performance, greater global access, and additional functionality, Futures Commission Merchants (FCMs) are exploring new ways to meet the demands of their customers. Squeezed by the economic downturn and uncertain about the future, FCMs are increasingly looking to do more with less, resulting in increased adoption of outsourced trading solutions such as Hosted Direct Market Access (Hosted DMA).

How Hosted DMA Works

Electronic futures trading has always required a sophisticated infrastructure. Not only must the trader be given access to the data contained in the exchange's order book, an FCM must also provide the equipment, software, and communication protocols for transmitting orders to and receiving order messages from the exchange.

In the early years of electronic trading, FCMs either built their own infrastructure or relied upon software and hardware provided by Independent Software Vendors (ISVs). These first-generation architectures only worked with the ISV's front-end software and required each FCM to own its trading infrastructure complete with

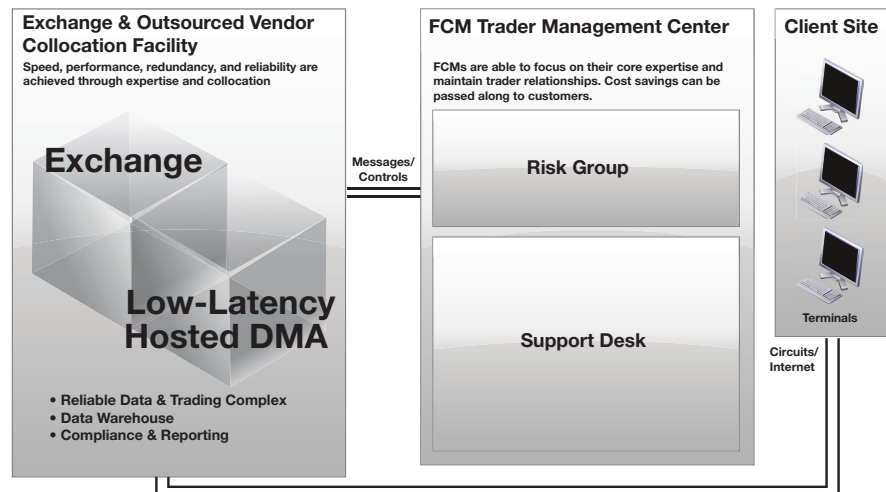


Figure 1: Hosted Direct Market Access Model: Collocated, Vendor-Managed

servers, routing hardware, and telecom services. For the most part, this method of providing electronic trading access continues to dominate the futures industry.

With Hosted DMA, FCMs outsource the ownership, operation, and maintenance of the electronic trading infrastructure. A Hosted DMA provider supplies not only the front-end trading software but also the infrastructure required to route trades to an exchange. A Hosted DMA provider invests in the software, servers,

communication hardware, and telecom services necessary for electronic trading. The provider then recoups that investment by charging for front-end software and/or transactions through the system.

In the best case, a Hosted DMA provider establishes a worldwide network of exchange gateways through which trading connectivity can be established to multiple exchanges. By building an extensive collection of exchange connections together with a robust and redundant

telecom network, a Hosted DMA provider is able to reduce costs, increase efficiency, and improve performance for all market participants.

Advantages of Hosted DMA

IT outsourcing is becoming a mainstream business practice across all sectors of the industry and is likely to become of far greater interest as economic conditions worsen. *Gartner, Inc., Press Announcement*, June 15, 2009. As with other industries that have turned to outsourcing, the advantages of Hosted DMA over first-generation systems arise because the outsource provider can take advantage of economies of scale unavailable to individual market participants. For the FCM, these advantages can be found in numerous areas, including system performance, deployment, scalability, management, and cost.

Performance: As electronic trading matures, speed and reliability are paramount concerns for most traders. Few firms, and virtually no individuals, can afford to build a trading infrastructure that can take advantage of the low-latency connections now provided by exchanges. Similarly, it is cost prohibitive for firms to build the redundancy necessary for 24/7 reliability.

In contrast, a Hosted DMA provider can build and maintain an infrastructure that takes advantage of the best and newest technologies for low-latency trading. The Hosted DMA provider connects directly to exchanges, leasing and setting up trading infrastructure at the location of the exchange matching engine. In addition, a Hosted DMA provider can establish multiple exchange gateways around the world, allowing an FCM's

trading customers the fastest path to an exchange depending upon the trader's geographic location.

For sophisticated strategy trading, e.g. spread trading (see Figure 2), that relies upon sub-millisecond messaging between the strategy engine and the exchange-matching engine, Hosted DMA is structured to provide superior performance. In a comprehensive and well-tuned Hosted DMA architecture, the front-end client is used to define the trading strategy and the provider's trading servers to manage the order placement and modification.

The Hosted DMA model also leverages failover architecture. If a particular DMA route goes down or is disrupted, the Hosted DMA infrastructure not only has back-up circuits, but, if an entire gateway is disrupted, the distributed nature of the gateways allows the data and trading to be

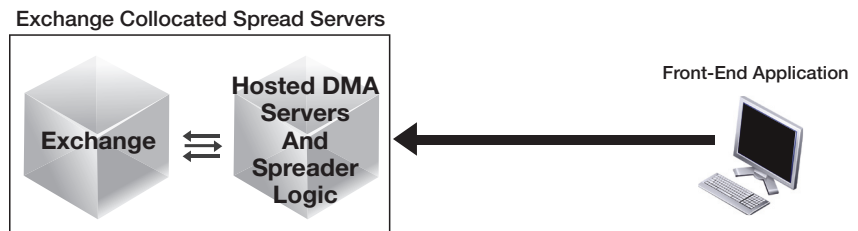
rerouted through another gateway or data server farm.

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Deployment: An existing or new FCM can deploy a Hosted DMA solution for a very low cost and gain global market access immediately. This allows the FCM to reduce

Server-Side Advantage

Spread orders are processed in less than 1MS.



Client-Side Disadvantage

Spread orders are processed at least 10 to 50 times slower.

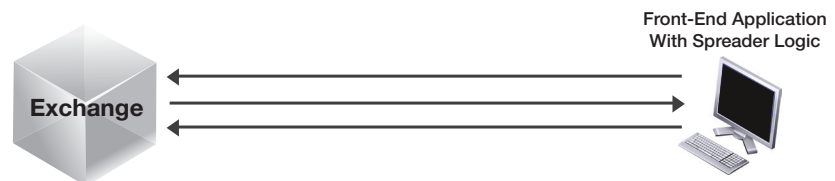
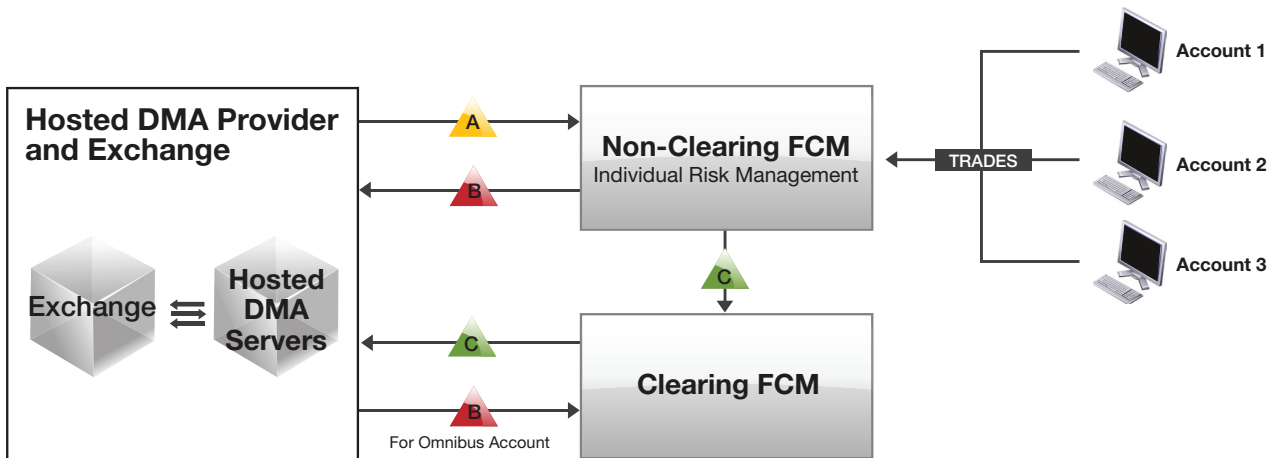


Figure 2: The Advantages of Hosted DMA for Spread Trading



Account Data Feed: Hosted DMA Provider sends daily file detailing the fills on each account to Non-Clearing FCM as often as requested.



Backoffice feed: Non-Clearing FCM sends Hosted DMA Provider a file at the end of the day detailing the account positions and balance which is used to update the account for risk purposes and for the customer to see their proper position and balance on Hosted DMA Provider. Clearing FCM receives file from Hosted DMA Provider summarizing omnibus account activity.



Omnibus account number: Hosted DMA Provider routes orders using the omnibus account number to the Clearing FCM and the Clearing FCM uses that number when submitting orders to the Exchange. The Clearing FCM can set levels for risk on the omnibus account.

Figure 3: Omnibus Accounts and Hosted DMA

switching costs from generation-one providers as well as to deploy better technology.

Scalability: Hosted DMA solutions provide FCMs with an easy way to scale both exchange access and traders. As long as a Hosted DMA provider is already connected to an exchange, it is simply a matter of some paperwork and minor system configuration for an FCM's customers to begin trading on a new exchange. This ease of exchange connection is extremely important as traders seek to trade new products in emerging markets such as Brazil, Russia, India, and China (the BRIC countries) or FCMs seek to add additional asset classes (e.g. fixed income, foreign exchange, etc.) to their portfolio of

exchange relationships. A Hosted DMA provider also supplies scalability in terms of the number of trader that can be added to the FCM's business. Without the need to invest in trade routing infrastructure, it is easy for FCMs to add or subtract traders at will. A well-structured Hosted DMA provider offers the ability to add traders in a matter of hours.

Account and Risk Management: Management of accounts can be streamlined and simplified through the use of a Hosted DMA provider. Assuming the Hosted DMA provider has built the appropriate management tools, account management is a matter of accessing the provider's database and entering the required account information. A Hosted

DMA provider should provide active event-driven risk management in the context of a complete risk system. Such a risk system should include SPAN®-like margining pre-trade analysis, trade limit management, working order analysis, and post-trade risk management.

Omnibus account management is one of the greatest advantages of using Hosted DMA (see Figure 3). In a Hosted DMA environment, it is simple for a member firm to offer confidential exchange access to non-exchange-member partner firms and to effectively manage the risk associated with the partner firm's activity without having access to activity of any constituent account. At the same time, the partner firm

is able to acquire broad exchange access while maintaining the confidentiality and security of individual accounts.

Cost: Given the significant cost pressure facing today's FCMs, it is imperative for FCMs to move away from building and maintaining their own technology and staffing infrastructures. It is both expensive and operationally complex for FCMs to maintain their own IT infrastructure and staff.

The cost advantage of Hosted DMA comes as the result of being able to share infrastructure. As Russ Abramson, the J.P. Morgan head of product development and electronic trading strategy for futures and options in the Americas, said, a Hosted DMA firm "is able to scale [the cost of a routing infrastructure] across multiple clients without impacting quality of service. Furthermore, [J.P. Morgan] is gaining the expertise and skill set of a firm that specializes in this service." Burns, *Technology Roundtable: Focus Shifts to Demand of High-Frequency Trading*, FI Magazine, September 2009.

Low-latency solutions are particularly problematic. Leslie Sutphen, global head of eSolutions strategy and implementation for Newedge Group, has commented that, "In order for firms to offer a low-latency solution, they have to come up with a fairly large investment in not only the data centers, but a very large LAN linking those data centers so that people can do spread trading." Burns, FI Magazine, September 2009. A Hosted DMA provider is able to invest in the required data centers and worldwide network because the provider has the opportunity to spread the cost of that infrastructure investment over many customers. The scale of the cost savings available to FCMs is significant. One FCM estimates that the monthly cost

of building, operating, maintaining, and staffing its own trading connectivity is as much as \$500 per trader. Often, this cost can not be passed on to the trader and must be recouped through commissions. On the other hand, a Hosted DMA provider will often provide trading connectivity at little or no monthly cost to the FCM, electing instead to provide the Hosted DMA service as part of the trader's monthly charge for the front-end trading platform.

A Comprehensive Solution for FCMs

Kevin Brennan, FCStone senior vice president, Chicago operations, has said that there are several factors which have driven his firm to adopt the Hosted DMA model. Primarily, he suggests that technology is not the FCM's core business. FCStone has found that it is at best costly and at worst nearly impossible to stay on the cutting edge of changes in technology. With increasing customer demand for access to new products on multiple new exchanges, it simply costs too much to establish trading connections without the assistance of a Hosted DMA partner.

As ongoing financial challenges have led many firms to look for ways to cut costs, they are finding that Hosted DMA offers an unprecedented level of functionality and usefulness, from global exchange access to the ability to scale as needs change. Further, as technology evolves, Hosted DMA providers are able to incorporate the benefits from those advances at no or modest additional cost to the FCM. Without sacrificing performance or control, FCMs typically gain global connectivity, robust risk management, speed, scalability, disaster planning, and ease of use. Providers also normally offer 24/7 IT,

Choosing a Hosted DMA Provider

FCMs that are exploring Hosted DMA should choose with care. They should look for these five characteristics in providers they are considering:

- **Solid financial footing:** Not all firms are well-capitalized and well-run, and not all will survive in the long term.
- **Comprehensive training, support, and service:** The provider should offer ongoing training and assistance as new traders are added. Also, the provider should offer 24/7 IT, networking and customer support, and robust account management.
- **Technical Competency:** Be sure that your provider has technical expertise well beyond the design of front-end software including knowledge of worldwide low-latency networks, data consolidation and distribution, and server-side architecture.
- **Business continuation:** Ensure that the provider's disaster recovery plans are adequate for a range of scenarios and fit with the needs of your firm.
- **Global reach:** Your firm will be bound by the limitations of your provider. Be sure it has global reach and has the ability and intention to meet future, not just current, needs.

network, and customer support, which further adds to the FCM's cost savings and improves trader satisfaction and efficiency.

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