FUSION SYSTEMS

RaptorTM continues to roar against the competition

n this age of fast-moving financial markets, traders need every advantage to capitalize on opportunities. Very often, split second decisions on whether to buy or sell can mean the difference between profit and loss. That's where Fusion Systems' Raptor™ comes in. Raptor™ is a "next generation trading platform with guaranteed low latency" – or a trading platform that allows traders quick and easy access to a multitude of markets. The best part is that Raptor™ was specifically designed to work with Asian exchanges.

This month, Fusion's Jonathan Hope (pictured) gives ACCJ Journal readers the lowdown on how RaptorTM works and how it gives traders a decided advantage:

Journal: So what is Raptor™? **Hope:** Raptor[™] is a high-performance, market gateway that allows traders to trade electronically against various exchanges, with a minimal amount of delay between the time the traders empty the order and the time it reaches the exchange. It's our flagship product and it's a very sophisticated piece of software/ hardware that supports some of the more sophisticated trading that we have going on in today's market. Traders today need access to the absolute fastest system they can get to the market, particularly if you're doing some sophisticated trading strategies or things like that.

Currently, we support all of the major markets in Asia – the Tokyo Stock Exchange, Osaka Stock Exchange, Hong Kong Stock Exchange, Indonesia, and India. We have on the roadmap in the near future to have Singapore, Australia and Korea covered by the product.

Journal: How does Raptor[™] fit within the overall scope of things? A trader would have what on their desk versus Raptor[™] and how does Raptor[™] interact with that product?

Hope: The trader will use a piece of software that will allow them to view their position and they'll make a decision on whether a trip of signals based on market data that we use to tell investors if they should buy or sell. You can have software

that will execute that command and Raptor™ is the recipient of that command, once the trader has issued that command with their own software.

Raptor™ is the conduit between that trading software and the market exchange. It's a particularly valuable piece of the publisher because many of the traders work for hedge funds at the management of funds and they're not able to interact directly with the exchange because exchange membership is very expensive. So basically people who buy the software are the institutional brokerages which provide a service to the hedge funds. And Raptor is run in the institutional corporate data center.

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So basically the trader who's connected to that hedge fund connects with Raptor™ which is managed by the broker and Raptor™ sends that order straight to the exchange; and vice-versa as the response goes back to the trader. So basically, Raptor™ is middleware and it allows one trader to connect to all the markets simultaneously so they can do some really sophisticated trading.

Journal: How do you differentiate between Raptor[™] and some of the competing products?

Hope: That's the easy part. It's really easy to differentiate Raptor™. In the landscape of all the products out there, you have products that are extremely robust that are very staked to the traders, they do all sorts of rich chats, they can stay over in case there's a system problem, basically they allow the trader to make sure there's a true action happening. Typically, these products are priced low because they perform all the steps.

On the other end of that spectrum, we have products that are very fast, but they're not as robust. And so that's the typical landscape that we have on the products that are available right now.

Raptor™ dominates most of the products that are out there on the market by providing the best of both of those worlds. Raptor™ is both an extremely robust, reliable and safe system – at the same time, it is the fastest execution management system commercially available in Asia.

The cost of ownership of Raptor™ is also much lower than other systems as well. That makes it very attractive to our clients to choose Raptor™ as opposed to another system. And it's even more attractive than having an in-house system because the cost of ownership is even more affordable.

Raptor™ also changes the paradigm of what that type of system does as well. It provides what we call "smart DMA" (direct market access) functionality within the platform - all integrated within this one piece of software. It's not only able to send the trade on to the exchange and back to the client, but it provides some really nifty features. If an order comes in and a trader says "I don't care where you route it, I just want you to give me the best execution," Raptor[™] can employ some smart logic that will decide which exchange is the best to route the order to. That's another feature we call Smart Order Routing, that's within that package of Smart DMA.

Journal: Are there any other significant features of Raptor[™] that should be mentioned?

Hope: Another aspect of Raptor™ that differentiates it from some homegrown solutions and other commercial solutions that are out there is that we have a version of Raptor™ that is built directly into the hardware. Basically, we call it Raptor™ Extreme. It provides the same breadth of robustness and safety that the original Raptor™ provides but at an order of magnitude faster. By embedding the software onto the hardware chip we get that increase in performance. Most of the commercial systems out there are entirely software. There are some products that are moving into the software/hardware hybrid



model in the US and Europe but Raptor $^{\text{TM}}$ is the first homegrown solution that does that here in Asia.

Journal: I heard there was a technique where you can place an order and then in the micro-seconds that it takes for the order to be acknowledged and filled you can actually send a cancel by monitoring the traffic from other sources which are also doing orders. Does Raptor™ take advantage of this technique?

Hope: Raptor™ enables that at so many different levels and extremely efficiently. The technique is known as "liquidity seeking." What that means is the algorithmic system is pinging the market for signs of possible trades and based on the market data that comes in, a trader can determine whether or not to go ahead with that order on that particular exchange.

So, because Raptor is orders of magnitude faster than so many other systems out there, the trader is able to reduce the risk in a more stable way.

Journal: Is there a significant advantage in the course of a day where traders see their productivity go up 20% for example, or an order of magnitude more? What is the significant difference at a business level? Hope: Traders just want to get the best execution for their order. So the improvement in speed will ensure, in a much smaller window, that you can make the best decision. So that helps you react to the market much faster. Also, just the simple fact that two different traders hit the send button at the same time, the trader with the fastest system is going to get the execution. That's a huge advantage because the other trader will get nothing.

Journal: Is there a market-execution-speed Olympics in the world somewhere, or maybe a review done by some consulting company or testing that has been done that has validated your product?

Hope: There are certainly measuring systems out there. What we've seen is that clients have done their own comparisons with different products in-house. At Fusion, we've done one of those types of studies for a client here in Japan. There isn't a world-wide public Olympics of execution systems or measuring systems, probably because it's difficult to compare different trading systems. They each have different performance characteristics or different targets for different clients. Some trading clients already have lots of infrastructure built on their side and they just basically need a very fast conduit into the market;



Fusion's Jonathan Hope in conversation with Journal publisher Terrie Lloyd

they don't need all the software or all the machinery or execution management. And so an execution that serves them the best would be almost a bare-bones hardware router. And that's what we're targeting with one of our hardware products called Raptor™ Raw, which services that type of client – a very special type of client.

So it's difficult to compare on a grand scale which systems are better. But there are lots of benchmarks out there.

Journal: So who is buying Raptor™? Do you have any case studies?

Hope: We do have case studies, but we can't mention any specific companies. But leading security companies, retail corporate companies are our clients. The retail market here in Japan is huge; these are people trading at home. So we have several really large companies here too.

Journal: How big is the market and furthermore what percentage of the market would you have versus three years ago and what's the value of the sales in this market? Is it reasonable to say this is a US \$500 to \$600 million market?

Hope: It's over a billion (in Asia) and that's not considering the institutional brokerages. You have the regional brokerages as well as the bond side; these are the hedge funds and high frequency traders. Then as well, aside from the bond market, there are the exchanges themselves. We've been approached by a couple of exchanges to use Raptor™ as the gateway technology for the exchanges themselves.

Journal: So your title (at Fusion Systems) is Professional Services Manager? Hope: My official title is Principal and I've been a Principal for almost two years with Fusion. I'm involved in all aspects of the business here. Now, our focus is on RaptorTM, so my role within that space is product manager of RaptorTM. I'm responsible for deploying the software, assembling the team, making sure the software works for an engineering point of view, as well as feeding more business from the client. As well, I had a hand in shaping the product itself.

Journal: So where do you think the product is going to go?

Hope: The midterm vision we have for Raptor™ is to complete the build-up in terms of support we have for all of the Asian markets. Our focus here is to make Raptor™ the absolute best execution product in Asia, bar none. That's priority number one for Raptor™. I should mention the hardware base too – build that out - then, building up more feature specs on Smart Order Routing and the Smart DMA platform. So after we've completed the foundation of covering all the markets in Asia and making an absolute solid product then we'll build on top of that in terms of the areas we branch out of that, in terms of features and tradability.

Journal: What about Fusion? Are you going to open up offices around the region to support the product?

Hope: Actually, we have a growing office in Hong Kong now. In fact, we have a full Raptor™ team in Hong Kong. Our plan there is that we continue to build our footprint in Hong Kong because that's a really fertile market for us.

It's really an exciting time for us in terms of where the product is going to be. I would expect that once the market settles, we're going to find that the product's going to have all the Asian markets covered. We'll have a very broad client-base and in that sense, we'll be able to see some really interesting things happening with Raptor™ in the future.