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DRIVING INNOVATIONS INTO NEW MARKET SEGMENTS

Stefan Ott
Managing Director, CEO

CONFINITY
SOLUTIONS

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Driving innovations into new market segments

COVER STORY

As per the research, the global high-speed messaging infrastructure in FinTech has the potential to grow at a CAGR of 14.2%, as expected for the next decade. Earlier, the market was solely dominated by a few incumbent vendors. Large internet companies and open-source projects have presented challenges to the niche market. In the face of this, businesses like Confinity Solutions are able to make a distinctive place for themselves in this cutthroat environment. Leading the Confinity Solutions team, Stefan Ott has emerged as a crucial player in the financial industry's use of low-latency communications infrastructure. Let's find out more about Stefan's venture's vision for revamping the market based on the conversation held with him. Recognizing the horizons beyond FinTech, the company is exploring opportunities in the automotive and telecommunications industries, where similar messaging speed needs exist. Hence, we are here to unpack all the above aspects of this narrative.

Stefan Ott
Managing Director
CEO

Stefan Ott's Career Journey

In Frankfurt, Germany's financial center, Stefan Ott started his professional career. He also pursued his education in computer science because he was interested in the field. Stefan's career path started with the Frankfurt stock exchange and continued with Reuters, IBM, and Confinity Solutions. His vision is to extend the benefits of CLLM to other industries, such as automotive and telecommunications.

The Founding Story of Confinity Solutions

By purchasing IBM's low-latency messaging program, IBM Websphere MQ LLM, Confinity Solutions joined the messaging industry in 2016. The company started the process of renaming and improving the product to Confinity LLM (CLLM) after this acquisition. Its flagship offering, Confinity Low Latency Messaging (CLLM), is a messaging middleware that enables incredibly dependable, fast communication between servers with a high throughput and very low latency. This technique has a latency of only a few microseconds and can process millions of messages per second. Confinity Solutions today services a worldwide clientele, mostly made up of stock exchanges and broker businesses spanning India, Taiwan, China, Australia, Japan, Latin America, Mexico, the UK, Germany, and Russia.

Services and differentiation

Headquartered in Germany with an offshore development center in India, Confinity Solutions leverages its core competencies in product skills and messaging know-how. The company's diverse team, fluent in languages such as English, Mandarin, Spanish, and Hindi, ensures effective communication with customers worldwide. By listening to customer needs and establishing a user group, Confinity Solutions continuously enhances its products to meet evolving market demands.

The service portfolio of the organization is primarily focused on serving stock exchanges, brokers, and other financial institutions worldwide. CLLM is a critical component in building trading infrastructures, particularly for algorithmic trading and high-frequency trading. It supports various asset classes, including stocks, securities, futures, and options.

Role of CLLM in Trading

The Bombay Stock Exchange is CLLM's old customer. In the conversation, Stefan explained the company's contribution to the trading space as when an order is received from a market participant and sent to an exchange, it passes through a gateway. From this point, Confinity Solutions' software takes over, ensuring the order is delivered and transported to the core systems of the exchange, such as matching engines. All subsequent communication is handled by CLLM, which offers a seamless and efficient trading process.

Confinity Solutions has been putting a great focus on expanding its footprint in India, with a broader view of the Asia-Pacific and Middle East regions. The company's leadership recognizes the immense potential in these markets, particularly India, due to its burgeoning financial sector and increasing trading volumes.

Enhancing performance and reducing latency

A primary objective of Confinity Solutions is to continuously enhance the performance of its software and reduce latency. To achieve this, the company is exploring innovative approaches, including integrating some of its software logic into hardware. By utilizing Field Programmable Gate Arrays (FPGAs), Confinity Solutions aims to shift from a purely software-based solution to a hybrid model. This involves placing critical logic on or next to network cards to further reduce latency and increase the throughput of messages per second.

Market demand and product adaptation

The demand for ultra-low-latency messaging solutions is particularly strong in the Indian and Asia-Pacific markets. Financial institutions in these regions are keen on adopting advanced technologies to handle the growing volume of trade and orders. Confinity Solutions' FPGA version of Confinity Low Latency Messaging (CLLM) is designed to meet these high-performance requirements, ensuring that customers can maintain their competitive edge.

Establishing a Local Presence in India

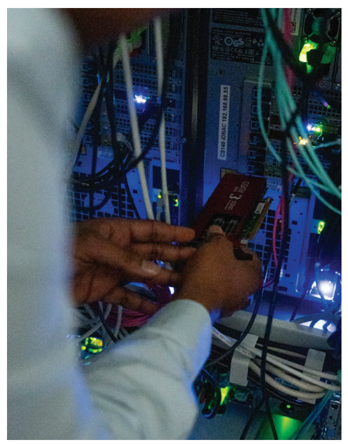
In view of addressing the importance of a local presence, Confinity Solutions is all set up to establish Confinity Solutions India Limited. This move will enable the company to better serve the Indian market with localized solutions and support. Currently, Confinity Solutions operates a development center in Pune, near Mumbai, where a significant portion of its development and support services are managed. This center plays a crucial role in the company's expansion strategy, providing the necessary infrastructure to support its growing customer base in India.

Business Performance and Progress

Over the past few years, Confinity Solutions has established a mature business model, consistently servicing its existing customer base. The company aims to expand its market share within FinTech and venture into new industries while keeping up with the latest trends and technologies. Innovations like the CLLM FPGA version exemplify Confinity's commitment to maintaining cutting-edge technology.

Unique Selling Proposition

Confinity Solutions prides itself on delivering exceptional service to its clients. The company presentation includes logos, references, and testimonials from satisfied customers, showcasing Confinity's dedication to client success. Confinity Solutions stands out in the competitive landscape of messaging middleware systems through its relentless pursuit of reducing latency while guaranteeing high availability and reliability. Traditionally, many middleware systems have competed to be faster and more efficient, but Confinity Solutions has distinguished itself by providing a highly reliable broadcast messaging infrastructure and pushing the boundaries of speed and reliability to unprecedented levels.



The key differentiator for Confinity Solutions is its ability to achieve ultra-low latency reliably. While typical systems may operate within the millisecond range, Confinity's flagship product, Confinity Low Latency Messaging (CLLM), operates in the microsecond range. On a 10-gigabit Ethernet, CLLM achieves single-hop latencies of 1 to 4 microseconds, setting a new standard for speed in the industry. This is particularly crucial in the high-frequency trading environment, where even microsecond differences can determine who gets the trade.

Confinity Solutions has continuously fine-tuned and optimized its software to squeeze out the best possible latency. The company understands that its customers demand the lowest latency achievable, and they are even working towards achieving nanosecond latencies in the future. This ongoing race to zero latency is driven by the necessity for traders to be the first to send their orders to the exchange, ensuring they secure the trade.

In addition to speed, Confinity Solutions ensures fairness and reliability in trading. Once an order reaches the exchange, the system guarantees that every order is treated equally, ensuring the first order to arrive is the one that gets the trade. This commitment to creating a fair marketplace is another aspect that sets Confinity Solutions apart from its competitors.

No data breach or security question

Confinity Solutions has built-in functionality to meet a variety of security requirements. All data sent through CLLM can be encrypted, encoded, and compressed. Hence, there are no questions about data breaches. The organization ensures secure and high-throughput communication between the sender and receiver. The CLLM product includes a unique feature that helps establish a bi-directional communication channel that guarantees message integrity and prevents unauthorized interception. This ensures that only acknowledged packets are processed, providing a highly reliable and secure communication method.

Extending across the automotive industry

In the coming year, Stefan's team is about to launch something out-of-the-box. He would be targeting autonomous cars that rely heavily on video cameras to navigate and interpret their environment. These cameras act like the human eye, scanning for traffic signs, signals, and other road elements, but many instances have revealed that they are prone to errors. Even a single misread by cameras on the traffic signals due to glare from the sun could lead to accidents.

In light of this, Confinity Solutions proposes to bring CLLM technology to establish a more reliable communication channel between traffic signals and autonomous vehicles. Instead of interpreting visual data, the traffic signals would directly communicate their status to the vehicles. Stefan shared with us, "For instance, a traffic signal could send a message indicating "I am red for 10 seconds, I am red for 9 seconds," and so on. The vehicle would then acknowledge receipt of this information, ensuring it has accurately understood the traffic signal's status. This direct communication method reduces the risk of misinterpretation and provides a highly reliable and secure way for autonomous vehicles to navigate. It eliminates the errors associated with visual data interpretation and ensures a continuous and accurate flow of information between traffic signals and vehicles."

Confinity Solutions plans to apply this innovative approach as part of its strategy to expand beyond the financial markets into the automotive sector. For the launch of this unique solution, they are particularly targeting the Middle Eastern market, as there is remarkable innovation as well as inclusion in autonomous driving.

Expansion Plans in the Financial Sector

Confinity Solutions is focusing on expanding its presence in the Indian financial market, leveraging the rapid growth and increasing trading volumes. The company recognizes the potential in India due to its large population and the doubling number of private investors, which leads to a massive increase in order volumes. Currently, Confinity Solutions has a development center in Pune, near Mumbai, providing development and support services. In the future, the company plans to establish Confinity Solutions India Limited to serve the Indian market locally.

Future Prospects for Confinity Solutions

Confinity Solutions plans to keep up with technological trends, enhancing CLLM to remain a leading-edge technology. The company aims to expand beyond FinTech into new industries and regions, maintaining its commitment to excellence and innovation.