



CASE Study: Real-Time Innovations

Real-Time Innovations (RTI) provides a family of high-performance middleware solutions for the development and integration of distributed real-time applications. These products share a high-performance messaging core that has been proven over 12 years in hundreds of unique mission-critical systems spanning aerospace, defense, financial services, communications, control systems, intelligence, medical, simulation and transportation applications. Its flagship product, *RTI Data Distribution Service* is a high-performance messaging infrastructure for real-time data distribution and loosely-coupled real-time application integration.

The Project

RTI contacted Inflection Point Systems to assist in the development of its *RTI Message Service*, a high-performance Java Message Service (JMS) publish/subscribe messaging solution that will make it easy to develop, deploy, scale and maintain mission-critical real-time Java applications. However, success for RTI meant more than delivering the core functionality on time. RTI also sought a development partner capable of evaluating and improving all aspects of *RTI Message Service*, including performance, code and product quality and ensuring that RTI remains the highest-performing solutions in its sectors.

The Inflection Point Solution

The first phase of Inflection Point's solution included fully immersing the product development team into RTI's Data Distribution Service (DDS) implementation, and JMS requirements. This allowed Inflection Point to identify and then deliver a middleware solution with the efficiency, scalability and versatility to thrive in the highest-demand environments.

In the second phase, Inflection Point is collaborating with RTI and selected customers to identify the specific demands of mission-critical users in their markets. This type of high-level consultative relationship is where Inflection Point excels by proactively adding value before, during, and after the software development process. Inflection Point ensures that RTI's products continue to offer low latency, high throughput, high scalability and deterministic responses, with minimal consumption of network, processor and memory.

The Outcome

From both software development and consultative standpoints, Inflection Point has exceeded the expectations of RTI and its engineering leadership. "Extremely complex applications such as ours are typically not conducive to outsourcing relationships," said Supreet Oberoi, Vice President of Engineering for RTI. "In my experience, it can take several months, and many times it is not possible, for an outsourced team to grasp a product's architecture well enough to deliver value. "Inflection Point has built a highly dedicated team that is truly invested in our success, as they continue to beat our expectations. We value their input and work ethic as highly as those of our own staff. That's the highest compliment an outsourced partner can earn from us."