

A photograph of a man in a plaid shirt and dark pants looking at the front of a blue car that has a significant dent and damage. The scene is outdoors with trees in the background. The image is framed by a large blue triangle pointing downwards.

Insurance case study

Insurer boosts revenue with faster quote-to-buy process

Large insurance provider in the Middle East integrates with leading digital aggregator channels and cuts its response times, to win more users and capture new revenues.

The challenge

For the past 6 years, our client's motor insurance business saw limited growth, with an average of just 10+ policies sold per day at an average premium value of \$1,500. The limited growth was due in part to the company's business model of using mostly physical distribution channels for selling its insurance policies. Competitors, however, had begun shifting their business to digital aggregator channels, that allowed users to compare and buy insurance products offered by multiple insurers. This new digital marketplace enabled competitors to widen their customer reach via aggregators, putting our client at risk of losing out on potential additional revenue because it was not accessing this new aggregator on-ramp.

The company wanted to address this challenge and decided to invest in designing and building APIs to optimize the quote and buy process for insurance customers and increase business growth by integrating its distribution channels with leading insurance aggregators."

At a glance

A large property and casualty insurer in the Middle East was offering its insurance products through mostly physical channels. After its business integration with the digital insurance marketplace, the company experienced a range of benefits:

- Boosted the average number of policies issued per day from 10+ to 600+, and average premium size per day from \$1,500 to approximately \$100,000
- Enabled faster response times than competitors, which translates to higher aggregator ratings and a better chance end users will choose our client for policy purchases
- Enabled a request-to-response throughput of less than 1.5 seconds
- Can now handle nearly 1 million transactions per month with 96% of the transactions having a response time of less than three seconds
- Enabled a competitive within five-second transaction processing time, enabling reach to a broader customer segment
- Reduced the average response time for the API service in the production environment by approximately 2.3 seconds per transaction

The approach

As a key strategic partner, Cognizant has helped develop and maintain the client's core insurance platforms over the past 10+ years. Knowledge about the insurance company's business processes and existing technology stack streamlined our ability to devise a right-fit solution to address our client's business requirement. Based on this strong relationship, we moved forward to develop real-time API-driven B2B integration capabilities between the client and its desired insurance aggregator partners in the company's value chain.

We initiated the engagement to implement the business integration, which included a solution that enables faster response times than the client's competitors.

Strong engineering impact

As a starting point for the implementation, we began with a point of view and leveraged a modern, scalable technology stack comprised of J2EE, REST, microservices, Hibernate, Spring and Oracle. We employed an objective tool-based performance analysis, horizontal and vertical scaling, and fine-tuned the service operation parameters to reduce transaction processing time to less than five seconds.

Proactive engagement of R2 (Reliability and Resilience) practices driven by tools like Jmeter and Jprofiler were used for load testing, and analyzing and measuring the performance of several services, with a focus on web applications. JProfiler, a Java profiler tool, helps developers and testers analyze performance bottlenecks, memory leaks, CPU loads and resolve threading issues. This work furthered the continuous optimization activities with our Delivery Excellence team.

Our approach also identified performance gaps, and as a result the average response time for

the API service in the production environment was brought down to approximately 2.3 seconds per transaction.

Facing the challenges

After the first production release of the APIs, the transaction volume quickly grew higher than the initial prediction, making it critical to improve service performance. Since there was no dedicated load/performance test environment available to measure the performance, we addressed this issue by finding suitable workarounds by replicating the load in JMeter. This made it possible for the team to deliver a more efficient and resilient version of the APIs, capable of exceeding the targeted performance KPIs.

Business outcomes

After the integration, the average number of policies issued per day increased from 10+ to 600+ policies per day, with an increase in the average premium earned per day from \$1,500 to approximately \$100,000. The company also ensured that the transaction processing time stayed within a threshold of five seconds, enabling the client to reach a broader customer segment and improve its end customers' ability to access and purchase motor insurance policies in a convenient and fast manner.

Time-saving benefits

The implementation of real-time service integration and subsequent performance optimization helped the client improve its customer reach and increase revenue in the region. API services were tuned to provide a response within an average of 2.3 seconds to compete with other insurance players integrated with same aggregator platform.

The insurance client now benefits from these new capabilities

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- Enabled a request-to-response throughput of less than 1.5 seconds
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