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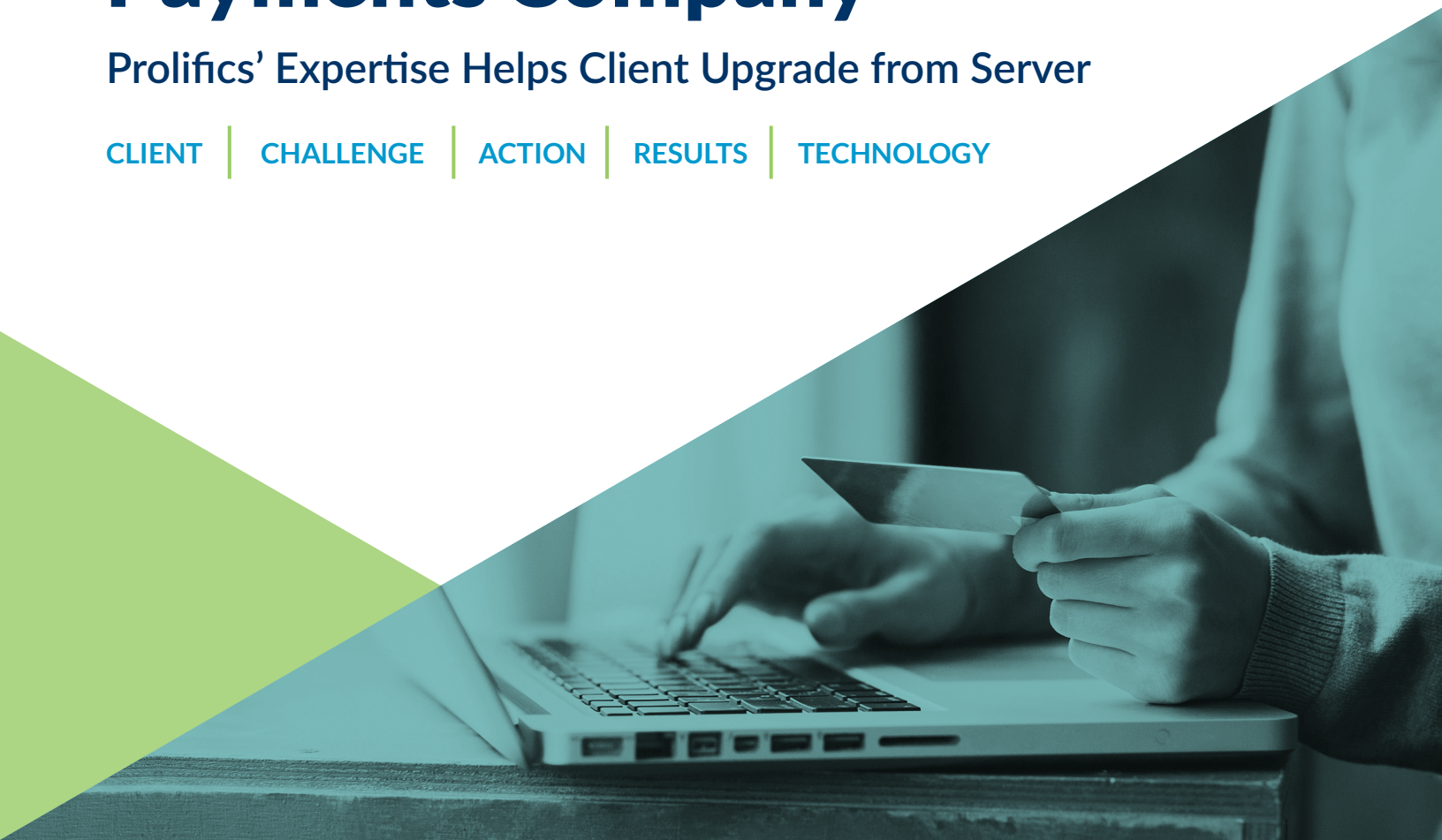
Every Millisecond Saves Money For Global Payments Company

Prolifics' Expertise Helps Client Upgrade from Server

CLIENT | CHALLENGE | ACTION | RESULTS | TECHNOLOGY

▶ Our Client

Our client is a global technology company (GTC) in the payments industry. The company's principal business is to process credit card transactions and payments safely and accurately in the 4-party model, composed of the card holder, the card-issuing bank, the merchant, and the merchant's bank.

Our client authorizes more than 1.2 billion transactions a day – a card tap, chip or swipe – from any one of millions of acceptance locations, against more than 70,000 processing and fraud prevention rules (ruleset) in a matter of milliseconds.

▶ Challenge

Prolifics worked extensively with GTC to modernize and upgrade its systems to improve processing times and enhance security. This included a "Phase 1" upgrade of its Decision Management Platform (DMP) and related programs on the IBM Operational Decision Manager (ODM) – its business rule management system, along with other solutions. We handled the volume, complexity and time sensitivity of this project without any interruption in the performance of GTC's mission critical functions. As a result, GTC realized these benefits:

- An improvement in the overall DMP transaction processing response times by 4 to 6 milliseconds, or 7 to 8 percent on average

- A significant reduction in ruleset deployment times. Nearly 100 percent of ruleset deployments are now processed within two attempts

- Reduced ruleset rollback times from a previous 7 to 8 hours of manual effort to only a few minutes

Now Prolifics and GTC have agreed to Phase 2 of the upgrade project to improve operations even further. This includes implementing the IBM ODM "Decision Engine" – which IBM designed to optimize the execution performance of a ruleset. The new Decision Engine is an upgrade from IBM's current Classic Rule Engine.

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▶ **Action**

Neha Dhawale is a Prolifics Solution Architect who works with GTC. "The key thing that sold GTC on this upgrade was performance. If you can improve performance by even milliseconds, they are all in. They know that if they can improve efficiency and save a certain amount over just one transaction, that amount over a billion transactions becomes substantial."

Phase 2 is currently underway, with actions including:

- Converting Classic Rule Project Engine and rulesets to Decision Engine

- Updating the business console to be available and used by rule authors

- Creating a tool for automation to convert from classic projects to Decision Engine option

▶ Results

The expected benefits from the Phase 2 implementation include:

- Improved ruleset execution
- More efficient, integrated testing
- Reduced ruleset loading time
- Faster and easier upgrading
- More business-friendly user interfaces (UIs)
- Less technical debt – older, potentially unsupported technologies will be gone

▶ Technology

IBM considers its Decision Engine to be a massive investment and innovation over its previous ODM Classic Rule Engine, including:

- Full rewrite of compilation and execution pipeline
- Faster execution time
- Improved scalability
- Far less memory consumption
- Significantly reduced ruleset loading time
- New design for concurrent execution
- New design architecture open for extensions

▶ About Prolifics

Prolifics is a global digital engineering and consulting firm helping clients navigate and accelerate their digital transformation journeys. We deliver relevant outcomes using our systematic approach to rapid, enterprise-grade continuous innovation. We treat our digital deliverables like a customized product – using agile practices to deliver immediate and ongoing increases in value.

We provide consulting, engineering and managed services for all our practice areas — Data & AI, Integration & Applications, Business Automation, DevXOps, Test Automation, and Cybersecurity across multiple industries — at any point our clients need them. Visit **prolifics.com**

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