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Revolutionizing QA Strategy for a Leading Outdoor & Lifestyle Tech. Provider: From Manual Bottlenecks to Automated Excellence
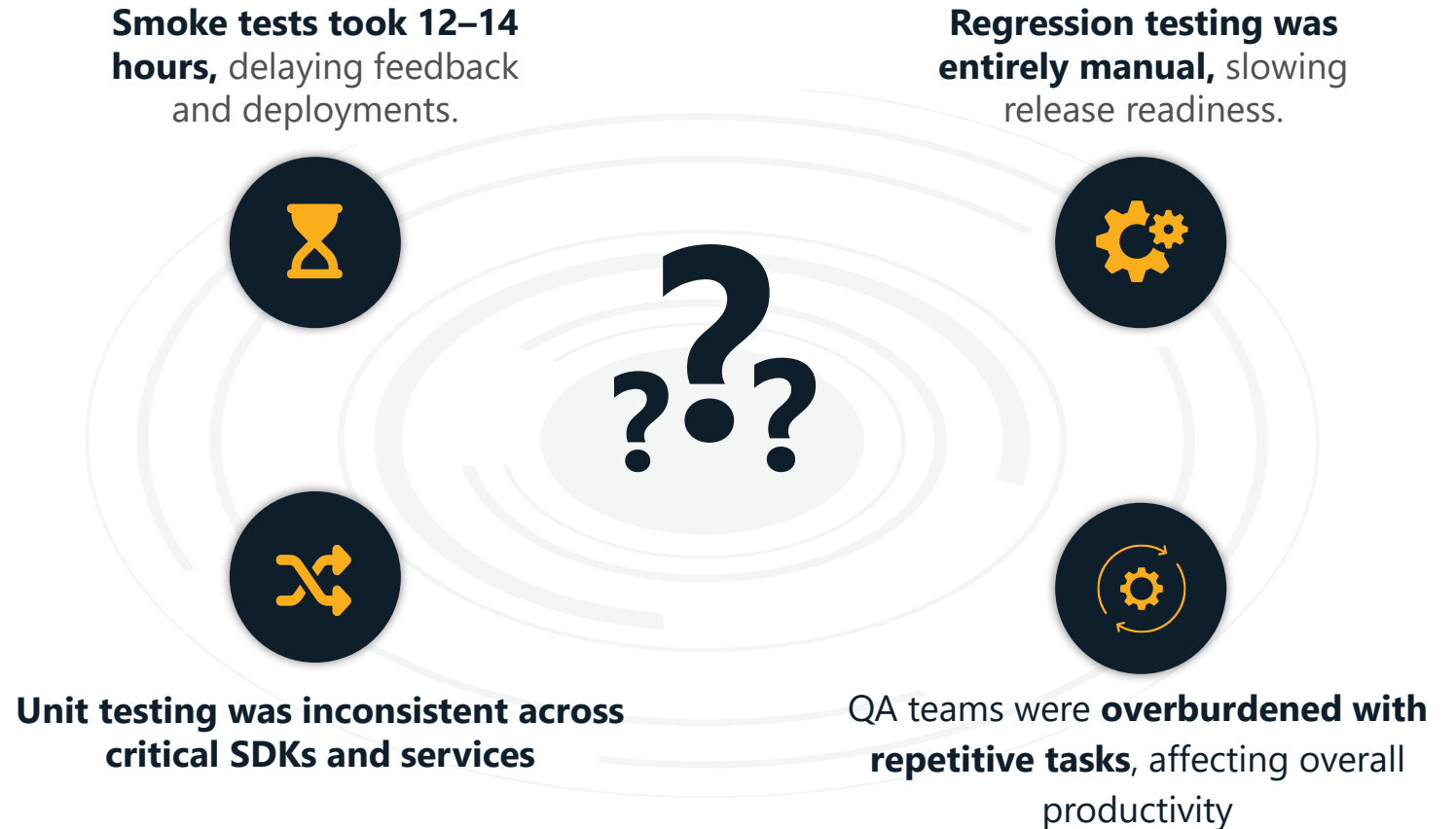
About the Client

A leading organization in outdoor and lifestyle technology, our client provides real-time digital experiences through high-demand mobile and web platforms. With rapidly evolving product lines and millions of users, quality, scalability, and speed were mission-critical across every digital touchpoint.

The Challenge: Manual Testing Was Slowing Innovation

Despite a strong digital footprint, the client's QA operations were facing increasing strain

Smoke tests took 12–14 hours, delaying feedback and deployments.

Regression testing was entirely manual, slowing release readiness.

Unit testing was inconsistent across critical SDKs and services

QA teams were **overburdened with repetitive tasks**, affecting overall productivity

These challenges made it clear: a transformative shift toward automation was needed.

The Turning Point: A New Vision for Quality

To meet growing demands and accelerate releases, the client partnered with Cygnet.One's QA transformation team to **rethink their quality assurance strategy**. The mission: **integrate automation, establish unit testing foundations, reduce test execution time**, and **integrate quality** deeply into the DevOps lifecycle.

Solutions Implemented: Building a Scalable QA Framework

Test Advisory Services for AI Readiness:

Conducted **assessment** to evaluate organization's QA maturity and **readiness for AI adoption**. It helped prioritize initiatives like AI-driven test design and intelligent automation.

Smoke Test Optimization:

Smoke tests were restructured for batch execution and parallelization—**cutting test duration from 14 hours to just 5 hours.**

Regression Suite Automation:

Introduced Automated test script creation leveraging **GenAI**. Automation was done for mission-critical workflows to ensure stable builds and faster validation

CI/CD Pipeline Integration:

Test automation was seamlessly integrated into the CI/CD pipeline, embedding quality gates to catch defects earlier and improve deployment reliability.

Unit & Load Testing for Quality and Scalability:

Designed **unit testing architecture** for core platforms and **executed K6 load tests**, scaling from ~1000 to ~5000 RPS to ensure code-level quality and system resilience.

AI-Powered QA Chatbot & Insights Dashboards:

Introduced AI chatbot for instant access to testing related data defect, execution logs—reducing dependency on QA. Built real-time dashboards driving scalability and transparency.

Outcomes Achieved: From Strain to Speed

64% reduction in smoke test cycle time

Automation of regression suite automation initiated across core modules

Improved QA productivity and reduced manual testing load

Higher release confidence through automated quality gates

Faster feedback loops for development teams

Reduced defect leakage to staging and production

Scalable QA infrastructure built for future AI use

Increased test coverage without adding headcount

Business Growth Enabled

This QA transformation unlocked significant business advantages:

- ✓ **Accelerated release cycles** and increased deployment frequency

- ✓ **Lowered QA effort per release**, optimizing resource utilization

- ✓ **Improved product reliability and user satisfaction**

- ✓ **Enabled shift-left testing** and faster defect resolution

- ✓ Prepared automation framework for **AI-driven future testing**

Benefits for the Client

The shift to an automation-first QA strategy brought immediate and measurable improvements. With faster test cycles, higher coverage, and tighter CI/CD integration, the client dramatically improved their release agility and product reliability—while laying the groundwork for a future-ready quality engineering ecosystem.

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Cygnet.One is your dedicated digital transformation partner. At Cygnet, through our proprietary framework, Cygnet COSMOS, we empower organizations across the spectrum of business intelligence, and customer experience. Our comprehensive suite of services encompasses Domain Consulting, Digital Engineering, and Enterprise Applications, with a keen emphasis on Digital Commerce and Experience. We harness the potential of Data, Analytics, AI, IoT, and Automation, coupled with AI-powered Testing as a Service, to drive your transformation agenda. With flagship products like Tax Transformation, Cygnet IRP, and Finance Transformation, we are dedicated to a digitally enabled future for your enterprise. What sets us apart is our unwavering commitment to a **"Business First"** approach. We're not just developing applications; we're co-innovating with you to forge the future.

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