CYGNET.ONE

AI First Quality Engineering @Cygnet.One

Agenda

Cygnet's Core Quality Engineering Services

OUR FUNDATION FOR QUALITY @ SCALE

Business Transformation

Quality Transformation

Innovative Transformation

Functional Testing
Ensure flawless user experiences with robust test coverage across APIs, UI, and business work

SAP and Enterprise Application Testing
Guarantee data integrity and trust by validating ETL flows, DWH pipelines, and AI/ML models.

Data & Analytics Testing
Guarantee data integrity and trust by validating ETL flows, DWH pipelines, and AI/ML models.

Non-Functional Testing
Validate performance, Usability, Accessibility of the system to deliver reliable, resilient systems at scale

QEXcelerate™ | Test Consulting & Maturity Assessment Framework

These services form the bedrock of our test strategy—ensuring scalability, compliance, and speed across digital transformation journeys.

AI-First Quality Engineering at Cygnet.One

Reimagining Speed, Stability & Support with Intelligent Test Agents

Core
Quality Engineering Services & Products

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Generative AI & Agentic AI in Testing

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AI First Quality Engineering

Test Faster | Fix Smarter | Support Effortlessly

The Shift | We moved to AI First QE

We reimagined QE not just as a support function, but as a value driver—powered by GenAI and Agentic AI

Traditional QA	AI First Quality Engineering
Coding expertise required to design automated test scripts	Write prompt or test case—get automation scripts instantly
Static scripts prone to failure on minor UI changes	Self-healing scripts auto-adjust to UI and code changes
High SME dependency for documentation, queries, and context	AI Support Agents provide instant insights and documentation
Long regression cycles and delayed releases as testing was bottleneck	Accelerated cycles with autonomous and faster test orchestration
Reactive Defect Handling	Predictive defect identification and proactive quality interventions
Limited test coverage due to time/resource constraints	Optimized test scope using AI-based risk and impact analysis

Our AI Agents in Action

Integrates seamlessly with our core QE services, reducing effort and boosting precision

Our AI Agents in Action

Support Agent:

Boost testing efficiency with our AI test agents—automate documentation, gain real-time insights, and access on-demand test support without SME dependency.

Test Design Agent:

Transform text-based descriptions into automated test scripts with our context-aware AI test agents that understand and adapt and code seamlessly.

Healing Agents:

Self-healing test agents auto-adapt to runtime changes, reducing maintenance and preventing false negatives.

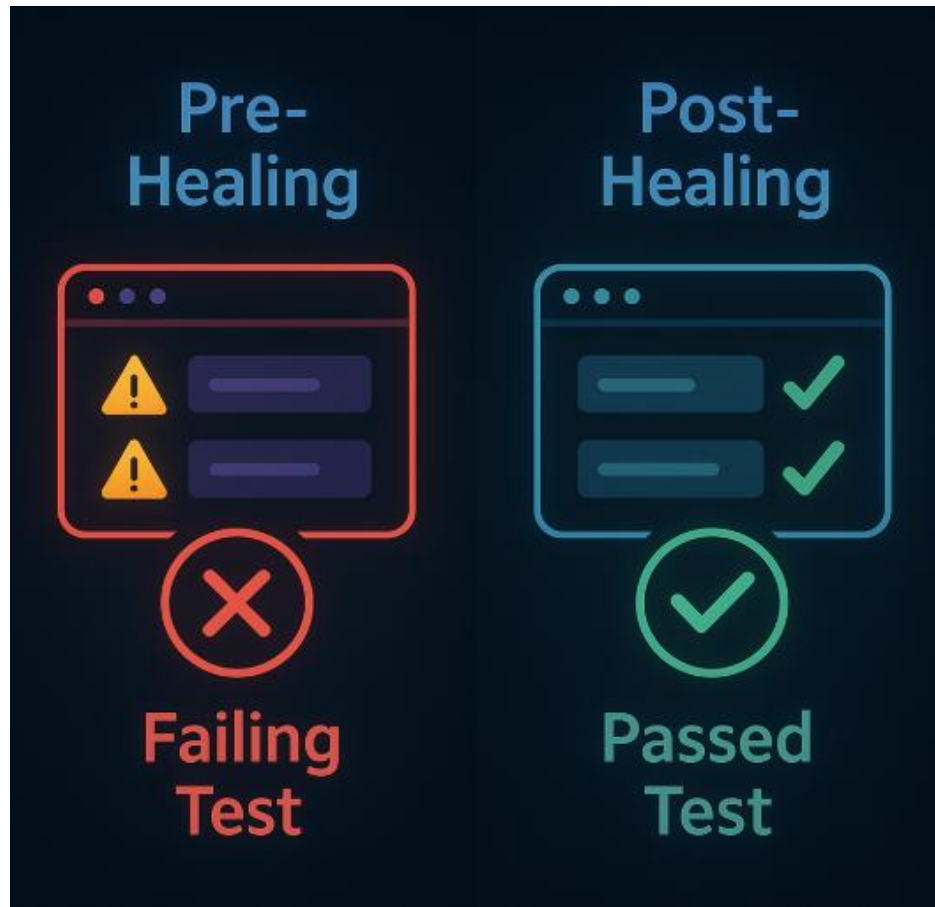# Test Design Agent: Text-to-Test Automation at Scale

Traditional test design is slow, manual, and knowledge-heavy. Our AI-powered Test Design Agent transforms this process by:

- **Understanding Natural Language:** Converts user stories, acceptance criteria, or requirement docs into automated test cases using context-aware GenAI.

- **Context-Aware Quick Scripting:** Understands the application under test and generates the automated test script in seconds. The scripts are TestingWhiz Compatible and can be immediately used for execution.

- **Accelerated Test Authoring:** Reduces design time by more than **90%**, letting teams build automation earlier in the lifecycle

Faster go-to-market, reduced reliance on SMEs, and improved test coverage from day one

Healing Agent: Self-Healing Tests for Stable CI/CD Pipelines

Automation failures due to minor UI changes are a thing of the past. Our Healing Agent ensures:

- **Self-Healing Scripts:** Identifies runtime object/property changes and adapts automatically.

- **Zero False Negatives:** Keeps pipelines green and trustworthy without human intervention.

- **Maintenance-Free Automation:** Reduces script flakiness and effort by more than **70%**, making regression suites reliable.

Increased automation ROI, stabilized DevOps pipelines, and proactive quality assurance.

Support Agent: Instant Test Assistance, Minus the Manual Chase

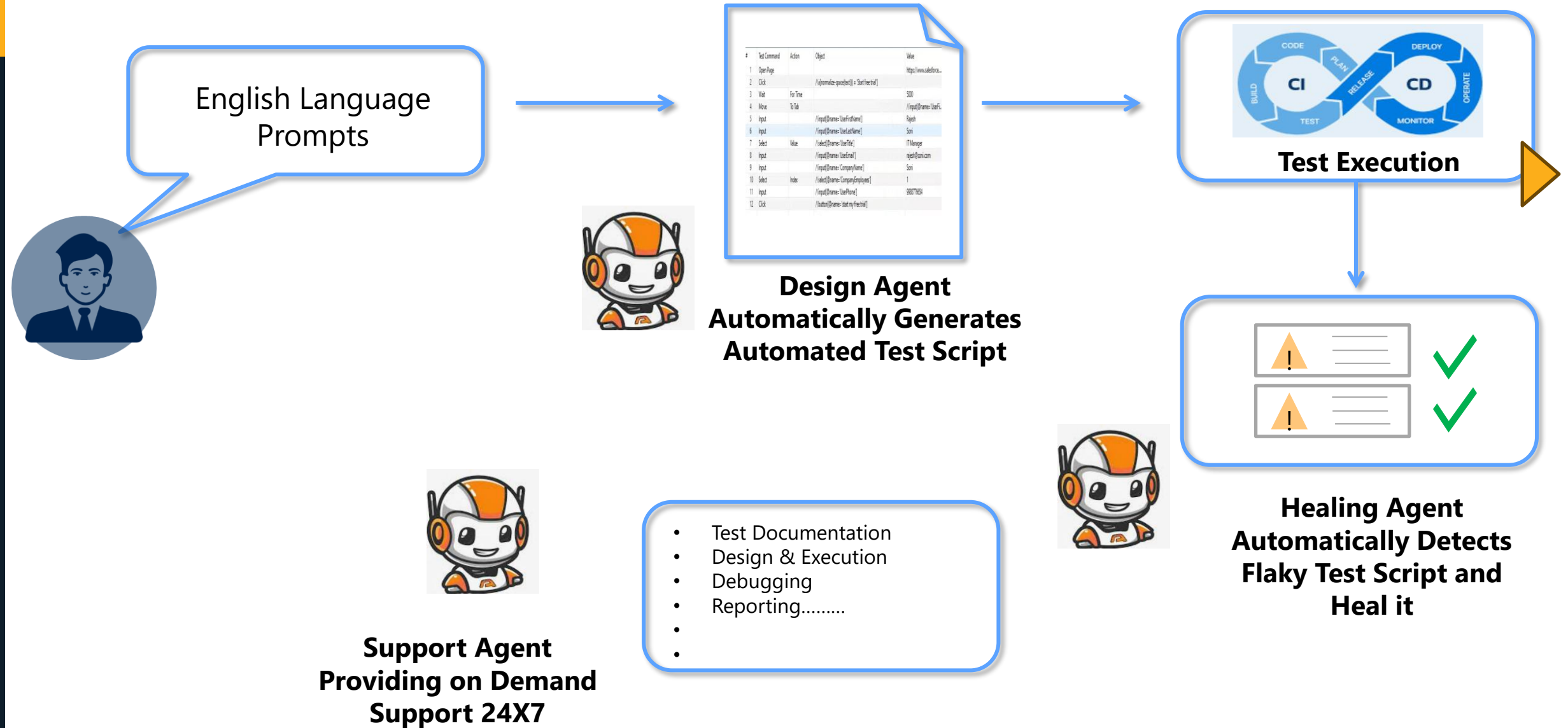Support Agent in Action Helping a Tester

Say goodbye to static documentation and support bottlenecks. The Support Agent empowers your testers by:

- **Conversational Interface:** Ask questions, get updates, raise issues—just chat.

- **On-Demand Expertise:** Replace SME dependency with an intelligent assistant trained on test artifacts, past runs, and issue logs.

- **Effortless Documentation:** Auto-captures key decisions, results, and learnings—generating test evidence and audit trails on the fly.

Faster issue resolution, lower onboarding effort, and consistent QA support 24/7

A Day in the life of a QA in Cygnet.One

English Language Prompts

Design Agent Automatically Generates Automated Test Script

Test Execution

Healing Agent Automatically Detects Flaky Test Script and Heal it

- Test Documentation
- Design & Execution
- Debugging
- Reporting.........
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Support Agent Providing on Demand Support 24X7

Measurable Benefits of AI-First QE

We've transformed testing into a continuous, intelligent layer aligned with the pace of modern engineering

A UK-based BFSI customer used AI agents for test design and healing, cutting testing time by ~65% and speeding up releases by more than 30%.

A US manufacturing client deployed a Support Agent across all testing projects , reducing issue resolution time by ~44% and manual effort by ~60%.

A US-based customer leveraged TestingWhiz with Design, Healing, and Support Agents, improving test speed by 35% and reduction in maintenance time by more than 50%

Roadmap to AI-First Quality Engineering

We've transformed testing into a continuous, intelligent layer aligned with the pace of modern engineering

Transform

Expand

Establish

Assess readiness and set the AI-First foundation

•Use **QEXcelerate** for AI readiness & test maturity assessment

•Launch GenAI-led PoCs via **SmartQE hub** (Test Design, Support, Healing)

•Deploy tools like **TestingWhiz** for low-code automation pilots

•Integrate AI Agents into a pilot project for auto test case generation

Outcome: AI-First baseline defined with measurable pilot results

Scale AI across functional & non-functional testing

•Use **TestingWhiz** for regression, API, UI & ERP automation

•Leverage **Smart QE Hub** for centralized assets & AI agent synergy

•Deploy **Healing Agents**, enable RBT & defect prediction

•Drive Dev-QA-Ops collaboration via AI dashboards

Outcome: AI scaled across units; faster cycles, reduced effort

Build a future-ready, self-evolving test ecosystem

•Implement **AI TestOps** to integrate AI-driven automation and continuous learning loops within test operations

•Create **Smart QE Hub** as intelligent command center for all QE functions

•**Unified AI-First QE Strategy:**

- Integrate AI in traditional and AI system validation

- Use QEXcelerate for strategy realignment

Outcome: Autonomous testing, faster releases, and enhanced QA value delivery

THANK YOU

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