# Accelerating Legacy Platform Support with AI-Driven Agentic Workflows

## Overview

A leading warehouse software provider partnered with R Systems to modernize the maintenance and support of its legacy platform. With millions of lines of code and limited documentation, the engineering team was under pressure to reduce support overhead and refocus efforts on new product development. R Systems introduced AI-powered agentic workflows that accelerated knowledge ramp-up, automated support resolution, and improved operational efficiency.

# Client’s Challenges



### Legacy Code Maintenance

An aging and complex architecture required extensive manual effort, slowing innovation and burdening engineering teams.

### High Ramp-Up Time

New developers faced long onboarding cycles due to limited documentation and system complexity.

### Recurring Support Load

Repetitive support issues consumed significant bandwidth, delaying response times and feature development.

### Limited System Visibility

Understanding interdependencies across millions of lines of code was time-consuming and error-prone.

### Resource Bottlenecks

Key technical resources were tied up with support, delaying progress on next-generation platform initiatives.

# Our Approach and Solution



**AI-Powered Reverse Engineering Environment**

Using tools like Repomix and Code2Prompt, we built an agentic pair-programming environment that helped developers quickly analyze and map the codebase.

**Rapid System Comprehension**

Extracted deep insights into 30–40% of the platform within hours (vs. 3–4 weeks manually), including data flows and architecture across seven major components.

**Automated Support Resolution**

Implemented intelligent agentic workflows that detected patterns in historical support requests and automatically proposed or triggered pull requests to resolve them.

**Toolchain Integration for Productivity**

Integrated solutions like Cursor AI, GitHub Copilot, and LangGraph to support secure and efficient development workflows.

# Our Approach and Solution

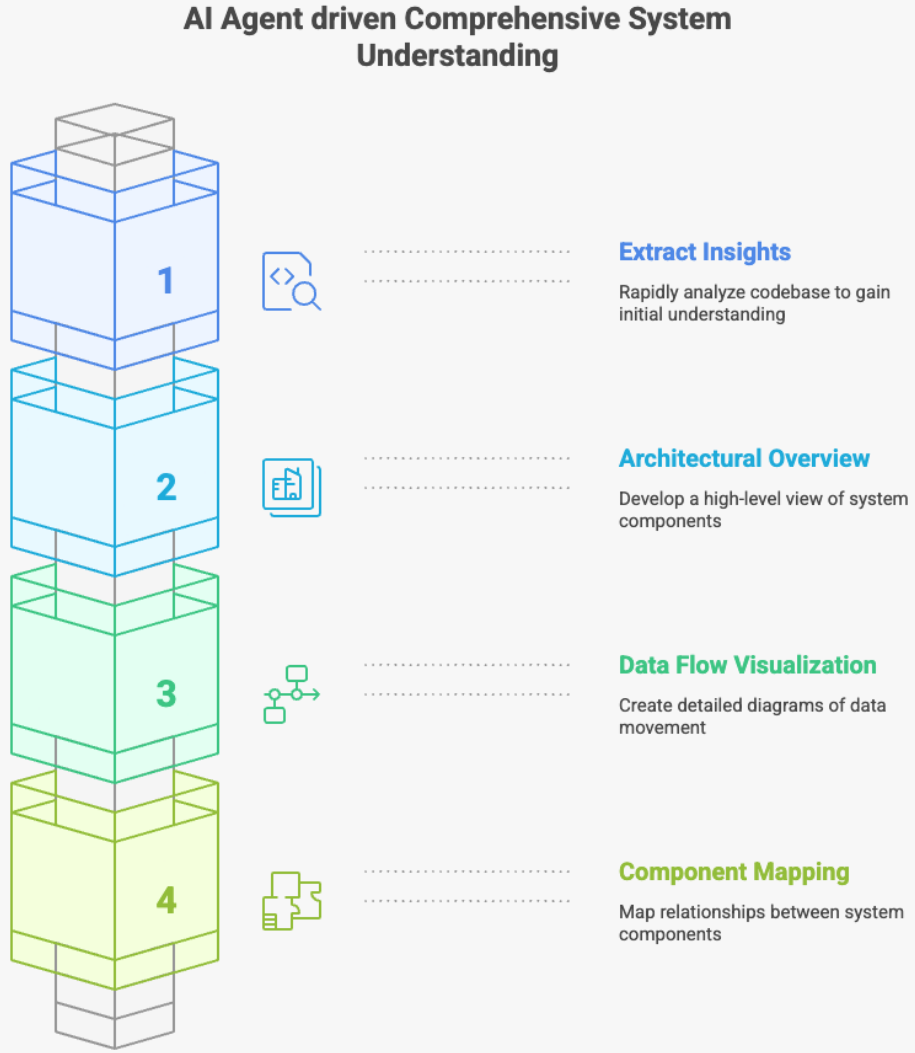


## Advanced Agentic Reverse Engineering Workflows

R Systems unified several AI-driven tools into a powerful reverse engineering ecosystem that transforms how complex legacy platforms are understood.

Instead of manually tracing dependencies and data flows, developers can now explore the system through an intelligent, interactive environment that surfaces architectural insights in real time.

This approach accelerates comprehension, reduces technical risk, and enables modernization efforts to begin on a foundation of complete system awareness.



# Our Approach and Solution

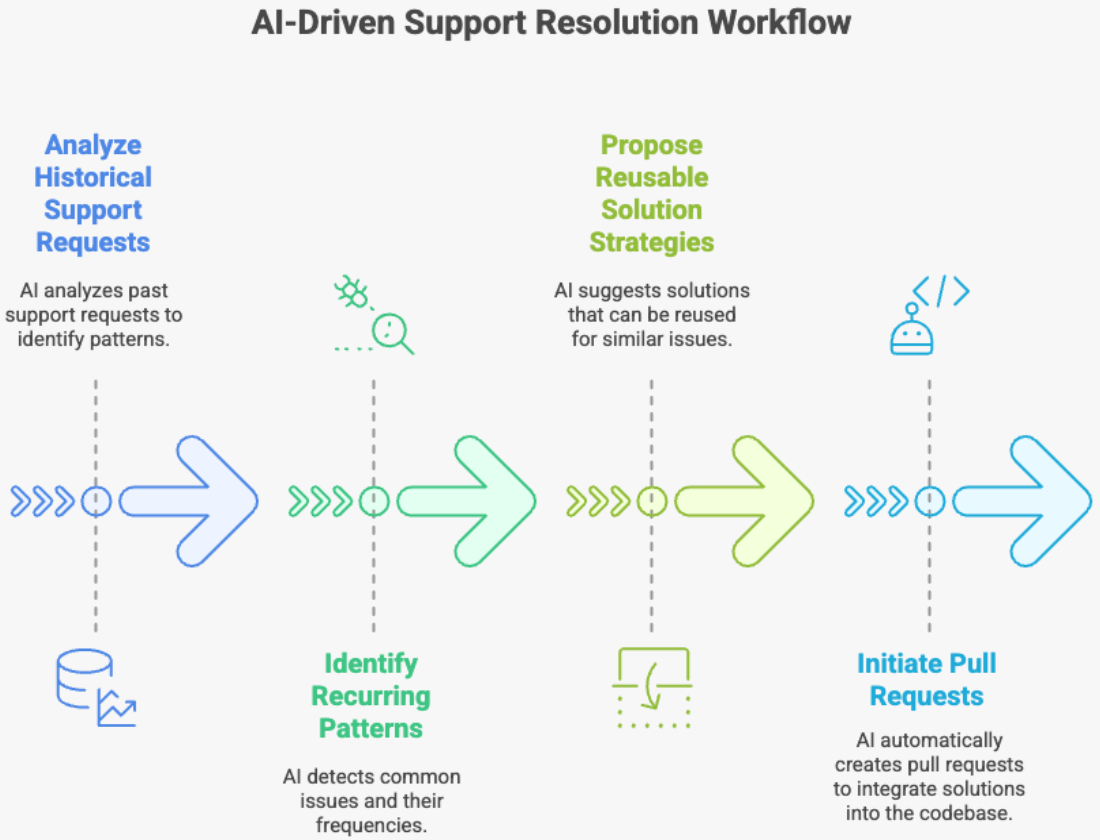


## Agentic Workflow for Automated Support Resolution

Built on continuous analysis and learning, R Systems' agentic workflows bring intelligence to software maintenance and support.

By detecting recurring issues in historical data and automatically linking them to relevant code segments, the system ensures that common problems are resolved at the source.

This proactive, AI-powered loop minimizes manual effort and response times, driving consistent improvement across the platform and enhancing reliability and user satisfaction over time.



# Business Impact



By implementing agentic AI workflows, the client accelerated knowledge acquisition, reduced support load, and improved engineering productivity across their legacy platform:

| | |
|---|---|
| **Faster Developer Onboarding** | Reduced onboarding and ramp-up time by 40%, enabling quicker project engagement and allowing newly onboarded engineers to contribute meaningfully within days rather than weeks, speeding up issue resolution and delivery timelines. |
| **50%+ Reduction in Support Overhead** | Automated resolution of routine support queries, freeing engineers for strategic work. Common tickets were resolved through AI-generated pull requests, significantly decreasing developer context switching and support fatigue. |
| **Improved System Documentation** | Generated architecture maps and technical documentation as a natural output of the AI workflows. These assets became key references for onboarding, debugging, and impact analysis, reducing dependency on institutional knowledge. |
| **Operational Efficiency Gains** | Reduced manual intervention and accelerated support cycles, leading to measurable cost and time savings. The team reclaimed bandwidth that was redirected toward modernizing the next-gen platform and optimizing QA workflows. |

# About US

Accelerating Legacy Platform Support
with AI-Driven Agentic Workflows

**4100+** Employees Worldwide

**204** Million USD Revenue

**18** Development Centres

Great Place To Work® Certified JAN 2024–JAN 2025 INDIA

ISO ISO 27001:2013 ISO 9001:2015

PCMM Level 5 (Vr. 2.0)

PCI DSS (Vr. 3.2.1)

HIPAA Compliant

NSE

BSE

**Publicly Listed**

## Global Footprint

USA, India, Europe, APAC
Established in 1993

## Services

Digital Product Engineering (DPE), Custom Application, Mobility, Testing, Knowledge Services, Customer Experience

## Digital Technology

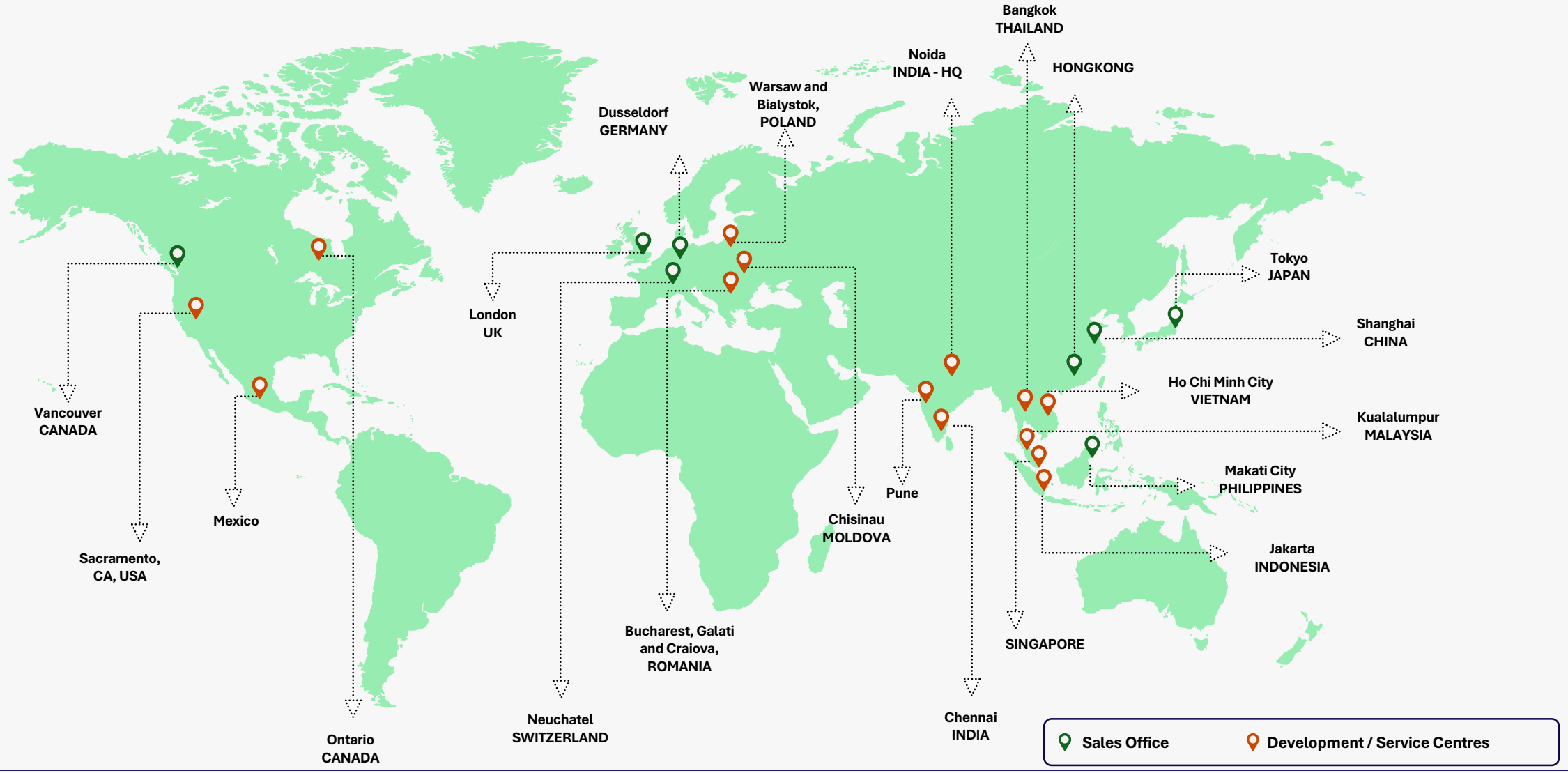
Cloud & DevOps, Data & Analytics, AI / ML, Embedded, Automation, Enterprise Packaged Services

## Verticals

Telecom & Media, Tech, Internet, and Platforms, Healthcare, Banking & Financial Services, Manufacturing, Logistics, Automotive, Public Services

# Global Presence





# Let’s streamline legacy maintenance with intelligent, agentic automation.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