



CASE STUDY

VISION UI APP REWRITE – AI ADOPTION WITH AGENT HUB

About the Client

An industry leader in providing traffic safety tools, smart work zone solutions and security technology integration, offer innovative and reliable solutions for roadwork and other infrastructure projects across North America. With their vast fleet and decades of industry expertise, the organization excels in designing, configuring, delivering and managing advanced traffic systems and monitoring solutions available to increase safety, efficiency and operational visibility.



Client Problem Statement / Challenge

The Vision application required a complete front-end architectural overhaul — migrating from a monolithic frontend to a Micro Frontend (MFE) architecture. The engagement needed to be delivered within a fixed budget on a T&M basis across 5 sprints with a lean team of 3 front-end developers.

Key challenges included:

- Migrating the existing Vision application front-end to a Micro Frontend (MFE) architecture using React and Webpack Module Federation.
- Achieving independent deployment of UI modules and team-level ownership of features.
- Establishing a shared design system and dependencies across micro-frontends.
- Enabling runtime integration of micro-frontends while maintaining delivery velocity within a fixed budget.
- Delivering the project with only 3 front-end developers within 5 sprints plus UAT and rollout.



Happiest Minds Solution

Happiest Minds adopted Agent Hub from day one of the engagement, enabling AI-assisted development across the entire UI rewrite project. The offshore team received the platform after a successful demo session with Happiest Minds AI Productivity team. The foundation of the engagement was established as AI driven development; therefore, the team integrated AI support throughout coding, orchestration, testing, and sprint execution activities to maximize the speed of delivery without compromising on the quality or consistency.

Agent Hub & AI Productivity Adoption

The Agent Hub demo session was successfully completed with the Happiest Minds AI Productivity team.

The Agent Hub tool was rolled out to the offshore team for active use across all development activities.

Approximately 80% of the code for the UI Vision Rewrite project is being created using AI assistants and agent-based tools.

Each individual team member performs the orchestrator's role, driving coordinated AI-assisted development.

As AI adoption matured within the development lifecycle, the same approach was extended into QA and validation processes to further improve efficiency and streamline release readiness.

QA and Testing Adoption

- The QA team is leveraging AI assistants to create manual test cases and to build the regression test suite.
- The QA team has reached approximately 40% saving across all areas of work through adoption of AI. To facilitate this AI powered delivery model, the project managed a combination of modern frontend technologies and AI based development tools.

To support this AI-enabled delivery model, the project leveraged a combination of modern frontend technologies and AI-powered development tools.



Technology Used

Agent Hub

AI-powered development and orchestration platform



GitHub Copilot Business License

AI code completion and suggestion (\$21/month per user)



React

Frontend framework for Micro Frontend (MFE) architecture



Webpack Module Federation

Runtime integration of micro-frontends



Claude Opus

AI model via Copilot (3 requests per message)



Claude Sonnet

AI model via Copilot (1 request per message)



Value Delivered

Based on the first 5 weeks of execution, a saving of 50% in overall costs was achieved.

Payback period for the AI tool investment is less than 1 day.

The Rewrite project has seen a 40–50% increase in development productivity.

The QA team achieved an overall effort savings of approximately 40% through AI adoption.

The team working on ongoing sprint development has seen a 25–30% increase in development productivity.

Approximately 80% of the code is being generated using AI assistants and agent-based tools.

About Happiest Minds

Happiest Minds Technologies Limited (BSE, NSE: HAPPSTMNDS) is an AI First, customer-centric digital engineering company committed to delivering 'Happiest People . Happiest Customers'. With an integrated approach that spans from chip to cloud, Happiest Minds delivers secure and scalable solutions across product engineering, cybersecurity, analytics , and automation platforms. Happiest Minds brings purpose and precision to every engagement, helping enterprises solve complex business challenges and fast-track their digital evolution across industry sectors such as Banking, Financial Services & Insurance (BFSI), EdTech, Healthcare & Life Sciences, Hi-Tech and Media & Entertainment, Industrial, Manufacturing, Energy & Utilities, and Retail, CPG & Logistics.

Happiest Minds has been honored by both the Golden Peacock Awards and the Institute of Company Secretaries of India (ICSI) for its exemplary Corporate Governance practices. Guided by its mission of 'Happiest People . Happiest Customers' and consistently recognized as a great place to work, Happiest Minds is headquartered in Bengaluru, India, with a global presence across the Americas, UK, Europe, Australia, the Middle East, Africa, and Asia.

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