Rocket® software
EVA™

The Agentic AI Platform Built for Governed Mission-Critical Systems

Executive summary

Agentic AI is transforming enterprise operations, yet banks, insurers, and global platforms run core systems that simply cannot fail or tolerate ungoverned automation. Rocket® EVA™ is purpose-built for these mission-critical environments, delivering an AI operating model designed to uphold the safety, stability, and trust these operations demand.

Rocket EVA is an operational-grade agentic AI platform designed for the systems enterprises can't afford to break. Unlike basic AI assistants and generic agent frameworks, EVA embeds governance, policy, identity, and deterministic execution directly into the architecture. This approach enables safe, fast, and auditable automation across mainframe, distributed, and cloud environments. By providing end-to-end diagnostics and actionable insights, EVA helps you modernize without disruption, ensuring that your mission-critical operations remain secure, compliant, and highly available.

The real challenge with agentic AI in regulated enterprises

When evaluating AI for the enterprise, most strategies overlook a critical factor: control. Agents can act, but who approved the action and under which policy? If systems change, can those changes be audited or reversed?

EVA is fundamentally different, built from the ground up to validate, govern, and execute actions, or to stop execution entirely when policy or risk thresholds are exceeded.

Most agentic frameworks prioritize basic tool calling, orchestration, and speed to demo. However, highly regulated enterprises require strict authorization, validation, observability, and auditability. Deploying ungoverned AI agents in a mission-critical environment creates significant security and operational risks.

The challenge is not intelligence but operational trust. Most AI platforms in the enterprise space stop at simply answering user questions or orchestrating workflows. EVA is fundamentally different, built from the ground up to validate, govern, and execute actions, or to stop execution entirely when policy or risk thresholds are exceeded.

This is where EVA clearly stands apart from AI assistants that only provide knowledge or task automation, platforms that prioritize connectivity or agent action, and services firms that focus on custom orchestration alone. With EVA, every action is enforced by policy-as-code and recorded with an immutable audit trail, so you always have a transparent, accountable record. If your team cannot verify how an AI agent reached a decision or guarantee that its actions align with your compliance requirements, that AI does not belong in your core operations.

Why core systems need a different AI architecture

Core systems run your most critical workloads, where any downtime or error carries real business risk and regulatory implications. Their complexity and shrinking talent pool mean that traditional assistive AI — like chatbots or dashboards — can provide answers but fall short when it comes to resolving incidents, explaining root causes, or ensuring governance as a foundational principle. Manual handoffs and layered controls only lengthen mean time to resolution and heighten operational risk. EVA was built for these realities, embedding governance, validation, and control directly into its architecture so you can modernize core systems confidently and without compromise.

Assistive AI fails to meet these demands. Chatbots can answer questions, but they can't resolve incidents. Surface-level insights don't explain root causes, and manual handoffs only extend your mean time to resolution (MTTR). Furthermore, governance is often bolted on as an afterthought, if it's included at all.

EVA was designed to diagnose, reason, and act without breaking the operating discipline that core systems depend on. It provides governed agentic operations that align with your existing security protocols, ensuring that your modernization journey enhances stability rather than compromising it.

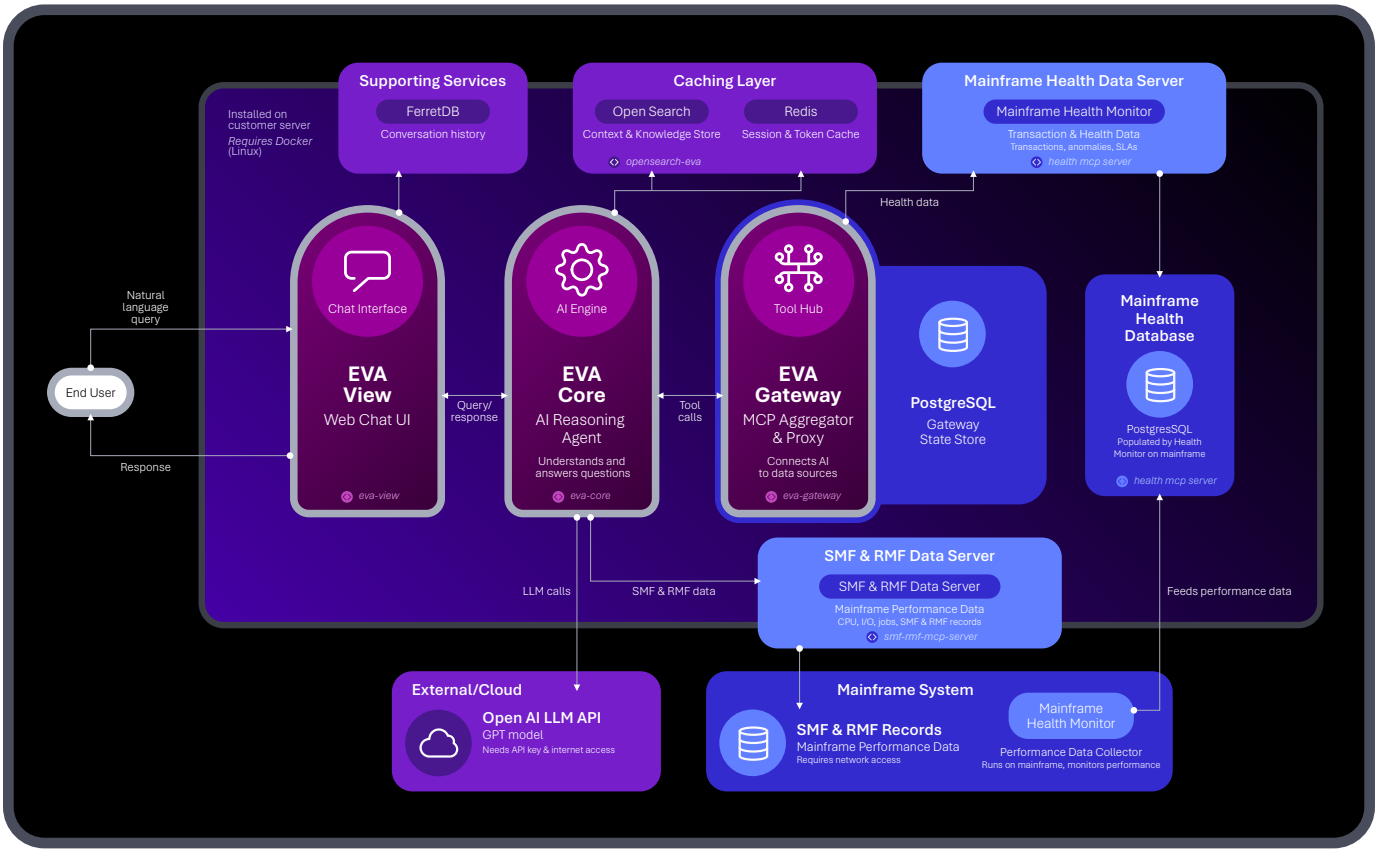
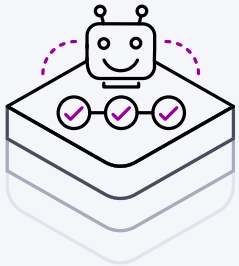


Fig 1: Rocket® EVA™ Architecture

The EVA platform: governed agentic operations

Rocket EVA is built on four core architectural principles that ensure safe, transparent, and intelligent operations across your entire IT landscape.



Deterministic Execution Layer

1

Governance by design

Safety and auditability are foundational to EVA. The platform enforces policy-as-code, ensuring that every action an agent takes is authorized and validated against your specific operational rules. With identity-aware execution and immutable audit trails, you always know who authorized an action, what identity was used, and how to prove compliance later.

2

Deterministic execution core

To prevent hallucinated or unsafe actions, EVA utilizes a deterministic execution core. This layer enforces strict rules and validations to ensure accurate actions. It gives you explicit control over what agents can and can't do, incorporating human-in-the-loop workflows wherever required for critical decision-making.

3

Context graph intelligence

EVA continuously links applications, infrastructure, transactions, jobs, and business services. This unified model enables the platform to trace issues from the initial symptom all the way down to the responsible code. Instead of isolated alerts, you get a comprehensive understanding of how an issue impacts your broader business services.

4

Open, extensible tool layer

While EVA maintains rigorous governance, it remains highly flexible. The platform integrates Rocket and third-party Model Context Protocol (MCP) servers, avoiding vendor lock-in and expanding your diagnostic coverage without causing architectural sprawl.

What EVA does that others can't

Rocket EVA stands apart from generic AI assistants and mainframe-only tools by delivering unmatched diagnostic accuracy and operational control.

End-to-end root cause analysis

EVA goes beyond simple detection and alerting. It traces issues from the user impact, through the transaction and subsystem, down to the specific job and line of code. This deep visibility allows your team to resolve complex incidents in a fraction of the usual time.

Seamless hybrid integration

Modern enterprises operate across mainframe, distributed, and cloud environments. EVA provides a unified diagnostic path across all these platforms, delivering seamless hybrid integration that eliminates multiproduct complexity.

No forced data migration

EVA processes data where it lives. There's no need to move sensitive data off the mainframe, which preserves your existing security and governance controls. When applicable, it also utilizes zIIP optimization to process data more cost-effectively.

Built-in domain expertise

EVA is trained on mainframe-specific knowledge, enabling accurate triage and actionable recommendations. It understands operational context, providing deep diagnostics made simple rather than generic large language model (LLM) output.

Real-world day-one use cases

Rocket EVA delivers immediate value by solving complex operational challenges from day one.

Nightly batch failure triage

When hundreds of ABENDs occur during nightly batch processing, triage is typically a slow, manual process. EVA automatically classifies, correlates, and prioritizes these failures. It filters out known low-value codes and surfaces the critical issues that require immediate attention, saving your team hours of manual research.

Cross-system incident diagnostics

During a major service slowdown, pinpointing the source of the delay is incredibly difficult. EVA can trace an outage across your network, database, transaction servers, and applications. It identifies the root cause, such as buffer pool pressure or a specific network block, and recommends the exact next actions to restore performance.

Skills gap elimination

As experienced systems experts retire, transferring their deep knowledge is a major challenge. EVA acts as an always-on systems expert. It empowers junior staff to diagnose issues that were once reserved for deep subject matter experts. By democratizing access to complex system data through natural language, EVA becomes the institutional memory for your core systems.

EVA in the enterprise operating model

We understand that integrating a new AI platform into a highly regulated environment requires care and precision. Rocket EVA is designed to be introduced incrementally, ensuring modernization without disruption.

The platform offers flexible deployment options and integrates smoothly with your existing IT service management (ITSM), observability, and automation tools. It aligns perfectly with your current security frameworks, utilizing your existing identity and access management controls. You can start small by piloting specific use cases, such as batch triage or dump analysis, and gradually expand the platform's footprint as your team builds confidence in its governed agentic operations.

Why Rocket is credible to deliver this

Rocket Software has spent decades operating in highly governed environments where nothing runs without strict control. We possess deep expertise in mainframe and enterprise software, and we have a proven track record of helping the world's largest organizations achieve modernization without disruption.

EVA isn't a pivot into a trending technology. It's a natural extension of our operating DNA. We've taken our heritage of secure, reliable enterprise systems and applied it to the agentic AI era, bringing enterprise-grade identity, transactionality, audit capabilities, and policy enforcement to AI-driven operations.

Your next step forward

Artificial intelligence is entering core operations whether enterprises are ready or not. The winners in this new era won't be the fastest adopters; they'll be the safest operators.

Rocket EVA represents a new class of agentic AI. It's designed to operate securely, not just to experiment. For enterprises ready to move beyond basic dashboards and ungoverned assistants, EVA sets the standard for operational-grade, trusted AI.

Partner with Rocket Software to turn your mission-critical systems into engines of intelligence and growth.

About Rocket Software

Rocket Software is a global technology leader in modernization and a partner of choice that empowers the world's leading businesses on their modernization journeys, spanning core systems to the cloud. Trusted by over 12,500 customers and 750 partners, and with more than 3,200 global employees, Rocket Software enables customers to maximize their data, applications, and infrastructure to deliver critical services that power our modern world. Rocket Software is a privately held U.S. corporation headquartered in the Boston area with centers of excellence strategically located throughout North America, Europe, Asia and Australia. Rocket Software is a portfolio company of Bain Capital Private Equity.

Rocket® software

Modernization. **Without Disruption.**™

Visit RocketSoftware.com

MAR-18232_Broch_EVAExecBrief_V2