

## What is the VividCloud Agentic AI Knowledge & Action Platform?

The Agentic AI Knowledge & Action Platform is an AWS-deployed system that connects your organization's structured and unstructured data—databases, APIs, telemetry, and documents—into a single intelligent environment.

It uses a network of autonomous agents that not only retrieve information but also reason, generate insights, and perform actions, helping teams move from data access to decision execution in seconds.

## How does it differ from a traditional RAG (Retrieval-Augmented Generation) solution?

Traditional RAG systems answer questions based on retrieved content.

The VividCloud platform goes beyond retrieval by introducing agent orchestration—a Planner Agent coordinates specialized agents (SQL, API, Document, Telemetry, and Report Generation) that reason over data, validate results, and even trigger downstream workflows.

This enables context-aware decisions, dynamic automation, and continuous learning rather than static information lookup.

## What kinds of tasks can these agents perform?

Each agent is purpose-built for a domain of expertise:

- **SQL Agent:** Converts natural-language questions into validated SQL queries for analytics and KPI calculation.
- **Document Agent:** Retrieves, classifies, and summarizes contracts, PDFs, and reports.
- **API Agent:** Integrates with REST and internal APIs for real-time data exchange.
- **Telemetry Agent:** Interprets time-series and operational data for predictive or diagnostic insights.
- **Report Generation Agent:** Builds dashboards, charts, and PDF reports automatically.
- **Planner Agent:** Oversees them all—interpreting intent, selecting the right agents, and synthesizing results into clear, actionable answers.

## How does the platform ensure accuracy, explainability, and trust?

The system incorporates metadata-driven reasoning and fact validation. Every response can be traced back to its source, with reasoning steps logged for auditability.

DSPy-based prompt optimization and agent correctness testing continually refine performance, while human-in-the-loop validation supports quality assurance where needed.

## What AWS services form the core of the platform?

The platform is fully cloud-native, built on:

- Amazon Bedrock for LLM reasoning (Claude models)
- Amazon RDS (PGVector) for document and fact embeddings
- Amazon DynamoDB for conversation history and state management
- Amazon ECS or EKS for container orchestration
- Amazon Cognito for secure SSO-enabled authentication
- Amazon CloudFront for global delivery of the React interface
- Amazon CloudWatch for centralized logging and operational visibility

This architecture ensures scalability, compliance, and operational resilience across industries.

## How does the platform handle security and data privacy?

Security is foundational. All components reside within your AWS environment, protected by IAM-based access control, VPC isolation, and encryption at rest and in transit.

Cognito with SSO integration ensures authenticated access, while Bedrock's managed model endpoints guarantee that private data never leaves your AWS boundary.

## Can it be customized for different industries or enterprise systems?

Yes. The agent framework is modular and extensible.

VividCloud has delivered customized implementations for:

- Legal teams (contract clause extraction and risk analysis)
  - Industrial operations (telemetry analytics and root-cause diagnosis)
  - Water treatment and manufacturing (automated KPI reporting and optimization)
- New agents and data connectors can be rapidly added for healthcare, finance, or other specialized domains.

## What kind of performance can we expect?

Thanks to AWS auto-scaling and DSPy-optimized prompt management, users experience sub-6-second response times even across millions of data points.

Workflows that previously required hours of manual analysis can now be completed in minutes or less, with measurable gains in accuracy and consistency.

## How does the platform evolve over time?

Each interaction feeds a continuous learning loop.

Agents observe successful queries, refine prompt strategies, and surface new facts for human validation.

This self-improving behavior allows the system to grow smarter and more aligned with organizational context over time.



## What's the implementation and onboarding process?

VividCloud provides end-to-end deployment and tuning:

1. Environment setup in your AWS account
2. Data and API integration
3. Agent configuration and validation
4. Governance, security, and cost-control alignment
5. Training and handoff for your operational team

Our AWS-certified engineers and solution architects ensure a smooth path from pilot to production.

## How do we get started with a pilot or demo?

Contact VividCloud to schedule a consultation or proof of concept. As an AWS Advanced Tier Partner, we may be able to offer AWS-funded PoCs to qualified clients.