

From Unstructured Data to Structured Understanding: The Foundation for Trusted AI Agents



By Aron Brand, CTO, CTERA

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The Question Driving the AI Agenda

Every boardroom is asking the same question right now:

“What is our AI strategy?”

What began as experimentation has quickly become expectation. Simple chat interfaces are giving way to enterprise assistants, and now to agents that can reason over business context, retrieve information, trigger workflows, and take action across systems.

AI Investment Is Clear. Data Readiness Has to Catch Up.

The investment priority is clear. Futurum Research's 1H 2026 Data Intelligence, Analytics, and Infrastructure Decision Maker Survey found that 51% of organizations identify generative and agentic AI tools as their number one investment priority for 2026. But the same research points to the other side of the equation: data quality and observability followed closely behind at 43%, showing that enterprises increasingly recognize AI ambition must be matched by data readiness.¹

The promise is compelling. Agentic AI can help organizations move faster, reduce manual effort, and unlock knowledge trapped in documents, file shares, applications, and human memory.

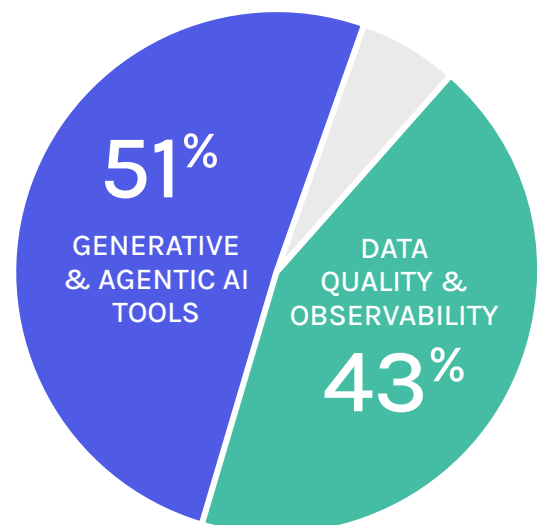
**TOP TWO INVESTMENT
PRIORITIES FOR
CUSTOMERS IN 2026**

The Enterprise Data Problem Blocking Agentic AI

There is a problem blocking successful outcomes: Most enterprise data estates were designed to store information, not prepare it for autonomous action.

That distinction matters because enterprise AI is not only working with structured data from databases and applications. Much of the knowledge agents need lives in unstructured data: contracts, drawings, PDFs, presentations, scanned documents, policies, case files, research reports, customer correspondence, project documentation, and countless files spread across enterprise shares.

This content is valuable, but it is often difficult for AI to use safely. A file system may know where a document lives, who created it, and when it was modified. But that does not mean the enterprise understands what the document contains, whether it is current, who owns the business context, whether it includes sensitive information, or whether an agent should be allowed to act on it.



Where the AI Risk Conversation Needs to Expand

Much of the discussion focuses on hallucination, and understandably so. No enterprise wants AI producing what CTERA CTO Aron Brand has described as “confident nonsense.”

But agentic AI introduces a deeper risk: confident action on the wrong truth.

An agent may retrieve real enterprise data, interpret it correctly, and still drive the wrong outcome because the data itself is outdated, duplicated, overexposed, or missing critical business context. That is the difference between bad answers and bad actions.

Futurum’s survey reinforces the point. When enterprise decision makers were asked what causes AI projects to fail, integration difficulties, poor data quality, and **inadequate data infrastructure together accounted for nearly one in four failure factors.**²

AI failures trace back not to the model itself, but to the foundation around it.

In a world where AI only answers questions, flawed data is a quality issue. In a world where AI can initiate workflows, update records, move files, or recommend business decisions, **flawed ground truth becomes operational risk.**

CAUSE OF AI FAILURE

- INTEGRATION DIFFICULTIES
- POOR DATA QUALITY
- INADEQUATE DATA INFRASTRUCTURE



For IT leaders, the AI-ready foundation requires three shifts.

- 1 Enterprises must move from silos to a unified foundation.** Data is scattered across file servers, NAS, cloud platforms, and object storage. It is often stale, duplicated, and difficult to trust. Agents cannot reason over chaos. They need a governed foundation that gives people, systems, and agents a trusted view of distributed enterprise data.
- 2 Organizations must move from ambiguity to embedded governance.** A filename or folder path rarely explains what a document means, whether it contains sensitive data, or who should have access. Governance must move closer to the data, with classification and permissions that persist wherever that data is used.
- 3 Enterprises must move from automation risk to accountable action.** The path to agentic AI should be progressive: discover, understand, govern, assist, approve, then automate. Human judgment should not disappear. It should be focused where it matters most.

MOVE FROM **SILOS** TO

UNIFIED FOUNDATION

MOVE FROM **AMBIGUITY** TO

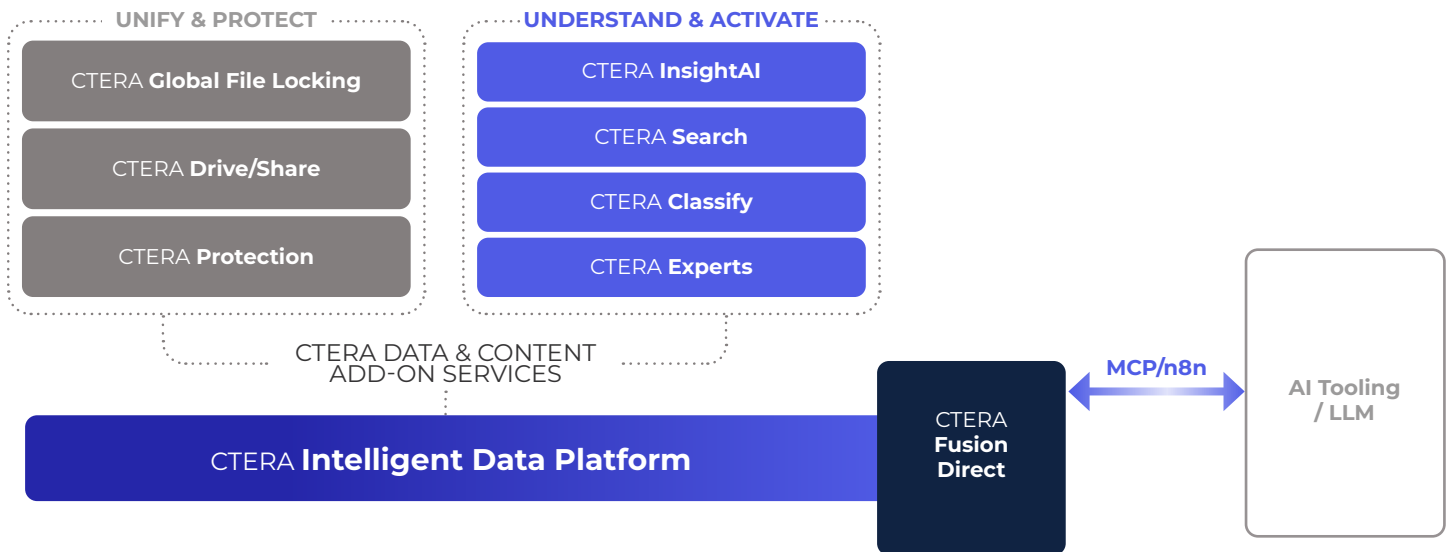
EMBEDDED GOVERNANCE

MOVE FROM **AUTOMATION RISK** TO

ACCOUNTABLE ACTION

This is where CTERA's Understanding of Enterprise Data Becomes Highly Relevant

We approach it as an Architecture. Not a Point Solution.



- > The **CTERA Intelligent Data Platform** provides the governed foundation.
- > **CTERA Fusion Direct** bridges file and object access for human and machine workflows.
- > **CTERA Search** and **CTERA Classify** make unstructured content discoverable and meaningful.
- > **CTERA Experts** enables secure AI interaction with trusted enterprise content.
- > **CTERA InsightAI** brings agentic intelligence to data estate management – questions become evidence, immediately.
- > **CTERA MCP Server and CTERA n8n Integration** extend that foundation into controlled agentic workflows and broader business automation.

AGENTIC AI WILL NOT BE ACTIVATED BY ENTHUSIASM ALONE. It requires enterprise data that is ready for the job.

The organizations that get this right will not simply have more AI tools. They will have AI-ready data, and that may become the real competitive advantage.

Before AI agents can transform work, enterprises must first move from unstructured data to structured understanding.

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¹ Futurum Research, 1H 2026 Data Intelligence, Analytics, and Infrastructure Decision Maker Survey, n=818. Public Futurum commentary also cites the 51% GenAI/agentic AI investment-priority figure and the survey sample size.

² Futurum Research, 1H 2026 Data Intelligence, Analytics, and Infrastructure Decision Maker Survey, n=818. Figures provided: integration difficulties 11%, poor data quality 7.5%, inadequate data infrastructure 5.7%.