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# Lenovo Knowledge Super Agent Enhances Enterprise Intelligence in the AI Era


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# Executive Summary

Enterprise data is abundant but often difficult to access, limiting productivity and slowing decision-making. AI agents, enhanced by Retrieval-Augmented Generation (RAG), address data fragmentation challenges by enabling rapid, context-aware access to organizational knowledge.

Reducing time spent on knowledge tasks by **30%** can save **120 hours per employee annually**. For a 3,000-person organization, this represents up to **360,000 hours** and **$17M in potential annual productivity value**.

In many organizations, data is distributed across disconnected systems, leading to operational inefficiencies as employees repeatedly search for information across multiple sources. On average, employees spend approximately 8 hours per week on information discovery and retrieval[1]. While agentic AI and RAG present a compelling solution to this challenge, implementation remains a barrier. Fully custom solutions are complex and time-intensive to build and maintain, while many pre-built offerings lack the flexibility required to meet enterprise-specific needs. Organizations must also address data governance and scalability requirements.

To evaluate how these challenges can be effectively addressed, Signal65 conducted a comprehensive assessment of the Lenovo Knowledge Super Agent, analyzing system capabilities and performance in a real-world enterprise deployment.

Key findings of this evaluation include:

- **Enterprise-Grade Security and Governance** – The solution enforces role-based access control (RBAC) and underlying source permissions, preventing unauthorized data access and ensuring compliance with enterprise security requirements.
- **Enhanced Productivity** – 81% of employees reported reduced time spent searching for information. Time spent on knowledge retrieval tasks was reduced by 30%.
- **High Retrieval Quality** – The platform integrates with multiple enterprise data sources and delivers accurate, grounded responses, with over 85% of answers supported by citations.
- **Rapid Time to Value** – The solution can be deployed and configured in approximately 2 weeks, significantly reducing implementation timelines from months to weeks.
- **Strong User Adoption and Satisfaction** – The platform scaled to approximately 3,000 users and achieved an average user rating of 4.4 out of 5.

[1] https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/the-social-economy

# Lenovo Super Agents: Core Concepts and Framework

This report is part of a broader set of analyses on domain-specific Lenovo Super Agents, each focused on a specific enterprise use case, built using Lenovo's agent capabilities. Across these reports, a consistent set of concepts is used to describe how Super Agents are designed and governed. The previous Signal65 report, covering the Lenovo Retail Super Agent, can be found here.

## Core Concepts

- **Super Agent:** A domain-specific AI system designed to support a defined workflow.
- **Architecture:** The end to end solution pattern showing how data, agent logic, and controls work together.
- **Capabilities (Tools):** Functional building blocks, such as retrieval, summarization, reasoning, and feedback, used by an agent.
- **Governance:** Controls that ensure secure and trusted operation, including access, grounding, monitoring, and human oversight.

At a high level, each Super Agent combines architecture, capabilities, and governance to deliver enterprise AI. These Super Agents can be deployed independently or used together, enabling organizations to extend capabilities across workflows and build more integrated, AI-driven operations.

# Enhancing Enterprise Workflows with AI

While enterprises generate vast amounts of data, much of it remains difficult for employees to access and act on. Information is distributed across disconnected systems and silos, making it harder to find relevant knowledge when needed—reducing productivity and negatively impacting decision quality.

The emergence of advanced AI technologies presents a compelling opportunity to address these challenges. Knowledge management is the second most common enterprise AI use case, cited by 51.7% of organizations according to Futurum Research[2]. General-purpose AI models offer strong reasoning capabilities and broad knowledge, but they lack awareness of organization-specific or domain-specific information that falls outside their training data. By augmenting these models with relevant enterprise context, organizations can create powerful, tailored knowledge assistants. This shift moves enterprises beyond fragmented information access toward a more unified, knowledge-driven operating model.

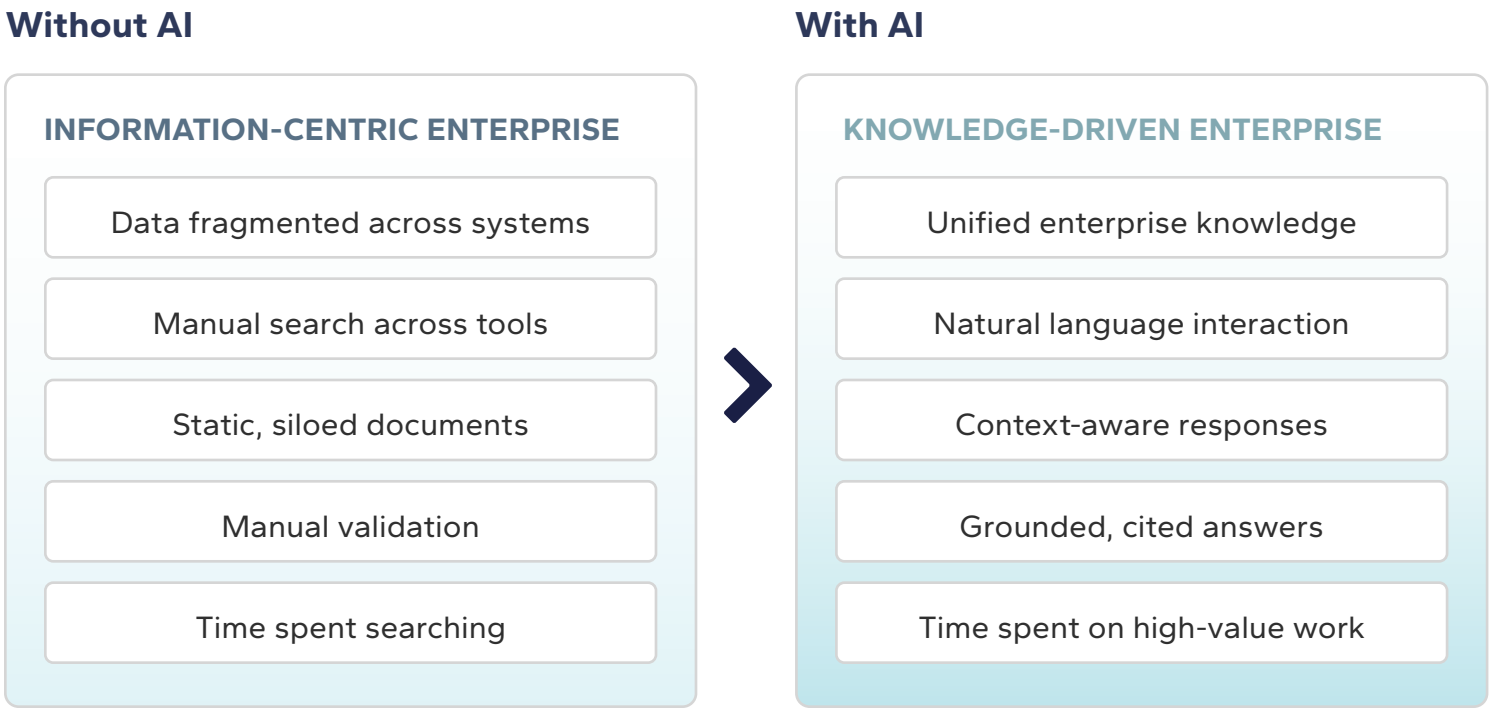



***Figure 1:*** *Shift to AI-driven Knowledge*

In particular, large language models (LLMs), when combined with techniques such as Retrieval-Augmented Generation (RAG) and agent-based tooling, enable the development of systems that can access, synthesize, and act on internal knowledge sources. These AI-driven knowledge agents transform scattered, hard-to-access information into immediate, actionable intelligence, improving both efficiency and decision-making across the enterprise. Successfully delivering this transformation requires coordinated set of capabilities spanning data integration, governance, intelligence, and user interaction, as shown in the framework below.

[2] Futurum Research Decision Maker Insights, AI Platforms, 1H 2026

# AI Agent Success Stack

## ENTERPRISE FRAMEWORK

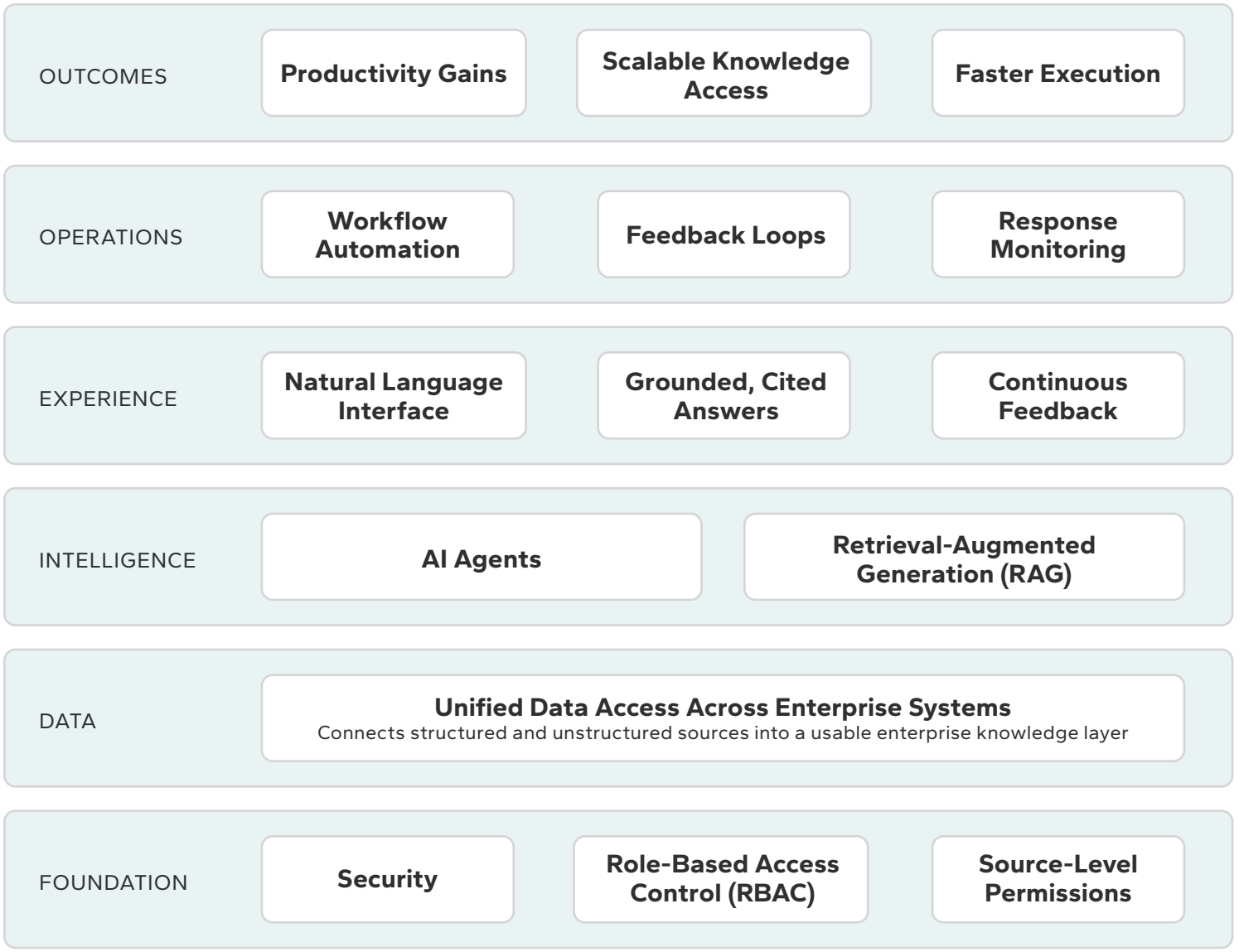



***Figure 2:*** *AI Agent Success Stack*

Despite strong interest in enterprise AI, many organizations struggle to realize meaningful value. Standalone tools often lack integration with enterprise data and workflows, resulting in responses that are difficult to trust and rarely used. At the other extreme, fully custom solutions can become too complex to scale and maintain. To succeed, organizations must adopt an integrated approach that embeds AI within their data and workflows, with scalability, governance, and ongoing monitoring built in from the start.

While AI can significantly enhance enterprise workflows, enterprises adopting the technology often face several challenges. Off the shelf AI solutions can be rigid, lacking the required functionality, while building fully custom AI solutions is often complex, expensive, and time consuming.

Common challenges for enterprises adopting agentic AI include:

- **Security and data governance** – Enterprise AI deployments must adhere to strict security and compliance requirements. Many solutions are cloud-only, requiring sensitive internal data to be processed externally, which can raise concerns around data privacy, governance, and regulatory compliance.
- **Time to value** – Building enterprise-grade AI applications is inherently complex and time-intensive. Developing a solution from the ground up — including data integration, retrieval pipelines, model orchestration, and user interfaces — can take months or longer, delaying the realization of business value.
- **Customization and engineering resources** – Designing, deploying, and maintaining advanced AI systems requires skilled engineers with expertise in areas such as machine learning, data engineering, distributed systems, and prompt or agent design. Many organizations lack these specialized resources and acquiring them can significantly increase the total cost of ownership. Alternatively, pre-built offerings often do not provide the flexibility to fully support unique enterprise use cases.
- **Scalability and performance** – As usage grows, AI solutions must scale to support increasing numbers of users, larger data volumes, and more complex queries. Ensuring low latency and consistent performance across distributed systems can be challenging, particularly as retrieval pipelines and agent workflows become more sophisticated.
- **Monitoring and evaluation** – Enterprise AI systems require continuous monitoring to ensure accuracy, relevance, and reliability. This includes tracking model performance, detecting hallucinations or retrieval failures, and incorporating user feedback. Over time, solutions lacking built-in evaluation and observability tooling can result in inaccurate agents and degraded user trust.
- **Data integration and maintenance** – Custom solutions must connect to and continuously synchronize data across multiple enterprise systems. Building and maintaining these data pipelines—while preserving access controls and data consistency — can be one of the most complex and resource-intensive aspects of the system.

Organizations faced with these challenges can be left with ineffective solutions that go unused by employees, ultimately wasting time and money. To address these barriers commonly seen in the market, Lenovo has developed a portfolio of Lenovo Super Agents — domain-specific solutions built using Lenovo's agent capabilities. To address the growing demand for AI-powered enterprise knowledge management, Lenovo has developed the Lenovo Knowledge Super Agent.

# Lenovo Knowledge Super Agent

As part of the Lenovo AI Library, Lenovo has developed the Lenovo Knowledge Super Agent, an enterprise AI platform designed to unify fragmented knowledge systems and accelerate information discovery across organizations. The platform provides an agentic, AI-powered knowledge layer that integrates seamlessly with internal enterprise data sources, enabling users to access and interact with organizational knowledge more efficiently. The Lenovo Knowledge Super Agent can be applied to a broad range of enterprise use cases and workflows.

### Workflow Example #1: Compliance and Operations

**USER NEED**

A compliance manager asks a regulatory question.

**AGENT ACTION**

The Super Agent delivers a grounded answer with source citations.

**GOVERNANCE CONTROLS**

Role-based access controls restrict sensitive content.

Feedback supports continuous accuracy.

The Lenovo AI Library is a curated catalogue of prebuilt agents and validated use cases built on hundreds of proven Hybrid AI solutions. Development, customization, and management of prebuilt enterprise-grade agents is made possible with the Lenovo xIQ Agent Platform, an AI-native, no-code environment with automated configuration capabilities and governance by design.

The Lenovo Knowledge Super Agent supports flexible deployment models, including on-premises, cloud-based, and hybrid environments, allowing organizations to meet their specific security, compliance, and infrastructure requirements. This deployment flexibility is foundational — it ensures organizations maintain full control over where their data lives and who can access it, regardless of their infrastructure environment.

***Signal65 Comment**: Enterprise organizations often require on-premises deployments to meet strict security or data residency requirements, while cloud-based models may be preferred for scalability and ease of implementation. By supporting on-premises, cloud, and hybrid approaches, Lenovo is enabling enterprises to adopt AI in a way that aligns with their distinct operational and regulatory constraints.*

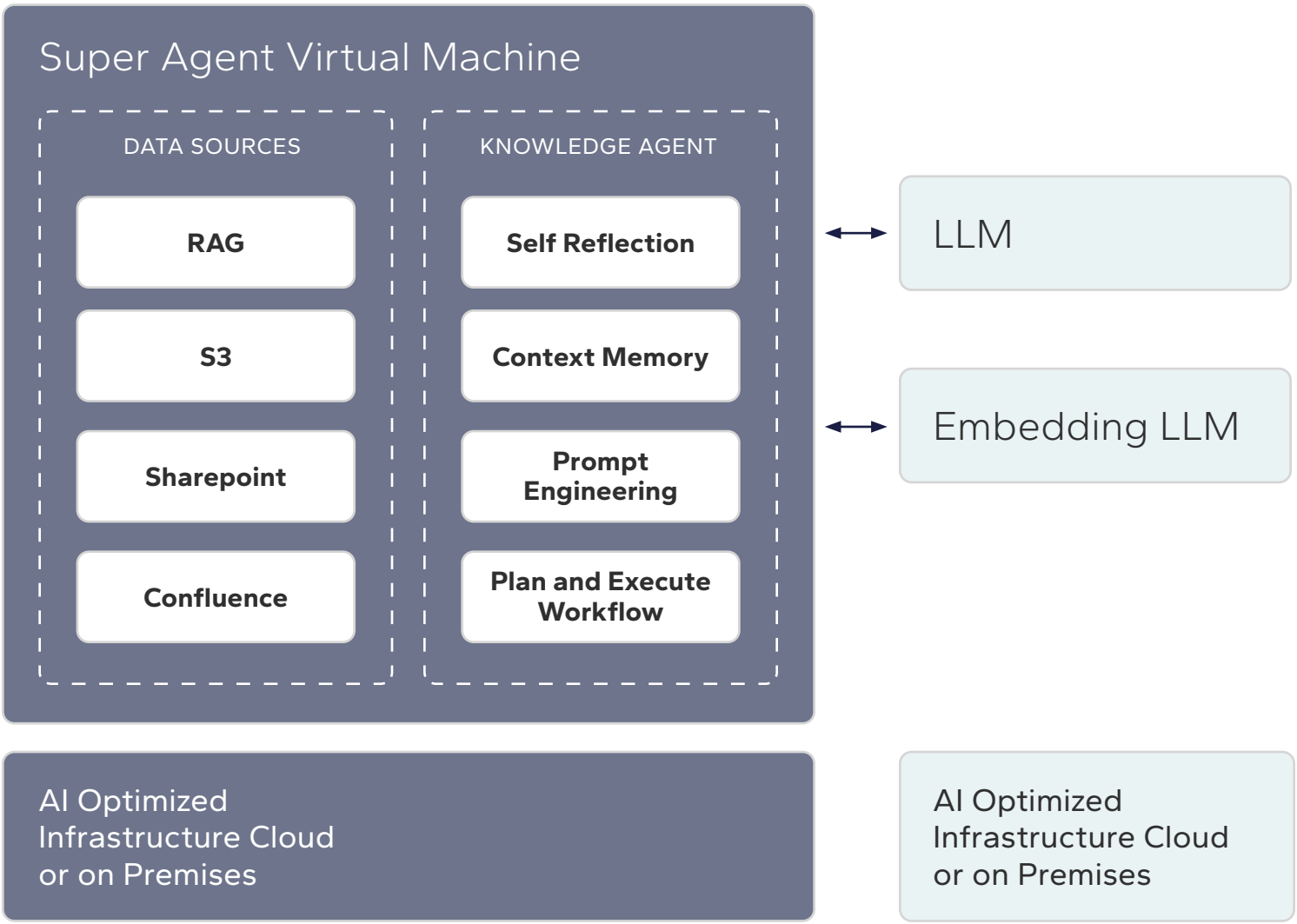



***Figure 3:** Lenovo Knowledge Super Agent Architecture Overview*

The platform enables the rapid creation and deployment of configurable knowledge agents. These agents can be powered by any OpenAI API-compatible model and further customized through prompt engineering and task-specific configurations. Knowledge agents can be connected to a variety of enterprise data sources, including S3 object storage systems, SharePoint, and Confluence.

## Workflow Example #2: Frontline Operations

**USER NEED**

A supervisor asks how to handle a quality incident.

**AGENT ACTION**

The Super Agent retrieves the approved SOP and summarizes next steps.

**GOVERNANCE CONTROLS**

Access is limited to plant-specific documentation and approved procedures.

To support accurate and context-aware responses, the platform incorporates vector databases to enable Retrieval-Augmented Generation (RAG) over indexed enterprise knowledge. In addition, the system includes a suite of built-in tools that extend agent capabilities beyond information retrieval, enabling support for common enterprise workflows.

Core built-in tools include:

- **DocReader** – Enables agents to ingest and interpret unstructured documents such as PDFs, text files, and images.
- **DocSearch** – Provides fast, semantic search across indexed enterprise documents.
- **Meeting Minutes** – Automatically generates structured summaries and notes from meetings.
- **WebSearch** – Retrieves up-to-date external information from the web when needed.
- **Knowledge Base Chat** – Supports conversational querying over internal knowledge bases.
- **Deep Research** – Aggregates and synthesizes information on complex topics.
- **Deep Thinking** – Performs multi-step reasoning for complex problem solving and analysis.

Collectively, these capabilities enable the Lenovo Knowledge Super Agent to function not only as a retrieval interface, but as an extensible platform for knowledge-driven automation and decision support across enterprise workflows. By unifying fragmented knowledge sources, the Lenovo Knowledge Super Agent provides a single conversational interface for employees, eliminating the need to navigate disparate systems.

# Key Findings and Analysis

Signal65 conducted a comprehensive evaluation of the Lenovo Knowledge Super Agent solution, observing the backend setup and management, feature capabilities, and a real enterprise implementation. Based on this evaluation, Signal65 identified several key benefits and advantages of the solution.

## Security and Governance

Data security and governance aren't features – they are the foundation of any enterprise AI deployment that handles sensitive data. Organizations must ensure that sensitive information is protected, access is appropriately controlled, and AI-generated outputs adhere to internal policies and regulatory requirements. The Lenovo Knowledge Super Agent addresses these challenges through a comprehensive set of governance, access control, and deployment capabilities designed for enterprise environments.

> After reliability and hallucinations, enterprise organizations rank privacy and security as the second largest barrier to generative AI adoption, according to Futurum Research[3]. For AI systems that directly integrate with enterprise knowledge bases, strong data governance is essential to ensure sensitive information is accessed and used appropriately. The Lenovo Knowledge Super Agent addresses this requirement through enterprise-grade governance and access controls, enabling organizations to securely deploy AI across sensitive and regulated data environments.

At the data level, the platform provides robust data governance controls, enabling organizations to organize information into defined domains, classify documents, and establish standardized glossaries. These capabilities improve both retrieval precision and compliance by ensuring that data is structured, well-defined, and aligned with organizational policies.

The platform also implements role-based access control (RBAC) to manage users, roles, and permissions. By enforcing both system-level permissions and underlying source-level access controls, the solution ensures that users can only access information they are authorized to view.

To support diverse organizational needs, the platform offers flexible authorization models, including public, private, and hybrid configurations. For example, an HR team's sensitive compensation documentation or executive communications can be restricted exclusively to authorized HR personnel, while a general company policy handbook or onboarding guide remains accessible to all employees — all within the same deployment, without requiring separate agents or infrastructure for each access level. This enables enterprises to maintain open-access knowledge bases alongside restricted, persona-specific document collections within a single deployment, without compromising security boundaries.

[3] Futurum Research Decision Maker Insights, AI Platforms, 1H 2026

## Workflow Example #3: Human Resources

**USER NEED**

A manager asks about parental leave policy.

**AGENT ACTION**

The Super Agent returns a summarized, source-backed answer.

**GOVERNANCE CONTROLS**

Access controls ensure policy visibility aligns with role.

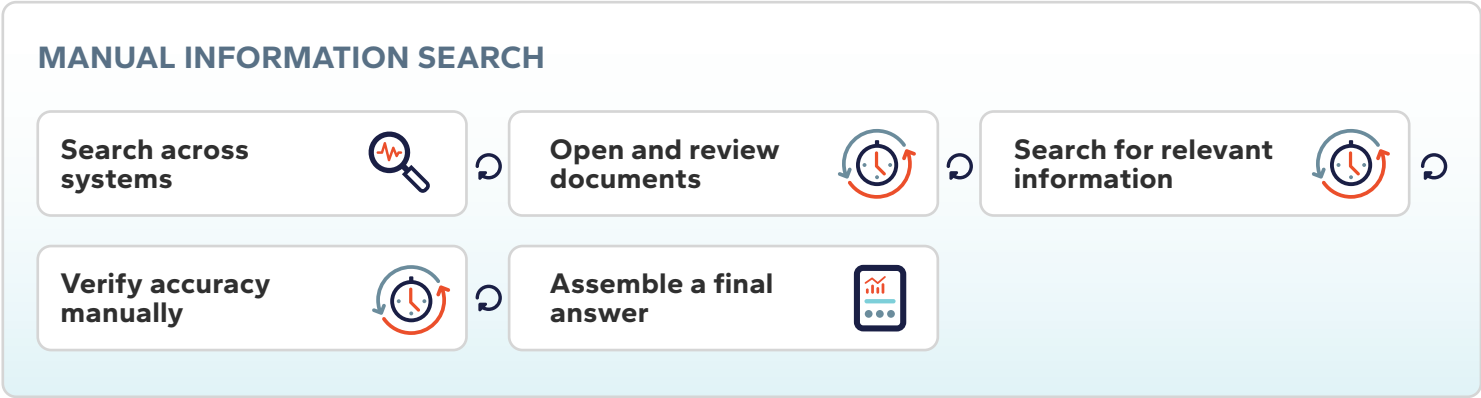
Feedback flags outdated guidance

Finally, the Lenovo Knowledge Super Agent supports on-premises, cloud, and hybrid deployment models, allowing organizations to align AI infrastructure with their existing security, compliance, and data residency requirements. This flexibility is particularly important for regulated industries or environments with strict data governance policies.

## Improved Productivity

A primary objective of integrating AI into enterprise workflows is to enhance employee productivity. Effective enterprise knowledge agents enable rapid access to relevant information, reduce friction in business processes, and support more efficient task execution.

### Before




### After


***Figure 4:*** *Manual vs AI-driven Knowledge Workflows*

Within the enterprise deployment evaluated in this study, employees reported measurable productivity gains following the adoption of the Lenovo Knowledge Super Agent. **81% of employees reported reduced time spent searching for information, indicating a significant reduction in time spent on low-value information retrieval tasks.** Across the deployment, time spent on knowledge retrieval tasks was reduced by 30%. For sales teams, the platform enabled 2x faster preparation of proposals. At an organizational level, these improvements translate into substantial time savings and increased capacity for higher-value work.

## Workflow Example #4: Sales Enablement

**USER NEED**

A seller asks which solution fits a customer scenario.

**AGENT ACTION**

The Super Agent retrieves validated internal content and summarizes positioning.

**GOVERNANCE CONTROLS**

Only approved materials are surfaced to ensure compliant messaging.

> *"The Knowledge Super Agent became my go-to AI search assistant during onboarding and after. Long gone are the days of asking around for the meaning of acronyms or digging through endless SharePoint folders. Now I simply ask the Knowledge Super Agent and get instant, accurate answers. [...] It's like having a knowledgeable colleague available 24/7."*
>
> *– Global AI Learning & Development Manager*

Beyond reducing search time, the platform also improved employees' ability to initiate and execute complex tasks. A common challenge in enterprise environments is "blank page syndrome," where employees struggle to begin work due to ambiguity, lack of context, or uncertainty about how to proceed. By leveraging the Lenovo Knowledge Super Agent, employees were able to approach tasks with greater clarity and confidence — with **94% reporting that the solution helped them overcome blank page syndrome**, highlighting its role not only in information retrieval, but also in enabling more effective problem-solving and task initiation.

> *"The Lenovo Knowledge Super Agent delivers the information I need in seconds. It consistently saves me time and has become an invaluable tool that I rely on nearly every day."*
>
> *– Global CFS Leader*

The platform also reduced reliance on subject matter experts — **in the environment evaluated, escalations dropped by 35%**. This highlights the depth of knowledge the platform delivers, indicating that in many cases it is comparable to consulting an expert directly. By reducing time-consuming escalations, subject matter experts can redirect their time toward higher-value initiatives.

## Rapid Deployment and Time to Value

A key advantage of the Lenovo Knowledge Super Agent is its ability to be deployed rapidly, enabling enterprises to quickly realize value from a full-featured, customizable AI platform. The solution is designed to scale across organizations of varying sizes, with a simplified "t-shirt sizing" model (pre-defined configuration tiers based on user count and request volume) that maps user counts and request volumes to infrastructure requirements. These configurations range from deployments supporting approximately 300 users and 30 requests per minute to large-scale environments exceeding 10,000 users and 3,000 requests per minute.

**In practice, the Lenovo Knowledge Super Agent can be deployed and configured in approximately 2 weeks**. In contrast, fully custom agentic AI solutions often require six months or more to design, implement, and productionize, in addition to ongoing engineering overhead for maintenance and scaling.

This accelerated deployment model significantly reduces time to value, allowing organizations to rapidly access AI-driven capabilities and begin realizing productivity gains with minimal implementation delay. The rapid deployment of the Lenovo Knowledge Super Agent solution directly addresses one of the primary barriers to custom AI adoption – extended development timelines – while preserving flexibility and scalability.

## User Adoption and Satisfaction

A key challenge in enterprise AI deployments is achieving and sustaining user adoption. Organizations often face both technical and behavioral barriers, including the ability to scale systems to support large user bases and establishing sufficient accuracy and reliability to build user trust.

In the enterprise deployment evaluated, the Lenovo Knowledge Super Agent demonstrated both strong scalability and high levels of user trust. **The solution scaled to approximately 3,000 users, representing a 60x increase in user adoption, without requiring architectural changes or significant additional investment**. This scalability enabled broader rollout across multiple business units, further reinforcing its enterprise readiness.

> *"The Lenovo Knowledge Super Agent has truly transformed my personal workflow. It's incredibly efficient at pulling up exactly what I need with minimal effort, saving me valuable time and making my tasks much more manageable."*
>
> *– Delivery Manager, EMEA*

In addition to user growth, user satisfaction was also measured. **Across the deployment, the platform achieved an average user rating of 4.4 out of 5, indicating a high level of confidence in the solution**. This trust is closely tied to the system's ability to deliver accurate, grounded responses from integrated knowledgebases. **Across user queries, over 85% of responses included supporting citations, helping ensure transparency and reliability in generated outputs**.

To support ongoing adoption and maintain response quality, the Lenovo Knowledge Super Agent incorporates a built-in response governance framework. Users can rate each response as positive or negative, with feedback aggregated in a centralized analysis dashboard. Negative feedback is reviewed by administrators to identify root causes, which may include system defects, knowledge base gaps, or emerging feature requirements.

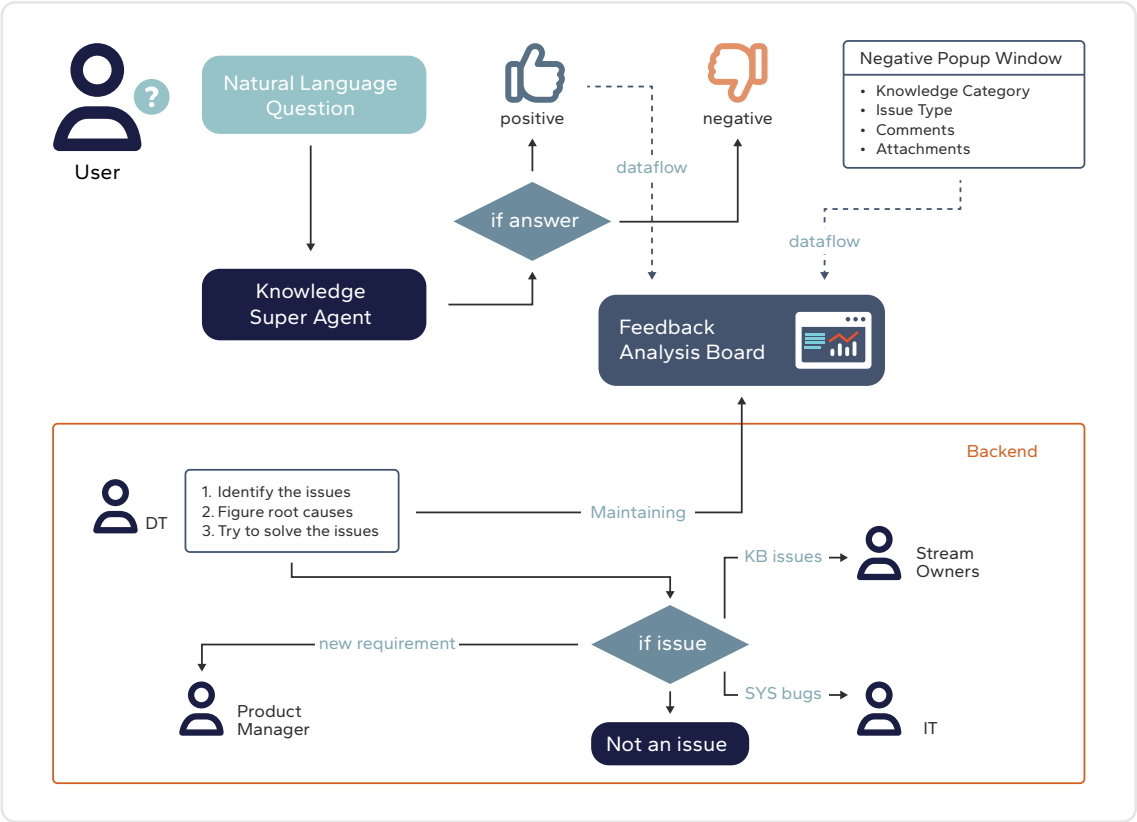



***Figure 5:*** *Lenovo Knowledge Agent Response Feedback Loop*

Once identified, issues can be routed to the appropriate teams for remediation, enabling a continuous improvement cycle. This feedback loop supports ongoing monitoring of system performance, ensures that issues are addressed in a timely manner, and reinforces user trust over time.

***Signal65 Comment****: Futurum Research found reliability and hallucinations to be the top overall concern slowing generative AI adoption amongst enterprise organizations[4]. The feedback-loop implemented in the Lenovo Knowledge Super Agent, with positive and negative user feedback, ticketed workflows, and human triage, ensures ongoing response quality governance to overcome enterprise reliability and hallucination barriers.*

Together, the platform's scalability, user satisfaction scores, and built-in feedback governance demonstrate that successful enterprise AI adoption depends on both technical infrastructure and continuous quality mechanisms – not just an initial deployment.

[4] Futurum Research Decision Maker Insights, AI Platforms, 1H 2026

# Final Thoughts – Unlocking Enterprise Value with AI-Powered Knowledge

Agentic AI and Retrieval-Augmented Generation (RAG) represent a powerful approach to improving efficiency and productivity across enterprise workflows. While organizations rely heavily on internal data to support decision-making and execution, data fragmentation introduces friction and reduces employee productivity.

It is estimated that approximately 20% of an employee's work week is spent on searching and gathering information[5]. The Lenovo Knowledge Super Agent was found to reduce time spent on repetitive knowledge tasks by 30%, which would save the average employee approximately 120 hours per year. **Extrapolating this to a workforce of 3,000 employees with an average salary of $100,000, this efficiency gain can represent up to 360,000 employee hours and approximately $17 million in potential productivity value annually.**

The Lenovo Knowledge Super Agent addresses these challenges by unifying enterprise knowledge systems and enabling more efficient interaction with organizational data. By combining rapid deployment with a flexible, extensible architecture, the solution offers a balance between the speed of pre-built offerings and the customization of fully custom implementations.

Across the enterprise deployment evaluated in this study, the solution demonstrated strong scalability, high user adoption, and measurable productivity improvements, while maintaining enterprise-grade security and data governance.

While general-purpose enterprise AI assistants from major vendors offer broad knowledge capabilities, they typically require external cloud processing, lack deep customization, and cannot be validated against real deployment data. The Lenovo Knowledge Super Agent occupies a distinct position: a purpose-built, independently evaluated enterprise knowledge platform that organizations can deploy on-premises, customize to their specific data environment, and scale without architectural changes — validated by Signal65 against a live enterprise deployment of 3,000 users.

These findings demonstrate how AI-powered knowledge platforms transform how organizations access, interpret, and act on their data. Bridging fragmented knowledge systems is no longer optional — the Lenovo Knowledge Super Agent enables enterprises to do so while maintaining flexibility, governance, and scalability. Organizations that act now will convert their AI investment into a durable competitive advantage — those that wait risk falling further behind as knowledge gaps compound.

[5] https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/the-social-economy

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