

THOUGHT LEADERSHIP

Autonomous Agentic AI: Are Insurers Ready for the Next 30 Years?

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sapiens 

Executive Summary

The technology foundation that powered insurance for the last 30 years is not the one that will power the next 30. Global insurers spend an estimated 70% of their IT budgets maintaining legacy systems built for a world of batch processing, manual workflows, and siloed data. At the same time, McKinsey estimates that AI is poised to unlock more than \$1.1 trillion in annual value across the global insurance industry. The gap between that potential and today's reality is where autonomous agentic AI enters.

This playbook, based on private executive masterclasses held at our London offices, examines the practical implications of this new era of insurance technology. Unlike the previous defined by individual systems, the new one is guided by platforms where AI optimises decisions and executes work autonomously to achieve defined business outcomes.

Insurers Are Planning for a Future That's Already Here

It's not news to insurance CEOs and CIOs that they need to transform every aspect of how they do business. When we consult with them, the question is not whether AI is the future, but how they can get there as quickly and cost-effectively as possible.

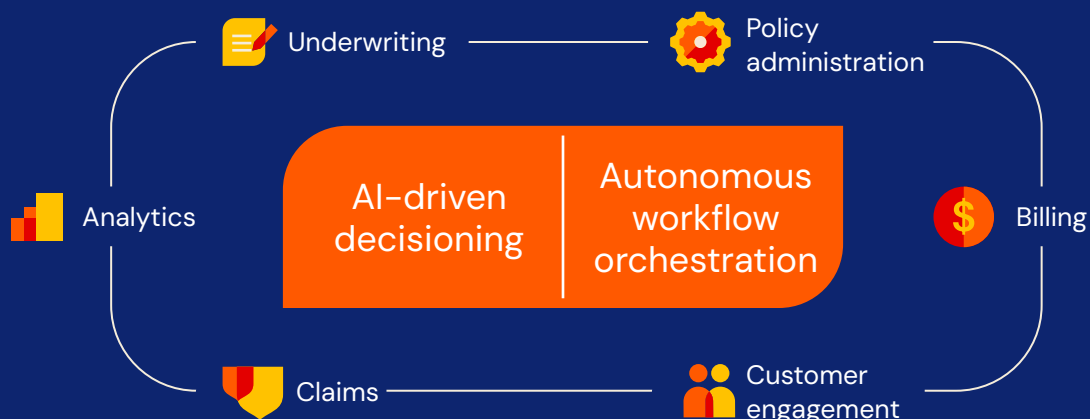
Traditionally, insurers layer in technology step-by-step across policies, claims, and billing. This legacy process requires coordinating multiple systems and stitching together data. It's fragmented, complex, and costs

organisations upwards of \$170B in poor claims experiences alone (source: Accenture).

Today, with AI in the mix, businesses are choosing something fundamentally different. The new generation operates on unified technology platforms that connect the entire insurance lifecycle across underwriting, policy, billing, claims, customer engagement, and analytics, all enhanced by AI-driven decisioning and an autonomous workflow.

The value proposition is clear. Instead of wrestling with isolated systems, insurers manage a single digital platform that works across the enterprise to spot inefficiencies and opportunities human team members are unable to detect, not because they are negligent but because they are unable to look at all the historical data at once and match it against the latest market developments.

Autonomous Insurance Workflow



1 Unified Digital Operations

Customers expect a personalised experience, informed by their immediate needs and preferences. Insurers need to operate from a single digital backbone to make such personalisation a reality. Unified digital operations prevent

bottlenecks and ensure that customers get access to new tech. A single intelligent enterprise is not only great for consumers, but it is oxygen for AI, allowing it to build workflows, improve processes, and spark outcomes insurers

have not yet imagined. What used to take months to launch now takes hours, thanks to integration that is metadata-driven through shared data models, instead of the old-school point-to-point integration.

2 Embedded AI

As we have learned from conversations with senior leaders, insurers are experimenting with AI, but many are wasting their time with siloed pilot programmes. AI won't change anything until it is embedded into businesses. With a platform approach, underwriting decisions become AI-assisted; claims are prioritised automatically; and fraud detection runs

continuously across operational data.

Working with customers, we have seen faster claims resolution, improved loss ratios, or better customer retention. Such improvements happen only when AI moves beyond decision support, into orchestrating and managing outcomes.

When machine learning is embedded in the platform, it also generates predictive insights that influence these workflows. These models then evaluate underwriting risk, detect fraud signals, predict claim severity, optimise pricing, and anticipate customer behaviour, based on what they've learned from customer preferences over time.

3 Micro-Vertical Insurance Expertise

Life, Pensions and Annuities are fundamentally different from Property and Casualty, while Reinsurance operates according to specific capital and risk structures. The same goes for Workers' Compensation and Specialty lines. Each sector clearly has its own complexities, but there are also many commonalities. The platform approach to insurance we have been describing brings these lines of business together by

combining micro-vertical expertise with common infrastructure across security, reporting, identity payments, and APIs.

The situation is analogous to a shopping mall versus a strip of retail shops. In the strip, each retailer is responsible for their insurance, security, payment infrastructure, and IT. In a mall, shops share infrastructure, but still have their own unique qualities,

from design to how they train and motivate their staff.

In the same way, the Platform Insurance Company, with infrastructure across micro-verticals, creates shared services that are configurable to the specific needs of the vertical. Like our shopping mall, the upmarket teen fashion outlet and the bookstore don't sell the same product, but both require access to data and services.

4 Systemic Innovation

The future of insurance isn't happening inside a single technology vendor. It's emerging from insurtech startups, data providers, AI innovators, cloud platform providers, and system integrators working together in ways that no company can replicate alone.

The classic example of this innovation model is Jeff Bezos's open API mandate to IT teams at Amazon that led to the foundation of AWS and created a \$676 billion industry. Here's the parallel for insurance: when you stop rebuilding shared infrastructure inside every line of business and

instead expose core capabilities through a common platform, you free each vertical, whether it's Life, P&C or Reinsurance, to move at its own pace, with its own domain logic, while benefitting from a foundation built by others.

5 Total Cost of Ownership

Disconnected IT systems drain 87% of IT budgets. For the CEO of a platform insurer, IT becomes a growth engine, not a cost centre. The CIO can finally say yes to new products, partners, markets, and AI capabilities, without fear of what the legacy core won't allow.

There are a few baselines that insurers need to implement to enjoy these platform-delivered gains. The most important is a SaaS-native platform that shifts the responsibility for infrastructure management, upgrades, security, and system availability from the insurer to the vendor. The shift

provides a more predictable cost structure, continuous access to upgrades, and a significantly reduced operational overhead. The organisation also benefits from shared operability tools and low-code/no-code configurability capabilities.

Why This Change Matters Now

Cloud and AI operating together is transformative. Claims deliver faster settlement outcomes, underwriting creates improved risk selection outcomes, and customer engagement enhances retention and growth outcomes. AI inside the platform drives business performance that is much more than software tooling. It's the next generation of insurance technology.

According to [Ray Wang](#), author and founder of Constellation Research, Inc., who spoke at the [Sapiens Sales Kickoff](#) in January, "The winners in insurance will partner with insurtech platforms that are enabled for AI."

The platform insurance discussion is not about frictionless upgrades; it's redesigning how insurance companies operate. The platform becomes a living operational system that learns, adapts, and improves outcomes over time. And its beating heart is autonomous agentic AI, initiating and anticipating actions that move the company forward.

It's the most important shift in insurance operations in 30 years and is determining how business gets done for the next 30.

How a Platform Approach Drives Autonomous Insurance Outcomes

The Platform Insurance Company is supported by technology fundamentally different from traditional insurance IT architecture. Replacing multiple, disconnected systems, it runs on a digital operating platform that

connects the entire insurance lifecycle.

In this converged framework, the platform becomes the digital nervous system of the insurer, orchestrating underwriting, policy administration, billing, claims,

customer engagement, and analytics within a single, integrated environment. Once that foundation exists, something remarkable happens. AI operates across the entire enterprise, actively seeking outcomes, instead of merely assisting with decisions.

The Autonomous Insurance Platform™



Fragmented Insurance Systems

Legacy policy systems, claims systems, billing platforms, and integrations



Unified Insurance Platform

Policy • Claims • Billing • Customer • Data • AI
A single digital operating system for insurance



Agentic AI Operations

AI agents orchestrate workflows across the insurance lifecycle and autonomously execute operational decisions



Outcome-as-a-service

Platforms continuously optimize business results (loss ratio, claims cycle time, retention, risk)

Tech Fragmentation Causes Friction

Most insurers today operate on an architecture built over decades. According to a survey of 350 senior insurance leaders, 35% of respondents say they are making business decisions based on siloed systems. At a time when AI offers a continuous, unified workflow, insurers still bounce between administration, claims, and billing systems, supported by data warehouses, analytics tools, and countless siloed solutions.

To be fair, these systems were implemented at a different time, often from different vendors, and designed to accelerate point-to-point processes. It was never in their design to find opportunities in the kind of volatility we have come to accept as the status quo.

Working Across the Value Chain

The Platform Architecture Advantage gives companies the tools they need. They fight today's war with today's weapons. A real insurance platform (and not just a platform in name only) replaces fragmented architecture with a unified operational environment.

Core capabilities connect underwriting workflows, policy lifecycle management, billing and payments, and claims operations. With orchestrated end-to-end data flows continuously across the enterprise, AI operates across the entire value chain.

In practice, the situation is far different from what we describe. Many insurers today are investing in automation and AI, but most of what we are seeing is that these efforts focus on isolated workflows. They centre around automating a claims intake process, document classification, or specific underwriting steps.

These individual initiatives deliver incremental efficiency, but we know firsthand that platforms unlock something far more powerful. When the entire insurance lifecycle is connected, AI optimises not just individual tasks, but the end-to-end business outcome.

AI claims agents on an AI platform optimise for fast settlement and fraud detection simultaneously. Or underwriting AI agents can significantly improve risk quality and customer acquisition.

Platforms Enable AI That Works

One of the biggest barriers to AI deployment in the insurance industry is data fragmentation. AI models require large volumes of data. When underwriting data lives in one system, claims data in another, customer engagement in a different place, and financial data somewhere else, creating the data foundation for AI becomes extremely difficult.

A unified platform changes that dynamic completely. Operational data becomes continuously

available across the platform. The shift means that AI, with more access to data, can move beyond narrow predictions and towards enterprise-wide intelligence, with dramatically higher decision velocity across underwriting, claims, and customer engagement.

The platform model delivers powerful advantages for insurance leaders:

Faster product innovation: Launching new insurance products becomes significantly easier when underwriting, policy administration, and billing operate on a shared platform. Insurers configure products within a unified environment, instead of modifying multiple systems.

Operational efficiency: Unified workflows eliminate many of the manual handoffs and reconciliation processes that slow down insurance operations today.

Better customer experience: When all customer interactions operate on a single platform, insurers gain a holistic view of the customer lifecycle. AI agents support faster service and more personalised engagement.

The move towards agentic AI platform architecture represents the emergence of a new operating model. Autonomous agentic AI platforms enable insurers to move from decision support to autonomous outcome orchestration across their operations.

Why Outcome-Seeking AI Is Essential

As we have been emphasising, most incumbent AI insurance deployments operate as decision-support tools in a model that helps an underwriter assess risk, flag potential fraud in claims, and recommend next-best-actions for customer engagement. These systems bring value but still rely heavily on humans to interpret insights and coordinate decisions.

Unified technology architecture that connects the entire insurance lifecycle is important, but the real transformation happens when AI is more deeply integrated.

Once autonomous agents are trained across underwriting, claims, policy administration, and customer engagement, something fundamentally new becomes possible. Instead of simply generating recommendations, AI coordinates workflows across the organisation and autonomously seek outcomes not achievable otherwise.

Claims Operations

An AI agent receives the claim and assesses the damage. This process includes detecting potential fraud and routing complex cases to adjusters. Straightforward settlements are authorised automatically, while continuously optimising both customer satisfaction and loss management.

Underwriting Operations

AI agents evaluate risk portfolios by analysing factors such as market conditions, policyholder behaviour, claims trends, and external data sources.

Decisions become dynamic and continuously optimised, combining human expertise with AI-driven analysis.

Customer Engagement

Customer relationships shift from reactive to proactive. AI agents anticipate life events, recommend coverage adjustments, deliver personalised insurance offerings based on behavioural data and risk signals. Instead of waiting for customers to request service, insurers anticipate needs and respond automatically.

AI That Executes, Not Just Recommends

This shift represents one of the most significant changes in enterprise technology. It has the potential to completely transform the insurance industry. For years, software helped organisations manage processes, and AI has helped organisations analyse data, but the next generation of intelligent platforms executes work.

As we have found working with customers, AI adoption is not a skills issue or an HR requirement; it is an existential must-have for the insurance industry to get to the next stage of development. Microsoft's Satya Nadella recently distinguished between human capital (judgement, relationships, ingenuity) and token capital (the AI capability the firm owns and controls). We see the two are one and the same: human beings borrow token capital, and token capital depends on human beings.

In an industry as collaborative and data reliant as insurance, it could never be different. As AI moves from decision support to outcome orchestration, humans stay in the loop for complex judgement, strategy, and relationships. The underwriter's expertise becomes the training signal.

Building Insurance Platforms That Understand Insurance

Platform architectures have enabled companies to standardise technology and simplify operations. Insurance is different. The operational models across insurance segments aren't just varied; they're profoundly different, with distinct complexities between sectors.

A reinsurer and a workers' compensation carrier might both call themselves insurers. But they're running different businesses with different timescales, different data, different regulatory pressures. They're not playing the same game. And the technology that serves them shouldn't pretend they are.

From Horizontal Platforms to Micro-Vertical Platforms

The next generation of insurance is shifting away from generic horizontal software towards line-of-business and micro-vertical capabilities built specifically for distinct insurance domains. Gone are catch-all deployments, in are narrow solutions designed to handle the complexities that horizontal platforms paper over.

The difference is in what comes pre-built. A micro-vertical platform arrives already shaped around the regulatory environment, the data structures, and the risk logic of a specific insurance domain. There's far less to configure because far more is already understood.

For instance, instead of buying a platform and spending eighteen months explaining insurance to it, you start with one that already speaks the language. The workflows reflect how the business actually runs. The data models reflect how risk is structured. That changes what implementation looks like.

Why AI Requires Domain Intelligence

AI systems are only as effective as the context they operate in. A model trained on generic data will struggle with the nuances of insurance risk and in our industry, nuance is everything.

Ask any experienced underwriter. A commercial property model needs to understand exposure aggregation, catastrophe risk, and building characteristics. A life insurance model needs to interpret medical data, mortality risk, and long-term actuarial projections. A reinsurance model needs to understand treaty structures, capital allocation, and portfolio diversification. When we show underwriters what a model trained on their actual risk data can do versus a generic one, the difference isn't marginal. It's a different tool entirely.

Such intelligence can't be bolted on using best-of-breed solutions. It needs to be integrated to the platform itself through industrialised interfaces such as MCP (Model

Context Protocol), trained on the operational reality of each insurance vertical, not on data that happens to mention insurance.



The Strategic Advantage of Micro-Vertical Platforms

Insurance buyers are getting more sophisticated. They're asking harder questions: not what the software can theoretically be configured to do, but what it knows about their business.

With such changing dynamics, the challenge for insurance is much more than technology. It's risk intelligence. Platforms that understand the nuances of risk across different insurance

verticals will have a real advantage in delivering meaningful business outcomes. And the gap between those that do and those that don't is only going to widen.

Of course, micro-vertical platforms aren't evolving in isolation. They are increasingly connecting with specialised networks of partners: insurtech innovators, data providers, AI model developers, risk analytics firms, and regulatory technology providers.

These partner networks continuously expand what the platform can do, letting insurers incorporate new data sources, analytics models, and operational tools without rebuilding or customising core systems. The platform becomes a living body of insurance intelligence that gets sharper over time.



When AI Begins Running the Insurance Workflow

Forget the productivity gains. Forget the checkbox mentality about AI. Autonomous agentic operations mark the point where AI systems do not simply analyse data or recommend action. Working seamlessly across an ecosystem of disparate platforms, they access the full operational environment, which allows them to coordinate processes across underwriting, claims, customer engagement, and risk management. The result is a complete, radical transformation of how we serve customers.

Tangible Results, Not Hype

For claims, the agentic workflow delivers faster claims resolution and improved customer experience. Instead of multiple manual steps, the entire process of submit, review, assess, and approve is dynamically orchestrated by multiple AI agents swarming to solve complex cases quickly and easily. They analyse claim documentation and images, assess damage using computer vision, check historical patterns for fraud indicators, retrieve policy details, estimate repair costs, and initiate settlement recommendations.

What once took human teams days, weeks and months to complete now takes seconds, minutes, and hours at most.

Agentic seeks to eliminate process inefficiencies, overpayments, and missed subrogation, which drain 5–10% of total claims cost, resulting in avoidable material

losses. It also tackles bottlenecks which often unnecessarily delay claims for weeks and months and cost companies millions in lost opportunities and inaccurate filings. Underwriting is another area where dramatic changes are happening.

Where human underwriters used to spend 40% of their time on administrative tasks, AI agents now continuously analyse risk signals from historical claims data, environmental risk models, economic indicators, behavioural data, IoT and telematics inputs.

In terms of customers, relationships have traditionally been reactive. Policyholders contact insurers when something goes wrong or when policies need to be renewed. Customers, who are spammed in all other areas of their life, are aware of the transactional nature of such communications and act (or don't act) accordingly.

In the new operational model, agentic AI enables a proactive, fast and affirmative way of doing business. AI agents are configured to monitor behavioural signals,

life events, and risk indicators to anticipate customer needs. When AI approaches customers who might require additional coverage, or at risk they might not be aware of, or are going through life changes that might require policy adjustments, they are viewed as more human and empathetic, according to a survey by Lemonade.

With personalised communication across digital channels, insurance relationships become continuous rather than episodic, which makes a profound change in customer engagement.

We are not talking about simple automation or process efficiency.

We mean that AI is doing something that human beings cannot: see across the entire organisation, analysing millions of data points and making decisions based on that data.

What Agentic AI Actually Means

Agentic AI refers to intelligent systems that understand goals and objectives, analyse complex operational data, execute actions across multiple systems, and adapt decisions based on new information.

Instead of waiting for humans to initiate every step in a workflow, AI agents coordinate activities dynamically to achieve a defined business outcome. In the insurance context, this shift means AI systems manage large portions of the operational lifecycle, not by replacing human expertise, but by orchestrating the workflow in which that expertise operates.

This point cannot be overemphasised. Against recent advertisements presenting AI as a replacement for people, AI and human aren't opposites, they're interdependent. The underwriter's expertise becomes the training

signal. Without human judgement, strategy, and relationships, agentic operations don't function. Without AI, human expertise can't scale.

Insurance Reaches that "Netflix Moment"

Every major industry eventually experiences a moment when technology stops simply supporting operations and begins actively driving them. We have seen retail experience this shift with digital commerce platforms. Finance experienced it with algorithmic trading systems. Now it's insurance's turn, that "Netflix moment" when the industry either completely transforms its business and dominates the future or goes the way of Blockbuster.

While many insurance companies are still deeply invested in the previous generation of automation for document processing, routing claims to adjusters, triggering underwriting reviews and

processing payments and billing events, there are many insurers using AI agents to coordinate workflows, platforms expand capabilities, and operations continuously optimise for measurable outcomes.

Agentic AI can only function effectively within unified platform environments. If underwriting systems, claims systems, customer platforms, and data environments remain fragmented, AI agents cannot coordinate workflows across the enterprise, which is why the shift towards platform architecture is so critical.

The insurers already operating this way aren't running pilot programmes. They're running the business. The question isn't whether agentic AI will define insurance operations; it's whether your organisation will define it or react to it.



Getting Started with Outcome-as-a-Service

The shift to Outcome-as-a-Service is not simply a new pricing model or a marketing rebranding. It reflects a once-in-a-generation change in how insurers serve their customers and achieve business objectives.

AI is changing that equation entirely. Embedded AI continuously analyses operational data, optimises workflows in real time, and coordinates decisions across the enterprise. The platform no longer just executes what it is told; it drives the business result.

This document has been our way of inviting you into conversations we have been having with industry leaders about what the future looks like and what works, what doesn't, and what needs to happen to build this new era that will define the next 30 years of our industry.

Whether you are an insurance company or a firm that serves them, the time is now. The change that disrupted Retail, Finance, and Entertainment has already happened. Now it's our turn.

Following are some steps to get you started. As we have described, the vision is to build a platform that autonomously pursues business outcomes. This is the distinction we have been emphasising throughout our discussion: how autonomous agentic AI is the goal, not an endless stream of automated processes that only accelerate aspects of your business without transforming the whole.



Step 1

Redefine How You Measure Technology Value

The most immediate practical step for insurers is to change the questions they ask of their technology investments. Stop evaluating platforms on feature counts and start holding them accountable for the business metrics that matter to your organisation.

For claims, that means measuring settlement speed, processing cost per claim, fraud detection accuracy, and customer satisfaction scores, not system availability or transaction throughput. For underwriting, it means loss ratio improvement, risk selection accuracy, and portfolio profitability, not the number of rating factors supported or API connections available. Every core platform in your technology stack should have a defined set of business outcomes it is expected to move, and your vendor relationships should be structured around demonstrating progress against those outcomes.

The shift requires insurers to build stronger feedback loops between their technology teams and their business operations. The data that measures operational performance like loss ratios and claims cycle time needs to flow back into the evaluation of the platforms driving those results.

Step 2

Prepare Your Data Foundation

Outcome-as-a-Service is only possible if AI has the data it needs to optimise intelligently. Before an insurer can benefit from outcome-driven platforms, it must address the data fragmentation that still plagues most insurance organisations. Siloed policy, claims, billing, and customer data prevents AI from seeing the full operational picture it needs to make meaningful decisions.

The practical implication is that data unification is not an IT project, it is a strategic prerequisite for competing in the next era of insurance. Insurers should prioritise building unified data environments that give their platforms continuous access to clean, connected operational data across the business. Without this foundation, AI-driven optimisation remains theoretical.

Step 3

Shift Your Vendor Strategy Towards Platform Thinking

The Autonomous Insurance Platform doesn't work in isolation. It functions as the centre of an ecosystem where specialised partners contribute fraud detection, telematics, parametric triggers, embedded insurance distribution, and capabilities that the platform orchestrates dynamically. Insurers preparing for this model need to evaluate their vendors not just on individual capability, but on their ability to contribute to a connected platform.

We recommend platforms with open architectures, strong API ecosystems, and true insurance ontology to be used as training data. For instance, at Sapiens, we have 40 years of insurance domain logic, with more than 2,000 workflows modelled and more than 600 insurers in over 30 countries running on our platform, unified across P&C, Life & Annuities, and Reinsurance.

Step 4

Train Your Team to Be the Training Signal

The autonomous platform is impossible without human beings. As we discussed in a previous section, token capital (the AI capability the firm owns and controls) and human capital (judgement, relationships, ingenuity) cannot be distinguished. Token capital depends on human beings, and human beings depend on token capital for platform transformation to take place.

As outcome orchestration replaces AI-driven decision support, humans must be trained to function in this environment to deliver complex judgement, strategy, and relationships, as well as assure the autonomous agentic AI platform is continuously learning so it can continue to deliver.

Step 5

Act Today

Technology alone will not complete this transition. Insurers must prepare their organisations to operate in an outcome-driven model. That means underwriting, claims, and operations leaders need to understand what an autonomous agentic AI platform is optimising for and actively participate in setting those objectives.

It also means actuaries and data scientists need to work alongside platform teams to define the outcome metrics that matter. And it means executives need to hold both their internal teams and their technology partners accountable for business performance, not just implementation milestones.

The insurers acting now build compounding advantages in operational efficiency, risk intelligence, and customer experience. Those who wait, continuing to measure technology by features and to absorb all the risk of translating capability into performance, will find the gap increasingly difficult to close.

The Autonomous Insurance Platform is not a future state to plan for eventually. It is the economic operating model of the industry's next chapter, and it is being built today.

About Sapiens

Sapiens International Corporation N.V. is a global leader of AI-centric, SaaS-based insurance software, delivering hyper-relevant experiences that are efficient, compliant, and innovative. With agile intelligence, Sapiens' solutions turn real-time data and human insight into precise action at every moment, across every risk. The Sapiens platform includes agentic workflows accelerating every capability across policy, underwriting, claims, reinsurance, decisioning, and finance and compliance. With more than 600 insurers in over 30 countries running on Sapiens, our deep industry expertise is the foundation of our long-term relationships, from initial implementation through to modernization and market transformation. Sapiens is headquartered in London, serving customers in property and casualty, life, reinsurance, specialty, and workers' compensation from offices across North America, Europe, the Middle East, and Asia Pacific.

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