TRACE3

2026
OBSERVABILITY CHALLENGES WHITE PAPER

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Abstract

Enterprises face a rapidly changing environment driven by AI and agentic systems. Organizations that don't modernize their observability practices risk deploying AI they can't govern, validate, or measure, creating downstream impacts across operations, security, and financial performance.

Agentic AI solutions require strong governance and operational discipline to succeed in production. Traditional, fragmented monitoring approaches no longer provide the deep insight needed to understand AI behavior at scale. These workloads demand end-to-end visibility across metrics, events, logs, and traces. As a result, many organizations face a growing gap between agentic AI ambition and operational readiness.

Compounding this challenge, more than two-thirds of agentic AI decisions still require human verification. While agentic AI can both increase and help manage complexity, particularly in IT operations and DevOps, leaders must establish a clear observability strategy to ensure confidence, control, and measurable outcomes as AI moves into production.

The four primary observability challenges Trace3 sees clients facing in 2026 are:

- Unsustainable tool sprawl resulting in fragmented visibility and rising costs
- Incident volume and alert noise exceeding human team capacity
- Architectural complexity outpacing operational insight
- Rapidly advancing AI expectations without equivalent governance and validation mechanisms

Technology leaders in 2026 have the opportunity to evolve their observability practice to address these challenges and capitalize on agentic AI opportunities within their organizations.

Analysis

Challenge 1

Tool sprawl increases cost and reduces visibility

AI and agentic solutions have accelerated, and mature observability is critical to realizing their benefits in production. The first observability challenge for 2026 is tool sprawl combined with greater cost scrutiny. As highlighted in Dynatrace's 2026 Research Report, "*The Pulse of Agentic AI: Building Trust in Autonomous Operations from Pilot to Production,*" fragmented monitoring leaves organizations with blind spots and gaps in understanding, making legacy monitoring and observability tools harder to justify.

Looking at reported agentic AI priorities, cost benefits rank second only to improving decision-making through real-time insights (Dynatrace, 2026). While overall observability budgets are increasing, many organizations are prioritizing **tool consolidation** to reduce sprawl, optimize operating and capital expenses, improve visibility, and increase operational efficiency. These costs extend beyond licensing and subscriptions to include the operational burden of maintaining specialized expertise across teams to support legacy tools.

Leaders should also consider the hidden operational costs of isolated monitoring and observability solutions, where teams lose the ability to correlate signals across their environments. Consolidation not only improves day-to-day operations but also creates a stronger foundation for adopting agentic AI solutions at scale. While open standards such as OpenTelemetry can help normalize telemetry data and ease transitions during multi-year contracts, they are not a replacement for a unified observability platform. Open standards should enable platform unification, not perpetuate fragmentation.

Challenge 2

Incident volume exceeds team capacity

Teams continue to struggle with incident volume and operational noise. This is the second major observability challenge. Agentic AI solutions are already delivering meaningful advances in IT operations by reducing false positives, correlating events, identifying trends, and accelerating root-cause analysis. However, rapid adoption has also exposed new scaling constraints.

Many organizations are consolidating onto observability platforms with agentic AI capabilities to increase operational capacity while incident volumes continue to rise. While these systems reduce manual effort, most enterprises still rely on human validation for critical decisions. Today, 69% of agentic AI decisions require human verification, creating an operational bottleneck that will not scale as AI adoption accelerates (Dynatrace, 2026).

Operating models are shifting. The key question is no longer whether teams have enough skilled people to resolve incidents. It is whether those teams trust the agentic AI systems they use and can work effectively with them. Observability provides the confidence layer

required to validate agent behavior, reduce noise, and enable organizations to safely scale autonomous operations over time.

The approach to handling incidents will move away from, "Do I have enough of the talented and highly skilled people available to diagnose and resolve incidents?" to, "Do I have the right agentic AI solutions ready for my highly skilled team to collaborate with when incidents occur?" Observability will build the required confidence for an organization to capture the full benefit of these solutions.

Challenge 3

Architectural complexity creates blind spots

The third observability challenge is how **architectural complexity is creating blind spots** for many organizations. Early adopters of AI solutions often failed to track outcomes effectively. For instance, some organizations that rapidly adopted coding agents subsequently created an increase in code volume that revealed their immature observability and operations practices. Many organizations have at least high-level data, but not all companies have the right information about where issues and bottlenecks exist.

Looking specifically at the creation and deployment of AI solutions in the enterprise, the lack of observability is cited as one of the top barriers to production (Dynatrace, 2026). Only 23% of organizations have projects in mature, enterprise-wide integration today. Leaders who invest in observability now can gain the first-mover advantage. There is significant complexity to be overcome to realize benefits, and observability is the foremost way to achieve confidence in deploying agentic AI solutions into production.

The forecasted budget growth for agentic AI solutions certainly indicates market optimism. There are high expectations agentic AI solutions will quickly demonstrate tangible benefits, starting with operations, but also benefitting cybersecurity, data management/reporting, sales engagement, along with compliance and risk management and numerous other specialized use cases. In the Dynatrace 2025 State of Observability Report, only 32% of respondents used AI in their observability practice. In 2026, AI adoption in observability will be key to deal with complexity and to identify blind spots in which your organization is missing the operational data needed to understand system behavior. Trace3 forecasts a large majority of organizations will adopt AI in observability by the end of 2026.

Organizations should align observability teams with best practices now to ensure they can measure agentic AI impact within operations as well as future agentic use cases. Being proactive will accelerate AI initiatives versus identifying blind spots as they happen and remediating them after the fact. Organizations that wait to extend observability outside of operations may struggle to show the value of agentic AI benefits in specialized use cases. Best practices must also include cloud financial management (FinOps) aspects along with prioritizing and measuring impact of extending observability when agents are deployed into specialized use cases. As AI adoption matures, more emphasis is being put on demonstrating value to the business, and observability is the optimal place to quantify those benefits.

Companies that want to set themselves up for long-term success need to first generate a purposeful strategy using a leading observability platform like Dynatrace, then evaluate agentic AI solutions. Many large organizations are also strategically including open telemetry standards in their observability ecosystem to allow for additional flexibility both within operations and broader specialized use cases.

Challenge 4

AI expectations are rising faster than governance

The fourth challenge Trace3 sees in observability for 2026 is the **growth of AI expectations and capabilities**. From last year's Dynatrace 2025 State of Observability, 29% of respondents cited AI capabilities as the most important factor when selecting an observability solution. This is a leading indicator that AI-native platforms will win the next evaluation cycle. Based on 2025-2026 client engagements, Trace3 believes that figure has at least doubled among organizations actively evaluating observability platforms.

IT operations remains the proving ground for agentic AI. Even though there is heavy interest in seeing AI in customer-facing applications, the primary use case for agentic AI solutions is still IT operations and DevOps with 72% of organizations self-reporting this use case on the Dynatrace 2026 Agentic AI Report. Overall, the industry trend is focused on capturing agentic return on investment first in IT operations, but it isn't just about near-term results. IT is establishing the patterns and best practices that will be extended into security, compliance, customer experience, and beyond. The observability and implementation best practices gathered first from IT operations agentic solutions will give organizations an advantage as they broaden their adoption of agentic AI.

Humans are still deeply involved in agentic AI solution operations with observability continuing to play a key role in the control of these solutions to validate outcomes. The human/AI overlap in responsibilities does not mean we won't see significant return on investment, but the near-term benefits will be IT Operations collaboration and observability-based validation of agents while controls mature.

Next Steps

For technology leaders to successfully address these challenges, they need to establish a strategy for each of the four identified areas:

1. Consolidate observability tools: Reduce tool sprawl to lower costs, improve visibility, and simplify operations.
2. Use AI-enabled observability to reduce alert fatigue: Increase team capacity by reducing noise, accelerating investigation, and supporting human decision-making.
3. Adopt a measured approach to increasing visibility throughout workloads, focusing first on agentic AI solutions moving to production. Align your focus and resources towards observability on agentic AI workloads headed into production. Adopting a measured observability approach for agentic AI workloads optimizes for costs while reducing risk.
4. Use observability to measure AI and agentic return on investment (ROI). Leaders need to be confident they have the data to prove where agentic AI has been successful and to help inform their future initiatives. Organizations should invest in capturing the data they need to make decisions at scale. Measuring agentic AI ROI will enable leaders to prioritize strategic initiatives using data.

Conclusion

The convergence of tool sprawl, alert fatigue, architectural complexity, and accelerating AI adoption has made observability a strategic investment in 2026. The organizations that act now to unify observability with their AI strategy will be the ones that scale with confidence. Leaders who do not act are risking ungovernable AI deployments (shadow AI), escalating operations costs, talent burnout, and inability to demonstrate ROI.

Organizations that scale AI successfully will use observability to validate and prove AI is doing what it is supposed to do while effectively managing costs. It is a great time as a leader to create a holistic observability strategy and adopt a leading platform to reduce noise, close blind spots, and scale agentic AI with confidence and accountability. T Now is the right time to make observability a foundational part of your AI strategy.

Sources

1. Dynatrace. (2026). *The Pulse of Agentic AI: Building Trust in Autonomous Operations from Pilot to Production* [Research Report].
2. Dynatrace. (2025). *The State of Observability 2025: The Emerging Control Plane for AI Transformation* [Research Report].