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The autonomous enterprise:
Driving cloud infrastructure to think, predict, protect, and heal itself with AI

Whitepaper

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The evolution of AI in cloud and infrastructure automation has turned reactive monitoring into predictive business intelligence, transforming IT operations, improving efficiency, and protecting revenue.

In recent months, organizations have accelerated the development of technology roadmaps with AI at their core. The stakes are significant: 45 percent of organizations indicate that failing to achieve AI objectives would constrain innovation. Another 42 percent cite the risk of losing market share.[1] While several organizations struggle to achieve the projected ROI from AI, an IBM report states that the top decile of organizations investing in AI has shown an ROI of approximately 18%, which is well above the capital cost. This means that by following best practices, the potential of AI can be unlocked. The report also notes that AI has helped enterprises increase operating profit since 2022.[2] The imperative to get comprehensive AI integration first-time-right is now central to sustaining competitive advantage and operational resilience.[3]
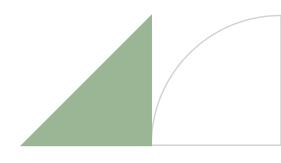
From Reactive to Predictive

Initial enterprise AI adoption, which gained momentum around 2020,[4] centered on automating basic production health checks. The early efforts were foundational and insufficient to materially reduce business downtime. These AI implementations monitored system metrics and generated alerts, but lacked the ability to correlate events across distributed environments. Therefore, they could not anticipate cascading failures that could disrupt revenue streams.

Over the past five years, AI capabilities have advanced substantially, now providing superior observability across infrastructure and applications, enabling the effective monitoring and correlation of events, automated remediation of disruptions, and fulfillment of service requests in production environments.

This evolution marks a shift from reactive monitoring to proactive infrastructure management. Assisting this transition are advanced AI solutions that can now analyze patterns across diverse data streams, detect anomalies beyond human capability, and implement corrective actions autonomously. In recent years, AI capabilities have evolved beyond infrastructure-focused AIOps to deliver intelligent operations across every layer. Today, AIOps is central to ITOps, AppOps, DevOps, and DataOps, driving automation, analytics, and event management throughout the technology stack. Moreover, AIOps now operates on advanced MLOps and AIOps infrastructure itself, enabling a truly end-to-end, business-aware environment. This deep integration connects business streams directly with IT operations, ensuring that IT decisions and actions are continuously aligned with business goals, resulting in business-aware and business-aligned IT.

This evolution of AI is reflected in the 2025 market forecasts, which show that AIOps solutions are increasingly being adopted in areas such as DevOps, DataOps, and application operations, enabling agile, business-aware technology environments that directly relate IT actions to business streams and goals.[5]

Because AI can forecast workloads and bottlenecks, it can map the topline impact of disruption, and support resilient, self-sustaining environments through intelligent workload distribution and dynamic scaling. Advanced machine learning models now analyze historical, seasonal, and real-time data to automatically scale resources and distribute workloads. Result: performance degradation is identified before it occurs.

An example that showcases the potential impact of AI was the 2024 US retail holiday season. Last year, holiday retail sales reached $1.05 trillion, accounting for 32 percent of annual sales.[6] Some luxury retailers even achieved revenue growth between 40 and 200 percent.[7] During such periods, failures in systems such as POS, inventory, billing, or logistics could result in significant opportunity costs and brand erosion. AI is proving instrumental in minimizing these risks. Notably, the global AI DevOps market is projected to reach $24.9 billion by 2033, pointing to the broad adoption of AI-driven intelligent automation that is underway.[8]

Comprehensive Enterprise AI Integration

AI's role is no longer siloed; it is now deeply embedded across the entire enterprise IT environment, extending well beyond application hosting into CloudOps, AppOps, DevOps, DevSecOps, SRE, and more, providing superior observability across all layers of enterprise IT. Such comprehensive visibility is fundamental for AI-driven resource optimization, automated security checks, and proactive issue remediation. With unified observability, organizations can uncover actionable insights, swiftly identify anomalies, and orchestrate end-to-end automation. This enables enterprises to not only strengthen security and accelerate innovation but also achieve unprecedented operational efficiency across their technology landscape.

AI also enables more granular mapping of infrastructure to business processes, supporting business impact analysis and data-driven decision-making. Business Impact Dashboards empower IT and business leaders with contextual, KPI-aligned insights and performance views. A Business Impact Dashboard can become a powerful lever for enterprises to make faster, data-driven decisions that align IT actions with strategic business objectives.

Infrastructure Optimization for AI

AI is quickly becoming all-pervasive. The demand for AI-ready data center capacity is projected to grow at an average annual rate of 33 percent between 2023 and 2030.[9] As AI adoption deepens, the data indicates that enterprises will face both opportunities and challenges in optimizing cloud and infrastructure for AI workloads. This represents a remarkable shift from traditional infrastructure management: The AI-infused future will demand that intelligent, autonomous systems, aligned with business outcomes, be brought into service.

AI for Sustainability

Beyond operational efficiency, AI adoption supports long-term ESG objectives. These have become a top priority for enterprises. AI-powered ESG analytics enable organizations to track carbon footprints and enhance sustainability. Recent research indicates that up to 94 percent of IT leaders are willing to pay a premium for improved sustainability outcomes from third-party data centers or cloud providers.[10]

In parallel, AI can also help determine when—and how much—of the cloud infrastructure should be utilized, thereby reducing costs through FinOps. From a CFO's point of view, AI in the cloud can be pivotal to bottom lines and business outcomes.

The Zensar Approach: Meeting the Demands of AI-Infused Cloud Infrastructure with The Vinci® AIOps Platform

Zensar partners with organizations to help them navigate the infusion of AI strategies across their enterprise IT environment, manage the complexities of AI integrations, and leverage its The Vinci® AIOps platform and Automation CoE to deliver measurable business value and operational excellence.[11]

The Vinci® AIOps platform helps in:

- **Business-Aware Operations with AI-infused across XOps:** The Vinci® AIOps platform, built on an Enterprise Systems Management framework, enables Day 1 readiness for infrastructure, applications, data, and business impact.

  - The platform not only performs superior observability for infrastructure and applications but also for the DevOps, DevSecOps, SRE, and DataOps environments. Additionally, the platform provides observability for AI/ML/LLM operations, monitoring hallucinations, bias, inconsistencies, traceability, and model performance to ensure the effectiveness of AI infusion across the enterprise IT environment.

  - The platform correlates events, filters out false positives, aggregates incidents, and maps them to their corresponding business impact, providing a unified and actionable view of the IT landscape and enabling rapid and effective responses to emerging issues.

  - The Vinci® AIOps platform enables enterprises to transition from reactive to predictive and proactive IT operations. The solution preempts downtime, reduces unplanned outages, and ensures continuous security, supporting the consumerization of AI across cloud, infrastructure, DevOps, and DevSecOps.

  - The platform promotes cross-functional teamwork by lowering dependencies between business and IT. It empowers developers, administrators, and business owners to automate IT requirements, ensuring processes are auditable and well-governed at all levels, accelerating issue resolution and enhancing organizational transparency.

- **Leveraging Agentic AI for robust operations:** With Agentic and GenAI, The Vinci® guarantees dependability and robustness in cloud and infrastructure environments. Agentic-governed AI operations provide autonomous, context-aware management, with AI agents capable of reasoning, decomposing tasks, and executing solutions with minimal human intervention, resulting in faster, smarter, and more resilient IT operations. Ziva, our Agentic AI buddy, enables the L1, L2, and L3 teams to provide information and knowledge around the enterprise systems and their performance and take actions through agent orchestration. Ziva empowers SMEs and support teams with an integrated workspace that centralizes GenAI-based knowledge harvesting for connected intelligence. Ziva Agentic AI Buddy ensures:

  - Faster analytical troubleshooting and automated action, code generation, integrated knowledge management, and 65% improved operational efficiency with seamless proactive and predictive support journey orchestration

  - Engineering aspects are addressed with a focus on data migration, code remediation, and code modernization.

- **Adoption of Adaptive and Future-Proof AI Integration Hub:** The Vinci AIOps platform integrates (out-of-the-box integrations with 40+ enterprise monitoring platforms - Data Dog, Splunk Dynatrace, App Dynamics, and native integration with all major hyper scalers) seamlessly with existing environments, leveraging current assets while guiding organizations toward a fully AI-driven operational model. It provides resilience, efficiency, flexibility, scalability, and robust security throughout the enterprise IT ecosystem, ensuring readiness for the future.

- **Automation CoE augmenting AI for Enterprise –** A synergized group of business process and technology SMEs, who ensure AI infusion and orchestration of the AI across the Enterprise IT (ITOps, DevOps, DataOps, DevSecOps, LLMOps, and so on), comprises the CoE.

  - Business Centric - Using PPT (People, Process, and Technology approach), Zensar has delivered business-aware operations to customers, resulting in 100% visibility of the business process performance (customer acquisition, CASA increase/decrease for BFSI vertical, supply chain performance for Retail/MCS, Operational Regulatory efficiency for HLS, and so on) aligned with IT performance.

  - Automation CoE performs CAI (Continuous AI Improvement) by evaluating the business processes, IT disruptions, and creating new automation use cases and fine-tuning the AI operations regularly.

In summary, Zensar's The Vinci® AIOps platform addresses the challenges of AI-infused cloud infrastructure by providing comprehensive, adaptive, and intelligent solutions. This enables organizations to achieve operational resilience, enhanced security, and sustainable business growth in an increasingly AI-driven environment.
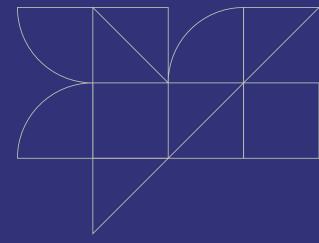
Reference

1. 2024 State of AI Infrastructure Report, Flexential

2. From AI projects to profits: How agentic AI can sustain financial returns, IBM

3. With cloud infrastructure projected to reach $2 trillion by 2030 and AI accounting for 10-15 percent of the spending, the urgency to integrate AI across infrastructure is paramount. Data source: Cloud revenues poised to reach $2 trillion by 2030 amid AI rollout, Goldman Sachs, September 4, 2024

4. AI Adoption in the Enterprise 2020, O'Reilly Media, Medium, September 8, 2020

5. AIOps Market Report 2025, Research and Markets, January 2025

6. Ecommerce Peak Seasons: Essential Statistics Every Online Business Needs to Know, Meteor Space

7. Winning at omnichannel retail during peak seasons and beyond, Digital Commerce 360

8. AI in DevOps Market, market.us, June 2024

9. AI power: Expanding data center capacity to meet growing demand, McKinsey, October 29, 2024

10. 2024 State of AI Infrastructure Report, Flexential

11. The Vinci: Zensar's AIOps platform

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