Enterprise Strategy Group by TechTarget

SHOWCASE

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From Observability to Operational Resilience: Connecting IT and Business

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Introduction

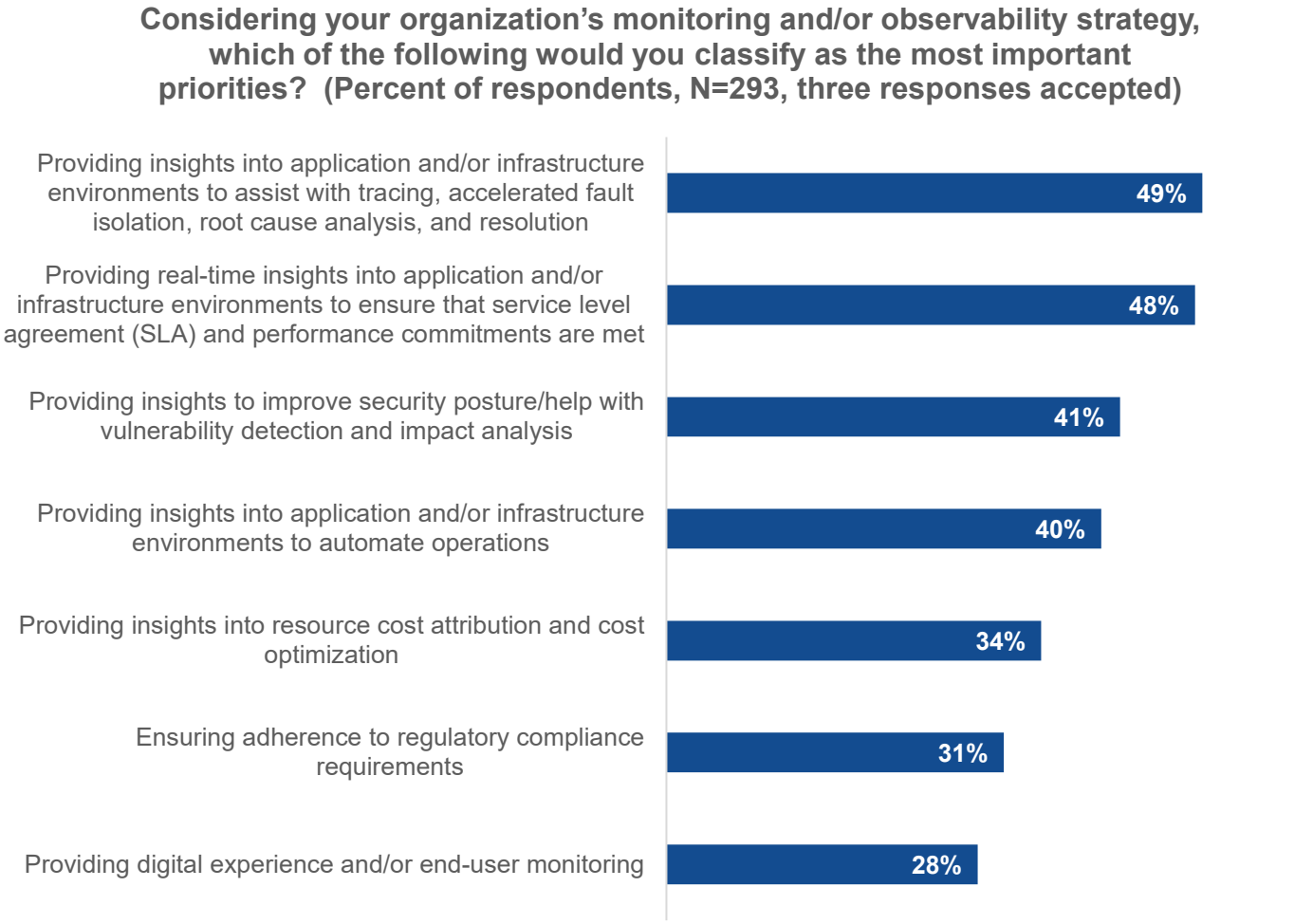
Today's organizations face a critical challenge: Despite massive investments in monitoring tools and observability platforms, they struggle to maintain operational resilience and deliver consistent business value. The average organization juggles 11 different monitoring tools, each specialized for specific technologies, platforms, or domains, creating a fragmented view of their technology landscape.[1] This tool sprawl has created a critical visibility gap, and 52% of organizations still lack full-stack observability. These organizations' IT operations remain trapped in isolated data silos, preventing meaningful business insights.

The consequences are both immediate and severe. Forty-nine percent of organizations reported that they experience outages tied to business-critical, internally developed applications every few months, while an alarming 24% reported facing these disruptions even more frequently. These statistics underscore a mounting challenge: Without a unified, end-to-end view of system health and performance, teams cannot effectively diagnose and remediate issues before they impact the business. Research from Informa TechTarget's Enterprise Strategy Group confirms that organizations are urgently seeking insights into application and infrastructure environments that can accelerate fault isolation, root cause analysis, and resolution while ensuring that service-level agreements (SLAs) and performance commitments are met (see Figure 1).

This paper examines why companies struggle to align IT and business objectives despite an abundance of monitoring tools and observability platforms. It then proposes an approach that unifies and streamlines IT operations through the integration of service management and observability and uses generative AI (GenAI) to transform raw data into actionable, business-aligned insights. To understand why current approaches fall short, we must first examine the high degree of complexity of modern IT environments.

[1] Source: Enterprise Strategy Group Research Report, *Distributed Cloud Series: Observability and Demystifying AIOps*, August 2023. All Enterprise Strategy Group research references and charts in this showcase are from this report.

Figure 1. Strategic Priorities in Monitoring and Observability



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Key Challenge: The Rapid Increase in Technology Complexity in IT Operations

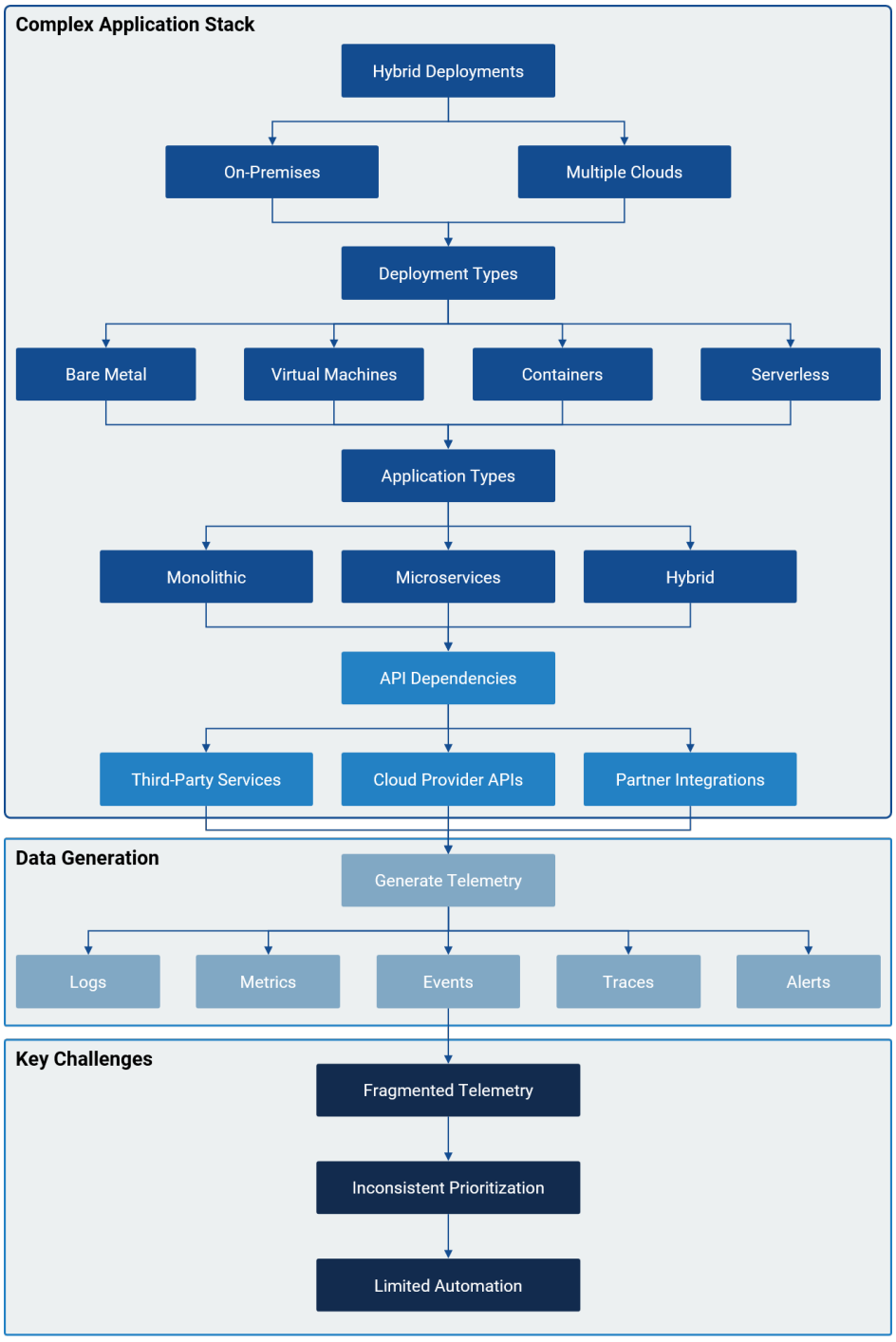
Modern IT environments have grown increasingly complex due to five key factors that shape today's digital landscape and challenge traditional monitoring approaches (see Figure 2):

1. **Hybrid deployments** scatter applications across on-premises infrastructure, multiple cloud platforms, and edge locations, creating a distributed computing fabric that must be seamlessly managed.
2. This complexity is further amplified by the **diverse array of deployment types**, where applications simultaneously operate on bare-metal servers, virtual machines, containers, and serverless environments.
3. **Rapidly increasing architectural diversity** adds another layer of intricacy, as enterprises typically maintain a mix of monolithic applications, microservices-based systems, and a broad range of hybrid architectures containing elements of both.
4. The **increasing reliance on third-party integration through API calls** introduces additional interdependencies, as enterprise applications must reliably communicate with both internal and external services.

5. Finally, the **widespread adoption of continuous delivery models** has dramatically accelerated the pace of change, introducing frequent, granular releases that constantly evolve the application landscape.

These intertwined factors have culminated in massively heterogeneous environments that undergo rapid and continuous transformation, creating an observability challenge that traditional tooling cannot address.

Figure 2. Complex Application Stacks Lead to Fragmented Telemetry Data and Difficult Prioritization, Making Automation Near Impossible



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

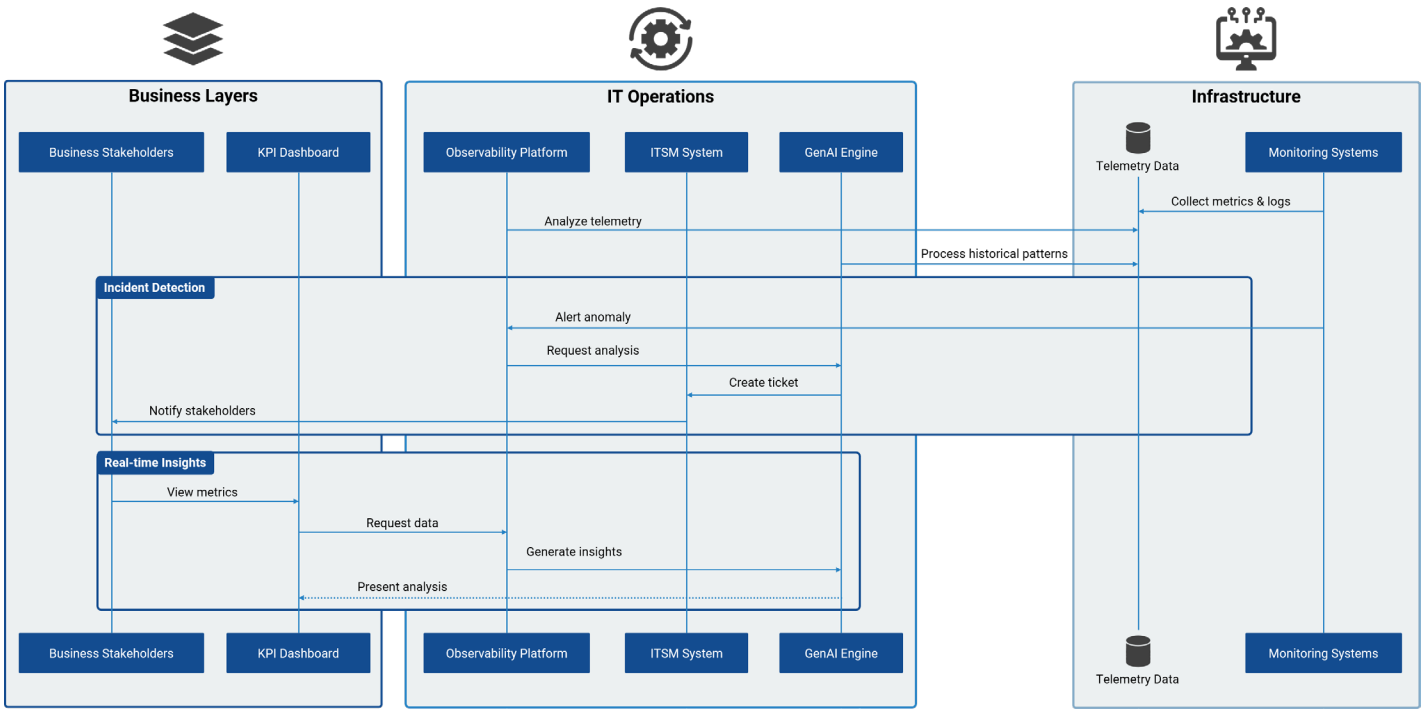
The Result: Disconnected Telemetry Data Streams

This high degree of complexity manifests in practice as an escalating number of disconnected telemetry data streams—logs, metrics, traces, events, alerts, and profiles—that are often collected by different personas, including systems administrators, network engineers, site reliability engineers, developers, database administrators, cloud and platform engineers, and security teams, using their own tools. As a result of separate teams collecting telemetry data through different tools, consistently prioritizing and efficiently resolving issues in a business-aligned manner becomes a daunting task, as no single system sees the full picture. This fragmentation directly contributes to the outages and visibility gaps highlighted earlier, creating a clear need for a new approach.

Three-pronged Solution: Connecting Applications, IT, and Business

Context is king when it comes to efficiently monitoring application stacks, as one and the same operational problem can have very different business impacts. For example, a spike in network latency could lead to a microservice that checks product inventory to respond slowly or time out entirely, preventing customers from completing their purchases. In a different scenario, the application is able to maintain seamless operations despite network latency spikes through a set of architectural optimizations, relying on asynchronous processing, sophisticated caching, or smart load distribution that routes around network congestion, for example. For DevOps, IT Ops, and SRE teams to be able to distinguish between these scenarios, there are three key components that need to be in place (see Figure 3).

Figure 3. Centralized Observability, ITSM, and GenAI Work Together to Connect IT Operations to the Business



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Foundation: Contextual Observability

A unified approach to observability contextualizes telemetry data streams, providing a consolidated view across infrastructure, applications, third-party services, and business KPIs. This enables IT teams to evaluate events,

metrics, and logs across systems based on their application-level impact, their impact on other systems, and their potential business impact. Having mapped these interdependencies, the observability platform can provide IT teams with contextualized insights that they can quickly translate into action. These contextualized insights, at the same time, are the basis for AI-driven issue prioritization and, ultimately, for automated resolution.

Integration: Automated IT Service Management

Contextually aware service management and observability platforms can create incident alerts and automatically trigger incident tickets that contain the information needed for human operators or developers to take the appropriate action. This allows organizations to lower noise by correlating and de-duplicating alerts and is the foundation for aligning incident response pipelines with mean-time-to-resolution (MTTR) benchmarks, SLA adherence, and other business-relevant metrics. The resulting contextual awareness is the basis for instilling a proactive AIOps paradigm, where IT teams can address early warnings before they escalate into major outages. As an important "byproduct," the integration between observability and IT service management (ITSM) can centrally record remediation actions to offer a complete unified audit trail.

Intelligence: AI-powered Operations

GenAI can continuously sift through contextualized telemetry data sets in search of early warning signs of severe incidents and in search of known best practices for timely remediation. This ability to predict and fix issues before they become incidents is a critical pre-condition for reducing downtime and improving resilience.

GenAI can also provide conversational interfaces that enable stakeholders to use plain-language questions to gain insights from telemetry data and provide concisely tailored reports and individualized dashboards that offer instant answers to specific IT Ops, Cloud Ops, or DevOps team members. This includes the ability to optimize infrastructure for cost and efficiency based on the learnings drawn from the continuous analysis of contextualized telemetry data.

Ideally, GenAI goes beyond providing context and actionable insights gathered by the observability platform to the ITSM, learning from past incident resolutions to automate remediation workflows and suggest proactive improvements to system architecture and operational processes.

The End Result: Operational Resilience

Organizations that unify observability, integrate ITSM, and add GenAI to the mix achieve operational resilience through a comprehensive framework that fundamentally strengthens their ability to withstand and adapt to disruptions. Business alignment ensures technology initiatives directly support critical services and maintain continuous operations through disruptions, while proactive management enables rapid response and recovery through scenario planning and adaptive strategies. By automating IT operations with robust response and recovery procedures, teams can build resilient systems that self-heal and adapt to changing conditions. Real-time decision-making capabilities, driven by consolidated risk data and preventative analytics, enable rapid adaptation and response to emerging threats across the organization. The framework builds inherent resilience through predictive analytics and AI-based monitoring, while fostering collaboration among internal teams and external partners for comprehensive risk mitigation and recovery planning. Through dynamic resource optimization that includes built-in redundancy and adaptability, organizations can maintain operational continuity even during significant disruptions. All of this is underpinned by strong governance and compliance measures, including regular resilience testing and validation, creating a verifiable trail of actions that ensures sustained operational resilience. This holistic approach ensures that organizations can not only withstand disruptions but can also emerge stronger, enabling them to maintain critical business services regardless of circumstances and adapt quickly to changing conditions.

SolarWinds: Bringing Operational Resilience to Hybrid IT

A concrete example of operational resilience in a hybrid IT environment comes from SolarWinds and demonstrates how these principles can be implemented in practice. SolarWinds' approach centers on providing unified, full-stack observability across on-premises and cloud services, workloads, and infrastructure through a single-pane-of-glass approach that effectively reduces the complexity inherent in multi-layered environments. Through the integration of SolarWinds Observability with SolarWinds Service Desk, teams can rapidly triage incidents using a data-driven response model that generates clear prioritization based on severity and business impact, significantly reducing MTTR. The platform leverages AI, including GenAI capabilities, to deliver actionable recommendations and automated remediation for routine incidents, minimizing manual intervention and enabling more accurate responses to anomalies. Critical to its success is the contextualization of observability data, mapping it directly to SLA compliance, cost management, and business success metrics, effectively transforming technical alerts into business-relevant signals for decision-makers. The system creates a continuous improvement loop by combining observability, ITSM, and AI-driven analytics, enabling ongoing refinements to operations that curb alert fatigue, boost reliability, and support hybrid application architectures. SolarWinds' comprehensive approach illustrates how organizations can evolve from disconnected monitoring tools to a holistic, AI-enhanced system where all stakeholders share a single source of truth, embodying true operational resilience in hybrid environments.

Conclusion: Key Takeaways

In today's hybrid cloud environments, operational resilience serves as the cornerstone of an organization's ability to withstand, recover from, and adapt to disruptions, ensuring IT investments deliver measurable business results. The path to hybrid IT resilience begins with unified observability, which centralizes data streams to achieve comprehensive visibility and proactive application health management while reinforcing the crucial alignment between IT operations and overarching business goals. When observability data flows seamlessly between IT service management processes, organizations experience accelerated incident resolution, improved SLA adherence, and natural cross-team collaboration. GenAI emerges as a transformative force in this landscape, elevating conventional observability and ITSM tools with strong capabilities for automation, predictive insights, and self-healing, thereby reducing human workload and creating space for strategic, innovation-oriented work. The culmination of these elements—connecting IT and business through unified observability, ITSM integration, and GenAI—yields a resilient, scalable technology environment that aligns with business objectives. This comprehensive approach enables organizations to maximize uptime, optimize resources, and build a foundation that can effortlessly evolve alongside future demands, ultimately delivering true operational resilience and tangible business value.

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TechTarget's Enterprise Strategy Group provides focused and actionable market intelligence, demand-side research, analyst advisory services, GTM strategy guidance, solution validations, and custom content supporting enterprise technology buying and selling.

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