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How to Avoid Critical Mistakes in Observability Strategy

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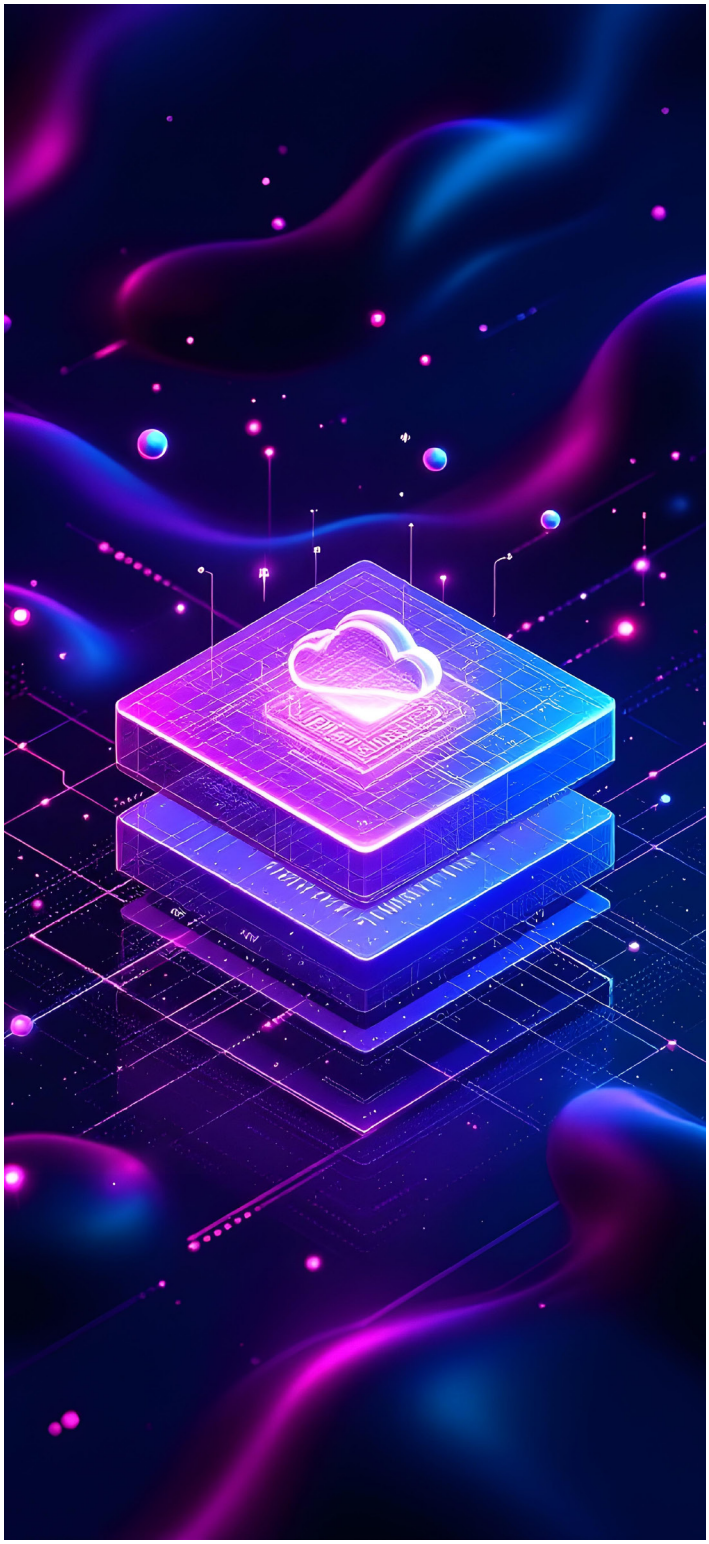
Executive Summary



Today's businesses face constant pressure to cut expenses without sacrificing performance, uptime, or user satisfaction. As a result, many organizations have begun consolidating observability tools, eliminating perceived redundancies, and even reducing engineering headcount. However, the fundamental issue has not changed: outages have continued, and in fact, the complexity of digital services has grown. Data from theCUBE Research emphasizes the potential risks of over-consolidation and introduces Internet Performance Monitoring (IPM) as a critical emerging category that fills the gaps left by conventional network monitoring and APM tools.

While consolidation is often necessary, oversimplifying observability can result in critical blind spots, especially in the internet layer, which underpins all IP-based communication between cloud, user, and service endpoints. Our views are supported by market data and enterprise use cases. We looked at Catchpoint's purpose-built approach to digital experience observability, which includes its global intelligent agent network, Internet Synthetic Monitoring Software, and Stack Map visualization. This means we evaluated its capabilities with those of other available solutions, such as Dynatrace, Datadog, New Relic, and ThousandEyes (a Cisco company). According to the findings, consolidation makes sense, but it must be done strategically rather than at the expense of digital resilience.

Consolidation vs. Coverage Includes Risk, Cost, and Complexity

Due mostly to financial constraints, 59% of businesses intend to consolidate observability tools by 2025. But there are dangers associated with this trend: After eliminating or consolidating heritage tools, 44% of teams report an increase in mean time to resolution (MTTR), especially during network-related incidents.

Despite the fact that more than 60% of significant outages in the previous year came from sources other than the application stack, data indicates that 72% of IT decision-makers do not have visibility into dependencies outside of their application code and supporting infrastructure, such as SaaS providers, CDNs, DNS, and ISPs. Organizations must avoid false economies that compromise crucial visibility, even though tool consolidation is necessary. The new observability standard is emerging as a hybrid approach that combines Application Performance Monitoring (APM) with Internet Performance Monitoring (IPM) to ensure complete, end-to-end digital experience assurance.

According to theCUBE Research 2025 Observability Trends Survey[1]:

- **63%** of enterprises report consolidating at least two monitoring tools in the past 18 months.
- **58%** cite cost reduction as the primary driver, followed by platform unification and tool sprawl.
- However, **68%** experienced at least one critical incident that was not detected or diagnosed quickly due to monitoring blind spots.

Many of these blind spots stem from a common mistake: APM tools provide telemetry within internal applications , but they do not provide visibility into service dependences external to instrumented code. The lack of real-time internet observability becomes a liability as organizations depend more on SaaS, CDNs, DNS providers, internal and external APIs, and international ISPs. While ThousandEyes focuses on network path analysis, platforms such as Datadog and New Relic are helpful in application and infrastructure telemetry. Though none have been able to match Catchpoint's internet-centric approach to monitoring digital experiences.

1. Source: 2025 Observability Trends- Day 2 Operations. theCUBE Research; 2025.

The Rise of Internet Performance Monitoring (IPM)

Internet Performance Monitoring (IPM) has emerged as a distinct category focused on the performance of the internet as a delivery mechanism. It includes the ability to monitor application performance from the user's perspective; whether it is an employee, customer, or a system consuming the application via API. This includes monitoring from various points across the globe proactively, detecting issues such as DNS resolution issues, CDN latencies, and route propagation delays in real time.

Catchpoint is a pioneer in this space. Its Internet Performance Monitoring Software provides multi-dimensional, correlated views of the health of digital services by combining synthetics, real user monitoring (RUM), DNS, BGP, and endpoint telemetry. Its global network of 3,000+ single-homed agents, each strategically deployed across cloud, backbone, wireless, last-mile, enterprise, and endpoint environments, enables precise ISP-specific diagnostics, which ThousandEyes' multi-homed agents cannot reliably provide.

The Stack Map visualization offers a correlated, visual representation of how various service components interact with each other. This includes APIs, third-party services, and origin servers to internal networks, code traces, CDNs, DNS, ISPs, and cloud providers. This is crucial because, according to 72% of SREs interviewed by theCUBE Research, cross-stack visualization is a must for enhancing customer experience and MTTR.

Catchpoint distinguishes itself by providing full visibility not only across the application stack but also across the entire internet delivery chain. Its platform maps external dependencies, such as DNS, CDN, BGP, and ISP performance. Traditional APM tools frequently overlook third-party and network-layer outages, but features like Internet Stack Mapping and Internet Sonar proactively detect them. An essential feature in today's distributed service environment, Catchpoint's AI-powered correlation engine establishes a direct connection between these external disruptions and application performance problems. According to CUBE Research, 67% of organizations encounter application-based outages, which frequently appear as user-facing app problems. A case in point: a SaaS provider faced a wave of EMEA support tickets. App metrics, meanwhile, continued to be strong. The problem was traced back to a Tier-1 ISP routing failure in Germany that was not detected by APM tools, according to Catchpoint.

With more than 3,000 vantage points covering cloud, broadband, enterprise, and wireless networks in more than 90 countries and 300+ locations, Catchpoint offers flexibility and a global reach beyond its diagnostic depth. Catchpoint offers last-mile observability that goes well beyond the market's typical cloud-provider footprints. In addition to its global vantage points, Catchpoint provides enterprise nodes that can be deployed directly in offices, datacenters, factories, and cloud locations, enabling organizations to extend visibility into their own environments as well as the public Internet. Given that 91% of organizations serve clients from abroad, but only 31% have observability outside of corporate and cloud environments, visibility into the Internet Stack is essential; especially when end users operate under vastly different connectivity, bandwidth, and device conditions than those found in controlled cloud or data center environments. Additionally, Catchpoint allows for multi-layered monitoring across DNS, BGP, endpoint telemetry, and synthetic tests, all from an intuitive dashboard. This flexibility enables teams to keep an eye on SaaS platforms like Salesforce and M365, vendor APIs, and the digital experiences of customers and employees. In one instance, a global financial institution reduced employee downtime by 34% in a quarter by using Catchpoint to fix a regional ISP packet loss issue that internal tools had overlooked.

Striking the Balance Between Cost Efficiency and Complete Visibility in a Consolidated Observability Strategy

Many organizations are consolidating observability tools to cut down on complexity and licensing overhead in an effort to control costs. However, by sacrificing redundancy for blind spots, this push for simplification frequently results in risk. After consolidation, essential internet-facing components like CDNs, DNS, and third-party APIs are usually neglected, causing teams to be uninformed of problems until they affect users. By offering deep and broad internet performance monitoring (IPM) in addition to internal APM tools, platforms such as Catchpoint offer a means of minimizing tool sprawl without compromising visibility. Smarter, targeted coverage throughout the entire delivery chain is the goal, not just fewer tools.

According to theCUBE Research, 58% of the organizations that stopped using external synthetic testing tools later came to regret their choice, especially after preventable outages. In one instance, a B2B company combined three observability platforms into one APM stack. While cost savings were initially achieved, the team failed to detect a CDN outage that resulted in a four-hour client portal downtime; an event that triggered SLA penalties and customer dissatisfaction. In order to restore visibility into critical third-party dependencies, the organization responded by reintroducing IPM through Catchpoint. This illustrates a growing industry realization: operational resilience and cost control must be balanced, and Catchpoint makes this possible by concentrating on blind spots that general-purpose tools are unable to address.

Understanding the Competitive Approaches of Catchpoint vs. ThousandEyes (and others)

By providing comprehensive observability solutions made to guarantee peak performance and dependability for modern, internet-centric applications, Catchpoint has become a major force in the digital experience monitoring market. Deep, end-to-end visibility is more important than ever as businesses depend more and more on multi-cloud environments and complex, distributed architectures. Catchpoint sets itself apart in this competitive market by providing broad synthetic monitoring capabilities along with real-user monitoring, network insights, and in-depth analytics. Rather than replacing traditional APM vendors like Dynatrace, Datadog, or New Relic, Catchpoint complements them by extending observability beyond owned environments and into the Internet Stack. With its focus on external performance monitoring, Catchpoint is positioned to compete directly with vendors like ThousandEyes while enabling a best-of-breed approach to full-stack digital experience assurance.

The solutions stack up as follows:

Platform	Focus Area	Agent Architecture	Internet Coverage	IPM Capabilities	Differentiator
catchpoint	Internet & Digital Experience	Single-homed	Global (3,000+)	Full stack IPM + synthetics	Stack Map, high granularity
ThousandEyes Thrive in a connected world	Network Path Visibility	Multi-homed	Moderate	Strong network insights + synthetics	Cisco ecosystem integration
dynatrace	APM, Infrastructure	Agents deployed in a cloud server	A few dozen locations	Limited external focus	AI engine for APM
DATADOG	Cloud-native observability	Agents deployed in a cloud server	A few dozen locations	Limited IPM	Unified metrics/ logs/traces
new relic.	APM, Telemetry Platform	Agents deployed in a cloud server	A few dozen locations	Minimal	Developer-first, pricing model

ThousandEyes—now part of Cisco—provides digital experience monitoring with a focus on network integration, particularly valuable for enterprises operating within Cisco-driven environments. Its blend of synthetic and real-user monitoring with network path visualization helps identify performance issues across ISP backbones, cloud regions, and SaaS platforms. Catchpoint offers comparable capabilities in network path visualization but extends them more broadly, leveraging thousands of global vantage points and flexible deployment across last-mile, cloud, enterprise, and wireless networks. This breadth allows Catchpoint to surface performance issues in diverse infrastructures, not just those aligned with a single vendor. As organizations prioritize end-to-end observability that bridges application experience and network behavior, Catchpoint's wider reach and vendor-neutral approach provide a more comprehensive foundation for digital experience assurance. The capabilities of Catchpoint and ThousandEyes in terms of network and application performance observability are often compared. Catchpoint has continuously shown quantifiable advantages over ThousandEyes in digital experience monitoring (DEM) in real-world deployments across a range of industries, including media, telecommunications, retail, and financial services. Using Catchpoint's more than 2,500 single-homed global agents, a financial institution with operations in North America and Europe was able to identify and fix a persistent latency problem associated with a regional ISP. With ThousandEyes' multi-homed agent model, this problem went undetected. Catchpoint's unique benefit in industries where performance deviations of even milliseconds can directly affect revenue is further supported by theCUBE Research's findings, which concluded that 71% of financial services firms require per-ISP diagnostics to meet strict regulatory uptime requirements.

A global retailer used Catchpoint to monitor DNS resolution times, CDN efficiency, and actual user experience across mobile and web channels in the e-commerce and retail industries, where end-user experience directly affects sales. Within a quarter, the retailer increased customer retention by 11% and decreased page load times by 23% thanks to Catchpoint's capacity to analyze multiple performance dimensions simultaneously. According to data from the theCUBE Research, 64% of retail technology executives believe that unified observability and cross-metric correlation are essential for reducing cart abandonment and boosting uptime during periods of high traffic. Catchpoint proves more effective at supporting this use case than ThousandEyes, whose tools frequently call for siloed views for network and application data.

Catchpoint's Stack Map feature was vital in the media and telecom sectors for mapping the dependencies between ISPs, DNS providers, and CDNs for content delivery. In order to prevent a public relations crisis and cut down on incident resolution time by 72%, a major streaming service used Stack Map to identify a degradation in video quality that was caused by an upstream DNS timeout during a live global event. According to CUBE Research, 72% of SRE teams in media organizations believe that cross-stack, real-time visualization is crucial to reducing customer attrition during outages. Although ThousandEyes provides path visualization that focuses primarily on the network layer, operations teams can perform root cause analysis more quickly and have a more comprehensive understanding of business impact through Catchpoint's ability to connect infrastructure, application, and service-level indicators in a single, contextual map.

In a rapidly evolving digital experience monitoring landscape, vendors like Catchpoint, ThousandEyes, and traditional APM leaders such as Dynatrace, Datadog, and New Relic each play a distinct role in delivering observability across complex IT environments. ThousandEyes brings value through deep network intelligence and Cisco integration, while APM providers offer robust telemetry within owned applications and infrastructure. However, Catchpoint excels at monitoring from where the user is both within your firewall, and external through the Internet Stack to the application. Rather than a one-size-fits-all approach, organizations are increasingly adopting a best-of-breed strategy—leveraging the strengths of each solution to gain full-stack observability from code to cloud to end user. The convergence of these tools reflects a shared goal: to ensure performance, resilience, and seamless digital experiences in an era defined by distributed systems and continuous connectivity.

The Real-World Impact

In industries that are struggling with growing infrastructure complexity and greater customer expectations, integrated performance management, or IPM, has emerged as a critical capability. According to our research, 72% of organizations that invest in IPM report quantifiable increases in incident response times and operational agility. This trend is best illustrated by cloud providers such as Google and Akamai, who use IPM to manage large, unpredictable workloads while preserving high availability. In line with data indicating that 68% of cloud providers consider IPM essential to their competitive edge in service reliability, Akamai, for example, experienced a 25% increase in uptime and a 40% reduction in customer-reported incidents after implementing IPM.

Global banks are using IPM to cut Mean Time to Repair (MTTR) by an average of 30% in the financial services industry, where downtime directly results in lost revenue and regulatory penalties. According to theCUBE's findings, 65% of banks agree that IPM is essential for compliance and fraud detection capabilities. With an 80% decrease in false positive alerts reported, IPM is also helping SaaS vendors like SAP and ZoomInfo, enabling their DevOps teams to concentrate on innovation rather than noise reduction. theCUBE Research found that 70% of SaaS companies attribute their faster product delivery cycles to increased automation and observability.

Giants in retail and e-commerce, along with leading international brands, have used IPM to improve customer experience and the dependability of their digital storefronts. This has led to millions of dollars in annual savings by reducing support tickets and increasing customer retention. 60% of retailers who adopted IPM reported significantly higher customer satisfaction ratings and quicker problem resolution, according to theCUBE Research's data. In addition, IPM is used by infrastructure providers like Equinix and Fastly to manage hybrid cloud environments at scale. These organizations report improved security postures and streamlined operations with up to 80% fewer false positives, which is in line with the CUBE's finding that 75% of infrastructure providers prioritize IPM for scalable, resilient digital infrastructure management.

Embrace Comprehensive Internet Performance Management for Modern Enterprise Resilience

Application delivery is becoming increasingly reliant on complex, internet-centric architectures as organizations continue their digital transformation journeys. Research from the AppDev Done Right Summit shows that, although still essential, traditional Application Performance Management (APM) tools no longer offer the full spectrum of visibility needed to reduce evolving risks. These vendors are continuing to innovate, with much of their current focus on Kubernetes monitoring and expanding into security—natural extensions of their core strengths—but these advances do not fully address visibility across the broader Internet Stack. Organizations must expand their monitoring beyond the application stack to include the entire internet performance ecosystem in order to genuinely future-proof observability strategies over the next three to five years.

As a platform created specifically for this modern world, Catchpoint stands out. By keeping tabs on critical components like SaaS platforms, Content Delivery Networks (CDNs), DNS infrastructure, cloud services, Internet Service Providers (ISPs), and last-mile connectivity, it provides unrivaled depth. Catchpoint, which claims to have a network of more than 3,000 agents worldwide, provides real-world endpoint visibility that goes beyond the constraints of simulated testing, allowing organizations to identify and address problems promptly and proactively. Moreover, organizations can scale observability capabilities in tandem with their operational maturity and changing business needs due to its modular dashboards and flexible pricing models.

In comparison, competitors like ThousandEyes, while effective in enterprise WAN monitoring, lack the comprehensive granularity of third-party internet layers and real-user endpoint data that Catchpoint delivers. This gap leaves organizations exposed to blind spots in their observability, increasing the risk of undetected performance degradation and prolonged outages.

The need for full-stack internet performance observability is highlighted by the evolving outage landscape. It is risky to consolidate tools without expanding the monitoring scope because the majority of outages nowadays originate in third-party clouds, network layers, or last-mile networks, rather than traditional data centers.

Five Recommendations for Future-Ready Observability Strategies:

1. Adopt Full-Stack Internet Performance Management (IPM): Extend beyond APM by integrating platforms like Catchpoint that provide end-to-end visibility across internet layers critical to application delivery and user experience. When organizations invest in IPM, they should ensure it can be integrated seamlessly into their existing observability stack to maximize value. Pairing OpenTelemetry adoption with IPM solutions ensures flexibility, extensibility, and long-term resilience

2. Prioritize Real-World Endpoint Monitoring: Ensure monitoring platforms offer expansive, global agent networks that deliver authentic, user-centric data rather than synthetic or simulated metrics.

3. Leverage Modular and Scalable Observability Tools: Select flexible solutions with adaptable dashboards and pricing to accommodate evolving organizational needs and maturity levels, enabling incremental investments in observability.

4. Integrate Proactive Insights for Faster Time-to-Resolution: Invest in platforms that emphasize anomaly detection and predictive analytics, allowing IT teams to mitigate issues before they impact customers.

5. Avoid Visibility Trade-Offs in Consolidation: While consolidating observability tools reduces complexity and cost, maintaining or expanding monitoring coverage is crucial to avoid blind spots. Visibility is critical insurance against digital disruption.

Organizations must adapt their observability strategies with comprehensive internet performance management solutions in order to stay resilient in the face of growing digital complexity and external dependency. Catchpoint is more than just a monitoring tool; it can be used strategically to protect operational continuity and digital experiences. As organizations make plans for the future, they might want to think about assessing Catchpoint as a part of a modern observability architecture, which guarantees competitive advantage, visibility, and reliability.

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