2024

A 7-Step Approach to Optimize Observability IT Expenditure

catchpoint

INTRODUCTION

How this guide will help you reduce, manage, and optimize IT cost efficiency with Internet Performance Monitoring (IPM)

As the global economic outlook continues to be an area of concern, engineering leaders face increasing pressure to reduce IT costs. Typically, businesses reduce spending first, but this can diminish productivity and output. Finding ways to control and optimize costs can actually be a more effective means of streamlining spending over the long term.

In this guide, we'll explore seven ways IT leaders can harness Internet Performance Monitoring (IPM) to reduce, manage, and optimize cost efficiency:

1. Conduct a Digital Experience Audit
2. Detect Issues Early to Safeguard Business Operations
3. Invest in Talent Gap-Bridging Tools
4. Evaluate Monitoring Toolsets
5. Analyze Cost vs Benefit
6. Keep Your Vendors Accountable
7. Optimize Web Performance

By exploring the seven strategic approaches outlined in this guide, you'll be equipped to achieve Internet Resilience while navigating cost challenges effectively and enhancing your organization's long-term financial efficiency.

1. CONDUCT A DIGITAL EXPERIENCE CUSTOMER JOURNEY AUDIT

Dissect and observe the digital experience with a keen focus on business value rather than simply collecting data for data's sake.

Monitor for a Purpose

All too often, organizations find themselves monitoring their internal applications for the sake of it, like creating art for art's sake. However, this continuous internal monitoring comes at a cost. Cloud-native environments produce a massive amount of monitoring data – somewhere between 10 and 100 times more than traditional VM-based environments. This explosive growth in data volume and the need for engineers to collect and analyze it inevitably increases operational expenses.
What's the point if this data doesn't contribute to enhancing the end-user experience or streamlining business operations?

Enter Internet Performance Monitoring

Internet Performance Monitoring (IPM) is a new generation of solution that provides deep visibility into critical components of the Internet Stack that impact your business and revenue.

Unlike traditional monitoring solutions, which have limited or local reach or where agents cannot be installed, IPM extends its reach to the entire Internet infrastructure, including BGP, DNS, ISPs, CDNs, and more. The result is the unprecedented ability to catch Internet Stack incidents before they impact your business.

How IPM can help

IPM tools help you dissect the end user's experience to uncover which internal components it depends on. These insights can help you prioritize and determine if all internal components are equally important. This end-to-end approach creates several opportunities:

Reducing data overload

By pinpointing the components that matter, you can significantly trim down excessive internal monitoring data.

Optimizing incident response

You can reshape the mission of your ITOps or incident teams, preventing them from squandering precious time on non-impactful issues. Perhaps they don't need to respond to incidents 24/7; a selective, business-hour response might suffice.

Resource and cost optimization

If you have an internal component that goes red, but your end users are not impacted, or your business operations are not disrupted, then you don't need it. Your teams can shift their focus to more critical, value-driven activities, improving overall efficiency.

Quality over quantity

Avoid falling into the trap that more data is always better. Raw data is valuable only if you can effectively transform it into actionable insights. You want to turn mountains of data into usable information.

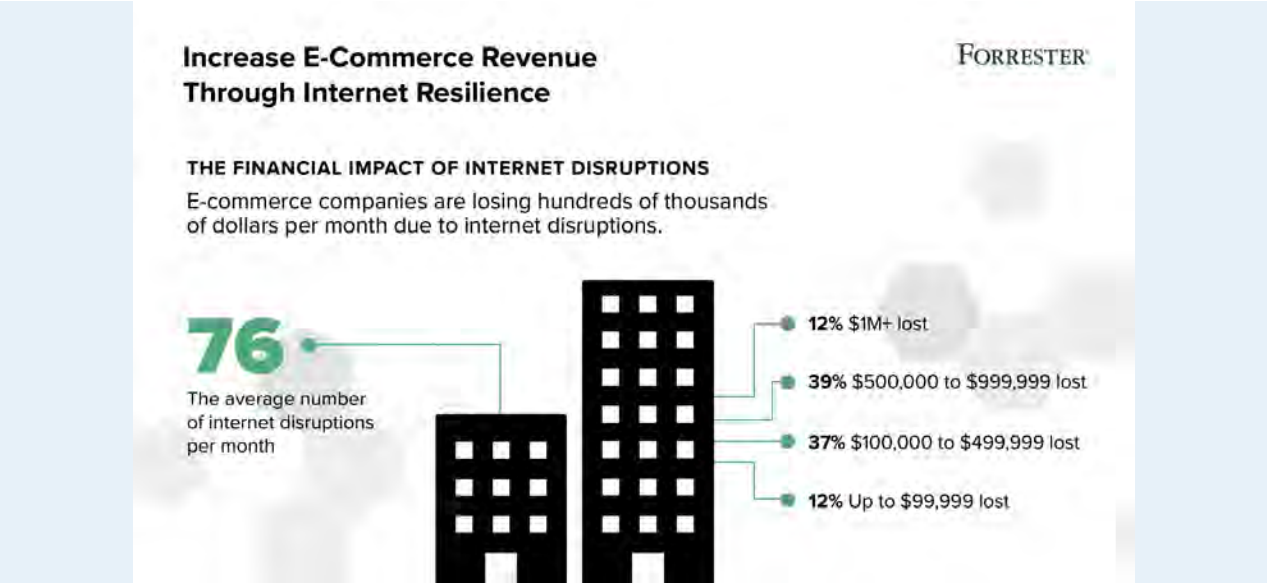
An IPM-driven digital experience audit is about **driving efficiency, cost-effectiveness, and value-driven decision-making**. It's about turning the focus away from monitoring for the sake of it and channeling your efforts toward meaningful enhancements that truly matter for both your end users and your organization as a whole.

2. DETECT ISSUES EARLY TO SAFEGUARD BUSINESS OPERATIONS

Reduce the time it takes to resolve incidents to protect your bottom line.

The average cost of downtime has been estimated at about $9,000 per minute, and it's only increasing. In a 2023 study on the financial impact of Internet disruptions on eCommerce companies, 37% estimated their companies lost between $100,000-$499,000, and 39% lost $500,000-$999,999 in the month leading up to the survey. On top of the cost of downtime, it's essential to consider the reputational damage and additional expenses incurred due to more manpower and costly SLA breaches. According to The SRE Report 2024, 24% of organizations experienced an SLA breach in the last 12 months.

When you're losing tens of thousands of dollars each minute, and your customers are taking out their frustrations on social media, fixing outages is important - but fixing outages **fast** is essential. And being able to prevent them is not just the Holy Grail to IT but also to your organization's bottom line.



Here are three ways IPM can help accelerate diagnosis and reduce MTTR:

1 **Complete Internet Stack visibility:** The Internet is now the de facto enterprise network. It's not enough to monitor your app stack with APM. You need IPM to monitor how your users get to those apps via the Internet. IPM covers the entire Internet Stack , offering insights beyond just network or application monitoring. This comprehensive view enables you to understand the entire user journey and quickly identify any issues within it.

2 **Unified interface and dashboard:** Switching between interfaces and applications can slow down diagnosis. If you're trying to troubleshoot a traffic lag that's threatening to turn into an outage, you need to be able to see everything impacting that traffic in one intelligent (and preferably customizable) dashboard. Catchpoint IPM provides a unified interface with customizable dashboards. It consolidates all essential information into one place, eliminating the need to switch between interfaces, and speeding up diagnosis.

3 **Real-time data analytics:** Some observability solutions provide data from BGP sources only every 15 minutes (or more). That 15-minute-old BGP data is going to cost you when every minute counts! That means your data is not only 15 minutes old, but you have to wait another 15 minutes to see if changes had an impact. Catchpoint IPM leverages real-time data from an independent Global Observability Network, so you can avoid delays in troubleshooting, even for critical metrics like real-time BGP data.

Robust IPM optimizes your response to outages. It reduces MTTR and outage duration, possibly eliminating outages altogether. Most importantly, it saves time and minimizes overall costs.

3. INVEST IN TALENT GAP-BRIDGING TOOLS

Cultivate efficiency and drive cost savings with well-chosen professional services.

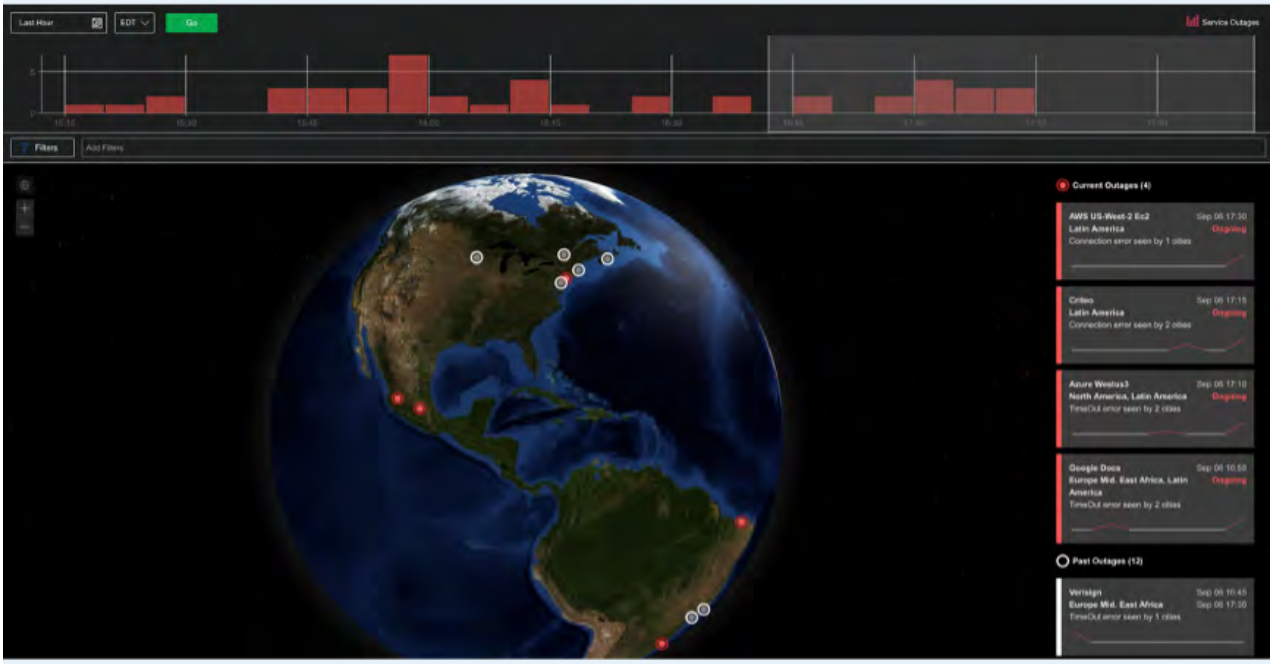
Talent is a cornerstone of any successful organization, but acquiring, retaining, and training personnel can be a costly endeavor. In The SRE Report 2023, we asked, "What is the number one challenge hindering successful reliability implementations?" as an open-ended question, giving survey respondents the ability to type in anything they wanted. Remarkably, talent-related issues, encompassing hiring, retention, and assimilation, emerged as the foremost challenge. This was ahead of our predetermined anchor biases, including architectural complexity, lack of end-to-end visibility, and tool sprawl.

Talent (hiring, retention, assimilation)	7.9%
Complexity of architecture	**7.5%**
Complexity of architecture	**7.5%**
Business value is hard to realize	**6.7%**
Lack of end-to-end visibility	**6.3%**
Alignment or prioritization	4.2%
Time management	3.8%
Communication or collaboration	3.8%
Knowledge, training, or education	3.3%
Lack/misuse of resources	2.9%
Cost or budget	2.5%
Perpetual evolution or change	2.5%
Balance - velocity versus reliability	2.5%
Lack of buy-in	2.5%
Sprawl - tools	**2.1%**
Culture	2.1%

Given the challenge and expenses associated with talent, consider the benefits of leveraging managed services that provide you access to curated Internet health data **without you or your teams having to do all the grunt work of maintaining that manually.**

Enter Internet Sonar.

Internet Sonar: At-a-glance visibility to live Internet status



Catchpoint Internet Sonar intelligently provides simple, trustworthy Internet health information at a glance so you can get ahead of productivity or experience-impacting incidents. Internet Sonar uses data from the world's largest, independent active observability network to monitor from where it matters. The result is an AI-powered, real-time, interactive status report that can be displayed via an interactive map, a dashboard widget or accessed by any system via API.

Internet Sonar features include:

You can reshape the mission of your ITOps or incident teams, preventing them from squandering precious time on non-impactful issues. Perhaps they don't need to respond to incidents 24/7; a selective, business-hour response might suffice.

1 **Unparalleled worldwide and regional visibility** leveraging Catchpoint's Global Observability Network with over 2600 vantage points from more than 300 providers in 94 countries – with more being added all the time.

2 **Hundreds of the most popular Internet services monitored** including Internet Infrastructure (CDN, DNS, Cloud), SaaS (email, SaaS, UCaaS, SECaS), and MarTech (Ad serving, Analytics, Video).

3 **Real-time email alerts as well as webhook or API access** for easy integration into any application.

Unlock efficiency and cost savings

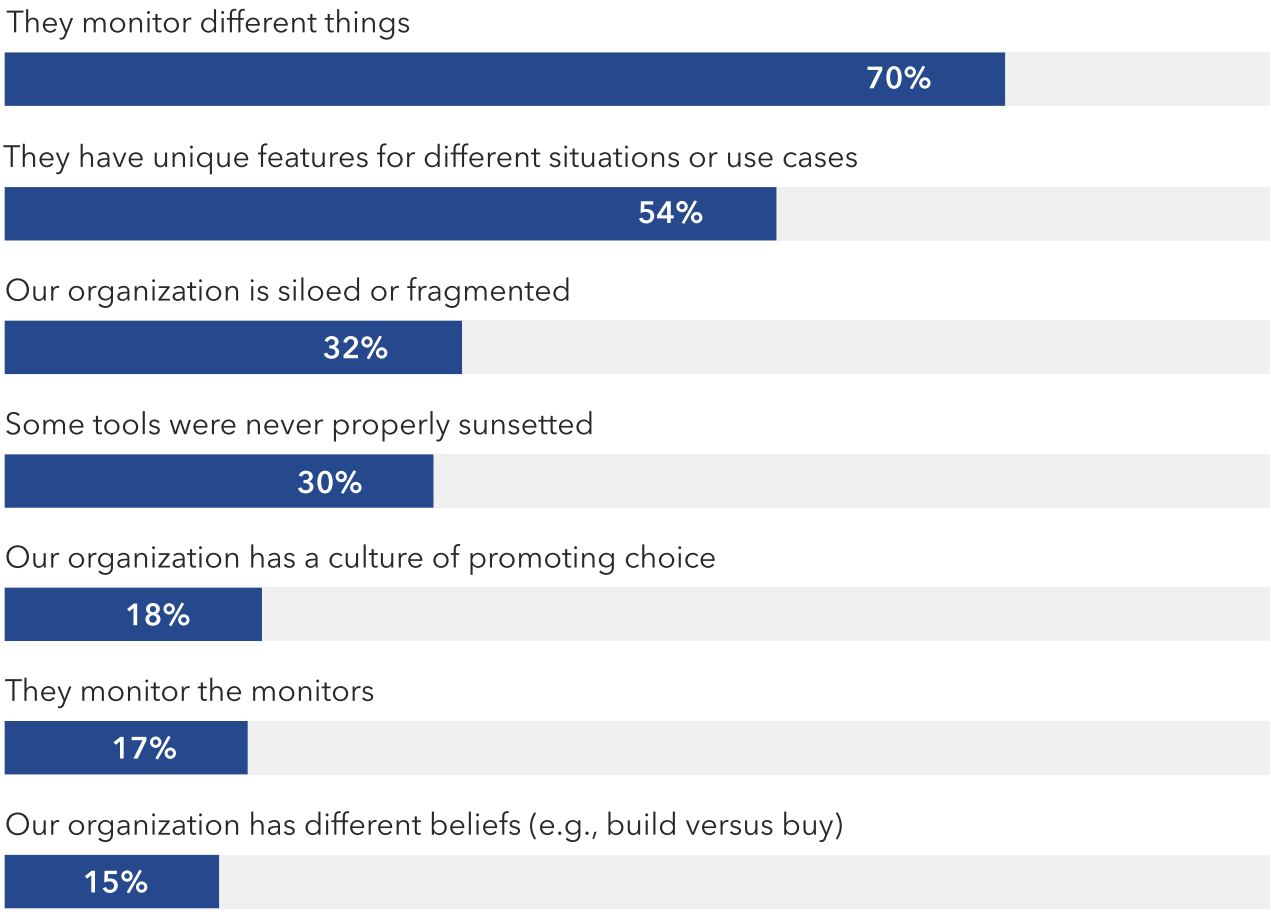
Investing in talent gap-bridging tools such as Internet Sonar not only simplifies your operations but also unlocks significant cost savings. You'll allocate resources more strategically and focus on activities that drive value for your business.

4. EVALUATE MONITORING TOOLSETS

By assessing your current array of monitoring tools, you set the foundation for a more streamlined and cost-effective monitoring approach.

In The SRE Report 2024, we inquired about the number of monitoring tools in use and delved into the reasons behind employing multiple tools. The reasons are intriguing.

Reasons for multi-tool usage



Optimize legacy monitoring tools

Evaluate your existing set of monitoring tools and pay particular attention to any outdated tools that have not been properly retired. If legacy tools still incur licenses, maintenance, and talent costs, consider repurposing those real dollars toward other organizational needs.

Understand value, not cost

Don't fall into the trap of consolidating tools just for the sake of it. There are many vendors out there that suggest you can do everything with a single solution as it's "good enough." But is that practical? Do you want your ability to find and fix issues that could damage your bottom line to be just "good enough"? That's why when considering unifying tools, it is crucial to focus not on the number of tools, but their received value.

Decide if tool sprawl really is a problem

Tool sprawl is not just, "How many tools are in the stack?" It is an evaluation of the received value versus cost – where the cost takes many forms (for example, by virtue of having multiple tools, it may cost more to do training). Remember, if the overall value contribution is net positive, then there is no tool sprawl problem. So, if you need visibility into your application environment, you need APM. If you need to automate your IT operations, you need AIOps. If you rely on the Internet to do business, you need IPM.

5. ANALYZE COST VS BENEFIT

Identify the best-performing vendor for each part of your service delivery chain.

When choosing your cloud provider or third-party vendors, you need objective data to decide which vendor is the best fit for your organization. This is imperative because the components of your Internet Stack vary widely in different parts of the world.

Cost-effective vendor selection

Consider this scenario: A third-party provider in South America costs $1,000,000 and offers 10 seconds of performance. In contrast, a North American provider delivers 11 seconds of performance at a cost of $500,000. The performance difference is minimal, but the savings are substantial.

Catchpoint IPM can help you identify the best-performing vendor for each part of your service delivery chain, whether comparing on-premises, public, hybrid, or multi-cloud environments. IPM becomes a valuable tool to select the most cost-effective option in the right global location. For example, it can help you validate your data ingress or egress strategies. By measuring performance at every level, you can make informed decisions that balance performance and cost-effectiveness.

Reducing data storage costs
Data storage costs have become a pressing concern for many organizations, forcing engineering leaders into a dilemma: they must decide between cost management and handling the sheer volume of stored data. This predicament is especially pronounced when dealing with log management data.

To address this concern and decrease storage costs, engineering leaders need to reconsider two key aspects:

1. **Where data is stored:** Assess whether the most cost-effective storage options are being utilized. Are you leveraging the right storage solutions for your specific needs?

2 **How data is stored:** For data that doesn't require immediate access, explore more cost-effective vendor options. This strategic approach can significantly reduce storage expenditures.

IPM's role in vendor selection

IPM helps you select the right vendors by:

1. Letting you quantify cost versus performance benefit
2. Letting you validate your data ingress and egress strategies
3. Helping you hold vendors accountable to their promised service levels

By evaluating cost-effectiveness and optimizing data storage strategies, you can achieve significant savings while ensuring high performance levels. With IPM, you can navigate the complex landscape of vendor selection with confidence, knowing that you are making choices that are both technically sound and financially prudent.

6. KEEP YOUR VENDORS ACCOUNTABLE

Trusting your vendors to report on their own SLAs is like asking a fox to guard the henhouse. Depend on an independent arbiter to help manage SLAs.

SLA service disputes can take a long time and lead to substantial financial payouts. Further, it can be hard to determine if the vendor or client has the strongest case without objective data. This ambiguity not only strains relationships but also poses a considerable financial burden on organizations.

Catchpoint's solution: Objective SLA Management

Catchpoint IPM offers an effective solution to the problem of SLA mismanagement. With purpose-built architecture, Catchpoint provides the most trustworthy and objective data globally, enabling organizations to manage SLAs efficiently and impartially. Its advanced capabilities empower vendors and clients alike to objectively oversee SLAs and swiftly resolve disputes. This not only safeguards the brand's reputation but also helps in achieving substantial cost savings by preventing lengthy legal battles.

IPM-powered SLA management saves money

1. **Objective validation of SLAs:** Establish and monitor your vendors and service level indicators with neutral, third-party data to objectively validate you are delivering on business products and services.

2. **Efficient SLA monitoring and cost optimization:** Manage SLAs by tracking availability and performance SLIs to ensure they meet their SLOs on a daily, weekly, and monthly basis. If third-party vendors fail to meet their agreed-upon service levels, consider contract renegotiation to reduce service costs.

3 **Efficient handling of customer complaints:** Catchpoint IPM facilitates the independent validation or invalidation of customer complaints related to the digital experience. This objective approach to handling complaints helps in resolving issues swiftly and cost-effectively.

4 **Long-term data retention:** With access to extensive, long-term raw data retention, Catchpoint IPM equips organizations to navigate long-term SLA disputes confidently. This readiness minimizes legal expenses and operational disruptions, ultimately resulting in cost savings.

7. OPTIMIZE WEB PERFORMANCE

Faster websites mean faster money.

A fast, resilient website can be the all-deciding factor in saving you money when budgets are tight. Attention spans are shorter than ever, and users expect web pages to load quickly and seamlessly.

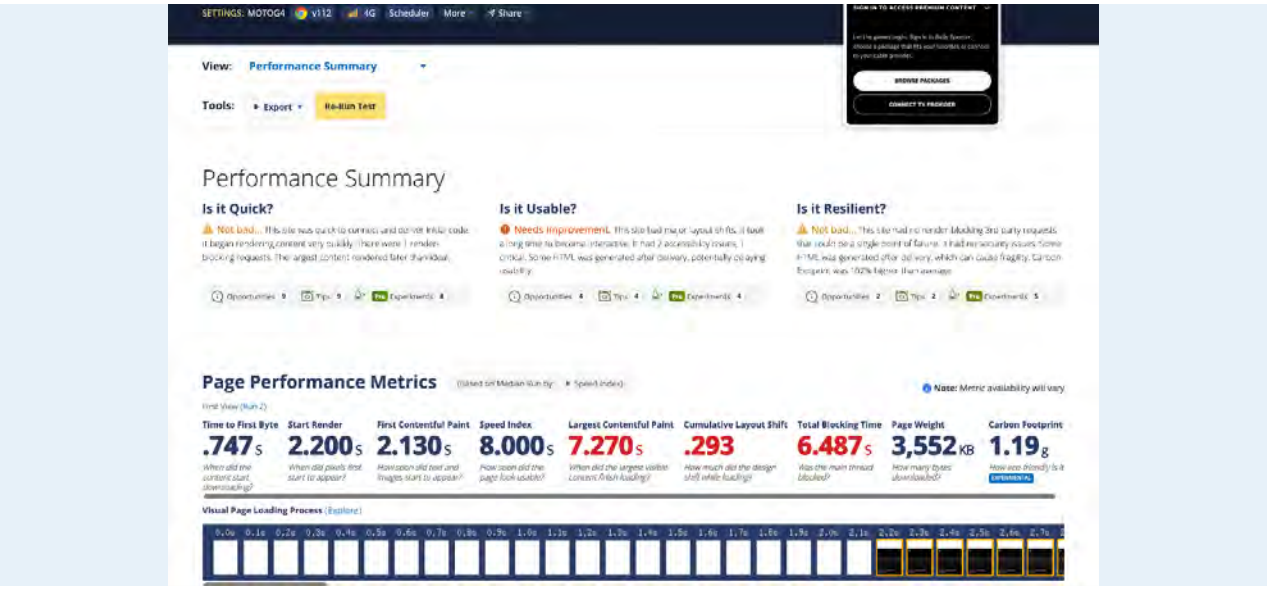
Key website load time statistics:

- Publishers whose mobile sites load in 5 seconds earn up to 2x more mobile ad revenue than sites loading in 19 seconds.
- 53% of visits to mobile sites are abandoned after 3 seconds.
- BBC has seen that they lose an additional 10% of users for every additional second it takes for their site to load.

(Source: wpostats.com)

Ensure resilience through IPM

Catchpoint's Website Experience solution is the first comprehensive web performance tool for the modern enterprise. It allows you to monitor your site's speed, usability, and resilience in real-time across various browsers, devices, and global locations to rapidly identify and fix performance issues before they impact your business.



Key features

- **Opportunities:** WebPageTest Opportunities allows users access to unique and actionable insights generated by test results. IT teams receive suggested best practices, such as deferred or async JavaScript, right-sized images, and security fundamentals.
- **Experiments:** WebPageTest Experiments gives users access to custom and automatically generated optimization tests that show how their websites could benefit from specific, actionable improvements with zero changes to the codebase. By making on-the-fly changes to the site's HTML, JS, and CSS without changing any deployed code and comparing it to a control test, developers can instantly gauge the potential for success of their performance tuning.

Slow-loading websites not only frustrate users but also negatively impact your search engine rankings, as speed is one of the factors considered by search algorithms. In essence, by enhancing your web page's loading speed, you can anticipate improvements in user experience (UX), conversion rates, and, ultimately, your sales revenue.

GET STARTED FASTER WITH INDUSTRY BEST PRACTICES & MANAGED SERVICES

Catchpoint's award-winning Managed Services team is available to augment your team and provide best practices, hands-on guidance, or a complete monitoring-as-a-service solution for your organization.

Resilience without additional resources

- **Monitoring-as-a-Service**
  Monitoring-as-a-Service includes setting up and implementing tests, maintaining monitoring transactions to avoid false positives, and providing 24x7 monitoring for availability and performance trends. It also involves offering recommendations for continuous optimization and tracking SLAs (Service Level Agreements) for services and vendors

- **Migration Assurance**
  As you upgrade your platform, our team will ensure tests, scripts, and alerts are migrated quickly and effectively, reducing the time and risk of a transition and allowing your team to focus on what they do best.

- **Internet Resilience Program**
  For critical times, this program combines best practices playbooks with a team of performance engineers who will augment your efforts, monitoring Internet Resilience 24/7. Ideal for retailers during black Friday, tax companies during tax season, or travel companies during peak times.

As the global leader in enterprise application software, SAP highly values Catchpoint's Managed Services team for their 24x7 proactive monitoring of our 2000+ websites. They were instrumental in achieving zero downtime across all our websites during Black Friday – a time when disruptions are not an option for the countless eCommerce companies we support."

Martin Norato Auer

Vice President of CX Observability and Automation Foundations, SAP

MAXIMIZE COST EFFICIENCY WITH CATCHPOINT

We hope you enjoyed this guide, which explored how Catchpoint can help you reduce, manage, and optimize cost efficiency with IPM. We've covered various aspects, from dissecting and observing the digital experience to early issue detection, talent gap-bridging tools, monitoring toolset evaluation, cost-benefit analysis, and efficient SLA management.

As you embark on your journey towards cost-effectiveness and Internet Resilience, rest assured that Catchpoint is here to help with five top-performing IPM solutions for your…

Customers

Get complete visibility into every layer of your service delivery chain from your user's perspective.

Workforce

Find and fix remote connectivity performance and SaaS issues before they impact your distributed workforce.

Websites

Access cross-browser synthetic testing from WebPageTest, the gold standard for performance testing.

Networks

Ensure your networks are reachable – not just available – from anywhere, all the time.

Applications and APIs

Go beyond traditional APM to ensure the resilience of your business-critical applications.

Tour the Catchpoint platform,
or reach out to us at hello@catchpoint.com