Value Maximization of Hybrid IT for Retailers

Trends, benefits and challenges on the road to converged operations and service management processes
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Executive Summary

Infrastructure and Operations (I&O) organizations today face a daunting dual challenge. To support business operations, they need to keep infrastructure and applications running at their best across increasingly complex hybrid environments. At the same time, competitive pressures make it essential to keep pace with the demands of digital transformation. Their work is made even more difficult by the exploding volume, variety, and velocity of operational data across diverse cloud, multi-cloud, on-prem, and container environments, leading to management struggles, slower problem resolution, more friction, and downgraded quality. The use of multiple tools and dashboards for different types of environments limits visibility and leaves blind spots, making it harder to maintain performance and service levels.

In response, organizations are now moving to adopt a consolidated monitoring and event management strategy leveraging artificial intelligence and machine learning across their entire hybrid IT environment. By replacing a piecemeal toolset with a comprehensive platform that integrates IT operations management (ITOM) and IT service management (ITSM) data into a single, converged view, IT Ops teams can better understand how systems are performing, what the potential issues are, and how best to solve them to minimize service impact.

This white paper draws on a recent survey conducted by Hanover Research and commissioned by BMC Software of 340 IT professionals to examine the current state of ITOM-ITSM convergence across the industry, including:

- Factors driving the need for a singular approach to monitoring based on a unified ITOM-ITSM platform
- Primary benefits reported by organizations integrating processes for ITOM/ITSM
- Challenges to be overcome in this effort
- Key converged ITOM-ITSM use cases
- Adoption progress to date
The ITOM Balancing Act

IT Ops teams face two critical demands. First, they must maintain 100 percent uptime for ongoing operations by monitoring, managing, and optimizing the performance and availability of infrastructure and applications in complex, hybrid IT environments. Second, but just as importantly, the business depends on them to support innovation and digital transformation by ensuring the speed and scalability demanded by DevOps initiatives, which often involve new technologies like microservices, containers, and cloud-native applications. Both missions are essential for the business to meet customer demands and beat the competition.

The difficulty of meeting these demands is increasing rapidly. In recent years, a tsunami of operational data from IT systems, networks, and applications has grown beyond human scale to manage. This will only accelerate—especially given the rise of data-intensive microservices-based apps favored by DevOps teams for the quick iteration they allow.

Data is also becoming more diverse than ever. User and device metrics, logs, and wire data are generated continuously across complex environments spanning cloud, multi-cloud, on-prem, and containers. Adding to the challenge, cloud-native apps and SaaS allow only limited visibility to IT Ops teams—who nonetheless remain responsible for their uptime and performance. And all of this data will keep coming faster and faster as DevOps and digital business cycles accelerate. Meanwhile, the agile delivery methodologies at the core of DevOps can lead to inconsistent quality and unpredictable scalability.

As IT Ops struggles to keep pace, their task is made all the more difficult by disjointed, siloed monitoring tools and strategies. Having to navigate multiple tools and dashboards slows an organization’s ability to identify and respond to issues, as data sharing becomes difficult across fragmented monitoring teams. As a result, MTTR slows, downtime grows, and service levels decline—an unacceptable situation in the modern business environment.
A New Direction for ITOM Monitoring

To better understand how IT organizations are handling these challenges, BMC Software collaborated with Hanover Research on a worldwide survey of I&O leaders at companies of all sizes, industries, and regions.

For respondents, the answer to these challenges is straightforward—even if its implementation can be more challenging. A vast majority have an integrated ITOM and ITSM strategy in place (73 percent) or have already integrated the two disciplines (19 percent).

This means a single view for visibility into data and how to manage it—all types, all systems, all locations. By taking a holistic approach to monitoring and event management across their entire hybrid IT environment, teams can eliminate visibility and control gaps and build monitoring into digital and cloud transformation processes. Applied within this unified view, AI and ML technologies can play a valuable role in helping teams manage the increasing volume, variety, and velocity of data across a fast-moving IT landscape.

The integration of monitoring across the hybrid environment is part of a broader movement to combine ITOM and ITSM platforms and processes. A unified approach to operations and service management can allow I&O teams to resolve issues more quickly and efficiently, increase staff productivity, lower costs, and reduce the business risk caused by service degradation and downtime. Given the time pressures involved, SaaS has emerged as the model of choice for the new breed of converged platforms, with 71 percent of respondents already using it. With ease of deployment and upgrade, elastic scalability, and enterprise-grade performance, a SaaS solution can deliver fast time to value and agile adaptability to changing needs.
Respondents were asked about their plans and experiences with platforms designed to support digital transformation and manage their IT environments that span on-prem, cloud, multi-cloud, and container and microservices environments. These platforms provide broad ITOM capabilities, including monitoring of infrastructure and applications, event management, and service mapping, combined with machine learning and advanced analytics.

Respondents reported that they are currently experiencing, or expect to experience, a significant impact on service quality and speed:

- Broad, holistic monitoring, event management, and AIOps across on-prem, cloud, and container environments
- A single solution to ingest monitoring data, logs, metrics, and events from multiple technologies, systems, devices, and applications
- One view across user performance, events, apps, and infrastructure

Converged monitoring and ITOM-ITSM process integration also makes an important difference in identifying and resolving service issues. Respondents report:

### Service Quality and Speed

<table>
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<tr>
<th>57%</th>
<th>42%</th>
<th>42%</th>
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</thead>
<tbody>
<tr>
<td>Managing data complexity</td>
<td>Faster time to market</td>
<td>More productivity/efficiency</td>
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</table>

Leveraging big data, machine learning, AI to understand user behavior and manage huge volumes of data and complexity

- Accelerating time to market by removing roadblocks to deliver quality services faster
- Leveraging cross-discipline expertise to increase productivity and cut costs

### Issue Resolution

<table>
<thead>
<tr>
<th>49%</th>
<th>44%</th>
<th>44%</th>
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<tbody>
<tr>
<td>Faster MTTR</td>
<td>Reduced staffing</td>
<td>Lower risk</td>
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Reduced time to IT root cause and faster MTTR of service issues and operational events

- Reduced number of people involved in resolution and eliminating redundant work
- Reduced risk across the business by prioritizing events and tickets according to business impact

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Reduce event noise to drive IT Ops efficiencies and enable prioritization of the most business-critical issues, and lower costs.

Avoid downtime and risk with predictive alerting. Issues can be proactively remediated before any service impact to help teams meet SLAs, optimize customer experience, increase productivity, and reduce the number of incidents generated from events.

AI and ML technologies play a key role in this impact by supporting an AIOps strategy to predict, find, and fix operational issues faster. I&O organizations can leverage the recommended capabilities of Observe, Engage, and Act recommended by Gartner in its 2019 Market Guide for AIOps Platforms1 in order to:

- Speed MTTR and optimize customer experience. Advanced analysis of operational metrics, events, and logs across infrastructure and applications speeds the identification of the root cause of degraded application performance.
- Automate event remediation to reduce MTTR and drive efficiencies. Organizations can improve the utilization of skilled IT resources and cut down on repetitive administrative work. Automating remediation workflows can remove human error, accelerate MTTR, and reduce costs.

Key Use Cases

The most important converged ITOM-ITSM use cases reported in the survey, Infrastructure-based and Impact Model-based service resolutions, highlight the value of the new integrated platforms.

**Infrastructure-based Service Resolution**

A full 78 percent of respondents report that they consider it very important or extremely important to be able to use converged ITOM-ITSM to create an incident with the related causal configuration item from an event. This reduces the effort of identifying root causes and provides valuable granularity to determine the appropriate team member to address the issue. The creation of a single infrastructure incident from the event helps avoid redundant alerts from events with the same root cause.

**Impact Model-based Service Resolution**

Taking a business-centric view, 76 percent of respondents report that they consider it very important or extremely important to be able to use converged ITOM-ITSM to prioritize tickets based on impact, understand their cause, and understand how to resolve them. With an integrated platform, impact incidents can be created with information about the higher-level effects of problems with both the causal CI and other impacted CIs. IT can clearly see how key business services or applications might be interrupted, and can prioritize resources and effort where they will provide the most value.
We’ve seen the promise of ITOM-ITSM integration—so how far has the industry come in making it a reality? To date, two-thirds of companies surveyed have already combined their ITOM and ITSM teams.

Still, much work remains to be done. Most companies believe that they need further ITOM-ITSM integration (84%). Monitoring will be critical for making ongoing progress; 83 percent of respondents believe that they would benefit from a unified view across processes.

This is understandable given the limitations of monitoring at many organizations. These include:

- Using multiple monitoring tools to manage the increasing number and diversity of infrastructure, applications, and technologies, leaving teams struggling to consolidate and analyze data for actionable operational insights.
- Being deluged with noise from thousands of events each day. Without a way to filter and suppress these events, many IT Ops teams are overwhelmed with manual triage and management to sort out the real events from non-essential and redundant alerts.
- Using AIOps point solutions that might support analytics on events but not at the level of performance data, minimizing the effectiveness of the AIOps strategy.
- An inability to connect analytics outputs to automated issue remediation, which detracts from the value of ML and analytics as the foundation of AIOps.

With such critical issues still to overcome, what’s preventing organizations from making more progress? Today, upgrading remains the primary pain point standing in the way of future integration. The majority of companies see adapting outdated IT systems (70%), and the costs that come with that overhaul (68%), to be the biggest challenges moving forward. Obtaining executive buy-in is also a major factor, cited as the most prominent challenge for APAC companies (77%), with North American (60%) and Western European (54%) companies also reporting considerable friction. It’s fair to assume that the larger, universal concerns of upgrading systems and the costs associated with the upgrade play into executives’ hesitation.
A Unified Platform for Operations and Service Management Integration

Disjointed toolsets and lightly integrated platforms allow too much friction and too many blind spots, blocking the full potential of converged monitoring and ITOM-ITSM integration. Organizations need a single platform designed to address all the demands IT Ops teams face.

BMC Helix Monitor helps IT Ops teams support digital transformation and manage their on-prem, cloud, multi-cloud, and container and microservices IT environments. The solution provides broad ITOM capabilities including infrastructure and application monitoring and event management, combined with ML and advanced analytics, and delivered via a containerized SaaS deployment model so IT Ops teams can tame the data deluge, predict and proactively address issues faster, and ensure performance and availability across hybrid IT environments. By delivering better support for ongoing operations while facilitating digital and cloud transformation, the organization can meet the demands of the business more effectively—no matter how quickly it grows and evolves.
Conclusion

The demands of modern hybrid environments, DevOps, and innovations like containers and microservices have pushed traditional siloed approaches to monitoring to the breaking point. By converging ITOM and ITSM on an integrated, AI and ML-enriched platform, I&O organizations can extract more insight from diverse data across the environment, reduce event noise, and resolve problems far more quickly.

Delivered as a readily deployable, easy-to-use SaaS solution, this type of platform is quickly becoming the foundation of a new era of ITOM strategy. Adoption trends to date show the impact and value of this approach, and as organizations continue to find more streamlined and cost-effective ways of proceeding, the benefits will only increase. It’s a new beginning for ITOM teams—and not a moment too soon.

For more information
To learn more about the benefits of converged operations and service management tools and processes, visit www.bmc.com/helix

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