Application managers:
What's keeping you up at night?

IBM

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Executive summary

What's keeping today's application managers up at night? Plenty.

Businesses all over the world run on applications and data. Your business does as well. The success of your business relies on the performance of your applications because they deliver the services to your customers that keep you in business. Your IT infrastructure supports and carries these applications—the lifeblood of your company. How to keep things up and running, connected, responsive and relevant is enough to keep most app owners up at night.

Especially when you consider that keeping it all working like clockwork is so much more than just uptime.

As an app owner, are these like little voices in your head?

- Customers are expecting—no, demanding more—and those expectations must be met if you're going to stay in business
- You must manage the explosive growth of data and applications while preserving service levels and continuing to meet those customer expectations
- You need to focus on cost control and ROI while ensuring no sacrifice in quality, responsiveness or performance
- You must minimize risk to existing operations and ensure security while evaluating and incorporating emerging technologies into your IT environment

- And you need to be ready to transform—quickly—to reshape your operating models while also reshaping the experience you bring to your customers

Silencing these voices is critical to your survival as an app owner, but how do you ensure the right outcomes in today's environment? What are the right sets of options needed to transform your IT environment to make it flexible, composable, and scale at will? How do you create an environment that allows your IT infrastructure to be agile and react quickly? How do you manage in a hybrid world? What about IT decisions needed to drive competitive differentiation?

No wonder you can't sleep!

Today's app owner has many questions, and the answers lie in areas like optimizing decisions with insights, embracing agility to accelerate your application delivery, and managing your hybrid environment.

Optimize decisions with insights

Let's investigate further why solutions that help you optimize decisions with insights are so critical to your company's success.

Ensuring the smooth running of business applications and the health of your company's IT infrastructure is vital, but without the right tools, it is also difficult. The impact of outages can be costly, and their repercussions can have a direct impact on revenue and profits, brand equity, and, most importantly, your customers.

Did you know that, according to a Ponemon Institute study, "average outages last 86 minutes and cost USD450K?"[1]

Why is detecting, diagnosing and resolving problems so tough? Because symptoms are hidden—lost in a "big data" stream of millions of IT health metrics and terabytes of log data. Finding the clues takes time, and that effort does little to predict or avoid future downtime.
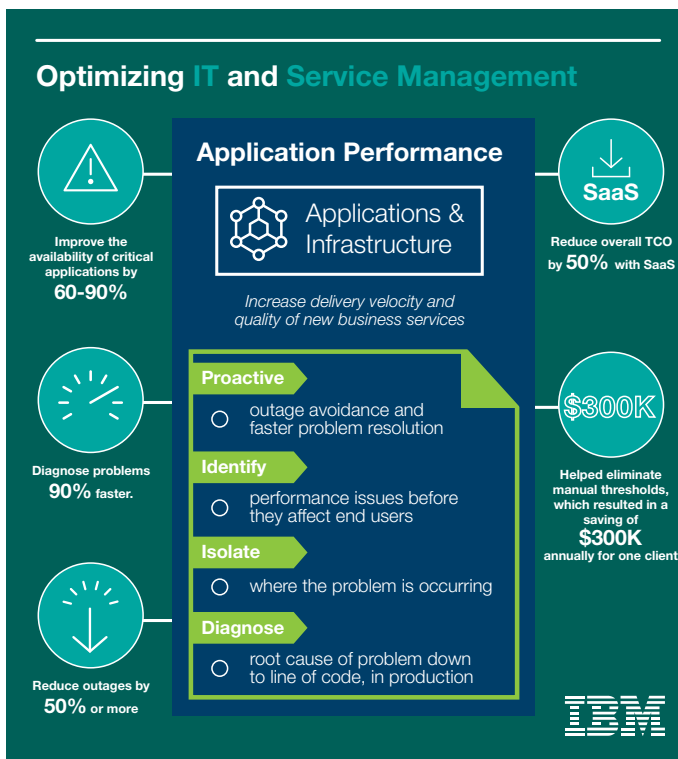
Optimizing IT and Service Management

Application Performance

Applications & Infrastructure

Increase delivery velocity and quality of new business services

Proactive
○ outage avoidance and faster problem resolution

Identify
○ performance issues before they affect end users

Isolate
○ where the problem is occurring

Diagnose
○ root cause of problem down to line of code, in production

Improve the availability of critical applications by **60-90%**

Diagnose problems **90% faster.**

Reduce outages by **50% or more**

SaaS

Reduce overall TCO by **50% with SaaS**

$300K

Helped eliminate manual thresholds, which resulted in a saving of **$300K** annually for one client

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Figure 1: The right tools can help ensure applications — and your IT infrastucture — run smoothly. Learn more at ibm.co/ExploreIBMAPM

With the right tools, however, you can take a proactive approach, driving actionable insights to optimize IT delivery. You can identify and integrate data from connected sensors, people, and apps, then apply analytics to extract insight. This can make it possible to automatically detect emerging problems and faster and simpler to isolate and resolve them.

Consider this:

As many as 30 percent of IT organizations believe they have no way to proactively detect problems...which often means they only find out about critical problems when end users complain.[2] Do you really want to rely on your customers to tell you something is wrong?

Now, consider this:

They're wrong. With the right middleware solution, you can leverage analytics to detect 100 percent of the major incidents that occur, including silent failures, and eliminate manual thresholds.[3]

Embrace agility to accelerate transformation

Now, let's look at why solutions that help you embrace agility to accelerate your business and IT transformation need to be top of mind.

What's driving today's transformation? Big data, mobile, and, yes, cloud—where companies increasingly are moving to foster innovation and lower costs.

Cloud is changing the core nature of applications, and with it, business and customer expectations are growing. New solutions and services that previously took months to roll out must now be delivered in days. These expectations—and the resulting continuous demand for service—put tremendous pressure on IT operations. Enterprises need to quickly adapt and deliver new and engaging services that create new sources of revenue and differentiation.

They need to be agile.

Meanwhile, customers and employees want richer, personalized experiences at their fingertips—a flawless experience anytime, anywhere, on any device. The performance of your IT environment and the applications that run on it can be the difference between meeting those expectations and leaving your customers disappointed.

So ... is your IT and applications performance flawed or flawless? Are your customers disappointed or delighted?

Imagine: You can leverage the cloud for faster, optimized service delivery while supporting seamless integration with the rest of your IT infrastructure, achieving optimum end-to-end operations, performance and automation.

You can gain visibility and control over your applications' performance, wherever they're located—now.

And you can automate key IT operations tasks to spend less time on maintenance and more time delighting your customers.

Succeed and manage in a hybrid environment

Last, let's take a look at why you should be looking for solutions to help you successfully manage your applications in a hybrid environment.

We'll start with some definitions.

Today's hybrid environment refers to the merging of traditional, on-premises software, applications, and infrastructure with hardware, software and services both virtualized and in the cloud.

That on-premises software your LOB sales teams have been using since long before you came on board? It still works, and so you need to find a way to keep it operational while new tools are being implemented.

That new application in the cloud—the one your customers directly interface with daily and notice immediately, and notice loudly, when it's down? Same.

And the secure, successful exchange and use of APIs are critical for a company to encourage product innovation, grow its customer base, and reinvent business processes.

Legacy, new, cloud, on-prem, homegrown, and "as a service": Middleware deployed across a hybrid environment, wrapped in the right suite of software management tools, help keep all those resources up, performing, and working together—and let you know in advance when conditions may lead to downtime.

Think about some of the trends from early in your career:

"One size fits all?"

Or, "Out with the old, in with the new?"

In fact, some companies are still running critical business applications in centralized IT environments, and others are starting out brand new with a pure cloud model.

But more and more companies and consumers are living in a mix of both worlds—a mix-and-match IT environment.

It's a hybrid world. And this hybrid world allows for cost efficiencies while delivering new value and speed. It also delivers new challenges, requiring greater visibility and control over the applications and infrastructure components that now span on- and off-premises.

Whichever model your company is currently using, there is opportunity to drive efficiency through process and infrastructure optimization in order to provide fast application and service delivery while keeping costs low.

Consider this:

- You still need to collect and monitor IT and applications events across your entire ecosystem
- You still need to improve decisions by understanding operations data patterns and trends
- You still need to automate your decision making

And you definitely need complete visibility and control to act in real-time!

So ... where does all of this leave you? What are the right tools to optimize your business hybrid environment? What are the right tools to ensure your company's success — and your own?
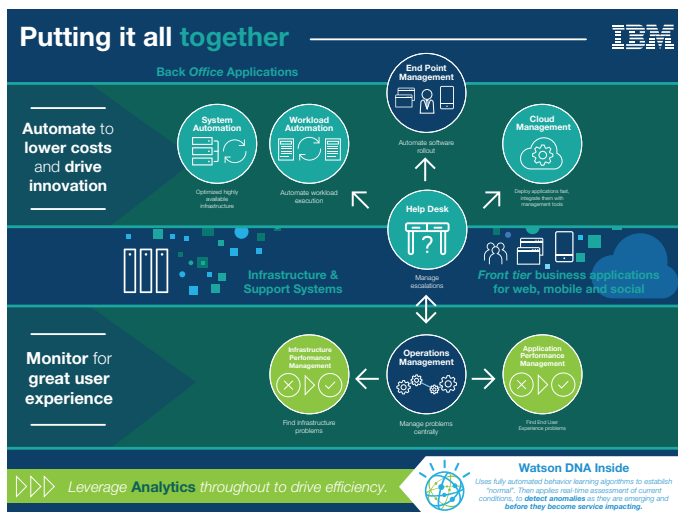
Figure 2: IBM ITSM tools can help drive efficiencies across your hybrid environment. Learn more at: ibm.co/ExploreITSM

IBM IT Service Management: Tools for your hybrid environment

We've raised a lot of questions with this look at the modern hybrid IT environment, and now let's find some answers.

You might be wondering how IBM can:

- Help you support your dynamic business needs efficiently while minimizing risk
- Help you delight your customers with reliable, performing, and fresh applications
- Help you identify what processes to automate in order to speed service delivery while minimizing costs
- Help you turn huge amounts of data into actionable insights to streamline processes and become more agile

Take a look at IBM's suite of cognitive service management solutions for your hybrid environment and see all the ways IBM can help your company be successful in delivering a client experience that is nothing short of delightful. The IBM IT Service Management (ITSM) portfolio provides end-to-end visibility, control and automation to help today's IT operations staff manage their company's business applications and services on-prem, in the cloud ... wherever they run.

ITSM solutions from IBM deliver on performance, analytics, operations and automation.

The rest of the paper will discuss two of the most critical capabilities — performance and analytics — and how they can help app owners facilitate application availability. Let's start with Performance because it is so critical to app owners trying to support application availability.

Performance

Software applications are the mainstay of modern business. Applications deliver business-critical services to customers and enable companies to function efficiently. To facilitate performance and availability of applications in your environment, your teams must have full visibility and control of the applications and enabling infrastructure. If an outage or slowdown occurs, your company needs to know precisely where the problem originated, what caused it, and how to prevent it from occurring again.

IBM can help companies facilitate the right availability of critical business solutions with its application performance management (APM) middleware offerings. APM solutions help IT operations and application support teams increase the delivery velocity of new business applications/services and optimize the performance of them and their underlying infrastructure.

Considering how important it is to deliver application updates quickly and efficiently, you need a way to facilitate that what's delivered performs optimally and provides an outstanding customer experience. After all, customers today are more selective about their services than ever before. They expect high-performing, always-available services and a flawless experience, every time!

Using APM early in the application lifecycle helps developers and testers understand the performance and availability of their applications even before they're deployed to production, which is vital for lowering the cost of errors and change, and for steering projects toward successful completion. IBM APM makes it easy to provide continuous monitoring, because it's a truly hybrid solution—available in IBM Bluemix® (platform-as-a-service), as a SaaS (software-as-a-service) offering, and on-premises—giving you the flexibility to choose the delivery platform that best suits your needs and manage all of your development, test and production application environments.

IBM APM provides end-to-end visibility of the performance of your application. Because it captures 100 percent of the transactions, you'll know what happens every time somebody uses your application.[4] With vast coverage of typical application components and the ability to dive down to the code level when necessary, IBM APM helps to find the root cause of issues and restore service up to 90 percent faster, and with integrated analytics you can even receive early warnings of application issues and fix them before users are impacted.[5]

How has Application Performance Management helped organizations?[6]

• Number of outages reduced by 30 to 40 percent
• Length of outages reduced by 50 percent or more
• Total cost of ownership reduced by USD6M over three years, with reduced time to market
• Reduced cost of operations by 50 percent over one to two years, with improved mean-time-to-repair

Analytics

Analytics is another area of growing importance for app owners.

IBM Watson™ capabilities and market leadership in big data and analytics help customers predict, search and optimize their applications, infrastructure and networks using IT operations analytics solutions.

Predict—helps proactively avoid problems before they become service impacting. Moving to a more proactive, rather than reactive, operations posture can enable teams to get ahead of problems that could cause client satisfaction issues before they become an urgent, all-hands-on-deck fire-fight. In the end, your operations environment is able to do more with less, reducing costs while improving the overall availability of your solutions.

Search—allows teams to diagnose issues faster using their operational data, including logs, metrics, events, support docs and tickets. Diagnosing issues from a single centralized pane of glass can enable your subject matter experts to more quickly and efficiently resolve problems, resulting in faster mean time to repair and ultimately higher availability.

Optimize—helps ensure teams are operating as efficiently as possible. Understanding where your operations teams are spending most of their time, and what recurring events can be suppressed, provides for greater efficiencies, reduced costs, and improved resource utilization.

For many clients like yourself, IT operations analytics solutions have helped improve IT performance and reduce costs. Here are some highlights of their successes:[7]

- Detect 100 percent of major incidents that occur, including silent failures
- Help eliminate manual thresholds, which results in a saving of over USD300K annually
- Diagnose problems 60 percent faster to quickly resolve application and infrastructure issues
- Reduce time involved to investigate issues from 30 minutes to three
- Reduce operator alerts and alarms by 46 percent

IBM also offers cognitive service management solutions for operations and automation… for more information about these offerings, read more here:

ibm.co/ExploreITSM

Why choose IBM for your middleware solution?

We understand today's hybrid IT environment.

It's no wonder we can help … according to IDC, IBM is ranked #1![8]

And, if you are still not a believer, you might want to <u>read about these 12 reasons</u> why you don't need to monitor your apps—or do you?

We understand what keeps it running.

And we understand the role of today's app owner and all that comes with it—including, yes, big data, cloud, mobile, the Internet of Things … they all come together to make IT operations an overwhelming challenge for today's CIO.

And what about your dreams? Ensuring security, availability, and performance while minimizing risk and cost—do those sound familiar?

IBM helps you meet that challenge and fulfill those dreams as your organization continues its transition into the new hybrid environment. ITSM middleware has the power of IBM Watson technologies behind it, allowing your IT department, and your business and customers, to benefit from IBM's solid performance in offering high quality solutions for today's needs.

A solid foundation of trusted technology

IBM's competitive advantage is grounded on our solid foundation of trusted technology, building on our core strengths including enterprise breadth, performance, scale and suite of capabilities.

The keystones include:

- A simplified client experience. IBM is making it easier for our clients to engage with us and to learn about, demo and deploy solutions for traditional and hybrid IT environments
- Applied analytics. IBM has invested billions in analytics and expertise to help our clients turn data into a competitive advantage. It's more than aggregating data; it's using that data to provide real insights to prevent outages and quickly resolve issues
- Quick time to value for our clients. IBM's own agile and continuous delivery model delivers new capabilities to clients in weeks. IBM is also bringing capabilities together into an integrated platform built on Open Standards and an ecosystem of innovation to plug and play around and on top of our core platforms. IBM's capabilities can integrate and leverage your existing investment in infrastructure and tooling

Just as it has in the traditional IT environment, IBM is committed to helping businesses succeed—helping you succeed—in the new hybrid environment.

So ... if your hybrid environment has been keeping you up at night ... if keeping it all working together is causing you to lose sleep … well, it just doesn't have to any longer.

Let IBM show you how you can put those worries to bed.

For more information

To learn more, visit:
ibm.co/ExploreIBMAPM

1 Ponemon Institute, "2013 Cost of Data Center Outages," December 2013, www.ponemon.org.

2 Based on IBM internal data.

3 Ibid

4 Ibid

5 Ibid

6 Ibid

7 Ibid

8 Visit: http://public.dhe.ibm.com/common/ssi/ecm/ti/en/til14086usen/TIL14086USEN.PDF

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