

Next Generation IT Operations

Automated Hybrid IT Operations Management

Ian Bromehead, Wes Cooper,
and Michael Procopio

@MicroFocusITOPs

Forewords by:
Luke Bradley, Toine Jenniskens, and Travis Greene

How Will You Transform Your Operations Management?



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Next Generation IT Operations (Book Excerpt)

Automated Hybrid IT Operations Management

**How will you transform your
operations management?**

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Michael Procopio**



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Foreword by Toine Jenniskens

When I get asked what the future of IT Operations Management (ITOM) is, the first thing that pops into mind is: Is there ITOM in the future? There are trends like DevOps, Artificial Intelligence, No-Ops, Automation, Cloud, etc. They all promise less cost and Faster Time to Value. So, is there ITOM in this future? Or do you still need ITOM when you get there?

I sincerely think you do. ITOM will change but you still need it. Would you want to drive a car without some metrics and sense of direction presented to you on your dashboard? Even if it is a Tesla or some other self-driving car? Do you TRUST the technology enough?

I think it is fair to say that in general, we don't trust our cars enough to skip measuring its quality and having some kind of control over it. The same goes for IT, at least for the next decade. After that, maybe the robots take over. ;-)

But as I mentioned, sure, ITOM will change, and that is where the trends come in. When you move more and more to the cloud, you yourself don't have to measure everything in depth. You measure the Contract you agreed on with the provider. The provider does the rest of the ITOM (IT doesn't go away). Also, DevOps will change ITOM in the way that, across Development and Operations, backlogs are slowly but surely merging, and ITOM (Quality and Management) is more and more a topic, from the conception of a new application to the decommissioning of it.

Also, ITOM is automating fast, and Artificial Intelligence will even increase this with Self Learning ITOM, automated remediation of incidents. Analytics will improve monitoring, which will get us better delivery of our apps. Less outage, better performance, and less or better mitigated risk. Because IT is getting too complex for humans to grasp, and because Automation will prove to make fewer mistakes.

Foreword

So, if you are reading or browsing through this book, you will find that it provides some views on what I also see happening around me and what I believe the future will bring. Whether it is by the introduction of new technologies, Automation, more and/or other data, and different IT delivery models like Cloud, you have to get ready for it! You have to start automating your event management, build your intelligence to catch the anomalies early, and automate your incident response, or better yet, automate everything! The trends will not wait for you to pick up. ;-)

IT will still have to be managed somehow by someone, so: Be sure that there is still a bright and interesting future for ITOM, but act now!

Toine Jenniskens
Business Architect
Rabobank

Introduction

Is monitoring boring?

Some, maybe many, will say yes. However, enterprise architectures are always evolving, so the process of performance monitoring, data collection, and data exploitation needs to evolve congruently.

Managing IT Operations at the speed of DevOps is a tough ambition, but it's the target that IT must shoot for if they want to inspire real transformation and deliver value to the business.

We have observed that many IT operations teams are understaffed and that the number of skilled people is not increasing, but decreasing. So, how do IT operations teams transform to embrace the newer technologies included in modern application architectures? How do they embed their skills and experience into today's business requirements, given these restraints?

After watching recordings of specialists presenting at AWS conferences and preaching monitoring-as-code, we wondered how people not experienced in operations could be expected to define instrumentation. How would they know which log entries to write, how often, and with what level of information?

If developers aren't involved much in deploying, then how would they know what level of documentation is needed to ensure correct deployment and to allow operations to determine when anomalies are happening?

Surely, increased information sharing and collaboration must happen as per a real DevOps definition. Becoming pragmatic is accelerated by having the right tools and processes to foster strong collaboration.

Typically, we're almost forced into a constant context of varying degrees of compromise. No application developer can claim to be a master at operations, and no operator is a master at creating effective applications. Such skills aren't abundant, and the respective constraints and measures around their roles don't give them liberty to extend much beyond their immediate daily lives.

Tools can help.

Tools can embed skills that are missing or aren't regularly available when most needed. They can automate tasks that are otherwise time consuming, and help negate the need for situation or war rooms. Does anyone have time for those, anyway?

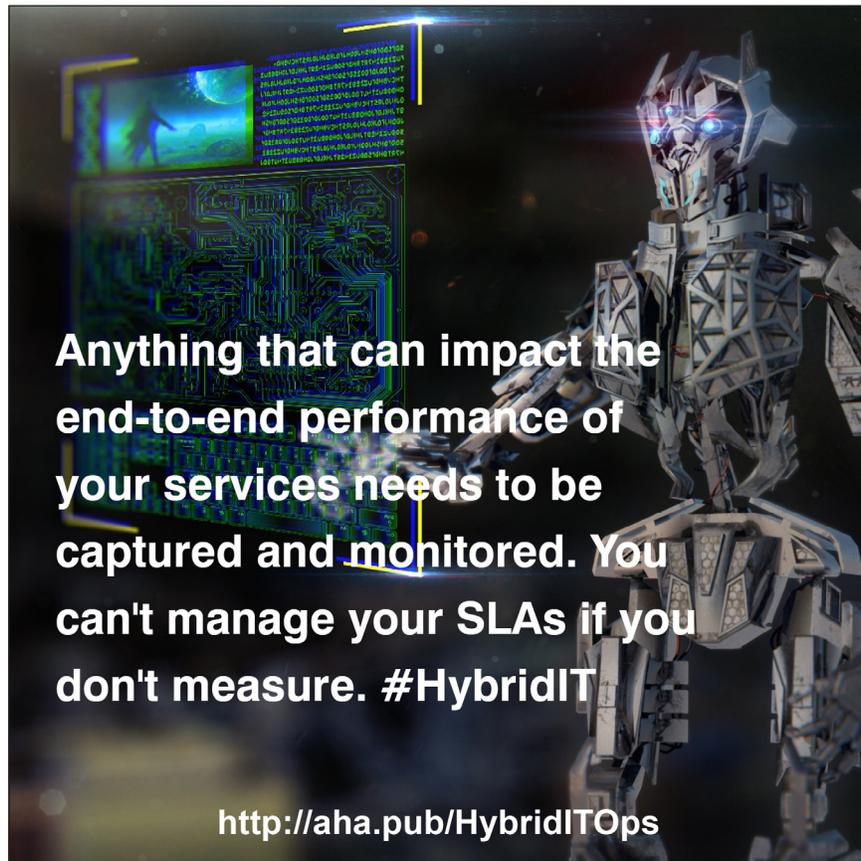
We all know how easy it is to make mistakes through distraction or tiredness. Automation can relieve the situation, consistently executing common laborious tasks.

Couple both analytics and automation, and it's easy to see just how desirable such tools can become.

While Gartner has detailed recommendations concerning analytics or artificial intelligence applied to operations (AIOps), they don't include nearly enough articulation of the need to *automate* AIOps. Who has enough staff to manually apply all the recommendations they make to all data types you can gather with monitoring? Automated AIOps makes powerful algorithmic-driven monitoring more valuable. It delivers autonomous actions to ride tandem with manual operators and maintain high quality of service.

We hope that these pages will inspire your thoughts and lead your research around defining your priorities for next-generation operations management.

Ian, Michael, and Wes



Anything that can impact the end-to-end performance of your services needs to be captured and monitored. You can't manage your SLAs if you don't measure. #HybridIT

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Section V

Automated AIOps and Remediation

Today's Operations teams have to deal with massive volumes of metrics, events, logs, and topology/dependency data, more than any human can consume. This is why Artificial Intelligence IT Operations (AIOps) is so important.

Automation provides a virtual workforce to keep your systems alive and fix them when a problem comes up. AI provides insights from the massive data collected and can guide the automation. Used together, you become more agile and compete faster and better.

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Automated AIOps is the use of artificial intelligence and automation in the practice of IT Operations. #HybridIT

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Analytics help you understand where new problems are occurring and why. #HybridIT

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#HybridITmanagement solutions help you implement best practices that your users can use, activate, and execute automatically to solve issues. What are your best practices? #HybridIT

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Automation is important because today, resources come and go but still need to be managed. #HybridIT

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Automated self-learning, qualification, root cause, cost analysis, and remediation reduce operational costs. Can your tools apply automation? #HybridIT

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Metrics, events, logs, and topology/dependency data are massive, more than any human can consume. Automated monitoring solutions help you handle those massive amounts of data. #HybridIT

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#HybridITmanagement solutions give people access to all the data you have in one place so it's easier for you to let people analyze and extract info for their own interests. #HybridIT

81

Analytics surfaces data to help operators who don't have the right skills find problems faster.

#HybridIT

82

If you don't have robotics and automation, you won't be able to handle the number of events you're facing. Automate! #HybridIT

83

Automate best practices to solve a problem,
so your users can consume your services
faster than contacting customer service.

#HybridIT

84

Automate the process of making sure that your monitoring data is defined for all your resources and that monitoring can bring info back to where you need it. #HybridIT

85

Automation allows less skilled operators to fix issues in minutes that they otherwise would have to escalate to more expensive personnel. #HybridIT

86

Artificial intelligence acts on its findings to either propose an action to an operator or activate automation to perform an action for an operator to quickly resolve a problem.
#HybridIT

87

When your operators can't react fast enough to resolve problems, you'll need to integrate and automate your tools and processes. #HybridIT

88

With automation, you can repurpose your people's skills to do more important things that can help the business grow even further. #HybridIT

89

Finding the root cause out of all the info that comes to your screens takes skill and time. How do you handle the absurd amount of data? #HybridITmanagement helps!
#HybridIT

90

Good visibility enables you to predict and measure the cost of issues quickly and to prevent them from happening again.
#HybridIT



91

Automation provides you a virtual workforce to keep your systems alive and healthy to become more agile and compete faster and better. #HybridIT

92

Robotic Process Automation (#RPA) with artificial intelligence can automatically find and fix problems like a human. In its infancy now, but watch it grow! #HybridIT

About the Authors



Ian Bromehead

Director of Product Marketing, Micro Focus
IT Operations Management

A thirty-five-year veteran in the industry, Ian Bromehead joined Hewlett Packard in 1986 and spent seventeen years in HP Consulting, where he delivered consulting services to large French accounts.

Ian has successfully delivered outcomes in enterprise architecture, ITSM/ITOM solution architecture, and IT Transformation projects. He held roles in the USA and Europe in business and partner development and technical alliances prior to his present position in global product marketing.

In his current role, Ian has led programs that have resulted in consistent double-digit growth over the last eight years of the Operations Bridge business within the Micro Focus ITOM portfolio.

Ian graduated with an honors degree at Sheffield University before he joined a small start-up focusing on industrial software development. He then moved to take responsibility of software development teams and international projects in France, tripling the team's productivity in two years.

Ian lives near Lyon, France, where he enjoys restoring his old Triumph car, riding his motorbike, country walking, and listening to music.



Wes Cooper

Senior Product Marketing Manager, Micro Focus
IT Operations Management

Wes Cooper has spent much of his career with Hewlett Packard Enterprise and Micro Focus, holding roles across multiple business units, including business development, sales, enablement, and product marketing. Today, he works in supporting the development and delivery of Go-To-Market strategies for the Operations Bridge. Wes lives in Dallas, Texas, with his family and enjoys traveling, kayaking, and participating in running events.



Michael Procopio

Senior Product Marketing Manager, Micro Focus
IT Operations Management

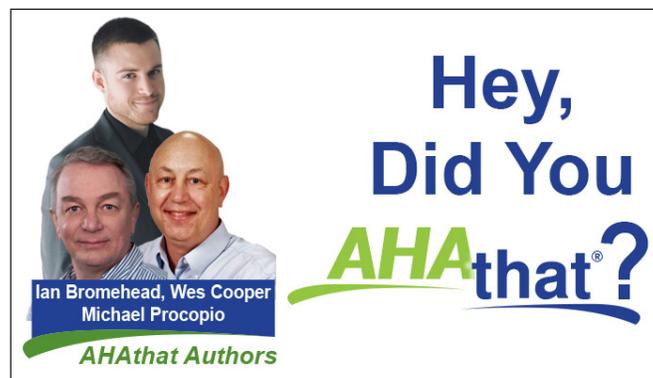
Michael Procopio is an author, keynote speaker, technologist, and marketer with twenty-five years of experience in pre-IPO and Fortune 500 high-tech organizations as a business leader and technology and marketing manager. He also has fifteen years in network and systems management as a solution architect, product manager, and technical marketing manager, is the author of fourteen books, and is a speaker at numerous conferences globally.

In his current role, Michael is a senior product marketing manager working on marketing programs for the Operations Bridge business within the Micro Focus ITOM portfolio. He lives in Morro Bay, California, where he enjoys science fiction movies and books, riding his bicycle, and being a foodie.



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IT professionals are becoming more business literate and business professionals are becoming more IT literate, so together, they can collaborate to more effectively compete and service customers. #HybridIT

Do you want to know what's happening with your business services in real time? A business value dashboard is live news for IT. #HybridIT

Remedial action should be more intelligent than just simply restarting servers. It should help us understand the corrective action. #HybridIT

Automation provides you a virtual workforce to keep your systems alive and healthy to become more agile and compete faster. #HybridIT

With hybrid IT management solutions, you can verify you're providing the quality of service that you promised to your users. #HybridIT



Ian Bromehead is an enterprise architecture and operations management specialist with 35 years' experience in steelworks, oil and gas, and finances as project manager, software development, consulting, EMEA and worldwide service, and software marketing.



Wes Cooper is a businessman, technologist, enabler, and marketer who has evolved his career in the enterprise software industry over the last 5 years, specializing in the IT Operations Management domain.



Michael Procopio is an author, technologist, and marketer with 15 years in network and systems management as a solution architect, product manager, technical marketing manager, and product marketer.

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