ActualTech Media

solarwinds

How Ops Teams Can Leverage APM To Meet Modern Requirements

Dan Keldsen

CONTENTS

It's a Hybrid World, We're Just Living in IT 2

Their Team Is Your Team, Their System Is Your System 2

Table Stakes for 21st Century APM 3

Are You Ready for the Future of APM, Today? 5

IN THIS PAPER

You live in a hybrid technology world, unless you're the most fortunate ITOps person in the world.

Your business tech stack is in the cloud, on-premises, public cloud, private cloud, containers, you name it ... and in the end, with this sprawl and complexity, you need a way to keep a finger on the pulse of #allthehybridthings without having to grow extra hands.

Are you sacrificing your sanity to manage your tech stack right now? It's time to re-evaluate whether your APM toolkit is up to the task of monitoring everything. And, yes, that includes all of the cloud systems you don't technically own, but still have responsibility for.

Don't worry, you got this.

If you believed everything you read in the press, you'd think no organization uses any technology other than the cloud and perhaps containers. And maybe a sprinkle of some AI magic as well (sigh).

If you're a startup, it might be true, but for the rest of us, it's a hybrid world of on-premises (traditional) and cloud (including SaaS, PaaS and IaaS) environments, and it will be for quite a while.

You can't instantly retire your pre-cloud/container infrastructure without putting in a lot of work, and let's face it, you have plenty of conflicting needs you have to address on a daily basis.

For example, consider the legal and risk management implications of many older companies with significant on-premises implementations.

The "systems of record" they use to track the core functions of the business—whether the two most common systems, for customers (CRM) and for finance (ERP)—are still often not cloud-native environments, because the information is deemed too sensitive to be anywhere but within eyesight in their own data center.

This data is *critically* important to the company. It represents their unique competitive knowledge about business flow, user behavior, marketing data, business partnership details, logistics, and more. Being protective of this data is understandable.

Now, arguably, cloud providers are better equipped to secure data than anyone, but then again, nothing is completely secure.

And let's not forget migration projects on the scale of systems of record are serious work, no matter your security stance.

Any way you slice it ...

It's a Hybrid World, We're Just Living in IT

As both everyday users and ITOps, we're living in a hybrid IT world (**Figure 1**). The question is, are you equipped to manage it all equally well?

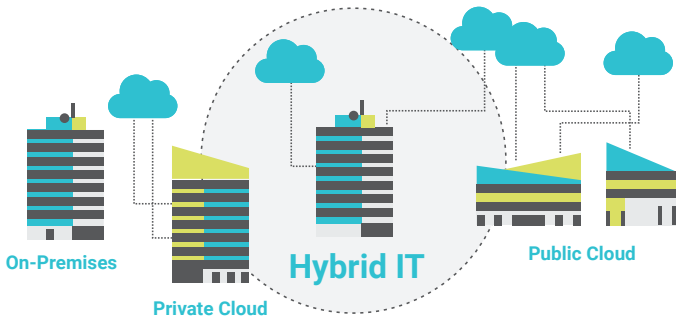

Figure 1: All the hybrid things

Technology has exploded into every corner of work and life. You want options? You have more than you can count—both by design and through "shadow IT" implementations that magically appear on a regular basis.

Realistically, you don't have much choice as to what your application portfolio looks like. Even if you start as a "pure" [fill in your preference] shop, you're inevitably going to be responsible for a wide variety of types of apps and deployment styles.

And really, if we believe apps run the business (and they do), then including them in the monitoring and management of all things as part of your realm is key to remaining both employable and valuable to the business.

Right about now, you might be thinking ... But APM is expensive! Can I afford to monitor and manage everything?

Can you afford *not* to?

Their Team Is Your Team, Their System Is Your System

But what if you're using cloud solutions?

If you're using cloud solutions? Ha ha! Of course you are! Who isn't?

With Zoom Video, Microsoft Office 365, Google G Suite, or thousands of others, you can only hope that your provider's Ops skills are on point.

And while fiber cuts, regional electrical outages, and natural disasters are relatively rare, bad things happen. How

you react to them, and how quickly, is what counts. You do need to be ready for them.

The bottom line? Even if it's someone else's problem, it's still your problem. So how fast can you react to a problem, regardless of where it lives?

Table Stakes for 21st Century APM

MODERN REQUIREMENT NO. 1: THE (MYTHICAL?) SINGLE PANE OF GLASS

The idea of a "single pane of glass" for technology monitoring has been thrown around for decades at this point, often with significant limitations (cost often being the No. 1 issue).

But the past challenges of implementing a single pane of glass doesn't mean that businesses don't want it, or it's not valuable.

Like any technology approach, APM has been getting better, faster, cheaper, and more integrated across a larger set of systems than just "the most important." But perhaps most significantly, the information captured and displayed can be made useful to both technology *and* business users.

Let's take some common scenarios where performance issues ripple from the IT operations team into, for example, call center operations.

A "black swan" happens, like the extreme outages experienced by a well-known supermarket with an at-home delivery service they'd been running for years, and had theoretically "seen it all." During Super Bowl LIV weekend (2020), it was slammed with online traffic by people who wanted to avoid the crowds in stores.

Its main system—tied to the mobile app as well as the consumer-facing website—crumbled and fell apart repeatedly during this critical retail weekend. Moreover, these problems rippled into the back end, derailing employee-facing fulfillment and invoicing. In some cases, delivery drivers resorted to plain sheets of paper with hand-written notes to collect signatures from customers as they delivered throughout the weekend.

What should've been a massive revenue weekend turned into a classic *snafu*.

There was the customer experience, which was full of frustration and disappointment. And there was the behind-the-scenes experience, which was no doubt even less fun.

Here's how it probably played out for both IT and Business Ops.

At first, alerts went off for ITOps, as traffic began to ramp up based on a flood of last-minute shoppers. ITOps started to examine what was going on and how they could address this new load. They managed to adjust settings, free up storage, change cloud resource configurations, and bring performance back to an acceptable level.

> Like any technology approach, APM has been getting better, faster, cheaper, and more integrated across a larger set of systems than just "the most important."

Fast-forward an hour later, and traffic is still climbing. Performance drops dramatically and application services start to timeout and fail.

Meanwhile, every retail location for the business is getting hammered with in-person customers, there are irate customers on the phone, and of course customers complaining on social media, through chat support, and on and on.

Without a way to coordinate visibility into the scope and severity of the situation, how can anyone react with a coherent and implementable plan?

Today's APM implementations are better at removing the visibility gaps across the end-to-end experience, creating a single pane of glass. They make it possible to rapidly translate the impact of any issues to both technical and business team members.

After all, as with the Super (snafu) Bowl weekend example, if the majority of the customer- and employee-facing

systems go down or are too slow, contingency plans for manual fallbacks or alternative processes need to be rapidly implemented, which is likely the responsibility of business operations (store managers, warehouse managers, logistics, and so forth).

MODERN REQUIREMENT NO. 2: APM EVERYWHERE

Whether you're using a completely modern infrastructure, legacy tech, cloud, on-premises, or a hybrid, ultimately you need to have a firm grip on whether your apps are available and performing as expected. Traditionally, however, this will be the case only for your high-value or expensive applications and infrastructure—those aspects that would truly destroy the business if they became unusable due to availability or performance problems.

> You need APM with consistent capabilities, ease of implementation, great integration, and at reasonable cost.

But in today's world, we switch so much between different systems and applications all day long that to have any single piece of our application toolkit down or performing poorly causes ripples that generate problems across the entire workforce.

Take SaaS solutions, for example. If Microsoft Office 365, and particularly, email, is the core of your business, what do you do when that particular cloud is down or unacceptably slow for some unpredictable length of time?

You're pretty much stopped in your tracks. We're operating in a complex, hybrid world, no matter how wonderful an individual user experience may be across your systems and applications—all expect optimum performance … all the time.

You *need* APM with consistent capabilities, ease of implementation, great integration, and at reasonable cost. APM that doesn't assume an army of experts to fill in the gaps where one APM toolset ends and another picks up the pieces.

Does your APM solution have the ability to cut across all of the flavors of technology your business uses, regardless of who owns it and completely manages it?

Today the lines of responsibility and direct concern have blurred and spread out across a larger audience than it had traditionally. Exactly like the technology sprawl of your hybrid environment.

MODERN REQUIREMENT NO. 3: SERVICE-LEVEL VISIBILITY AND ACTIONABILITY

Beyond any existing SLAs or formal agreements with financial penalties and explicitly defined acceptable performance, are *all* of your apps (on-premises, cloud, or hybrid) meeting your expectations? Modern APM, like traditional APM, can clearly monitor and provide warnings when SLAs are in danger of being violated. But, to date, APM has typically been looking only at a limited subset of the most critical applications and the databases, servers, virtual hosts, and containers that support them rather than the entire portfolio in use.

As always, agreeing to, monitoring, and pro-managing real-world performance against business expectations—whether a formal SLA or not—is only one part of the challenge of ITOps.

Let's look at SaaS solutions and SLAs. Some SaaS solutions don't have SLAs, or if they do, they're typically focused on availability of a service or set of services instead of the performance of those using those services, making it exceedingly difficult to know if there are SLA violations to worry about. And if you don't have an APM solution capable of monitoring your SaaS environments, how are you going to independently prove any SLA failures? Or performance/availability issues of any kind?

In the end, it doesn't matter if a service availability SLA is being met if the application is effectively not working as you need it to.

And the kicker? Maybe it wasn't your call to go with a specific SaaS provider. If "the business" decided to move a large portion of technology to a SaaS solution, for

example, while ITOps may not technically own it, you still have to figure out what went wrong, and what the impact is when the SaaS provider is unacceptably slow or unavailable (or some portion of the network providing access to the SaaS service has an issue).

It may not seem particularly fair to take this on, but when technology fails, it's not always immediately clear why it fails. And it shouldn't be entirely on the shoulders of your business colleagues to have to track it down. The single point of failure of being entirely dependent on a SaaS provider to determine if the problem you're experiencing is in their control or elsewhere is awfully dangerous to leave as a wildcard.

You may not be able to prevent the downtime (or slowness) of a SaaS provider, but you can help your business colleagues coordinate how to deal with interruptions and degradations to services outside your direct control. Teamwork!

MODERN REQUIREMENT NO. 4: COLLABORATION AND COORDINATION—NO MORE HOT POTATO

IT problems are no longer just ITOps problems anymore. When you need all-hands-on-deck, you better have speed and complete visibility to coordinate all the moving parts. So not only do you need APM everywhere, you also need to coordinate and communicate across teams and personnel with very different roles and concerns.

In the past, maybe the coordination between IT teams was more of a "throw it over the wall with a ticket" approach, but now? The responsibility is that everyone in IT *and* across business teams understand just how critical it is to rapidly address issues of any severity. Far more communication and collaboration are required today than in the past. The stakes are just too high to pawn off responsibility solely to IT.

But you'll only survive a multi-headed incident if you put in place the processes and systems to make coordinating your efforts smooth and stress-free.

An additional level of communication, collaboration, and understanding needs to take place between developers and operations and business managers, largely because your mutual "customers" (inside or outside) demand it.

And organizationally, while business and technology teams have often had a love/hate relationship in the past, "a rising tide lifts all boats" as surely as the "unsinkable" Titanic was brought down by a single iceberg.

> There's an additional level of communication, collaboration, and understanding that needs to take place between developers and operations and business managers, largely because your mutual "customers" (inside or outside) demand it.

Bringing business and technology teams together as teammates, with different perspectives on challenges and opportunities, is the next wave of teamwork you're going to need.

With a modern APM implementation that spans across applications, databases, servers, virtual hosts, and containers, you finally have the opportunity to bring all of the relevant teams, business, and technology onto the same page or screen. And, further, to speed up your ability to coordinate your response with deep visibility. The final capability allows you to be as proactive as you want to be, while also rapidly diagnosing and fixing issues as they come up.

Are You Ready for the Future of APM, Today?

The technology future we've all been sold may not yet be flying cars and teleporters, but would you give up the advances we take for granted? Surely not. Make sure your ability to monitor and manage is keeping pace with the rest of your technology investments, and you can leap ahead to the nirvana of proactive and interactive APM for everything, and keep yourself, your team, and the business as a whole headed into the future.