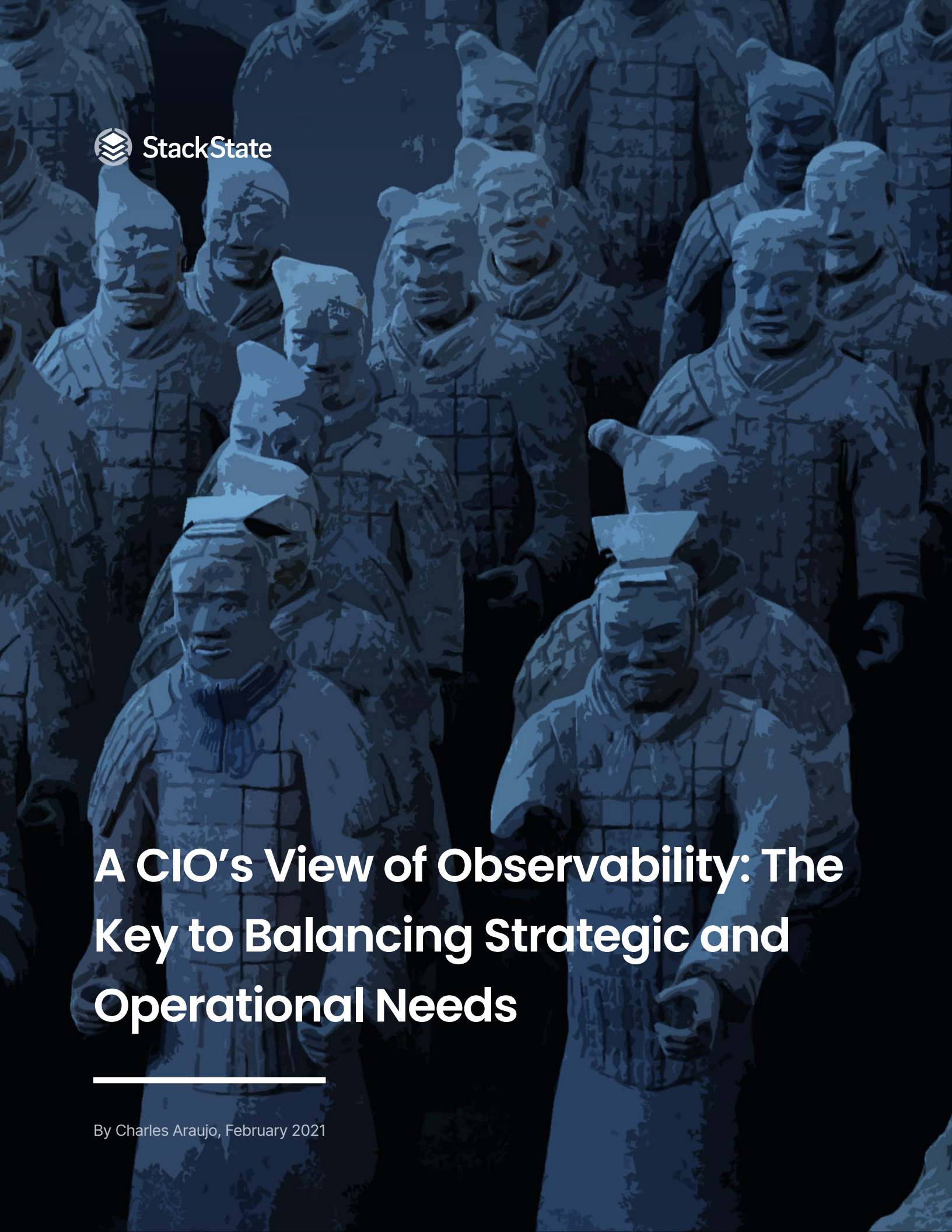
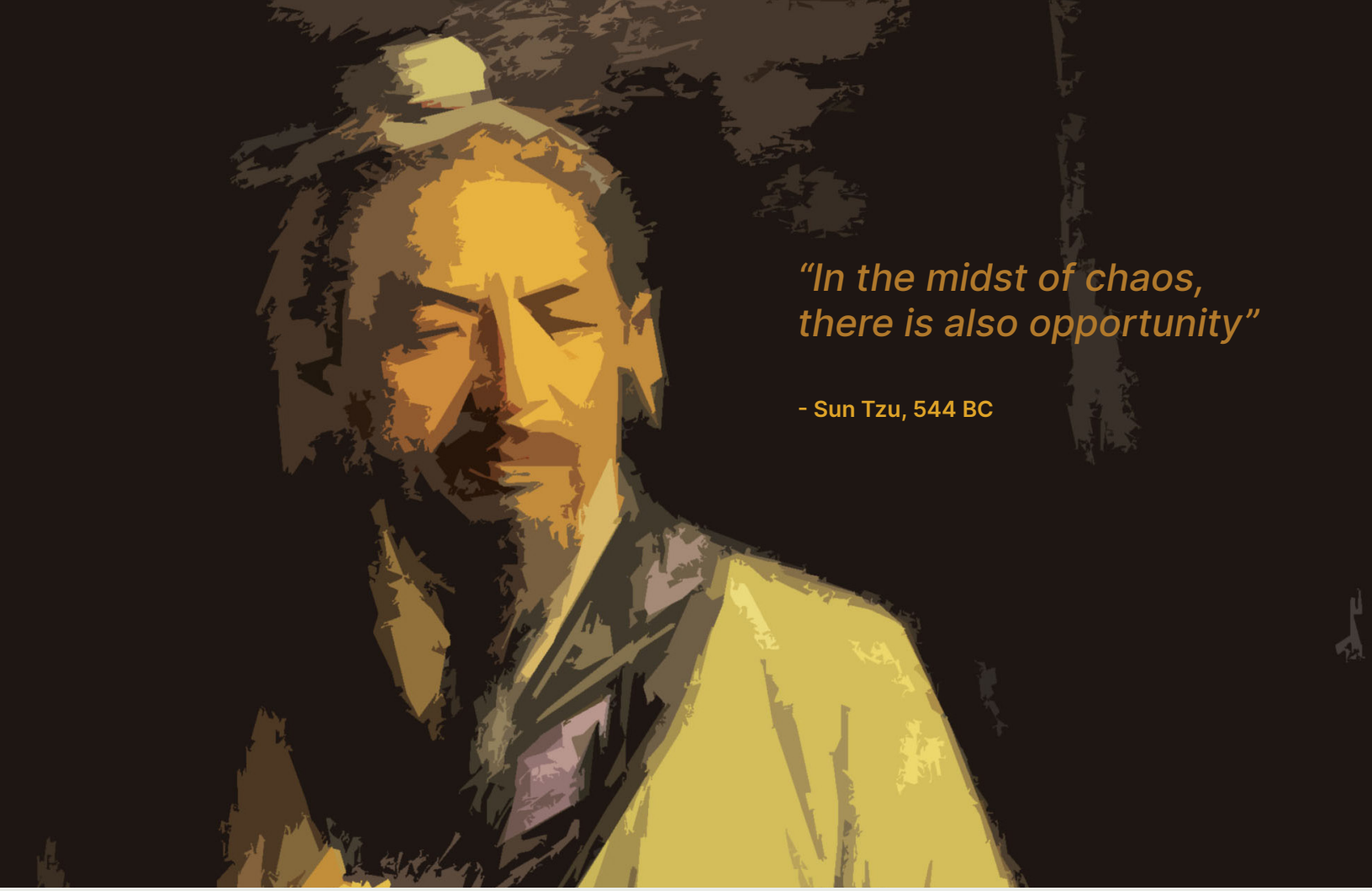


StackState

A CIO's View of Observability: The Key to Balancing Strategic and Operational Needs

By Charles Araujo, February 2021

Table of contents

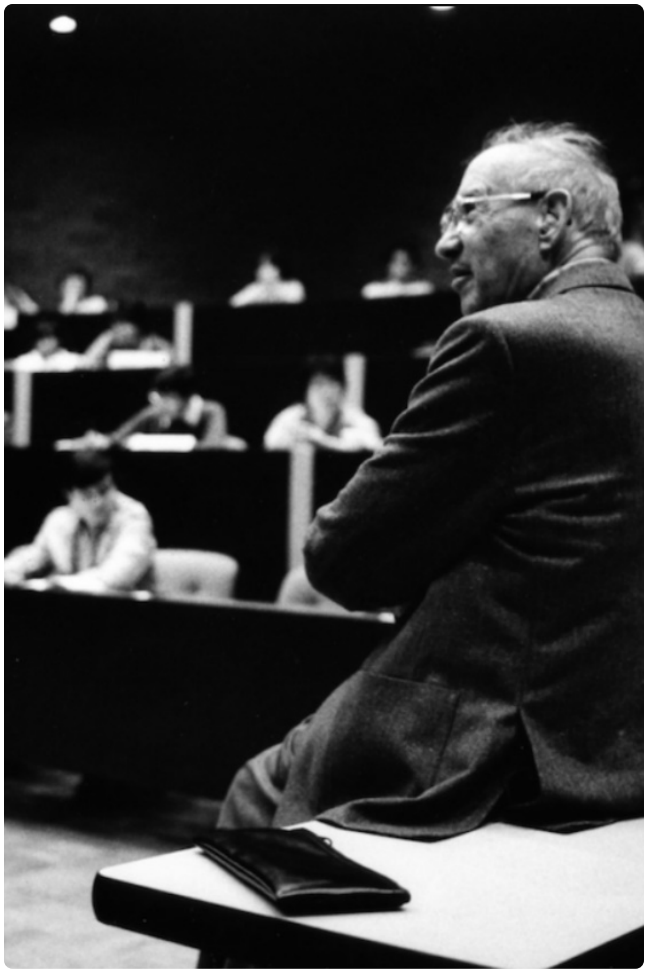


“In the midst of chaos, there is also opportunity”

- Sun Tzu, 544 BC

“The entrepreneur always searches for change, responds to it, and exploits it as an opportunity.”

- Peter Drucker, 1909



Drucker was speaking to entrepreneurs, Sun Tzu to military tacticians. But both were speaking to a truth that is just as relevant to the modern CIO.

No matter how you cut it, you are leading your organization through a period of rapid change and chaos. And, as Drucker and Tzu point out, this change and chaos have created opportunity, provided you realize how to respond to it.

The opportunities are already presenting themselves. Perhaps unlike any other time in the past, IT executives are being invited to play critical, strategic roles in the enterprise. The combination of disruptive threats, transformational momentum, and the pandemic that accelerated both have thrust you into the limelight.
But these same drivers have also made your job exponentially more challenging. The need for technology to play a strategic role in every nook and cranny of the enterprise has resulted in a far-flung, ever-more-complex, and dynamic technology stack — that you must operate flawlessly to deliver competitive advantage.

Seizing the opportunity amid unrelenting change and chaos means finding a path between these two pressure points — and that will demand that you take a new approach to how you manage your technology stack.

The Changing and Evermore Challenging Role of the CIO

The role of the CIO has changed dramatically over the last several years.

Actually, that's not quite right. The role of the CIO has *expanded*. Yes, that's it.

On the one hand, this is an exciting development. As technology has become a strategic enabler for the enterprise — *the strategic enabler*, you could argue — it is now central to almost every business decision, strategy, and value creation element.

That means you're in the middle of everything important.

The challenge is that this isn't a shift in focus as much as it is an expansion. You are still responsible for the blocking and tackling that has always been the stock-in-trade of IT leadership.

While your executive counterparts may have now welcomed you with open arms into the strategic conversations, that warm greeting hasn't shifted the fundamental expectations. They still fail to truly understand the complexity of the technology stack — even though it now runs most, if not all, of their business or function.

They still expect all of this whiz-bang technology to just run itself like some magic eight ball, and they cannot be bothered to hear the explanations or excuses why something has gone wrong.

And they most certainly can't appreciate exactly how complex it has become to do all that whiz-bang magic on which they've come to rely.

As a result, you have most likely found yourself in a bit of a conundrum. You relish your new-found strategic role and rightfully acknowledge the need for you to be there. Any enterprise without a strategic IT executive is lost already.

But this strategic posture has pulled you into a much more business-facing context, and you undoubtedly are finding that you spend as much time — if not more — focused on business issues, challenges, and opportunities rather than on managing your technology stack.

This focus is how it should be, but leaves you vulnerable to the very complexity and dynamic nature that is enabling you and it to play a strategic role in the enterprise.

The Rising Complexity Challenge

The irony is that it is the very fact that technology has become strategic to everything that is the cause of its rising complexity and dynamic nature.

Complexity has, to some extent, always been a challenge for IT. Technology is ever-changing, and IT leaders have always had to balance the need to innovate and evolve the technology stack, with the need to maintain stability and resilience.

But as technology shifted from a back-office to a customer-facing focus, all bets were off.

You could no longer standardize and rationalize yourself out of the complexity trap. The ever-expanding use cases demanded that you not only support and manage but also become an expert in a vast array of technology classes, all of which are changing and evolving rapidly.

The result is a technology stack that has become so dynamic and complex to render it increasingly unmanageable.

You have become a victim of your own success.

Innovations such as the cloud, machine learning and artificial intelligence (AI), microservices, and containers, among others, have all promised hopeful ways to mitigate the ever more dynamic and complex nature of the technology stack. In some cases, it's helped, but in others, these innovations have simply opened the door to even more complexity.
And while your day-to-day focus has most likely shifted to business-facing discussions, the hard reality on the ground for your development and operations teams is becoming a race to a bad end. At best, they are coping and managing, keeping things together with a combination of some luck and fishing wire. At worst, your operational management model is becoming a master class on crisis management.

Either way, however, there are two one unassailable facts:

- The stakes are getting ridiculously high with the typical cost of a critical outage averaging $5 million per hour for a large enterprise (I explored this in a recent blog)

- Tis that this genie is not going back into the bottle.

Nothing will undo the dynamic and complex nature of the enterprise technology stack. The only way forward is through this complexity — and that will demand a new mandate and a new approach.

The New IT Operational Mandate

Despite the unprecedented change over the last several years, IT's fundamental operating model has remained unchanged. Sure, things like the cloud and DevOps have changed parts of it, but most of the tools and processes that operational teams have used to manage the tech stack look much as they did years and even decades ago.

To keep your strategic focus, however, these long-standing approaches must change.

You need to take a fresh look at the fundamental practices, approaches, and tools you use to operate and manage both the technology stack and the IT function.

Now, I know you've heard this before. Nearly every new technology has come to town shouting about a new mandate. But this isn't about adopting some new technology.

This mandate is about changing how you function. It's about fundamentally changing the rules of the game.

Historically, IT has functioned within a set of boundaries imposed by resource constraints and politics.

First, the function has primarily operated reactively — build, deploy, and then run. When it breaks, fix it. Second, innovation happened predominately in stair steps and in response to business unit demand. It was not leading the charge, but merely responded to support initiatives sponsored elsewhere.

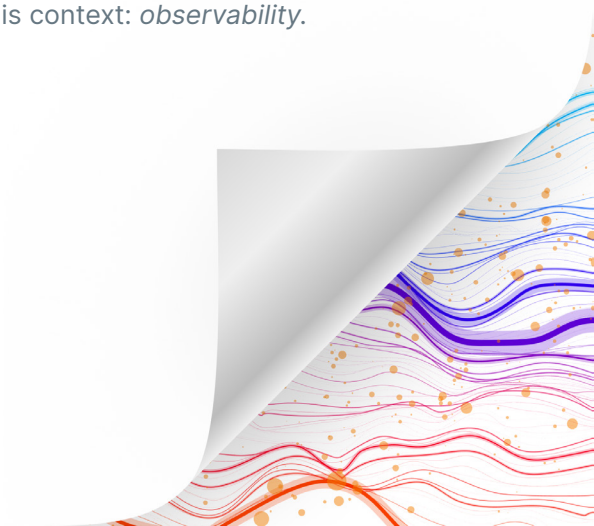
Finally, the IT management domain had clearly defined borders. There were operational elements within the control of IT, which was largely the limit of its responsibility.

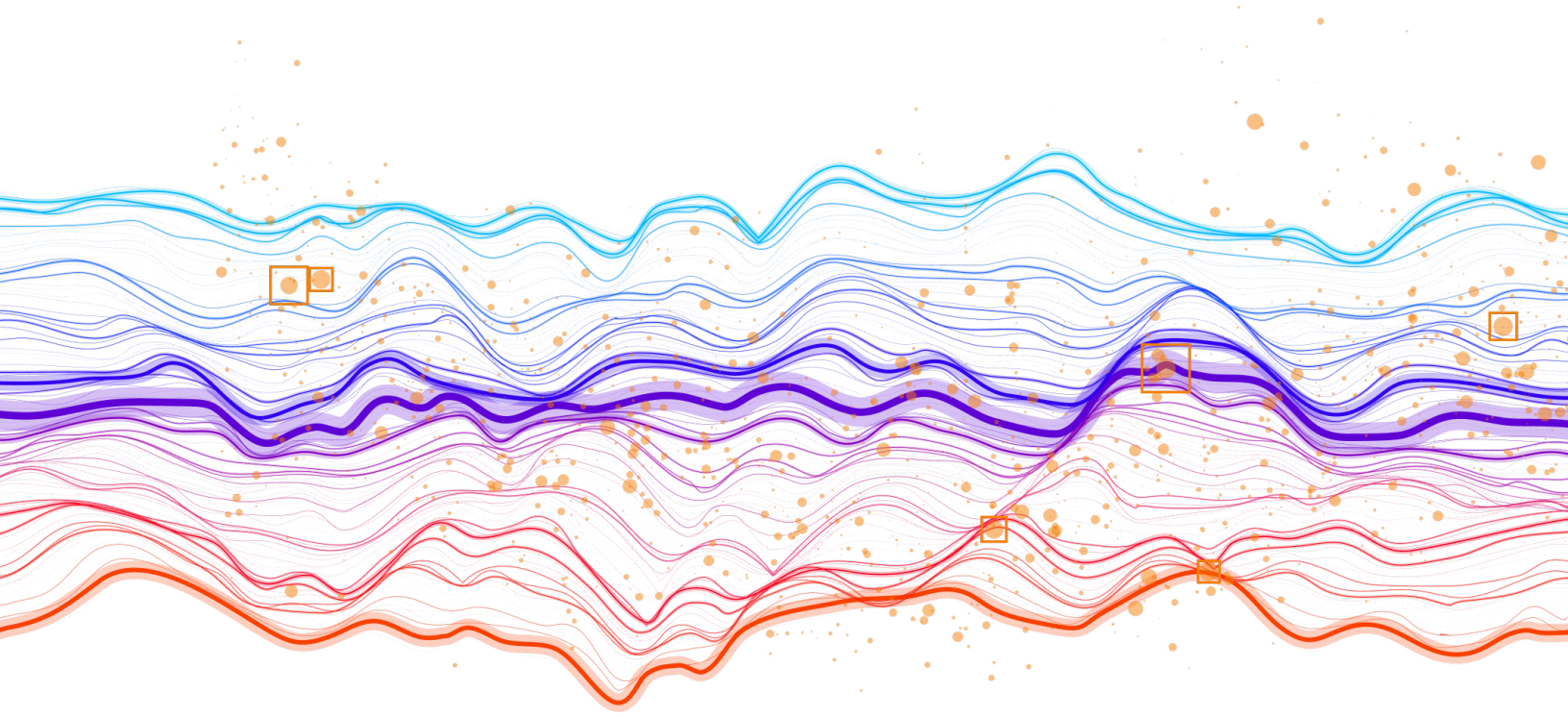
All of these operating paradigms have been unceremoniously thrown to the curb in the last several years. The problem is that most of the tools and processes the guide IT operations still function as if they hadn't been.

The modern IT organization needs to be highly proactive and must relentlessly improve its operational capability to respond rapidly and seamlessly to disruptive threats and opportunities. It must function *without* boundaries so that it can adapt and deliver services as the organization demands.

This new operational mandate will require that you be willing to adopt new processes and tools built for this new operating paradigm.

And one of the starting points is something that you've probably heard of, but may not have understood in this context: *observability*.





A New Approach that Brings it All Together: Observability

There's a good chance that you've read something about observability recently. It's getting hard to miss — and for a good reason.

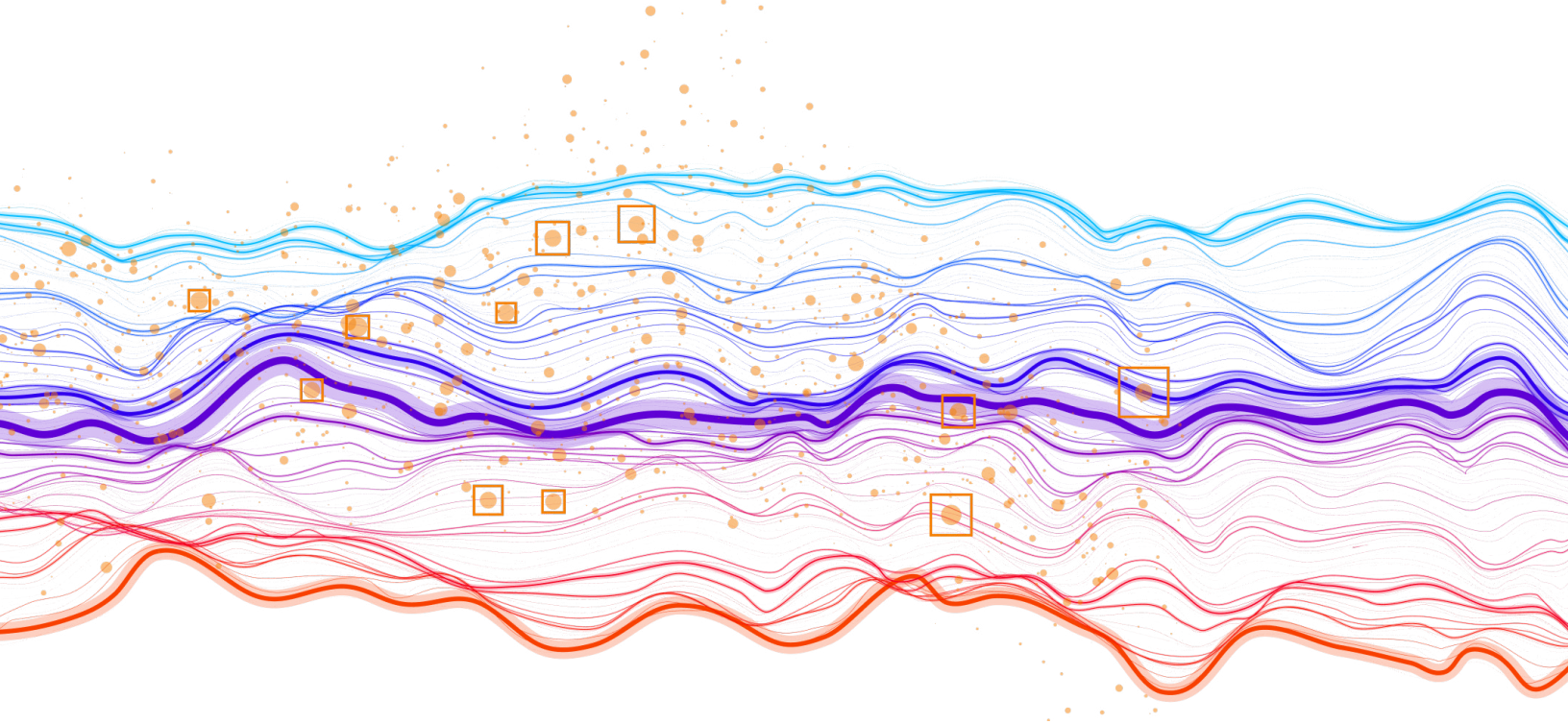
Observability is a new IT management approach that is part of this mandate shift.

Unlike traditional monitoring-based approaches to managing the technology stack, observability relies on a combination of telemetry, traces, and topological context to enable IT operations teams to "observe" the operational state of the technology stack.

This approach is critical because it produces a holistic view that is virtually impossible to create any other way. Moreover, because it doesn't rely on pre-established monitoring profiles and criteria, it is much more adept at handling the modern technology stack's dynamic nature and complexity.

One of the distinguishing characteristics of the new management paradigm is the ability to capture unforeseen events and warning signs. The dynamic and strategic nature of today's stack means that not only is it in a constant state of change, but what is critical to creating business value is also constantly shifting.

It has become unrealistic to believe that you can instrument every element of the stack that may pose a critical risk to the operational state — because now, everything is potentially critical. And even if you *could* instrument everything, maintaining that instrumentation would almost instantly consume all of your resources.



Adopting observability changes this paradigm.

The key, however, is that adopting this approach is not about just buying a new “observability” tool — despite the pitches you may get to that effect.

Adopting observability is about a fundamental shift in *how you approach* the management of the operational state, demanding that you collect far more data than you have in the past and then mine, analyze, and enrich it to identify operational risks and trends.

Doing so will lay the foundation for the broader shift you must make to balance your strategic and operational needs. But truly adopting this approach requires one more thing: bringing the entire operational model under one virtual roof.

This aggregation of the data to manage the operational state will be your secret sauce helping you solve two problems simultaneously. First, it will deliver a context-rich, end-to-end view that will allow your operational teams to rapidly pinpoint root-cause and rapidly resolve issues as or before they arise. Second, this newfound ability to dynamically manage your environment will offer you enabling the type of adaptability and agility necessary to strike that critical balance between strategic and operational needs.

The Intellyx Take: An Aggregated Future

While I mean this to be a hopeful story, there is a dark and cautionary note.

Fueled by the desire to sell a new generation of tools, there is too much talk about observability as simply a new tactic demanding a new class of technology to support it.

But that's not really the case.

Remember that observability is fundamentally a new approach that consumes and extends your current operational model to create this holistic and dynamic view of your operating state. That means that not only should you not attempt to "start from scratch," you really can't.

The bevy of monitoring and management tools you already have in production capture the essence of your current operational state. Therefore, the trick is to bring all of this data together under one virtual roof via virtual aggregation.

This approach does a couple of things. First, it doesn't force you to throw out current investments, undertake massive retraining efforts, or disrupt those aspects of your operational model that are working. Second, it creates extensibility that allows you to "build onto" rather than replace your current models, keeping the good and shoring up your gaps.

Finally, this approach avoids the rigidity of merely implementing yet another technology to replace the ones you already have.

Because of these benefits, leading organizations are turning to tools such as **StackState** that offer this sort of observability-powered context and adaptability.

While taking an aggregation approach can seem additive on the surface, it is, in fact, transformational. It allows you to consolidate all of your operational data into an abstraction layer that will enable you to see it in an entirely new light. This shift opens the door to an entirely new operating paradigm — which is precisely what you need if you are to balance your new strategic footing with the need to manage your dynamic and complex tech stack.

Ready to dive in?

Try it out today

Schedule demo