



INSIGHTS | TECH BRIEF

How Dynatrace and AWS Lead The Effort Of Application Modernization

The cloud is different. It offers unprecedented agility, scalability, and resiliency at levels unattainable by on-prem legacy enterprises. It is why organizations are shifting to the cloud in record numbers. In fact, Gartner predicts that with the cloud being so empowering, any technology service provider who fails to adapt to the pace of this cloud shift will risk to becoming obsolete in the near future.² However, it is important to note that transitioning from your on-prem legacy environment must also include abandoning many of the tried and true on-prem tools and management strategies not designed for the cloud. The cloud isn't just different in how it delivers application workloads. It must be managed and supported differently as well.

Application Modernization

To attain their desired objectives of scalability and performance for business-critical application portfolios, organizations are implementing application modernization strategies. The end goal? To ensure that applications meet current and future business needs. These strategies include what is referred to as the “Six Rs” of application modernization: Retiring, Retaining, Rehosting, Replatforming, Refactoring and Rearchitecting. Not all of these are to be implemented collectively, though. The chosen approach will depend on the prescribed objectives of the application.

The flexibility of the cloud allows your development teams to transition to an agile approach that allows them to increase the velocity of new feature deliveries and test them in real time using a DevOps approach. Only in the cloud can companies provide a user experience that customers have come to expect in this digital age. According to a recent Dynatrace CIO Complexity Report³:

- 53% of mobile users abandon a session if it takes longer than 3 seconds to load
- 79% of users will not return after a negative experience
- 75% of customers expect online help resolution within 5 minutes

User experiences can now be quantified, which means the performance and efficiency of your critical business applications must be quantified as well. Mere “up time” is no longer a sufficient measurement of success.

33%

of IT leaders
believe application
development/
replatform needs will
require the help of a
third party.¹



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The Paradox of Cloud Scalability

The powerful capabilities of the cloud are no secret today as 94% of enterprises use cloud services of some type⁴. The irony is that companies who migrate their applications to the cloud also go about managing, monitoring, and securing their cloud environments with the same approaches utilized in the on-prem world. That is the new paradox.

Traditional management and monitoring tools were designed for an era in which applications were hosted on individual VMs. That is no longer the case. Part of application modernization involves the transition to microservice and container environments, an architecture that 98% of development teams expect to eventually become the default practice. For further confirmation of this trend, IDC predicts that 90% of all apps will feature microservices architecture by the end of 2022.⁵

The ability to proliferate additional containers at will to meet increased application demand makes the manual approach to instrumenting, discovering, and monitoring applications completely outdated. Such laborious processes cannot keep pace with the dynamic nature of the cloud. In other words, not only has microservice cloud architectures out-scaled its on-prem environmental predecessor, but it has exponentially scaled the number of dependencies and generated data to levels that make it impossible for IT personnel to understand the entirety of these systems.

Monitoring vs. Observability

Not only does the cloud require new strategies and tools, but it also requires a new IT vocabulary in some cases. For decades, admin teams have used “monitoring tools” to track the health of their systems and applications. In most cases, this monitoring process is conducted using preconfigured dashboards that are used to pool predefined sets of metrics and logs. This data is conveyed to the admin teams to alert them of performance issues. These alerts, however, assume that one can predict the types of problems that will be encountered. The monitoring process is also dependent on a complex mix of agents deployed and configured across your monitored environment. The entire process tends to be manual and slow, which is why a lowly 5% of applications are monitored.⁶

Unfortunately, you cannot make assumptions about what

types of issues to monitor due to the cloud’s transitivity and complex nature. Monitoring itself is not enough for modernized applications. You need more than alerts in an age where resiliency and uptime are essential for your critical business applications. You need a comprehensive understanding of what is going wrong to remediate occurrences as quickly as possible.

That’s where observability comes in. Observability is about parameters, properties, and patterns that aren’t necessarily defined in advance. It is about not just telling you the “what” but the “why” as well. Observability uses telemetry data, AI, and automation working to provide actionable answers to what’s always happening in your application environment. It provides “next level” visibility into all facets of your single or multi-cloud environments.

Dynatrace and AWS

Amazon Web Services (AWS) is the world’s most comprehensive and broadly adopted cloud platform. Dynatrace is named a leader in the 2022 Gartner Magic Quadrant for Application Performance Monitoring and Observability. Together, they create a powerful combination for organizations considering an application modernization strategy. Dynatrace has been known as a pioneer regarding observability in highly dynamic cloud environments. Their AI and ML-driven technology captures and defines all the dependencies within your cloud hosting environment, creating a topological map of your complete environment that eliminates critical blind spots.

Through a single web interface, admins receive a holistic view of every component as well as a contextual understanding of the impact that the smallest change can have on your entire system. Their intelligent observability technology collects data from every facet of your application environment. This includes infrastructure components, containers, and microservices. This complete scope of visibility helps establish a single source of truth that admin teams can rely on. Combine this enhanced visibility with the ability to automate root cause detection processes and suddenly you find yourself resolving issues before they appear on anyone’s radar. This ensures an enhanced end-user experience. Because so much customer interaction now takes place in the cloud, an optimal application experience contributes to an optimal customer experience.

Conclusion

Thanks to Dynatrace, full stack application analytics and observability is fully achievable for your AWS-hosted application environments. Converting terabytes of data about your cloud application environment and converting it to real answers and actionable, intelligent automation, companies can maximize their modernized application strategies. It is a whole new level of empowerment that was never achievable in the legacy on-prem environments of yesteryear.

Talk To WEI Today

Dynatrace can optimize your cloud application environments because it was designed for the cloud. The cloud is different, and so is Dynatrace. Contact WEI to find out how Dynatrace can make a difference for your modernized applications today.

Sources:

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About WEI

WEI is an innovative, full service, customer centric IT solutions provider.

Why WEI? Because we care. We go further.

WEI is an expert in business technology improvement, helping clients optimize their technology environments and work efficiently. WEI works with clients to understand goals, integrate strategy with technology solutions, and leverage their current IT environment into one company-wide model to increase utilization and efficiencies around their unique business processes.