

REPORT REPRINT

Dynatrace pushes forward on autonomous cloud management and operations

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Summary

451 Research survey data shows that a majority of enterprise IT organizations plan to increase the amount of automation in their IT operations with concomitant spending increases, while a minority believe they have significant automation capabilities today. Dynatrace's software can materially reduce the task load for application and IT administrators, given the company's experience with operations management. It doesn't hurt that Dynatrace has been an enterprise-facing firm for its entire history, and has experience with highly complex IT environments (like SAP landscapes or mainframe workloads) being integrated with traditional vertical stack and distributed cloud-native applications.

451 TAKE

Raising IT operations IQ in a holistic fashion is necessary in order to realize a step change in efficiency and productivity in IT; otherwise, the potential of widespread use of containers, virtualized networking and Internet of Things (IoT) will be only partially realized. Dynatrace has made a viable start on addressing this trend, and its plan to cautiously advance semi-autonomous operations technology is promising. This advent of machine learning and autonomous operations in commercial enterprise-grade software and services is relatively new, but it is inevitable and, given its scale and depth of experience serving the enterprise, Dynatrace has the potential to be a leader in bringing intelligent automation to IT operations in a practical way.

Context

Originally founded in Austria in 2004, Dynatrace was acquired by Compuware for its application performance management (APM) capabilities and subsequently sold to investment firm Thoma Bravo, which spun it off in 2014 as an enterprise-grade IT monitoring and management platform. The firm says that it completely rewrote its platform and toolset, and piloted it under the brand Ruxit for about 18 months starting in 2014. It officially relaunched as Dynatrace in 2016. Now headquartered in Waltham, Massachusetts, Dynatrace says it has 1,700 employees globally and about \$500m in revenue.

Strategy

Dynatrace's claims on product are a mix of old and new, even in cloud. APM has been with us since almost the advent of computing, and was one of the first vendor responses to public cloud, culminating in some spectacular wins, like AppDynamics, and many other smaller successes and evolutions. It is a mature market space. Dynatrace says that APM remains core, but it has also brought in the beginnings of machine learning and semi-autonomous reaction capabilities, which it calls AIOps. The company says it now extends monitoring and management capabilities across a wide range of heterogeneous infrastructure choices, such as containers, public and private cloud environments, legacy datacenter infrastructure, PaaS, and hundreds of other software integrations, including critical enterprise operations platforms like ServiceNow.

Technology

Tooling and monitoring start at a fairly atomic level. Dynatrace says that it monitors microservices on individual hosts – individual threads running within a host operating system, of which many can be combined to make up a single application, as well as network attachment points, role-based access and user actions, code changes and logs, and performance and resource utilization. It has a continuous discovery and cataloging feature that automatically maps application and infrastructure topologies. Systems management firms like IBM, CA and BMC all have strategies that address automatic application mapping, but they do not extend across the multi-/eacross the multi/hybrid-cloud model in the same way that Dynatrace presents. Dynatrace can lay claim to a modern style of user experience (UX) and slick presentation that encompasses all of the domains listed down to code changes across the relevant public and private cloud platforms in one place.

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More interesting is the level of auto-remediation and tracing in place, which obviates many of the repeated manual processes involved in resolving performance issues. With a careful approach to determining causation from multiple directions, Dynatrace is effectively chipping away at processes that have stubbornly remained human-centric in the age of cloud by doing the repeatable manual labor in tracing issues to a high degree. The ability to set thresholds for remedial actions that include high-level actions like revoking code updates or allocating on-demand resources is on the roadmap. Dynatrace recently announced a major release of AIOps that opens the platform to ingest third-party data and metrics.

Competition

CA, BMC, HPE and IBM all lay claim to the next level of IT operations management across multiple clouds; most of them have long histories of legacy software and systems to support that set Dynatrace out. CA has a notable machine learning initiative for operations in play. Startups like Yotascale, C3 Automation, Sea Street, TenFour and others make legitimate claims to promoting intelligent semi-autonomous operations in a stateful fashion.

SWOT Analysis

STRENGTHS

Dynatrace has scale and broad reach among large enterprises, as well as demonstrably useful and productive operations software.

WEAKNESSES

Legacy customers demand attention and differentiation on machine learning, and operations is difficult at present.

OPPORTUNITIES

The opportunity here is in the billions of dollars - autonomous action operations will likely be as important as virtualization was in a past generation of IT change.

THREATS

Being early to market with a bunch of dedicated competitors, including nimble startups and entrenched big management vendors, is a challenge.