Vendor Profile

Turbonomic: Optimizing Workload Performance and Efficiency at Scale in Multicloud Environments

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IDC OPINION

Infrastructure innovations in the past four to five years have ushered a new architectural paradigm for modern workloads. These so-called cloud-native workloads are based on containers and microservices architectures; they even leverage serverless technologies in some cases. These modern workloads coexist with a mix of prevailing workloads that are monolithic, virtualized, and cloud connected, giving enterprises a wide, heterogeneous workload environment to manage and optimize. The migration, management, security, and optimization of all these workloads are certainly becoming more complex.

Turbonomic, a 10-year-old vendor that provides application resource management solutions, has expanded its portfolio to help businesses overcome this workload optimization challenge. Turbonomic has developed an artificial intelligence (AI)-driven automated platform that enables IT to better optimize and migrate workloads across hybrid cloud and multicloud environments. Its self-managing platform abstracts applications, VMs, containers, compute, network, and storage resources into a common data model. This model represents a market that Turbonomic can address.

Turbonomic solves the automation and optimization challenge by applying the economic principles of supply, demand, and price to manage IT resources. Moreover, thanks to its automated platform, Turbonomic can determine what actions to take and when to do them. As a result, its service can manage multicloud complexity at the lowest cost with the most predictable performance, as well as prevent revenue loss due to application downtime or performance degradation. Since Turbonomic's approach is simple and fresh, more competitors will likely join the market as well and, over time, the market will mature even more. But with its early-mover advantage, Turbonomic should be able to further leverage AI to give its service a competitive edge and credibility in the market.

The use of multicloud architectures is the norm for large enterprises; spending on cloud services is consuming a greater share of overall enterprise IT spend in Europe. Many European enterprises are creating cloud centers of excellence to better manage cloud spend and align usage, security, and compliance policies across the organization. Any solution that empowers European organizations to establish better mechanisms for managing multicloud environments and enhance workload performance, security, and efficiency will be welcomed. Turbonomic's technology is relevant and timely as enterprises execute rapidly in the next two to three years on their multicloud commitments.

IN THIS VENDOR PROFILE

This IDC Vendor Profile analyzes Turbonomic, one of the fastest-growing technology companies in the virtualization and cloud management space, trusted by thousands of enterprise organizations to maximize the value of their IT investments. This document examines the company's strategy, service offerings, and size, as well as future opportunities and challenges. It is also relevant to buyers of cloud professional services, financial investors, and investment analysts, as well as other stakeholders that play a key role in the evolution and growth of cloud.

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SITUATION OVERVIEW

IDC predicts that by 2020, 90% of European organizations will use multiple cloud services and platforms, but only 40% will have established mechanisms to operate their multicloud environments. In conversations with IDC, many IT leaders cite multicloud management as a key challenge and priority in the coming years as they want to move from "accidental multicloud" to "intentional multicloud." Multicloud management spans multiple aspects such as multicloud data management, multicloud security and governance, cost management, multicloud automation, infrastructure foundation, skills and process transformation, and workload optimization, portability, and management.

As cloud environments continue to become more complex, traditional tools and processes used to manage relatively static, tightly coupled IT infrastructure struggle to keep up with scaling, pooling, migrations, and rapid pace of change that are the hallmark of cloud IT operations.

Some multicloud management innovators – such as Turbonomic, RightScale, and Densify – are assisting enterprise IT and DevOps teams in managing multiple clouds by supporting collaborative governance; automating provisioning using reusable, standardized process, tools, and service-level agreements (SLAs); providing advanced, predictive performance analytics and capacity management; and streamlining chargeback, showback, and cost management activities.

Company Overview

Founded in 2009, when enterprise IT continued to heavily rely on VMs and public cloud was only just emerging as a disruptor, Turbonomic began crafting its vision for workload optimization.

Today, with more than 2,100 enterprise customers – primarily in the U.S. and Western Europe where use and appetite for multicloud architectures are high – Turbonomic adds value to customers by complementing customers' optimization and migration offerings. Its application resource management for hybrid and multicloud environments delivers enterprise organizations with automation that enables on-premise and public cloud to self-manage in real time, thereby assuring application performance while lowering cost and maintaining compliance with business policies. The platform matches workload demand to infrastructure supply, helping customers maintain a continuous state of application health.

Turbonomic's real-time, supply-chain modeling and analytics make workload capacity, cost, and placement trade-off recommendations across virtualized, private cloud, and public cloud infrastructure including VMware, Microsoft Azure, AWS, IBM Cloud, Docker, Kubernetes, Red Hat OpenShift, and OpenStack. Its AI-driven analytics and automation continuously maintains the environment in a consistent state by providing relevant infrastructure resources to applications to ensure consistent performance.

Simply put, the Turbonomic's platform applies the economic principles of supply and demand to manage IT resources. It automatically matches workload demand with infrastructure supply irrespective of where the infrastructure is (on-premise or in the cloud).

The platform's cloud and container capabilities further extend the vendor's positioning in optimizing workloads spanning any environment. Its recommendations can be understood and executed by a company's IT team either manually or in an automated way across the plan, build, and run life cycle of multicloud management and operations.

According to IDC's European Software Tracker data, 2019 Turbonomic achieved a revenue of $18 million in 2018 in Europe with a five-year compound annual growth rate (CAGR) of 36.7% from 2014 to 2018. This growth, along with winning multimillion-dollar deals at a number of the world's major banks, enabled Turbonomic to establish its services in the cloud management space.

Turbonomic's application resource management continuously analyzes workload consumption costs and compliance constraints. It also identifies workloads to generate and optimize actions to assure performance while reducing the costs of running an application. The ability to understand the applications across the hybrid cloud environment and their impact on the infrastructure on which they run provides Turbonomic the unique ability to help customers plan for complex migrations. Customers use Turbonomic to determine what it would take to move a single VM or an entire datacenter to a public cloud; Turbonomic provides migration cost and performance assessment and comparisons. IDC believes this knowledge can help enterprises mitigate risks while migrating workloads across infrastructure, and in many cases accelerate their cloud journeys with confidence.

Moreover, Turbonomic determines how many workloads are under- or oversized to determine what organizations will need to budget for a certain approach. It can fix all allocation issues before a customer migrates by providing actions to properly configure the environment where applications get only the resources they need to perform.

Company Strategy

Turbonomic provides specific placement, sizing, and provisioning actions that can be fully automated for 24 x 7 continuous health.

The vendor's customers report it can optimize workload density by a third without deteriorating application performance, thanks to the platform's continuous analytics of workload and resources. API-driven integration means IT teams can add new resources into the platform for monitoring and analytics. In IDC's opinion, this is critical as multicloud environments are highly dynamic and enterprises need the flexibility to bring in new resources as they try and experiment with newer technologies such as containers or a new cloud.

The company's key objective is to ensure customers of consistent high performance of any application with a best-fit infrastructure resource. Services are tailored to meet customers' needs whether they are at the initial rollout stage or already have Turbonomic deployed across the entire environment. With that said, Turbonomic's strategy also aims to accelerate cloud migrations, focusing on modern workload management for hybrid cloud and cloud native. From a business perspective, it focuses on modernizing datacenter infrastructure and operations, mitigating risk to business-critical applications, accelerating responsible cloud strategies, and optimizing public cloud spend.

Turbonomic won a $13 million deal with one of the world's leading banks and established strategic alliances with Microsoft Azure, AWS, Cisco, and DXC Technology to increase partner profitability and ensure better services and performance. This can help Turbonomic demonstrate the credibility of its technology as well as its commitment to building an ecosystem with major infrastructure vendors.

FUTURE OUTLOOK

Turbonomic's technology and strategy help position it as a viable contender in the hybrid cloud and multicloud management space. Its tech-savvy investors that provide the funding and expertise to support the company's goals also add credibility to its platform. In January 2017, Turbonomic closed $50 million in Series E funding led by General Atlantic, which convinced over 1,600 CIOs on Turbonomic's ability to manage almost 3.5 million dynamic workloads — both legacy and cloud-native — in real time, improving application performance while reducing costs.

IDC observes through our European end-user survey on multicloud trends that maintaining application performance and meeting business objectives are the main driving forces behind multicloud use. As enterprises steer their focus on management strategies that enable multicloud operations at scale, any solution that helps them in this journey will prove attractive. Turbonomic must continue innovating, adding new features and widening its ecosystem to plug as many multicloud management gaps as it can to deliver a more holistic management solution.

A key challenge for Turbonomic is to educate potential customers the value of its economic-based analytics approach and how it differs from other options available in the market. It must also be mindful of other multicloud management vendors such as RightScale that are addressing this market with governance as a starting point. Although there isn't direct competition, Turbonomic should be aware that different organizations have different levels of maturity in the varied dimensions of multicloud management, and that in Europe, it is most often skills, security and governance, or orchestration that are starting points before addressing workload optimization challenges.

ESSENTIAL GUIDANCE

Advice for Turbonomic

IDC's *Worldwide and Regional Public IT Cloud Services Forecast, 2018-2021* (IDC #US43625818, March 2018) shows that the European public IT cloud services revenue market will rapidly grow. In detail, the Western European market will reach a five-year CAGR of 22.7% from 2017 to 2021. IDC believes that the Western European market is a potential opportunity as it is forecast to achieve almost $54.5 billion in revenue in 2021, making it the second most important public IT cloud service market in the world. Moreover, the *Worldwide IT Automation and Configuration Management Software Forecast, 2019-2023* (IDC #US44889818, March 2019) shows that the IT automation and configuration management market will almost reach $1.7 billion revenue in EMEA in 2023, achieving a five-year CAGR of 2.9% from 2019 to 2023. With that said, the market will become even more competitive. Since Turbonomic is among the first companies to join this market, it has a huge advantage over other competitors, but it should continue to invest and innovate its services to compete.

Multicloud management represents a set of technologies that are used to consistently configure, provision, monitor, and optimize the use of all types of public and private cloud resources, as well as traditional IT, in a way that ensures consistent delivery of SLAs, security, and compliance policies while optimizing costs and promoting business agility. Multicloud management technologies support a range of functionalities, including:

- Cloud infrastructure configuration, provisioning, and life-cycle operations automation
- Cloud self-service catalogs and automation
- Cloud infrastructure and application performance monitoring
- Cloud workload scheduling, migration, and automation optimization
- Cloud IT operations and log analytics
- Cloud brokering and cost optimization analytics
- Cloud governance and policy management

Turbonomic must build its value by identifying the features it can add and the additional areas it can cover to broaden its appeal. It should also be nimble and accelerate its engineering efforts in areas that become more critical over others as it is still an evolving marketplace.

Beyond this, it should continue building more integrations. But its consistency in adding integrations with relevant platforms and technologies beyond the traditional hyperscalers is indicative of its intention in this space.

Lastly, Turbonomic should leverage the local knowledge and understanding of multicloud challenges in Europe from regional channel partners to be sensitive to specific European requirements such as GDPR compliance, tighter data protection, and ambitious and local public cloud appeal.

LEARN MORE

Related Research

- *Worldwide and Regional Public IT Cloud Services Forecast, 2018-2021* (IDC #US43625818, March 2019)
- *Worldwide IT Automation and Configuration Management Software Forecast, 2019-2023* (IDC #US44889818, March 2019)

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