

3 Steps to Assure Application Performance

turbonomic

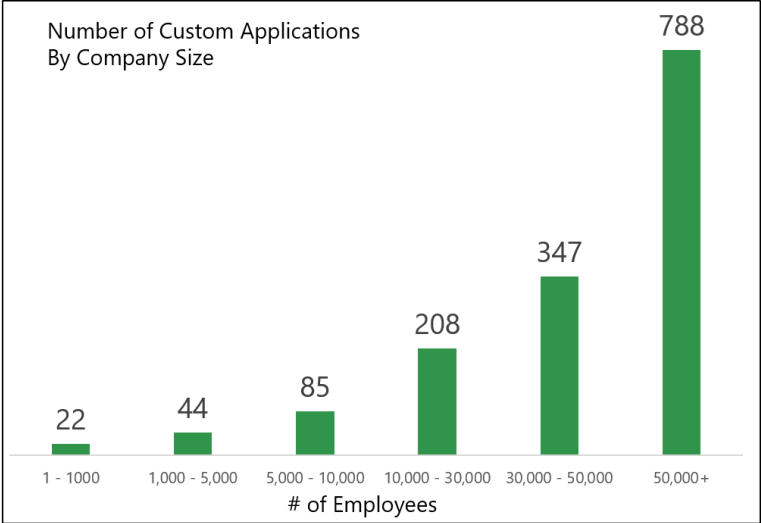
eBook

Introduction

As enterprises digitally transform, they are becoming software companies developing custom applications to deliver the best end user experiences. Across industries, the average enterprise has 469 custom applications deployed today.¹ These applications help enterprises engage with customers, suppliers and employees. The application innovation will continue as enterprises adopt new tools/platforms, DevOps methods, microservices architectures and cloud; 500 million new logical applications will be created, equal to the number built over the past 40 years.²

While digital transformation is the path to better end user experiences, applications fueling the digital transformation need to perform for the best outcomes. For many, assuring application performance is a challenge due to siloed operations, continuously evolving technologies, and reactive response to threshold-based performance alerts.

This eBook will explore the modern approach to assuring application performance where applications are continuously resourced to perform. The modern approach takes a top-down application driven approach using AI-Powered analytics with full stack automation to continuously resource applications to perform.



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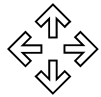
New applications will be created from 2018 to 2023

1. McAfee, Every Company is a Software Company
2. DC FutureScape – Worldwide IT Industry 2019 Predictions, October 2018, IDC #US44403818

Application Performance is Key for Your Business Success

Building and operating applications that perform and scale to millions of customers can present unique challenges. This results in unparalleled operational complexity and constant struggle beyond human scale assuring application performance and user experience. Applications power businesses. When they run well, your customers have a great experience and your development and infrastructure teams remain focused on their top initiatives. In today's world, applications are becoming more distributed and dynamic as enterprises embrace new development methodologies and microservices. The use of DevOps processes, containers, and microservices in a multicloud world are empowering development and IT teams to scale out and deliver applications faster to improve customer experiences.

Challenges Assuring Application Performance



Continuously Evolving Technologies, Services & Options

The adoption of multiple clouds, each with millions of configuration options, and container platforms requires specific skillsets that are in short supply, creating high-risk knowledge gap that prevents optimization of the newly adopted technologies and services.



Siloed Teams and Tools

The challenges related to siloed teams, tools and visibility are not new, however they exponentially increased as companies adopted new development methodologies and multicloud strategies. This leads to proliferation of tools, segmented and disjointed teams that lack end-to-end insight.

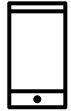


War Rooms to Keep Applications Running and Performing

The number of siloed teams, fragmented tools and data sets drives finger pointing and a slow, manual reaction time for teams to address performance issues. Many enterprises establish war rooms to identify the root cause of performance issues.

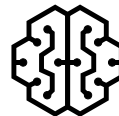
A New Approach to Assure Application Performance

The ever-growing complexities related to multicloud and cloud native cannot be overstated. The old processes, methods and tools are no longer effective in the age of rapid modernization, digital transformation and hyperscale. Applications are the core of every business and even a slightest millisecond delay in response time could lead to substantial revenue and reputation loss. Assuring application performance by continuously allocating the precise resources they need to perform requires a new way of operating.



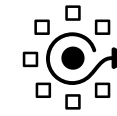
Application-Aware, Visibility and Insight

Bridge the gap between application development and infrastructure teams. Empower teams to automatically and continuously manage performance across the entire application and infrastructure stack in real-time using Service Level Objectives (SLOs). Let customer experience and application performance drive infrastructure resourcing decisions.



Trustworthy Decisions and Actions Powered by Analytics

Let software manage the performance of your applications. Today's applications and infrastructure stacks are complex, and it is humanly impossible to keep track of the different options and let alone understand the dependencies to optimize performance, cost while adhering to business constraints. Software can manage the complete application and infrastructure stack by providing real-time actions that ensure your applications always get the resources they need to perform.



Continuous Performance Assurance

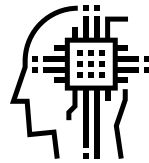
Prevent application performance issues by continuously taking actions to match infrastructure resources to application demand at every layer of the stack. Automated actions powered by analytics can prevent performance problems and minimize related troubleshooting. This will allow your development and infrastructure teams to spend less time reacting to alerts and fixing problems.

3 Steps to Assure Application Performance

Turbonomic AI-powered Application Resource Management (ARM) simultaneously optimizes application performance, compliance and cost in real-time. The software platform automatically identifies and executes right actions at the right time at every layer of the application and infrastructure stack in hybrid and multicloud environments. Applications get the exact resources they need to perform, continuously and in real-time.



Top-down, Application-Driven Approach: Turbonomic has visibility of the full technology stack, from applications to physical resources, so application demand can drive the right actions. Turbonomic can use application telemetry from APM tools such as response times and SLOs to drive resourcing decisions to assure application performance.



AI-Powered Analytics: Turbonomic stitches together each layer of the application and infrastructure stack. Resourcing decisions are directly tied to application demand and all relevant policies and constraints while understanding and considering available capacity. This ensures the best use of all resources through trustworthy actions that can be automated in real-time or integrated with exiting approval workflows.



Full Stack Automation: Turbonomic advanced analytics engine consumes various data sources, from every layer of the infrastructure or cloud through APIs, starting with application-level telemetry, infrastructure metrics, cost and discount mechanism on each cloud to generate trustworthy actions that can be automated to prevent performance degradation continuously.

Enable Your Teams to Do More

Turbonomic's modern approach for assuring application performance frees up your application and infrastructure teams to innovate faster driving better customer experiences and a competitive advantage. Key benefits of Turbonomic benefits are as follows:



Deliver the Best Customer Experience



Accelerate the Pace of Innovation



Improve Operational Efficiency

Turbonomic Use Cases

Turbonomic helps you with key innovation projects for your application and infrastructure teams with the following use cases.



Assure Application Performance

Assure applications continuously get the resources they need to perform.



Optimize Public Cloud

Assure application performance and efficiency in the cloud with AI-Powered Application Resource Management.



Modernize and Consolidate Data Center Projects

Consolidate and accelerate refresh projects to assure application performance.



Accelerate Cloud Native Initiatives

Adopt and continuously optimize containers to bring applications and services to market faster.

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