

# IBM Turbonomic for AWS

Continuously automate cloud optimization  
to enhance performance and cut costs



## Highlights

Automatically determine the correct EC2 instance type

Consider IOPS throughput for EBS

Continuously optimize for performance and cost for EKS

Deliver RI-aware scaling and purchasing recommendations

Consider storage and compute when generating RDS scaling actions

Determining the precise compute, storage and database configurations for cloud applications to achieve optimal performance at the lowest cost is nearly impossible—even for human experts proficient in DevOps, SRE or cloud technologies. Organizations often resort to over-allocating cloud infrastructure resources to mitigate the risks of application performance degradation. But that can lead to unnecessarily high cloud bills.

With the AI-powered automation and cloud optimization solutions included in the IBM® Turbonomic® platform, continuous improvement in application performance and cost optimization becomes achievable. Using the capabilities of IBM Turbonomic software, you can make smarter cloud investments which aligns with FinOps practices. The platform streamlines automation processes so your business can finally unlock the promised advantages of agility, elasticity and rapid speed to market.





### **Automatically determine the correct Amazon Elastic Compute (EC2) instance type for cloud application workloads**

IBM Turbonomic automatically identifies the correct EC2 instance type for cloud application workloads. With every compute scaling decision, the software considers a wealth of factors including vCPU, vMem, network and storage IO, throughput, RI inventory, pricing and discounts, disk count, quota, available region capacity, and more. It's the only solution that simultaneously considers IOPs, RIs and discounts which provides comprehensive support. Additionally, our software offers full-stack visibility including Graviton support.

### **Consider IOPS throughput for Amazon Elastic Block Storage (EBS)**

It's essential to focus on IOPS throughput for EBS. With IBM Turbonomic, you can accurately determine when to scale between cloud tiers to achieve optimal performance of both IOPS and throughput while achieving cost efficiency. Moreover, you can resize volumes up or down and optimize performance in terms of IOPS and throughput. It's also possible to adjust the capacity of IOPS and throughput limits for EBS io1 and io2. Increasing volume sizes can improve performance, and identifying and deleting unattached volumes means you can use resources more efficiently.

### **Continuously optimize for performance and cost for Amazon Elastic Kubernetes service (EKS)**

Continuous optimization for EKS is crucial and IBM Turbonomic can improve performance and lower costs through generated actions, including container rightsizing, pod moves, cluster scaling and planning. IBM Turbonomic automates resource allocation to uphold application performance while helping minimize costs. This solution understands the costs associated with your EKS clusters and takes actions to reduce them like suspending unnecessary nodes and responsibly executing scaling actions.

### **Deliver Amazon EC2 Reserved Instances (RI) aware scaling and purchasing recommendations**

IBM Turbonomic generates RI-aware EC2 scaling actions that effectively increase the utilization of existing RI inventory. It can also generate demand-based RI purchasing actions to maximize reservation-to-VM coverage. That means you get efficient utilization of reservations based on actual demand.

### **Consider storage and compute when generating Amazon Relational Database Service (RDS) scaling actions**

IBM Turbonomic takes into account both storage and compute resources when generating scaling actions for RDS. The software continuously analyzes factors such as vCPU, vMem, database cache hit rate, storage amount and IOPS. Based on this analysis, it generates specific scale up and scale down actions. These actions may involve adjustments in the compute tier, storage tier, storage amount, provisioned IOPS for the io1 storage type or a combination of all of them. IBM Turbonomic supports a wide range of databases including Amazon Aurora, MySQL, Maria DB, PostgreSQL, Oracle and Microsoft SQL server, allowing organizations to effectively scale and optimize their RDS deployment.

**Conclusion**

By harnessing the AI-powered automation and cloud optimization of IBM Turbonomic, your organization can look forward to maximum performance at minimum cost. Help your business make intelligent cloud investments with the help of IBM Turbonomic software. The platform streamlines automation helping you achieve enhanced agility, elasticity and faster speed to market.

**Why IBM?**

IBM is one of the few companies with AI-powered automation capabilities that bridge business and IT. IBM clients use these technologies to continuously and automatically achieve better application performance and governance across hybrid and multicloud environments. IBM offerings are designed to help you fully automate actions so applications get what they need to perform while adhering to your specific business policies.

**For more information**

To learn more about IBM Turbonomic, please contact your IBM representative or IBM Business Partner, or visit [ibm.com/products/turbonomic](https://ibm.com/products/turbonomic).

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Produced in the  
United States of America  
August 2023

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