

# **Elasticsearch Service**

# **ES Serverless Guide**

## **Product Documentation**





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### Industry Challenges

When using open-source Elasticsearch for log analysis, users often need to estimate cluster configuration based on write traffic, peak write, and storage days, including CPU, memory, and disk size, to ensure smooth business operation. However, as per extensive online operational experience, this method has the following problems: Elastic capability is difficult to adapt to business development. In scenarios such as big promotions and holidays, log data presents obvious peak and trough effects, high write throughput, and high availability requirements, and it is impossible to predict sudden read-write traffic and scale out a cluster in advance, making it difficult to ensure the stability of the Elasticsearch cluster.

Resource costs are high. Insufficient resources affect traffic write during peak periods, and planning cluster capacity based on peak traffic results in resource redundancy and waste during off-peak periods, leading to high costs. Operations and management costs are high. Enterprises need to plan and configure clusters and indices, and build monitoring and alert platforms. Moreover, enterprises have a strong demand for optimizing Ops and management costs with the focus on cost reduction and efficiency improvement, aiming to further reduce these expenses.

### Overview

Elasticsearch Serverless service is a one-stop, fully managed Elasticsearch service built by Tencent Cloud based on its proprietary cloud-native Serverless technology architecture. It offers automatic scalability and a completely maintenance-free product capability, effectively addressing the problems of high resource costs caused by peaks and troughs in log analysis, metric monitoring, and other business scenarios. Meanwhile, it is fully compatible with the ELK ecosystem, featuring end-to-end data access, data management, and data visualization product features, providing an out-of-the-box product experience.

At the Enterprise Cloud Adoption and Cloud Computing Integration Industry Conference held on March 29, 2023, Tencent Cloud Elasticsearch Serverless service was awarded the "2022 Trusted Computing Power Service · Leadership Plan" Excellent Case Award.

#### **Benefits and Features**

Auto Scaling: It features automatic index-level AS to smoothly handle unexpected traffic growth, reducing high Ops and management costs during peaks and troughs in scenarios like log analysis and observability while ensuring business continuity.

Completely Ops-free: Built-in automatic sharding optimization, intelligent lifecycle management, and failures selfhealing capabilities allow users to create and use indices as needed without worrying about underlying resource configuration, cluster scaling, and index settings, ensuring a completely Ops-free experience.

Cost-saving: Self-developed, low-cost, high-performance, and high-availability storage-compute separation architecture charges based on actual access and storage volumes, enabling pay-as-you-go in the scenario of dynamic matching of service load and resources. This reduces redundant cost expenditures due to idle resources, significantly lowering costs.

Flexible and easy to use: It provides end-to-end one-stop product capability featuring data access, data management, and data analysis and exploration, significantly lowering the barrier to business cloud adoption. Users can achieve minute-level business implementation.

Open integration: It is fully compatible with the ELK ecosystem and retains users' original usage habits, ensuring seamless migration and facilitating rapid cloud adoption. Meanwhile, it connects cloud data sources (such as CVM and TKE) to lower the data access threshold, achieving minute-level business implementation.

Stable and reliable: Cluster configuration and read-write performance are optimized by the backend, reducing fault issues caused by improper use, enhancing stability, and safeguarding business operations.

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