

Elasticsearch

Quick Start

Quick Start

Prerequisites

Access Elasticsearch from the Internet

You can use a **public address** to access an Elasticsearch instance from the Internet. For more information, see [Elasticsearch basics](#).

Note:

To access an Elasticsearch instance from the Internet, you must first create a **public address whitelist**. By default, no public addresses are allowed to access Elasticsearch.

Access Elasticsearch from an intranet

You can use a **private address** to access an Elasticsearch instance from an ECS instance in a VPC. For more information, see [Elasticsearch basics](#).

Note:

Information security is not guaranteed when you access an Elasticsearch instance from the Internet. To secure access to Elasticsearch, we recommend that you purchase an ECS instance that meets the requirements described in the following [purchase instructions](#) and use a **private address** to access the Elasticsearch instance from a VPC.

Purchase instructions

Before you purchase an Elasticsearch instance, make sure that you have created a VPC and VSwitch in the same region as the Elasticsearch instance.

If you choose to access an Elasticsearch instance from an ECS instance, make sure that the Elasticsearch instance and ECS instance are in the same region.

- If your Alibaba Cloud ECS instance is deployed in a VPC, make sure that the ECS instance and your Alibaba Cloud Elasticsearch instance are connected to the same VPC.
- If the network type of your ECS instance is Classic, make sure that the instance meets the requirements as described in **VPC network segments** of **Classic network errors**

You can only select VSwitches in the same zone, region, and VPC as the Elasticsearch instance.

- You must create a VSwitch if no VSwitch is available in the zone and VPC where the Elasticsearch instance resides.
- Make sure that the number of VSwitch IP addresses is no less than 256. Otherwise, the system displays a message indicating insufficient private IP addresses.

Notes:

-If your Alibaba Cloud Elasticsearch instance and ECS instance share the same VPC and region but reside in different zones, you must create a VSwitch in the zone where the ECS instance resides to ensure that the ECS instance can access your Elasticsearch instance.

- New Elasticsearch users can choose to purchase free trial Elasticsearch instances for testing.

Elasticsearch Subscription

All discounts for Alibaba Cloud Elasticsearch instances are offered based on the subscription duration that you have specified.

You can request a refund within five days after you have purchased an Elasticsearch instance. Refund is not supported after five days from the date of purchase.

Elasticsearch instance types

Alibaba Cloud has provided multiple types of Elasticsearch instances. The 1-Core 2 GB instances are only for testing purposes. These instances are not suitable for production. An Elasticsearch instance with the minimum specification consumes a large amount of resources and may cause service instability in production. In addition, the 1 Core 2 GB specification is not covered by the Elasticsearch Service Level Agreement (SLA). For more information, see **Pricing**.

- If you are using a 1-Core 2 GB Elasticsearch instance in production, we recommend that you upgrade the instance to ensure the stability and availability of your service.
- The minimum specification for Elasticsearch instances used in production is 2-Core 4 GB.

Purchase Elasticsearch instance disks

Before determining the disk size of an Alibaba Cloud Elasticsearch node you want to purchase, learn about what type of data is saved in the disk. Determine the disk size based on your business requirements.

We recommend that you preserve disk space for storing the system logs when selecting an Elasticsearch instance disk. System logs include the running log and monitoring log.

Data types

Notes:

Before you purchase an Elasticsearch instance disk, make sure that the disk has enough space to store Elasticsearch cluster logs and X-Pack monitoring indexes.

- User data that has been pushed to Elasticsearch.
- Elasticsearch replicas. The number of replicas is user-configurable. However, Elasticsearch will retain a minimum of one replica.
- Elasticsearch cluster logs. The amount of storage space that Elasticsearch consumes increases with the number of queries and pushes that Elasticsearch has received. By default, Elasticsearch only keeps cluster logs for seven days after creation. Elasticsearch cluster logging is not currently available.
 - Running log
 - Access log
 - Slow query log
- X-Pack monitoring indexes for troubleshooting exceptions. X-Pack is an Elasticsearch component. Monitoring indexes include the following:
 - .monitoring-es-6-2018.01.08. The indexes consume a large amount of storage space. Elasticsearch creates only one index each day and keeps indexes for seven days after creation.
 - .monitoring-kibana-6-2018.01.08. The amount of storage space that the indexes consume increases with the number of the indexes. Elasticsearch creates only one index each day and keeps indexes for seven days after creation.
 - .watcher-history-3-2018.01.08. The indexes consume only a small amount of storage space. Elasticsearch creates only one index each day and keeps all indexes that have been created. You must manually delete the indexes that you no longer need.

Note:

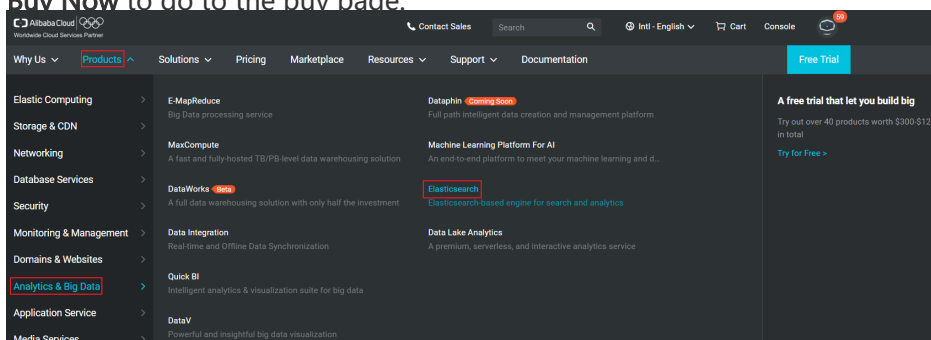
When an Elasticsearch instance has a high disk usage, such as a disk usage higher than 80%, the Elasticsearch cluster health status changes to yellow or red, and the Elasticsearch instance cannot

be restarted. To restart an Elasticsearch instance, make sure that the health status of the instance is green. For more information, see [Instance management](#).

Purchase and configuration

1. Purchase Elasticsearch products

You can find the Alibaba Cloud Elasticsearch product page from the Alibaba Cloud product navigation. You can also visit the Alibaba Cloud Elasticsearch product page directly. Click **Buy Now** to go to the buy page.



Select the corresponding configuration, VPC, VSwitch, and specification based on your business needs. For more information, see [Purchase interface parameters](#).

Note:

If you have not activated the VPC or VSwitch service, refer to [Virtual Private Cloud](#) under the VPC topic. If you have activated the VPC and VSwitch services, you can directly use the services.

Follow the instructions on the page to complete the configuration and then click **Buy Now**. You will be redirected to the order confirmation page. Confirm the information, agree to the terms of service, and click **Activate**. The page will display that your service has been successfully activated.



Elasticsearch

Regions

Product Updates

Instances

Create

Quick Alarm

Refresh

Instance Name

Enter the search content

🔍

Instance ID/Name	Status	Version	Nodes	Instance Type	Zone	Billing Method	Network Type	Created At	Actions
<div> <div>elasticsearch-2023-04-11-01</div> <div>elasticsearch-2023-04-11-01</div> </div>	Running	5.5.3_with_X-Pack	2	1 Cores 20 200GB SSD	cn-hangzhou-f	Pay-As-You-Go	VPC Network	7 days ago	<div>Manage</div> <div>More</div>

Items per Page

10

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1

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Before importing data to the activated Elasticsearch instance, you must manually create indexes and mappings. Errors may occur if the indexes and mappings are not created at the same time. For example, if data is being imported to the instance after you have deleted the existing index mappings on the instance, the instance will automatically create index mappings that do not meet your requirements. This may cause errors.

To prevent this problem, the **Create Index Automatically** feature is disabled by default. You must first create indexes and mappings before importing data. Otherwise, an error will



If your business depends on the auto index creation feature, you can enable it by modifying the **YML Configurations** on the **Elasticsearch Cluster Configuration** page in the Alibaba Cloud Elasticsearch console, and then restart the instance for the changes to take effect.

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Note:

The default Alibaba Cloud Elasticsearch account is elastic, and its password is the one that you have set on the buy page. The password is the same as the one that is used to log on to Kibana. For more information about importing data and testing the search function, see [Elasticsearch service testing](#).

2. Configure monitoring and alerts

Alibaba Cloud Elasticsearch allows you to monitor instances and supports SMS message alerts. Elasticsearch also allows you to set an alert threshold. For more information, see [Elasticsearch CloudMonitor and alerts](#). Elasticsearch supports the following metrics:

- Cluster status
- Cluster query QPS (count/second)
- Cluster write QPS (count/second)
- Node CPU utilization (%)
- Node disk utilization (%)
- Node HeapMemory utilization (%)
- Node load_1m

3. Elasticsearch access configuration

Access methods

- Search for data using the Kibana console integrated in the Alibaba Cloud Elasticsearch console.
- Search for data using a user application or the cURL command line tool. You must deploy the application or install the cURL command line tool on an Alibaba Cloud ECS instance that shares the same VPC with your Alibaba Cloud Elasticsearch instance. The ECS and Elasticsearch instances must be in the same region.

Precautions for ECS-based access

- If your ECS instance is in a classic network, configure ClassicLink for Elasticsearch access. For details, see [Classic network access FAQ](#).
- ClassicLink supports only unidirectional access from a classic network to a VPC and does not allow bidirectional access between the two networks.

ECS-based access (optional)

- If you have purchased an Alibaba Cloud ECS instance (in the same region as your Alibaba

Cloud Elasticsearch instance) under the VPC of Alibaba Cloud Elasticsearch, you can use this ECS instance as the client to deploy the user program or install the cURL command line tool for search.

If you do not have a qualified Alibaba Cloud ECS instance, purchase one in the same VPC as your Alibaba Cloud Elasticsearch instance. Select the required instance type on the [Elastic Compute Service](#) page.

- ECS products purchased in the same VPC as Alibaba Cloud Elasticsearch are used to deploy user applications. They can be used as clients.
- If no ECS product is available in the same VPC as Alibaba Cloud Elasticsearch, you can still test the search function using the Kibana console. You can also choose to buy an ECS product in the same VPC.

ECS cURL-based access (optional)

Log on to the ECS instance in the same VPC as the Elasticsearch cluster through SSH, and install the cURL command line tool on the instance. Add cURL to the environment variables and use it to access the Alibaba Cloud Elasticsearch service remotely.

4. Configure the Elasticsearch blacklist and whitelist

Alibaba Cloud Elasticsearch provides an X-Pack plug-in of the enterprise edition to enhance the security when you access a node through the URL of your Alibaba Cloud Elasticsearch instance. You can create an IP blacklist and whitelist to control the access to an Elasticsearch instance. For more information, see [Advanced configuration](#).

Purchase interface parameters

Billing method

Subscription

Purchase instructions:

All discounts for Alibaba Cloud Elasticsearch instances are offered based on the Subscription duration that you have specified.

You can request a refund within five days after purchasing an Elasticsearch instance. Refunds are

not supported after five days from the date of purchase.

Elasticsearch (Subscription)

Subscription	Pay-As-You-Go
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- If auto renewal is disabled, you must manually renew your instances in the console. For more information about overdue payments, see [Overdue payments](#).
- Instances cannot be manually released in the console.
- Auto renewal is supported and disabled by default. For more information, see the **Auto renewal** section in this topic.

Pay-As-You-Go

Notes:

We recommend that you purchase Alibaba Cloud Elasticsearch instances using the **Pay-As-You-Go** billing method for testing in the development and testing stage.

Elasticsearch (Pay-As-You-Go)

Subscription	Pay-As-You-Go
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- This billing mode supports automatic renewal ([Overdue payments](#)).
- You can click **More** and then select **Release** to manually release Elasticsearch instances.

Regions

region	Region	China (Hangzhou)	China (Beijing)	China (Shanghai)	China (Shenzhen)	Asia Pacific SOU 1 (Mumbai)	Asia Pacific SE 1 (Singapore)
		China (Hong Kong)	US West 1 (Silicon Valley)	Asia Pacific SE 3 (Kuala Lumpur)	Germany (Frankfurt)	日本	亚太东南 2 (澳大利亚)
	Zone	Hangzhou Zone B ▼					

Regions and zones

Alibaba Cloud Elasticsearch supports the following regions and zones:

- China (Hangzhou): Zone B and Zone F
- China (Shanghai): Zone B and Zone D
- China (Beijing): Zone E

- China (Shenzhen): Zone C
- Hong Kong: Zone B and Zone C
- US (Silicon Valley): Zone A and Zone B
- India (Mumbai): Zone A
- Singapore: Zone A and Zone B
- Malaysia (Kuala Lumpur): Zone A and Zone B
- Germany (Frankfurt): Zone A and Zone B

Instances

Version	<div>5.5.3 with X-Pack</div> <div>6.3 with X-Pack</div>
Network Type	<div>VPC</div>
VPC	<div>.vpc</div> <div>Create VPC/Subnet (Switch). Refresh the page after the creation is complete</div>
VSwitch	<div>vswitch111</div>
Instance Type	<div>1Core2G</div> <div>1Core2G Instance type is intended for testing only. It is not suitable for the production environment and is excluded from the SLA after-sales guarantee.</div>
Amount	<div>2</div> <div>Two node cluster has the risk of split-brain, please choose very carefully</div>
Username	<div>elastic</div> <div>Used to access Elasticsearch and log on to Kibana.</div>
Password	<div>Please enter your password</div> <div>The password can be 8 to 32 characters in length and must contain three of the following conditions: uppercase letters, lowercase letters, numbers, and special characters (!@#%*&*()_+~).</div> <div>Please confirm your password</div>



The screenshot shows the configuration page for an Elasticsearch instance in the Alibaba Cloud console. The page is titled 'Instance' on the left sidebar. The configuration is divided into two main sections: 'Dedicated Master Node' and 'Client Node'. Under 'Dedicated Master Node', there are options for 'Dedicated Master Node' (checked), 'Dedicated Master Nodes' (3 (default)), 'Dedicated Master Node Specifications' (2 Cores 8 GB), 'Dedicated Master Node Disk Type' (SSD), and 'Dedicated Master Node Storage' (20 GB). Under 'Client Node', there are options for 'Client Node' (checked), 'Client Nodes' (2), 'Client Node Type' (2C 8GB), 'Client Node Storage Class' (Efficient cloud disk), and 'Client Node Storage Space' (20G).

Configuration Item	Value
Dedicated Master Node	<input checked="" type="checkbox"/>
Dedicated Master Nodes	3 (default)
Dedicated Master Node Specifications	2 Cores 8 GB
Dedicated Master Node Disk Type	SSD
Dedicated Master Node Storage	20 GB
Client Node	<input checked="" type="checkbox"/>
Client Nodes	2
Client Node Type	2C 8GB
Client Node Storage Class	Efficient cloud disk
Client Node Storage Space	20G

Versions

Alibaba Cloud Elasticsearch supports the following versions. You can select a version based on your business needs:

- Elasticsearch 6.3.2 with X-Pack (recommended).
- Elasticsearch 5.5.3 with X-Pack.

Release notes:

- [Elasticsearch 6.3.2 release notes](#).
- [Elasticsearch 5.5.3 release notes](#).

Network types

Elasticsearch currently only supports the **VPC** network type.

VPCs

Select a VPC in the corresponding region.

Note:

- If you want to use an Alibaba Cloud ECS instance to access your Alibaba Cloud Elasticsearch instance in a VPC, make sure that the ECS instance and Elasticsearch

instance are connected to the same VPC.

VSwitches

After you have specified a VPC, only VSwitches in the supported zones of the region where your Elasticsearch instance resides are displayed.

- If no VSwitch is available in the supported zones, you must manually create a VSwitch in one of the supported zones.
- Make sure that the number of VSwitch IP addresses is no less than 256. Otherwise, the system displays a message indicating insufficient private IP addresses.

Password

When purchasing an Alibaba Cloud Elasticsearch instance, you must set the password for the elastic account. The password cannot be empty.

Logon username

By default, the elastic account is used to log on to Alibaba Cloud Elasticsearch instances and the Kibana console.

Notes:

If the elastic account is used to log on to your Alibaba Cloud Elasticsearch instance, it may take a certain period of time for the new password to take effect. During this period of time, you may not be able to access your service. Therefore, we recommend that you do not use the elastic account to access your service. You can create a user role in the Kibana console to access your service.

Logon password

Set a password for the elastic account according to the password rules.

Specification families and instance types

The following table shows the supported specification families and instance types. For more information about pricing, see [Pricing](#).

Specification family	Instance type
Cloud disk type	1-Core 2 GB (testing only), 2-Core 4 GB, 2-Core 8 GB, 4-Core 16 GB, 8-Core 32 GB, 16-Core 32 GB, and 16-Core 64 GB.
Local SSD type	8-Core 32 GB (894 GB of disk space) and 16-Core 64 GB (1,788 GB of disk space).

Local SATA type	8-Core 32 GB (22,000 GB of disk space) and 16-Core 64 GB (44,000 GB of disk space).
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Note:

The 1-Core 2 GB instances are only for testing purposes. Do not use them for production purposes. The SLA does not cover these instances.

Amount

The number of data nodes that you need to purchase.

Caution:

- You must purchase a minimum of two data nodes. Exercise caution because a cluster that contains only two data nodes may experience split-brain syndrome.

Note:

- The default number of data nodes is 3. Valid values: 2 to 50.

Dedicate master nodes

You can select **Dedicated Master Node** on the Alibaba Cloud Elasticsearch buy page and then purchase dedicated master nodes for your Elasticsearch instance. You can also purchase or scale up dedicated master nodes on the cluster expansion page. We recommend that you purchase dedicated master nodes to improve the stability of your service.

Alibaba Cloud Elasticsearch supports the following types of dedicated master nodes. For more information about pricing, see [Pricing](#).

- 1-Core 2 GB (currently unavailable)
- 2-Core 8 GB (default)
- 4-Core 16 GB
- 8-Core 32 GB
- 16-Core 64 GB

Notes:

The minimum dedicated master node specification that you can purchase on the Alibaba Cloud Elasticsearch instance buy page or cluster expansion page is 2-Core 8 GB. If you have already purchased dedicated master nodes with a specification higher than 1-Core 2 GB, the Dedicated Master Node option on the cluster expansion page will be automatically selected.

You can select **Dedicated Master Node** on the Alibaba Cloud Elasticsearch instance buy page to purchase dedicated master nodes. The dedicated master nodes will be billed based the specification that you have selected.

You can select **Dedicated Master Node** on the cluster expansion page to purchase dedicated master nodes. You can also upgrade the **Dedicated Master Node Specification**. The dedicated master nodes will be billed based on the new specification that you have specified. If you are using free dedicated master nodes, they will be billed after you upgrade their specification.

If you have purchased dedicated master nodes when purchasing an Alibaba Cloud Elasticsearch instance but the **Dedicated Master Node** option on the cluster expansion page is not selected, this means that dedicated master nodes that you have purchased are 1-Core 2 GB.

Notes:

- If you have purchased 10 or more data nodes, the dedicated master node feature is disabled by default.
- The default number of dedicated master nodes is 3 and cannot be changed.
- The default dedicated master node specification is 2 Core 8 GB. You can change the specification based on your business needs.
- The default storage type of dedicate master nodes is SSD and cannot be changed.
- The default storage space specified for each dedicated master node is 20 GB and cannot be changed.
- You cannot delete the dedicated master nodes that you have purchased.
- You cannot scale down the dedicated master nodes that you have purchased.

Client node

For CPU intensive services, we recommend that you purchase client nodes to share the load on the data nodes so that you can improve the performance and stability of your service. For example, you can use client nodes to share the load if too many aggregation operations are performed. For more information about client nodes, see [Official Elasticsearch node types](#). For more information about pricing, see [Pricing](#).

Notes:

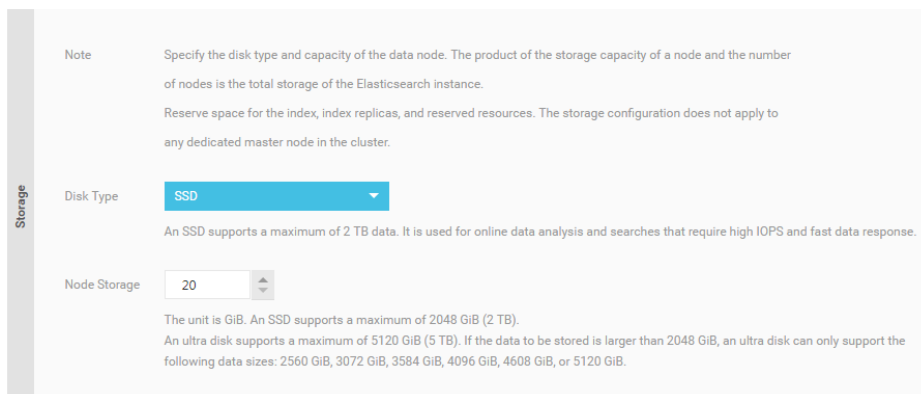
To purchase client nodes, select the **Client Node** option on the Alibaba Cloud Elasticsearch instance buy page. The client nodes will be billed based on the specification that you have specified.

You can select the **Client Node** option on the cluster expansion page to purchase client nodes or upgrade the **client node specification**. After the client nodes are upgraded, they will be billed based on the specification that you have selected.

Notes:

- The default number of client nodes is 2. Valid values: 2 to 25.
- The default client node specification is 2-Core 8 GB and cannot be changed.
- The default storage type of client nodes is ultra disk and cannot be changed.
- The default storage space specified for each client node is 20 GB and cannot be changed.
- You cannot delete the client nodes that you have purchased.
- You cannot scale down the client nodes that you have purchased.

Storage



Note

Specify the disk type and capacity of the data node. The product of the storage capacity of a node and the number of nodes is the total storage of the Elasticsearch instance.

Reserve space for the index, index replicas, and reserved resources. The storage configuration does not apply to any dedicated master node in the cluster.

Disk Type

SSD

An SSD supports a maximum of 2 TB data. It is used for online data analysis and searches that require high IOPS and fast data response.

Node Storage

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The unit is GiB. An SSD supports a maximum of 2048 GiB (2 TB).
An ultra disk supports a maximum of 5120 GiB (5 TB). If the data to be stored is larger than 2048 GiB, an ultra disk can only support the following data sizes: 2560 GiB, 3072 GiB, 3584 GiB, 4096 GiB, 4608 GiB, or 5120 GiB.

Storage types

SSDs (default)

Each SSD can provide up to 2 TB of storage space. SSDs can be used in online analysis and search scenarios that require high input/output operations per second (IOPS) and fast response.

Ultra disks

Each ultra disk can provide up to 5 TB of storage space. Ultra disks are cost-effective and can be used in scenarios such as logging and analyzing large amounts of data.

Ultra disks larger than 2 TB cannot be expanded because they are ran in disk arrays or RAID 0.

Node storage

SSD:

- An SSD can provide up to 2048 gigabytes (2 TB) of storage space.

Ultra disk:

- An ultra disk can provide up to 5120 gigabytes (5 TB) of storage space. When the storage space that you specify exceeds 2048 gigabytes, only 2560 GB, 3072 GB, 3584 GB, 4096 GB, 4608 GB, and 5120 GB are available.
- For Alibaba Cloud Elasticsearch instances that have already been purchased, if the disks are smaller than 2 TB, you can only expand them up to 2 TB. If the disks size are larger than 2 TB, you cannot expand their disk size.

Duration

You can slide to select a subscription duration to meet your business needs. Supported subscription durations: 1 to 9 months and 1 to 3 years.



Duration (Subscription)

The **default subscription duration is one year** for **Subscription**-based Alibaba Cloud Elasticsearch instances.

Automatically renew a storage package

Subscription-based Alibaba Cloud Elasticsearch instances support auto renewal. By default, the auto renewal feature is disabled.

- You can select the **Auto Renewal** option on the buy page to enable it.
- You can enable the auto renewal feature for your purchased Alibaba Cloud Elasticsearch instances on the **Renewal** page.

Notes:

Monthly Subscription: the auto renewal cycle is one month.

Annual Subscription: the auto renewal cycle is one year.

Node types

Node type	Description
Data node	These nodes only act as data nodes if

	dedicated master nodes already exist. These nodes can act as data nodes or dedicated master nodes if no dedicated master node exists.
Dedicated master node	Dedicated master eligible node.
Client node	Client nodes are used to share the load on data nodes.

Node types and specification families

The following table shows the supported node types and corresponding specification families.

Node type	Specification family
Data node	cloud disk type, local SSD type, and local SATA type.
Dedicated master node	Cloud disk type, minimum specification: 2-Core 8 GB
Client node	Cloud disk type, minimum specification: 2-Core 8 GB

Elasticsearch access test

After you have created an Alibaba Cloud Elasticsearch instance, you can log on to the Alibaba Cloud Elasticsearch console, go to the Kibana console, and test the instance on the **Dev Tools** page, or you can run the **Curl** command on an ECS instance that meets the requirements.

Elasticsearch has provided other Elasticsearch clients to run the test. For more information, see [Elasticsearch client](#).

Username and password

You must specify a username and password to log on to the Alibaba Cloud Elasticsearch instance.

- **Username:** The account that is used to access the Alibaba Cloud Elasticsearch instance. we recommend that you do not use the **elastic** account.
- **password:** The password that you specified when purchasing an Alibaba Cloud Elasticsearch instance or initialized Kibana.

Notes:

-You can use the **elastic** account to access the Alibaba Cloud Elasticsearch instance. However, it takes time for the new password that you specified when modifying the **Elasticsearch** account to take effect. Services may become unavailable during this period. Therefore, we recommend that you do not use the **elastic** account to access the Alibaba Cloud Elasticsearch instance.

-If the version of the Alibaba instance that you have created contains information about **with_X-Pack**, you must specify the username and password before you can access the Alibaba Cloud Elasticsearch instance.

Prerequisites for using an ECS instance to access Elasticsearch

-The Alibaba Cloud Elasticsearch instance and the Alibaba Cloud ECS instance must be deployed in the same VPC. -Alibaba Cloud ECS instances are deployed in the classic network. If your ECS instance needs to access the Elasticsearch instance that is in a VPC, see [Classic network access FQA](#).

cURL testing

Note:

If no **filebeat** index exists on the Alibaba Cloud Elasticsearch instance, run the PUT filebeat command to create a corresponding index, or change the YML file to **Allow Automatic Indexing**. Automatic indexing is disabled by default. Otherwise, the **index_not_found_exception** error occurs when you run the following command.

For Linux

You can run the cURL command to access port 9200 of the Alibaba Cloud Elasticsearch instance from a Linux environment.

Specify a username and password to access the instance, for example:

```
curl -XPOST -u username:password 'http://<HOST>:9200/filebeat/my_type/?pretty -d '{"title": "One", "tags": ["ruby"]}'
```

- **<HOST>**: The private or public IP address of the Alibaba Cloud Elasticsearch instance. For more information, see the information page of the Alibaba Cloud Elasticsearch instance.

Response:

```
{
  "_index" : "filebeat",
  "_type" : "my_type",
```

```
"_id" : "AV-bTkaTwdiHxfaSqlAt",
"_version" : 1,
"result" : "created",
"_shards" : {
  "total" : 2,
  "successful" : 2,
  "failed" : 0
},
"created" : true
}
```

For Windows

You can run the cURL command to access port 9200 of the Alibaba Cloud Elasticsearch instance from a Windows environment.

Specify a username and password to access the instance, for example:

```
curl -XPOST -u username:password "http://<HOST>:9200/filebeat/my_type/?pretty -d '{"title": "One", "tags": ["ruby"]}'"
```

- **<HOST>**: The private or public IP address of the Alibaba Cloud Elasticsearch instance. For more information, see the information page of the Alibaba Cloud Elasticsearch instance.

Response:

```
{
  "_index" : "filebeat",
  "_type" : "my_type",
  "_id" : "AWVIU5IY4siSsiAh0Td6",
  "_version" : 1,
  "result" : "created",
  "_shards" : {
    "total" : 2,
    "successful" : 2,
    "failed" : 0
  },
  "created" : true
}
```

Create a document

Use the following HTTP POST method to create a document:

```
curl http://<HOST>:9200/my_index/my_type -XPOST -d '{"title": "One", "tags": ["ruby"]}'
```

- **my_index**: The name of the index.
- **<HOST>**: The private or public IP address of the Alibaba Cloud Elasticsearch instance. For

more information, see the information page of the Alibaba Cloud Elasticsearch instance.- Each document has its own ID and type that are contained in the response. The system will randomly generate an ID and type if you do not specify them when you create the document.

Note:

- If you have enabled automatic indexing (disabled by default) and the specified index name does not exist, the system will automatically create an index when you create the document.

Sample response when you successfully create a document:

```
{
  "_index": "my_index",
  "_type": "my_type",
  "_id": "AV4JIvi15ny3i8DCdK1H",
  "_version": 1,
  "result": "created",
  "_shards": {
    "total": 2,
    "successful": 1,
    "failed": 0
  },
  "created": true
}
```

Update a document

You can use the following statements to update an existing document on Elasticsearch:

`http://<HOST>:9200/my_index/my_type/<doc_id>`

- **<HOST>**: The private or public IP address of the Alibaba Cloud Elasticsearch instance. For more information, see the information page of the Alibaba Cloud Elasticsearch instance.
- **<doc_id>**: The ID of the document.

```
$ curl http://<HOST>:9200/my_index/my_type/AV4JIvi15ny3i8DCdK1H -XPOST -d '{"title": "Four updated", "tags": ["ruby", "php"]}'
```

Sample response when you successfully update a document:

```
{
  "_index": "my_index",
  "_type": "my_type",
  "_id": "AV4JIvi15ny3i8DCdK1H",
```

```
{
  "_version": 2,
  "result": "updated",
  "_shards": {
    "total": 2,
    "successful": 1,
    "failed": 0,
  },
  "created": false
}
```

Note:

- You can also use an **API** to perform a batch update operation on the documents.

Retrieve a document

You can use the following HTTP GET method to retrieve a document:

```
$ curl http://<HOST>:9200/my_index/my_type/AV4JIvi15ny3i8DCdK1H
{
  "_index" : "my_index",
  "_type" : "my_type",
  "_id" : "_b-kbI1MREmi9SeixFNEVw",
  "_version" : 2,
  "exists" : true, "_source" : {
    "title": "Four updated", "tags": ["ruby", "php"]
  }
}
```

- **<HOST>**: The private or public IP address of the Alibaba Cloud Elasticsearch instance. For more information, see the information page of the Alibaba Cloud Elasticsearch instance.

Search for a document

You can use the HTTP GET or HTTP POST method to search for a document, and use the URI parameter to specify the object that you want to search for, such as:

```
http://<HOST>:9200/_search
http://<HOST>:9200/{index_name}/_search
http://<HOST>:9200/{index_name}/{type_name}/_search
```

- **<HOST>**: The private or public IP address of the Alibaba Cloud Elasticsearch instance. For more information, see the information page of the Alibaba Cloud Elasticsearch instance.

Example:

```
$ curl http://<HOST>:9200/my_index/my_type/_search?q=title:T*
```

- **<HOST>**: The private or public IP address of the Alibaba Cloud Elasticsearch instance. For more information, see the information page of the Alibaba Cloud Elasticsearch instance.

Complex search

You must use the following HTTP POST method for complex search:

```
$ curl http://<HOST>:9200/my_index/my_type/_search?pretty=true -XPOST -d '{
  "query": {
    "query_string": {"query": "*"}
  },
  "facets": {
    "tags": {
      "terms": {"field": "tags"}
    }
  }
}'
```

- **<HOST>**: The internal or public IP address of the Alibaba Cloud Elasticsearch instance. For more information, see the information page of the Alibaba Cloud Elasticsearch instance.

Note: You can use pretty=true to make the response easier for you to read.

Delete a document

```
$ curl http://<HOST>:9200/{index}/{type}/{id} -XDELETE
```

- **<HOST>**: The private or public IP address of the Alibaba Cloud Elasticsearch instance. For more information, see the information page of the Alibaba Cloud Elasticsearch instance.

Delete the specified type of documents

```
$ curl http://<HOST>:9200/{index}/{type} -XDELETE
```

- **<HOST>**: The private or public IP address of the Alibaba Cloud Elasticsearch instance. For more information, see the information page of the Alibaba Cloud Elasticsearch instance.

Delete an index

```
$ curl http://<HOST>:9200/{index} -XDELETE
```

- **<HOST>**: The private or public IP address of the Alibaba Cloud Elasticsearch instance. For more information, see the information page of the Alibaba Cloud Elasticsearch instance.

Note:

For more information, see [Elasticsearch help center](#).

Client access

Connection test (Python)

You can use Python to access port 9200 of Alibaba Cloud Elasticsearch to test the connection.

```
from elasticsearch import Elasticsearch, RequestsHttpConnection
import certifi

es = Elasticsearch(
    ['<HOST>'],
    http_auth=('username', 'password'),
    port=9200,
    use_ssl=False
)

res = es.index(index="my_index", doc_type="my_type", id=1, body={"title": "One", "tags": ["ruby"]})
print(res['_created'])

res = es.get(index="my-index", doc_type="my-type", id=1)
print(res['_source'])
```

Connection test (Java)

You can use a Java REST Client to access port 9200 of Alibaba Cloud Elasticsearch to test the connection.

Notes:

- Elasticsearch recommends that you use [Java Low Level REST Client] to access Elasticsearch. Do not use TransportClient. For more information, see [Java REST Client](#).
- The version of the Java REST Client must be the same as that of your Elasticsearch instance.
- The following sample code requires that you create the corresponding indexes and

mappings, or [enable auto indexing] (67848).-The Java REST Client demo is compatible with Alibaba Cloud Elasticsearch 5.5.3. It is not compatible with Alibaba Cloud Elasticsearch 6.3.2. If the version of your Elasticsearch instance is 6.3.2, see Java REST Client 6.3.2 Java REST Client 6.3.2.

Parameter descriptions

- **<USER NAME>**: Enter the username that is used to log on to the Alibaba Cloud Elasticsearch instance.
- **<PASSWORD>**: Enter the password that is used to log on to the Alibaba Cloud Elasticsearch instance.
- **<HOST>**: Enter the private or public IP address of your Alibaba Cloud Elasticsearch instance on the instance information page.

```
import org.apache.http.HttpEntity;
import org.apache.http.HttpHost;
import org.apache.http.auth.AuthScope;
import org.apache.http.auth.UsernamePasswordCredentials;
import org.apache.http.client.CredentialsProvider;
import org.apache.http.entity.ContentType;
import org.apache.http.impl.client.BasicCredentialsProvider;
import org.apache.http.impl.nio.client.HttpAsyncClientBuilder;
import org.apache.http.nio.entity.NStringEntity;
import org.apache.http.util.EntityUtils;
import org.elasticsearch.client.Response;
import org.elasticsearch.client.RestClient;
import org.elasticsearch.client.RestClientBuilder;
import java.io.IOException;
import java.util.Collections;

public class RestClientTest {
    public static void main(String[] args){

        final CredentialsProvider credentialsProvider = new BasicCredentialsProvider();
        credentialsProvider.setCredentials(AuthScope.ANY,
            new UsernamePasswordCredentials("<USER NAME>", "<PASSWORD>"));

        RestClient restClient = RestClient.builder(new HttpHost("<HOST>", 9200))
            .setHttpClientConfigCallback(new RestClientBuilder.HttpClientConfigCallback() {
                @Override
                public HttpAsyncClientBuilder customizeHttpClient(HttpAsyncClientBuilder httpClientBuilder) {
                    return httpClientBuilder.setDefaultCredentialsProvider(credentialsProvider);
                }
            }).build();

        try {
            //index a document
            HttpEntity entity = new NStringEntity("{\n\"user\" : \"kimchy\"\n}", ContentType.APPLICATION_JSON);
            Response indexResponse = restClient.performRequest(
```

```
"PUT",
"/index/type/123",
Collections.<String, String>emptyMap(),
entity);

//search a document
Response response = restClient.performRequest("GET", "/index/type/123",
Collections.singletonMap("pretty", "true"));
System.out.println(EntityUtils.toString(response.getEntity()));

} catch (IOException e) {
e.printStackTrace();
}
}
}
```

Notes:

Elasticsearch recommends that you do not use `TransportClient` to access Elasticsearch. When you use `TransportClient 5.5.3` to establish a connection to Elasticsearch, a `NoNodeAvailableException` error will occur and Elasticsearch no longer maintains `TransportClient`. If an error has already occurred with `TransportClient`, use the following method to resolve the issue:

- Use [Java Low Level REST Client] to access Elasticsearch. For more information, see [Java REST Client](#).
- Change the version of X-Pack-transport to 5.3.3 and the Elasticsearch version to 5.3.3 in the [POM configuration file]. However, we recommend that you do not use this method to access Elasticsearch. This method may cause incompatibility issues. For more information, see [//docs-aliyun.cn-hangzhou.oss.aliyun-inc.com/assets/attach/57877/cn_zh/1515403736447/es%20maven%E9%A1%B9%E7%9B%AEpom%E6%A0%B8%E5%BF%83%E9%85%8D%E7%BD%AE%E5%8F%82%E8%80%83%28%E5%9C%A8%E5%9F%BA%E4%BA%8Etransport%E8%AE%BF%E9%97%AE%29.txt](#) "POM configuration" .

Note:

- Alibaba Cloud Elasticsearch instances use Elasticsearch 5.5.3. The JDK version must be 1.8 and later.
- For demos in other languages, see [HTTP/REST Clients and Security](#) .