

Alibaba Cloud Elasticsearch

Quick Start

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Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 Note: You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
Bold	It is used for buttons, menus, page names, and other UI elements.	Click OK.
<code>Courier</code> font	It is used for commands.	Run the <code>cd / d C :/ windows</code> command to enter the Windows system folder.
<i>Italics</i>	It is used for parameters and variables.	<code>bae log list --instanceid Instance_ID</code>
[] or [a b]	It indicates that it is a optional value, and only one item can be selected.	<code>ipconfig [-all -t]</code>

Style	Description	Example
<code>{}</code> or <code>{a b}</code>	It indicates that it is a required value, and only one item can be selected.	<code>switch {stand slave}</code>

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1 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.



Note:

- 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 [#unique_4](#).

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 YAML 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 - bTkaTwdiHx faSqlAt ",
  "_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" : "AWVIU5lY4s iSsiAh0Td6",
  "_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": " AV4JIVi15n y3i8DCdK1H ",
  "_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/AV4JIV i15 ny3 i8 DCdK1H -
XPOST -d '{"title": "Four updated", "tags": ["ruby", "php"]}'
```

Sample response when you successfully update a document:

```
{
  "_index": " my_index ",
  "_type": " my_type ",
  "_id": " AV4JIVi15n y3i8DCdK1H ",
  "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/AV4JIvi15n
y3i8DCdK1H
{
  "_index" : "my_index",
  "_type" : "my_type",
  "_id" : "_b - kbI1MREmi9 SeixFNEVw",
  "_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://:9200/_search
http://:9200/{index_name}/_search
http://: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://: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.

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.

2 Configure Elasticsearch features

This topic describes how to use ECS to access Elasticsearch, configure the VPC and public network whitelists, and customize monitoring and alerting settings.

Use ECS to access Elasticsearch

Alibaba Cloud Elasticsearch allows you to use the following methods to access Elasticsearch:

- Log on to the [Kibana console](#) that has been integrated into Alibaba Cloud Elasticsearch, and then access Elasticsearch from the Dev Tools page.
- Use an application or the cURL tool installed on an ECS instance to access Elasticsearch. The ECS instance and Elasticsearch instance must be created in the same region and VPC network.
- Use the public network address of the Elasticsearch instance to access Elasticsearch.
- Use other [Elasticsearch clients](#) listed on the official Elasticsearch site to access Elasticsearch.

Use ECS to access Elasticsearch (optional)



Notice:

- If your ECS instance is connected to the classic network, then you must create a ClassicLink connection to access Elasticsearch. For more information, see [#unique_7](#).
- The ClassicLink connection is a unidirectional connection originated from the classic network to the VPC network. You cannot use this connection to access the classic network from the VPC network.

If you already have an ECS instance deployed in the same VPC network as your Elasticsearch instance, then you can use this ECS instance as a client to access Elasticsearch. You only need to deploy your application or install the cURL tool on the ECS instance.

If your ECS instance does not meet the preceding requirements, then you must purchase an ECS instance in the same VPC network as your Elasticsearch instance. For more information, see [Create an instance by using the wizard](#).

**Note:**

- The purchased ECS instance is used as a client. You can deploy applications on the ECS instance and then use it to access Elasticsearch.
- If you do not have an ECS instance in the same VPC network as your Elasticsearch instance, you can also use the Kibana console to send test queries to Elasticsearch.

Use ECS and cURL to access Elasticsearch (optional)

1. Log on to the ECS instance that is connected to the same VPC network as your Elasticsearch instance, and then install the cURL tool.
2. Add the cURL path to the path environment variable of the ECS instance so that you can use cURL to access Elasticsearch.

Configure the VPC and public network whitelists

Alibaba Cloud Elasticsearch is integrated with the X-Pack plug-in enterprise edition. The X-Pack plug-in is used to protect data transmission when you use the public or internal network address of your Elasticsearch instance to access Elasticsearch. You can configure the VPC or public network whitelist to implement access control for your Elasticsearch instance. For more information, see [#unique_9](#).

Customize monitoring and alerting settings

Alibaba Cloud Elasticsearch supports monitoring Elasticsearch instances and generating alerts by sending SMS messages. The monitoring data includes the following metrics. You can customize the thresholds for triggering alerts. For more information, see [#unique_10](#).

- Cluster Status
- Cluster Index Queries (QPS)
- Cluster Write Queries (QPS)
- Node CPU Usage (%)
- Node Disk Space Usage (%)
- Node Heap Memory Usage (%)
- Node Workload Within One Minute

3 Add Elasticsearch Head to Google Chrome

This topic describes how to add Elasticsearch Head to Google Chrome. With Elasticsearch Head, you can use the public network address of an Alibaba Cloud Elasticsearch instance to access the instance and perform operations.

Prerequisites

Before you add Elasticsearch Head to Google Chrome, make sure that you can access the domain `chrome.google.com`.

Context

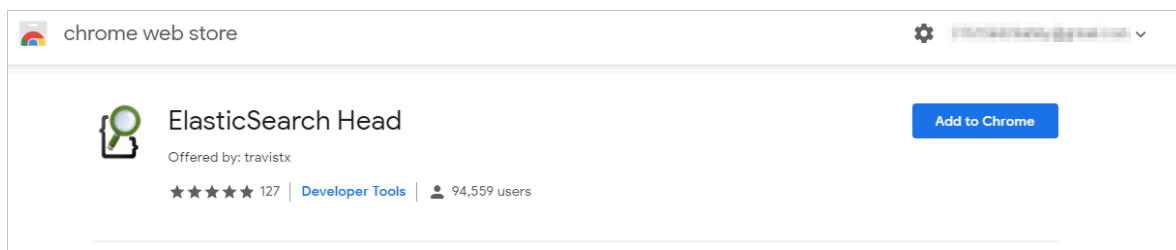


Note:

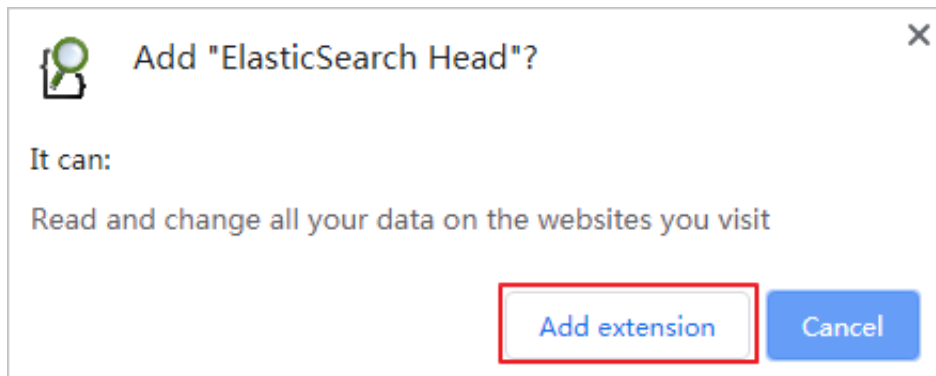
- Elasticsearch Head is a third-party extension.
- In a public network, you cannot use the internal network address and port of an Alibaba Cloud Elasticsearch instance to access the instance with Elasticsearch Head.

Procedure

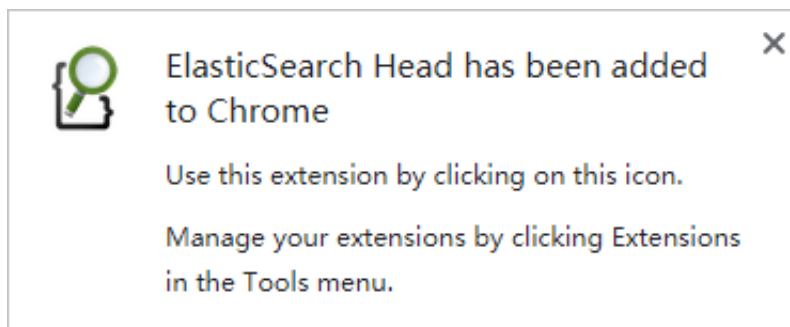
1. Enter the Elasticsearch Head link <https://chrome.google.com/webstore/detail/elasticsearch-head/ffmkiejjmecolpfloofpjologoblkegm> into the address bar of Google Chrome, and then click Add to Chrome.



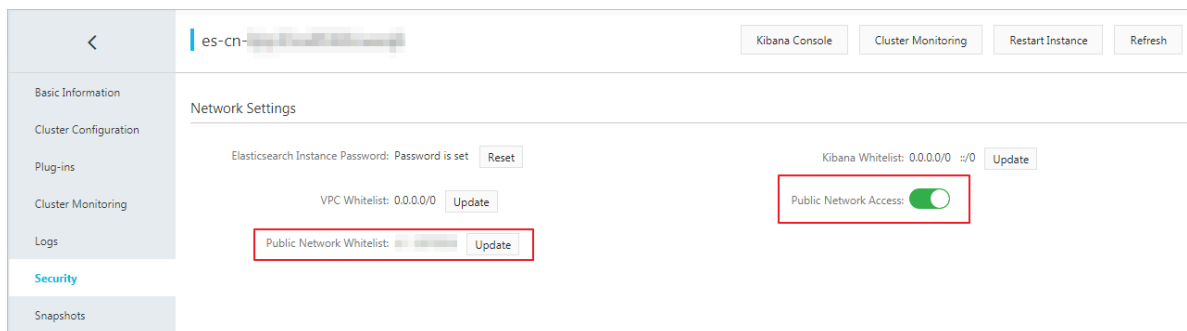
2. Click Add extension in the dialog box.



The system then downloads and installs Elasticsearch Head. After the installation is complete, the system prompts a message indicating that Elasticsearch Head has been installed.



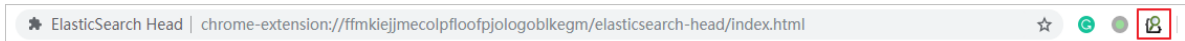
3. Log on to the [Alibaba Cloud Elasticsearch console](#), enable **public address** for your Elasticsearch instance, and add the public network IP address of your host to **public IP addresses with whitelist**.



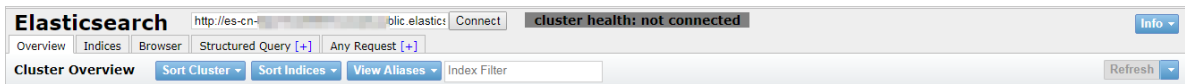
Note:

- You can enter IP into the search bar on the Google homepage, and then click the What Is My IP Address link to view the public network IP address of your host.
- By default, the public network access function forbids all IPv4 addresses.

- Click the Elasticsearch Head icon on the right side of the Google Chrome address bar to open the Elasticsearch cluster connection page.



- Enter `http://Elasticsearch Instance Public Network Address : Port Number /` into the address bar, and then click Connect.



You can log on to the Elasticsearch console and view the public network address and port number of the Elasticsearch instance on the basic information page. The default port number is 9200. The following is a sample connection address:

```
http://es-cn-45xxxxxxx.x01xw6w.public.elasticsearch.aliyuncs.com:9200/
```

- In the Sign in dialog box, enter the username and password that are used to log on to the Kibana console of the Elasticsearch instance, and then click Log on.

A screenshot of the 'Sign in' dialog box. The title is 'Sign in'. Below the title, the URL 'http://es-cn-45xxxxxxx.x01xw6w.public.elasticsearch.aliyuncs.com:9200' is displayed. A warning message says 'Your connection to this site is not private'. There are two input fields: 'Username' and 'Password'. At the bottom right, there are two buttons: 'Sign in' (blue) and 'Cancel' (white with blue border).

Note:

The Alibaba Cloud Elasticsearch with Commercial Feature is integrated with X-Pack for security purposes. Therefore, you must enter the username and password for authentication before you can log on to the instance. If the Sign in dialog box is not displayed, verify that the public network whitelist of Alibaba Cloud Elasticsearch contains the public network IP address of your host, or clear the cache of your Web browser and then try again.

7. After you log on to the Elasticsearch instance, you can then perform other operations.

