

Alibaba Cloud Log Service

FAQ

Issue: 20190529

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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.
Courier 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 an 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>swich {stand slave}</code>

Contents

Legal disclaimer.....	I
Generic conventions.....	I
1 General FAQ.....	1
2 Log collection.....	3
2.1 Troubleshoot collection errors.....	3
2.2 What do I do if a Logtail machine has no heartbeat?.....	4
2.3 Do I need to update Logtail settings after the network type is changed?.....	12
2.4 Diagnose collection errors.....	13
2.5 Log collection error types.....	14
2.6 Troubleshoot log collection exceptions in containers.....	31
2.7 Query local collection status.....	36
2.8 How do I set the time format?.....	52
2.9 Collect logs in complete regular mode.....	52
2.9.1 How do I optimize regular expressions?.....	52
2.9.2 How do I collect various formats of logs in complete regular mode?.....	53
2.10 Why am I unable to collect SLB access logs?.....	54
3 Log query.....	57
3.1 What can cause an inaccurate query result to return?.....	57
3.2 How do I configure an index for a historical log?.....	58
4 Alarm.....	59
4.1 Alarm configuration examples.....	59
5 Pricing.....	60
5.1 Disable Log Service.....	60
5.2 Billing FAQs.....	60

1 General FAQ

Q: What is Alibaba Cloud Log Service?

Alibaba Cloud Log Service (LOG) is a cloud native monitoring and IT management service to gather, analyze, process, and visualize logs and events generated across various GEOs, machines, mobile devices, applications and on-premises servers.

LOG contains four major functions:

- **Real-time Data Collection:** supporting 30+ channels and methods includes SDK, Docker, Mobile + IOT, Web / JS.
- **Intelligent Query Analytics and Search** - Fully compatible with SQL92 syntax, seconds to analyze billions of logs gathered from millions of servers.
- **Data Distribution** - shipping data from LogHub to data warehouses or data analytics systems.
- **Data Visualization** - embedded dashboard to visualize logs and metrics, supporting third party BI dashboards such as QuibkBI, DataV and Teableau.

Q: Why do I need LOG?

In the digital world, IT systems generates huge amount of data every day. It is extremely important but difficult to manage the data and create business values. With LOG, you will get the following benefits:

- One platform, to manage all your data and all GEOs.
- High performance & low latency, LOG is built and optimized based on experience and feedback from millions of real customer use cases.
- Visualized metrics and dashboard, to provide you the business insight via a glance.
- Maintenance free – Allows you to focus on the data itself and drive business growth.
- Only pay for what you use – improve TCO.

Q: When should I use LOG?

Log service can be leveraged to record any development/operation/and change logs for system, or integrated with the product to record using information and related data.

LOG is FREE when your usage < 500MB/mon. As a SaaS product, it is just couple clicks away. For more information, see [5-minute quick start](#).

Q: Why is LOG better than other solutions?

Most of LOG customers had experience with ELK (Elastic Search, Logstash, Kibana) or other log service solutions. LOG is proven with better performance and more cost-effective. Here are the feedbacks from real customer cases:

- Performance – LOG has far better performance under an enterprise environment. ELK customers have to face a number of challenges when their business grows big: queries hung during peak hours, heartbeat failure, out of memory errors and other problems under heavy stress.
- TCO – With ELK, you have to purchase resources including server, storage, and network. But this is just 30%-40% of the total cost. You have to invest more on setup, maintenance, support, etc. LOG is simply a cloud-based SaaS solution. You just need enable it and start to use. You will be billed only for your actual usage.
- Time to Value – ELK requires weeks/months planning and setup. With LOG, it costs you minutes to get started. LOG also provides instructions to migrate from an existing ELK environment. It would be just few commands.

Q: How can I get started with LOG?

For more information on how to get started with LOG, see [5-minute quick start](#).

Q: How is LOG priced?

For more information on LOG pricing, see [Log Service Pricing](#).

2 Log collection

2.1 Troubleshoot collection errors

If the log collection fails or the collection status is abnormal when you use Logtail, follow these steps to troubleshoot the errors.

Procedure

1. Check whether the Logtail heartbeat in the machine group is normal

Log on to the Log Service console and click Machine Status to view the status of the machine group. For more information, see [Manage a machine group](#). If the heartbeat status is normal, move to the next step.

If the heartbeat status is fail, see [Logtail heartbeat error for troubleshooting](#).

2. Check whether the collection configuration is created and applied to the machine group

After you confirm that the Logtail client status is normal, check the following configurations.

- a) Check whether Logtail configuration is created

For more information, see [Logtail configuration](#). Make sure that the log monitoring directory and the log file name match with the files on the machine. The directory does not support fuzzy match and must be set to an absolute path, while the log file name supports fuzzy match.

- b) Check whether Logtail configuration is applied to the machine group

See [Manage configurations](#) in [Manage a machine group](#). Check if the target configuration is applied to the machine group.

3. Check for collection errors

If Logtail is properly configured, check whether new data is generated in real time in the log file. Logtail collects incremental data only, it does not read inventory

files if the files are not updated. If the log file is updated but the updates cannot be queried in Log Service, diagnose the problem in the following ways:

- Diagnose collection errors

See [Diagnose collection errors](#) to handle the errors according to the error type reported by Logtail.

- View Logtail logs

Client logs include key INFO logs and all the WARNING and ERROR logs. To see complete and real-time errors, view the client logs in the following paths:

- Linux: `/usr/local/ilogtail/ilogtail.LOG`
- Linux: `/usr/local/ilogtail/logtail_plugin.LOG` (logs of input sources such as HTTP, MySQL binlog, and MySQL query results)
- Windows x64: `C:\Program Files\Program Files (x86)\Alibaba\Logtail\logtail_*.log`
- Windows x32: `C:\Program Files\Alibaba\Logtail\logtail_*.log`

- Usage exceeds the limit

- To collect large volumes of logs, files, or data, you can modify the Logtail startup parameters for higher log collection throughput. For more information, see [#unique_9](#).

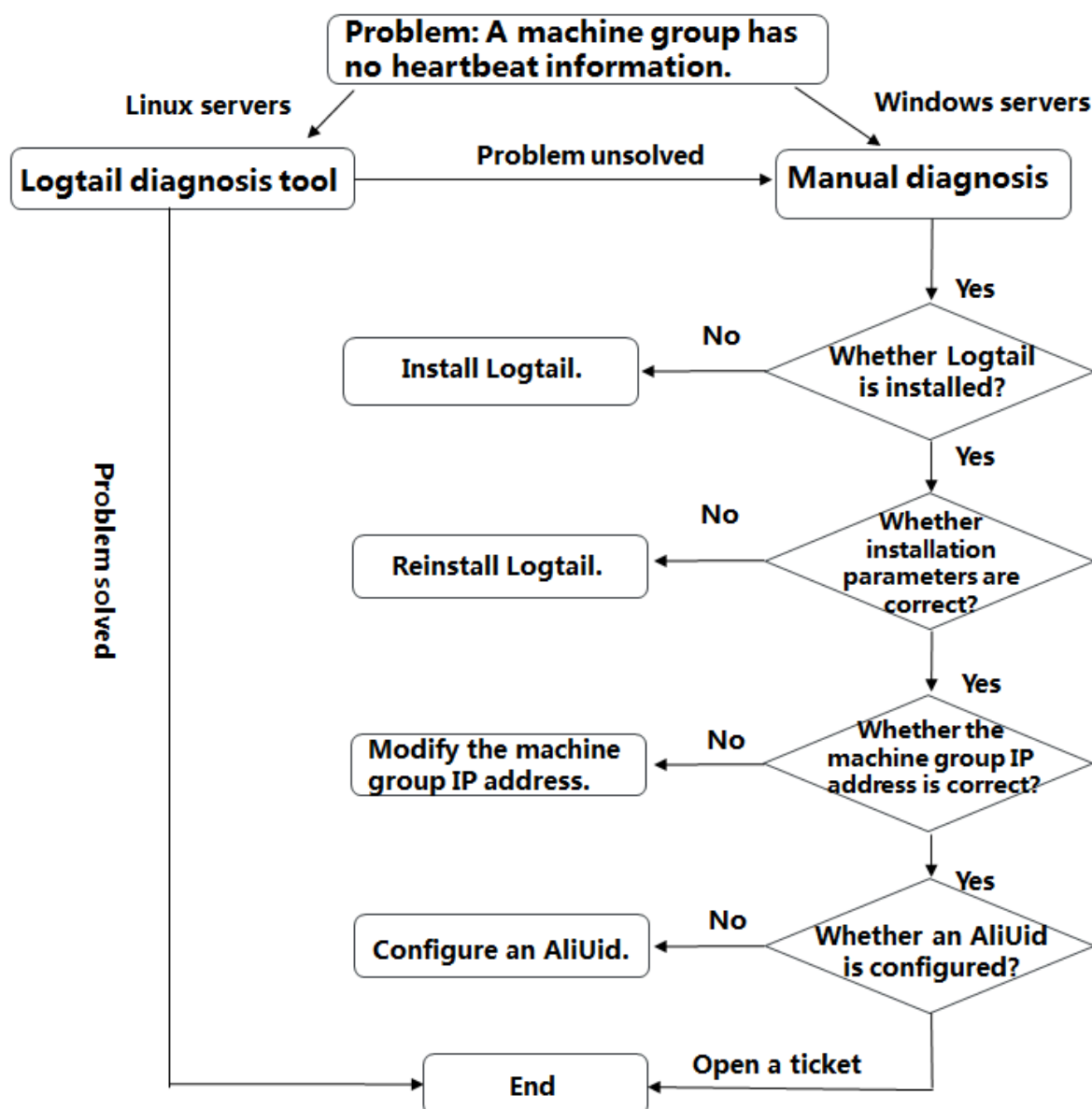
If the problem persists, open a ticket to contact Log Service engineers and attach the key information collected during troubleshooting to the ticket.

2.2 What do I do if a Logtail machine has no heartbeat?

If the heartbeat status of the Logtail machine group is abnormal when you use Logtail to collect logs, you can troubleshoot the problem through the Logtail auto-diagnosis tool or manually diagnose the problem.

After you install Logtail on your server for log collection, Logtail will send heartbeat packets to the server regularly. If the information indicating that the machine has no heartbeat is displayed on the machine group status page, the Logtail is disconnected from the server. In this case, you can either use the [Logtail auto-diagnosis tool](#) or manually diagnose the problem.

- Automatic diagnosis: Log Service provides a Logtail auto-diagnosis tool that applies to Linux servers. For more information, see [Logtail auto-diagnosis tool](#).
- Manual diagnosis: If the Logtail auto-diagnosis tool fails to troubleshoot the problem or your server is running on Windows, troubleshoot the problem by performing the following steps.



1. Check whether Logtail has been installed.

Check whether the Logtail client has been installed by running the following command:



说明:

If you have not installed the Logtail client, follow the installation instructions in [Install Logtail in Linux](#) and [Install Logtail in Windows](#). Install Logtail in these operation systems based on the region your Log Service project belongs to and the network type.

- In Linux:

```
sudo / etc / init . d / ilogtaild status
```

If `ilogtail is running` is returned, Logtail has been installed. The following is an example:

```
[ root @*****~]# sudo / etc / init . d / ilogtaild
status
ilogtail is running
```

- In Windows:

1. In Control Panel, choose System and Security > Administrative Tools, and then open the Services program.
2. Check the running status of LogtailDaemon, LogtailWorker, and Windows services. If they are running normally, Logtail has been installed successfully.

If Logtail is running, go to the next step.

2. Check whether Logtail installation parameters are correct?

Before installing Logtail, you need to specify the correct server access portal. That is, you must use correct [Logtail installation parameters](#) according to the region to which the Log Service project belongs and decide how to install Logtail according to the [network type](#). Incorrect installation script or parameters can be a reason why the Logtail machine has no heartbeat.

The Logtail configuration file `ilogtail_c onfig . json` contains Logtail installation parameters and the installation method you use. The file is stored in:

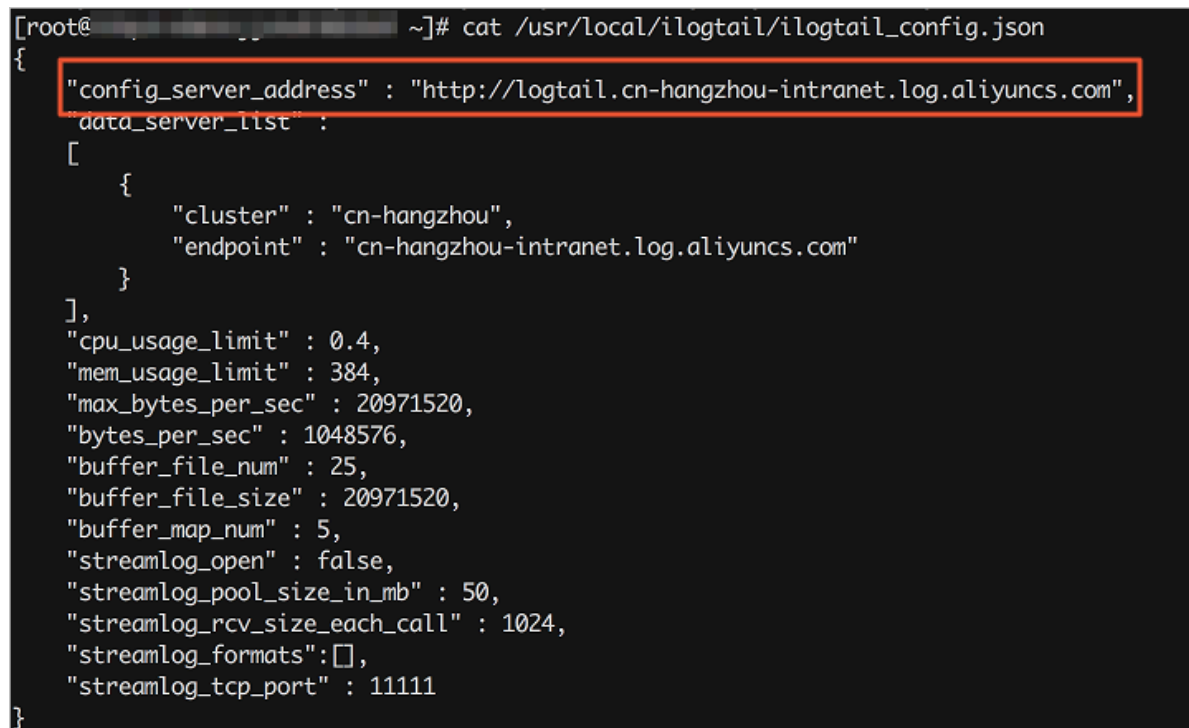
- The `/usr/local/ilogtail/ilogtail_c onfig . json` directory in Linux
- The `C :\ Program Files ( x86 )\ Alibaba \ Logtail \ ilogtail_c onfig . json` directory in Windows x64
- The `C :\ Program Files \ Alibaba \ Logtail \ ilogtail_c onfig . json` directory in Windows x32

1. Check installation parameters.

Check whether the region of the network portal for Logtail client access in `ilogtail_c onfig . json` is the same as the region to which the Log Service project belongs.

The returned information in the following figure indicates that Logtail is installed on an ECS server in the cn-hangzhou region.

图 2-1: Check installation parameters



```
[root@***** ~]# cat /usr/local/ilogtail/ilogtail_config.json
{
  "config_server_address" : "http://logtail.cn-hangzhou-intranet.log.aliyuncs.com",
  "data_server_list" :
  [
    {
      "cluster" : "cn-hangzhou",
      "endpoint" : "cn-hangzhou-intranet.log.aliyuncs.com"
    }
  ],
  "cpu_usage_limit" : 0.4,
  "mem_usage_limit" : 384,
  "max_bytes_per_sec" : 20971520,
  "bytes_per_sec" : 1048576,
  "buffer_file_num" : 25,
  "buffer_file_size" : 20971520,
  "buffer_map_num" : 5,
  "streamlog_open" : false,
  "streamlog_pool_size_in_mb" : 50,
  "streamlog_rcv_size_each_call" : 1024,
  "streamlog_formats":[],
  "streamlog_tcp_port" : 11111
}
```

2. Check the installation method.

Use Telnet to test the domain name contained in `ilogtail_c onfig . json` to check whether Logtail is correctly installed according to the server's network type.

For example, the domain name recorded in `ilogtail_c onfig . json` is `cn - hangzhou - intranet . log . aliyuncs . com`. You can run `telnet logtail . cn - hangzhou - intranet . log . aliyuncs . com 80` to check the network connectivity. If the Logtail client is connected to the server, Logtail has been correctly installed.

You can check network connectivity between Logtail and a Linux ECS server by running the following command:

```
[ root @***** ~]# telnet logtail . cn - hangzhou - intranet
. log . aliyuncs . com 80
Trying 100 * 0 * 7 * 5 ...
```

```
Connected to logtail . cn - hangzhou - intranet . log .  
aliyuncs . com .  
Escape character is '^['.
```

If the preceding method fails, incorrect parameters were used during Logtail installation, as a result incorrect installation commands were executed. For information about correct installation parameters, see [Install Logtail in Linux](#) and [Install Logtail in Windows](#).

If Logtail has been installed successfully, go to the next step.

3. Check whether the IP address of the machine group is correct.

The IP address configured for the machine group must be the server IP address obtained by Logtail. Otherwise, the machine has no heartbeat, or Logtail cannot collect logs.

Logtail obtains the machine IP address by using either of the following methods:

- If the server name is not attached to the machine, the IP address of the first NIC on the server will be used.
- If you have attached the server name to the machine in `/etc/hosts`, confirm the IP address to be attached. Then, you can run `hostname` to view the server name.

Troubleshooting procedure

1. Check the IP address obtained by Logtail.

The `ip` field in the `app_info.json` file specifies the IP address obtained by Logtail. The file is stored in:

- The `/usr/local/ilogtail/app_info.json` directory in Linux
- The `C:\Program Files (x86)\Alibaba\Logtail\app_info.json` directory in Windows x64
- The `C:\Program Files\Alibaba\Logtail\app_info.json` directory in Windows x32



说明:

- Logtail cannot work if the `ip` field is empty. In this case, you need to configure an IP address for the server and restart Logtail.

- The `app_info.json` file only records information. Modifications to this file will not take effect on the IP address obtained by Logtail.

图 2-2: View the IP address obtained by Logtail

```
[root@izbp1fi3ce8nd9qzl7dbd4Z ~]# cat /usr/local/ilogtail/app_info.json
{
  "UUID" : "D75AA533-44B9-46C8-B071-614BC7A196B5",
  "hostname" : "izbp1fi3ce8nd9qzl7dbd4Z",
  "instance_id" : "AF9FDA16-B279-11E8-A011-00163E0E5573_192.168.35.4_1536309632",
  "ip" : "192.168.35.4",
  "logtail_version" : "0.16.13",
  "os" : "Linux; 3.10.0-693.2.2.el7.x86_64; #1 SMP Tue Sep 12 22:26:13 UTC 2017; x86_64",
  "update_time" : "2018-09-07 16:40:32"
}
```

2. On the Machine Groups page, click Status to check the IP address configured for the machine group.

图 2-3: View the machine group status

Machine Group Status			
No. ▼ Se			
No. ◆	ip ◆	Heartb	
1	192.167.1.11	FAIL	R
2	192.168.1.15	FAIL	R
Total: 2			

If the IP address obtained by Logtail is not the machine group IP address, you need to modify the IP address.

- If an incorrect IP address is configured for the machine group, modify the IP address and save it. Wait for a minute, and then check the heartbeat status.
- If you have modified network configurations of the machine group, for example, `/ etc / hosts` , you must restart Logtail to obtain the new IP address.

Additionally, you need to modify the IP address configured for the machine group according to the `ip` field in the `app_info . json` file.

Logtail restart methods

- In Linux, run the following command:

```
sudo / etc / init . d / ilogtaild stop
sudo / etc / init . d / ilogtaild start
```

- In Windows, choose Control Panel > System and Security > Administrative Tools and open the Services program. Then, locate LogtailWorker and restart it.

If the IP address obtained by Logtail is the one configured for the machine group, go to the next step.

4. Check whether an AliUid has been configured for the ECS server under another Alibaba Cloud account.

For ECS servers under other Alibaba Cloud accounts, servers provided by other cloud product vendors, and on-premises IDCs, you must [configure AliUids](#) for them to authorize the servers with Logtail installed.

Check whether a file named after your Alibaba Cloud account ID exists in the `/ etc / ilogtail / users` directory.

If such a file does not exist, follow the instructions provided in [Configure AliUids for ECS servers under other Alibaba Cloud accounts and on-premises IDCs](#).



说明:

- AliUids must be Alibaba Cloud account IDs.
- You can view your Alibaba Cloud account ID on the User Info page in the Alibaba Cloud console.

图 2-4: View your Alibaba Cloud account ID



[Change Avatar](#)

Login Account : [Change](#) (You have passed identity verification)

Account ID :

Registration Time :

If the problem persists, [open a ticket](#) to submit the problem details to Log Service engineers. The ticket must contain information about your project, Logstore,

machine group, `app_info.json`, `ilogtail_config.json`, and output of the auto-diagnosis tool.

2.3 Do I need to update Logtail settings after the network type is changed?

After the network type is changed from classic network to VPC, you need to restart Logtail and update the settings of the Logtail machine group.

After Logtail is installed, if your ECS network type is changed from classic network to VPC, you need to update Logtail settings by performing the following steps:

1. Restart Logtail as the admin user.

- In Linux:

```
sudo / etc / init . d / ilogtaild stop
sudo / etc / init . d / ilogtaild start
```

- In Windows:

In Control Panel, choose System and Security > Administrative Tools. Open the Services program, locate the `LogtailWorker` file, and then right-click the file and click Restart in the shortcut menu.

2. Update the machine group settings.

- Custom identity

If a custom identity is configured for the machine group, a VPC is accessible without the need to manually update the machine group settings.

- IP address

If the IP address of the ECS server is configured for the machine group, you need to replace the machine group IP address to the one that is obtained after the Logtail restart, namely, the `ip` field in the `app_info.json` file.

The `app_info.json` file is stored in:

- `/usr/local/ilogtail/app_info.json` in Linux
- `C:\Program Files (x86)\Alibaba\Logtail\app_info.json` in Windows x64
- `C:\Program Files\Alibaba\Logtail\app_info.json` in Windows x32

2.4 Diagnose collection errors

Errors may occur during log collection by Logtail, such as regular expression parsing failures, incorrect file paths, and traffic exceeding the shard service capability. Currently, the diagnosis function is provided in the Log Service console for diagnosing log collection errors.

Procedure

1. Log on to the [Log Service console](#), and then click the target project name.
2. On the Logstores page, click Diagnose in the Log Collection Mode column.

Figure 2-5: Diagnosis

3. Check log collection errors.

In the displayed dialog box, view the list of log collection errors. To view error details, move your cursor to the Error Type column.

For more information, see [Log collection error types](#).

Figure 2-6: View collection errors

4. Query log collection errors of a specified machine

To query all log collection errors occurred to a specific machine, enter the IP address of the machine in the search box on the query page. Logtail reports errors every 5 minutes.

After fixing these errors and resuming business, check if the errors persist based on the timeframe. Historical error reports are still displayed before they expire. Ignore the historical error reports and only check whether new errors occurred after these historical errors are fixed.



Note:

To view all the complete log lines that are discarded because of parsing failure, you can log on to the machine to view the `/usr/local/ilogtail/ilogtail.LOG` file.

2.5 Log collection error types

On the Logstores page, you can click Diagnose of a Logstore to view all log collection errors about it. This topic describes the specific error types and handling methods.

If you encounter an error not mentioned in this topic, you can [open a ticket](#) and submit error details.

Error type	Description	Handling method
LOGFILE_PERMINSSION_ALARM	Logtail has no permission to read the specified file.	Check the Logtail startup account on the server. We recommend that you start Logtail as the root user.
SPLIT_LOG_FAIL_ALARM	The line start regular expression cannot match line starts of the log, and the log cannot be split into lines.	Check the correctness of the line start regular expression. If the log contains only one line, you can set the line start regular expression to <code>.*</code> .
MULTI_CONFIG_MATCH_ALARM	Each file can only be collected by one Logtail Config.	Check whether a file is collected in multiple Configs. If yes, delete unnecessary Configs.
REGEX_MATCH_ALARM	The log content does not match the regular expression upon regular expression parsing.	Copy a part from the unmatched content as a sample for a rematch, and then generate a new regular expression.
PARSE_LOG_FAIL_ALARM	Log parsing fails because the formats of JSON and delimiter logs do not conform to format definitions.	Click the error message to view details.

Error type	Description	Handling method
CATEGORY_CONFIG_ALARM	The Logtail Config is invalid.	We recommend that you modify the regular expression because generally the process of extracting a file path as the Topic through the regular expression fails. If the error is due to another reason, open a ticket and submit error details.
LOGTAIL_CRASH_ALARM	Logtail cannot respond because its server resource usage has exceeded the upper limit.	Modify the upper limits of the CPU usage and memory usage by following the instructions provided in #unique_9 . You can also open a ticket for additional support.
REGISTER_INOTIFY_FAIL_ALARM	Registering log monitoring has failed on Linux. A possible cause is that Logtail does not have the permission to access the folder or the folder has been deleted.	Check whether Logtail has the permission to access the folder and whether the folder has been deleted.
DISCARD_DATA_ALARM	The CPU resources for configuring Logtail are insufficient or the incoming traffic to Log Service is restricted.	Modify the upper limit of the CPU usage or limits on concurrent incoming traffic to Log Service by following the instructions provided in #unique_9 . You can also open a ticket for additional support.

Error type	Description	Handling method
SEND_DATA_FAIL_ALARM	- The Alibaba Cloud account have not created any AccessKey (AK). - The Logtail client cannot connect to the Log Service server, or the connection quality is poor. - The writing quota on the server is insufficient .	- Use the Alibaba Cloud account to create an AK. - Check the local Config file <code>/usr/local/ilogtail/ilogtail_config.json</code> and run <code>curl<endpoint></code> to check whether any result is returned. - Increase the number of Shards for the Logstore so that more data can be written to the Logstore.
REGISTER_NOTIFY_FAIL_ALARM	Logtail fails to register notify watcher for the log directory.	Check whether the directory exists. If yes, check the directory permissions.
SEND_QUOTA_EXCEED_ALARM	The log writing amount exceeds the limit.	Expand the Shard capacity in the console.
READ_LOG_DELAY_ALARM	Log collection lags behind log generation. In normal cases, this is because the CPU resources for configuring Logtail are insufficient or the incoming traffic to Log Service is restricted.	Modify the upper limit of the CPU usage or limits on concurrent incoming traffic to Log Service by following the instructions provided in #unique_9 . You can also open a ticket for additional support.
DROP_LOG_ALARM	Log collection lags behind log generation, and unprocessed log rotations outnumber 20. In normal cases, this is because the CPU resources for configuring Logtail are insufficient or the incoming traffic to Log Service is restricted.	Modify the upper limit of the CPU usage or limits on concurrent incoming traffic to Log Service by following the instructions provided in #unique_9 . You can also open a ticket for additional support.

Error type	Description	Handling method
LOGDIR_PERMINSSION_ALARM	Logtail has no permission to read the log monitoring directory.	Check whether the log monitoring directory exists. If yes, check the directory permissions.
ENCODING_CONVERT_ALARM	Code conversion fails.	Check whether the log encoding format conforms to the specified format.
OUTDATED_LOG_ALARM	The log is outdated because the time when Logtail received the log has exceeded more than 12 hour and the log is expired. Possible causes are as follows: - Log parsing is more than 12 hours behind schedule. - Custom time fields are incorrect. - The time of the log recording program is incorrect.	- Check whether READ_LOG_DELAY_ALARM exists. If yes, use the method of handling READ_LOG_DELAY_ALARM to handle this error. If no, check the time filed settings. - Check the time filed settings. If the time field settings are correct, check whether the time of the log recording program is correct. You can also open a ticket for additional support.
STAT_LIMIT_ALARM	The number of files in the Logtail Config directory exceeds the upper limit.	Check whether the Logtail Config directory contains an excessive number of files and subdirectories. If yes, configure the root monitoring directory and the maximum directory monitoring depth as needed.

Error type	Description	Handling method
DROP_DATA_ALARM	When the log collection process exits, writing logs to the local disk expires. In this case, the logs that have not been written to the local disk will be discarded.	Modify the upper limit of the CPU usage or limits on concurrent incoming traffic to Log Service by following the instructions provided in #unique_9 . Generally, the error is caused by severe collection blocks. You can also open a ticket for additional support.
INPUT_COLLECT_ALARM	An error occurs during input source collection.	Handle the error according to the error message.
HTTP_LOAD_ADDRESS_ALARM	The address in the HTTP input source is invalid.	Check the validity of the address.
HTTP_COLLECT_ALARM	An error occurs during HTTP input source collection.	Handle the error according to the error message. In normal cases, the error is caused by expiration.
FILTER_INIT_ALARM	An error occurs during filter initialization.	Handle the error according to the error message. In normal cases, the error is caused by invalid filter regular expressions.
INPUT_CANAL_ALARM	An error occurs when MySQL binlogs run.	Handle the error according to the error message. The canal service may restart when Logtail Config is updated. Errors caused by service restart can be ignored.

Error type	Description	Handling method
CANAL_INVALID_ALARM	The internal state of MySQL binlogs is abnormal.	Check whether the table schema is being modified when the error occurs . This error generally occurs when meta data changes are caused by table schema modifications during binlog running . Open a ticket if the cause is another one.
MYSQL_INIT_ALARM	An error occurs during MySQL initialization.	Handle the error according to the error message.
MYSQL_CHECKPOINTING_ALARM	The MySQL checkpoint format is incorrect.	Check whether to modify the checkpoint settings in the current Logtail Config . If the error persists after you modify the checkpoint settings, open a ticket and submit error details.
MYSQL_TIMEOUT_ALARM	The MySQL query expires.	Check whether the error is caused by MySQL server faults or abnormal network status.
MYSQL_PARSE_ALARM	Parsing MySQL query results fails.	Check whether the checkpoint format configured in MySQL matches the format of the corresponding field.
AGGREGATOR_ADD_ALARM	Logtail fails to add data to the queue.	Ignore the error if the actual data amount is large because the error is caused by excessive fast data sending.

Error type	Description	Handling method
ANCHOR_FIND_ALARM	Possible error causes are anchor plug-in faults, Config faults, or mismatch between the Config and log .	Click the error message to view details, which may contain the following error types. Check whether the corresponding Config encounters faults accordingly. · anchor cannot find key: The SourceKey is specified in the Config but its corresponding field cannot be found in the log. · anchor no start: The keywords specified by Start cannot be found in the value of SourceKey. · anchor no stop: The keywords specified by Stop cannot be found in the value of SourceKey.
ANCHOR_JSON_ALARM	An error occurs when the anchor plug-in performs JSON expansion on the keywords specified by Start and Stop.	Click the error message to view details. Check the keywords and the related Config. Check whether there is any Config fault or invalid log.
CANAL_RUNTIME_ALARM	An error occurs when the binlog plug-in runs.	Click the error message to view details, and then handle the error accordingly. The error is related to the connected MySQL master database.
CHECKPOINT_INVALID_ALARM	The plug-in fails to parse the checkpoint.	Click the error message to view details, and then handle the error according to the checkpoint key, checkpoint content (the first 1,024 bytes), and other information.

Error type	Description	Handling method
DIR_EXCEED_LIMIT_ALARM	The number of directories for simultaneous monitoring exceeds the upper limit.	Check whether the Config of the current Logstore and other Configs applied on Logtail contain excessive directories. If yes, configure the root monitoring directory and the maximum directory monitoring depth as needed.
DOCKER_FILE_MAPPING_ALARM	Logtail fails to add Docker file mapping by executing commands.	Click the error message to view details, and then handle the error accordingly.
DOCKER_FILE_MATCH_ALARM	The specified file cannot be found in Docker.	Click the error message to view details, and then handle the error according to the container information and file path.
DOCKER_REGEX_COMPILE_ALARM	The docker stdout plugin fails to construct a regular expression based on BeginLineRegex in the Config.	Click the error message to view details, and then check whether the regular expression is correct.

Error type	Description	Handling method
DOCKER_STDOUT_INIT_ALARM	The docker stdout collection initialization fails.	Click the error message to view details, which may contain the following error types: · host... version... error: Check whether the Docker engine specified in the Config is accessible. · load checkpoint error: Ignore the error if there is no impact because the error is caused by checkpoint loading failure. · container...: Set either stdout or stderr as a label. The error is caused because the specified container has an invalid label value. Handle the error according to the error details.
DOCKER_STDOUT_START_ALARM	The stdout file size exceeds the upper limit during docker stdout collection initialization.	Ignore the error because, in normal cases, the stdout file already exists at the first collection.
DOCKER_STDOUT_STAT_ALARM	The docker stdout plug-in cannot check the stdout file.	Ignore the error because the container cannot access the stdout file after the container exits.
FILE_READER_EXCEED_ALARM	The number of objects opened by Logtail exceeds the upper limit.	Check whether the Config settings are appropriate because the error is caused by excessive files being collected.

Error type	Description	Handling method
GEOIP_ALARM	The geoip plug-in is faulty.	Click the error message to view details, which may contain the following error types: · invalid ip...: The plug-in fails to obtain the IP address. Check whether SourceKey in the Config is correct or whether an invalid log exists. · parse ip...: The plug-in fails to parse the city information based on the obtained IP address. Handle the error according to the error details. · cannot find key...: The plug-in cannot find the specified SourceKey from the log. Check whether the Config is faulty or whether an invalid log exists.
HTTP_INIT_ALARM	The http plug-in incorrectly compiles the ResponseStringMatch regular expression specified in the Config.	Click the error message to view details, and then check whether the regular expression is correct.
HTTP_PARSE_ALARM	The http fails to receive HTTP responses.	Click the error message to view details, and then check the Config or the requested HTTP server.
INIT_CHECKPOINT_ALARM	The binlog plug-in fails to load the checkpoint. In this case, the plug-in will ignore the checkpoint and recollect the log.	Click the error message to view details, and then determine whether the error can be ignored.

Error type	Description	Handling method
LOAD_LOCAL_EVENT_ALARM	Logtail handles a local event.	Ignore the error if it is caused by manual operations. For other cases , open a ticket and submit error details. Click the error message to view details, and then handle the error according to the file name, Config name , project, Logstore, and other information.
LOG_REGEX_FIND_ALARM	The processor_split_log_regex and processor_split_log_string plug-ins cannot obtain the SplitKey specified by the Config from the log.	Click the error message to view details, and then check whether the Config is faulty.
LUMBER_CONNECTION_ALARM	The server cannot be powered off when the service_lumberjack plug-in is stopped.	Click the error message to view details, and then handle the error accordingly. In normal cases, this error can be ignored.
LUMBER_LISTEN_ALARM	An error occurs when the service_lumberjack plug-in is being initiated for log monitoring.	Click the error message to view details, which may contain the following error types: · init tls error...: Check whether the TLS configurations are correct. · listen init error...: Check whether the address-related settings are correct.

Error type	Description	Handling method
LZ4_COMPRESS_FAIL_ALARM	An error occurs when Logtail executes LZ4 compression.	Click the error message to view details, and then handle the error according to the values of log lines , project, category, and region.
MYSQL_CHECKPOINT_ALARM	The MySQL plug encounters a checkpoint error.	Click the error message to view details, which may contain the following error types: · init checkpoint error ...: Initializing the checkpoint fails. In this case, check whether the checkpoint column specified by the Config and the corresponding values are correct. · not matched checkpoint ...: The checkpoint information does not match. In this case , check whether the mismatch is caused by manual operations, for example, Config updates . If yes, ignore the error.
NGINX_STATUS_COLLECT_ALARM	An error occurs when the nginx_status plug-in obtains the server status.	Click the error message to view details, and then handle the error according to the URL and other information.
NGINX_STATUS_INIT_ALARM	The nginx_status plug-in fails to initiate and parse the URL specified by the Config.	Click the error message to view details, and then check whether the address is correct according to the URL.

Error type	Description	Handling method
OPEN_FILE_LIMIT_ALARM	Logtail cannot open new files because the number of opened files has exceeded the upper limit.	Click the error message to view details, and then handle the error according to the log file path, project, Logstore, and other information.
OPEN_LOGFILE_FAIL_ALARM	An error occurs when Logtail opens a file.	Click the error message to view details, and then handle the error according to the log file path, project, Logstore, and other information.
PARSE_DOCKER_LINE_ALARM	The service_docker_stdout plug-in fails to parse the log.	Click the error message to view details, which may contain the following error types: · parse docker line error : empty line: The log is empty. · parse json docker line error...: The plug-in fails to parse the log in JSON format. In this case, handle the error according to the error message and the first 512 bytes of the log. · parse cri docker line error...: The plug-in fails to parse the log in CRI format. In this case, handle the error according to the error message and the first 512 bytes of the log.

Error type	Description	Handling method
PLUGIN_ALARM	An error occurs when the plug-in is initialized or called.	Click the error message to view details, which may contain the following error types. Handle the error accordingly. · init plugin error...: Initiating the plug-in fails. · hold on error...: Stopping the plug-in fails. · resume error...: Recovering the plug-in fails. · start service error...: Starting service input-type plug-ins fails. · stop service error...: Stopping service input-type plug-ins fails.
PROCESSOR_INIT_ALARM	The regex plug-in fails to compile the Regex regular expression specified by the Config.	Click the error message to view details, and then check whether the regular expression is correct.

Error type	Description	Handling method
PROCESS_TOO_SLOW_ALARM	Logtail parses logs too slowly.	1. Click the error message to view details, and then determine whether the slow parsing is normal according to the number of logs, buffer size, and parsing time. 2. If the slow parsing is abnormal, check whether inappropriate parsing configurations exist. For example, the processes on the node where Logtail resides occupy excessive CPU resources, or an inefficient regular expression exists.
REDIS_PARSE_ADDRESS_ALARM	The redis plug-in fails to parse the ServerUrls specified by the Config.	Click the error message to view details, and then check the URL.
REGEX_FIND_ALARM	The regex plug-in cannot find the fields specified by SourceKey in the Config from the log.	Click the error message to view details, and then check whether the SourceKey is incorrect or an invalid log exists.

Error type	Description	Handling method
REGEX_UNMATCHED_ALARM	The regex plug-in fails to match the log.	Click the error message to view details, which may contain the following error types. Handle the error accordingly, for example, determine whether the Config is correct. · unmatched this log content...: The log cannot match the regular expression in the Config. · match result count less...: The number of matched logs is less than that of Keys specified in the Config.
SAME_CONFIG_ALARM	There are Configs with the same name in a Logstore. In this case, Logtail chooses one to collect the log, and the others will be discarded.	Click the error message to view details, and then handle the error according to the Config path and other information.
SPLIT_FIND_ALARM	The split_char and split_string plug-ins cannot find the fields specified by SourceKey in the Config from the log.	Click the error message to view details, and then check whether SourceKey settings are incorrect or an invalid log exists.
SPLIT_LOG_ALARM	The number of parsed fields parsed by the processor_split_char and processor_split_string plug-ins does not match that of fields specified by SplitKeys.	Click the error message to view details, and then check whether SourceKey settings are incorrect or an invalid log exists.
STAT_FILE_ALARM	An error occurs when the plug-in collects files through the LogFileReader object.	Click the error message to view details, and handle the error according to the file path and other information.

Error type	Description	Handling method
SERVICE_SYSLOG_INIT_ALARM	The service_syslog plug-in initialization fails.	Click the error message to view details, and check whether Address in the Config is correct.
SERVICE_SYSLOG_STREAM_ALARM	An error occurs when the service_syslog plug-in collects data through TCP.	Click the error message to view details, which may contain the following error types. Handle the error accordingly. · accept error...: An error occurs during Accept execution. In this case, the plug-in waits for a while and restarts. · setKeepAlive error...: Setting Keep Alive fails . In this case, the plug-in ignores the error and runs properly. · connection i/o timeout ...: Reading data through TCP expires. In this case, the plug-in resets the expiration duration and reads data properly. · scan error...: An error occurs when the plug-in reads data through TCP . In this case, the plug-in waits for a while and tries again.

Error type	Description	Handling method
SERVICE_SYSLOG_PACKET_ALARM	An error occurs when the service_syslog plug-in collects data through UDP.	Click the error message to view details, which may contain the following error types. Handle the error accordingly. · connection i/o timeout ...: Reading data through UDP expires. In this case, the plug-in resets the expiration duration and reads data properly. · read from error...: An error occurs when the plug-in reads data through UDP. In this case, the plug-in waits for a while and tries again.

2.6 Troubleshoot log collection exceptions in containers

This topic provides solutions to exceptions that may occur when you use a Logtail container (a common container or Kubernetes) to collect logs.

Troubleshooting operations:

- [Troubleshoot heartbeat exceptions in a machine group](#)
- [Troubleshoot log collection exceptions in a container](#)

Other O&M operations:

- [Log on to the Logtail container](#)
- [View Logtail operational logs](#)
- [View Logtail standard output \(stdout\)](#)
- [View the status of log-related components in a Kubernetes cluster](#)
- [View the version information, IP address, and time of Logtail](#)
- [What do I do if I mistakenly delete a Logstore that is created through CRD?](#)

Troubleshoot heartbeat exceptions in a machine group

You can determine whether the Logtail on a container is correctly installed by checking the heartbeat status of a machine group.

1. Check the heartbeat status of the machine group.
 - a. Log on to the [Log Service console](#), and then click the target project name.
 - b. In the left-side navigation pane, click Logtail Machine Group.
 - c. Find the target machine group and click Status.

Record the number of nodes for which heartbeat status is OK.

2. Check the number of Worker nodes in the cluster.

Run `kubectl get node | grep -v master` to view the number of Worker nodes.

```
$ kubectl get node | grep -v master
NAME                                STATUS    ROLES    AGE
cn-hangzhou-i-bp17enxc2u-s3624wexh2 Ready    <none>   238d
cn-hangzhou-i-bp1ad2b02j-tqd1shi2ut Ready    <none>   220d
```

3. Compare whether the number of the nodes with heartbeat status of OK is the same as the number of Worker nodes. Then, use an appropriate troubleshooting method according to the following possible comparison results:

- The heartbeat status of all nodes is Failed.
 - If you use [standard Docker logs](#), check whether `${your_region_name}`, `${your_aliyun_user_id}`, and `${your_machine_group_user_defined_id}` are correct by following the instructions provided in [parameter description](#).
 - If you use [installation for Kubernetes on Alibaba Cloud Container Service](#), open a ticket.
 - If you use [self-built Kubernetes installation](#), check whether `{your-project-suffix}`, `{regionId}`, `{aliuid}`, `{access-key-id}`, and `{access-key-secret}` are correct by following the instructions provided in [parameter description](#). If the parameters are incorrect, run `helm del --purge`

`alibaba - log - controller` to delete the installation package and reinstall Kubernetes.

- The number of nodes for which the heartbeat status is OK is smaller than the number of Worker nodes.

a. Determine whether to use the yaml file to manually deploy DaemonSet.

Run `kubectl get po -n kube-system -l k8s-app=logtail`. If any result is returned, you have manually deployed DaemonSet by using the yaml file.

b. Download the latest [DaemonSet template](#).

c. Set `${your_region_name}`, `${your_aliyun_user_id}`, and `${your_machine_group_name}` as needed.

d. Run `kubectl apply -f ./logtail-daemonset.yaml` to update the DaemonSet yaml file.

For other comparison results, open a ticket.

Troubleshoot log collection exceptions in a container

If you cannot find any log on the preview or query page in the console, Log Service has not collected any log from your container. In this case, check the container status and perform the following steps:

1. [Check whether the machine group status is normal](#).
2. Check whether the Config identifier is correct.

Check whether `IncludeLabel`, `ExcludeLabel`, `IncludeEnv`, and `ExcludeEnv` in the Config match the configurations of the target container.



Note:

`Label` indicates the container label (label information in `docker inspect`) instead of the one defined in Kubernetes. You can temporarily remove the parameters and check whether any log can be collected. If yes, the exception is caused by an incorrect Config identifier.

3. Check other items.

If you want to collect files from your container, note that:

- Logtail does not collect any file if there are no modified files in your container.
- Only the files that are stored by default or mounted to your local PC can be collected.

Log on to the Logtail container

• Common Docker

1. On the host, run `docker ps | grep logtail` to search for the Logtail container.
2. Run `docker exec -it ***** bash` to log on to the Logtail container.

```
$ docker ps | grep logtail
223fbd3ed2 a6e registry . cn - hangzhou . aliyuncs . com
/ log - service / logtail "/ usr /
local / ilogta ..." 8 days ago Up 8 days
logtail - iba
$ docker exec -it 223fbd3ed2 a6e bash
```

• Kubernetes

1. Run `kubectl get po -n kube - system | grep logtail` to search for the Logtail Pod.
2. Run `kubectl exec -it -n kube - system ***** bash` to log on to the Pod.

```
$ kubectl get po -n kube - system | grep logtail
logtail - ds - g5wgd
1 / 1 Running 0 8d
logtail - ds - slpn8
1 / 1 Running 0 8d
$ kubectl exec -it -n kube - system logtail - ds - g5wgd
bash
```

View Logtail operational logs

Logtail logs named `ilogtail . LOG` and `logtail_pl ugin . LOG` are stored in the `/usr/local/ilogtail/` directory.

1. [Log on to the Logtail container.](#)

2. Open the `/usr/local/ilogtail` directory.

```
cd /usr/local/ilogtail
```

3. View the `ilogtail.LOG` and `logtail_pl ugin.LOG` files.

```
cat ilogtail.LOG
cat logtail_pl ugin.LOG
```

View Logtail standard output (stdout)

You can ignore the following stdout because the container stdout has no reference for application.

```
start umount useless mount points , / shm $|| merged $||
mqueue $
umount : / logtail_ho st / var / lib / docker / overlay2 /
3fd0043af1 74cb0273c3 c7869500fb e2bdb95d13 b1e110172e
f57fe840c8 2155 / merged : must be superuser to unmount
umount : / logtail_ho st / var / lib / docker / overlay2 /
d5b10aa193 99992755de 1f85d25009 528daa749c 1bf8c16edf
f44beab6e6 9718 / merged : must be superuser to unmount
umount : / logtail_ho st / var / lib / docker / overlay2 /
5c3125dadd acedec29df 72ad0c52fa c800cd56c6 e880dc4e8a
640b1e16c2 2dbe / merged : must be superuser to unmount
.....
xargs : umount : exited with status 255 ; aborting
umount done
start logtail
ilogtail is running
logtail status :
ilogtail is running
```

View the status of log-related components in a Kubernetes cluster

To view the status of log-related components in a Kubernetes cluster, you can run

```
helm status alibaba - log - controller .
```

View the version information, IP address, and time of Logtail

The related information is stored in the `app_info.json` file under the `/usr/local/ilogtail` directory in the Logtail container. The following is an example:

```
kubectl exec logtail - ds - gb92k - n kube - system cat /
usr / local / ilogtail / app_info . json
{
  " UUID " : "",
  " hostname " : " logtail - gb92k ",
  " instance_id " : " 0EBB2B0E - 0A3B - 11E8 - B0CE - 0A58AC1404
02_172 . 20 . 4 . 2_15178109 40 ",
  " ip " : " 172 . 20 . 4 . 2 ",
  " logtail_version " : " 0 . 16 . 2 ",
  " os " : " Linux ; 3 . 10 . 0 - 693 . 2 . 2 . el7 . x86_64 ; # 1
SMP Tue Sep 12 22 : 26 : 13 UTC 2017 ; x86_64 ",
  " update_time " : " 2018 - 02 - 05 06 : 09 : 01 "
```

```
}
```

What do I do if I mistakenly delete a Logstore that is created through CRD?

If you delete a Logstore that is automatically created through CRD, the collected data cannot be recovered, and the CRD configurations of the Logstore become invalid.

In this case, you can use either of the following methods to prevent possible log collection exceptions:

- Use another CRD-created Logstore and take care to name the Logstore with a different name to the Logstore that was mistakenly deleted.
- Restart the `alibaba - log - controller` Pod. You can run `kubectl get po -n kube - system | grep alibaba - log - controller` to search for the Pod.

2.7 Query local collection status

1. [Overview](#)
2. [User guide](#)
 - a. [all command](#)
 - b. [active command](#)
 - c. [logstore command](#)
 - d. [logfile command](#)
 - e. [history command](#)
3. [Return values](#)
4. [Use cases](#)
 - a. [Monitor the running status of Logtail](#)
 - b. [Monitor log collection progress](#)
 - c. [Determine whether or not Logtail has finished collecting log files](#)
 - d. [Troubleshoot log collection issues](#)

Overview

Logtail is used to query its own health status and log collection progress, helping you troubleshoot log collection issues and customize status monitoring for log collection.

User guide

If a Logtail client supporting status query function is installed, you can query local log collection status by entering commands on the client. To install Logtail, see [#unique_35](#).

Enter the `/ etc / init . d / ilogtaild - h` command on the client to check if the client supports querying local log collection status. If the `logtail insight , version` keyword is returned, it indicates that this function is supported on the Logtail client.

```
/ etc / init . d / ilogtaild - h
Usage : ./ ilogtaild { start | stop ( graceful , flush data
and save checkpoint s ) | force - stop | status | - h for
help }$
logtail insight , version : 0 . 1 . 0
command list :
    status all [ index ]
        get logtail running status
    status active [-- logstore | -- logfile ] index [
project ] [ logstore ]
        list all active logstore | logfile . if use
-- logfile , please add project and logstore . default --
logstore
    status logstore [-- format = line | json ] index
project logstore
        get logstore status with line or json
style . default -- format = line
    status logfile [-- format = line | json ] index
project logstore fileFullPa th
        get log file status with line or json
style . default -- format = line
    status history beginIndex endIndex project logstore
[ fileFullPa th ]
        query logstore | logfile history status .
index : from 1 to 60 . in all , it means last $(
index ) minutes ; in active / logstore / logfile / history , it
means last $( index ) * 10 minutes
```

Currently, Logtail supports the following query commands, command functions, time intervals to query and time windows for result statistics:

Command	Functions	Time interval to query	Time window for statistics
all	Query the running status of Logtail.	Last 60 min	1 min

Command	Functions	Time interval to query	Time window for statistics
active	Query Logstores or log files that are currently active (that is, with data collected).	Last 600 min	10 minutes.
logstore	Query the collection status of a Logstore.	Last 600 min	10 minutes.
logfile	Query the collection status of a log file.	Last 600 min	10 minutes.
history	Query the collection status of a Logstore or log file over a period of time.	Last 600 min	10 minutes.

**Note:**

- The `index` parameter in the command represents the index value of the time window, which is counted from the current time. Its valid range is 1–60. If the time window for statistics is one minute, windows in the last (`index` , `index - 1`] minutes are queried. If the time window for statistics is 10 minutes, windows in the last (`10 * index` , `10 * ( index - 1 )`] minutes are queried.
- All query commands belong to status subcommands, so the main command is `status`.

all command**Command format**

```
/etc/init.d/ilogtailed status all [ index ]
```

**Note:**

The `all` command is used to view the running status of Logtail. The `index` parameter is optional. If left blank, 1 is taken by default.

Example

```

/ etc / init . d / ilogtaild  status  all  1
ok
/ etc / init . d / ilogtaild  status  all  10
busy

```

Output description

Item	Description	Priority	Resolution:
ok	The current status is normal.	None.	No action is needed .
busy	The current collection speed is high and the Logtail status is normal.	None.	No action is needed .
many_log_files	The number of logs being collected is large.	Low	Check if the configuration contains files that do not need to be collected.
process_block	Current log parsing is blocked.	Low	Check if logs are generated too quickly. If you still get this output, #unique_9 as per your needs to modify the upper limit of CPU usage or the limit on concurrent sending by using network.

Item	Description	Priority	Resolution:
send_block	Current sending is blocked.	Relatively high	blocked. Check if logs are generated too quickly and if the network status is normal. If you still get this output, #unique_9 as per your needs to modify the upper limit of CPU usage or the limit on concurrent sending by using network.
send_error	Failed to upload log data.	High	To troubleshoot the issue, see Diagnose collection errors .

active command

Command format

```
/ etc / init . d / ilogtaild status active [-- logstore ] index
/ etc / init . d / ilogtaild status active -- logfile index
project - name logstore - name
```



Note:

- The `active [-- logstore ] index` command is used to query Logstores that are currently active. The `-- logstore` parameter can be omitted without changing the meaning of the command.
- The `active -- logfile index project - name logstore - name` command is used to query all active log files in a Logstore for a project.
- The active command is used to query active log files level by level. We recommend that you first locate the currently active Logstore and then query active log files in this Logstore.

Example

```
/ etc / init . d / ilogtaild status active 1
sls - zc - test : release - test
sls - zc - test : release - test - ant - rpc - 3
sls - zc - test : release - test - same - regex - 3
```



```
/ etc / init . d / ilogtaild  status  active  -- logfile  1  sls -
zc - test  release - test
/ disk2 / test / normal / access . log
```

Output description

- To run the `active -- logstore index` command, all currently active Logstores are output in the format of `project - name : logstore - name`.
- To run the `active -- logfile index project - name logstore - name` command, the complete paths of active log files are output.
- A Logstore or log file with no log collection activity in the current query window does not appear in the output.

logstore command

Command format

```
/ etc / init . d / ilogtaild  status  logstore [-- format = { line |
json }] index  project - name  logstore - name
```



Note:

- The logstore command is used to output the collection statuses of the specified project and Logstore in LINE or JSON format.
- If the `-- format = parameter` is not configured, `-- format = line` is selected by default. The echo information is output in LINE format. Note that `-- format` parameter must be placed behind `logstore`.
- If this Logstore does not exist or has no log collection activity in the current query window, you get an empty output in LINE format or a `null` value in JSON format.

Example

```
/ etc / init . d / ilogtaild  status  logstore  1  sls - zc - test
release - test - same
time_begin  _readable  :  17 - 08 - 29   10 : 56 : 11
time_end_r  eadable  :  17 - 08 - 29   11 : 06 : 11
time_begin  :  1503975371
time_end    :  1503975971
project     :  sls - zc - test
logstore    :  release - test - same
status      :  ok
config      :  ## 1 . 0 ## sls - zc - test $ same
read_bytes  :  65033430
parse_succ  ess_lines :  230615
parse_fail  _lines    :  0
last_read_  time      :  1503975970
read_count  :  687
avg_delay_  bytes     :  0
```

```

max_unsend _time : 0
min_unsend _time : 0
max_send_s uccess_tim e : 1503975968
send_queue _size : 0
send_netwo rk_error_c ount : 0
send_netwo rk_quota_c ount : 0
send_netwo rk_discard _count : 0
send_succe ss_count : 302
send_block _flag : false
sender_val id_flag : true
/ etc / init . d / ilogtaild status logstore -- format = json 1
  sls - zc - test release - test - same
{
  " avg_delay_ bytes " : 0 ,
  " config " : "## 1 . 0 ## sls - zc - test $ same ",
  " last_read_ time " : 1503975970 ,
  " logstore " : " release - test - same ",
  " max_send_s uccess_tim e " : 1503975968 ,
  " max_unsend _time " : 0 ,
  " min_unsend _time " : 0 ,
  " parse_fail _lines " : 0 ,
  " parse_succ ess_lines " : 230615 ,
  " project " : " sls - zc - test ",
  " read_bytes " : 65033430 ,
  " read_count " : 687 ,
  " send_block _flag " : false ,
  " send_netwo rk_discard _count " : 0 ,
  " send_netwo rk_error_c ount " : 0 ,
  " send_netwo rk_quota_c ount " : 0 ,
  " send_queue _size " : 0 ,
  " send_succe ss_count " : 302 ,
  " sender_val id_flag " : true ,
  " status " : " ok ",
  " time_begin " : 1503975371 ,
  " time_begin _readable " : " 17 - 08 - 29 10 : 56 : 11 ",
  " time_end " : 1503975971 ,
  " Maid " : " 17 - 08 - 29 11 : 06 : 11 "
}

```

Output description

Reserved Word	Meaning	Unit
Status	The overall status of this Logstore. For specific statuses, descriptions, and change methods, see the following table.	None.
time_begin_readable	The start time that can be read.	None.
time_end_readable	The end time that can be read.	None.
time_begin	The start time of statistics.	UNIX timestamp, measured in seconds.

Reserved Word	Meaning	Unit
time_end	The end time of statistics.	UNIX timestamp, measured in seconds.
project	The project name.	None.
logstore	The Logstore name.	None.
config	The collection configuration name, which is globally unique and consisted of ## 1 . 0 ##, project, \$, and config.	None.
read_bytes	The number of logs read in the window.	Byte
parse_success_lines	The number of successfully parsed log lines in the window.	Line
parse_fail_lines	The number of log lines that failed to be parsed in the window.	Line
last_read_time	The last read time in the window.	UNIX timestamp, measured in seconds.
Read_count	The number of times that logs are read in the window.	Number
avg_delay_bytes	The average of the differences between the current offset and the file size each time logs are read in the window.	Byte
max_unsend_time	The maximum time that unsent data packets are in the send queue when the window ends. The value is 0 when the queue is empty.	UNIX timestamp, measured in seconds.
min_unsend_time	The minimum time that unsent data packets are in the send queue when the window ends. The value is 0 when the queue is empty.	UNIX timestamp, measured in seconds.

Reserved Word	Meaning	Unit
max_send_success_time	The maximum time that data is successfully sent in the window.	UNIX timestamp, measured in seconds.
send_queue_size	The number of unsent data packets in the current send queue when the window ends.	Packet
send_network_error_count	The number of data packets that failed to be sent in the window because of network errors.	Packet
send_network_quota_count	The number of data packets that failed to be sent in the window because the quota is exceeded.	Packet
send_network_discard_count	The number of discarded data packets in the window because of data exceptions or insufficient permissions.	Packet
send_success_count	The number of successfully sent data packets in the window.	Packet
send_block_flag	Whether or not the send queue is blocked when the window ends.	None.
sender_valid_flag	Whether or not the send flag of this Logstore is valid when the window ends. true means the flag is valid, and false means the flag is disabled because of network errors or quota errors.	None.

Logstore status

Status	Meaning	Handling method
ok	The status is normal.	No action is needed.
process_block	Log parsing is blocked.	Check if logs are generated too quickly. If you still get this output, Configure #unique_9 as per your needs to modify the upper limit of CPU usage or the limit on concurrent sending by using network.
parse_fail	Log parsing failed.	Check whether or not the log format is consistent with the log collection configuration.
send_block	Current sending is blocked.	blocked. Check if logs are generated too quickly and if the network status is normal. If you still get this output, #unique_9 as per your needs to modify the upper limit of CPU usage or the limit on concurrent sending by using network.
sender_invalid	An exception occurred when sending log data.	Check the network status. If the network is normal, see Diagnose collection errors in Query diagnosis errors to troubleshoot the issue.

logfile command

Command format

```
/ etc / init . d / ilogtaild status logfile [-- format = { line | json } ] index project - name logstore - name fileFullPa th
```



Note:

- The logfile command is used to output the collection status of a specific log file in LINE or JSON format.
- If the `-- format =` parameter is not configured, `-- format = line` is selected by default. The echo information is output in LINE format.

- If this log file does not exist or has no log collection activity in the current query window, you get an empty output in LINE format or a `null` value in JSON format.
- The `-- format` parameter must be placed behind `logfile` .
- The `filefullpath` must be a full path name.

Example

```
/ etc / init . d / ilogtaild status logfile 1 sls - zc - test
  release - test - same / disk2 / test / normal / access . log
time_begin _readable : 17 - 08 - 29 11 : 16 : 11
time_end_r eadable : 17 - 08 - 29 11 : 26 : 11
time_begin : 1503976571
time_end : 1503977171
project : sls - zc - test
logstore : release - test - same
status : ok
config : ## 1 . 0 ## sls - zc - test $ same
file_path : / disk2 / test / normal / access . log
file_dev : 64800
file_inode : 22544456
file_size_ bytes : 17154060
file_offse t_bytes : 17154060
read_bytes : 65033430
parse_succ ess_lines : 230615
parse_fail _lines : 0
last_read_ time : 1503977170
read_count : 667
avg_delay_ bytes : 0
/ etc / init . d / ilogtaild status logfile -- format = json 1
  sls - zc - test release - test - same / disk2 / test / normal /
access . log
{
  " avg_delay_ bytes " : 0 ,
  " config " : "## 1 . 0 ## sls - zc - test $ same ",
  " file_dev " : 64800 ,
  " file_inode " : 22544456 ,
  " file_path " : "/ disk2 / test / normal / access . log ",
  " file_size_ bytes " : 17154060 ,
  " last_read_ time " : 1503977170 ,
  " logstore " : " release - test - same ",
  " parse_fail _lines " : 0 ,
  " parse_succ ess_lines " : 230615 ,
  " project " : " sls - zc - test ",
  " read_bytes " : 65033430 ,
  " read_count " : 667 ,
  " read_offse t_bytes " : 17154060 ,
  " status " : " ok ",
  " time_begin " : 1503976571 ,
  " time_begin _readable " : " 17 - 08 - 29 11 : 16 : 11 ",
  " time_end " : 1503977171 ,
  " time_end_r eadable " : " 17 - 08 - 29 11 : 26 : 11 "
}
```

Output description

Reserved Word	Meaning	Unit
Status	The collection status of this log file in the current query window. See the status of logstore command.	None.
time_begin_readable	The start time that can be read.	None.
time_end_readable	The end time that can be read.	None.
time_begin	The start time of statistics.	UNIX timestamp, measured in seconds.
time_end	The end time of statistics.	UNIX timestamp, measured in seconds.
project	The project name.	None.
logstore	The Logstore name.	None.
file_path	The path of the log file.	None.
file_dev	The device ID of the log file.	None.
file_inode	The inode of the log file.	None.
file_size_bytes	The size of the last scanned file in the window.	Byte
read_offset_bytes	The parsing offset of this file.	Byte
config	The collection configuration name, which is globally unique and consisted of ## 1 . 0 ## , project, \$ and config.	None.
read_bytes	The number of logs read in the window.	Byte
parse_success_lines	The number of successfully parsed log lines in the window.	Line
parse_fail_lines	The number of log lines that failed to be parsed in the window.	Line

Reserved Word	Meaning	Unit
last_read_time	The last read time in the window.	UNIX timestamp, measured in seconds.
read_count	The number of times that logs are read in the window.	Number of times
avg_delay_bytes	The average of the differences between the current offset and the file size each time logs are read in the window.	Byte

history command

Command format

```
/ etc / init . d / ilogtaild status history beginIndex
endIndex project - name logstore - name [ fileFullPa th ]
```



Note:

- The history command is used to query the collection status of a Logstore or log file over a period of time.
- `beginIndex` and `endIndex` represent the start and end values for the code query window index respectively. `beginIndex <= endIndex`.
- If the `fileFullPa th` is not entered in the parameter, the code queries the collection information of the Logstore. Otherwise, the collection information of the log file is queried.

Example

```
/ etc / init . d / ilogtaild status history 1 3 sls - zc -
test release - test - same / disk2 / test / normal / access . log
begin_time status read parse_succ ess parse_fail
last_read_ time read_count avg_delay device inode
file_size read_offse t
17 - 08 - 29 11 : 26 : 11 ok 62 . 12MB 231000 0 17 - 08
- 29 11 : 36 : 11 671 0B 64800 22544459 18 . 22MB 18 .
22MB
17 - 08 - 29 11 : 16 : 11 ok 62 . 02MB 230615 0 17 - 08
- 29 11 : 26 : 10 667 0B 64800 22544456 16 . 36MB 16 .
36MB
17 - 08 - 29 11 : 06 : 11 ok 62 . 12MB 231000 0 17 - 08
- 29 11 : 16 : 11 687 0B 64800 22544452 14 . 46MB 14 .
46MB
$/ etc / init . d / ilogtaild status history 2 5 sls - zc -
test release - test - same
```



```

begin_time    status    read    parse_succ    ess    parse_fail
last_read_    time    read_count    avg_delay    send_queue
network_er    r    quota_er    r    discard_er    r    send_succe    ss
send_block    send_valid    max_unsend    min_unsend    max_send_s
uccess
17 - 08 - 29  11 : 16 : 11  ok    62 . 02MB    230615    0    17 - 08
- 29  11 : 26 : 10  667    0B    0    0    0    0    300    false    true
70 - 01 - 01  08 : 00 : 00  70 - 01 - 01  08 : 00 : 00  17 - 08 -
29  11 : 26 : 08
17 - 08 - 29  11 : 06 : 11  ok    62 . 12MB    231000    0    17 - 08
- 29  11 : 16 : 11  687    0B    0    0    0    0    303    false    true
70 - 01 - 01  08 : 00 : 00  70 - 01 - 01  08 : 00 : 00  17 - 08 -
29  11 : 16 : 10
17 - 08 - 29  10 : 56 : 11  ok    62 . 02MB    230615    0    17 - 08
- 29  11 : 06 : 10  687    0B    0    0    0    0    302    false    true
70 - 01 - 01  08 : 00 : 00  70 - 01 - 01  08 : 00 : 00  17 - 08 -
29  11 : 06 : 08
17 - 08 - 29  10 : 46 : 11  ok    62 . 12MB    231000    0    17 - 08
- 29  10 : 56 : 11  692    0B    0    0    0    0    302    false    true
70 - 01 - 01  08 : 00 : 00  70 - 01 - 01  08 : 00 : 00  17 - 08 -
29  10 : 56 : 10

```

Output description

- This command outputs historical collection information of a Logstore or log file in the form of list, one line for each window.
- For the description of each output field, see the `logstore` and `logfile` commands.

Return values

Normal return value

0 is returned if a command input is valid (including failure to query a Logstore or log file), for example:

```

/ etc / init . d / ilogtaild    status    logfile    -- format = json    1
error - project    error - logstore    / no / this / file
null
echo    $?
0
/ etc / init . d / ilogtaild    status    all
ok
echo    $?
0

```

Exceptional return values

A non-zero return value indicates an exception. See the following table.

Return value	Type	output	Troubleshooting
10	Invalid command or missing parameters	invalid param , use - h for help .	Enter - h to view help.

Return value	Type	output	Troubleshooting
1	The query goes beyond the 1-60 time window	invalid query interval	Enter - h to view help.
1	Cannot query the specified time window	query fail , error : \$(error). For more information, see errno interpretation .	This issue might occur when the startup time of Logtail is less than the query time span . For other cases, open a ticket.
1	No matching query window time	no match time interval , please check logtail Status	Check if Logtail is running. For other cases, open a ticket.
1	No data in the query window	invalid profile , maybe logtail Restart	Check if Logtail is running. For other cases, open a ticket.

Example

```
/ etc / init . d / ilogtaild status nothiscmd
invalid param , use - h for help .
echo $?
10
/ etc / init . d / ilogtaild status / all 99
invalid query interval
echo $?
1
```

Use cases

You can obtain the overall status of Logtail by querying its health status, and obtain the related metrics during collection by querying the collection progress. With the obtained information, you can monitor log collection in a customized manner.

Monitor the running status of Logtail

Monitor the running status of Logtail by using the `all` command.

How it works: The current status of Logtail is queried every minute. If Logtail is under `process_block`, `send_block`, or `send_error` status for five successive minutes, an alarm is triggered.

The alarm duration and the status range being monitored can be adjusted according to the importance of log collection in specific scenarios.

Monitor log collection progress

Monitor the collection progress of a Logstore by using the `logstore` command.

How it works: The `logstore` command is called every ten minutes to obtain the status information of this Logstore. If the `avg_delay_bytes` is over 1 MB (1024*1024) or `status` is not `ok`, an alarm is triggered.

The `avg_delay_bytes` alarm threshold can be adjusted according to the log collection traffic.

Determine whether or not Logtail has finished collecting log files

Determine whether or not Logtail has finished collecting log files by using the `logfile` command.

How it works: After writing to the log file stops, the `logfile` command is called every ten minutes to obtain the status information of this file. If this file shows the same value for `read_offset_bytes` and `file_size_bytes`, it means that Logtail has finished collecting this log file.

Troubleshoot log collection issues

If the log collection is delayed on a server, use the `history` command to query related collection information on this server.

1. If the `send_block_flag` is true, it indicates that the log collection delays because of the network.
 - If the `send_network_quota_count` is greater than 0, you must split the [Shard](#) of the Logstore.
 - If the `send_network_error_count` is greater than 0, you must check the network connectivity.
 - If no related network error occurs, you must adjust the limit on concurrent sending and [traffic limit](#) of Logtail.

2. Sending-related parameters are normal, but the `avg_delay_bytes` is relatively high.

- The average log parsing speed can be calculated by using `read_bytes` to determine if traffic generated by logs is normal.
- [Resource usage limits](#) of Logtail can be adjusted as appropriate.

3. The `parse_fail_lines` is greater than 0.

Check if the parsing configurations for log collection match with all the logs.

2.8 How do I set the time format?

This topic describes how to set the time format for Logtail Configs and the precautions you need be aware of first.

- The minimum granularity that you can configure for timestamps in Log Service is seconds.
- In the time field, only the front part that contributes to time parsing is required.

The following shows a setting example:

```
Custom1 2017 - 12 - 11 15 : 05 : 07
% Y -% m -% d % H :% M :% S
Custom2 [ 2017 - 12 - 11 15 : 05 : 07 . 012 ]
[% Y -% m -% d % H :% M :% S
RFC822 02 Jan 06 15 : 04 MST
% d % b % y % H :% M
RFC822Z 02 Jan 06 15 : 04 - 0700
% d % b % y % H :% M
RFC850 Monday , 02 - Jan - 06 15 : 04 : 05 MST
% A , % d -% b -% y % H :% M :% S
RFC1123 Mon , 02 Jan 2006 15 : 04 : 05 MST
% A , % d -% b -% y % H :% M :% S
RFC3339 2006 - 01 - 02T15 : 04 : 05Z07 : 00
% Y -% m -% dT % H :% M :% S
RFC3339Nan o 2006 - 01 - 02T15 : 04 : 05 . 999999999Z 07 : 00
% Y -% m -% dT % H :% M :% S
```

2.9 Collect logs in complete regular mode

2.9.1 How do I optimize regular expressions?

You can optimize regular expressions to improve the Logtail collection performance.

The following describes some suggestions about how to optimize regular expressions:

- Use precise characters.

Do not arbitrarily use `.*` to match fields because this regular expression can match with a wide range of search results. Such actions can lead to mismatches occurring or a decrease in matching performance. For example, to return results of fields that consist only of letters, use `[ A - Za - z ]`.

- Use correct measure words.

Do not arbitrarily use plus signs (+), commas (,), or asterisks. For example, to match target IP addresses, use `\ d` instead of `\ d +` or `\ d { 1 , 3 }` because of its higher efficiency.

- Debug multiple times.

Debugging is similar to troubleshooting. You can debug the time consumed by your regular expressions at the [Regex101](#) website, and promptly optimize them if there is a large amount of backtracking.

2.9.2 How do I collect various formats of logs in complete regular mode?

The complete regular mode requires format consistency among all logs. However, some logs may contain content in multiple formats. In this case, you can use the Schema-On-Write or Schema-On-Read mode to process the logs.

For example, a Java log is a program log that contains both correct information and error information (such as information about abnormal stacks), including:

- Multi-line WARNING logs
- Simple text INFO logs
- Key-value DEBUG logs

```
[ 2018 - 10 - 01T10 : 30 : 31 , 000 ] [ WARNING ] java . lang .
Exception : another exception happened
    at TestPrintS tackTrace . f ( TestPrintS tackTrace . java : 3
)
    at TestPrintS tackTrace . g ( TestPrintS tackTrace . java : 7
)
    at TestPrintS tackTrace . main ( TestPrintS tackTrace . java
: 16 )
[ 2018 - 10 - 01T10 : 30 : 32 , 000 ] [ INFO ] info something
[ 2018 - 10 - 01T10 : 30 : 33 , 000 ] [ DEBUG ] key : value key2 :
value2
```

You can use the following modes to process such logs:

- **Schema-On-Write:** In this mode, Logtail applies multiple Logtail Configs with different regular settings to a log so that correct fields can be extracted.



Note:

Logtail cannot apply multiple Logtail Configs to a file. Therefore, you need to set up multiple symbolic links for the directory where the file is stored. Then, each Logtail Config works on a symbolic link, thereby allowing you to aggregate multiple Logtail Configs to collect the file at the same time.

- **Schema-on-read:** In this mode, you need to use the common regular expressions of the multi-format logs.

For example, for collection of a multi-line log, you can use the time and log level as line start regular expressions and the residual parts as the message field. If you want to analyze the message field, you can set up an index for it, extract the required content, and then analyze the content based on query and analysis functions provided by Log Service, such as regular expression extraction.



Note:

This mode is recommended only when you need to analyze at a small-scale (for example, tens of millions) of logs.

2.10 Why am I unable to collect SLB access logs?

This topic describes how to troubleshoot in cases where you are unable to collect SLB access logs.

1. Check whether the access log collection function has been activated for SLB instances.

Activate the access log collection function for each SLB instance separately. Then, the generated access logs can be written into your Logstore in real time.

To do so, log on to the SLB console, and choose Logs > Access Logs to view the Access Logs (Layer-7) list.

- Verify that the specified SLB instance exists.
- Confirm the Storage Path of the SLB instance.

This column displays information about the project and Logstore. In this case, make sure that you check whether SLB logs exist in the correct location in the console.

2. Check whether RAM users are correctly authorized.

During activation of the access log collection function, the system guides you through RAM user authorization. The function can be successfully activated only after RAM users are successfully authorized. If RAM users are incorrectly created or deleted, the collected logs cannot be delivered to your Logstore.

Troubleshooting

Log on to the [RAM Console](#). On the RAM Roles page, check whether the AliyunLogArchiveRole role exists.

- If AliyunLogArchiveRole does not exist, use your Alibaba Cloud account to log on to the RAM console and click the [quick authorization link](#) to create the RAM users required for authorization.
- If AliyunLogArchiveRole exists, click the role name and check whether the role is correctly authorized.

The following shows the default policy. If your policy has been modified, we recommend that you replace the current policy with the default policy.

```
{
  "Version": "1",
  "Statement": [
    {
      "Action": [
        "log:PostLogStoreLogs"
      ],
      "Resource": "*",
      "Effect": "Allow"
    }
  ]
}
```

3. Check whether any log is generated.

If you do not find any SLB access log in the Log Service console, it is likely that no log has been generated. Possible causes include:

- Layer-7 listening is not configured for the current instance.

Currently, only instances configured with layer-7 listening are supported. Common layer-7 listening protocols include HTTP and HTTPS. For more information, see [Listener overview](#).

- Historical logs that were generated before activation of the access log collection function are not collected.

Instead, only logs that are generated after activation of the access log collection function are collected.

- The specified instance did not receive a request.

Logs are generated only when you request access to the listener of the instance.

3 Log query

3.1 What can cause an inaccurate query result to return?

When you query or analyze logs, a message indicating The results are inaccurate. may be displayed. This is displayed when only partial logs are scanned for query and analysis results, meaning the results do not include scans of full-log queries or analysis, and are therefore considered inaccurate.

Possible causes include:

1. The time range for queries is excessive.

Cause: The time range for queries is excessively wide, for example, three months or a year. In this case, Log Service cannot scan all logs generated within this time period.

Solution: Narrow down the time range for queries and perform multiple queries.

2. The query condition is exceedingly complex.

Cause: The query condition is exceedingly complex, or Log Service cannot read query results because the query condition contains multiple frequently used words.

Solution: Narrow down the query scope and perform multiple queries.

3. The SQL database reads an abnormally large amount of data.

Cause: The SQL database reads an abnormally large amount of data, which leads to inaccurate query results. For example, if the SQL database reads strings from multiple columns, it can read only 1 GB of data from each Shard. If this threshold is exceeded, inaccurate query results will be returned.

Solution: Narrow down the query scope and perform multiple queries.

3.2 How do I configure an index for a historical log?

Log Service cannot configure indexes for historical logs directly. However, you can rewrite the logs into a new Logstore through DataWorks or use CLI commands to configure indexes as needed.

Indexes are valid only for the logs that are collected after index configuration, and historical logs cannot be queried or analyzed. If you want to configure indexes for historical logs, use either of the following methods:

- Rewrite data into a new Logstore through DataWorks and then configure indexes.

After configuring an index for the new Logstore, use DataWorks to export historical logs from the old Logstore and then import them to the new Logstore. By doing so, you can query and analyze historical logs.

- Rewrite data into the Logstore through CLI commands and then configure indexes.

Use a command-line tool to rewrite logs into the Logstore to configure indexes.

For more information, see [Aliyun Log Service CLI](#).



Note:

Both the methods achieve index configuration through data duplication and import, which does not change or delete existing historical logs.

4 Alarm

4.1 Alarm configuration examples

This topic describes typical examples of alarm configurations.

Set the alarm notification to contain the error logs for which an alarm is set

Scenario: If the number of error logs exceed 5 within five minutes, an alarm is triggered and the alarm notification contains the error logs.

Configuration solution

- Statements associated with the alarm.
 - Sequence number 0: indicates `level : ERROR`.
 - Sequence number 1: indicates `level : ERROR | select COUNT (*) as count`.
- The condition for triggering the alarm is `$ 1 . count > 5`.
- The notification content is `${ results [ 0 ]. rawresults }`.

Modify Alert

Alert Configuration

* Alert Name: `alarm_test`

* Associated Chart

- 0: Chart Name: `test-pie-chart`, Query: `level: ERROR`, Search Period: 1Hour(Time Frame)
- 1: Chart Name: `chart-01`, Query: `level: ERROR | select COUNT(*) as count`, Search Period: 1Hour(Time Frame)

* Search Interval: 15 Minutes

* Trigger Condition: `$1.count>5`

Support the addition (+), subtraction (-), multiplication (*), division (/), and modulo (%) operations and comparison operations including >, >=, <, <=, ==, !=, =~, and !~. [Documentation](#)

Notifications

Notifications: Email

* Recipients: `abc@test.com` (12/256)

Use commas (,) to separate multiple recipients.

Subject: `Log Service Alert` (17/128)

* Content: `${results[0].rawresults}`

Supported template variables: `$(Project)`, `$(Condition)`, `$(AlertName)`, `$(AlertID)`, `$(Dashboard)`, `$(FireTime)`, `$(Results)`. [View all variables](#)

Next Cancel Previous Submit Cancel

5 Pricing

5.1 Disable Log Service

If you no longer require Log Service, you can delete all data to disable Log Service.

Context

If you no longer require Log Service, you can delete all projects and Logstores to delete logs.



Note:

- A storage fee is still calculated on the day when you delete the logs, and you will receive a bill for the storage fee the next day. However, you will not continue to receive any bill thereafter.
- After a project is deleted, all logs and configurations in the project will be permanently released and cannot be recovered. Therefore, we recommend that you exercise caution when performing this action.

Procedure

1. Log on to the [Log Service Console](#).
2. On the Projects page, find the project you want to delete.
3. Click Delete.

5.2 Billing FAQs

FAQ list

1. [What should I do if my account is in arrears due to Log Service?](#)
2. [I only created a project and a LogStore, why is there a bill?](#)
3. [How do I disable Log Service?](#)

1. What should I do if my account is in arrears due to Log Service?

Log Service charges resources after you use them. It outputs bills every day and automatically deducts fees. The bill lists resources you used on the last day. If the overdue bill is not paid off within 24 hours, your Log Service stops automatically. However, you are still charged for the storage space you are using, and the overdue

amount increases. We recommend that you pay off the overdue bill within 24 hours to avoid any business loss caused by service stop. You can continue to use Log Service after paid off the arrears.

2. I only created projects and Logstores. Why do I have a bill?

If you have created a project and a Logstore, a shard is created by default to reserve resources. As indicated by the page appeared when you create a Logstore, Log Service charges a small amount of resource reservation fees for the shard. Based on the current billing policy, the free quota for each shard is 31 days. If you create two shards, they will be charged after 15 days. You can delete the project and Logstore if you no longer need the shard. If you delete the resources, Log Service sends you the bill of resource usage the next day, and you do not receive the project bill from the third day.

For more information about the billing items, see [#unique_51](#).

3. How to disable Log Service?

If you no longer need Log Service, you can delete all projects under the account. In this case, Log Service is disabled and you will not be charged from the next day. If your account has been in arrears, pay off the arrears and delete the projects. If no Log Service services or resources exist under your account, you will not receive Log Service bills from the next day.