

# Message Notification Service

Developer Tools

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## Message Log Tool

Enables you to query message operation logs by queue/topic name, MessageID, and start and end time.

### Download and installation

#### Version 1.0.0

- Updated on: 2016-03-15 Download
- Functions updated
  - Operation logs of a specified message can be queried by queue/topic, MessageID, and start and end time.

#### Installation

- Download and decompress the toolkit.
- Go to the `mns_logging` directory, and run any of the following command to install the tool.

```
Linux: sudo python setup.py install
Windows: python.exe setup.py install
```

- For more help information, refer to the `mns_logging/README` document.

## Help

#### Configuration

Configure domain names of MNS and OSS, the access account, and the AccessKey/Secret pair. "Hangzhou" is used as an example in this document.

```
mnslogging_cmd config --ossendpoint=http://oss-cn-hangzhou.aliyuncs.com --
endpoint=http://$accountid.mns.cn-hangzhou.aliyuncs.com --accesskeyid=$your_accesskey --
accesskeysecret=$your_accesskeysecret
```

- \$accountid indicates the account ID which can be viewed on Alibaba official website.
- \$your\_accesskey/\$your\_accesskeysecret indicates the account' s key pair which can be viewed on Alibaba official website.

### Query queue logs

Operation logs of a specified message can be queried by the queue name, MessageID, and start and end time.

```
mnslogging_cmd queryqueueelog --queueName=$queueName --msgid=$msgid --starttime=$starttime --
endtime=$endtime
```

- \$queueName indicates the name of the specified queue.
- \$msgid indicates the ID of the message to be queried.
- \$starttime/\$endtime indicates the time scope of the logs to be queried.

For example:

```
$ mnslogging_cmd queryqueueelog --queueName=TestQueue --msgid="70E698D97158A6B0-1-15328988899-20000001A" --starttime=20160229_130000 --endtime=20160229_140000
----- logs -----
Time      Action      RemoteAddress  NextVisibleTime  ReceiptHandleInRequest  ReceiptHandleInResponse
2016-02-29 13:55:43.130185  BatchSendMessage  10.101.161.37  2016-02-29 13:55:43  -
2016-02-29 13:55:43.134287  BatchPeekMessage  10.101.161.37  -  -
2016-02-29 13:55:43.141349  BatchReceiveMessage  10.101.161.37  2016-02-29 13:56:13  -
2016-02-29 13:55:43.151590  BatchDeleteMessage  10.101.161.37  -  1-0DU40TkzNDYxOC0xNDU2NzI1MzcZLTETOA==
```

### Query topic logs

Operation logs of a specified message can be queried by the topic name, MessageID, and start and end time.

```
mnslogging_cmd querytopiclog --topicName=$topicName --msgid=$msgid --starttime=$starttime --
endtime=$endtime
```

- \$topicName indicates the name of the specified topic.
- \$msgid indicates the ID of the message to be queried.
- \$starttime/\$endtime indicates the time scope of the logs to be queried.

For example:

```
$ mnslogging_cmd querytopiclog --topicName=TestTopic --msgid="F69112600C113ACF-1-1532899AD0E-200000086" --starttime=20160229_130000 --endtime=20160229_140000
----- logs -----
Time      Action      RemoteAddress  NotifyStatus  SubscriptionName
2016-02-29 13:56:44.943614  PublishMessage  10.101.161.37  -  -
2016-02-29 13:56:44.955661  Notify  -  201  TestSub1
2016-02-29 13:56:44.968658  Notify  -  201  TestSub2
```

## HttpEndpoint debug tool

## HttpEndpoint local debug tool

This tool simulates Message Service to push http/https message(request) to a given http url to help test and debug the HttpEndpoint.

# Environment Dependency

This tool requires Python version higher than 2.5 (include) and lower than 3.0(exclusive) , can be used both in Windows and Linux.

## Help

Download the tool and enter the folder **mns\_topic\_tool** not required installation.

### Version 1.0.0

- UpdateTime : 2016-04-20 **Download Tool**

Functions:

Support `notifymsg_withauth` command for testing the authentication logic of HttpEndpoint ;

Support `notifymsg_withoutauth` command , help to test the message parser for HttpEndpoint.

## 1. Test the authentication logic of HttpEndpoint

Send http/https request to a given http host.

command format:

```
python mns_topic_tool.py notifymsg_withauth --host=http(s)://xxx
```

in which **http(s)://xxx** is the address of HttpEndpoint.

Sample:

```
$python mns_topic_tool.py notifymsg_withauth --host=http://10.101.161.37:8080
=====Send Request=====
POST /notifications
Content-Length: 451
User-Agent: Aliyun Notification Service Agent
Host: 10.101.161.37:8080
x-mns-version: 2015-06-06
Date: Wed, 03 Feb 2016 07:43:32 GMT
x-mns-signing-cert-url: aHR0cDovL2luc3Rlc3Qub3NzLWNUlWwhbmd6aG9lLmFsaX11bnNzLmNvbS94NTA5X3B1Ymxp
Y19jZmJ0aWZpY2F0ZS5wZW0=
Content-MD5: YjYONGZiNjE0YjFlNDQ0MWJmNjd1NWJhMzViMzViZDg=
Content-Type: text/xml;charset=utf-8
Authorization: cPpmTiRTv6GrBHKvILfBdq23A4hmIvK+h2665WgxPgu7mkrzOuCnaDFUyIg2DKjQ/+jxbBY1otjbsJZo
mYyHg==
x-mns-request-id: 56B1AFA4B3117F9E3F0464F3
Data: <?xml version="1.0" encoding="UTF-8"?><Notification xmlns="http://ns.aliyuncs.com/doc/v1/"
>TopicOwner>1365541074971606</TopicOwner><TopicName>night</TopicName><Subscriber>13655410749716
06</Subscriber><SubscriptionName>nightsub</SubscriptionName><MessageId>9CD0D085A77BDDF3-1-152A61
61A8C-200000001</MessageId><MessageMD5>444D0565E9FA6CA49AE306E304DF5917</MessageMD5><Message>ng
htleslie</Message><PublishTime>1454485412492</PublishTime></Notification>

=====Get Response=====
Status: 201
Header: date: Tue, 19 Apr 2016 03:42:36 GMT
content-length: 0
content-type: text/html
server: SimpleHttpNotifyEndpoint/1.0.3 Python/2.5.4
Data:
```

## 2. Test the HttpEndpoint parser for push message body

Send http/https request to a given HttpEndpoint address with message body and the format information.

Note: do not do the authentication in HttpEndpoint, for the request sent by this tool will not add the signature for authentication in this mode.

Command format

```
python mns_topic_tool.py notifymsg_withoutauth --host=http(s)://xxx [--uri=xxx] [--body=xxx] [--
base64=true/false] [--format=xml/simplfied] [--topicowner=xxx] [--topicname=xxx] [--subscriber=xxx] [--
subname=xxx] [--pubtime=xxx]
```

Parameter	Description	Default Value
uri	request uri	/notifications
body	content of message	TestMessage
base64	indicate if encoding in base64	false
format	format of body : xml/simplfied	xml
topicowner	the TopicOwner in message body	TestTopicOwner
topicname	the TopicName in message body	TestTopicName
subscriber	the Subscriber in message body	TestSubscriber
subname	the Subscription Name in	TestSubscriptionName

	message body	
pubtime	the publish message time in message body	current time

Sample:

```
$python mns_topic_tool.py notifymsg_withoutauth --host=http://10.101.161.37:8090 --uri=/register
--body="{\"id\":1,\"name\":\"Jim\"}" --format=simplified
=====Send Request=====
POST /register
Content-Length: 21
User-Agent: Aliyun Notification Service Agent
Host: 10.101.161.37:8090
x-mns-version: 2015-06-06
Date: Fri, 25 Nov 2016 07:27:15 GMT
Content-md5: ZGY1MGNhNDkNDFhYTgyYWJlNjRmNmE5MmVjMzMwZWm=
Content-Type: text/xml;charset=utf-8
x-mns-request-id: 566FD963B2B71C44481F701A
Data: {"id":1,"name":"Jim"}

=====Get Response=====
Status: 201
Header: date: Fri, 25 Nov 2016 07:27:15 GMT
content-length: 0
content-type: text/html
server: SimpleHttpNotifyEndpoint/1.0.3 Python/2.5.4
Data:
```

# Signature Verification Tool

Download Signature Generating Tool and unzip to local disk.

Open the file signature-demo.html in browser(suggest to use Chrome) ;

Input the AccessKey, AccessKeySecrete and the Required headers, the tool will caculate the signature and output in the web browser.

AccessKeyId:  AccessKeySecrete:

**Head Signature**

```
Signature = base64 0mac-sha1 (VERB + "\n"
+ CONTENT-MD5 + "\n"
+ CONTENT-TYPE + "\n"
+ DATE + "\n"
+ CanonicalizedOSSHeaders
+ CanonicalizedResource))
```

VERB:  Required

Content-MD5:  Optional

Content-Type:  Optional

Date:   Required, e.g: Fri, 13 Mar 2015 13:58:47 GMT

CanonicalizedMNSHeaders:  :   Optional, Meta key must start With 'x-mns-'

CanonicalizedMNSResource:  Required, e.g: /\${queueName}/\${Resource}?\${query string}

To Sign String:  
-----LINE-----

Signature: \_\_\_\_\_

**Note:** This tool is provided by a third party in a technology forum.