

aws云实例创建SNS实现邮件报警和自动恢复

笔记本： warship

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一、环境准备

1、安装python2.6.6(略)

2、安装aws-cli

(1)、下载aws-cli

```
curl "https://s3.amazonaws.com/aws-cli/awscli-bundle.zip" -o "awscli-bundle.zip"
```

```
unzip awscli-bundle.zip
```

安装可执行文件

```
sudo ./awscli-bundle/install -i /usr/local/aws -b /usr/local/bin/aws
```

Running cmd: /usr/bin/python virtualenv.py --no-download --python /usr/bin/python /usr/local/aws

Running cmd: /usr/local/aws/bin/pip install --no-index --find-links file:///usr/local/src/awscli-bundle/packages

awscli-1.11.156.tar.gz

You can now run: /usr/local/bin/aws --version

(2)、配置环境变量

可以在任一台能连接外网的主机上安装完aws cli 包，并且在该上配置好环境变量，就可以操作线上账号下的所有机器资源了

```
# aws configure
```

```
AWS Access Key ID [None]: AKIAIALPCYTAHD7RQNEQ
```

```
AWS Secret Access Key [None]: I803qrH3GUI0scAxL1uFJccmuNo/r2ffEqWrM5gB
```

```
Default region name [None]: us-west-2
```

```
Default output format [None]: json
```

或者编辑

```
mkdir /root/.aws
```

```
cd /root/.aws
```

```
vim config
```

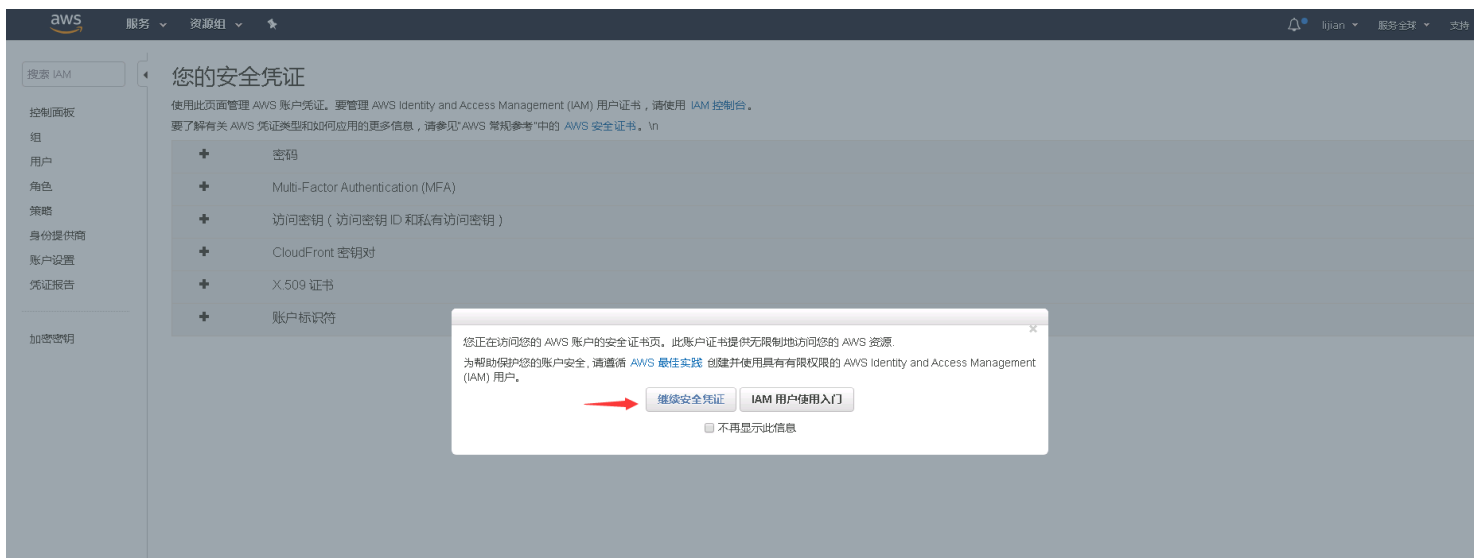
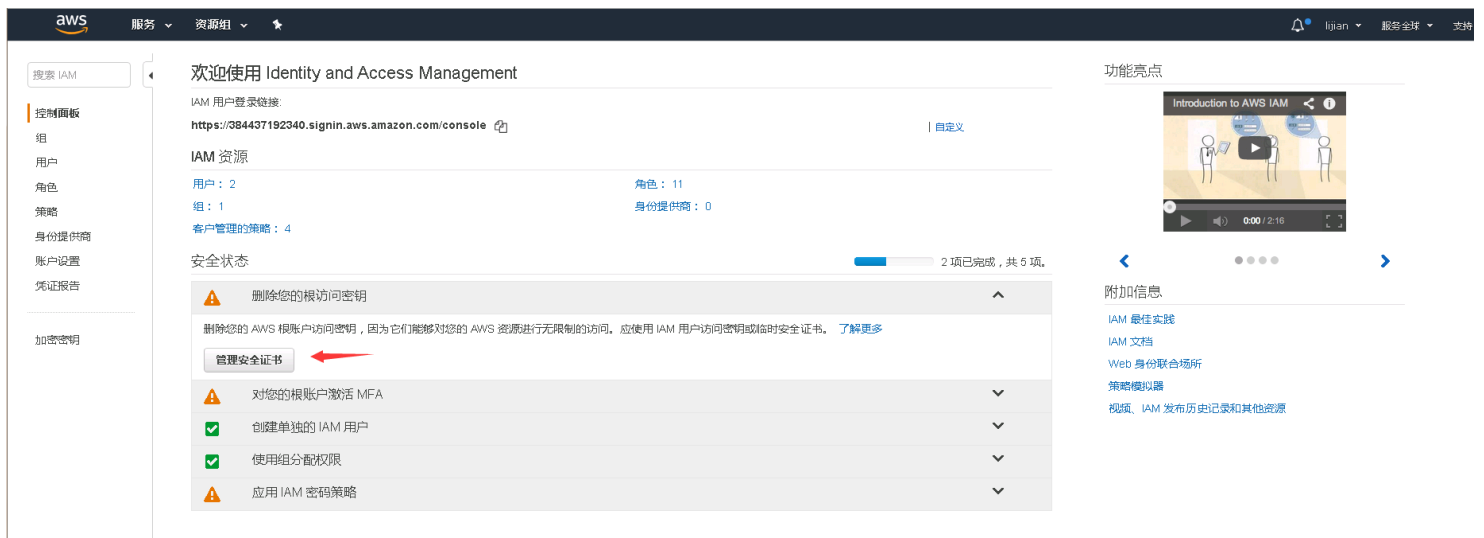
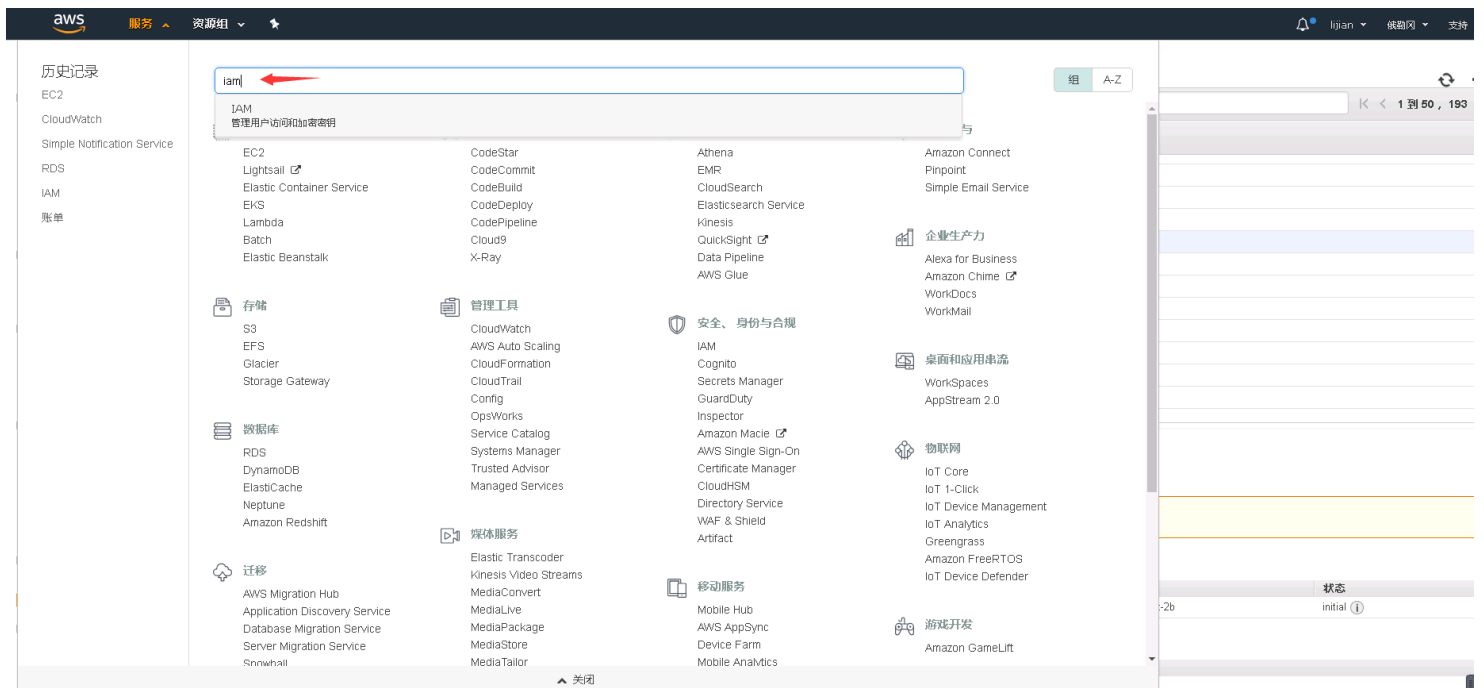
```
[default]
```

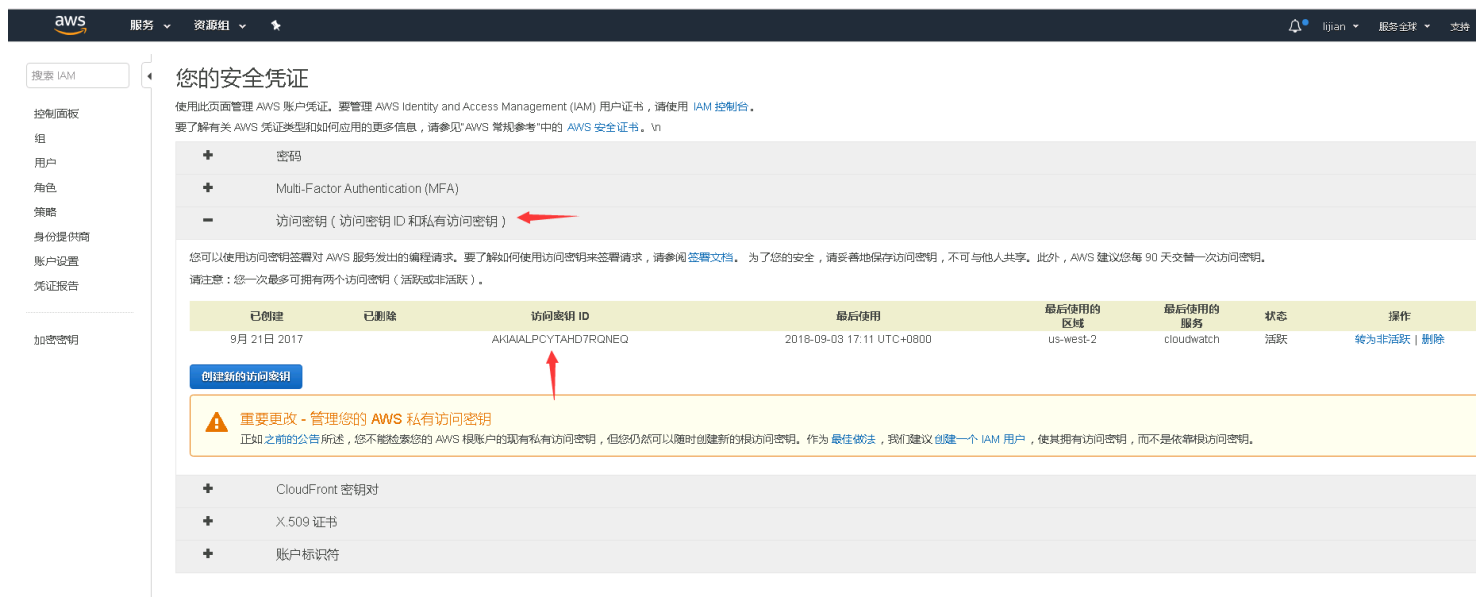
```
aws_access_key_id=AKIAIALPCYTAHD7RQNEQ
```

```
aws_secret_access_key=I803qrH3GUI0scAxL1uFJccmuNo/r2ffEqWrM5gB
```

```
output = json
```

```
region = us-west-2
```





(3)、使用

参考：<http://docs.aws.amazon.com/cli/latest/reference/rds/describe-db-log-files.html>

默认情况下aws命令接受的输入和输出格式数据格式都是json格式，不过也可以通过参数，指定输出的为table表格格式或text文件格式，具体可以使用aws help查看帮助手册。默认aws cli 的包文件存放路径为 /usr/local/lib/python2.7/dist-packages/awscli，也可以进该目录下的examples 查看帮助。

1)、ec2

简单用法

```
# aws ec2 describe-regions
```

```
{
  "Regions": [
    {
      "Endpoint": "ec2.eu-west-1.amazonaws.com",
      "RegionName": "eu-west-1"
    },
    {
      "Endpoint": "ec2.sa-east-1.amazonaws.com",
      "RegionName": "sa-east-1"
    }
  ]
}
```

复杂用法

```
# aws ec2 describe-tags --filters "Name=key,Values=Name" --output=table
```

2)、rds

打开日志记录

slow_query_log: To create the slow query log, set to 1. The default is 0.

general_log: To create the general log, set to 1. The default is 0.

long_query_time: 3

log_output option: You can specify one of the following options for the log_output parameter.

TABLE (default)– Write general queries to the mysql.general_log table, and slow queries to the mysql.slow_log table.

FILE– Write both general and slow query logs to the file system. Log files are rotated hourly.

NONE– Disable logging.

查看日志

```
aws rds describe-db-log-files --db-instance-identifier warships-log --output text
```

```
aws rds download-db-log-file-portion --db-instance-identifier ttlsa --starting-token 0 --output text --log-file-name general/mysql-general.log
```

```
# aws rds download-db-log-file-portion --db-instance-identifier warships-6 --starting-token 0 --output text --log-
file-name slowquery/mysql-slowquery.log.2017-09-22.01
/rdsdbbin/oscar/bin/mysqld, Version: 5.6.10 (MySQL Community Server (GPL)). started with:
Tcp port: 3306 Unix socket: /tmp/mysql.sock
Time          Id Command  Argument
```

```
# ll slow.txt
```

```
-rw-r--r-- 1 root root 0 Sep 22 00:47 slow.txt
```

创建rds

```
aws rds create-db-instance \
--db-instance-identifier mydbinstance \
--db-instance-class db.m1.small \
--engine mariadb \
--allocated-storage 20 \
--master-username masteruser \
--master-user-password masteruserpassword \
--backup-retention-period 3
```

输出：

```
DBINSTANCE mydbinstance db.m1.small mariadb 20 sa creating 3 **** n 10.0.17
SECGROUP default active
PARAMGRP default.mariadb10.0 in-sync
```

二、创建EC2和RDS实例的主题

(1)、创建EC2实例的主题

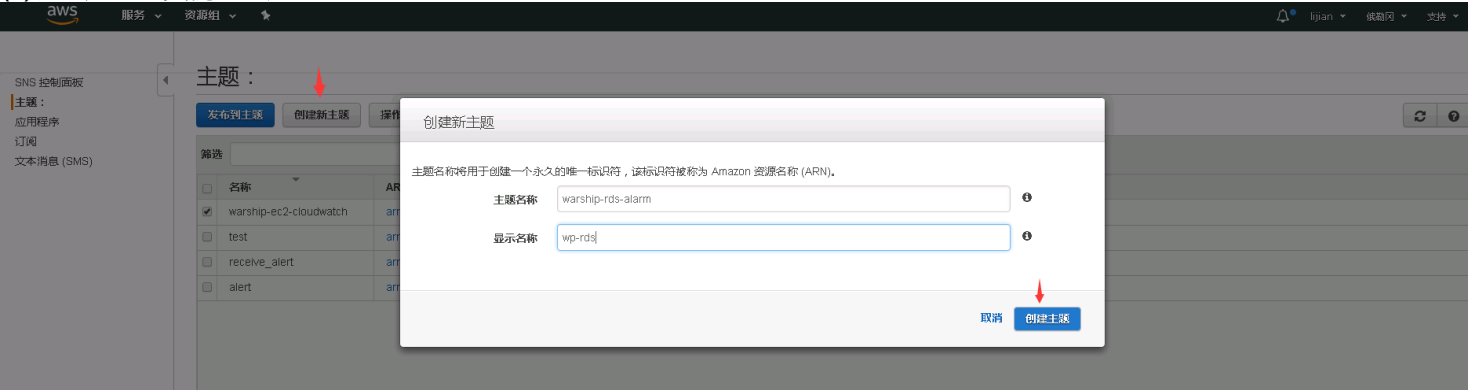
The screenshot displays the AWS Management Console interface. At the top, the 'sns' search results are shown, listing various AWS services. Below this, the 'Create New Topic' dialog box is open, prompting the user to enter a topic name and a display name. The dialog box includes a '主题名称' (Topic Name) field with the value 'warship-ec2-cloudwatch' and a '显示名称' (Display Name) field with the value 'wp-ec2'. The '创建主题' (Create Topic) button is highlighted.

主题名称: warship-ec2-cloudwatch

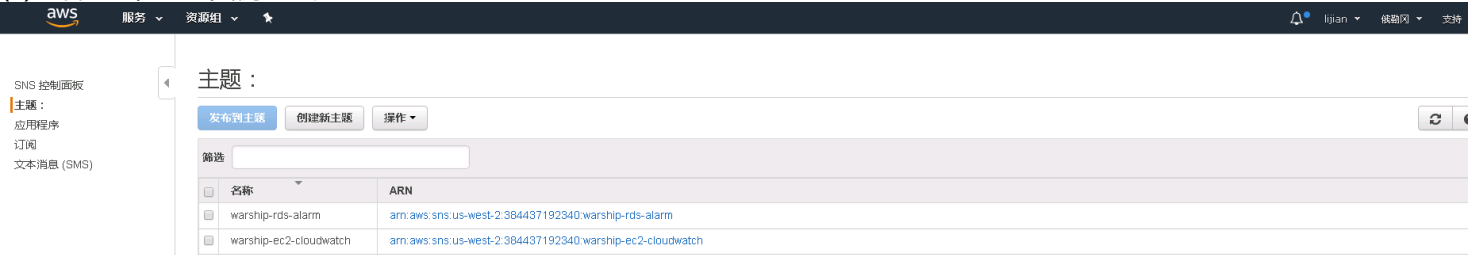
显示名称: wp-ec2

创建主题

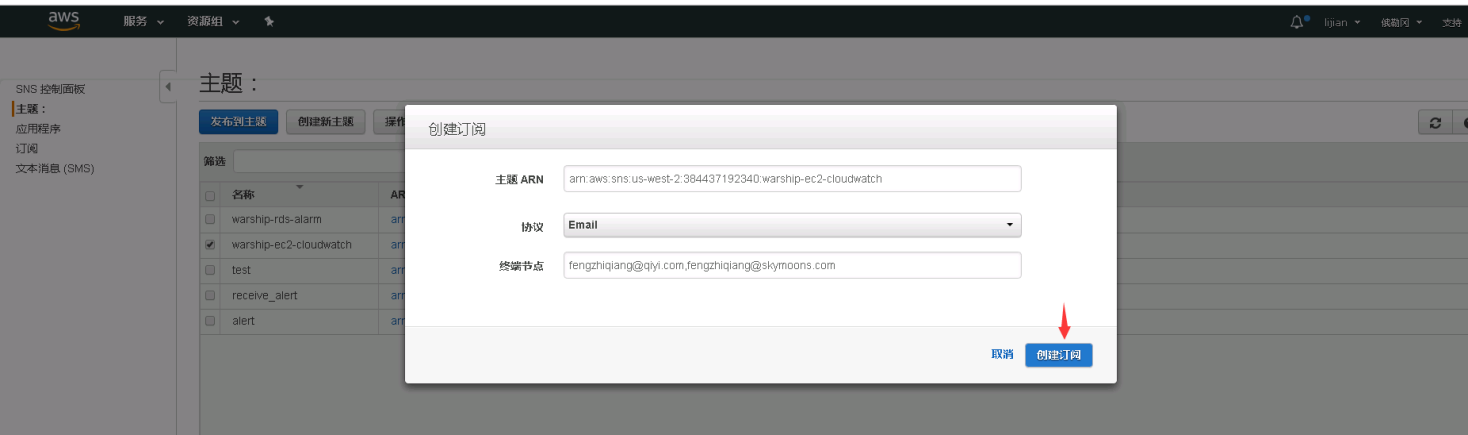
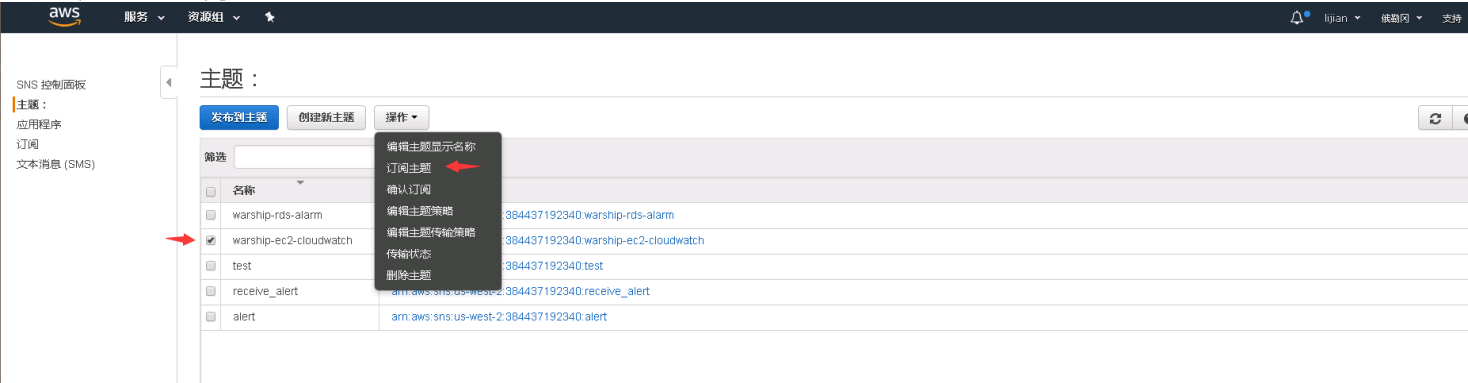
(2)、创建RDS实例的主题



(3)查看EC2和RDS实例的主题



三、创建EC2的订阅



注：多个终端节点通过逗号分隔。在做EC2的自动恢复时，临时添加或删除订阅都会及时反应到相应的EC2实例上，即订阅可以随时添加或删除并得出反应。订阅创建成功后，会给相应邮箱发送确定订阅邮件。以下为成功订阅后的截图。



AWS Notification - Subscription Confirmation ★

wp-ec2 ← 显示主题

发给 fengzhiqiang

发件人: wp-ec2<no-reply@sns.amazonaws.com>

收件人: fengzhiqiang<fengzhiqiang@qiwi.com>

时间: 2018年9月3日 (周一) 11:07 🕒

大小: 5 KB

You have chosen to subscribe to the topic:

arn:aws:sns:us-west-2:384437192340:warship-ec2-cloudwatch

To confirm this subscription, click or visit the link below (If this was in error no action is necessary):

[Confirm subscription](#)

Please do not reply directly to this email. If you wish to remove yourself from receiving all future SNS subscription confirmation requests please send an email to [sns-opt-out](#)



Simple Notification Service

Subscription confirmed!

You have subscribed fengzhiqiang@qiwi.com to the topic:

warship-ec2-cloudwatch.

Your subscription's id is:

arn:aws:sns:us-west-2:384437192340:warship-ec2-cloudwatch:0f0a50eb-b101-43ac-9bab-44c649ea81d0

If it was not your intention to subscribe, [click here to unsubscribe.](#)

四、创建RDS事件订阅

aws

服务 ▾ 资源组 ▾

🔍

🔔

lijian ▾

俄国问 ▾

支持 ▾

RDS 控制面板

实例

集群

Performance Insights

预留实例

快照

参数组

选项组

子网组

事件

事件订阅 ←

通知

创建事件订阅

名称 ⓘ

发送通知到 ⓘ [创建主题](#)

源类型 ⓘ

已启用 ☒ 是 ☐ 否

事件种类

☒ 全选

☐ 选择特定

failover

failure

notification

DB Clusters

☒ 全选

☐ 选择特定

warships

warships-1

warships-101

warships-102

warships-103

warships-104

warships-105

warships-106

warships-11-1

warships-12

warships-13

warships-132

warships-133

warships-134

warships-135

warships-136

warships-137

取消

创建

五、通过脚本批量添加EC2的Cloudwatch报警

(1)、编写脚本

```
#vim /root/.aws/aws.sh
#!/bin/bash
grep -v "^#" instance-id.20180903|while read INSTANCE_ID
do
aws cloudwatch put-metric-alarm --alarm-name "recover-instance ".$INSTANCE_ID --alarm-description "Recover Instance" --namespace AWS/EC2 --dimensions Name=InstanceId,Value=$INSTANCE_ID --actions-enabled --statistic Average --metric-name StatusCheckFailed --comparison-operator GreaterThanThreshold --threshold 0 --period 60 --evaluation-periods 2 --alarm-actions arn:aws:automate:us-west-2:ec2:recover arn:aws:sns:us-west-2:384437192340:warship-ec2-cloudwatch --region us-west-2
if [ $? -eq 0 ]; then
    echo $INSTANCE_ID add success. | tee /tmp/aws_`date +%Y%m%d`.log
else
    echo $INSTANCE_ID add fail. | tee /tmp/aws_`date +%Y%m%d`.log
fi
done
```

(2)、维护EC2实例ID列表

(3)、执行脚本并输出日志

六、显示cloudwatch告警列表

