**Rocketmq双主从异步复制集群部署（文中包含同步双写集群的配置说明）**

**一、预装环境：**

rhel 6.9（其实redhat & centos 6~7都是通用的）

jdk-1.8

git，maven(非必须)

**二、集群结构：**

**三、下载解压**

下载地址：[http://mirror.bit.edu.cn/apache/rocketmq/4.2.0/rocketmq-all-4.2.0-bin-release.zip](https://links.jianshu.com/go?to=http%3A%2F%2Fmirror.bit.edu.cn%2Fapache%2Frocketmq%2F4.2.0%2Frocketmq-all-4.2.0-bin-release.zip)

mkdir -p /opt/apps\_install/rocketmq-4.2.0

cd /opt/apps\_install/rocketmq-4.2.0

unzip rocketmq-all-4.2.0-bin-release.zip

ln -s /opt/apps\_install/rocketmq-4.2.0 /opt/apps/rocketmq

**四、创建存储路径**

10.16.13.90(rocketmq-nameserver-1)：

mkdir -p /data/rocketmq/store/{rootdir-a-m,commitlog-a-m,rootdir-b-s,commitlog-b-s}

10.16.13.91(rocketmq-nameserver-2)：

mkdir -p /data/rocketmq/store/{rootdir-b-m,commitlog-b-m,rootdir-a-s,commitlog-a-s}

**五、配置hosts和环境变量**

两台服务器修改/etc/hosts，加入下面两行

10.16.13.90 rocketmq-nameserver-1

10.16.13.91 rocketmq-nameserver-2

修改/etc/profile，加入

export ROCKETMQ\_HOME=/opt/apps/rocketmq

export PATH=$ROCKETMQ\_HOME/bin:$PATH

source /etc/profile

**六、修改配置文件**

国际惯例，修改之前先备份~以防意外

cd /opt/apps/rocketmq;cp -r conf/ conf.default/

因为本文采用双主双从异步复制，默认的rocketmq已经为我们配置了相应配置目录

cd /opt/apps/rocketmq/conf/2m-2s-async

10.16.13.90 rocketmq-nameserver-1      角色：broker-a-master & broker-b-slave

vim broker-a.properties

#所属集群名字

brokerClusterName=sns-rocket-mq-cluster

#broker名字，注意此处不同的配置文件填写的不一样

brokerName=rocketmq-nameserver-1

#brokerId 0 表示 Master，>0 表示 Slave

brokerId=0

# Broker 对外服务的监听端口

listenPort=10911

#nameServer地址，分号分割

namesrvAddr=rocketmq-nameserver-1:9876;rocketmq-nameserver-2:9876

# 删除文件时间点，默认凌晨 4点

deleteWhen=04

#文件保留时间，默认 48 小时

fileReservedTime=72

#Broker role有3种：SYNC MASTER、ASYNC MASTER、SLAVE。关键词SYNC和ASYNC表示Master和Slave之间同步消息的机制，SYNC即同步更新，指当Slave和Master消息同步完成后，再返回发送成功的状态。ASYNC即异步更新，master与slave有短暂消息延迟，毫秒级。本文在此使用了异步复制集群模式，线上环境推荐使用同步双写模式，即SYNC\_MASTER

brokerRole=ASYNC\_MASTER

# 刷盘方式 ASYNC\_FLUSH 异步刷盘

flushDiskType=ASYNC\_FLUSH

#存储路径

storePathRootDir=/data/rocketmq/store/rootdir-a-m

storePathCommitLog=/data/rocketmq/store/commitlog-a-m

# 是否允许 Broker 自动创建Topic

autoCreateTopicEnable=true

# 是否允许 Broker 自动创建订阅组

autoCreateSubscriptionGroup=true

vim broker-b-s.properties

brokerClusterName=sns-rocket-mq-cluster

brokerName=rocketmq-nameserver-2

listenPort=10921

namesrvAddr=rocketmq-nameserver-1:9876;rocketmq-nameserver-2:9876

brokerId=1

deleteWhen=04

fileReservedTime=72

brokerRole=SLAVE

storePathRootDir=/data/rocketmq/store/rootdir-b-s

storePathCommitLog=/data/rocketmq/store/commitlog-b-s

autoCreateTopicEnable=true

autoCreateSubscriptionGroup=true

flushDiskType=ASYNC\_FLUSH

10.16.13.91 rocketmq-nameserver-2      角色：broker-b-master & broker-a-slave

vim broker-b.properties

brokerClusterName=sns-rocket-mq-cluster

brokerName=rocketmq-nameserver-2

brokerIP1=10.16.13.91

brokerId=0

listenPort=10911

namesrvAddr=rocketmq-nameserver-1:9876;rocketmq-nameserver-2:9876

deleteWhen=04

fileReservedTime=72

## Broker role有3种：SYNC MASTER、ASYNC MASTER、SLAVE。关键词SYNC和ASYNC表示Master和Slave之间同步消息的机制，SYNC即同步更新，指当Slave和Master消息同步完成后，再返回发送成功的状态。ASYNC即异步更新，master与slave有短暂消息延迟，毫秒级。本文在此使用了异步复制集群模式ASYNC\_MASTER，线上环境推荐使用同步双写模式，即SYNC\_MASTER。

brokerRole=ASYNC\_MASTER

storePathRootDir=/data/rocketmq/store/rootdir-b-m

storePathCommitLog=/data/rocketmq/store/commitlog-b-m

autoCreateTopicEnable=true

autoCreateSubscriptionGroup=true

flushDiskType=ASYNC\_FLUSH

vim broker-a-s.properties

brokerClusterName=sns-rocket-mq-cluster

brokerName=rocketmq-nameserver-1

listenPort=10921

namesrvAddr=rocketmq-nameserver-1:9876;rocketmq-nameserver-2:9876

brokerId=1

deleteWhen=04

fileReservedTime=72

brokerRole=SLAVE

storePathRootDir=/data/rocketmq/store/rootdir-a-s

storePathCommitLog=/data/rocketmq/store/commitlog-a-s

autoCreateTopicEnable=true

autoCreateSubscriptionGroup=true

flushDiskType=ASYNC\_FLUSH

修改日志配置文件(两台一样)

mkdir -p /opt/apps/rocketmq/logs

cd /opt/apps/rocketmq/conf

sed -i 's#${user.home}#/opt/apps/rocketmq#g' \*.xml

**七、修改启动脚本参数**

继续国际惯例，修改之前先备份，两台服务器相同操作

cd  /opt/apps/rocketmq/bin

cp runbroker.sh runbroker.sh.default

调一下JVM，包括nameserver 和 broker。限于自己机器的配置，参数调小一下。但Rocketmq最少的堆是1g，否则无法启动。两台机器执行相同的操作。

JAVA\_OPT="${JAVA\_OPT} -server -Xms16g -Xmx16g -Xmn8g -XX:MetaspaceSize=512m -XX:MaxMetaspaceSize=1g"

**八、服务启动**

要先启动namerserver，再启broker，两台机器执行相同的操作。

这里为了未来方便运维，最好是写好相应的服务启动脚本，养成一个好习惯比拥有一个好记性更友爱不是么~

① 启动nameserver，两台机器操作相同

mkdir -p /opt/scripts/rocketmq

cd /opt/scripts/rocketmq

vim start\_rocketmq\_nameserver.sh

#!/bin/bash

source /etc/profile

nohup sh /opt/apps/rocketmq/bin/mqnamesrv > /data/rocketmq/store/mqnamesrv.log 2>&1 &

② 启动broker。当然两台机器不一样，这里一个一个来

10.16.13.90 rocketmq-nameserver-1

vim start\_broker\_a\_master.sh

#!/bin/bash

nohup sh /opt/apps/rocketmq/bin/mqbroker -c /opt/apps/rocketmq/conf/2m-2s-async/broker-a.properties > /data/rocketmq/store/broker-a-m.log 2>&1 &

vim start\_broker\_b\_slave.sh

#!/bin/bash

nohup sh /opt/apps/rocketmq/bin/mqbroker -c /opt/apps/rocketmq/conf/2m-2s-async/broker-b-s.properties > /data/rocketmq/store/broker-b-s.log 2>&1 &

10.16.13.91 rocketmq-nameserver-2

vim start\_broker\_b\_master.sh

#!/bin/bash

nohup sh /opt/apps/rocketmq/bin/mqbroker -c /opt/apps/rocketmq/conf/2m-2s-async/broker-b.properties > /data/rocketmq/store/broker-b-m.log 2>&1 &

vim start\_broker\_a\_slave.sh

#!/bin/bash

nohup sh /opt/apps/rocketmq/bin/mqbroker -c /opt/apps/rocketmq/conf/2m-2s-async/broker-a-s.properties > /data/rocketmq/store/broker-a-s.log 2>&1 &

这里再啰嗦一遍，先启动nameserver，再启动broker，两台机器的启动顺序：启动nameserver---启动broker master---启动broker slave，done

都启动完毕之后可以jps看一下

[@bx\_13\_90 /opt/scripts/rocketmq]# jps

60161 BrokerStartup

147505 Jps

59300 NamesrvStartup

60760 rocketmq-console-ng-1.0.0.jar

124248 BrokerStartup

查看服务启动后的机器状态：

[@bx\_13\_90 /opt/scripts/rocketmq]# mqadmin clusterList --namesrvAddr=10.16.13.90:9876

Java HotSpot(TM) 64-Bit Server VM warning: ignoring option PermSize=128m; support was removed in 8.0

Java HotSpot(TM) 64-Bit Server VM warning: ignoring option MaxPermSize=128m; support was removed in 8.0

#Cluster Name    #Broker Name            #BID  #Addr                  #Version                #InTPS(LOAD)      #OutTPS(LOAD) #PCWait(ms) #Hour #SPACE

sns-rocket-mq-cluster  rocketmq-nameserver-1  0    10.16.13.90:10911      V4\_2\_0\_SNAPSHOT          0.00(0,0ms)        0.00(0,0ms)          0 425360.18 0.0000

sns-rocket-mq-cluster  rocketmq-nameserver-1  1    10.16.13.91:10921      V4\_2\_0\_SNAPSHOT          0.00(0,0ms)        0.00(0,0ms)          0 425360.18 0.0000

sns-rocket-mq-cluster  rocketmq-nameserver-2  0    10.16.13.91:10911      V4\_2\_0\_SNAPSHOT          0.00(0,0ms)        0.00(0,0ms)          0 425360.18 0.0000

sns-rocket-mq-cluster  rocketmq-nameserver-2  1    10.16.13.90:10921      V4\_2\_0\_SNAPSHOT          0.00(0,0ms)        0.00(0,0ms)          0 425360.18 0.0000

**九、服务关闭**

关闭nameserver：

/opt/apps/rocketmq/bin/mqshutdown namesrv

关闭broker：

/opt/apps/rocketmq/bin/mqshutdown broker。