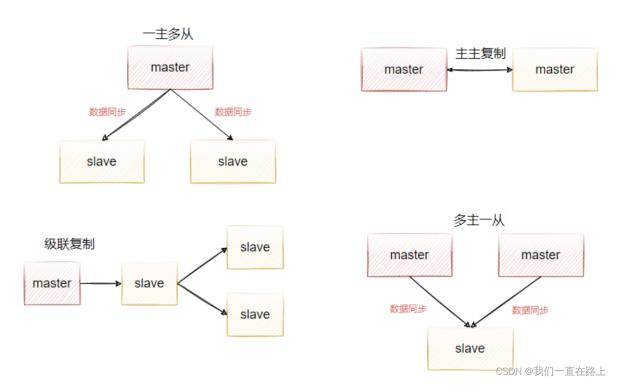
架構調整:從「一主多從」變為「級聯複製」



UAT 實作細節

```
## 登入 lab: 10.21.1.3

## 查看現在的 node 關係

$ sudo su

$ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i | cut -d ' ' -f 1` -p 6378 -a newld20200909 cluster nodes 2> /dev/null

04349595dc7b856fd27a2c87d33c842cd506e1f2 10.21.1.122:6380@16380 slave b96b5dd558e7568f383aa4ab2fa625edac4bd020 0 1673243148000 17 connected

959f6718cefd96214ec46025e835f9b405802983 10.21.1.3:6380@16380 slave b96b5dd558e7568f383aa4ab2fa625edac4bd020 0 1673243148000 17 connected

6de8c57e166e6987e4f66473181d237c261ce41e5 10.21.1.3:6380@16380 slave b96b5dd558e7568f383aa4ab2fa625edac4bd020 0 1673243148000 16 connetted

6de8c57e166e6987e4f66473181d237c261ce41e5 10.21.1.3:6378@16378 myself,slave 23a405fd0d07732e0117bb367f9e0b850ebfb14b 0 1673243148000 16 connetted

6de8c57e166e6987e4f66473181d2377c261ce41e5 10.21.1.122:6377@16377 master - 0 1673243147000 15 connected 10923-16383

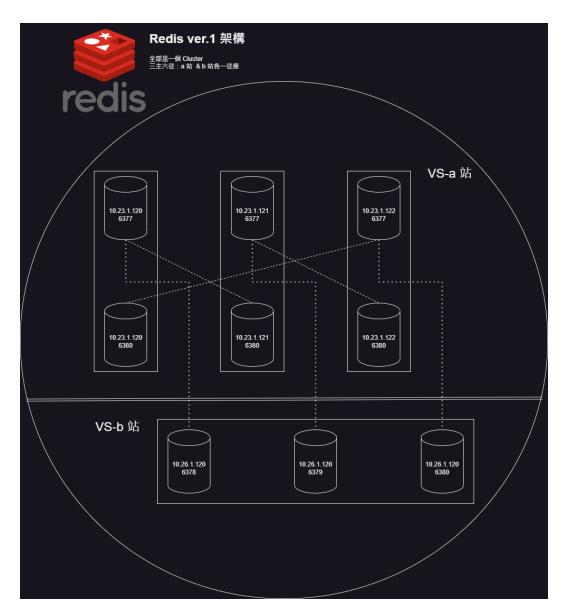
23a405fd0d07732e0117bb367f9e0b850ebfb14b 10.21.1.120:6387@16377 master - 0 1673243147000 16 connected 0-5461

b96b5dd558e7568f383aa4ab2fa625edac4bd020 10.21.1.121:6377@16377 master - 0 1673243146000 17 connected 5462-10922

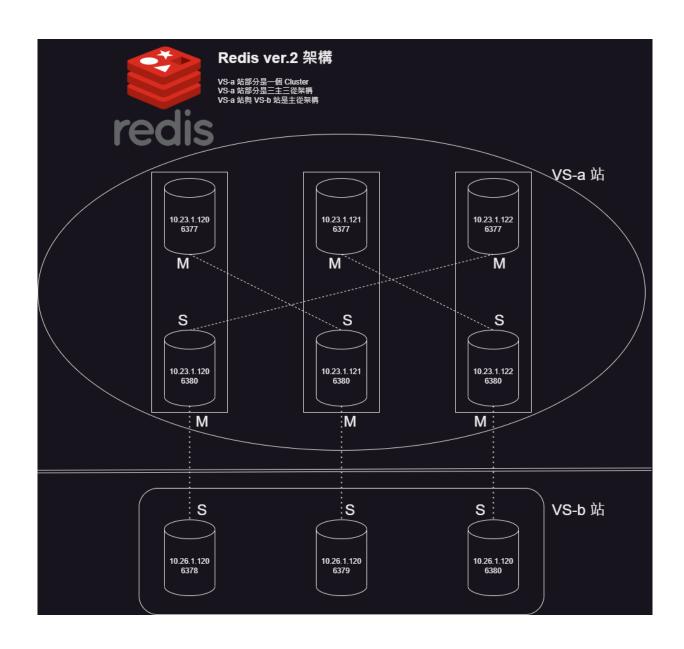
f7def362c61ae67a2025f8f820062c40d8061743 10.21.1.121:6370@16377 master - 0 1673243146000 17 connected 5462-10922

f7def362c61ae67a2025f8f820062c40d8061743 10.21.1.121:6380@16380 slave fb7a8a516331499dc0cce6e754651192487a2692 0 1673243148122 15 connected 9cc6fcd015145cfe8bf81150bd58b4b8397e07e0 10.21.1.121:6380@16380 slave 23a405fd0d07732e0117bb367f9e0b850ebfb14b 0 1673243149126 16 connected 289cd799d35d8362a87c94057879bb111875e57a 10.21.1.3:6382@16382 slave fb7a8a516331499dc0cce6e754651192487a2692 0 1673243146000 15 connected 289cd799d35
```

- Master 10.21.1.120:6377@16377
 - o Replica/Slave 10.21.1.121:6380@16380
 - o Replica/Slave 10.21.1.3:6378@16378
- Master 10.21.1.121:6377@16377
 - o Replica/Slave 10.21.1.122:6380@16380
 - o Replica/Slave 10.21.1.3:6380@16380
- Master 10.21.1.122:6377@16377
 - o Replica/Slave 10.21.1.120:6380@16380
 - o Replica/Slave 10.21.1.3:6382@16382



理想的聯級複製



• 最上面的圖都沒有提到 cluster 狀態,就代表 cluster 在這些架構轉換裡面是不被考慮的。

```
## 登入 cluster 任一主機,以 master 身分登入,撈取 vs-b 的 instance 資訊
$ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i` -p 6377 -c -a newld20200909 cluster nodes | grep 10.21.1.3
Warning: Using a password with '-a' or '-u' option on the command line interface may not be safe.
959f6718cefd96214ec46025e835f9b405802983 10.21.1.3:6380@16380 slave b96b5dd558e7568f383aa4ab2fa625edac4bd020 0 1673252273000 17 connected
289cd799d35d8362a87c94057879bb111875e57a 10.21.1.3:6382@16382 slave fb7a8a516331499dc0cce6e754651192487a2692 0 1673252272000 15 connected
6de8c57e166e6987e4f6473181d237c261ce41e5 10.21.1.3:6378@16378 master, fail - 1673247094291 1673247090282 16 disconnected
## 把三個 vs-b 的 instance 逐一從 cluster 刪除
$ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i` -p 6377 -c -a newld20200909 cluster forget 959f6718cefd96214ec46025e835f9b4058029
Warning: Using a password with '-a' or '-u' option on the command line interface may not be safe.
0K
$ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i` -p 6377 -c -a newld20200909 cluster forget 289cd799d35d8362a87c94057879bb111875e5
Warning: Using a password with '-a' or '-u' option on the command line interface may not be safe.
$ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i` -p 6377 -c -a newld20200909 cluster forget 6de8c57e166e6987e4f6473181d237c261ce41
Warning: Using a password with '-a' or '-u' option on the command line interface may not be safe.
[gok@vs-uat-redis-01 ~]$ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i` -p 6377 -c -a newld20200909 cluster nodes | grep 10.21.1.3
Warning: Using a password with '-a' or '-u' option on the command line interface may not be safe.
```

```
## 確認現存的 cluster nodes 中是否還有 vs-b 的 instance 資訊
\ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i` -p 6377 -c -a newld202000909 cluster nodes 2> /dev/null
f7 def362 c61 ae 67 a 20 25 f8 f82 00 62 c40 d80 61743 \\ \ 10.21.1.120: 6380 @16380 \\ \ slave \\ \ fb7 a 8a 51 6331 499 dc 0 cce 6e 75 465 1192 487 a 2692 \\ \ 0 \\ \ 167 325 253 8000 \\ \ 15 \\ \ connected
9cc6fcd015145cfe8bf81150bd58b4b8397e07e0 10.21.1.121:6380@16380 slave 23a405fd0d07732e0117bb367f9e0b850ebfb14b 0 1673252538000 17 connected
04349595 dc7b856 fd27a2c87d33c842cd506e1f2\ 10.21.1.122:6380@16380\ slave\ b96b5dd558e7568f383aa4ab2fa625edac4bd020\ 0\ 1673252538963\ 17\ connected
289 cd 799 d35 d8362 a87 c94057879 bb111875 e57 a \ 10.21.1.3:6382 @ 16382 \ slave \ fb7 a8a516331499 dc0 cce6e754651192487a2692 \ 0 \ 1673252537000 \ 15 \ connected
b96b5dd558e7568f383aa4ab2fa625edac4bd020\ 10.21.1.121:6377@16377\ master\ -\ 0\ 1673252537959\ 17\ connected\ 5462-10922\ 10.21.1.121:6377\ master\ -\ 0\ 167325252537959\ 17\ connected\ 5462-10922\ 10.21.111:6377\ master\ -\ 0\ 167325252537959\ 17\ connected\ 5462-10922\ 10.21.111:6377\ master\ -\ 0\ 167325252537959\ 17\ connected\ 10.21.111:6377\ master\ -\ 0\ 1673252527\ master\ -\ 0\ 167325
42ce7ed8f1c54d4c7ea694fc034d644f514fb134\ 10.21.1.3:6378@16378\ handshake\ -\ 1673252527819\ 0\ 0\ disconnected
23a405fd0d07732e0117bb367f9e0b850ebfb14b\ 10.21.1.120:6377@16377\ myself, master\ -\ 0\ 1673252537000\ 16\ connected\ 0-5461
## 修改 vs-b 各 instance 的 conf 檔案
## 主要是把 cluster-enabled yes 變成註解
$ vim /opt/centos/redis-6378.conf
$ vim /opt/centos/redis-6380.conf
$ vim /opt/centos/redis-6382.conf
## 關閉所有 redis 服務
$ sudo netstat -nutlp | grep -e :63 -e "redis-server 1" | awk '{print $7}' | awk -F '/' '{print $1}' | xargs kill
## 啟動三個 port
$ /usr/local/redis-cluster/bin/redis-server redis-6378.conf
$ /usr/local/redis-cluster/bin/redis-server redis-6380.conf
$ /usr/local/redis-cluster/bin/redis-server redis-6382.conf
## 串連 vs-a 的 slave 成為 vs-b 的 master
$ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i | cut -d ' ' -f 1` -p 6378 -a newld20200909 replicaof 10.21.1.120 6380 2> /dev/nul
$ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i | cut -d ' ' -f 1` -p 6380 -a newld20200909 replicaof 10.21.1.121 6380 2> /dev/nul
OK
$ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i | cut -d ' ' -f 1` -p 6382 -a newld20200909 replicaof 10.21.1.122 6380 2> /dev/nul
### 查看 vs-b 這三個 instance 的 replication 狀態
$ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i | cut -d ' ' -f 1` -p 6378 -a newld20200909 info replication 2> /dev/null
role:slave
master_host:10.21.1.120
master_port:6380
```

```
master_link_status:up
master_last_io_seconds_ago:1
master_sync_in_progress:0
slave_read_repl_offset:248610
slave_repl_offset:248610
slave_priority:100
slave_read_only:1
replica announced:1
connected_slaves:0
master failover state:no-failover
master replid:5f1a3512883d1fc76f0ade1bcb73ba99ae2c85d9
master_repl_offset:248610
second repl offset:-1
repl_backlog_active:1
repl_backlog_size:1048576
repl_backlog_first_byte_offset:248205
repl_backlog_histlen:406
\ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i | cut -d ' ' -f 1` -p 6380 -a newld20200909 info replication 2> /dev/null
# Replication
role:slave
master_host:10.21.1.121
master_port:6380
master_link_status:up
master_last_io_seconds_ago:2
master_sync_in_progress:0
slave_read_repl_offset:37688
slave_repl_offset:37688
slave_priority:100
slave_read_only:1
replica_announced:1
connected_slaves:0
master_failover_state:no-failover
master_replid:3de5caa192a71b081a666a1d0035d63719d9f08e
```

```
master_repl_offset:37688
second_repl_offset:-1
repl_backlog_active:1
repl_backlog_size:1048576
repl_backlog_first_byte_offset:37311
repl_backlog_histlen:378
\ /usr/local/redis-cluster/bin/redis-cli -h `hostname -i | cut -d ' ' -f 1` -p 6382 -a newld20200909 info replication 2> /dev/null
# Replication
role:slave
master_host:10.21.1.122
master_port:6380
master_link_status:up
master_last_io_seconds_ago:2
master_sync_in_progress:0
slave_read_repl_offset:244300
slave_repl_offset:244300
slave_priority:100
slave_read_only:1
replica_announced:1
connected_slaves:0
master failover state:no-failover
master_replid:afd627ca25bd3647640461dcf8c9dd0526cf0f08
master_repl_offset:244300
second_repl_offset:-1
repl_backlog_active:1
repl_backlog_size:1048576
repl_backlog_first_byte_offset:243923
repl_backlog_histlen:378
```

```
### 如果現在回到 vs-a 查看 cluster nodes 狀態,會出現 fail 為正常
### 因為 vs-b 的主機在 cluster 中無法被正確定位:#cluster-enabled yes
$ /usr/local/redis-cluster/bin/redis-cli -h 'hostname -i '-p 6380 -c -a newld20200909 cluster nodes | grep fail
Warning: Using a password with '-a' or '-u' option on the command line interface may not be safe.
6de8c57e166e6987e4f6473181d237c261ce41e5 10.21.1.3:6378@16378 master, fail - 1673247094299 1673247090000 16 disconnected
289cd799d35d8362a87c94057879bb111875e57a 10.21.1.3:6382@16382 slave, fail fb7a8a516331499dc0cce6e754651192487a2692 1673252949003 16732529480
959f6718cefd96214ec46025e835f9b405802983 10.21.1.3:6380@16380 slave, fail b96b5dd558e7568f383aa4ab2fa625edac4bd020 1673252949003 16732529456
```