

apache jboss session clustering

실행 환경

VM1 - apache, jboss

VM2 - jboss1, jboss2

/apache/conf/workers.properties

```
#Name of the worker
```

```
worker.list = worker1
```

```
#Slave 1 Configuration
```

```
worker.slave1.type = ajp13
```

```
worker.slave1.host = 192.168.4.64
```

```
worker.slave1.port = 8109
```

```
worker.slave1.lbfactor = 10
```

```
#Slave 2 Configuration
```

```
worker.slave2.type = ajp13
```

```
worker.slave2.host = 192.168.4.67
```

```
worker.slave2.port = 8109
```

```
worker.slave2.lbfactor = 5
```

```
#Slave 3 Configuration
```

```
worker.slave3.type = ajp13
```

```
worker.slave3.host = 192.168.4.67
```

```
worker.slave3.port = 8209
```

```
worker.slave3.lbfactor = 5
```

```
#LB method and stick session and the member details
```

```
worker.worker1.type = lb
```

```
worker.worker1.sticky_session = 0
```

```
worker.worker1.balance_workers = slave1, slave2, slave3
```

/jboss-eap-7.3/docs/examples/configs/env.sh

```
#MULTICAST_ADDR=230.1.0.2 #멀티케스트는 224.0.1.0 ~ 238.255.255.255 까지 범위를 가진다.  
(TCP Specification)  
#JMS_MULTICAST_ADDR=231.7.0.1 #Apache mod_cluster 통신용 멀티케스트 주소  
  
#standalone-ha.xml (socket-binding name="modcluster")  
  
#MODCLUSTER_MULTICAST_ADDR=224.0.1.105  
  
#JAVA_OPTS="$JAVA_OPTS -Djboss.default.jgroups.stack=tcp"  
#JAVA_OPTS="$JAVA_OPTS -Djboss.default.jgroups.stack=udp"  
#JAVA_OPTS="$JAVA_OPTS -  
Djboss.default.multicast.address=$MULTICAST_ADDR"  
#JAVA_OPTS="$JAVA_OPTS -  
Djboss.messaging.group.address=$JMS_MULTICAST_ADDR"  
#JAVA_OPTS="$JAVA_OPTS -  
Djboss.modcluster.multicast.address=$MODCLUSTER_MULTICAST_ADDR"
```

UDP

```
MULTICAST_ADDR=230.1.0.2  
JMS_MULTICAST_ADDR=231.7.0.1  
MODCLUSTER_MULTICAST_ADDR=224.0.1.105  
JAVA_OPTS="$JAVA_OPTS -Djboss.default.jgroups.stack=udp"  
JAVA_OPTS="$JAVA_OPTS -  
Djboss.default.multicast.address=$MULTICAST_ADDR"  
JAVA_OPTS="$JAVA_OPTS -  
Djboss.messaging.group.address=$JMS_MULTICAST_ADDR"  
JAVA_OPTS="$JAVA_OPTS -  
Djboss.modcluster.multicast.address=$MODCLUSTER_MULTICAST_ADDR"
```

TCP

```
MULTICAST_ADDR=230.1.0.2  
JMS_MULTICAST_ADDR=231.7.0.1  
MODCLUSTER_MULTICAST_ADDR=224.0.1.105  
JAVA_OPTS="$JAVA_OPTS -Djboss.default.jgroups.stack=tcp"  
JAVA_OPTS="$JAVA_OPTS -  
Djboss.default.multicast.address=$MULTICAST_ADDR"
```

```
JAVA_OPTS="$JAVA_OPTS -
Djboss.messaging.group.address=$JMS_MULTICAST_ADDR"
JAVA_OPTS="$JAVA_OPTS -
Djboss.modcluster.multicast.address=$MODCLUSTER_MULTICAST_ADDR"
```

(TCP 설정) 모든 jboss 실행 후 log

```
2023-08-01 13:11:26,800 INFO [org.infinispan.CLUSTER] (remote-thread--p17-t2) [Context=client-mappings] ISPN100010: Finished rebalance with members [slave11, slave11, slave12], topology id 9
```

로컬 브라우저로 접속 후 session 유지되는 확인

← → ↻ ⚠ 주의 요함 | <https://192.168.4.64/cluster/test/>

Cluster Test

You have visited this application 7 times.

This page is being served from **192.168.4.64:443**

Your Session ID is 8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN

브라우저 새로고침 하면서 log확인

```
2023-08-01 13:13:41,202 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
Vtt3q3agtJwRFXDHI-NgYRTN
2023-08-01 13:13:53,598 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
Vtt3q3agtJwRFXDHI-NgYRTN
2023-08-01 13:13:51,069 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
```

jboss 하나씩 종료 시키면서 session 유지되는지 확인

1. VM1의 jboss 종료 후 log

```
2023-08-01 13:20:21,299 INFO [org.infinispan.CLUSTER] (remote-thread--p12-t2) [Context=client-mappings] ISPN100010: Finished rebalance with members [slave11, slave12], topology id 16
```

Cluster Test

You have visited this application 10 times.

This page is being served from **192.168.4.64:443**

Your Session ID is 8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN

```
2023-08-01 13:22:18,312 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
2023-08-01 13:22:19,911 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
2023-08-01 13:22:20,886 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
```

2. VM2의 jboss1 종료 후 다시 확인

```
2023-08-01 13:26:52,900 INFO [org.infinispan.CLUSTER] (stateTransferExecutor-thread-
-p15-t114) [Context=cluster_test.war] ISPN100007: After merge (or coordinator change)
, recovered members [slave12] with topology id 18
```

Cluster Test

You have visited this application 13 times.

This page is being served from **192.168.4.64:443**

Your Session ID is 8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN

```
2023-08-01 13:27:13,174 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
2023-08-01 13:27:13,776 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
2023-08-01 13:27:14,461 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
```

3. VM1의 jboss 재실행, VM2의 jboss1 재실행, VM2의 jboss2 종료

```
2023-08-01 13:29:54,252 INFO [org.infinispan.CLUSTER] (stateTransferExecutor-thread--p15-t34) [Context=cluster_test.war] ISPN100007: After merge (or coordinator change), recovered members [slave11, slave11] with topology id 32
2023-08-01 13:30:26,508 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
2023-08-01 13:30:28,673 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
2023-08-01 13:30:29,599 INFO [stdout] (default task-1) session=8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN
```

← → ↻ ⚠ 주의 요함 | <https://192.168.4.64/clustertest/>

Cluster Test

You have visited this application 16 times.

This page is being served from **192.168.4.64:443**

Your Session ID is 8zmCBg_-87vdGafZVtt3q3agtJwRFXDHI-NgYRTN