Jboss 클러스터링 (TCP) (2)

```
config 파일 : standalone-ha.xml

TCP Port : 7600
```

```
<socket-binding name="jgroups-tcp" interface="private" port="7600"/>
```

```
# 각각의 인스턴스에 name 입력

<server xmlns="urn:jboss:domain:11.0" name="standalone1">
```

```
<core-environment node-identifier="standalone1">
# 이번 클러스터 설정에 적용 X
```

```
<stack name="tcp">
    <transport type="TCP" socket-binding="jgroups-tcp"/>
    <protocol type="TCPPING">
     <property name="initial_hosts">192.168.208.10[7600],192.168.208.11[7600],192.168.208.12[7600]</property>
     <property name="port_range">0</property>
     <property name="timeout">2000</property>
    </protocol>
    <protocol type="MERGE3"/>
    <socket-protocol type="FD_SOCK" socket-binding="jgroups-tcp-fd"/>
    <protocol type="FD_ALL"/>
    <protocol type="VERIFY_SUSPECT"/>
    <protocol type="pbcast.NAKACK2"/>
    <protocol type="UNICAST3"/>
    <protocol type="pbcast.STABLE"/>
    <protocol type="pbcast.GMS"/>
    <protocol type="MFC"/>
    <protocol type="FRAG3"/>
</stack>
```

```
Mod_Cluster 방식으로 연동할 시 Name='standalone1' 이러한 방법으로 선언
Apache의 Workers.properties에 해당 Name을 선언 후 분기할 수 있게함.
이러한 방법 말고 standalone-ha.xml에서 instance-id 옵션을 지정하거나 jvmRoute 라는 Java 옵션을 설정하여 아파치에 연동
```

```
# standalone-ha.xml

<subsystem xmlns="urn:jboss:domain:undertow:10.0" default-server="default-server" default-virtual-host="default-host" instance-id="sta
```

```
#jboss env.sh

JAVA_OPTS="$JAVA_OPTS -Djboss.node.name=$SERVER_NAME"
JAVA_OPTS="$JAVA_OPTS -DjvmRoute=$SERVER_NAME"
```

```
# Apache Server

# 아파치는 사전에 컴파일된 연동모듈인 mod_jk.so 파일이 아파치 modules 디렉토리에 Load되어야 함

# httpd.conf

LoadModule jk_module modules/mod_jk.so
###################################
# JBoss standalone1,2,3 Connector
###################################

# config file of mod_jk
JkWorkersFile /home/apache1/apache-2.4.43/conf/workers.properties

# Redirect all requests to "worker1", JBoss Server
JkMount /* loadbalancer
```

```
JkMount /status stat
# Set mod_jk log level to "debug"
JkLogLevel debug
JkShmFile logs/mod_jk.shm
JkLogFile logs/mod_jk.log

<Location /server-status>
        SetHandler server-status
        Order deny,allow
        Allow from all
        Require all granted
</Location>
```

```
# workers.properties

worker.list=loadbalancer,stat

# Define Standalone1
worker.standalone1.type=ajp13
worker.standalone1.host=192.168.208.10
worker.standalone1.port=8009
worker.standalone1.lbfactor=1

# Define Standalone2
worker.standalone2.type=ajp13
worker.standalone2.host=192.168.208.11
worker.standalone2.port=8009
worker.standalone2.lbfactor=1

# Define Standalone3
worker.standalone3.type=ajp13
worker.standalone3.host=192.168.208.12
worker.standalone3.port=8009
worker.standalone3.lbfactor=1

# Load-balancing behaviour
worker.loadbalancer.type=lb
worker.loadbalancer.balance_workers=standalone1,standalone2,standalone3
worker.loadbalancer.sticky_session=1

# Status worker for managing load balancer
worker.stat.type=status
```