

WildFly - Session Clustering / Load Balancing / Sticky Session 구축

<https://linuxtechlab.com/creating-wildfly-cluster-linux/>

1. Wildfly node 2개 생성

```
[ec2-user@ip-172-31-19-53 ~]$ cd /opt/wildfly
[ec2-user@ip-172-31-19-53 wildfly]$ ls
appclient      docs          LICENSE.txt   standalone
bin            domain       modules       welcome-content
copyright.txt  jboss-modules.jar  README.txt
```

```
$ cd /opt/wildfly
```

```
$ sudo mkdir standalone2
```

```
$ sudo cp -rv standalone/* standalone2/
```

```
$ sudo mv standalone standalone1
```

```
[ec2-user@ip-172-31-19-53 wildfly]$ ls
appclient      docs          LICENSE.txt   standalone1
bin            domain       modules       standalone2
copyright.txt  jboss-modules.jar  README.txt   welcome-content
```

2. Apache 설정파일 수정

```
#AJP13 Setting
LoadModule jk_module /etc/httpd/modules/mod_jk.so
JkWorkersFile /etc/httpd/conf/workers.properties
JkShmFile /var/run/mod_jk.shm
JkLogFile /var/log/mod_jk.log
JkLogLevel info
JkLogStampFormat "[%a %b %d %H:%M:%S %Y]"
JkMount /* loadbalancer
JkMountFile /etc/httpd/conf/uriworkermap.properties
```

- **/etc/httpd/conf/httpd.conf** – 파일의 하단에 위 내용을 추가한다.

```
# Define 1 real worker using ajp13
worker.list=loadbalancer

worker.loadbalancer.type=lb
worker.loadbalancer.balance_workers=node0, node1
worker.loadbalancer.method=Session
worker.loadbalancer.sticky_session=true

# node0
worker.node0.type=ajp13
worker.node0.host=127.0.0.1
worker.node0.port=8009
worker.node0.lbfactor=1
worker.node0.route=node0

# node1
worker.node1.type=ajp13
worker.node1.host=127.0.0.1
worker.node1.port=8109
worker.node1.lbfactor=1
worker.node1.route=node1
```

- **/etc/httpd/conf/workers.properties** 파일 생성

```
/*do=loadbalancer
/*jsp=loadbalancer
```

- **/etc/httpd/conf/uriworkermap.properties** 파일 생성

3. Make script file

```
[ec2-user@ip-172-31-19-53 bin]$ pwd
/opt/wildfly/bin
[ec2-user@ip-172-31-19-53 bin]$ sudo vim script1.sh
```

```
#!/bin/sh
./standalone.sh -Djboss.server.base.dir=/opt/wildfly-16.0.0.Final/standalone1 -
Djboss.node.name=node0 —server-config=standalone-ha.xml -
Djboss.socket.binding.port-offset=0
```

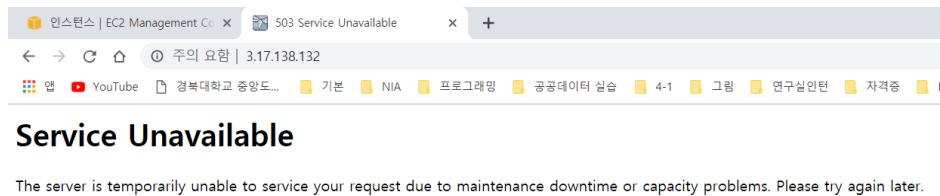
- Wildfly instance 실행을 위한 script1.sh 파일에 위 박스의 내용을 넣는다.
- **Script2.sh** 파일에는 base.dir을 standalone2, node.name을 node1, offset을 100으로 준다.

- `$ chmod +x script1.sh` / `$ chmod +x script2.sh`
- 이제 WildFly를 `$./script1.sh` 명령어를 사용해 실행시킬 수 있다.

(권한 관련 에러 발생 시 `$ sudo su` 를 통해 root 계정(# ...)에서 실행시키면 가능하다.)

- Script1,2를 실행키시면 80번 포트로 접속 시 wildfly 화면이 뜬다.

Script 둘 중 하나를 중지시켜도 80번 포트로 접속 가능하며 둘 다 중지시키면 Service Unavailable 페이지가 나온다.



```
14:15:41,943 INFO [org.jboss.as] (Controller Boot Thread) WFLYSRV0025: WildFly Full 16.0.0.Final
(WildFly Core 8.0.0.Final) started in 13967ms - Started 502 of 676 services (407 services are lazy,
passive or on-demand)
14:15:58,462 INFO [org.infinispan.CLUSTER] (thread-12,ejb,node1) ISPN000094: Received new
cluster view for channel ejb: [node1|2] (1) [node1]
14:15:58,485 INFO [org.infinispan.CLUSTER] (thread-12,ejb,node1) ISPN100001: Node node0 left
the cluster
14:15:58,487 INFO [org.infinispan.CLUSTER] (thread-12,ejb,node1) ISPN000094: Received new
cluster view for channel ejb: [node1|2] (1) [node1]
14:15:58,488 INFO [org.infinispan.CLUSTER] (thread-12,ejb,node1) ISPN100001: Node node0 left
the cluster
14:15:58,505 INFO [org.infinispan.CLUSTER] (thread-12,ejb,node1) ISPN000094: Received new
cluster view for channel ejb: [node1|2] (1) [node1]
14:15:58,506 INFO [org.infinispan.CLUSTER] (thread-12,ejb,node1) ISPN100001: Node node0 left
the cluster
14:15:58,510 INFO [org.infinispan.CLUSTER] (thread-12,ejb,node1) ISPN000094: Received new
cluster view for channel ejb: [node1|2] (1) [node1]
14:15:58,510 INFO [org.infinispan.CLUSTER] (thread-12,ejb,node1) ISPN100001: Node node0 left
the cluster
14:15:58,556 INFO [org.infinispan.CLUSTER] (stateTransferExecutor-thread--p20-t44)
[Context=appTest.war] ISPN100007: After merge (or coordinator change), recovered members
```

[node1] with topology id 7

14:15:58,563 INFO [org.infinispan.CLUSTER] (stateTransferExecutor-thread--p10-t60)

[Context=client-mappings] ISPN100007: After merge (or coordinator change), recovered members

[node1] with topology id 7

14:15:58,591 INFO [org.infinispan.CLUSTER] (stateTransferExecutor-thread--p20-t44)

[Context=default-server] ISPN100007: After merge (or coordinator change), recovered members

[node1] with topology id 7