

Tomcat Clsutering

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TCP StaticMembership

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Tomcat Clustering

— 2020/12/08 17:19



Tomcat 8.x
Tomcat 7.x

Tomcat Clustering

<https://tomcat.apache.org/tomcat-9.0-doc/cluster-howto.html>

- web.xml `<distributable/>`
- Session attributes `java.io.Serializable`
`sessionAttributeFilter`
- DeltaManager
`org.apache.catalina.ha.session.ClusterSessionListener`가
- DeltaManager 4
BackupManager
-

```
<Cluster className="org.apache.catalina.ha.tcp.SimpleTcpCluster"/>
```

가

DeltaManager

DeltaManager

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Tomcat

BackupManager

BackupManager
4

DeltaManager BackupManager

가

- 228.0.0.4

- 45564 ()
- IP java.net.InetAddress.getLocalHost().getHostAddress() (127.0.0.1)
- TCP 4000-4100 가 .
- ClusterSessionListener .
- TcpFailureDetector MessageDispatchInterceptor 가 .

TCP StaticMembership

Multicast가 가 .
IGMP가 가 .
IGMP Multicast TCP
Static Cluster Membership .

1. McastService Membership .
2. TCPPingInterceptor
3. StaticMembershipInterceptor

TCP StaticMember .

```
<!-- channelSendOptions 6: 8:
8: Receiver selectorTimeout 5000(5 ) -->
<Cluster className="org.apache.catalina.ha.tcp.SimpleTcpCluster"
channelSendOptions="6" channelStartOptions="3">

<!-- Delta Manager -->
<Manager className="org.apache.catalina.ha.session.DeltaManager"
expireSessionsOnShutdown="false"
notifyListenersOnReplication="true"/>

<!-- Backup Manager
<Manager className="org.apache.catalina.ha.session.BackupManager"
expireSessionsOnShutdown="false"
notifyListenersOnReplication="true"
mapSendOptions="6"/>
-->

<Channel
className="org.apache.catalina.tribes.group.GroupChannel">

<!-- Multicast Member -->
<!--
<Membership
className="org.apache.catalina.tribes.membership.McastService"
address="${tomcat.cluster.member.address}"
port="${tomcat.cluster.member.port}"
frequency="500"
dropTime="3000"/>
-->
```

```

        <Receiver
className="org.apache.catalina.tribes.transport.nio.NioReceiver"
        address="${tomcat.cluster.receiver.address}"
        port="${tomcat.cluster.receiver.port}"
        selectorTimeout="100"
        maxThreads="6"/>

        <Sender
className="org.apache.catalina.tribes.transport.ReplicationTransmitter">
        <Transport
className="org.apache.catalina.tribes.transport.nio.PooledParallelSender"/>
        </Sender>

        <!--
                가
                가
        ping
                .
                가
                가
                가
                TcpFailureDetector
        . -->
        <Interceptor
className="org.apache.catalina.tribes.group.interceptors.TcpPingInterceptor"
/>
        <!--
                가
        ->
        <Interceptor
className="org.apache.catalina.tribes.group.interceptors.TcpFailureDetector"
/>
        <Interceptor
className="org.apache.catalina.tribes.group.interceptors.MessageDispatchInte
rceptor"/>
        <Interceptor
className="org.apache.catalina.tribes.group.interceptors.ThroughputIntercept
or"/>

        <!-- StaticMember
        . -->
        <Interceptor
className="org.apache.catalina.tribes.group.interceptors.StaticMembershipInt
erceptor">
        <!--
                : Tomcat 9.0.17
                가
                .
                <LocalMember>
                <Member>
        , Tomcat
https://tomcat.apache.org/tomcat-9.0-doc/config/cluster-membership.html#Sett
ing
        -->
        <LocalMember
className="org.apache.catalina.tribes.membership.StaticMember"
                domain="staging-cluster"
uniqueId="{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,1}"/>

```

```

        <!--                                -->
        <Member
className="org.apache.catalina.tribes.membership.StaticMember"
        port="4000"
        securePort="-1"
        host="tomcat2"
        domain="staging-cluster"
        uniqueId="{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,2}"/>
    </Interceptor>

</Channel>

<!--                                -->
    <Valve className="org.apache.catalina.ha.tcp.ReplicationValve"
filter=".*\.(gif|.*\.(js|.*\.(jpeg|.*\.(jpg|.*\.(png|.*\.(htm|.*\.(html|.*\.(css|.*\.(txt"/>

        <!-- route                jvmRoute                .
                                route가                jvmRoute                failback
-->
        <Valve
className="org.apache.catalina.ha.session.JvmRouteBinderValve"/>

    <!--                                <Host

        <Deployer
className="org.apache.catalina.ha.deploy.FarmWarDeployer"
        tempDir="/tmp/war-temp/"
        deployDir="/tmp/war-deploy/"
        watchDir="/tmp/war-listen/"
        watchEnabled="false"/>

        -->

        <!-- DeltaManager                -->
        <ClusterListener
className="org.apache.catalina.ha.session.ClusterSessionListener"/>
    </Cluster>

```

- <https://tomcat.apache.org/tomcat-9.0-doc/cluster-howto.html>
- <https://indienote.tistory.com/401>
- tomcatcluster_0.pdf

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