Tomcat Clsutering

— *2020/12/08 17:19*

> ⚠️ Tomcat 8.x
> . Tomcat 7.x   .

Tomcat Clustering   https://tomcat.apache.org/tomcat-9.0-doc/cluster-howto.html
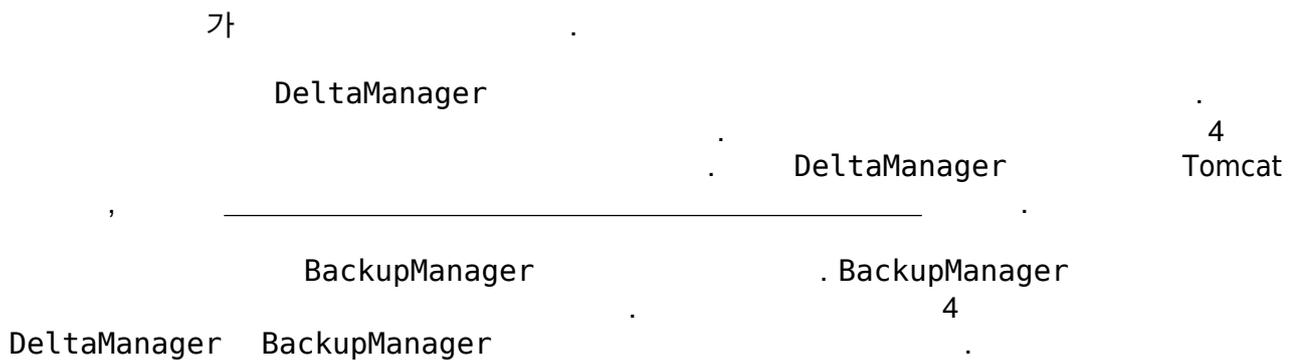.

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

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

.

DeltaManager   .
.   4
DeltaManager   Tomcat
,   .

BackupManager   . BackupManager
.   4
DeltaManager   BackupManager   .

.

- 228.0.0.4   .
- 45564   (   )
-          IP `java.net.InetAddress.getLocalHost().getHostAddress()`
  . (127.0.0.1   )
-              TCP   4000-4100   .

- ClusterSessionListener .
- TcpFailureDetector   MessageDispatchInterceptor   .

TCP StaticMembership

Multicast   .
                          IGMP   .
           IGMP   Multicast   TCP
Static Cluster Membership   .

1. McastService Membership   .
2. TCPPingInterceptor
3. StaticMembershipInterceptor

   TCP StaticMember   .

```
        <!-- channelSendOptions     6:          8:              -->
        <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>

      <!--                                                           .

    ping           .


                            .

                TcpFailureDetector                              . -->
            <Interceptor
className="org.apache.catalina.tribes.group.interceptors.TcpPingInterceptor"
/>
        <!--                                                              -
->
            <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">
        <!--
         9.0.17              LocalMember     Member                     .
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              .
                route          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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