

AMQ-5876

gtully

2015-07-08

Contents

Chapter 1

Root issue AMQ-5876

1.1 Summary

improve performance of TextFileCertificateLoginModule when many entries are in the "textfiledn.user" file

1.2 Description

With a large number of entries (200,000) in the "org.apache.activemq.jaas.textfiledn.user" file the performance seemed to degrade.

To demonstrate the performance difference;

```
1 1) for 100 entries and calling initialize,login(),commit 10 times - Time taken is 73
2   milliseconds
3
4 2) for 200,000 entries and calling initialize,login(),commit 10 times - Time taken is
   5020 milliseconds
```

Suggested improvements:

- avoid loading the org.apache.activemq.jaas.textfiledn.user file each time - in PropertiesLoginModule.java, the file is only read when it changes, using the file modification time.
- avoid iterating through the Properties object, using a Map instead to retrieve the userName

1.3 Attachments

No attachments

1.4 Comments

1. **gtully:** original impl - loads props on each login
2. **gtully:** prop file loaded once and reloaded if reload=true after a modification.
dn lookup done on map - the inverted prop file. dn must be unique or non-unique values

will overwrite the map entries keyed by dn.

<http://git-wip-us.apache.org/repos/asf/activemq/commit/59cd0189>

3. **jira-bot:** Commit ff9aae69f9da93e2b7500557649a512dddb94dca in activemq's branch refs/heads/master from [~tabish121]
[<https://git-wip-us.apache.org/repos/asf?p=activemq.git;h=ff9aae6>]

<https://issues.apache.org/jira/browse/AMQ-5876>

Add missing license headers to the properties files.

4. **jira-bot:** Commit 8d63083dfff064efadbe99a66deeedef829e519e in activemq's branch refs/heads/master from [~gtully]
[<https://git-wip-us.apache.org/repos/asf?p=activemq.git;h=8d63083>]

<https://issues.apache.org/jira/browse/AMQ-5876> - load groups properties into per user set once also to avoid parse per login attempt

5. **tmielke:** Took me quite a bit of debugging to find out, hence summarising it here.
With this fix, JAAS LoginModules that load property files such as PropertiesLoginModule and TextFileCertificateLoginModule will not reload from file system by default (not even when file got modified on disk) unless reload=true is explicitly configured.

An example for the standard conf/login.config:

```
1 activemq {  
2     org.apache.activemq.jaas.PropertiesLoginModule required  
3         org.apache.activemq.jaas.properties.user="users.properties"  
4         org.apache.activemq.jaas.properties.group="groups.properties"  
5         reload=true;  
6 };
```

Again, reload=true needs to be present in the login module configuration, otherwise these files will only be read at broker startup time.

This is a change in behavior from 5.11 and earlier where we would always reload these files.

6. **tmielke:** Property reload=true will need more documentation.

Chapter 2

Connected issue ARTEMIS-299

2.1 Summary

Improve performance of TextFileCertificateLoginModule when many entries in user file

2.2 Description

2.3 Attachments

No attachments

2.4 Comments

1. **githubbot:** GitHub user jbertram opened a pull request:

<https://github.com/apache/activemq-artemis/pull/239>

ARTEMIS-299 file-based login module performance

This is based on improvements made in ActiveMQ 5.x. See more at <https://issues.apache.org/jira/browse/AMQ-5876>.

You can merge this pull request into a Git repository by running:

```
$ git pull https://github.com/jbertram/activemq-artemis ARTEMIS-299
```

Alternatively you can review and apply these changes as the patch at:

<https://github.com/apache/activemq-artemis/pull/239.patch>

To close this pull request, make a commit to your master/trunk branch with (at least) the following in the commit message:

This closes #239

```
----  
commit c51009dddc213875fc301afe9ea2d2564bf55ff3  
Author: jbertram <jbertram@apache.org>
```

Date: 2015-11-04T22:38:40Z

ARTEMIS-299 file-based login module performance

This is based on improvements made in ActiveMQ 5.x. See more at <https://issues.apache.org/jira/browse/AMQ-5876>.

2. **jira-bot:** Commit ae70d7178e201dff5b13ac9c6cb63146d29fc4b9 in activemq-artemis's branch refs/heads/master from [~jbertram]
[<https://git-wip-us.apache.org/repos/asf?p=activemq-artemis.git;h=ae70d71>]

ARTEMIS-299 file-based login module performance

This is based on improvements made in ActiveMQ 5.x. See more at <https://issues.apache.org/jira/browse/AMQ-5876>.

3. **githubbot:** Github user asfgit closed the pull request at:

<https://github.com/apache/activemq-artemis/pull/239>

Chapter 3

Connected issue AMQ-912

3.1 Summary

ActiveMQ support for SSL authentication and authorization

3.2 Description

This patch adds new Transports, Brokers, and Plugins needed for authentication and authorization based on SSL certificates.

It also adds a few unit tests for the mentioned classes.

The new (or heavily modified) SslTransport, SslTransportServer, and SslTransportFactory classes allow for access to the underlying socket's need and want client auth settings. If a certificate is found, it is set as the transportContext of the created connection.

The JaasCertificateAuthenticationBroker uses the new CertificateLoginModule to authenticate certificates (this class is abstract to allow for different backends for certificate authentication, a concrete class is TextFileCertificateLoginModule).

JaasCertificateAuthenticationBroker also sets the security context's user name to that provided for the certificate by the login module. This allows for authorization using the existing authorization broker.

3.3 Attachments

1. [ASF.LICENSE.NOT.GRANTED--ssl_certificate_auth_patch.txt](#)
2. [svn_diff.txt](#)
3. [svn_diff.txt](#)

3.4 Comments

1. **sepan:** This is an update to the patch. It fixes some minor problems encountered when using a newer revision as base.
2. **chirino:** Hi Sepand,

I reviewed the patch and I noticed that the standard apache licence header is not on the new files included in the patch. Could you please add the headers and create a new diff?

Thanks,
Hiram

3. **seband:** Added licence headers.

4. **kellyc:** Hi Sepand,

After I apply the latest patch, there's a build failure in the Qdox stuff when I run mvn package. What did you have to do to resolve that before? Any ideas?

Thanks,
-Kelly

```
java.lang.ArrayIndexOutOfBoundsException: 0
at org.apache.xbean.spring.generator.QdoxMappingLoader.loadElements(QdoxMappingLoader.java:147)
at org.apache.xbean.spring.generator.QdoxMappingLoader.loadNamespaces(QdoxMappingLoader.java:107)
at org.apache.xbean.spring.generator.QdoxMappingLoader.loadNamespaces(QdoxMappingLoader.java:101)
at org.apache.xbean.maven.XBeanMojo.execute(XBeanMojo.java:153)
at org.apache.maven.plugin.DefaultPluginManager.executeMojo(DefaultPluginManager.java:412)
at org.apache.maven.lifecycle.DefaultLifecycleExecutor.executeGoals(DefaultLifecycleExecutor.java:534)
at org.apache.maven.lifecycle.DefaultLifecycleExecutor.executeGoalWithLifecycle(DefaultLifecycleExecutor.java:47)
at org.apache.maven.lifecycle.DefaultLifecycleExecutor.executeGoal(DefaultLifecycleExecutor.java:454)
at org.apache.maven.lifecycle.DefaultLifecycleExecutor.executeGoalAndHandleFailures(DefaultLifecycleExecutor.java:41)
at org.apache.maven.lifecycle.DefaultLifecycleExecutor.executeTaskSegments(DefaultLifecycleExecutor.java:273)
at org.apache.maven.lifecycle.DefaultLifecycleExecutor.execute(DefaultLifecycleExecutor.java:140)
at org.apache.maven.DefaultMaven.doExecute(DefaultMaven.java:322)
at org.apache.maven.DefaultMaven.execute(DefaultMaven.java:115)
at org.apache.maven.cli.MavenCli.main(MavenCli.java:256)
```

5. **chirino:** Hi Kelly,

Yep I got the same results with xbean. The error was not too friendly to figure out what was going wrong so I opened and resolved issue:
<http://issues.apache.org/jira/browse/XBEAN-53?page=all>

The reason xbean was barfing is that the patch produced a .java file that was empty. The current version of xbean could not cope with that, but I've applied a fix to it so it should not be a problem with future versions.

Looking into the patch now.

6. **chirino:** Thanks for the great patch. Just need to fix a few compile issues caused by recent changes on trunk.

committed to trunk in revision 447607 and 447608

7. **seband:** Great to see you liked it =)

One thing I've noticed, I moved
activemq-core/src/main/java/org/apache/activemq/security/JassCredentialCallback.java
to
activemq-jaas/src/main/java/org/apache/activemq/jaas/JassCredentialCallback.java

The latest revision has both files in there (the patch file doesn't show the move).

If you agree with the change (we already talked on the mailing list), please remove the

copy in the core module. If you don't, you can just remove the one under the jaas module and change the references I've made to it (it should be easy, there aren't too many).

8. **chirino:** Now that I think about it... I think callback handlers should be in the ActiveMQ space. Handlers are ment to be implemented by the application which in our case is the ActiveMQ broker. The activemq-jaas module should only hold jaas login modules so it should not have handler impls.
9. **chirino:** but having them in the jaas modules helps us test the login modules.. so fine. lets leave it there. I can live with requiring a dependency on activemq-jaas even if amq does not use any of the login modules. :)
10. **chirino:** remaining problem fixed up in 447635