

## Flume-0.9.4源码编译及一些编译出错解决方法

由于需要在Flume里面加入一些我需要的代码，这时候就需要重新编译Flume代码，因为在编译Flume源码的时候出现了很多问题，所以写出这篇博客，以此分享给那些也需要编译代码的人一些参考，这里以如何编译Flume-0.9.4源码为例进行说明。

首先下载Flume0.9.4源码(可以到<https://repository.cloudera.com/content/repositories/releases/com/cloudera/flume-distribution/0.9.4-cdh4.0.0/>里面下载)之后，解压及编译：

```
[wyp@master Desktop]$ unzip flume-distribution-0.9.4-cdh4.0.0-project.zip
[wyp@master Desktop]$ cd flume-0.9.4-cdh4.0.0/
[wyp@master flume-0.9.4-cdh4.0.0]$ mvn package -Pdist -DskipTests -Dtar
```

这时候会出现下面的错误：

```
[INFO] -----
[INFO] Reactor Summary:
[INFO]
[INFO] Flume ..... SUCCESS [0.003s]
[INFO] Flume Core ..... FAILURE [5.016s]
[INFO] Flume Master Config Web Application ..... SKIPPED
[INFO] Flume Node Web ..... SKIPPED
[INFO] Flume Distribution Project ..... SKIPPED
[INFO] A log4j appender for Flume ..... SKIPPED
[INFO] Flume Hello World Plugin ..... SKIPPED
[INFO] Flume HBase Plugin ..... SKIPPED
[INFO] -----
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 5.798s
[INFO] Finished at: Wed Jan 22 16:35:13 CST 2014
[INFO] Final Memory: 15M/136M
[INFO] -----
[WARNING] The requested profile "dist" could not be activated because it does
not exist.
[ERROR] Failed to execute goal org.apache.thrift.tools:maven-thrift-plugin:
0.1.10:compile (default) on project flume-core: thrift did not exit cleanly.
Review output for more information. -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the
-e switch.
```

```
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions,
please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/
        MojoFailureException
[ERROR]
[ERROR] After correcting the problems, you can resume the build with
the command
[ERROR] mvn <goals> -rf :flume-core
```

这是因为编译Flume的时候需要用到thrift插件，可以参考flume-core/pom.xml文件里面的配置：

```
<plugin>
  <groupId>org.apache.thrift.tools</groupId>
  <artifactId>maven-thrift-plugin</artifactId>
  <version>0.1.10</version>
  <configuration>
    <thriftExecutable>${thrift.executable}</thriftExecutable>
  </configuration>
  <executions>
    <execution>
      <goals>
        <goal>compile</goal>
        <goal>testCompile</goal>
      </goals>
    </execution>
  </executions>
</plugin>
```

所以需要安装thrift，可以参考[这里](#)进行安装：[《Flume-0.9.4源码编译依赖的thrift插件安装》](#)  
安装完thrift，再环境变量里面设置一下THRIFT\_HOME=/usr/local，因为在flume-core/pom.xml里面会用到thrift，如下：

```
<properties>
  <!-- NB: The version of the thrift compiler must match that of the dependency
on the jar file below. -->
  <thrift.executable>${env.THRIFT_HOME}/bin/thrift</thrift.executable>
```

```
<!-- Set default encoding to UTF-8 to remove maven complaints -->
<project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>

<!-- defaults for flaky test and focused test exclusions -->
<test.exclude.pattern>${</test.exclude.pattern> <!-- junk pattern -->
<test.include.pattern>**/Test*.java</test.include.pattern>
</properties>
```

接着再重新编译Flume源码，这时候将会出现大量类似以下的错误信息：

```
[WARNING] The requested profile "dist" could not be activated because it does
not exist.
[ERROR] Failed to execute goal org.apache.maven.plugins:
maven-compiler-plugin:2.3.2:compile (default-compile) on project flume-core:
Compilation failure: Compilation failure:
[ERROR] /home/wyp/Desktop/flume-src/flume-core/target/generated-sources/
thrift/com/cloudera/flume/conf/thrift/ThriftFlumeClientServer.java:[9,39]
错误: 程序包org.apache.commons.lang3.builder不存在
[ERROR] /home/wyp/Desktop/flume-src/flume-core/target/generated-sources/
thrift/com/cloudera/flume/conf/thrift/ThriftFlumeClientServer.java:[10,31]
错误: 程序包org.apache.thrift.scheme不存在
[ERROR] /home/wyp/Desktop/flume-src/flume-core/target/generated-sources/
thrift/com/cloudera/flume/conf/thrift/ThriftFlumeClientServer.java:[11,31]
错误: 程序包org.apache.thrift.scheme不存在
#####
#####
```

下面省略了很多类似的错误信息

```
#####
#####
```

请将pom.xml里面libthrift依赖版本修改为0.9.1，如下：

```
<dependency>
  <groupid>org.apache.thrift</groupid>
  <artifactid>libthrift</artifactid>
  <version>0.6.0-cdh</version>
</dependency>
```

改为

```
<dependency>
  <groupId>org.apache.thrift</groupId>
  <artifactId>libthrift</artifactId>
  <version>0.9.1</version>
</dependency>
```

修改完后再编译。紧接着的错误是类似下面的错误信息：

```
[WARNING] The requested profile "dist" could not be activated because it does
not exist.
[ERROR] Failed to execute goal on project flume-config-web: Could not resolve
dependencies for project com.cloudera:flume-config-web:war:0.9.4-cdh4.0.0:
Failure to find org.apache.hadoop:hadoop-core:jar:0.20.2-cdh3u3-SNAPSHOT in
https://repository.cloudera.com/content/groups/public/ was cached in the local
repository, resolution will not be reattempted until the update interval of
com.cloudera.repository.releases has elapsed or updates are forced -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read
the following articles:
[ERROR] [Help 1]
http://cwiki.apache.org/confluence/display/MAVEN/DependencyResolutionException
[ERROR]
[ERROR] After correcting the problems, you can resume the build with the command
[ERROR] mvn <goals> -rf :flume-config-web
```

从错误信息可以得到编译Flume的时候依赖的hadoop-core:jar:0.20.2-cdh3u3-SNAPSHOT不能成功下载，解决办法是到pom.xml里面进行如下修改

```
<dependency>
  <groupId>org.apache.hadoop</groupId>
  <artifactId>hadoop-core</artifactId>
  <version>0.20.2-cdh3u3-SNAPSHOT</version>
  <exclusions>
    <exclusion>
      <groupId>com.cloudera.cdh</groupId>
      <artifactId>hadoop-ant</artifactId>
    </exclusion>
  </exclusions>
```

```
</exclusions>  
</dependency>
```

改为

```
<dependency>  
  <groupId>org.apache.hadoop</groupId>  
  <artifactId>hadoop-core</artifactId>  
  <version>0.20.2-cdh3u3</version>  
  <exclusions>  
    <exclusion>  
      <groupId>com.cloudera.cdh</groupId>  
      <artifactId>hadoop-ant</artifactId>  
    </exclusion>  
  </exclusions>  
</dependency>
```

修改完保存再编译源码。这时候应该可以顺利的进行编译，最后编译成功的界面如下：

```
[INFO] -----  
[INFO] Reactor Summary:  
[INFO]  
[INFO] Flume ..... SUCCESS [0.003s]  
[INFO] Flume Core ..... SUCCESS [12.344s]  
[INFO] Flume Master Config Web Application ..... SUCCESS [3.243s]  
[INFO] Flume Node Web ..... SUCCESS [0.885s]  
[INFO] Flume Distribution Project ..... SUCCESS [25.381s]  
[INFO] A log4j appender for Flume ..... SUCCESS [0.251s]  
[INFO] Flume Hello World Plugin ..... SUCCESS [0.133s]  
[INFO] Flume HBase Plugin ..... SUCCESS [20:42.199s]  
[INFO] -----  
[INFO] BUILD SUCCESS  
[INFO] -----  
[INFO] Total time: 21:25.138s  
[INFO] Finished at: Thu Jan 23 00:50:28 CST 2014  
[INFO] Final Memory: 42M/286M  
[INFO] -----  
[WARNING] The requested profile "dist" could not be activated because it does  
not exist.  
[wyp@master flume-0.9.4-cdh4.0.0]$
```

恭喜你，编译成功了！

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