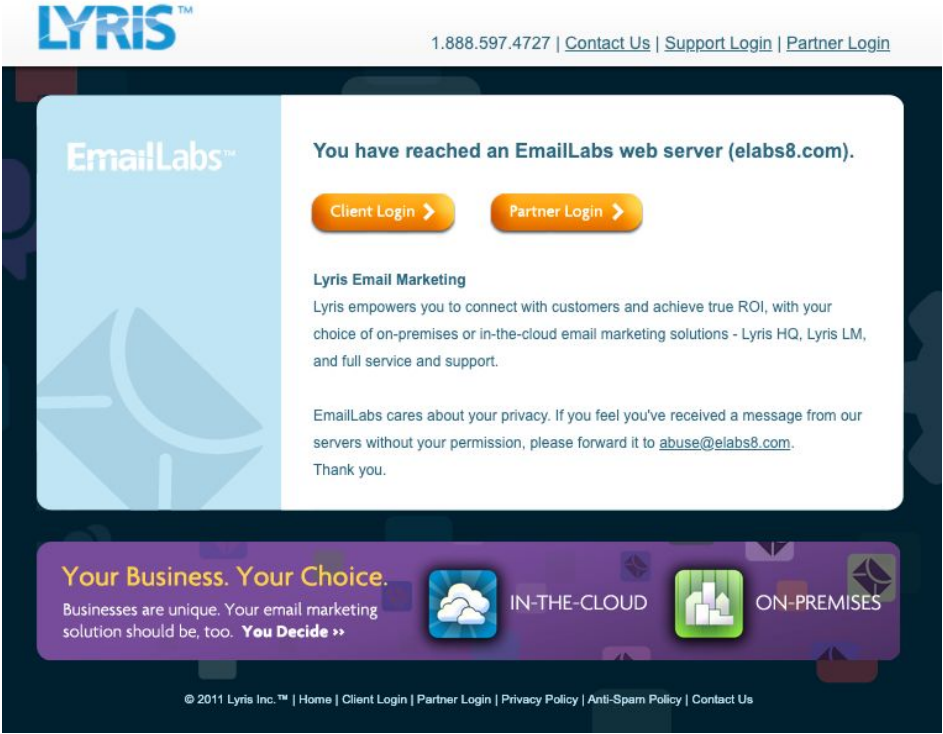# CA RWA2 #3

| Problem Statement (Internal/technical) | **Problem statement:**<br>● **What:** *Support team reported the EmailLabs UI was not working when opened from LHQ / CAM and even from standalone EmailLabs Login screen*<br>● **When:**<br>    ○ **Outage Started:**    25/Jul/20 2:26 PM<br>    ○ **Outage Detected:**    25/Jul/20 2:26 PM<br>    ○ **Outage Ended:**    25/Jul/20 4:33 PM<br><br>**ITop 3 Symptoms:**<br>    List the top symptoms that uniquely identify this outage (minimum one symptom)<br>● **symptom1**: users cannot login to Emaillabs using HQ link "Launch EmailLabs"<br>● **symptom2**: users cannot login to Emaillabs using CAMlink "Launch EmailLabs"<br>● **symptom3**: Support cannot login to Emaillabs using the Elabs ADMIN Portal |
|---|---|
| Root cause analysis (internal) | Apply the why-why methodology. Start with the topmost visible failure and keep going deeper. A minimum of 3 why-why levels must be done.<br>**Why 1:**<br>● **Question:** *Why did the Support team report the EmailLabs UI was not working when opened from LHQ / CAM?*<br>● **Reason:** *because when the user clicks on the "Launch Emaillabs" the system was redirecting the user to Emaillabs standalone login page.*<br>● **Evidence:**<br><br>**Why 2:**<br>● **Question:** *Why did the user click on the "Launch Emaillabs" and is getting redirected to Emaillabs standalone login page?* |

- **Reason:** *because the login controller was unable to write the authentication details into $_SESSION object. It was getting an unhandled error and was being redirected to the login page.*
- **Evidence:** *First request to store data at $_SESSION where the unhandled error was being thrown*
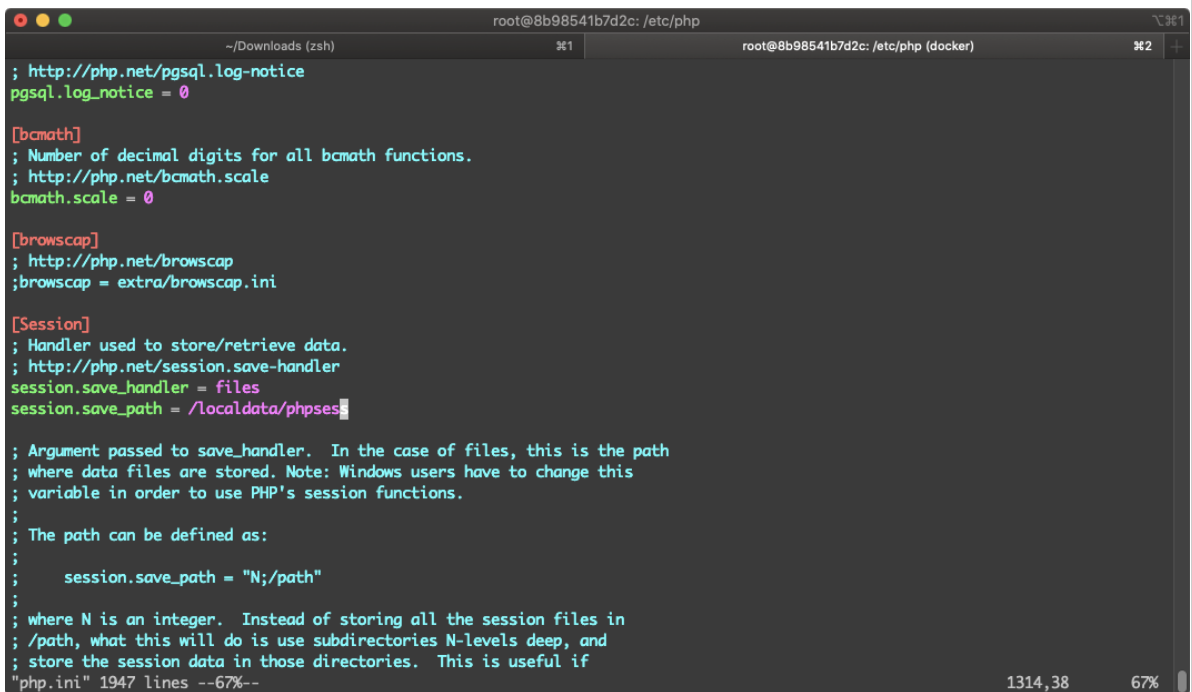
```
58          if ($email != "" && ok == true)
59          {
60              $_SESSION['sso_object'] = $sso_object;
61              //Set LHQ cookie...
62              setcookie("LHQ","yes",time()+60*60*24*365); //1 year...
63              $activity = "login";
64              $lhq_ok = true;
65
66              if (MCC_SSO::is_new_lhq())
```

## Why 3:
- **Question:** *Why was the login controller getting an unhandled error?*
- **Reason:** *because the **$_SESSION** variable cannot be created at the **session.save_path**.*
- **Evidence:**

```
root@8b98541b7d2c: /etc/php
~/Downloads (zsh)        ⌘1          root@8b98541b7d2c: /etc/php (docker)        ⌘2

; http://php.net/pgsql.log-notice
pgsql.log_notice = 0

[bcmath]
; Number of decimal digits for all bcmath functions.
; http://php.net/bcmath.scale
bcmath.scale = 0

[browscap]
; http://php.net/browscap
;browscap = extra/browscap.ini

[Session]
; Handler used to store/retrieve data.
; http://php.net/session.save-handler
session.save_handler = files
session.save_path = /localdata/phpses

; Argument passed to save_handler.  In the case of files, this is the path
; where data files are stored. Note: Windows users have to change this
; variable in order to use PHP's session functions.
;
; The path can be defined as:
;
;     session.save_path = "N;/path"
;
; where N is an integer.  Instead of storing all the session files in
; /path, what this will do is use subdirectories N-levels deep, and
; store the session data in those directories.  This is useful if
"php.ini" 1947 lines --67%--                          1314,38      67%
```

## Why 4:
- **Question:** *Why did the **$_SESSION** variable cannot be created at the **session.save_path**?*
- **Reason:** *Because the **session.save_path** directory was not allowed to create files inside it by the Apache user.*
- **Evidence:**

**Why 5:**

- **Question:** *Why did the session.save_path directory was not allowed to create files inside it by the Apache user?*
- **Reason:** *The DL-3 storage server had a hard failure, and the file system got corrupted. Ever since the file system was recovered, the system has been preventing them from creating files.*
- **Evidence:** After the volumes were mounted, the support personnel noticed the following in the system volumes



**Why 6:**

- **Question:** *Why has the system been preventing file creation since the recovery ?*

- **Reason / Root-cause:** [Insert root cause here]
- **Evidence:** The DL-3 drive was restored by mounting the following volumes using create_web.yml

```
ansible > roles > elabs > tasks > ! create_web.yml
15      docker_container:
16        name: "{{ container_name }}"
17        hostname: "{{ container_name }}"
18        image: "{{ container_image }}"
19    #   docker_host: "tcp://{{ docker_tls_host }}:{{ docker_tls_port | default(2375)}}"
20    #   tls: "{{ docker_tls_verify | default('no') }}"
21    #   tls_verify: yes
22    #   ssl_version: "TLSv1_2"
23        state: started
24    #   recreate: yes
25        memory: 24g
26        cpu_period: 50000
27        cpu_quota: 300000
28        env:
29          S3_BUCKET: "{{ s3_bucket }}"
30          ROLE: "{{ container_role }}"
31          FARM: "{{ cluster_config.elabs_farm_name }}"
32          APP_ENV: "{{ mode }}"
33          EMAIL_ID_IS_BIGINT: "{{ container_config.elabs_email_id_is_bigint }}"
34        links:
35          - "{{ mode }}_aem_elabs-redis:redis"
36        ports:
37          - "{{ ansible_host }}:{{ container_config.http_ports[container_index - 1] }}:80"
38          - "{{ ansible_host }}:{{ container_config.https_ports[container_index - 1] }}:443"
39        restart_policy: always
40        volumes:
41          - "{{ containers_log_prefix }}/{{ cluster_config.elabs_farm_name }}/{{ container_role }}:/var/log"
42          - "{{ containers_log_prefix }}/{{ cluster_config.elabs_farm_name }}/monitoring:/var/log/mailman-monitoring"
43          - "{{ containers_data_prefix }}/{{ cluster_config.elabs_farm_name }}/localdata/data/uploads:/localdata/data/uploads"
44          - "{{ containers_data_prefix }}/{{ cluster_config.elabs_farm_name }}/localdata/data/content:/localdata/data/content"
45          - "{{ containers_data_prefix }}/{{ cluster_config.elabs_farm_name }}/localdata/data/sd:/localdata/data/sd"
46          - "{{ containers_data_prefix }}/{{ cluster_config.elabs_farm_name }}/localdata/phpsess:/localdata/phpsess"
47          - "{{ containers_data_prefix }}/{{ cluster_config.elabs_farm_name }}/localdata/pixelpop:/pixelpop"
48        labels:
```

| | |
|---|---|
| **Fix plan** | Fix: [Insert fix here] |