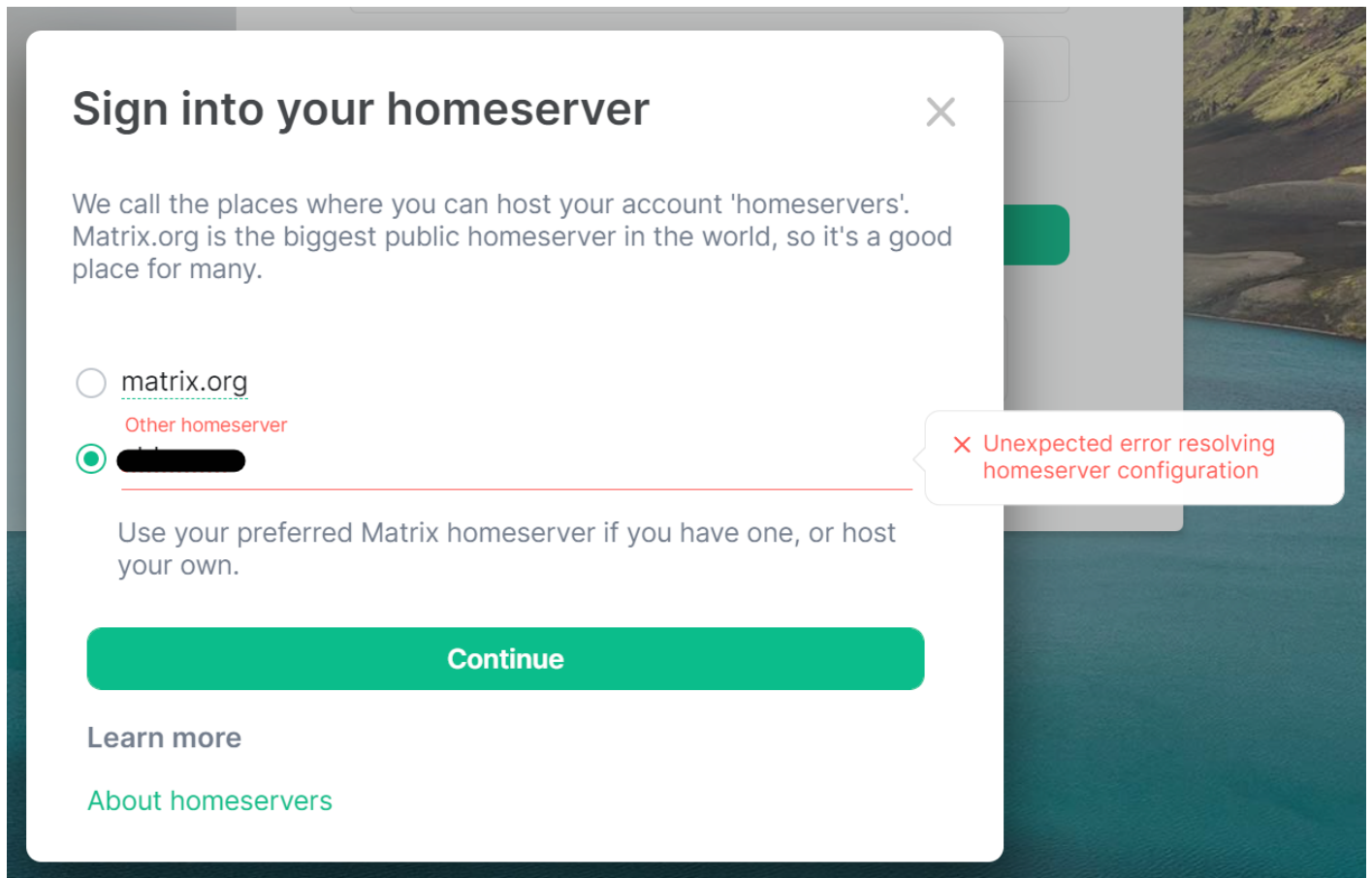


Verifying Well Known CORS Headers

Issue

- Specifying a homeserver using Well Known delegation but without CORS headers results in an error.



Environment

- Element On-Premise
- Element Cloud Offerings

Resolution

Enable CORS Headers, see enable-cors.org for instructions on how to do this. Then you can verify your `.well-known` files from the command line:

Note the lines `access-control-allow-origin: *` and `content-type: application/json`

1. On Mac or Linux, using the `terminal`

```
$ curl -i https://element.io/.well-known/matrix/client
HTTP/2 200
date: Fri, 31 Jul 2020 09:11:21 GMT
content-type: application/json
content-length: 129
set-cookie: __cfduid=x...; expires=Sun, 30-Aug-20 09:11:21 GMT; path=/;
domain=.element.io; HttpOnly; SameSite=Lax
access-control-allow-origin: *
cf-cache-status: DYNAMIC
cf-request-id: 0...
expect-ct: max-age=604800, report-uri="https://report-uri.cloudflare.com/cdn-
cgi/beacon/expect-ct"
server: cloudflare
cf-ray: 5...
```

```
{
  "m.homeserver": {
    "base_url": "https://element.ems.host"
  },
  "m.identity_server": {
    "base_url": "https://vector.im"
  }
}
```

```
$ curl -i https://element.io/.well-known/matrix/server
HTTP/2 200
date: Fri, 31 Jul 2020 09:11:25 GMT
content-type: application/json
content-length: 52
set-cookie: __cfduid=x...; expires=Sun, 30-Aug-20 09:11:25 GMT; path=/;
domain=.element.io; HttpOnly; SameSite=Lax
access-control-allow-origin: *
cf-cache-status: DYNAMIC
cf-request-id: 0...
expect-ct: max-age=604800, report-uri="https://report-uri.cloudflare.com/cdn-
cgi/beacon/expect-ct"
server: cloudflare
cf-ray: 5...
```

```
{  
  "m.server": "element.ems.host:443"  
}
```

2. On Windows, using PowerShell

```
PS C:\Users\twilight> Invoke-WebRequest -Uri https://element.io/.well-known/matrix/client
```

```
StatusCode      : 200  
StatusDescription : OK  
Content         : {  
  "m.homeserver": {  
    "base_url": "https://element.ems.host"  
  },  
  "m.identity_server": {  
    "base_url": "https://vector.im"  
  }  
}  
RawContent      : HTTP/1.1 200 OK  
Connection      : keep-alive  
Access-Control-Allow-Origin: *  
CF-Cache-Status: DYNAMIC  
cf-request-id  : 0...  
Expect-CT      : max-age=604800, report-uri="https://repor...  
Forms           : {}  
Headers         : [[Connection, keep-alive], [Access-Control-Allow-Origin, *], [CF-Cache-Status, DYNAMIC], [cf-request-id, 0...]]...}  
Images          : {}  
InputFields     : {}  
Links           : {}  
ParsedHtml      : System.__ComObject  
RawContentLength : 129
```

```
PS C:\Users\twilight> Invoke-WebRequest -Uri https://element.io/.well-known/matrix/server
```

```
StatusCode      : 200
StatusDescription : OK
Content         : {
  "m.server": "element.ems.host:443"
}
RawContent      : HTTP/1.1 200 OK
Connection      : keep-alive
Access-Control-Allow-Origin : *
CF-Cache-Status : DYNAMIC
cf-request-id  : 0...
Expect-CT      : max-age=604800, report-uri="https://repor...
Forms          : {}
Headers        : [[Connection, keep-alive], [Access-Control-Allow-Origin, *], [CF-
Cache-Status, DYNAMIC], [cf-request-id, 0...]]...}
Images         : {}
InputFields    : {}
Links          : {}
ParsedHtml     : System.__ComObject
RawContentLength : 52
```

Root Cause

Without cross-origin resource sharing, access to fetch the well known files will be blocked by CORS policy as `No 'Access-Control-Allow-Origin' header is present on the requested resource`.

Revision #2

Created 2023-04-11 11:27:13 UTC by Kieran Mitchell Lane

Updated 2024-11-06 12:49:41 UTC by Kieran Mitchell Lane