Robert Britton

Epson Exploit

The first part of this vulnerability started with the discovery of Projectors on network then the Network vulnerability was used to access the projectors

1. Network vulnerability's
    a. All Projectors on same VLAN as users
        i. This allowed me to find and access IP of all projectors
        ii. With this IP I could directly access the Projectors
        iii. This is shown in Figure 1
    b. Open ports 80 and 443
        i. Both Ports allowed for access to web interface
        ii. Both https and http allowed access to web interface of projector witch in normal operation would be a non-issue as all menus are password protected.

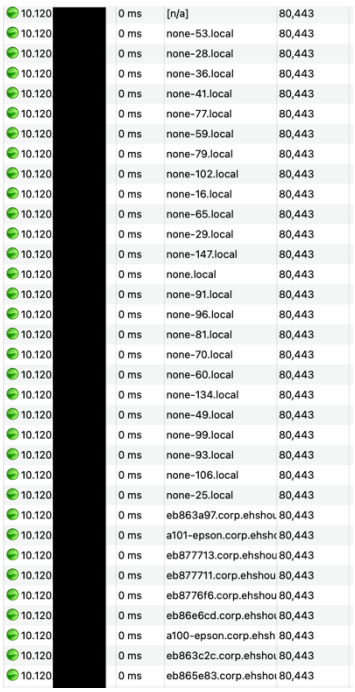


Figure 1

After knowing the IPs and Ports of projectors I moved to the second part of the Exploit witch was interacting directly with the projector.

2. Projector Vulnerability
    a. After accessing the projectors web interface a index page was shown (Figure 2)
        i. All sub menus were protected by a password (Figure 3)
        ii. After a short site scan it was discovered there was no menu accessible without credentials
    b. Once the login screen was discovered finding credentials became the next option
        i. A quick google search showed the default credentials wich worked
        ii. The credentials where Username: EPSONWEB Password: admin

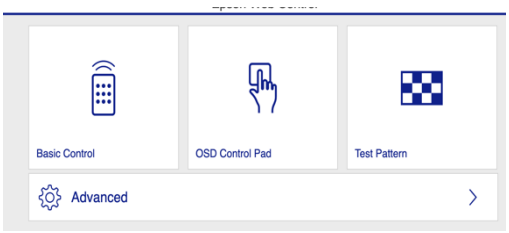
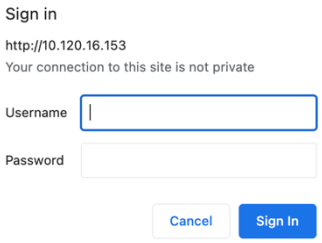


Figure 2



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The Console fetch for requesting a power state change is as follows (This allows the projector to be turned off without Credentials):

```
fetch("http://(IP)/cgi-bin/directsend?KEY=3B&_=1675355473601", {
  "headers": {
    "accept": "text/plain, */*; q=0.01",
    "accept-language": "en-US,en;q=0.9",
    "x-requested-with": "XMLHttpRequest"
  },
  "referrer": "http://(IP)/cgi-bin/Remote/Basic_Control",
  "referrerPolicy": "strict-origin-when-cross-origin",
  "body": null,
  "method": "GET",
  "mode": "cors",
  "credentials": "omit"
});
```

With the ability to control the projector without credentials Changing the password would not be an option to secure the Projectors. Putting projectors on a separate VLAN with a network rule allowing verified mac addresses to reach the VLAN is an option to secure the projector. Another option is to do a direct connection via ethernet, and a static IP assigned to the projector. Air gapping the projector is another option if its network capabilities are not required.