E2OD

- Terminal
- IPs

Terminal

Setup

- Ubuntu 24.04 Server
- minified install
- proper network config (set ETHs optional)
- add ssh keys
- disable password auth
- add fbcon=rotate:1 to GRUB_CMDLINE_LINUX_DEFAULT

```
GRUB_CMDLINE_LINUX_DEFAULT="fbcon=rotate:1"
```

- hit update-grub
- apt update && apt upgrade && apt -y install less nano lightdm lightdm-autologin-greeter chromium-browser x11-xserver-utils xinput
- adduser public
- edit /etc/lightdm/lightdm.conf.d/lightdm-autologin-greeter.conf

```
# you really have to configure the below, otherwise
# LightDM auto-login will fail...
autologin-user=public

# put any session from /usr/share/xsessions (strip .desktop from the file names there)
# here, if you want to run any other session than x-session-manager
 autologin-session=e2od
```

- add /etc/lightdm/lightdm.conf.d/99-custom.conf

```
[Seat:*]
greeter-session=lightdm-autologin-greeter
```

- mkdir /usr/share/xsessions
- add /usr/share/xsessions/e2od.desktop

```
[Desktop Entry]
Name=Kiosk Browser Session
```

```
Comment=Kiosk Browser
Exec=/usr/share/xsessions/kiosk.sh
TryExec=/usr/bin/chromium-browser
Type=Application
```

- add /usr/share/xsessions/kiosk.sh

```
#!/usr/bin/env bash
# place this file in
# /usr/share/xsessions/kiosk.sh
# and make it executable

# switch off power management and screen saver
xset -dpms
xset s off
xrandr -o right
xinput set-prop "10" --type=float "Coordinate Transformation Matrix" 0 1 0 -1 0 1 0 0 1
xinput set-prop "11" --type=float "Coordinate Transformation Matrix" 0 1 0 -1 0 1 0 0 1
#xinput set-prop "Your Touchpad's name, if applicable" --type=float "Coordinate Transformation
Matrix" 0 -1 1 1 0 0 0 0 1

# detect screen size
SIZE=`xrandr | awk '/\*\+/ {print $1}' | sed 's/x/,/' `
SLEEPTIME="0.2s"
#STARTURL="http://10.13.3.111:3001"
STARTURL="http://127.0.0.1:8080"

# restart browser if stopped
while true; do

chromium-browser --incognito --no-first-run --no-message-box \
                 --noerrdialogs --disable-translate --default-browser \
                 --start-maximized --window-position=0,0 --window-size=1200,1920 \
                 --no-default-browser-check --disable-pinch \
                 --unsafely-treat-insecure-origin-as-secure=$STARTURL \
□□ --auto-accept-camera-and-microphone-capture --kiosk $STARTURL
                 --use-fake-ui-for-media-stream --kiosk $STARTURL

#chromium-browser --incognito --no-first-run --no-message-box \
#                 --noerrdialogs --disable-translate --default-browser \
```

```
#                 --start-maximized --window-position=0,0 --window-size=1200,1920 \
#                 --no-default-browser-check --kiosk $STARTURL

sleep $SLEEPTIME;
done
```

- chmod +x /usr/share/xsessions/kiosk.sh

sketching

toggle display

- xset -display :0.0 dpms force on
- xset -display :0.0 dpms force off

IPs

fwl402.hda.tu-darmstadt.de

- eth0 80:2a:a8:df:c9:82 130.83.75.49/29, Gateway: 130.83.75.54, DNS: 130.83.22.60, 130.83.22.63, 130.83.56.60
- eth1 80:2a:a8:df:c9:83 10.13.0.254/24 Camnet
- eth2 80:2a:a8:df:c9:84 10.13.1.254/24 Client Net
- eth3 80:2a:a8:df:c9:85 192.168.1.1/24 Spare
- eth4 80:2a:a8:df:c9:86 10.13.3.1/24 Misc Net

DMZ Net

DHCP: off

Cams

- 10.13.0.1/24 ec:71:db:3b:62:83 cam1
- 10.13.0.2/24 ec:71:db:af:c8:e9 cam2
- 10.13.0.3/24 ec:71:db:ee:11:33 cam3
- 10.13.0.4/24 ec:71:db:cb:df:09 cam4
- 10.13.0.5/24 ec:71:db:bc:d2:03 cam5
- 10.13.0.6/24 cam6

Larger Devices

- 10.13.0.10/24 84:47:09:32:b4:0b ServicePoint
- 10.13.0.11/24 Printer

Microcontrollers

- 10.13.0.20/24 ESP Keypad
- 10.13.0.21/24 ESP Door
- 10.13.0.22/24 ESP Window
- 10.13.0.23/24 ESP ServicePoint
- 10.13.0.24/24 fc:b4:67:c5:31:b0 ESP Locker

IoT Devices

- 10.13.0.41/24 04:78:63:68:f4:0e Philips Air Purifier 2889
- 10.13.0.42/24 e4:65:b8:46:5e:38 Shelly Plus
- 10.13.0.43/24 d4:8a:fc:59:dd:74 Shelly Emergency Light
- 10.13.0.44/24 70:88:6b:16:31:eb Awair Element
- 10.13.0.46/24 e4:65:b8:b8:d0:94 Shelly Hydroculture
- 10.13.0.47/24 60:74:f4:d7:48:ee Govee LED Bulb

Printers

- 10.13.0.70 00:61:95:b9:db:35 ITPP072
- 10.13.0.71 00:61:c4:1d:ac:9e ITPP072

Netowrk devices

- 10.13.0.252/24 40:3f:8c:c3:09:fa AccessPoint
- 10.13.0.253/24 poe switch
- 10.13.0.254/24 80:2a:a8:df:c9:83 fwl402.hda.tu-darmstadt.de

Client Net

DHCP: 150-160 and 1-10 based on MAC

- 10.13.1.1/24 f8:e4:3b:60:0b:a2 client01 401199/
- 10.13.1.2/24 f8:e4:3b:60:02:a0 client02 401199/
- 10.13.1.3/24 f8:e4:3b:60:03:20 client03 401199/
- 10.13.1.4/24 f8:e4:3b:5f:e1:e9 client04 401199/
- 10.13.1.5/24 f8:e4:3b:60:0b:24 client05 401199/
- 10.13.1.6/24 f8:e4:3b:5f:e1:fe client06 401199/
- 10.13.1.7/24 f8:e4:3b:5f:e1:c1 client07 401199/
- 10.13.1.8/24 f8:e4:3b:5f:e4:58 client08 401199/
- 10.13.1.9/24 f8:e4:3b:5f:e1:44 client09 401199/
- 10.13.1.10/24 f8:e4:3b:60:0b:47 client10 401199/
- 10.13.1.250/24 84:47:09:32:b4:05 servicepoint 401199/
- 10.13.1.254/24 80:2a:a8:df:c9:84 fwl402.hda.tu-darmstadt.de

Spare Net

DHCP: on 100-150

For maintenance purposes.

- 192.168.1.254 80:2a:a8:df:c9:85 fwl402.hda.tu-darmstadt.de

Misc Net

DHCP: off

- 10.13.3.254/24 80:2a:a8:df:c9:86 fwl402.hda.tu-darmstadt.de