An Overview of Threat Assessments and Practical Steps to Improve Privacy

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whoami

- Web developer at the Free Software Foundation (FSF) since January 2019.
- Background in education, manufacturing, game design, and music with an emphasis on free software and free culture.
- Advocate for privacy.

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Without Zoom

- The video can be watched without Zoom at https://u.fsf.org/dcsla
- Better than Zoom FSF article at https://u.fsf.org/311
- Stick around for the Q&A! Questions can be submitted throughout the talk. I will be available by phone for questions.

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Vocabulary

- Free
- Nonfree
- Unknown

FREE SOFTWARE
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Vocabulary

- Free
- Nonfree
- Unknown

RUN

https://shop.fsf.org/tshirts-hoodies/4-gnus-4-freedoms-t-shirt

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Vocabulary

- Free
- Nonfree
- Unknown

EDIT

https://shop.fsf.org/tshirts-hoodies/4-gnus-4-freedoms-t-shirt

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CONTRIBUTE

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SHARE

https://shop.fsf.org/tshirts-hoodies/4-gnus-4-freedoms-t-shirt

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https://shop.fsf.org/tshirts-hoodies/4-gnus-4-freedoms-t-shirt

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Scope

- Passive surveillance
- Not targeted surveillance

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Does privacy matter?

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Trust, but verify

- Edward Snowden & NSA

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Trust, but verify

- ANOM
- Apple

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Levels of Protection

0. Public
1. Interested individuals
2. Petty Criminals
3. Criminal organizations
4. Corporations
5. Governments
6. Yourself

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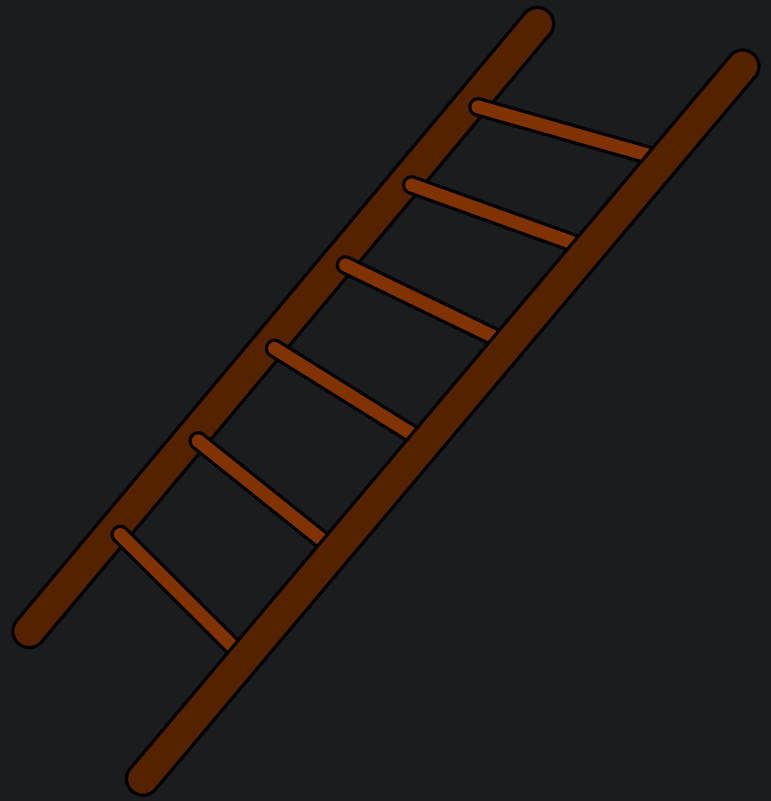
Freedom Ladder



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Mobile

No phone

Separated modem

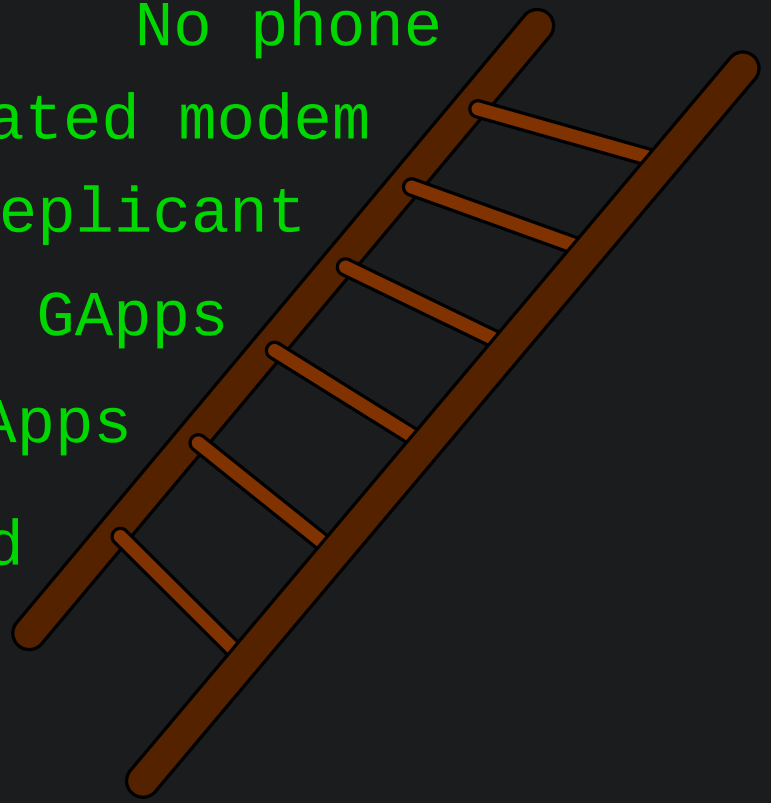
Replicant

LineageOS - GApps

LineageOS + GApps

Android + F-Droid

Apple & Android



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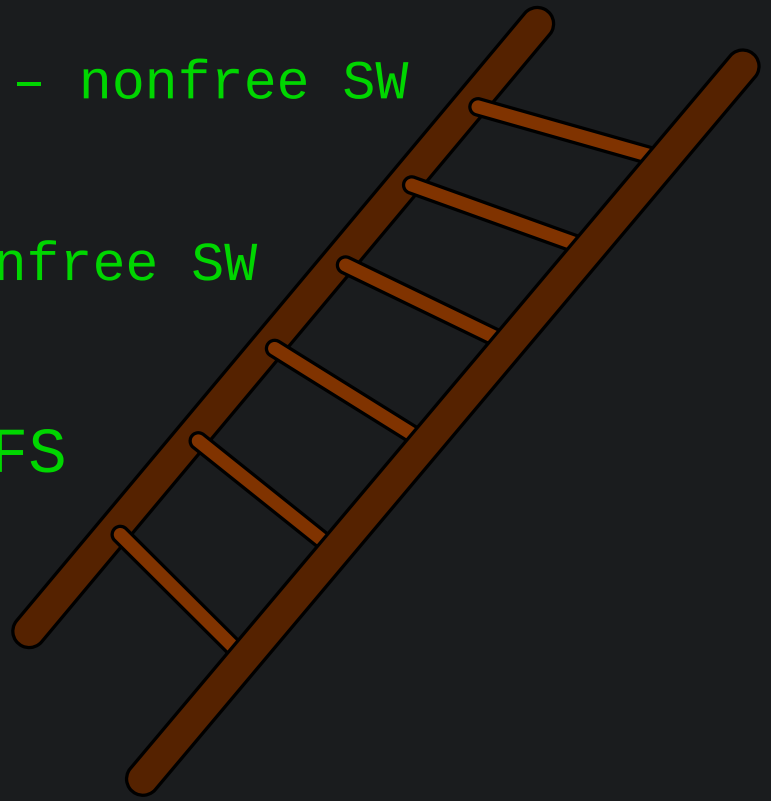
Desktop / Laptop

GNU/Linux – nonfree SW

GNU/Linux + nonfree SW

Anything + FS

ChromeOS, macOS, Windows



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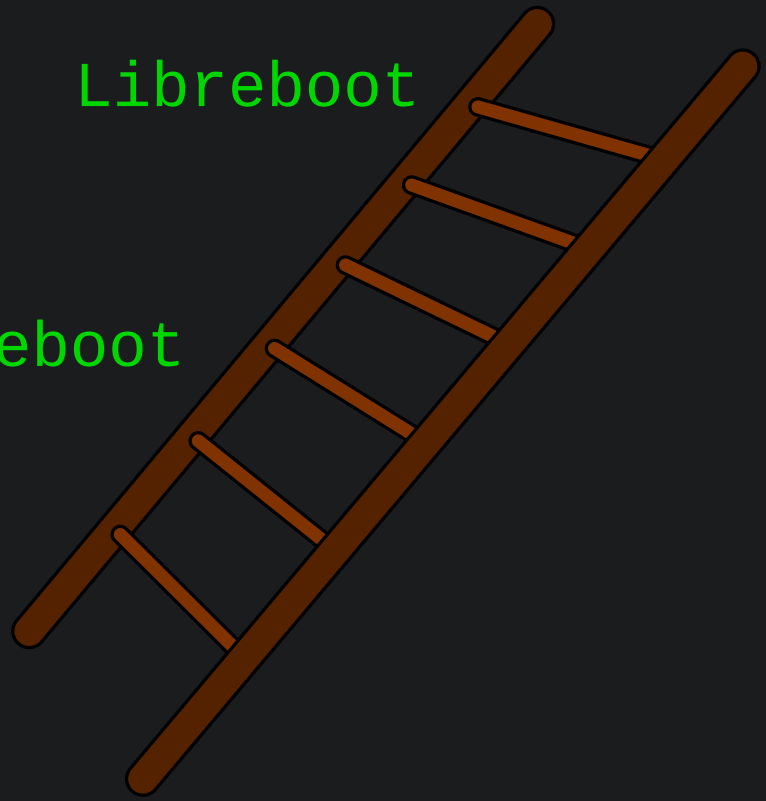
BIOS

Libreboot

Coreboot

Default from store



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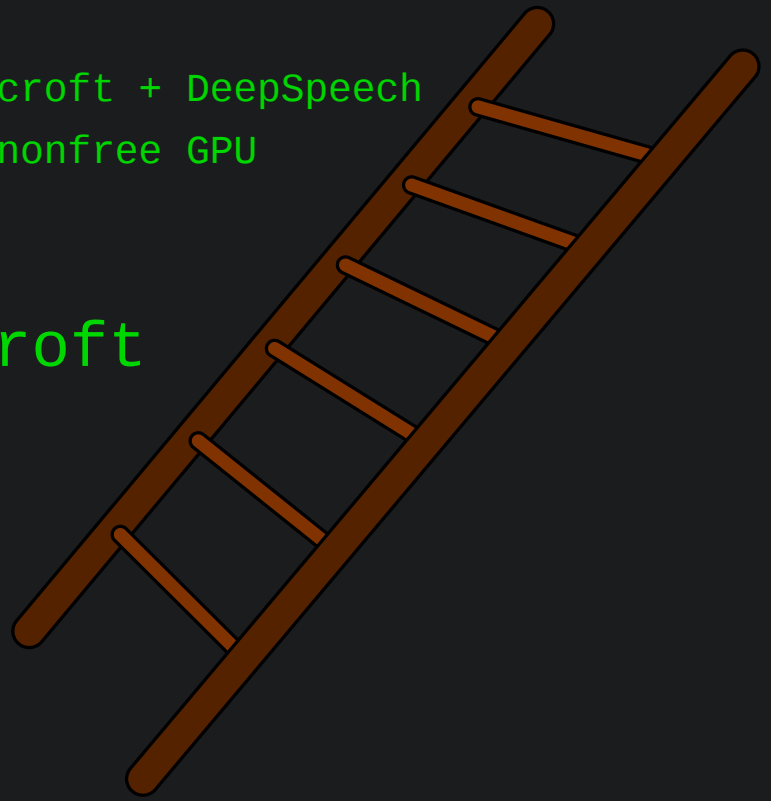
Voice Assistants

Mycroft + DeepSpeech
- nonfree GPU

Mycroft



Siri, OK, Google, Alexa,
Cortana, etc.

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Televisions

Dump TVs

Smart TVs

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Servers

Licence: CC-BY-SA 4.0 Author: Markus Meier
https://download.fsfe.org/advocacy/promomaterial/NoCloud/NoCloud-sticker/

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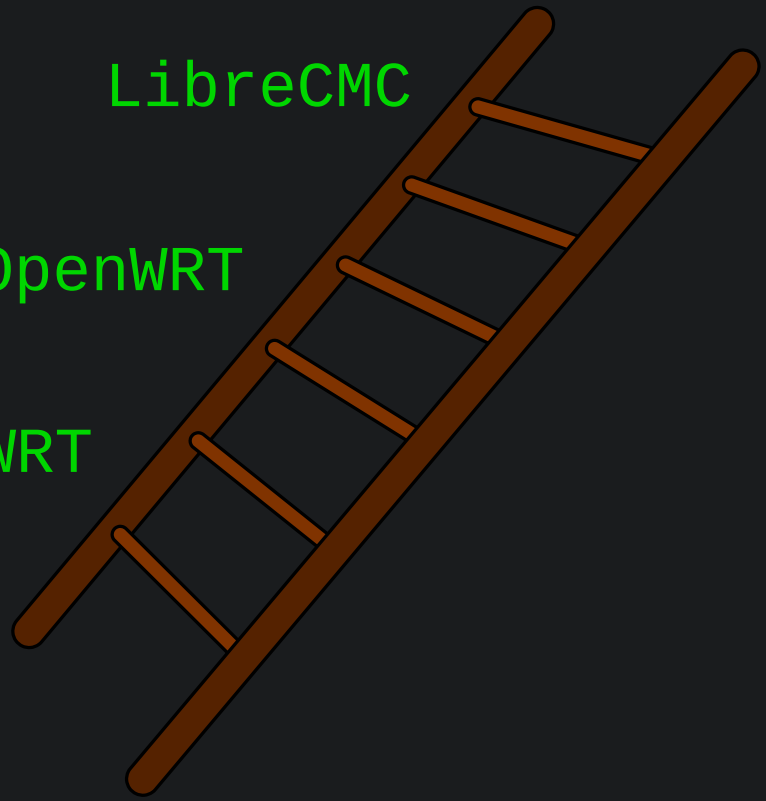
Routers

LibreCMC

OpenWRT

DD-WRT



Default from the store
or Internet provider

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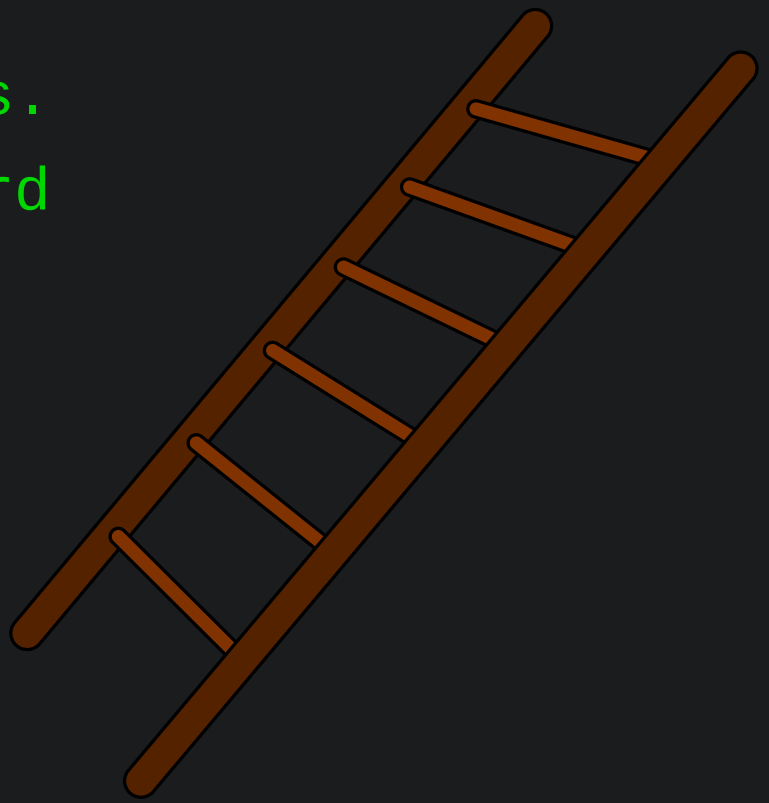
Passwords

- Do not reuse passwords.
- Use an offline password manager that can be verified.
  - KeePassXC
    https://keepassxc.org
- Only store passwords where they are needed.



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Maps

Open Street Map

Google Maps, Waze,
Apple Maps, etc.

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Web browsers

abrowser, IceCat, Librewolf

Firefox

Chrome, Edge, Safari

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Proxies

VPN or TOR

- Do not block proxies on library networks.

Default Internet connection

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Browser Fingerprinting

https://coveryourtracks.eff.org

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Ads & Trackers

- Ublock Origin
  https://ublockorigin.com/
- Pi-hole

  https://pi-hole.net
- Every library machine should use uBlock Origin. Every library network should use Pi-hole.

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Cookies

- If you are keeping cookies long-term, you are being tracked.
- Delete cookies automatically by using Private Browsing sessions.
- Set private browsing to default.

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JavaScript

Disabled JS

LibreJS

NoScript

Running anyone’s code
in your browser

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Email Encryption

- GPG
  https://emailselfdefense.fsf.org/en/

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Chat

Free client
+ Peer to Peer

Free client + Free
backend + federation

Free client + Free backend
+ centralization

Free client + Unknown backend
+ centralization

Nonfree client + Unknown backend
+ centralization

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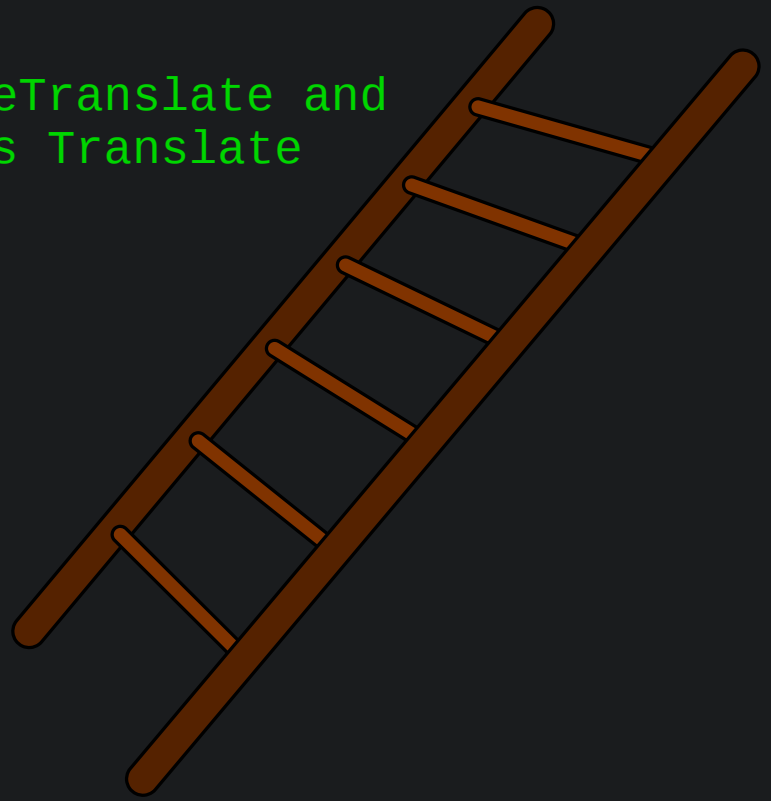
Translation

LibreTranslate and
Argos Translate



Google Translate

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https://libreplanet.org/wiki/Remote_Communication

Short link: https://u.fsf.org/368

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Etherpad

Google Docs

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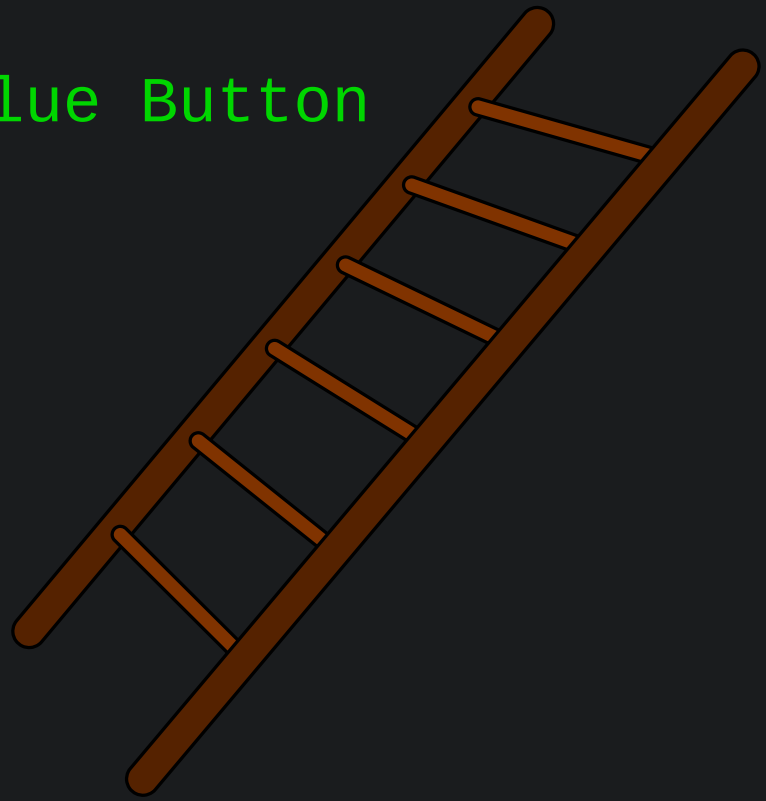
Big Blue Button



Zoom, MS Teams, Etc.

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Thank you

- DC Special Libraries Association
- Developers of
  - Trisquel
  - Libreboot
  - Etherpad
  - GIMP
  - LibreOffice
  - Vim
  - OBS
  - Kdenlive
  - Mediagoblin
  - Abrowser
  - ffmpeg

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References

- https://www.defectivebydesign.org/
- https://shop.fsf.org/tshirts-hoodies/4-gnus-4-freedoms-t-shirt
- Case study: https://en.wikipedia.org/wiki/ANOM
- Case study: https://www.eff.org/pages/apple-must-abandon-its-surveillance-plans
- https://www.gnu.org/distros/free-distros.html
- https://www.gnu.org/distros/free-system-distribution-guidelines.html
- https://fsfe.org/contribute/spreadtheword.html#nocloud
- https://haveibeenpwned.com
- https://www.openstreetmap.org
- FSF: Better than Zoom https://u.fsf.org/311
- FSFI: Better than WhatsApp https://fsf.org.in/article/better-than-whatsapp/

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Q&A time

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