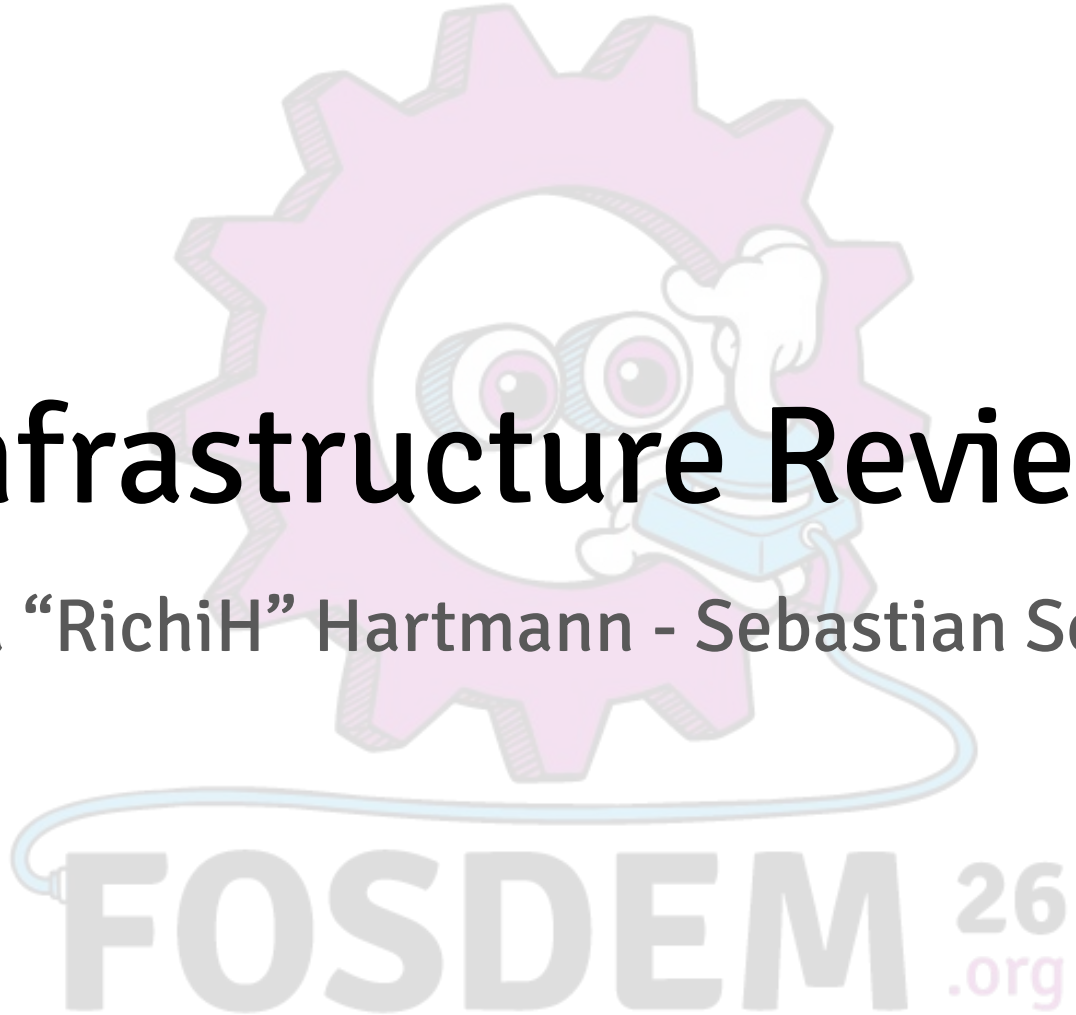


Infrastructure Review

Richard “RichiH” Hartmann - Sebastian Schubert

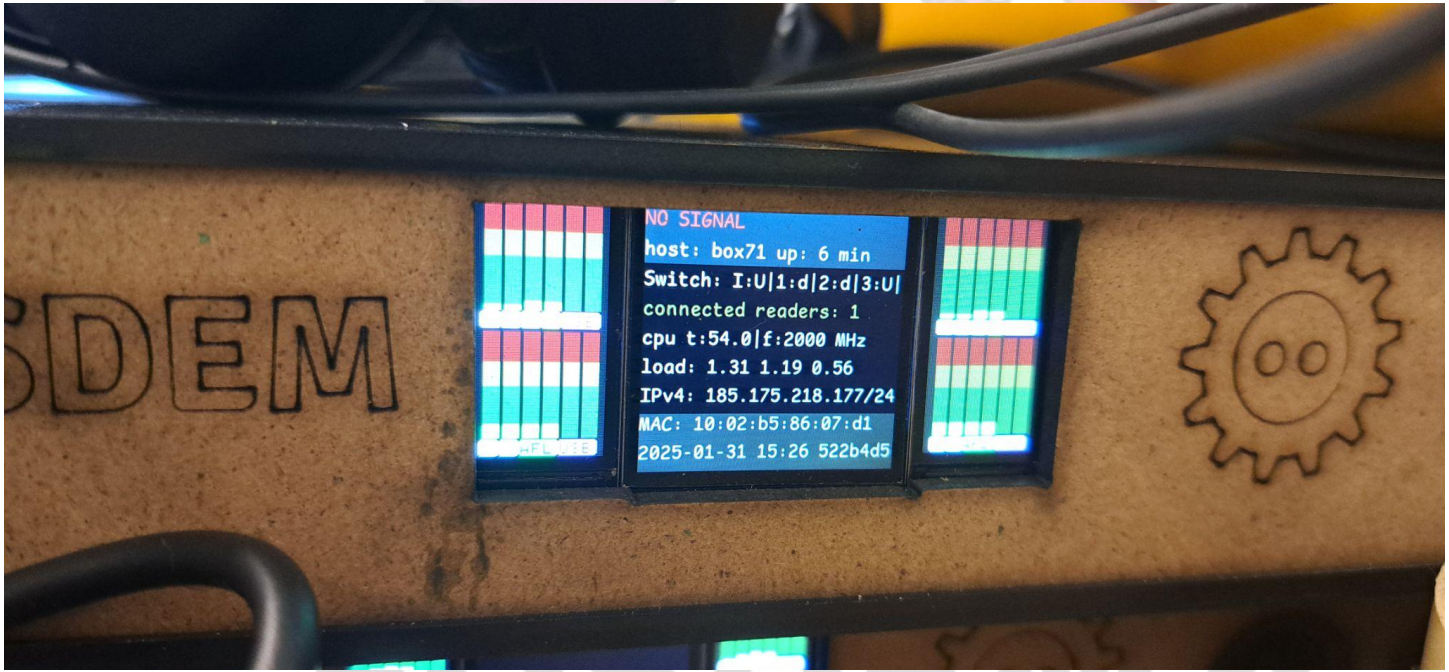
Core Infra

- Cisco ASR 1006 for routing, ACLs, NAT64, DHCP
- Handful Cisco C3750 Switches
- 3 * Arista 7050 Switches
- Two very old servers for all other services
- Three additional servers for running Proxmox Cluster
  - Running our video review and video live streaming management tools
- All monitoring done via Prometheus, Loki, and Grafana
- Data for Public Dashboards sent and persisted to VM outside ULB

Video

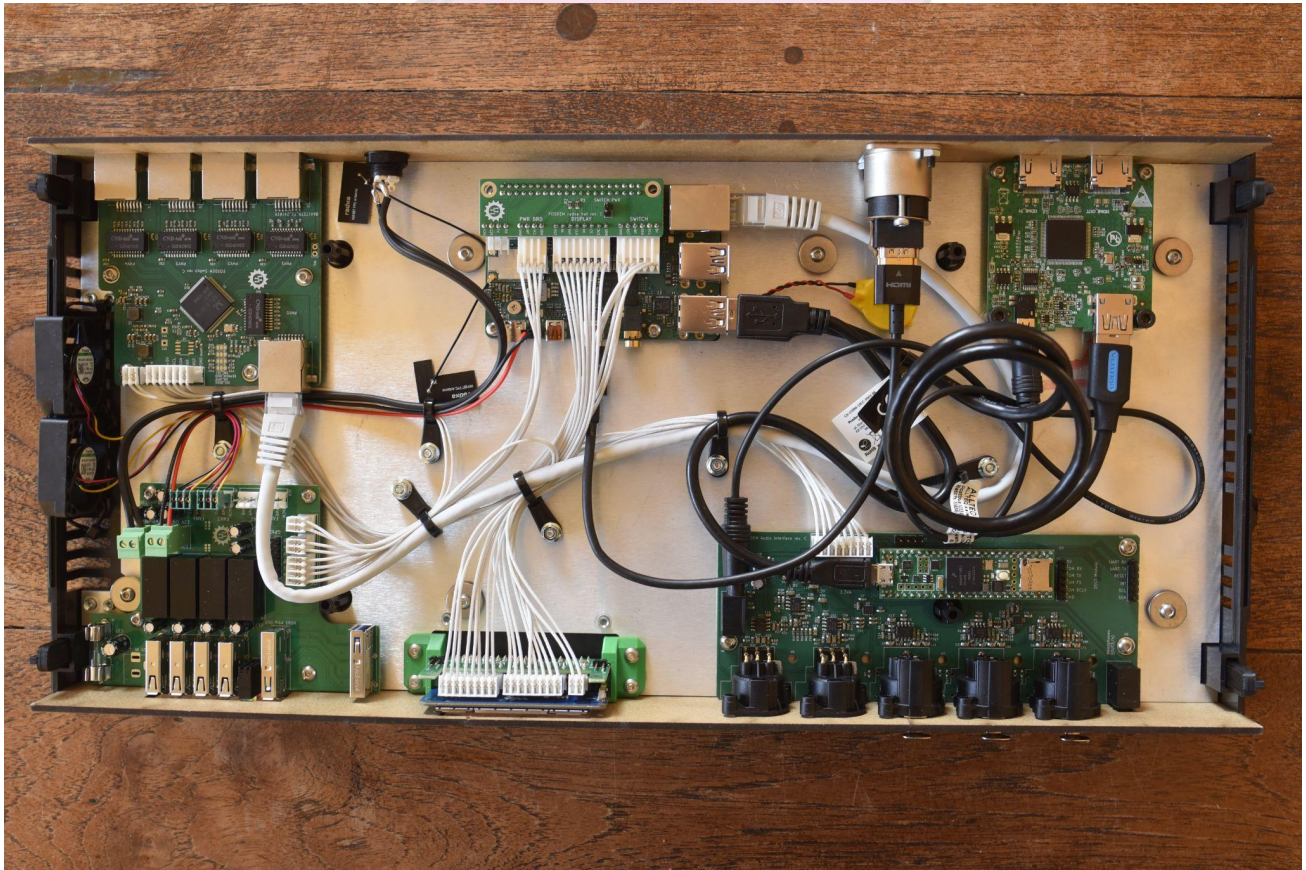
- Capturing with our video boxes
- See https://github.com/FOSDEM/video for details
- Send streams to render farm
- Send streams off-site for livestreaming and cutting into finished videos
- Semi-automated review and cutting process via https://github.com/yoe/sreview

Final Videobox.v2.docx



Final Videobox.v2.docx

Final Videobox.v2.docx

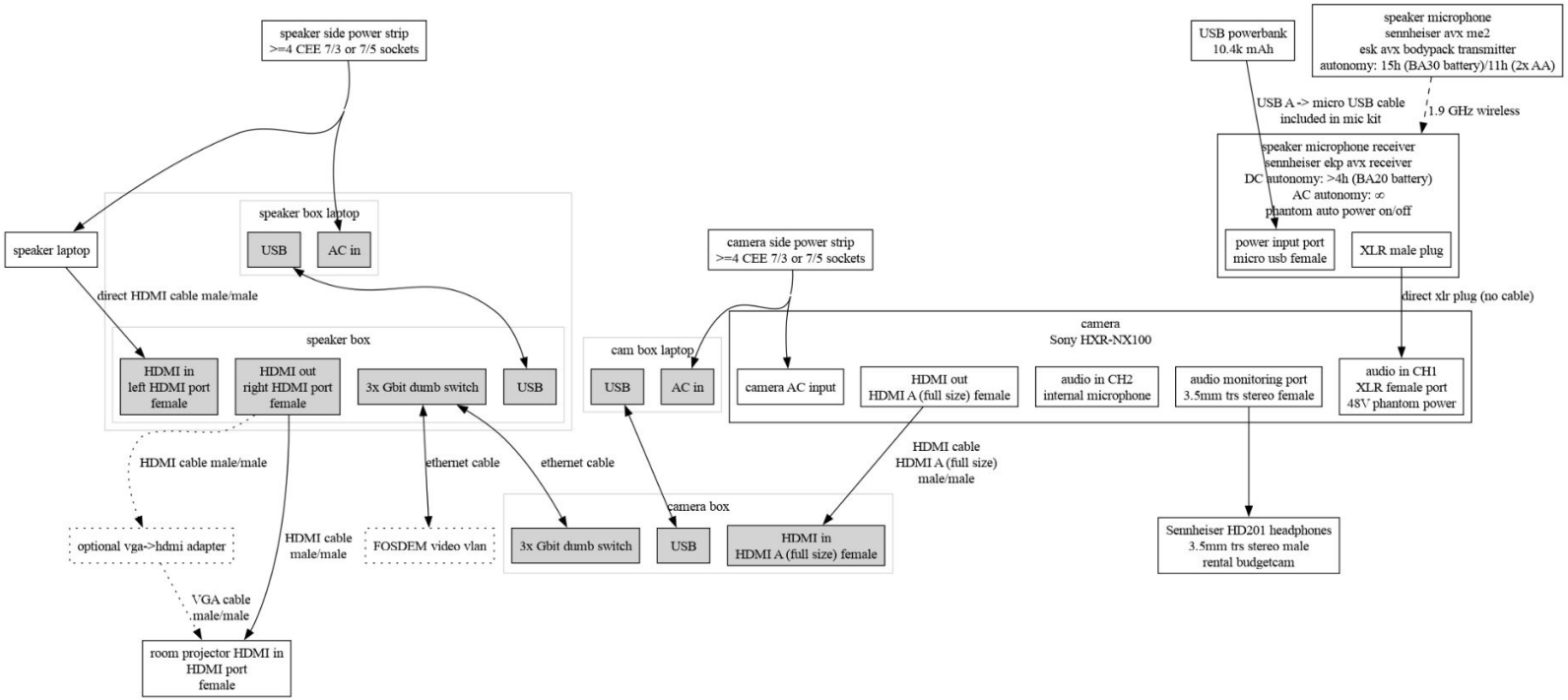


Final Videobox.v2.docx

More details?

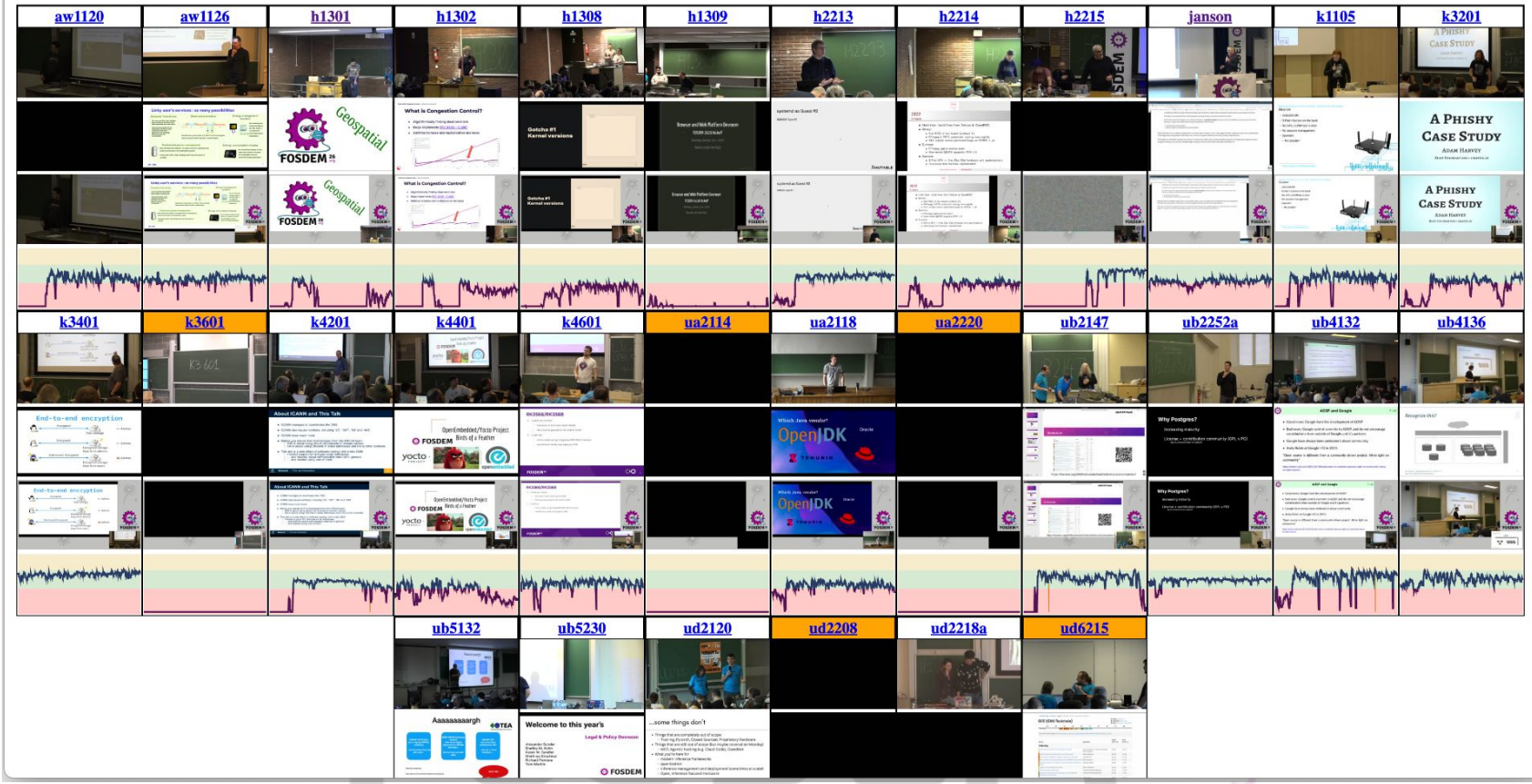
Check out the talk from Martijn and Angel

Example Cabling for a room



FOSDEM 2024 12 small rooms video cabling setup:
aw1120, aw1121, aw1125, aw1126, h2213, h2214, k3201, k3401, k4201, k4401, k4601, ud2119

Buildings: All aw h j k ua ub ud Choose

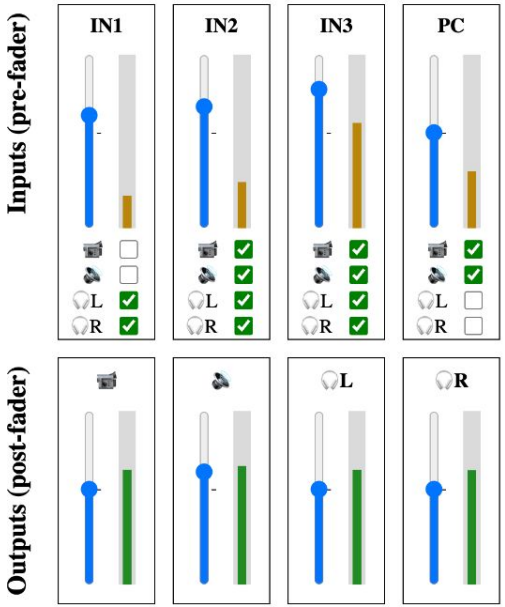


home | **Room k3401**

Room Status:

side-by-side presenter	side-by-side slides
fullscreen presenter	fullscreen slides

Mixer on box56.video.fosdem.org; Grafana

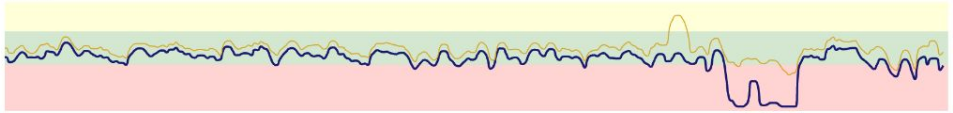


Stream

Camera

Slides

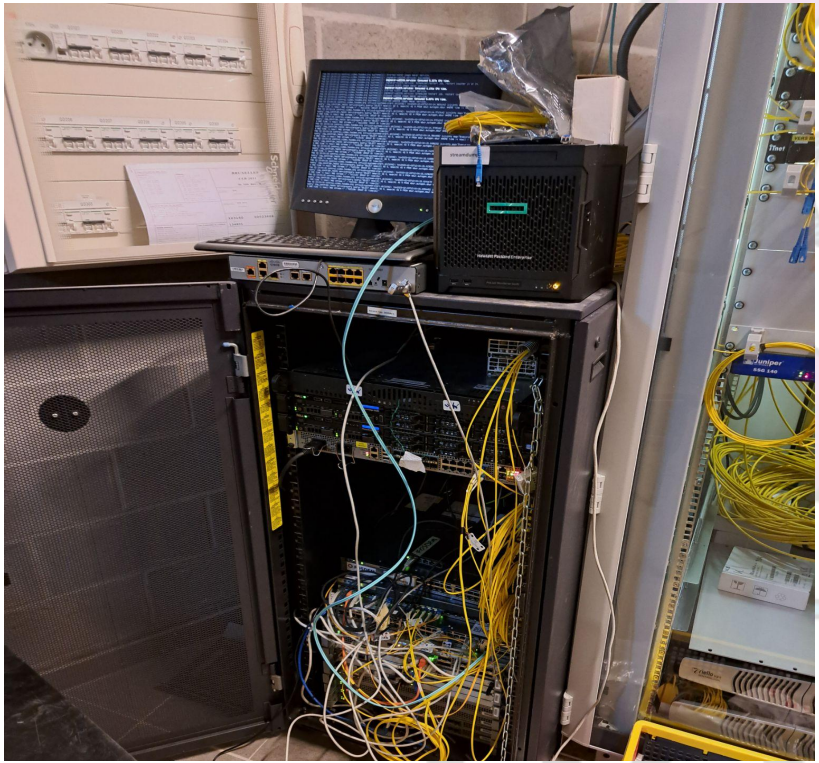
Audio



Cambox box47.video.fosdem.org

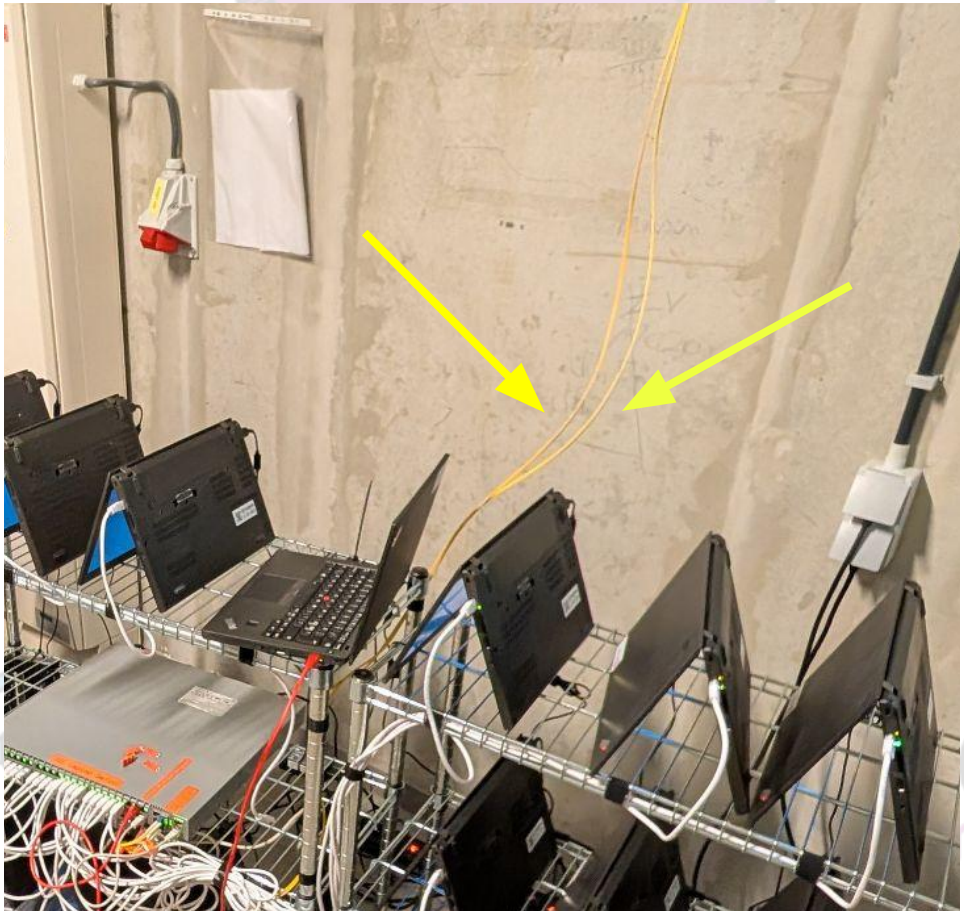
Slidesbox box56.video.fosdem.org

Render Farm 2023 Edition



Render Farm 2024-2026 Edition

Render Farm 2024-2026 Edition



Timelines

Installation of router

2016: Friday
2017: December
2018: December
2019: December
2020: December
2023: January
2024: January 24th (new 10g uplink)
2025: January 6th
2026: January 9th

Network up and Running

2015: Saturday 5:00
2016: Friday 19:00
2017: Friday 17:00
2018: Friday 12:00
2019: Thursday, last hiccups fixed Fri. 19:00
2020: Friday 18:00
2023: Friday 20:20
2024: Friday ~14:30
2025: Wednesday 16:00, last hiccups fixed Fri 12:20
2026: Friday 10:43

Timelines

Monitoring

2016: Saturday 12:00
2017: Saturday 09:00
2018: January
2019: January
2020: January (2019!)
2023: January 13th , kept it running ...
2024: Immediate ;)
2025: Jan 13th, 2023 ;)... see a pattern here?

Video

2016: Saturday 11:30
2017: Saturday 09:30
2018: Saturday 08:30
2019: Friday 21:00
2020: Friday 19:00
2023: Friday ~22:00
2024: Friday 23:00
2025: Friday 20:30
2026: FriYaY

Redoing our setup for 2026

2023: Plan was made to replace the old servers with a cluster onsite

Migration away from the servers **DONE**.

With the new cluster we also needed more bandwidth for Software Defined Storage

Replaced the old stacked switches with 2 “new” switches (Builddate: 2012-07-25) that now do MLAG - got rid of Spanning tree in the setup

Finally 🫶

Hickups 2026

Sat. 11:37 FOSDEM wifi network experienced issues with DNS lookups

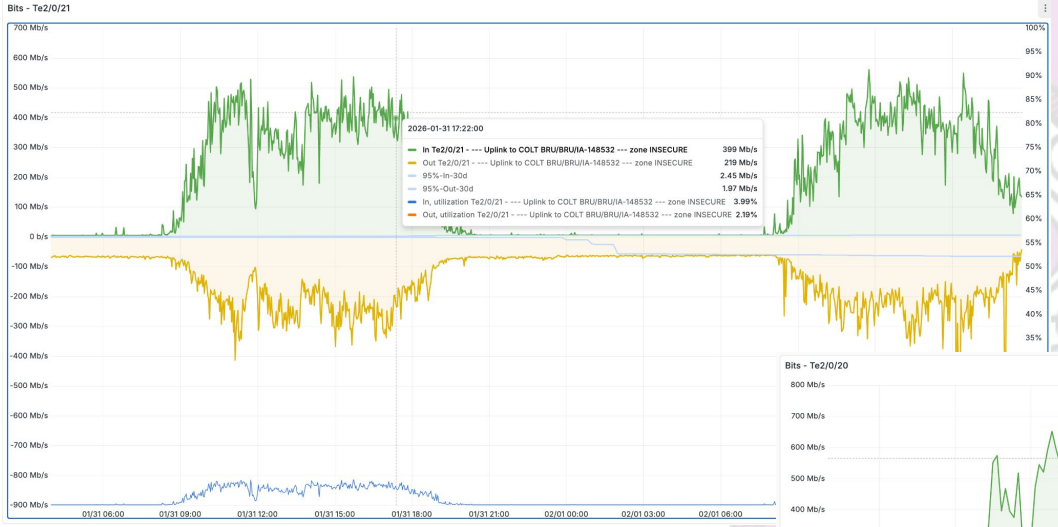
- Issues with upstream DNS resolvers & NAT64
- Changed DNS announcement to external instead of internal
- Changed NAT64 to offsite as well
- Reconfigured internal Upstream DNS to Freifunk Munich provided one
- After a few fixes, updates, reboots over two hours: changed DNS announce back to our internal hosts with new upstream

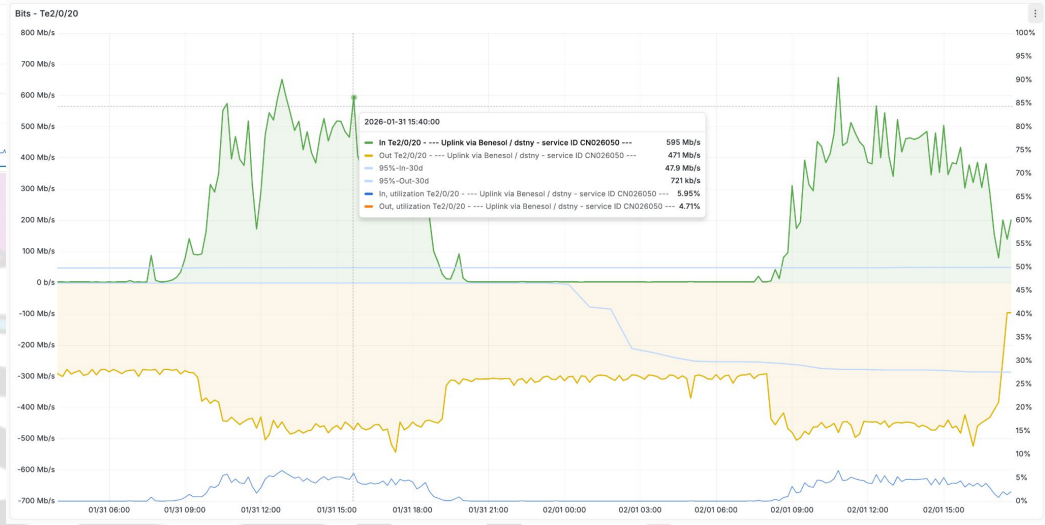
Hickups 2026

Shoutout to the NOC team of ffmuc.net for helping out here!

Did you know, ffmuc is also a listed european alternative (https://european-alternatives.eu/product/ffmuc-dns)

Uplinks


Bits - Te2/0/21
2026-01-31 17:22:00
In Te2/0/21 - --- Uplink to COLT BRU/BRU/IA-148532 --- zone INSECURE 399 Mb/s
Out Te2/0/21 - --- Uplink to COLT BRU/BRU/IA-148532 --- zone INSECURE 219 Mb/s
95%-In-30d 2.45 Mb/s
95%-Out-30d 1.97 Mb/s
In, utilization Te2/0/21 - --- Uplink to COLT BRU/BRU/IA-148532 --- zone INSECURE 3.99%
Out, utilization Te2/0/21 - --- Uplink to COLT BRU/BRU/IA-148532 --- zone INSECURE 2.19%


Bits - Te2/0/20
2026-01-31 15:40:00
In Te2/0/20 - --- Uplink via Benesol / dstny - service ID CN026050 --- 595 Mb/s
Out Te2/0/20 - --- Uplink via Benesol / dstny - service ID CN026050 --- 471 Mb/s
95%-In-30d 47.9 Mb/s
95%-Out-30d 721 kb/s
In, utilization Te2/0/20 - --- Uplink via Benesol / dstny - service ID CN026050 --- 5.95%
Out, utilization Te2/0/20 - --- Uplink via Benesol / dstny - service ID CN026050 --- 4.71%

Clone our Conference

- Clone our Infrastructure: https://github.com/FOSDEM/infrastructure
- Check out our video setup: https://github.com/FOSDEM/video/

Future outlook

- Our ASR is end-of-life, -support, and -everything
- We kinda like Open Source…
- Plan1: Replace ASR with
  - Network hardware for core distribution (likely Arista)
  - Switch BGP session, routing, and NAT64 to Open Source software
  - Have “proper” network hardware as backup for BGP & routing
- Plan2: IPv6-**only** on the main network
  - Change the name of the dualstack ESSID every year to prevent auto-reconnect
  - Make a third ESSID with a password (“FOSDEM”..) so your traffic is encrypted

Q & A