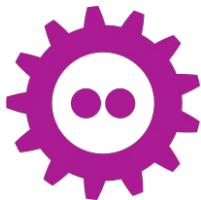




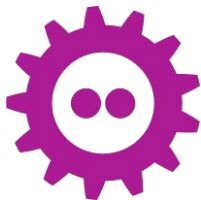
Infrastructure Review

Sebastian Schubert
@bastischubert:matrix.org



Core Infra

- Cisco ASR 1006 for routing, ACLs, NAT64, DHCP
- Several Cisco C3750 Switches
- Two servers for all other Services - we'll come back to them later
- All Monitoring done via Prometheus, Loki, and Grafana
- Data for Public Dashboards sent and persistent to VM outside ULB



Video

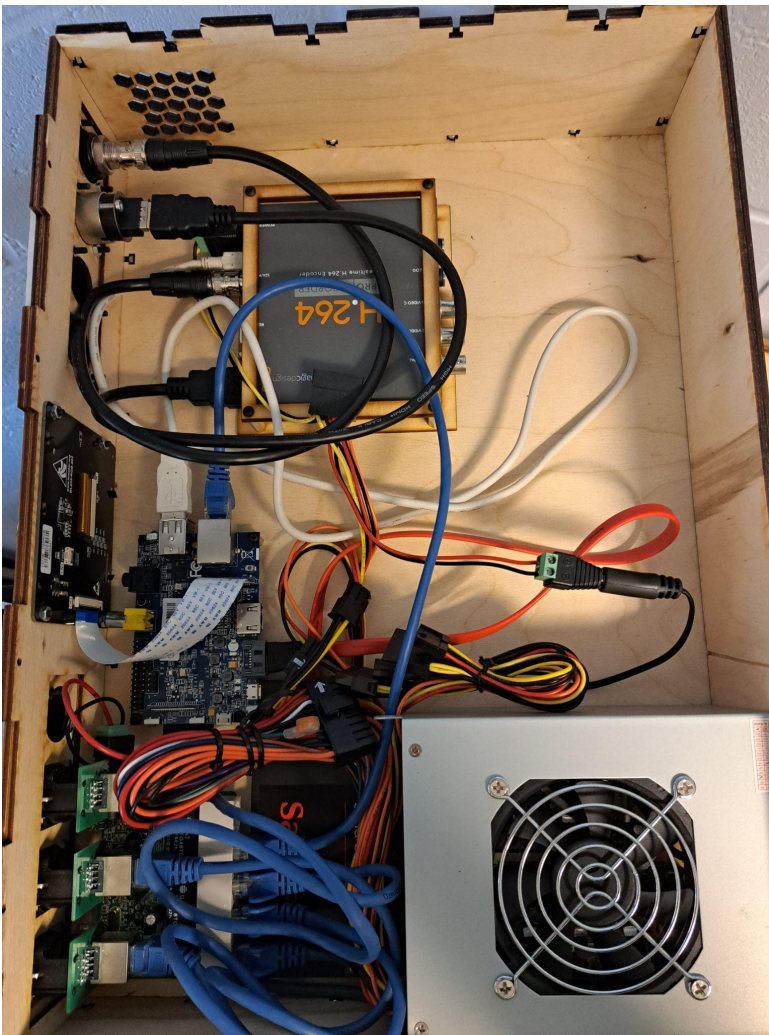
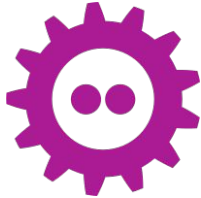
Capturing with our video boxes - improved version now with HDMI ;)

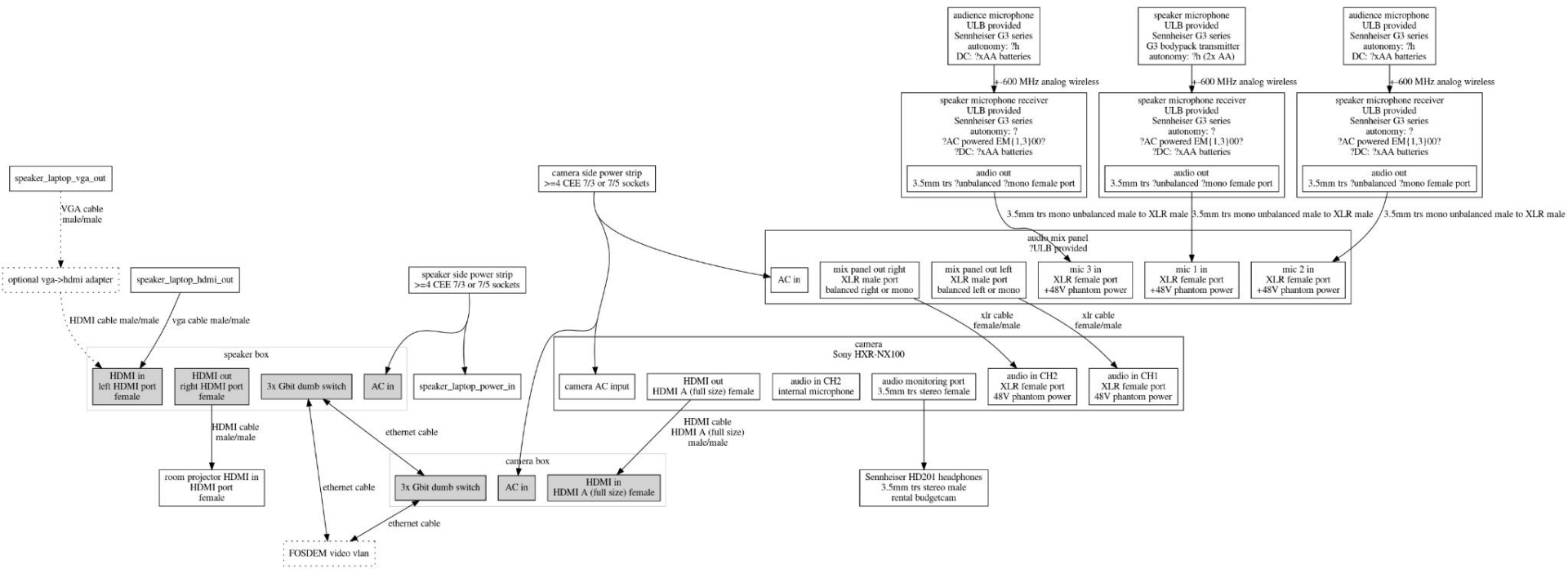
See <https://github.com/FOSDEM/video> for details

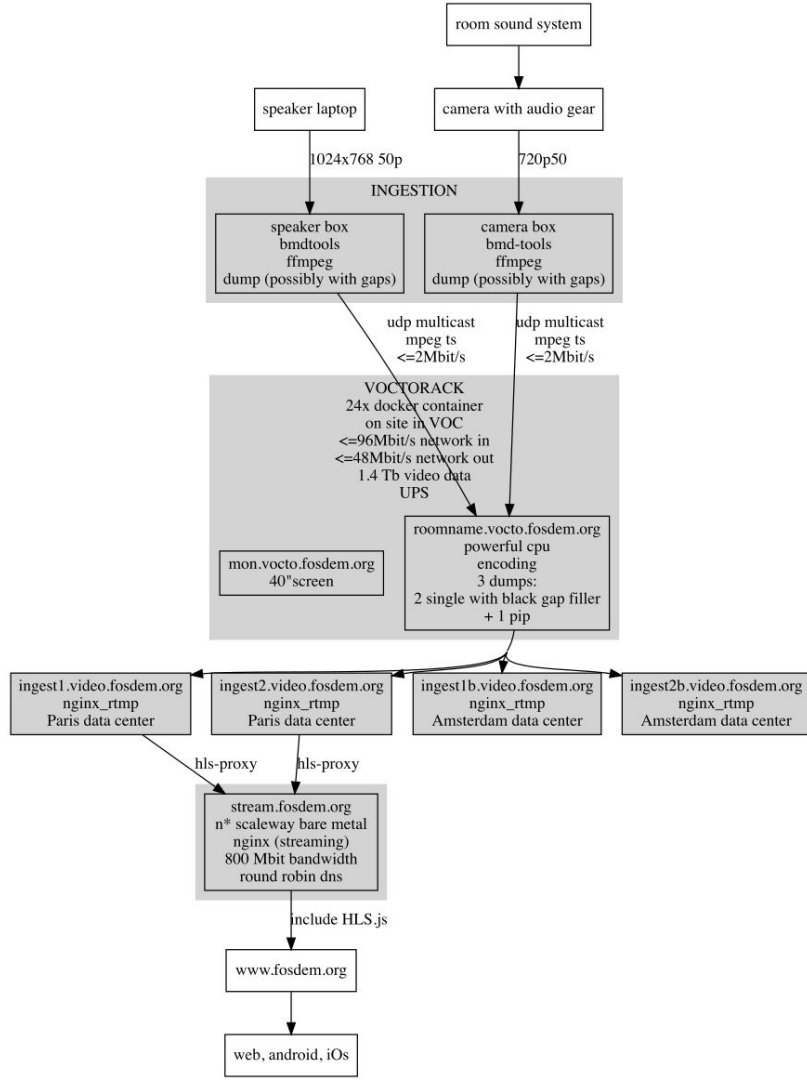
Send streams to render farm

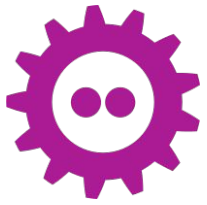
Send streams off-site for livestreaming and cutting into finished videos

Semi-automated review and cutting process via <https://github.com/yoe/sreview> - this year running on k8s for the first time

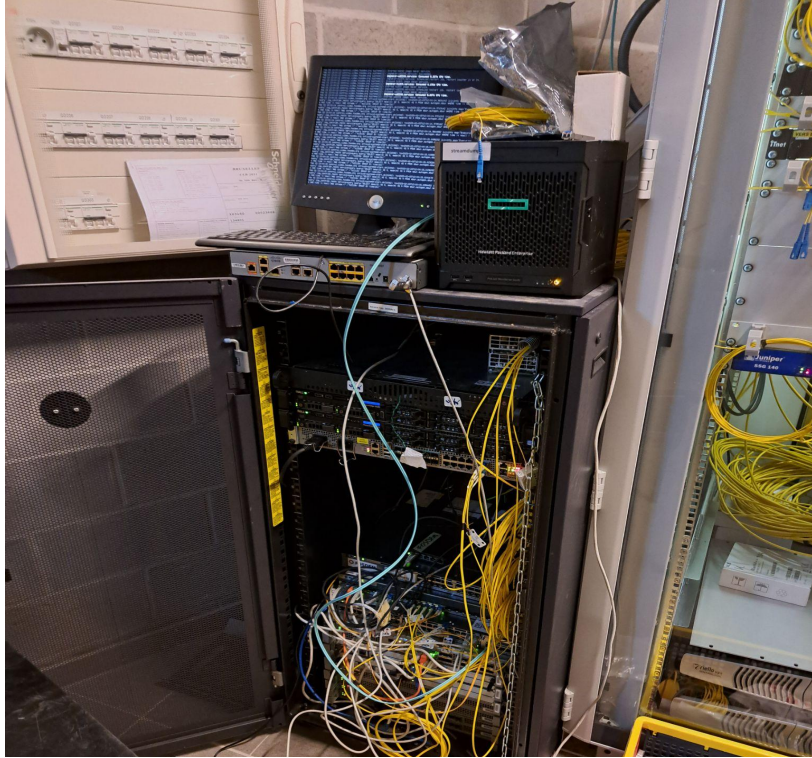


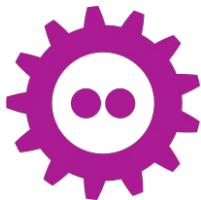






Render Farm 2023 Edition





DNS64

We ran the last years on bind9

Switched to CoreDNS for DNS64 at sunday of FOSDEM 2020

Significant reduction in CPU usage

This year we also replaced the remaining bind that handled our internal DNS



Timelines

Installation of router

2016: Friday

2017: December

2018: December

2019: December

2020: December

2023: January

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



Timelines

Monitoring

2016: Saturday 12:00

2017: Saturday 09:00

2018: January

2019: January

2020: January (2019!)

2023: January 13th

Video

2016: Saturday 11:30

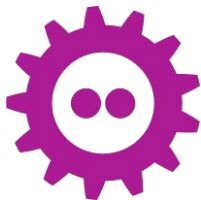
2017: Saturday 09:30

2018: Saturday 08:30

2019: Friday 21:00

2020: Friday 19:00

2023: Friday ~22:00



Story so far

Closed FOSDEM 2020 with an amazing run from tech perspective

All On-Site IT was completely managed via Ansible

Then there was this pandemic ...



FOSDEM 2021 and 2022

No conference at ULB

No Infrastructure to manage 🤞

The maintainer of the infra left FOSDEM meanwhile 😞



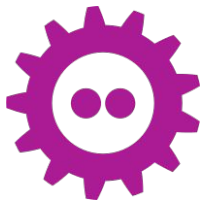
Back again in persona

Looking at the two machines after almost 2 years - fingers crossed

We had a working ssh key

Tons of updates to be installed

Battery Packs of the RAID Controllers depleted - everything seemed else ok'ish



Automation, be gone!

Ansible repo for the main event servers not usable with current ansible versions



JAKE-CLARK.TUMBLR



Timeline

- Servers alive : January 8th
- Services alive: January 13th
- DNS64: January 17th
- Centralized all logs: January 18th
- Jan 26 13:59:53 `Line protocol on Interface TenGigabitEthernet2/0/20, changed state to up`
- Jan 26 18:14 `%BGP-5-ADJCHANGE: neighbor 87.237.12.129 Up / %BGP-5-ADJCHANGE: neighbor 2001:4C40:100:23::1 Up`
- Jan 28 11:41 no more connectivity to our servers at ULB via the new BGP Session
- Jan 28 11:41 panic mode

Explore - Loki-event - Grafana

grafana.n.fosdem.net/explore?orgId=1&left=%7B%22datasource%22%3A%223Ji9uMTVz%22%2C%22queries%22%3A%5B%7B%22refId%22%3A%22A%22%2C%22datasource%22%3A%22%7B%22type%22%3A%22loki%22%2C%22uid%22%3A%22%22%7D%22%5D%22%7D%22

⚙️

🔍

☆

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⚙️

🛡️

👤

?

Explore

Loki-event

Split

Add to dashboard

2023-01-26 11:23:16 to 2023-01-26 15:58:55

Run query

Live

⌵

A

(Loki-event)

ⓘ

📄

👁

🗑

⋮

Kick start your query

Explain

Raw query

Builder

Code

Label filters

job = syslog × +

Line contains

DOWN

+ Operations

Raw query

{job="syslog"} | = 'DOWN'

> Options

Type: Range

+ Add query

🕒 Query history

🕒 Inspector

⌵ Logs volume

200

100

0

11:30

11:40

11:50

12:00

12:10

12:20

12:30

12:40

12:50

13:00

13:10

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15:00

15:10

15:20

15:30

15:40

15:50

logs

Reload log volume

🔄

Logs

Time

Unique labels

Wrap lines

Prettify JSON

Dedup

None

Exact

Numbers

Signature

Display results

Newest first

Oldest first

Co

11

Start

14:48:



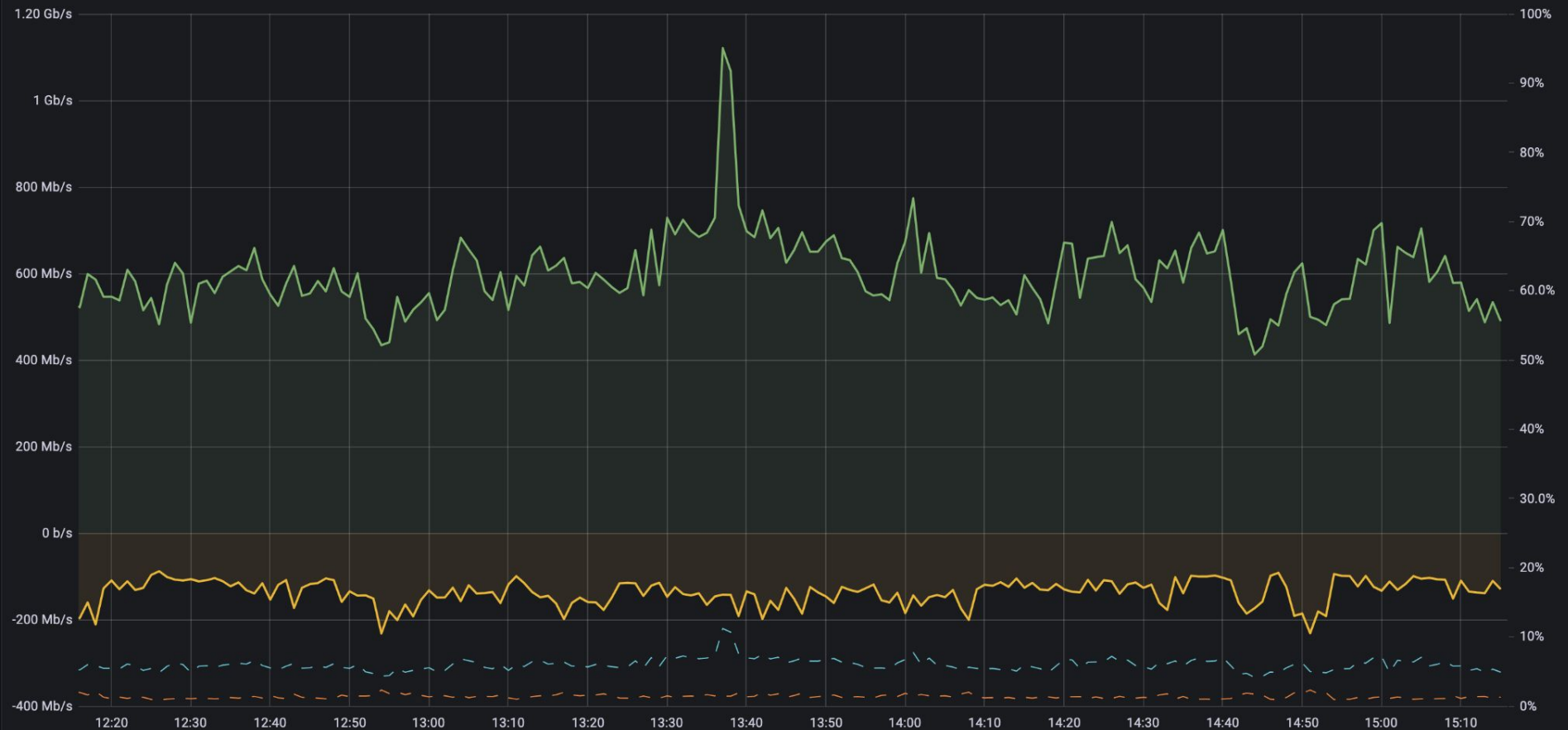
Older

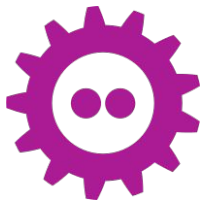


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- Jan 28 11:41 no more connectivity to our servers at ULB via the new BGP Session
ipv6 was also broken somehow
- Jan 29 22:48 removed MTU glitch on Uplinks, restartet BGP Sessions
- Feb 04 19:30 moved BGP Sessions to second provider

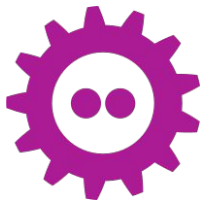
Interface TenGigabitEthernet2/0/20 for asr1k.n.fosdem.net (All) ▾



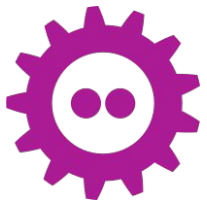


Clone our Conference

- Checkout our public dashboards on <https://dashboard.grafana.org>
- Clone our Infrastructure: <https://github.com/FOSDEM/infrastructure>



Q & A



Our Infra Sponsors

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