openhead-end

OSS bricks for TV head-ends

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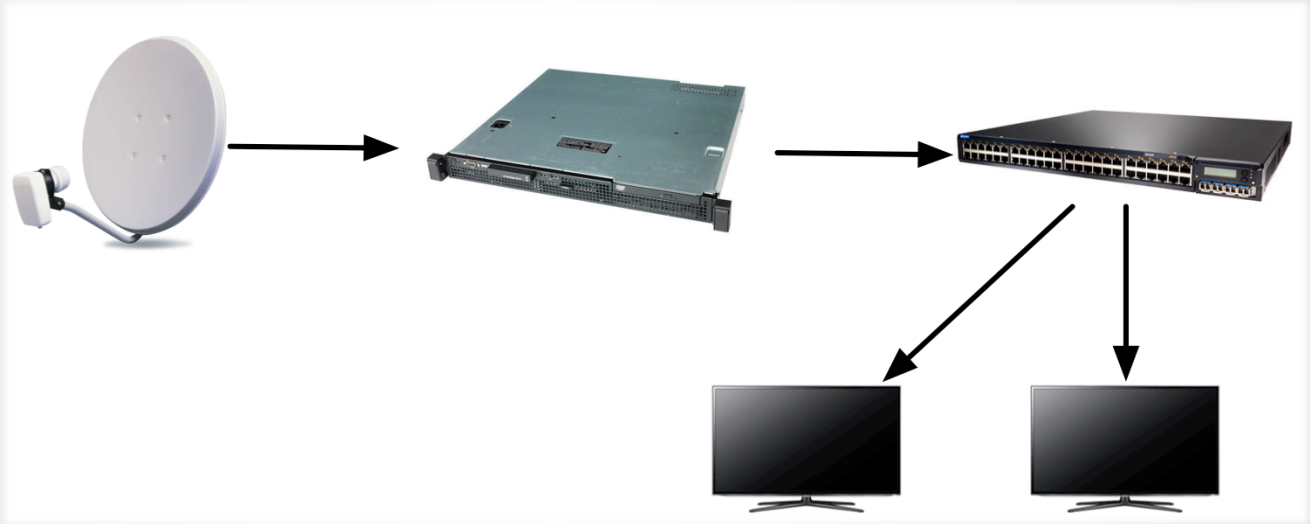
What?

- Reception or creation of TV services
- Processing
- Transmission



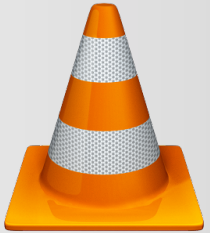
Where?

- TV channel itself (main + return)
- Network operator
- Company’s cable distribution

How?

Reception of services

- DVB-S/T/C, ATSC
  - With Linux-supported DVB cards
  - Supports CAM descrambling
  - DVBlast, dvbstream, mumuDVB
- DVB-ASI
  - DVBlast w/ cards from DVEO
- SDI, HD-SDI
  - Linux drivers not well integrated
  - OBE, VLC, Upipe

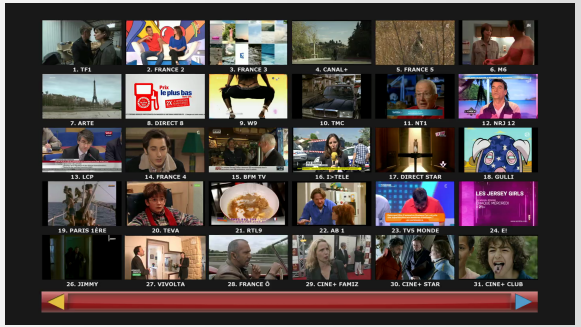


Creation of services

- CasparCG
- MLTframework melted

Processing

- FFmpeg/libav
  - Encapsulation/decapsulation (avformat)
  - Encoding/decoding (avcodec)
  - Processing (avfilter, swscale, swresample…)
- x264 (MPEG-4 AVC encoding)
- VLC (pipeline, mosaic)
- Upipe (pipeline)
- libebur128
- libdvbcsa



Transmission

- VideoLAN's multicat project
- OpenCaster
- udpxy
- Cisco's AMT library

Multicast Workshop at EBU: September 24th & 25th

Limits

- Lots of projects targeted at end-users, with broadcast additions
  - Rare documentation
  - Not as maintained as other parts
- Tendancy to become “bloated”
- UNIX skills are necessary
- Fragmentation/forks

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OpenHeadend stand 14H14