IBC 2015 - OPEN SOURCE MEETUP

Open Source during the 2015 UK election night broadcast
12.09.2015

sky NEWS   Przemyslaw Pluta & Chris Smith

BACKGROUND

✚ Live in 150 key marginal election counts

✚ Simultaneous delivery to TV and Online (Mobile, Website, Youtube etc.)

✚ Simultaneous monitoring of 150 ip streams within the Sky News Studio

✚ Display 150 ip streams in the UHD video wall to demonstrate the scale

✚ System for monitoring and routing ip streams around the building

TRADITIONAL WAY

- ❓ 150 Satellite Trucks
- ❓ 150 Satellite Channels
- ❓ 150 Satellite Engineers
- ❓ 150 Satellite Receivers
- ❓ 150 Sources on SDI Router
- ✖ ... The "traditional" way, wouldn't work ...

"

ITV only has a couple of IP feeds from declarations in London.
If something breaks it is harder to fix over IP on the night,
but with a truck you know how to resolve issues.

"

Emma Hoskyns, Head of Special Events, ITV News

"

BBC is streaming up to 20 counts, a sixth of its total, over IP. What trucks do that IP doesn't is flexibility on air. Trucks come with ear pieces and monitors so you can get react with interviews on the ground. If you do IP the route is less obvious. So when you start to factor that in you end up with a production that's not any cheaper more logistical planning and without boots on the ground.

"

Sam Woodhouse, Managing Editor, BBC Political Programmes

"

From a production point of view, it means moving away from expensive broadcast-specific equipment, like SDI and talkback systems, to more standard off-the-shelf technology
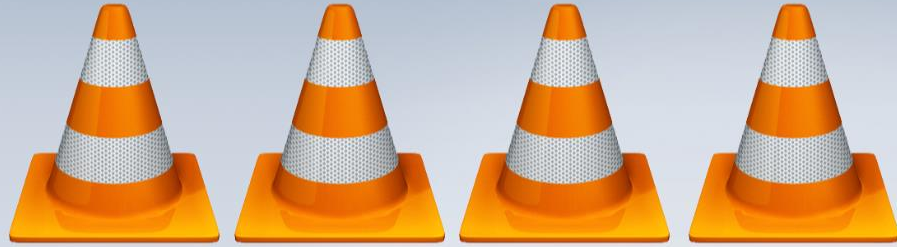
"

Phil Tudor, Principal Engineer, BBC R&D

SOLUTION …?

☑ Utilize Cellular technology where possible

☑ All IP system

☑ Easy for users in the field to operate and use

☑ Cheaper (than the traditional method)

☑ Scaleable

☑ Flexible

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COMMODITY HARDWARE

create and control multiple ip multiviews — Edit

● **JavaScript** 49.1%　　　　● **Prolog** 33.4%　　　　● **Ruby** 9.9%　　　　● **Objective-C** 7.6%
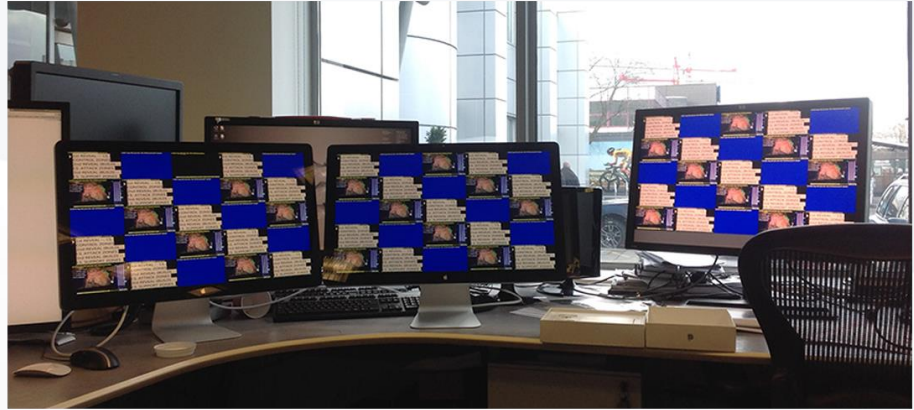
Branch: **master** ▾　　　**sight** / +

update

przemyslawpluta authored on 10 May　　　　　　latest commit `f8fcc0c476`

📁 assets	update	4 months ago
📁 bin	update	6 months ago
📁 utils	update	4 months ago
📄 .gitignore	update	4 months ago
📄 .google_sheet	update	5 months ago
📄 package.json	update	4 months ago
📄 sight.js	update	4 months ago
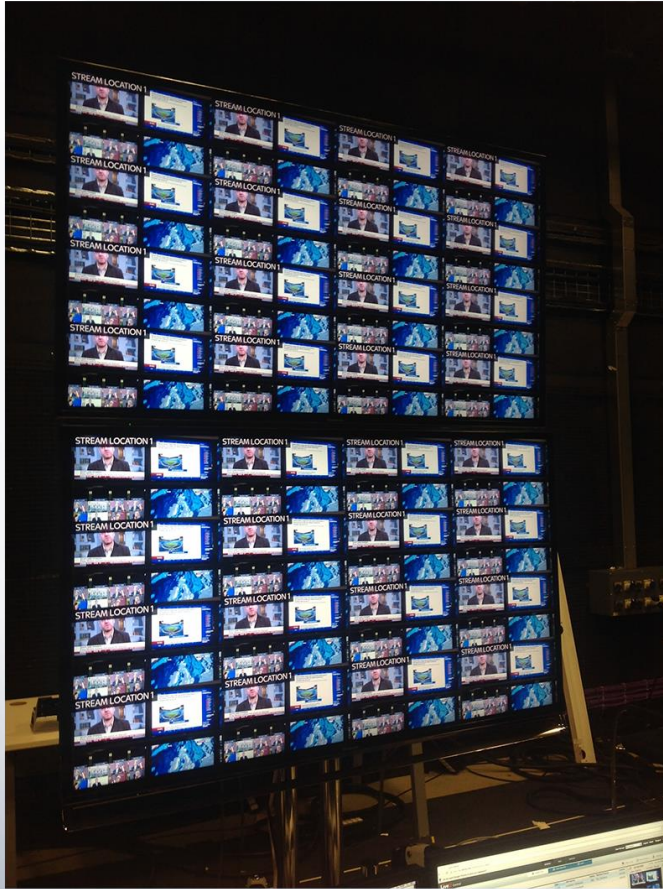
- 32 VLC instances (processes)

- Very Low Latency (VLC Tweaked)

- IP Multiviewer

- Audio Level Monitor

- Location Labels

Sky News General Election Sky150 Project
Solution Overview

Load Testing

```
1  #!/bin/bash
2  ffmpeg -i rtmp://xx.xxx.xxx.xxx:xxxx/flvplayback/sky
3  -c:v copy -tune zerolatency -c:a copy -f flv 'rtmp://a.rtmp.youtube.com/live2/fast-nameId-xxxxxx.xxxxxx-xx-xx-x'
4  -c:v copy -tune zerolatency -c:a copy -f flv 'rtmp://a.rtmp.youtube.com/live2/fast-nameId-xxxxxx.xxxxxx-xx-xx-x'
5  -c:v copy -tune zerolatency -c:a copy -f flv 'rtmp://a.rtmp.youtube.com/live2/fast-nameId-xxxxxx.xxxxxx-xx-xx-x'
6  -c:v copy -tune zerolatency -c:a copy -f flv 'rtmp://a.rtmp.youtube.com/live2/fast-nameId-xxxxxx.xxxxxx-xx-xx-x'
```