Datamining a cloud that wasn't mean to be public

how I get my free amatuer pr0n

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HaxoGreen,
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A long time ago on an IRC channel far, far away. . .

```
<Mr.Orange> Mr.White: http://$SERVICE/p/14Rs/

<Mr.Orange> btw, Mr.White, we have this game in $COMPANY
            called Clouderoulette; you take any given
            $SERVICE link and increment it by one until
            you find something interesting

<Krunch> Mr.Orange: with (10+26*2)^4 possibilities
         i think indexing everything is feasible
         within hours or days
```

That's 14 776 336 combinations.

Wait, what?

How $SERVICE works:

- user uploads file
- service serves file publicly with URL of the form `http://$SERVICE/p/$BLOB/`

Observations:

- the blob is short (1-4 characters)
- the blob is actually a counter, not a hash or random value
- but it looks random if you don't know what "random" means

What Would $DEITY Do?

```
20:50 <Krunch> Mr.Orange: $SERVICE indexing now ongoing
               with a hundred threads performing HEADs

20:50 <Krunch> User-Agent: Mr.Orange made me do it

23:22 <Krunch> still indexing but i think i won’t need
               bittorrent for a while
```

Technicalities

- count using `Math::BaseCalc([0..9, a-z, A-Z])`
- find the last value
- split the addresses space
- run `HEAD`s in worker processes to retrieve each chunk
- write output in an `awk(1)`able format

Examples:

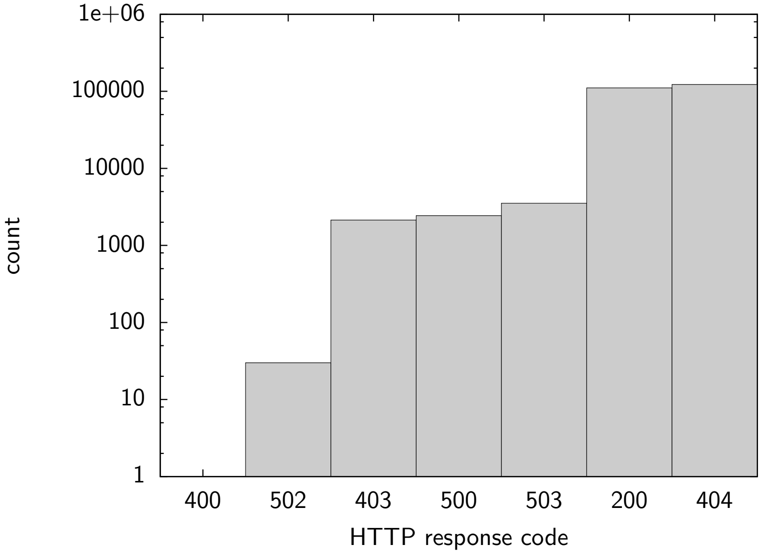
```
# path atime ret mtime      H/M sz      name
8 1310673767 200 1267080649 HIT 1969081 03 - Buy Me a Pony.ogg
fwc 1310682783 200 1298148693 MISS 6553936 anal cunt  side 1 of
```

The URL for that audio file being `http://$SERVICE/p/8`

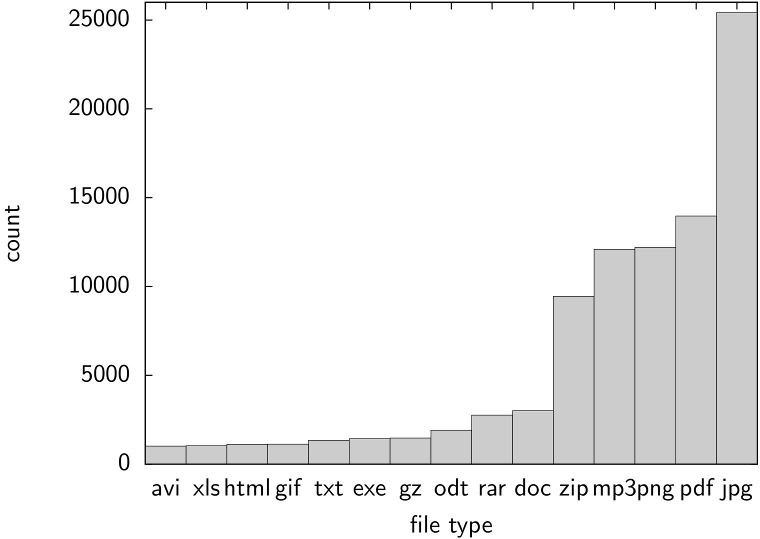
Lies, damned lies, and statistics

- indexed from 0 to 1NuC
- 241 993 URLs
- 111 070 actual files

HTTP response codes

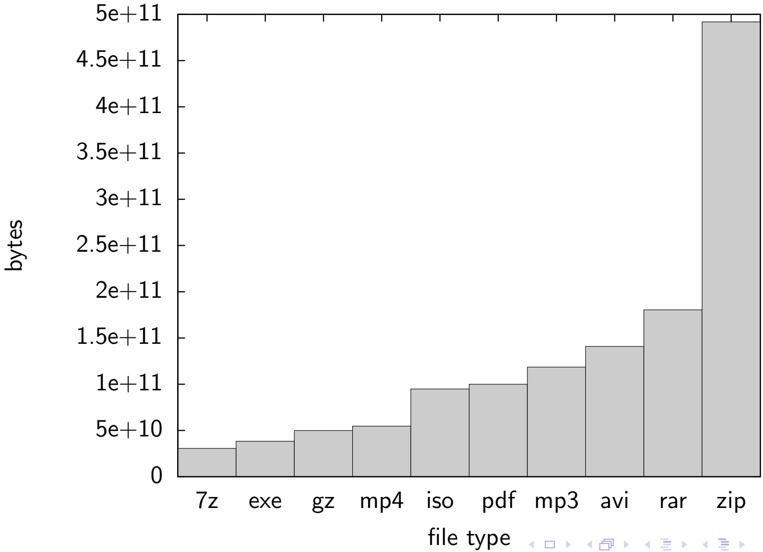


File types count



File types size

$(5 * 10^{11}$ is about 500 gigs)



Finding 1: next file name is predictible

You can almost tail -f the upload logs.

Finding 2: rule 34 applies

```
<Krunch> 8L6 is german dinosaur porn
```

Finding 3: HIT/MISS header is not updated by HEAD requests

You can tell when someone accesses any given file.

Finding 4: people upload files in batch

```
il 1310680381 200 1271597102 HIT 169279 FICHES-RECETTES-MAROC.pd
im 1310680390 200 1271597104 HIT 164789 FICHES_RECETTES_THAILAND
in 1310680401 200 1271597110 HIT 170502 FICHES-RECETTES-VIETNAM.
io 1310680412 200 1271596925 HIT 24040656 V160410_13.010001.AVI
```

- upload some files that can identify you
- upload your anonymous sextape
- better wait at least a few hours between the two

Finding 5: `$SERVICE` doesn't serve that much porn

- only 358 files that have a promising name
- kind of disappointing
- but if you like amateur, you'll still find stuff

Happy ending

- `$SERVICE` people eventually realised there was a problem
- `$BLOB` is now a long-ish random string
- insider knowledge suggests they were concerned about poor anonymisation (finding 4: people upload in batch)

Questions?

- `adrien@kunysz.be`
- Krunch on Freenode (check out `#fsugar`)
- more stuff like that every month IRL at `fsugar.be`