

The MASTS Project

The story so far . . .

A lot of people
Iain Phillips doing the talking . . .

July 12, 2007

Talking about measuring a
10gig network is easier than
actually doing it.

So what are the problems?

History

- ▶ Started 2005 (September (ish))
- ▶ LU, Cam, UCL
- ▶ Aim to capture packets, process and visualise results
- ▶ People come and go ...

Problems

- ▶ The network is not 2.5Gig.
- ▶ Research Network or Network Research.
- ▶ Political — Can we break the network?
- ▶ Legal — Can we see the data?

Network Presentation



Capture

```
+-----+--+--+
| Switch |*|    | TELECITY
|-----+--+--+
|          |    |
| PC<-----/    | Capture + Strip
| PC          | Buffer
| PC          | ---Send to UCL--->
|          |    |
+-----+ (Andrew Moore)
```

Capture

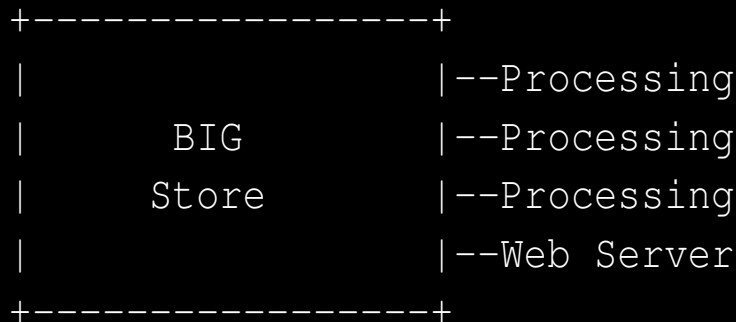
She hasnae got the power cap'n!

```
+-----+
|Switch |  TELECITY
|-----|
|       |
|PC      |-Capture,strip and to UCL->
|       |
+-----+
```

What is at UCL?

Architecture for Storage

Headers coming in at about 1 gig/monitored direction



Architecture for Storage

Store after one week!



Storing Network Data

- ▶ There's a lot of it
- ▶ Compression
 - ▶ Kostas Kyriakopoulos
 - ▶ Wavelets for network data
- ▶ Processing
 - ▶ Distribution Matching
 - ▶ Intermediate Information
- ▶ Throw it away!!!!
 - ▶ Keep summaries and meta-data

Architecture for Visualisation

Not much time for this - see the demo

<http://courier.lboro.ac.uk/>

Talk to Mark Withall

Legal

- ▶ Trailblazing the Legal Approval Process.
- ▶ JANET AUP based on work of the project.
- ▶ Andrew Cormack and UCL
- ▶ Saleem Bhatti.

Next Steps

- ▶ The MASTS project needs YOU.
 - ▶ What data processing would you like?
 - ▶ More than traffic traces?
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- ▶ UCL continues until March
 - ▶ LU until May
 - ▶ Cam until October or so.

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