

nominet

Nominet and hostcount++

21 May 2008



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Introduction

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Project history

- Running since 1990
- Breadth and depth of the Internet
- Looks at over 100 TLDs
- No longer scaling

Benefits

Data gathered

- Shows internet growth
- Implies social impact, e.g. in developing world
- Possible use a prediction tool?
- Relative comparison:
 - Routing table size
 - Other surveys

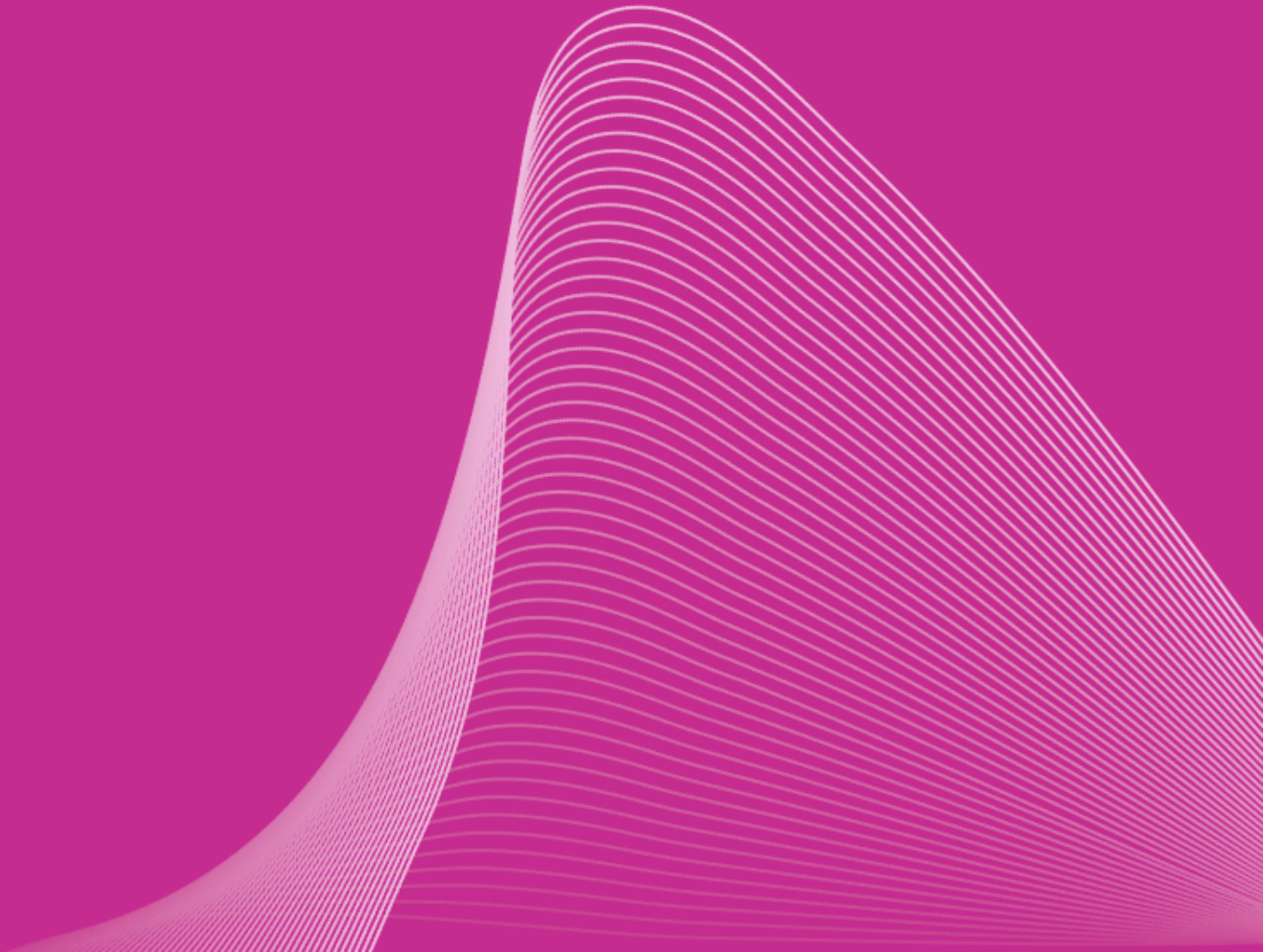
Collaboration

Giving back

- RIPE NCC
- ccTLDs
- Zone admins
 - National forums for discussion

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Measurements

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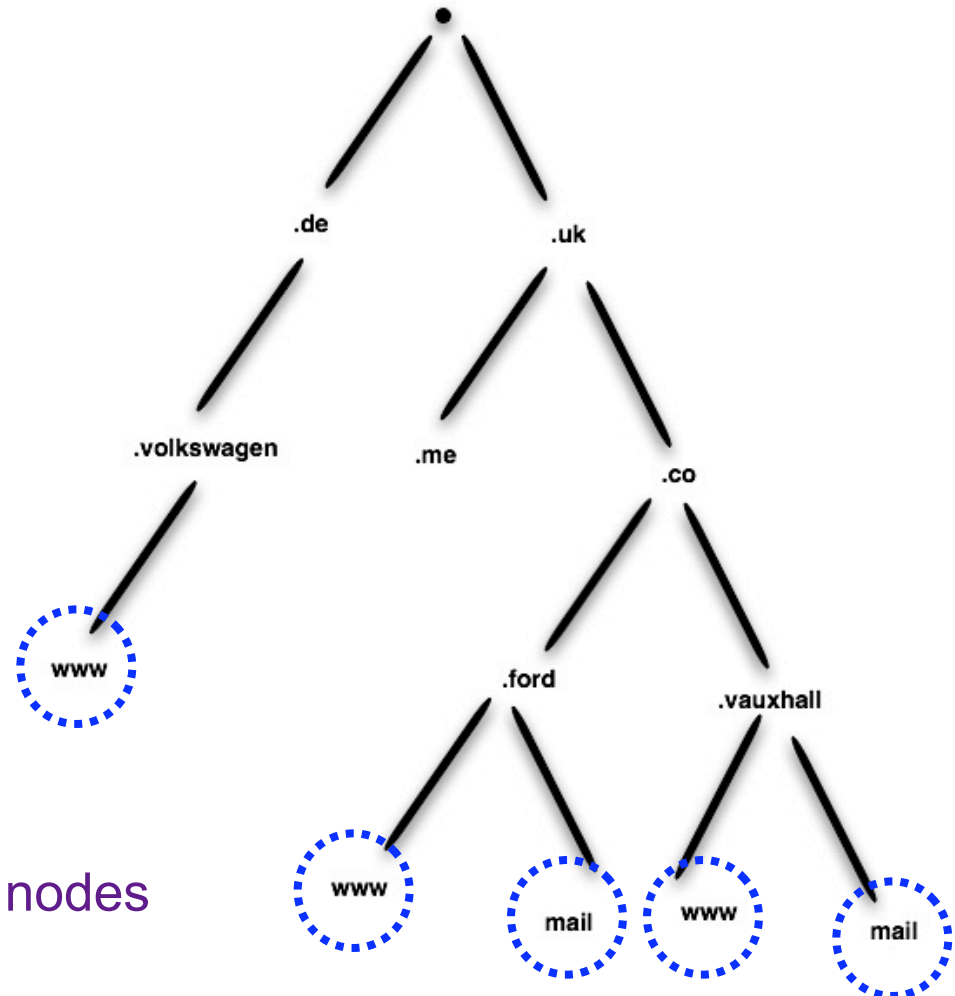
Quantifying

- Breadth - Number of leaf nodes
- Depth of tree

Leaf nodes

Depth of nodes

4 3 2 1
www.ford.co.uk



Count of leaf nodes

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Method

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DNS transfer

Walking the DNS tree

- Each ccTLD runs DIY kit
- Iterates over ccTLD zone
- Requests AXFR for each sub-zone

AXFR

- Returns the full contents of a zone
- Monthly run
- BCP to deny public AXFR

Trust zone

Extension of trust zone

- Include Nominet
- BIND config change:

```
zone "hostcount-example.co.uk" {  
    type master;  
    file "hostcount-example.co.uk";  
    allow transfer { slave_servers; 213.248.199.25; }
```

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Results

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Public data

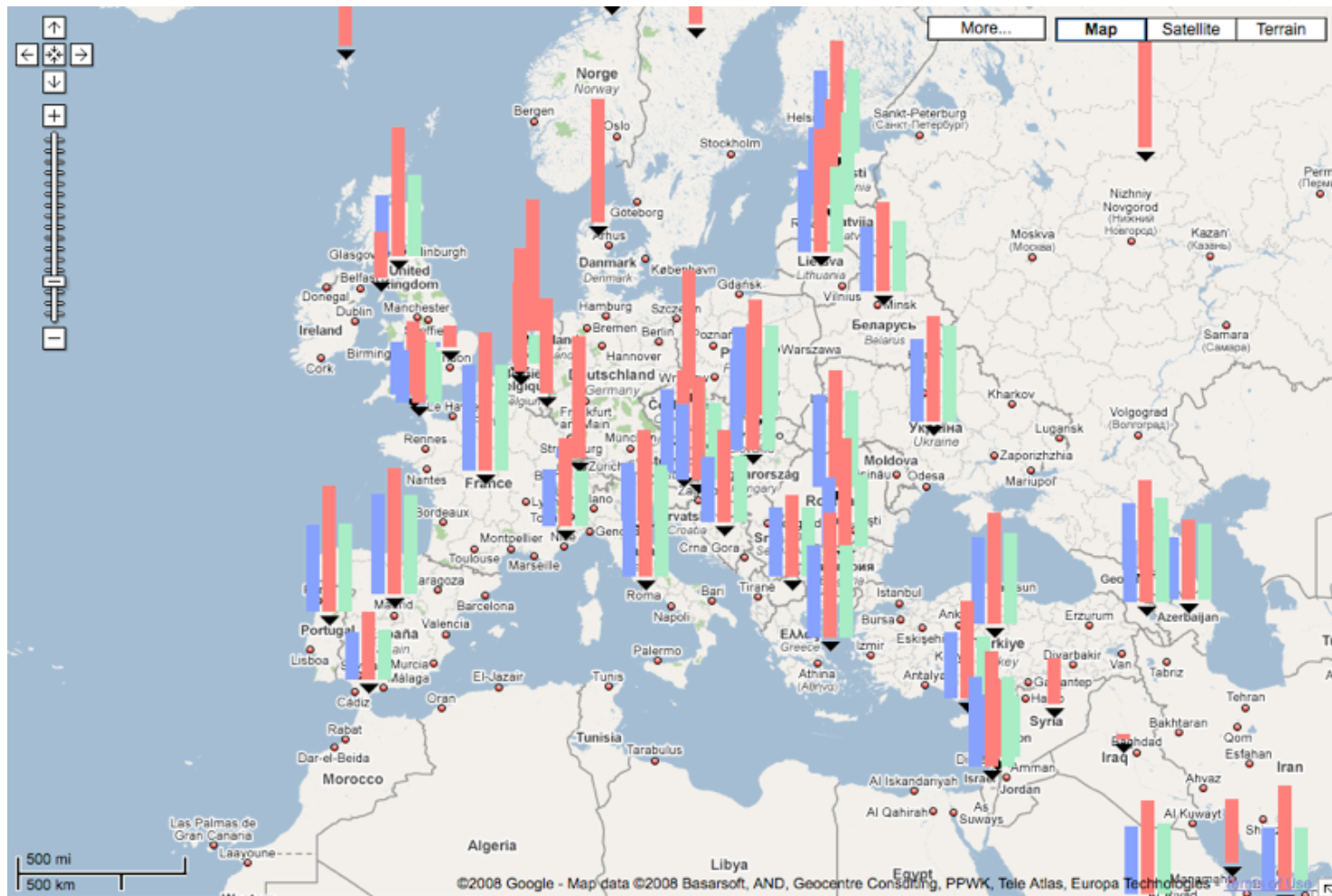
Data privacy

- Data MD5 hashed before sent to RIPE NCC
- Only numbers publicly reported
- <http://www.ripe.net/hostcount/hostcount++/>

Public data

Published results

	This Month	Last Month	Change	% Change
Hosts Counted (IPv4)	135,460,517	131,689,770	+3770747	+2.78%
.uk Hosts Counted (IPv4)	6,416,584	7,012,266	-595682	-9.28%
Zones Counted	1,894,035	1,781,356	+112679	+5.95%
.uk Zones Counted	1,579	8,971	-7,392	-468.14%



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Questions/Comments?

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ian@nominet.org.uk

<http://www.nominet.org.uk/tech/hostcount/>