

Anonymising \*  
flow traffic

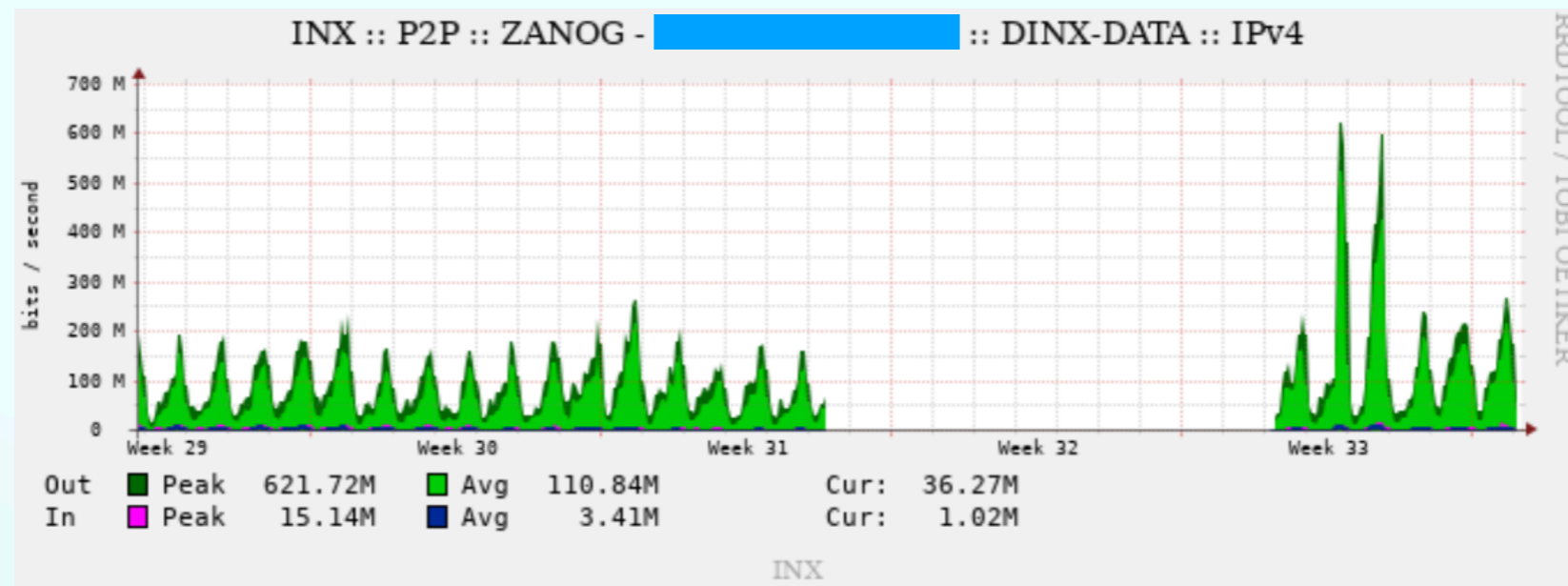
# With whom am I changing traffic?

Professional flow tools are often expensive / de-prioritised by smaller operators.

Some (operator) solutions are incredibly privacy invasive



# And yet, ...



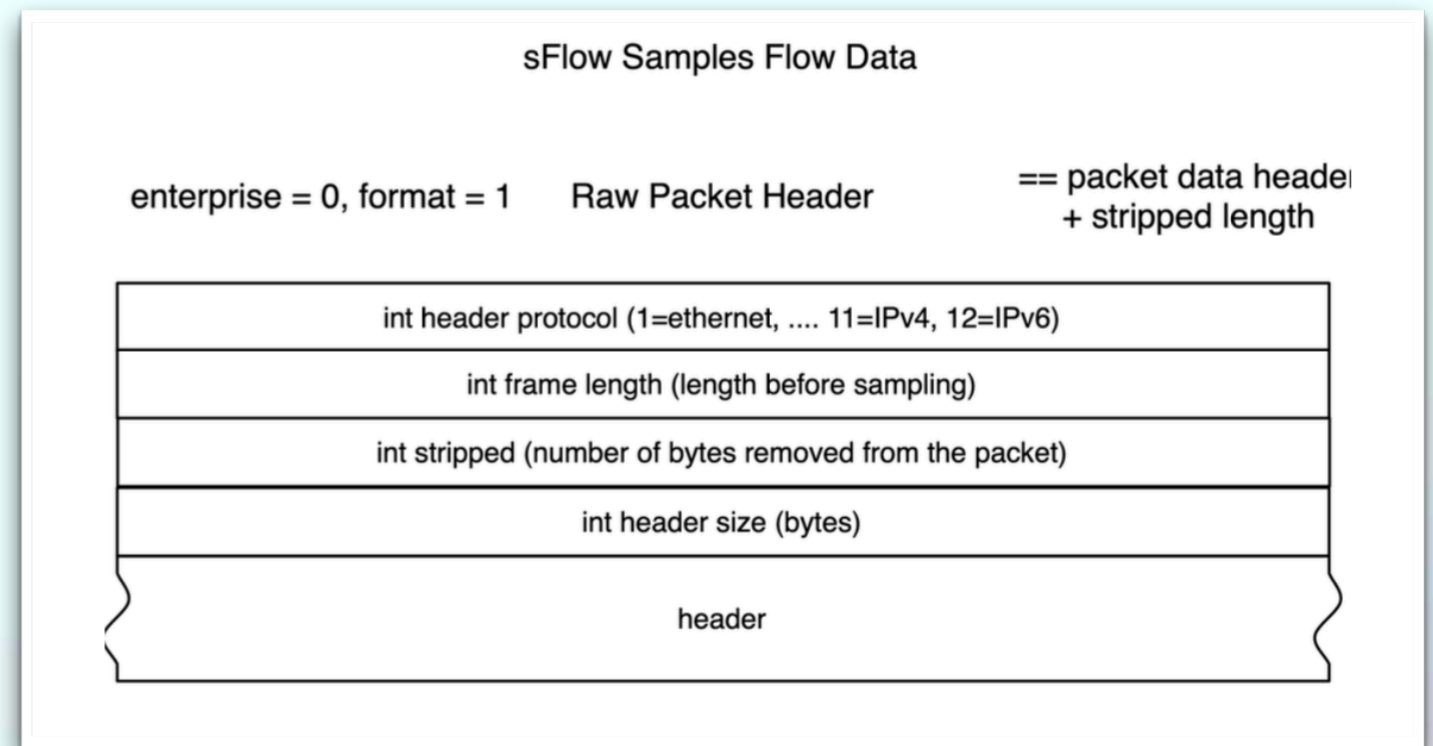
Network to network analysis remains incredibly useful !

# Protect the PII

INX produces peer-to-peer statistics at all our IXPs.

Statistics are produced from \*sampled\* sflow exports.

No PII is ever stored / saved; and of course, no payload information is ever seen.



# How do we do better ?

We'd like to provide better analysis to peers.

Under no circumstances do we ever want to expose PII



# What if ...

We could remove the last 8 bits (IPv4) or last 80 bits (IPv6) in the flow export process?

ie. 198.51.100.123 <-> 203.0.113.112

became 198.51.100.0 <-> 203.0.113.0

and for IPv6

2001:db8:100:d351:b0b3:193a:9087:ea35 <-> 2001:db8:900:3193:3fb7:55a7:dcda:ccaf

became 2001:db8:100::0 <-> 2001:db8:900::0

# More questions than answers

As a community-run IXP we don't really have full-time developers.

What if other IXPs wanted to do something similar?

How do we make this scale in the long term?



sflowtool -a

<https://github.com/cyberstormdotmu/sflowtool>

- a - introduces the anonymisation feature
- f - splits/mirrors stream (no performance impact)

IN PRODUCTION today!



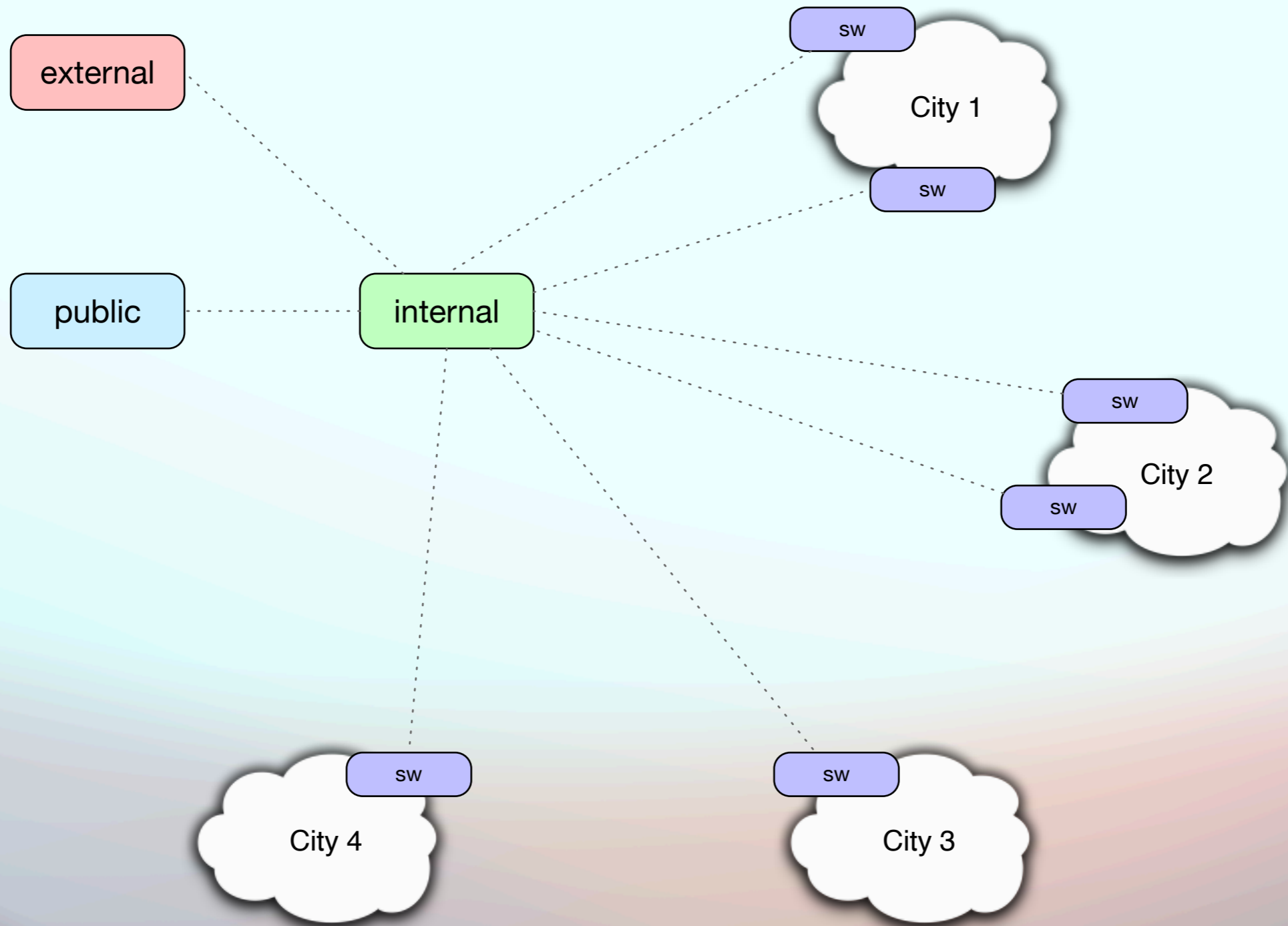
So...what problem are  
you actually solving?

# Initial Use case



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**IIFO**  
International Internet  
Flow Quantification



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