Ernestine might like PLUS too.

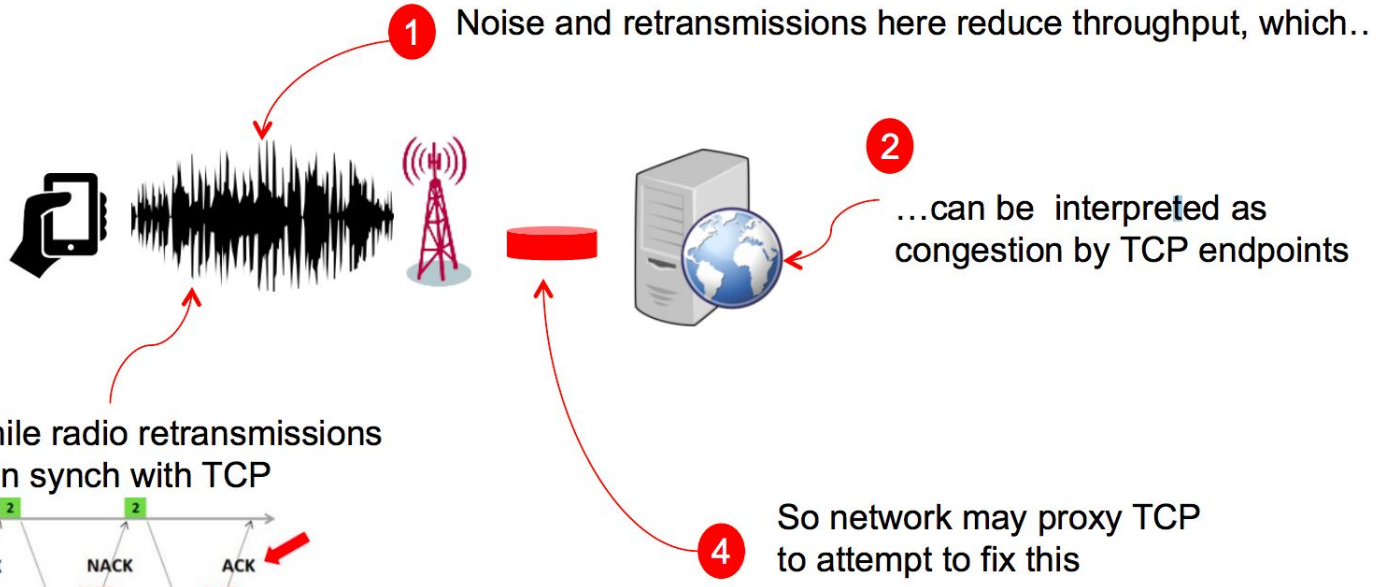
Natasha Rooney @thisNatasha

Network Resources are scarce.

(e.g. spectrum)

Mobile networks attempt to make the best use of resources.

ACCORD 1: Behaviour of TCP in Mobile Networks



= network and endpoints not working together on flow control

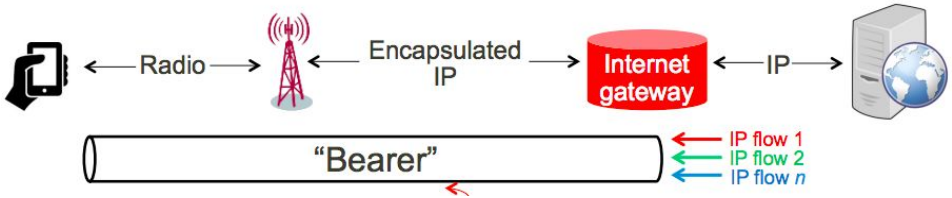
ACCORD 2: Resource Allocation by Resource Need

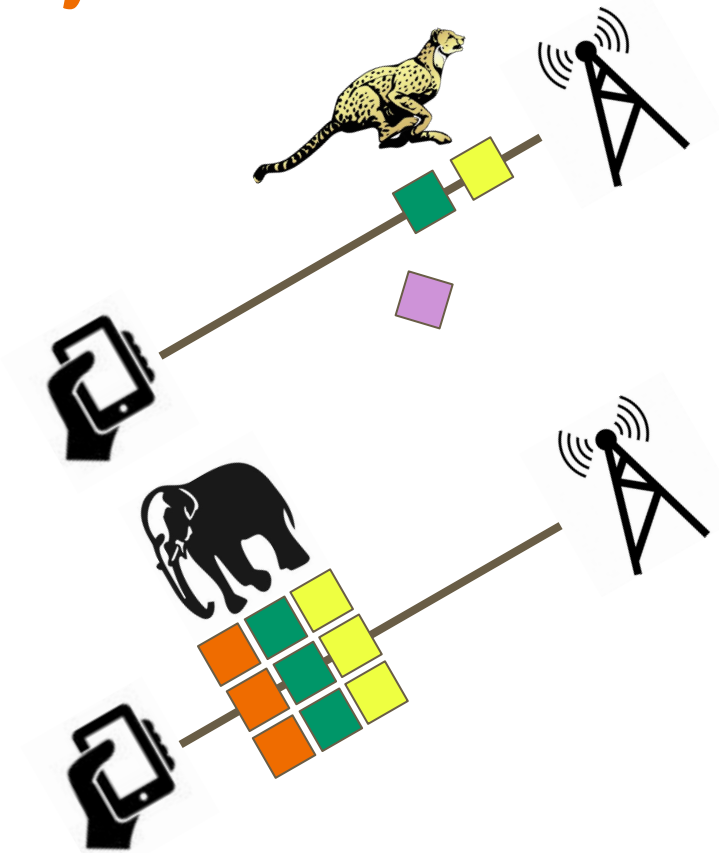
Mobile Network “Bearers”

- Networks assign appropriate bearer to upstream and downstream flow
- Bearer = overlay network that spans the mobile network
- Each bearer has an associated QoS class
- Incorrect traffic assignment can cause inefficient use of the radio spectrum (finite resource) and bad experience.

Allocation for Reasonable Network Management

- Delay-insensitive traffic
- Throughput-tolerant traffic





Once upon a time...

Some methods previously used to classify traffic or solve issues:

- 5 tuple info for a single flow
- DPI
- Transparent proxies / caches
- TCP optimisers
- etc.

Encryption is sensible
and makes this harder.

How can we encrypt **and** make best use of network resources?

What mobile networks need

- Ability to give a flow the best balance of resources
- Ability to manage network resources sensibly
- Ability to future proof networks for new traffic needs
- Ability to classify a flow, with the lowest amount of information possible
- Ability to trust in the trust model
- No DPI, no traffic inspection
- No trust model based on “traffic prioritisation”.