

Presentation

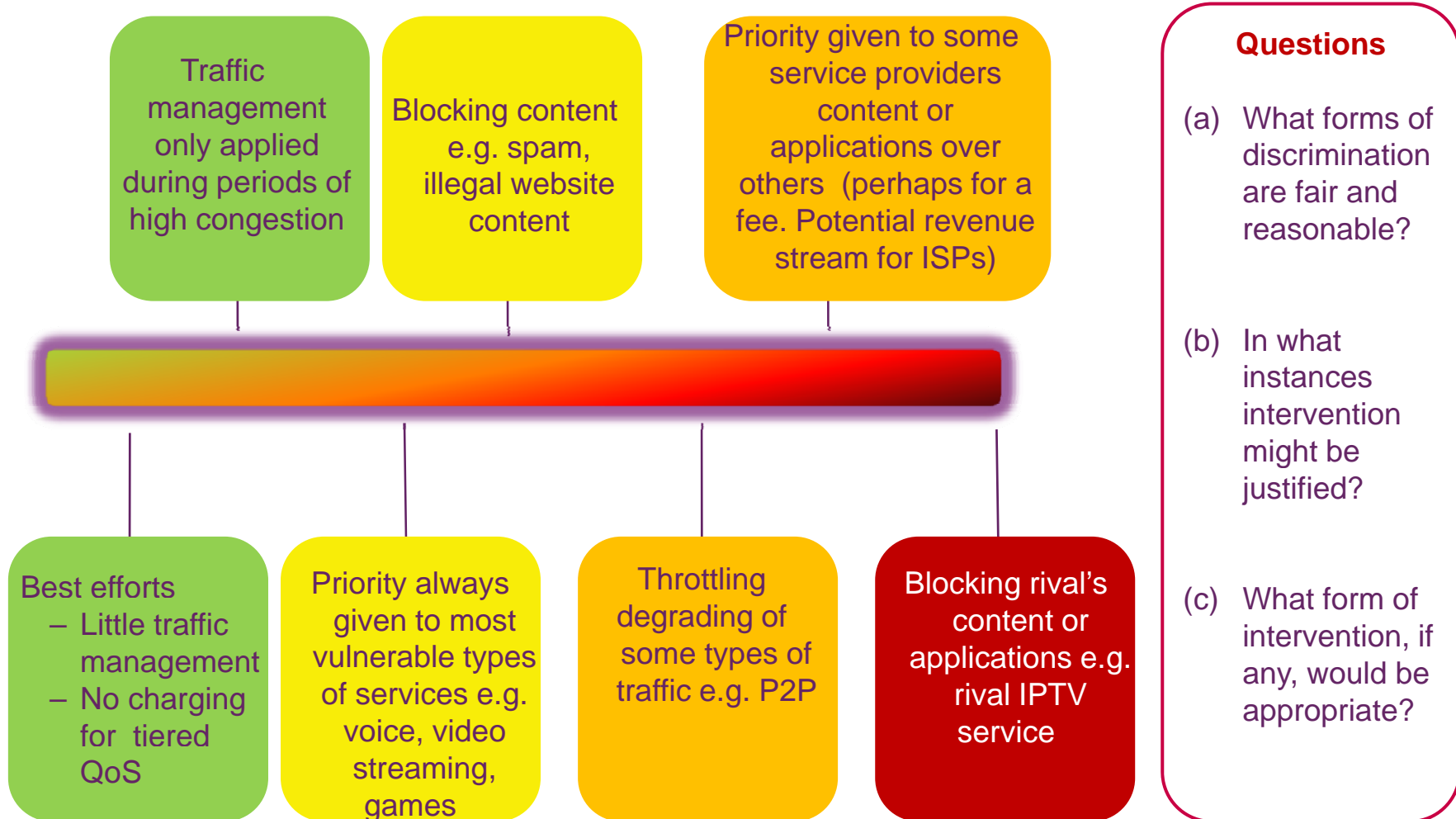
# Ofcom: Traffic Management and 'Net Neutrality'

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## What is traffic management and ‘net neutrality’?

- Traffic management is using techniques and technologies to allow network operators to handle traffic more efficiently, to prioritise traffic by type, to charge for guaranteed bandwidth or to block or degrade the quality of certain content.
- Net neutrality is about **whether and where there should be a principle of non-discrimination regarding different forms of internet traffic carried across networks.**
- It means that there should be no prioritisation of any types of traffic – i.e. ‘all bits are equal’ and **no charging** for content providers.
- Practically it’s about whether communications providers should be allowed to block, degrade, or **charge for** prioritising, application and content providers’ traffic, or **whether network operators should be able to charge consumers, service providers, or both** for tiered quality of service.
- Some communications providers do this already – there are important consumer benefits and some challenges .

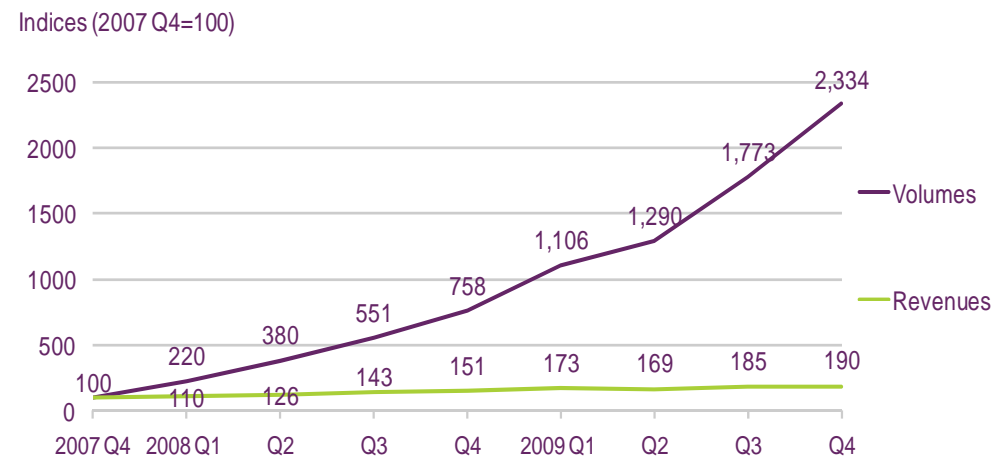
# The Internet Traffic Management Continuum



## Consumer behaviour is changing the market

- The way that consumers use the internet is changing. People are increasingly using content and services which require low latency, e.g. VoIP, or high bandwidth, e.g. streaming video such as the iPlayer.
- At the moment ISPs:
  - charge consumers for access;
  - access is provided without quality assurance (i.e. “best effort”)
- But there is **pressure for change**:
  - emergence of **data intensive applications** (e.g. video)
  - **delay-sensitive applications** (e.g. video or VoIP)
  - capacity constraints particularly in **mobile**

### The Growth in Mobile Data and Services



Source: Ofcom/ operators

Note: Includes estimates where Ofcom does not receive data from operators

## And industry is responding with new offerings

- This change is bringing the telecoms industry into an expanded 'value chain' of content and service companies.
- Consumers increasingly use telecoms networks as a jumping off point for other e-commerce and entertainment services.
- Many are delivered over the open internet involving a large number of players.

### There are points of disagreement between companies

In particular over the deployment of **'bandwidth hungry' services** on the one hand and the **use of traffic management techniques that might degrade these services** on the other hand.

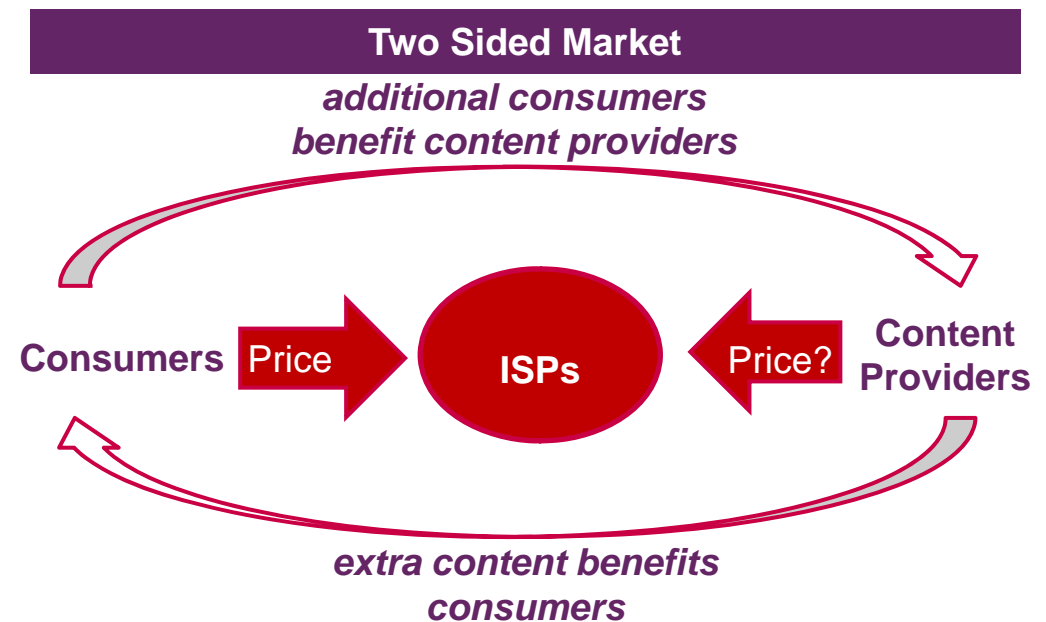
### Yet there are also areas of compromise

In March this year main stakeholders associations and key network companies in Brussels produced a joint paper **supporting transparency for consumers**

It argued for smart, managed networks **"to ensure a robust and efficient functioning of the network"**.

## The economic perspective on two sided markets

- ISPs are platforms servicing separate groups: consumers and content providers.
- Consumers value additional content and content providers value additional consumers.
- Is it therefore efficient to factor in these effects in prices charged to both sides?



### Questions

- Is **zero the right price for content providers?**
- What are the risks of **overcharging?**
- If charging is allowed will **price rebalancing** result in "cheaper " prices for consumers?

## This discussion is taking place as part of a wider debate

- International interest in ‘net neutrality’ and traffic management has increased significantly. Other countries including the US, Canada, France, Norway and Sweden have adopted or are considering some form of regulatory requirements relating to traffic management.



- The FCC has proposed two new principles: non discrimination & transparency
- The FCC has asked for public comment on three options, including tougher rules which could see more regulation on broadband



Norway published self-regulatory guidelines in Feb 2009 based on 3 principles:

1. Transparency: connection with predefined speed and quality.
2. Freedom of use: users can send and receive content, use services and applications that do not harm the network.
3. Non-discrimination: internet connections may not discriminate over the type of application, service or content, based on the sender or receiver.

## And the issues are being explored at an EU and UK level

- The EU commission is also examining net neutrality:



- The Commission is consulting on Net Neutrality
- Net Neutrality top priority in new Digital Agenda
- BEREC is drafting a report to input in to the Commission

- UK Government is considering how to transpose the new European Telecoms Framework:



- New telecoms framework introduces new responsibilities for Ofcom
- Government considering policies towards super-fast broadband

## What is Ofcom's role?

- Our existing powers and duties are being revised. European Telecoms Framework, once implemented by the UK Government, includes specific changes to legislation designed to:
  - Prevent the degradation of services and the hindering or slowing of traffic
  - Introduce more specific requirements for greater transparency
  - Enable the UK Government to empower Ofcom to impose a 'minimum quality of service on the internet'
- Our recent discussion paper opens up the debate on how Ofcom's powers might be used to address traffic management concerns. What stance Ofcom should take on any potential anti-competitive discrimination?
- The key issues we wish to explore are:
  - **Anti-competitive discrimination**
  - **Consumer transparency**
  - **Quality of Service (QoS)**

## Ofcom's focus – anti-competitive discrimination

### Anti-Competitive Discrimination

- At the heart of the debate is a concern that traffic management could be used anti-competitively.
- To date Ofcom has received no formal complaints from industry that require investigation.
- But we are aware of specific points of disagreement between network providers and ISPs and some content, applications and service providers.
- The potential anti-competitive effect of discriminatory traffic management policies may be a valid concern and relevant to consider as part of our general duty to promote competition.

### Questions

- What evidence is there of anti-competitive discrimination taking place in the market today?
- If there is can this be managed through competition in the market and consumer transparency measured?
- If not should any rule be non-discriminatory between ISPs regardless of size or SMP?
- Should any rule impose a zero price cap?

## Ofcom's focus – consumer transparency

### Consumer Transparency

- Challenge for consumers to understand the impact of traffic management policies on their internet use.
- A lack of transparency of traffic management policies may already be an issue for consumers.
- The potential for consumer harm could increase as traffic management becomes more widely deployed and more sophisticated. It could be hard for consumers to detect.

### Questions

- What does good look like?
  - What information do consumers need to act on?
  - Is this different for different types of consumers?
  - Can there be a two tier information approach with general and technical information?
  - What information is it possible to provide both downstream and upstream?
- Who should make transparency happen?
  - Should it be regulatory oversight?
  - Co or self regulation?
  - What would be included in a Code of Practice?

## Quality of Service

- **We also have to consider what happens if current competition and consumer transparency are not enough.** The Telecoms framework gives NRAs the **option of imposing quality of service** rules on ISPs.

Article 22(3) of the Universal Service Directive provides that:

- NRAs are able to set **minimum quality of service** requirements on public communications networks to prevent degradation of service or slowing down of traffic over networks; and
  - a process of consultation involving the NRAs, the Commission and BEREC where minimum **quality of service** requirements are imposed, in order to ensure that they do not adversely affect the functioning of the internal market.
- When considering quality of service we would like to understand:
    - Stakeholder views on trigger conditions for when QoS might be required
    - What QoS might look like and how it could be measured
    - What impact would it have on industry and what benefits would it bring consumers
  - **We welcome views** on the appropriateness of imposing a minimum quality of service.

## Timing and next steps

- The discussion document kicked off the debate. The consultation period closes on September 9<sup>th</sup>.
- We welcome stakeholder and industry views on the issues of discrimination, consumer transparency and quality of service.
- We will be holding a consumer transparency workshop to discuss what good practice looks like, and would be interested to hear from groups or companies with practical examples.
- Ofcom will be able to feedback the results to other bodies considering traffic management and 'net neutrality', e.g. European Commission.
- It will also allow us to prepare in advance for any new responsibilities under the Telecoms Framework, as transposed by the UK Government, which comes into force next year.