

# Vodafone response to the BEREC Draft Report on harmonised definitions for indicators regarding OTT services, relevant to electronic communications markets

## BOR 21(33)

### INTRODUCTION

Vodafone is pleased to respond to this consultation which considers important measures regarding how NRAs should be empowered to fulfil their statutory mandate with respect to setting reporting frameworks. In particular, we seek to provide commercial and technical considerations which may be helpful in defining metrics for reporting related to our network infrastructure and the role it plays in supporting quality content delivery across Europe.

We stand open and ready to liaise with BEREC to explore these issues in more detail as helpful.

#### **i) Could an internet access provider or a provider of an internet exchange point identify data traffic from/to a certain Content Delivery Network (CDN) (In the same or another member state) at an aggregate level and provide this information to an NRA?**

Vodafone notes that it is not clear how BEREC is defining CDNs in the context of this consultation. A Content Delivery Network (CDN) refers to a geographically distributed group of servers which work together to provide fast delivery of Internet content. A CDN allows for the quick transfer of assets needed for loading Internet content including HTML pages, javascript files, stylesheets, images, and videos and are commonly associated with the provision of OTT services like Netflix. Vodafone notes that there are generally two categories of CDNs:

- (1) interconnectivity providers (ICPs) which have commercial CDN businesses and re-sell capacity to content owners (e.g. Akamai); and
- (2) Hyperscalers (some of whom are video-streaming providers), which are not ICPs because although they have CDN capabilities they are not willing to sell transit services to third parties, i.e. they do not re-sell capacity (e.g. pure OTT providers such as Netflix and Google).

For the rest of this response, we have taken BEREC's reference to CDNs to refer to commercial CDNs. We support BEREC's approach to analyse traffic consultation at the 'aggregate' rather than individual user level, and call for a definition of 'aggregate' that supports reporting for the overall network (i.e. at EU level rather than at Member State specific level). This can be provided to NRAs on request in order to assist them in fulfilling their mandate without the commercial and technical blockers that exist to country level reporting.

Vodafone like other network operators has been collecting usage and performance data from its networks. Typically, this data is historical data and is used to report on historical events, in particular, KPIs (such as network utilization and network availability over a defined period in the past). In addition, it is used to undertake root cause fault analysis and demand forecasting.

Specifically, measuring aggregate traffic at Member State level is generally possible where we have a direct interconnection to a commercial CDN. However, these direct interconnections do not always exist and it is

challenging from both a technical and commercial perspective for us to monitor traffic where they don't exist at Member State level.

For example, in some markets we use a third party Software-as-a-Solution ("SaaS") provider for Distributed Denial of Service ("DDoS") mitigation services which provides us some content delivery traffic data but this is tangential to its primary function as a security service, is not commercially available in all markets, and monitors traffic once it is already in the networks (rather than at the end points where traffic enters [source] or leaves our network [destination] to e.g. a commercial CDN). We are investigating future service providers that could enhance our ability to monitor network capacity in a wider way at Member State level, taking into account regulatory frameworks and the OTT trend towards fully encrypted content.

We note that all these solutions are highly expensive and would urge BEREC to be cognizant of the need for us to invest in the technical capabilities of our networks rather than in systems to support regulatory monitoring alone in this regard.

**ii) Could a CDN identify data traffic from/to a certain internet access provider or a provider of an internet exchange point (in the same or another member state) at an aggregate level and provide this information to an NRA?**

We are not aware of any technical reasons why this would not be feasible.

**iii) Do video-streaming providers use CDNs exclusively so that CDNs only serve one video-streaming service and all the traffic directed to those can be attributed to that video-streaming service?**

No. One Video Service Provider (VSP) will never exclusively use a commercial CDN in a way where traffic lanes are routed in attributable ways to that specific VSP at any given time. As noted above some VSPs do have CDN capabilities (these are not for resale to third parties). A commercial CDN service is shared across many different providers at one time, for example, where we use commercial CDN X which connects to us to deliver content stream Y, we can only see the data coming from X and not the specific traffic attributable to content provided by Y. A more detailed example: where we receive content delivered from Akamai on behalf of Apple, we cannot see whether that traffic relates to Apple TV, iCloud, iOS updates, etc. Therefore, we could not feasibly provide reporting data that attributes in this way.

**iv) What are the legal matters for internet access provider, providers of an internet exchange point and CDNs and video-streaming providers in getting access to this information and providing it to an NRA?**

We call attention to the prohibition of general monitoring of information per Article 15 of the e-Commerce Directive (2000/31/EC), which – as noted by BEREC – prohibits us monitoring traffic at the individual consumer's data packet level to analyse content delivery. We are aware that Recital 47 of the Directive clarifies that the prohibition of general monitoring leaves room for monitoring in "specific cases" with Recital 48 giving Member States the flexibility to interpret this against a "duty of care" in order to detect and prevent illegal activities. However, it is not clear that the policy intent of such reporting obligations meets this criteria (to provide NRAs with sufficient information for them to undertake their general regulatory obligations under both the EECC for VOD services under the AVMSD, as well to enable them to efficiently supervise decisions taken to manage network congestion).

In this respect, as above, we strongly agree that 'aggregate' data regarding internet traffic at the level of the overall ISP network is sufficient, and urge BEREC to consider a definition of 'aggregate' which consolidates to EU-level data rather than at Member State level due to the technical and commercial reasons outlined above.

**v) Streaming services & VOD provider metrics – jurisdiction**

We agree with the BEREC assessment that the Country of Origin principle applies across both the AVMSD and EECC. Therefore, we do not see legal hurdles in respect of the VOD reporting measures that BEREC has already identified as technically feasible to be reported on. However, they would be costly to develop where they do not exist and we urge BEREC to consider the economic cost pressures that European VOD services are already under when compared to non-EU OTT rivals (who benefit from an integrated production stack and do not bear the costs (e.g. network costs) associated with being a converged telco-TV player). Additional regulatory reporting costs minimise the capital we have available to invest back into European content delivery, improving our VOD services (such as content libraries or technology improvements, and/or broader network investment). On this basis, we would also urge NRAs to be cautious and prudent in requesting this data (including being clear the purpose for which it is being used, and base the scope of information requests on the policy intent of the request).