

**Narrowband Market Review 2017**

**Supplementary submission from TalkTalk on IP interconnects**

**3 July 2017**

**NON-CONFIDENTIAL VERSION**

Following the email from James King on 2 June 2017 about IP interconnects and a subsequent conference call between Ofcom and TalkTalk on 15 June 2017, this submission sets out our position in writing to inform Ofcom's decision-making in the Narrowband Market Review 2017.

### Summary

This submission sets out the commercial and practical challenges facing TalkTalk in relation to planning for future use of IP interconnection.

The present regulatory arrangements are distorting the market, leading to perverse outcomes, and eliminating the incentives for CPs such as TalkTalk to move to a modern, efficient, method of interconnection.

To date, we have had to deploy expensive and outdated TDM interconnection technology as a result of BT's laggardness in upgrading its network. Furthermore, current IP interconnection prices are so far above cost that [redacted] we choose TDM over IP interconnection as it provides the lowest cost route of interconnection, despite being an inefficient technology. As industry moves to more interconnection over IPX, the already weak pricing constraint from TDM to IPX will weaken further.

Price regulation of IP interconnection is required to ensure that other CPs have the certainty to sensibly invest in efficient technology choices and ensure that there is competition in the market. Without regulation, BT is likely to establish significant market power in IP interconnection as the migration from TDM progresses.

### TalkTalk's current interconnect arrangements

[redacted].

Our choice of interconnect circuit technology is based on finding the lowest cost route for TalkTalk. TalkTalk's voice core network, built to support LLU, is wholly IP based. In addition, we have built and maintained a TDM network to support low cost interconnection with BT group due to BT's very slow approach to adopting IP technology. TalkTalk's core network investment decisions in the late 2000s were based in part on BT's original stated objective of replacing its TDM network with an IP based voice network as part of its 21CN plans. This did not happen and TalkTalk has incurred the costs of maintaining TDM and IP networks.

Significant investment in the TDM network means that [redacted] the least cost route is achieved through interconnection at the DLE. [redacted] of our termination is at the DLE level where TDM interconnection is lowest cost. [redacted]. Another factor in our decision-making is that at present BT do not offer the full set of equivalent products on IPX (i.e. CPS, IDA, and Wholesale Calls are not

offered). This is significant for TalkTalk as we currently have [redacted] minutes of traffic on CPS each month that could not be routed over IPX.

*Table 1: Comparison of IP and DLE termination rates (£)*

	Day PPM	Eve PPM	Wkd PPM	Day PPC	Eve PPC	Wkd PPC
IP Geo Termination	[redacted].	[redacted].	[redacted].	[redacted].	[redacted].	[redacted].
DLE Termination	0.0439	0.0201	0.0159	0.0000	0.0000	0.0000
ST Termination	0.1719	0.1719	0.1719	0.0769	0.0769	0.0769
DTS Geo Termination	0.4536	0.4536	0.4536	0.0769	0.0769	0.0769
DTM Geo Termination	0.6352	0.6352	0.6352	0.0769	0.0769	0.0769
DTL Geo Termination	0.8798	0.8798	0.8798	0.0769	0.0769	0.0769

Factors that will affect TalkTalk’s decisions about migration to IPX

We face significant commercial and practical uncertainties around the migration to IPX, which disincentivises us to do so. We have not seen any plan from BT on their voice transition to IP. In the absence of these plans, TalkTalk and other CPs are at a disadvantage [redacted]. We have the impression that BT is migrating its network to IP in the areas which give it commercial advantage, such as B2B, but moving comparatively slowly in the carrier interconnect space.

[redacted]

There are also practical challenges around migration to IPX. We do not have sufficient information from BT regarding the product roadmap for IPX. We cannot start to make informed decisions about our TDM network without equivalent products to CPS and wholesale calls to consume from BT on the IPX. [redacted].

Price regulation of IPX is needed

Uncertainty around future IPX pricing is a significant obstacle to industry migration to a more efficient system of interconnection based on IPX rather than TDM. Once a migration to IPX has occurred – involving the migrating CP incurring substantial costs<sup>1</sup> – it will be extremely costly or impossible to migrate back to TDM again. In particular, TalkTalk generally looks to retire outdated and unused TDM equipment as quickly as possible, [redacted]. TDM will not be a price constraint on IPX pricing.

Price regulation of IPX is therefore required to ensure that other CPs can sensibly invest and ensure that there is competition in the market. Without IPX

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<sup>1</sup> We estimate it would cost TalkTalk [redacted] upfront capex plus people costs to migrate all interconnection traffic to IPX.

pricing regulation, it is difficult to make any investment decisions to support efficient arrangements for interconnection in the future. In particular, [§].

The present regulatory arrangements are distorting the market, leading to perverse outcomes, and eliminating the incentives for CPs such as TalkTalk to move to a modern, efficient, method of interconnection. For example, despite our All-IP core voice network, under the current regime of price regulation on TDM but not IP interconnection, we have an incentive to maintain our TDM interconnection due to lower costs and increased certainty. [§].

Regulating IPX interconnection prices by capping the pence per minute prices so that they cannot exceed those for TDM would allow for true technology-neutrality and enable CPs to make a more efficient choice of technology. Rather than the choice of technology being dictated by the external prices set by BT, they would reflect CPs' own internal operating costs.<sup>2</sup> Moreover, setting prices in this way would better reflect a forward-looking approach to regulation – no modern network would be constructed on the basis of TDM, and as such CPs should not be compelled to incur excess costs to support BT's asset sweating. As demonstrated above, the barriers and costs of switching from TDM to IPX means that while IPX prices remain unregulated, the two means of interconnection are not substitutable in practice. This is because the costs and technical changes required to move to IPX at any scale mean that a CP would and could not simply switch back to TDM if IPX rates increased.

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<sup>2</sup> The internal operating costs of BT are not relevant as TalkTalk's proposed price cap for IPX – at the same level as TDM – does not require BT to adopt IPX in order to recover its incurred costs.