Internet Telephony Services Providers' Association

ITSPA Response to Wholesale Voice Markets Review 2021-26

Introduction

The Internet Telephony Services Providers' Association ("ITSPA") represents over 100 UK businesses involved with the supply of next generation communication services over data networks to industry and residential customers within the UK. Our traditional core members are VoIP providers. ITSPA pays close attention to both market and regulatory framework developments on a worldwide basis in order to ensure that the UK internet telephony industry is as competitive as it can be within both national and international markets.

Please note that certain aspects of the ITSPA response may not necessarily be supported by all ITSPA members. Individual members may respond separately to this consultation where a position differs. However, the ITSPA Council is confident that this response reflects the views of the overwhelming majority of ITSPA members.

A full list of ITSPA members can be found at http://www.itspa.org.uk

ITSPA welcomes the opportunity to respond to the Wholesale Voice Markets Review 2021-26.

Security and Standards

Security

ITSPA has dedicated significant resource and expertise to the areas of security, resilience and encryption in the IP voice arena. For example, The Suspicious Numbering in Telephony Call Handling (SNITCH) project was launched in 2017[1] to record details of successful and attempted fraudulent calls and making that information available as a resource to detect and block fraudulent calls in networks, IPPBX systems and UC platforms. Additionally, ITSPA has published best practice guides in the field of securing IP PBXs and provisioning servers.

[1] ITSPA SNITCH

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IP has the advantage of lowering the cost of entry to operators, providing opportunity for innovation and greater consumer choice. Conversely, it also allows entry to less well-resourced operators who are new to the telecommunications market. Whereas TDM, while expensive and cumbersome, was inherently secure by nature of its design.

ITSPA members encounter issues with CLI presentation and find that a significant number of the problems arise from operators with limited resources. CLI presentation is a relatively straightforward obligation and asks the question to how much attention is given to arguably more important aspects of the regulatory regime, such as availability of networks, access to emergency services, withheld CLIs and more by these operators.

ITSPA is concerned that the Consultation is light on technical standards and security, and whilst we appreciate that the Government has signalled that it will pass primary legislation to give force to the National Cyber Security Centre's Telecommunications Security Requirements ("**TSRs**"), there is no guarantee this will be passed before the implementation of this market review.

Ofcom and the industry have expended effort on abuse of CLI signalling within the Nuisance Calls steering and working groups. If the availability of a carrier to carrier interconnect is afforded to someone (who would be legally classified as an Electronic Communications Network, *parri passu* with BT or Vodafone) utilising Freeswitch and a Raspberry Pi, for example, then it could open the door to widespread abuse of CLI signalling, and the real danger of a potential increase in nuisance, spoofed and malicious calling. This would be further exacerbated in the absence of mandated technical standards for interconnect and CLI signalling.

We do not think it right that Ofcom is relying on future legislation that may or may not come into force nor on the industry to do the right thing itself. We cannot wait for a major incident to happen to instigate intervention.

ITSPA considers that there must be more intervention with respect to technical standards to overcome the problem, for which we have a number of potential solutions:

1. Give the NICC Standards Limited ("**NICC**") the same standing as various other standards bodies in GC A2.

2. Make it clear that an entity following relevant NICC standards[2] will likely be considered to have discharged its obligations under Section 105A of the Communications Act 2003 (the "**Act**").
3. Enforce via SMP conditions that Fixed Termination Rate is only enforced when specific criteria are met. For example, a physical interconnect or physical peering.

Whilst there is no guarantee that the TSRs will be enacted before the market review period commences, if they are we would also expect that should the revised TSRs be applied to all operators, and the benefits of interconnection be enjoyed by all operators, then it is reasonable to expect Ofcom to apply an equal approach to monitoring and enforcement action across all operators.

UK standards

Whilst GC A2 gives precedence to various standards bodies in the European Union, given no change to the current path of the UK's exit from Europe, we believe there will be no international legal obligation to maintain a link to the work of these bodies.

While we do not seek to negate the value of the work the ITU, we believe there will be an increasing gap for localisation standards where Ofcom must enact something into regulation or the UK may find itself bound by European standards it cannot readily influence or be in a standards vacuum.

We do not consider that there is any reason why Ofcom could not give the NICC parity with the bodies in GC A2.3(b). There would be a substantial body of UK specific work, representing a consensus of highly qualified engineers representing the interests of a diverse group of networks and hardware represented in regulation. The NICC is also active in driving operators to adopt international standards.

The NICC already produces standards such as ND1035 Network to Network Interface Signalling and ND1443– Guidelines for the Security of All IP Telephony Service in the UK Telecommunications Network. Such standards are already adhered to by responsible network operators.

We believe that elevating NICC to have status alongside other bodies in UK regulation is a cost-effective approach to securing the desired outcome. ITSPA is an active member of NICC, and both Ofcom and DCMS

[2] Noting that some of these standards need to be refined to be suitable for the purposes in question prior to being enforced in this regard.

attend the board meetings. Membership is priced such that it is not a barrier to entry for even the smallest providers.

The NICC already has active expert working groups such as the security task group that can be readily utilised by Ofcom and industry.

Section 105A of the Act

We do not expect Ofcom to fetter its discretion absolutely in this regard, but a clear signal that following relevant NICC standards would be considered likely to have discharged an operator's obligations under Section 105A of the Act would go a long way to encourage the market to adopt important standards for interconnection.

Standards and the SMP Conditions

On a related note, it could go so far as to say that an interconnect that follows NICC standards (even if not referred to in GC A2 or other regulation) is "fair and reasonable" for the relevant SMP conditions would also help the market work towards the right objective. This is because the converse situation would be that an unencrypted public internet connection could be "unreasonable" and give the dominant operator the right to refuse either providing one or allow it to charge more than the FTR.

In both cases, it creates market forces whereby originators would be incentivised to use interconnections that meet appropriate standards to ensure they achieve the most competitive cost base, while ensuring the terminators are legally obliged to provide one.

ITSPA do not consider these to be especially onerous obligations. However, in a market where some operators embraced technology that was at risk of being compromised by the Chinese Government, it is clear to us that the *status quo* of no regulatory intervention and leaving the industry to sort it out may not be the best course of action.

The Definition of a Regulated Provider

The Communications Act 2003 (the "**Act**") defines two types of participant in our market:

- Electronic Communications *Network* (ECN)
- Electronic Communications *Service* (ECS)

These are then usually used with the term public in front to negate private networks from being subject to the whole gamut of regulation, so we get Public Electronic Communications Network ("**PECN**") and Public Electronic Communications Service ("**PECS**").

In simple terms, those providing the *service* tend to be customers of a *network*. While, in some cases, vertically integrated entities like Sky are both at the same time, in the business communications space, it is common for the *service* to be an entity reselling a *network* or a wholesale customer of a *network*.

Historically, this was a clear separation and it made sense. That separation enabled regulation to be targeted because, after all, you might have more stringent security rules or commercial restrictions to safeguard competition placed on a PECN than a PECS. Equally, measures to protect consumers are more likely to be set on the PECS than the PECN.

Collectively we are known as Communication Providers ("**CPs**") and the General Conditions of Entitlement (GCs) generally refer to CPs. We no longer have a prior-authorisation (aka licensing) regime because everyone is permitted to operate a PECN or PECS providing they comply with the rules; rules which Ofcom set under its powers from the Act.

Ofcom policy has often differentiated between PECNs and PECS. For example, if a PECS approaches Ofcom for numbering resources, they cannot have them unless they are a PECN. The qualification for being a PECN is a low threshold – an instance of Freeswitch in the cloud qualifies, so it us unsurprising that we now have 450+ range-holders in the UK, which by definition, must also be PECNs.

The vast majority of those PECNs appear to have their number ranges hosted by what would previously have been called a PECN. There's nothing wrong with that, some of ITSPA's members have a lot of experience in managing the PSTN interface and it makes a lot of economic sense for a new entrant.

In practice these entities are more often than not a PECS with numbers. Their ability to resource and scale to discharge various obligations such as availability of emergency services access, or pay strict attention to the important minutiae of CLI rules, is limited and is certainly not on par with what we say is a traditional PECN (and indeed, what a PECN should be defined as).

This policy peculiarity and the resultant excess of PECNs makes differentiating between PECN and PECS largely pointless. In fact, neither term even appears in the Consultation. What does appear is CP, the more general term.

By having to use language beyond that in the Act suggests that some consideration might want to be given to the different types of market participant we have in 2020 and some new definitions created.

Whilst PECS and PECN in themselves are fine, it is this middle tier of PECS with numbers that needs clarification. As it stands, those in this novel third category have obligations that the vast majority outsource to a more classically defined PECN. This includes not only interconnection, but number portability and the provision of narrowband access to satisfy their Significant Market Power obligations.

Every network that hosts numbers, except one, treats hosted numbers with parity alongside their own. It is not a surprise that the outlier is BT, which always wants to be all things even if mutually exclusive.

There is nothing wrong with being a PECS with numbers; this lowers barriers to entry in a market that has been very successful, by many metrics, on fostering competition for the benefit of the users of telecommunications.

However, this market review needs to recognise the all-important nuance, which we find to be exploited more often than not, between being the range holder and being the hosted network provider. It is a simple distinction; a free-standing PECN that hosts a number range should be subject to all the same rules and obligations on that hosted range as it would for a range in its own name.

We do not consider that this will be an especially onerous ask, as far as we are aware, there is only one CP in the whole industry that would be affected by this; BT IPX Type A.

It would solve two problems in a stroke. Firstly, it would resolve the issue of BT treating ranges it hosts like transit, while at the same time, demanding that ranges others host be charged at the FTR. Secondly, it would resolve the significant pain (and regular breaches of the GCs) in number portability with respect to BT's so-called Scenario 7.

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The Reference Offer

The Consultation only lightly touches on the point of contract negotiation and we feel strongly this matter needs far greater attention at this stage. With Ofcom's inference that the BT IP Exchange service can become a replacement for the current TDM interconnect customers it has become essential that the reference offer and surrounding terms are afforded the same attention as previously afforded to TDM based relationships.

We have highlighted previously the differences between the Standard Interconnect Agreement ("**SIA**") and the IP Exchange agreement. It is our opinion that the current IP Exchange agreement is not fit for purpose for carrier to carrier relationships and, given the many years of expertise and negotiation that has gone into creating the SIA, it would be a regressive step to disregard that document.

There is a substantial body of precedent regarding the SIA, whether it is derived from Ofcom's dispute resolution, guidance, or case law, that provides certainty to the industry around interconnection with the former monopolist which is relied upon frequently by the industry.

Ofcom's comments at §7.39 of the Consultation highlight the risks regarding certainty:

> *In view of this, we consider that absent regulation, our concerns that BT could frustrate competition could also arise in relation to BT's provision of interconnection and other associated facilities which telecoms providers require in order to obtain WCT. Relatedly Consultation: Wholesale Voice Markets Review 2021–26 70 there is also a risk that uncertainty about BT's migration plans or unexpected changes to those plans could also frustrate competition.*

Matters such as interoperability testing, billing procedures and disputes, technical standards and so on are considered in significant detail in the SIA but are only superficially referenced in the current IP Exchange alternative.

This dominance is exercised through the unfettered one-sided negotiating position of BT in relation to its contracts. Ofcom appear to understate this in considering its position §7.123-7.131 inclusive by assuming that there is ever a "negotiation" with BT. To illustrate how one-sided the bargaining power is, we suggest that the following is considered:

1. How many of BT's UK counterparties trade with BT on either a bespoke SIA or the counterparty's own terms? If BT's bargaining power was not absolute, then we would expect to see a plethora of subtly different arrangements, which we do not believe to be the case.
2. How many non-BT interconnection contracts contain terms derived from the SIA which, by nature of BT's imposition of the SIA, these unrelated parties have no choice but to include verbatim? The presence of the Artificially Inflated Traffic scheme in Annex E of the SIA is one such example.
3. How many interconnection agreements other than the SIA contain one-sided clauses, such as BT's requirement to give permission to any of its counterparties pricing proposals, but with the unilateral ability to impose its own at will? Almost every other such agreement that we are aware of is reciprocal on all the operative clauses.

That illustrates how the result demonstrates BT's one-sided bargaining power, but we can also look at the process. We are not aware of any substantive industry-led proposal to modify the SIA that has been accepted by BT in at least a decade.

Such intransigence of negotiating position means that the very uncertainty that Ofcom considers a risk to the industry will be carried forward into the migration period and will persist until such time as the inevitable disputes are resolved by the regulator.

There is a requirement on BT to not discriminate and it is our view that the only way to ensure this happens without regular interventions from Ofcom is to continue with a standard agreement that is subject to regular review, as is the case with the SIA today. Taking into account the infancy of this regime it would appear sensible to ensure that this new agreement be properly considered in all areas at this stage to ensure we have fair and reasonable terms that are clear to all parties thus reducing the risk of harm, unduly restricting new entrants to the market and reduce the number of complaints brought before Ofcom as the regime progresses.

Port Charges

The language in the consultation with respect to port charges could be refined in a final Statement. BT IPX charges for ports in its managed service offering; however, as the physical/logical "port" is actually included in the LRIC calculation, reference to 'port charges' is unhelpful beyond an explicit statement

saying they are no allowed. The physical interconnection of the BT equipment to the Originating CP's equipment appears conflated in the text with 'port charges' in the Consultation. Many ITSPA members consider that BT already obfuscates matters through terminology and it would be a shame to risk adding to uncertainty and confusion through a narrative that could be misconstrued. As it stands, we consider that "port charges" will be outlawed and that the physical connection in a BT building is linked to Cablelink Variant 1, with charges for other connectivity to be derived from their cost of provision. A confirmation of this would be helpful.

Internationally Originated Calls

ITSPA members welcome Ofcom's recognition of the issue of surcharges levied on non-UK originated calls by some carriers abroad; and the shackles that the previous regulation placed on allowing market forces to correct the problem.

The concept of "mutually assured destruction" embedded in the principle of reciprocity is a good one in theory. While we hope the very threat of reciprocity will address the potential for harm, in reality, there are a number of practical concerns to address as follows.

1. If the harm is arising from an intermediary, perhaps the in-country former incumbent applying surcharges as it is the only transit route to the terminator, how is that handled? What if the situation arising from exploitation by the common providers of International Direct Dial services, such as Tata?
2. How will the substantial information asymmetry be addressed? The UK is lucky to have a transparent regulator that publishes charge controls, which are also currently in the public domain via the Carrier Price List.
3. Each Dominant Provider in the UK will require BT's permission to enact a surcharge on internationally originated calls by the very nature of the way the UK regime is structured. Elsewhere in this response we discuss BT's unfettered one-sided bargaining power, and in this situation, it is a significant moral hazard in BT allowing another operator to access reciprocity when it could be detrimental to BT's own commercial interests abroad. The need to seek BT's blessing limits the efficacy of the proposed remedy.

These are not insurmountable problems and can be addressed by guidance from the regulator in the final Statement. We would not want to see the "baby thrown out with the bath water" so to speak, however, for the existence of the remedy to be effective, thought has to be given to how it works in practice.

Omissions from the Consultation

The Consultation is light on detail on precisely how the product market definition translates in reality to identifying when and how an originating communications provider's traffic qualifies for the FTR. That said, we assume that a "designated Point of Connection" relates to a specified place on the edge of BT's IP core for a given telephone number or range of telephone numbers.

We do not anticipate the number of POCs should be unreasonable after considering the need for appropriate load balancing, resilience, and assurance of integrity of BT's network. Indeed, 15[3] would seem to be at the top end of the range we would consider appropriate. However, we note that BT has the ability to game the system in this regard, as noted by Ofcom at §7.74 of the Consultation:

> *[..] If BT's migration of its POCs results in excessive costs being incurred by competing telecoms providers, that could distort competition, resulting in price rises and harm to customers.*

There are no *ex-ante* provisions we can see that would prevent BT from developing 650 POCs, replacing each DLE with one, and replicating the much maligned Element Based Charging Regime despite such an act being foreseen by Ofcom as a risk to competition and consumers.

We welcome Ofcom's view that uncertainty is a risk, as explained at §7.72 of the Consultation:

> *Our central concern is to avoid any distortion of competition for telecoms providers, which could arise as a result of uncertainty about BT's plans or unexpected changes to those plans.*

Ofcom has previously considered it necessary to opine on the various subjects, issue guidance or regulate (in the words of the Supreme Court[4] in either an *adjudicatory* or a *regulatory* manner in dispute

[3] Although we note that early work by various stakeholders suggested a range of numbers, some similar.
[4] *British Telecommunications plc v Telefonica O2 UK Ltd and Others* [2014] UKSC 42.

resolution). There is a substantial body of material built, be that via Ofcom or the courts, against a backdrop of BT's legacy TDM network.

This body of works is relied upon by the industry every day in its dealings with each other and with BT. Absent Ofcom updating it to reflect Ofcom's position where BT has an IP core, there will be no certainty about BT's plans and we will end up with the distortion of competition as Ofcom suggest.

The industry will be subject to potentially months, if not years, of commercial uncertainty derived from BT leveraging its significant one-sided bargaining power prior to the industry seeking Ofcom resolve the issue through Ofcom's Communications Act 2003 powers unless some of the issues are addressed upfront.

The discussion in the Consultation is largely limited to the market for geographic call termination. The reason for Ofcom's intervention is that BT is changing its core network. That core network change affects many different traffic streams – not just calls to 01 and 02 numbers.

We discuss three of the major traffic streams, through which BT can exert significant influence to the detriment of its competitors and consumers, below.

Noting the limited content of the Consultation, we are however, in making these representations, also mindful of the decision in *British Oxygen Company Limited v Minister of Technology* [1970] HL 4. We consider the Consultation to be an appropriate forum where the new things we are saying can be considered, however, regardless of how Ofcom consider them, these are important points that are directly relevant to Ofcom's statutory duties and current policy work.

Transit

Due to the history of BTs current position there are significantly notable distortions to the market for transit and BT's position of dominance in this regard has not changed dramatically in the last 20 years

Though there is some competition in transit to a couple of major operators, BT has an engrained position when it comes to smaller operators.

This is easily traced back to BTs position as the former state monopoly and the monopoly Original Range Holder of telephone numbers until 1987; any new entrant that wants to entice customers to switch will first and foremost need to establish porting (and hence an interconnect) with BT, thus handing BT purely

by virtue of its former monopoly status, the entire suite of interconnects upon which to base its transit business.

Such smaller operators, especially in an evolving environment such as migration to IP, are unlikely to want the overhead of managing multiple complex interconnection relationships and may well be content with solely interconnecting with BT, especially as the ability to set-up porting agreements via BT transit provides convenient access to all other operators or if they can leverage BT's existing porting relationships to gain access to other operators customers on a managed service basis via the BT IPEX Type A platform.

This all conspires to hand to BT a significantly advantageous position which it is accused, even today, of abusing.

Ofcom's view of the transit market is over-simplistic. Just because there is a competitive market for some major routes, does not make the entire market competitive. Indeed, with BT's exorbitant transit pricing, it only takes a small amount of traffic to consume transit in the blend for a material increase in the cost base.

Conveyance

One of the traffic streams for which Ofcom is silent in the Consultation is how, in an all-IP world, the logic and conclusions of the 2015 Non-Geographic Call Services ("**NGCS**") Review (the "**NGCS Review**")[5] applies.

As far as ITSPA are aware, BT is the only retail network which does not absorb the cost of transport of NGCS from its point of ingress into its network from its calling party customer, to the point of egress from the Access Charge it levies on its customers.

These are significant charges. They are far more than the various components of the past NTS Retail Formula, which afforded BT the Fully Allocated Cost of retailing these calls. Indeed, at 15.19 pence per minute, they are many orders of magnitude higher.

[5] https://www.ofcom.org.uk/consultations-and-statements/category-3/simplifying-non-geographic-numbers

Yet, BT still charges Additional Exchange Routeing from Origin (AERO) to, allegedly, recover the costs of transmission *in a TDM network* from the DLE where the calling end user is connected, to the interconnect with the terminating network. These charges in themselves are material.

It is important to note that this principle of AERO is applied by BT to 080 and 03 numbers, as well as the ranges on which Ofcom recently consulted[6] and are a material component of the cost base of new entrants and established networks alike.

So far, BT are only proposed to be obligated to treat all traffic terminating at a POC from April 2025 at the FTR, regardless of their plans, and to have a transparent migration timetable to migrate switches to POCs.

Logic would suggest that if a POC is the place in the product market for call termination, then, in the opposite direction, it is the closest place to *collect* a call. In other words, if it is equivalent to a DLE for call termination, it cannot be anything other than equivalent to a DLE for call origination. The consequence is that AERO disappears as BT closes its switches.

However, absent this traffic being treated in the same manner, BT can obfuscate, increase its charges, spray this traffic all over the network to enrich itself with EBC or media conversion charges, leaving the bill with the terminating network, who may not be able to physically interconnect elsewhere to avoid it.

At the very least, BT's prior justifications for its extortionate AERO charges related to the cost of TDM equipment, be that the switch processing in call set-up, or the cost of its trunk networks. In an all-IP world, this cost base is very different, and BT's logic becomes non-existent.

To that end, we consider that Ofcom must issue an updated policy position to reflect how the NGCS Review's conclusion on "terminator pays" must be construed considering BT's core network change. Otherwise we fear we will have the very detrimental uncertainty and risks we discussed (and as highlight by Ofcom) above.

[6] First consultation: "Future of telephone numbers" published by Ofcom on 11th April 2019

Number Portability

The present situation with respect to Number Portability is that the Donor Communications Provider ("**DCP**") can recover the Long Run Incremental Cost ("**LRIC**") of the work it does additional to conveying a non-ported call[7].

At present, for numbers exported from BT, that is the Element Based Charging from the point in the network to which the call is delivered to its egress point with the Recipient Communications Provider ("**RCP**"). For most operators, we understand this to contain at least Local-Tandem Conveyance and, in many cases, a degree of Inter-Tandem Conveyance.

Shortly, this is likely to include media conversion and potentially an additional switching stage (as we understand that BT treats TDM to IP interworking as double switching) purely because BT has chosen to upgrade its network.

Some ITSPA members report that, while BT's market share is only 38%[8], it still receives traffic to some 70%[9] of UK geographic numbers because of its legacy as the numbering monopolist.

Ofcom, at §5.23 of the Consultation, acknowledge the monopoly held by the range holder in conveyance of calls to the recipient provider.

> *Where numbers have been ported, we propose to include termination services provided by both donor providers and recipient providers. Calls to ported numbers are usually first routed to the provider that originally held the number (the donor provider) before being routed to the provider to which the number has been ported (the recipient provider), as the originating provider does not*

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[7] General Condition B3.7, supported by "*Porting charges under General Condition 18 Guidance on the setting of porting charges in compliance with GC18 and consultation on a new mobile donor conveyance charges Direction*" published on 29th September 2014 (the "**APCC Guidance**") upheld in dispute resolution ("*Disputes between BT and each of Gamma and Vodafone in relation to BT's average porting conveyance charges – Final Determination*" published by Ofcom on 11th November 2015 and then by the courts in *British Telecommunications plc v Office of Communications* [2016] CAT 22

[8] Table 2 "*Telecommunications Market Data Update Q3 2019*" published by Ofcom on 30th January 2020. The figure for exchange lines was taken as a market share figure; if it is calls or revenues, it is several points higher. Whichever metric is used, it is clear that BT's termination market share is considerably higher than its retail market share as a result of its status as the former numbering monopolist.

[9] Simwood eSMS Limited cite this at https://blog.simwood.com/2020/09/wvmr-part-4-bt-unchecked-monopoly-in-porting/ [accessed 28th September 2020] from their own network measurements.

> *know the number has been ported. As a result, while WCT to these numbers is ultimately provided by the recipient provider, the originating provider has no option but to purchase WCT from the donor provider. We therefore consider that the donor provider as well as the recipient provider should be considered as providing a termination service.*

If the DCP has no choice but to deal with the RCP for call termination, then, by extension, the RCP has no choice but to deal with the DCP for onward routeing of ported calls.

This is a wholly symbiotic relationship and Ofcom can't declare one half of it to be a monopoly, of such extent and risk to competition and consumers, but be blind to the other half.

Many operators, especially smaller operators, are on BT's "default APCC", which exceeds the FTR. Ofcom will be acutely aware of the issues to competition around an APCC that exceeds the FTR because that was the very problem that led to the publication of the APCC Guidance. We are unclear as to why so many have not had the benefit of an accurate APCC measurement by BT, but can only assume it is because of BT's one-sided bargaining power.

In any event, when BT starts to rearrange its network, there is likely to be a significant upward pressure on the APCCs with the inclusion of significantly more media conversion, and multiple switching. For the RCP, the liability it incurs will be driven by the Originating Provider's entry point into the network relative to their own, which is outside of their control.

There is a very real risk that an unintended consequence of BT's network upgrade will be to further the gap between the APCC and FTR for various operators, which, as Ofcom have previously identified, is not conducive to positive outcomes.

There is a simple solution to the problem; the APCC Guidance merely needs to be updated[10] to reflect the transition and the future. Two concepts stand out:

1. that the current APCCs should be grandfathered for the transition period (notwithstanding that BT should lower the default APCC for any RCP which should receive a lower one based on accurate

[10] Or, a binding commitment by BT to the same effect.

measure – if it fails to do so, it is charging above the LRIC and in breach of the paradigm Ofcom imposed in 2014 – to that end, it should be backdated accordingly too); and

2. the same logic for April 2025 should be extended to cover APCCs – from the same date the FTR is mandated across BT's IP network for all BT geographic ranges, then the APCC should be calculated as the LRIC of IP-IP onward routeing only.