SIMWOOD

STRAIGHT-TALKING, **FORWARD-THINKING**, TELECOMS

Response to:
Wholesale Voice Markets Review 2021-2026

NON-CONFIDENTIAL VERSION

Simwood eSMS Limited

Simwood House

Cube M4 Business Park

Bristol BS16 1FX

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About Simwood

Established in 1996, Simwood eSMS Limited is an alternative carrier offering managed services, voice and data exclusively to a channel of other Public Electronic Communication Networks ("**PECNs**") and Services ("**PECS**") in the UK. We provide services to several hundred PECS/PECNs of all sizes and while our market share of fixed and mobile transit and termination is [✂], our share of the hosting market be it defined by the quantity of range holders or allocated number ranges hosted on the Simwood network, is an order of magnitude higher. We are interconnected with British Telecommunications plc ("**BT**") over SS7 under the Network Charge Control Standard Interconnect Agreement ("**SIA**") and have recently agreed to connect over IP (Type B). We are also interconnected with all the major fixed networks, generally on bilaterally equivalent terms. Simwood is a net importer of telephone numbers by a substantial margin.

Simwood Inc is a licensed Competitive Local Exchange Carrier (CLEC) and Interexchange Carrier (IXC) in 23 (at the time of writing) States of the USA .

Sipcentric Limited is a provider of hosted PBX and SIP Trunking services both to resellers and direct to market, including via its reseller Birchills Telecom Limited. Both were acquired in October 2019.

All four companies are wholly owned subsidiaries of Simwood Group PLC and collectively referred to herein as "**Simwood**", "**we**" or "**us**".

Whilst there will be engagement from trade associations that Simwood companies are members of, and we may well agree with them in part, the Office of Communications ("**Ofcom**") should treat this response, and only this response, as being definitive of our views.

We are very much affected by many of the issues raised and thank Ofcom for the opportunity to engage on the subject at hand and trust that this response is helpful.

Executive Summary

The Wholesale Call Markets Review 2021-2026 (the "**Consultation**") represents, at least on the face of it, measures that the industry has been requesting for many years. Technically, we can say it was *two decades ago* that BT commenced, and then aborted, the 21CN programme.

Substantial parts of the rest of the UK market abandoned legacy technology many years ago; indeed, at Simwood, the only TDM infrastructure we have left is to interface with BT.

BT has single-handedly been a barrier to progress in the UK - be that in terms of enabling fit-for-purpose data connections to premises, or in developing next generation (ironically, decades old already) voice technology.

Whether the history is as a result of ineffective regulation, government policy, or BT's long-standing policy of prioritising dividend payments over investment (while enjoying all the benefits of a multi-billion pound Crown Guarantee underwriting its pension deficit) or investment in television rights (subsidised by its competition because it reduced BT's credit rating and flowed through to the Cost of Capital which Ofcom allows it to recover), we are glad we have finally reached a tipping point.

However, the job is not done. The Consultation represents just one traffic stream affected by BT's network upgrade programme. There are other, significant, areas where Ofcom have previously intervened against a backdrop of BT operating a TDM network at scale.

All of these traffic streams, absent some form of intervention, provide BT "levers of harm" to manipulate during the migration to the detriment of consumers and competition. Specifically, Ofcom needs to grapple with the issue of the substantial uncertainty around number portability, transit and Non-Geographic Calling Services ("**NGCS**") prior to any significant changes to the BT network. We outline the reasons why herein and why Ofcom's simplistic view of competition in those markets may not be correct. Indeed, we consider we have demonstrated that BT has unfettered one-sided bargaining power that makes it look, feel and act as if it were Oftel issuing licences under the old regime.

We describe that the language of PECN and PECS is TDM centric and doesn't address the issues at hand; the world has moved on and to suggest that treating a single person with an instance of Freeswitch on a Raspberry Pi in a basement, connected to residential WiFi, as par with a multi-location carrier at scale is not correct. Furthermore, the attention that such entities may pay to important issues such as network security is limited. Ofcom has set the industry on a path where billions of minutes of traffic could be sent unencrypted over the public internet to a single node in BT's network. Asking the industry to do the more difficult, but right, thing, when many players, including the former incumbent, embraced Huawei with such vigour, is a recipe for disaster for this country. Ofcom should not rely on primary legislation to enable the Telecommunications Security Requirements ("**TSRs**") being passed to address this problem and should leverage its existing powers to mandate certain levels of security, encryption and resilience.

We also note that the regime for interconnection is broken; when an entity like [✂] can ignore a letter, delivered by recorded delivery, addressed to its company secretary specifically requesting interconnection under the relevant Significant Market Power ("**SMP**") condition, it is clear that Ofcom's light-touch (or *laissez-faire)* approach is insufficient. Taking this issue further, we are concerned that BT is ill-placed in terms of expert resources and processes to manage the task it has set itself.

Amongst other, important points, such as issues in practice with the concept of "retaliation" for international origination surcharges, the UK's climate change commitments and more, it is clear that the Consultation represents only the first step on a long journey. We fear that Ofcom will consider that this represents the entire solution to the IP voice migration when, in truth, it represents only one, albeit important, part. In doing so, the very uncertainty that Ofcom considers a risk to progress will metastasise in other markets leading to the same harm Ofcom wants to avoid.

Number Range Hosting

Which Entity is Dominant?

While we appreciate that Ofcom's information gathering powers and research programme has been hindered by the COVID-19 situation, the summary of the situation regarding hosted numbers at §5.22 of the Consultation belies an understanding of the market in question.

Ofcom state;

> *"We propose to define the market in relation to the number range holder. Although the number range holder may choose to purchase some or all of the network elements required to physically terminate the call from another telecoms provider (the hosting provider) and this may extend to the hosting provider concluding termination agreements, the number range holder retains ultimate control over the number range."*

The underlying theory that ultimate control rests with the Original Range Holder is flawed in practice. The reality is that it very much sits with the hosting provider:

1. The hosting provider sets the termination rate at its own volition. BT will only recognise the hosting provider as the relevant authority, not the range holder. Even if the range holder wanted to do something different, there is a very real chance that the hosting provider would not be able to convince its interconnection counterparties to disaggregate certain geographic ranges for separate treatment (beyond the known exceptions of Jersey, Guernsey and the Isle of Man).
2. The number range holder is unable to readily change hosting provider (and it may not be able to at all).

a. In addition to the hosting provider's permission, it also requires the hosting provider to obtain BT's permission to move the range (i.e. obtain a losing routing plan reference number) in order to migrate.

b. It can only move the range to a hosting provider that has the required porting agreements; if a number is exported by the hosting provider, the new hosting provider must be able to maintain service. It can only do that if it too has completed service establishment with the relevant recipient communications provider. In practice, this seriously limits the choice.

3. There is very much a one-sided bargaining power involved. The market for number range hosting is characterised by a limited number of credible players. Whilst Vodafone and TalkTalk have dabbled in the market, we believe only 4 networks have any substantial presence – Simwood, Magrathea, Gamma and BT's IPEX Type A. The vast majority of range holders that host ranges are smaller, less well-resourced entities. This is no surprise, given they are actively seeking to outsource complex processes. This leads to them adopting the terms imposed by the hosting network, and probably sacrificing in reality substantial amounts of control.

4. The relationship between the hosting provider and the range holder is rarely, if ever, limited to just range hosting. There is a very real chance that the range holder has used the hosting provider to import numbers on its behalf, or has taken a sub-allocation[1]. This relationship is unregulated, is not covered by GC B3 and can be used as significant leverage by the hosting provider to ensure the relationship remains as the hosting provider wishes.

In other words, even a cursory review of the market in practice demonstrates that the range holder can be nothing more than a vassal network. In fact, in many cases, we believe that the Original Range Holder only procured their own ranges for vanity; the real-life differences between taking a sub-allocation or hosting are limited.

BT's position is that hosting is transit[2]. If this is the case, then all of BT's IPX Type A customers will be required to offer a POC under Ofcom's proposed rules. Indeed, they are today under their own Significant Market Power ("**SMP**") obligations, but in our experience their reaction to a request is simply to say *"we've outsourced it to BT"*.

This is a juxtaposition – only one statement can be correct. If they have outsourced their responsibilities to BT, then BT should offer the Fixed Termination Rate ("**FTR**") at a nominated POC and not treat call scenarios involving the range holder as transit. If they are required to offer a POC, then Ofcom should take enforcement action for a breach of SMP by potentially hundreds of Original Range Holders ("**ORHs**"). Keen eyes at Ofcom may also have

1 It is common for a range holder to not take full national coverage of geographic numbers, not least because of the annual charges associated with number ranges in constrained areas, and "backfill" with sub-allocated numbers as appropriate.

2 This position was relayed to Simwood by Ofcom during the resolution of the draft Section 185 dispute that was submitted regarding BT's conduct re interconnection.

noticed BT's recent posts to Ofcom's number activation list clearly highlighting that IPX Type A ranges exist on BT switches.[3]

We see the same juxtaposition in number portability; the so-called Scenario 7 issue. We also note that some of the entities in question allocated ranges do not operate a network – it is a fair question for us to ask how Ofcom envisages that such an entity can ever comply with the proposed SMP conditions?

If BT's position is indeed true, then the market will adapt[4], and every hosting provider will treat termination of calls to ranges it hosts as transit. Presently, every significant host of ranges bar one treats hosted ranges *pari passu* with its own, the exception being BT, who simultaneously expect FTR termination to hosted ranges in the other direction. The reciprocal benchmark is likely to be BT's double tandem – i.e.,[✂] - a non-charge-controlled rate which is [✂]x or so the FTR.

It is not as simple as to say that the range holder can avoid this by offering its own POC – what if it doesn't have a network? What if it is prevented in doing so by the hosting provider exercising its significantly higher bargaining power? What if it cannot move the ranges to an alternative? These are generally lean entities – they do not have the resource (nor the desire given they outsourced it in the first place) to handle multiple interconnection requests. Therefore, all considered, the ability for the market to adapt to transit pricing is limited.

The majority of ranges allocated by Ofcom could be subject to such a regime; we do not know the precise number, but Ofcom can subtract the number of active BT Standard Interconnect Agreements ("**SIAs**") with geographic ranges in a Data Management Amendment from the list of range holders, easily enough. The hypothetical models developed by Ofcom to set these charge-controls (or, noting COVID-19, perhaps the previous charge control) probably have sufficient data to estimate the impact of inflating the wholesale cost of a call to a geographic number by the transit figures cited above – we believe it to be material enough to lead to significant consumer inflation.

The only reason that this is an issue is because BT are, as usual, seeking to have their cake and eat it. If Ofcom does not set the correct regulatory framework, then the market will use the tools at its disposal to level the playing field itself.

This is not unprecedented; terminating operators of non-geographic numbers did this in 2010-2015 with the so-called "ladder charges" when they considered the mobile network operators' retail tariffs to be egregious.

However, none of these issues materialise if the hosting provider is considered to be subject to the SMP (and by extension, subject to GC B3) and it is as simple as Ofcom updating the product market definition to include the concept of hosting. We do not consider this to be a burden to the extent it would affect us; nor, given how we believe Magrathea, Gamma and others approach the market, do we think they would view it as anything more than an obligation to do what they already do.

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3 For example 'BT new range notification 2054' on September 10th.

4 Simwood has [✂]

Finally, we note that BT also appears to be struggling with the separation of these entities. [✂]. A cynical mind would consider that BT only treats these scenarios equivalent to their own, where it suits them – unlike other providers which take the situation "warts and all".

Terminology

Part of the core issue on which entity in a hosting arrangement is dominant is the terminology. The CA2003 caters, broadly, for two types of Communications Provider;

1. Electronic Communications Network ("**ECN**")
2. Electronic Communications Service (**"ECS"**)

There are a few ways to summarise the definitions, but, broadly, the *service* is what the end user purchases and experiences, the *network* is the technical system and infrastructure over which it is delivered.

Those providing the service tend to be customers of a network. While, in some cases, vertically integrated entities like Sky are both the network and the service 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.

To obtain resources from the National Telephone Numbering Plan, the applicant must demonstrate they are a network. While we note there are entities without telecommunications apparatus that have number ranges allocated to them, the process involves showing that the applicant has a routing capability and an interface to the PSTN.

It is possible that, in the strictest definition, an instance of a software PBX running in Microsoft Azure, or AWS, makes someone an ECN, yet the reality is that the expectation of an ECN, or more specifically all of the obligations falling on an ECN through the GCs etc, is very different.

For example, the network availability requirement, emergency services call routing and number portability obligations are all substantial. They are substantial enough that, as we explain above, many of the ORHs choose to partner with another ECN to discharge them.

If Ofcom were to use its statutory information gathering powers and ask all 450 ORHs (which should be an ECN by definition) how they discharge the most serious of their obligations we cite above, we would wager, with the shortest of odds, that they are outsourced (or, dare we say, overlooked).

Which brings us to a key point – not all ECNs are equal.

A liberal market open to new entrants fosters competition and we support that goal; a light touch approach to the availability of resources from the NTNP encourages the desired outcome.

However, to suggest that New Entrant Telecom Limited, with a single instance of a soft-switch in the cloud and a single interconnection to Magrathea is *pari passu* with BT, or

Simwood, or TalkTalk, defies logic. Indeed, a cursory review of the list of ORHs shows Ofcom have allocated resources to ECNs that frankly stretch the definition of ECS as their name and Standard Industrial Classification ("**SIC**") suggest they have nothing whatsoever to do with telecommunications.

The issue is not necessarily the existence of these entities; it is a classification system born in 2003 with the CA2003 and not substantially updated enough to deal with 17 years of innovation and change.

The reality on the ground is, if we may borrow from our friends in the Virtual Mobile Network Operator space, we have a concept of thick and thin ECNs. A thick-ECN is the classic full-scale operator; like a BT or a Simwood. A thin-ECN is an entity which has some of the components of such a classic operator, but outsources a lot of it.

In other words, the fixed world is not much different to the mobile world in this respect; a thick-MVNO with its own Home Location Register etc is the mobile equivalent of a classic full-scale operator. A thin-MVNO is an ECN-lite.

Where this starts to get interesting is, as a matter of administrative policy, Ofcom appears to have adopted the thin/thick classification in allocating resources from the NTNP in the mobile world. Our experience is that access to a UK radio access network *as well as* the switching capabilities of an ECN, are Ofcom's prerequisite. While we say Ofcom's approach to Mobile Network Codes is *ultra vires*, that requires further infrastructure too.

We would like to reiterate that, broadly, we don't care how many number ranges are allocated to however many entities – in fact, if it leads to increased competition, we will cheerlead that all day long. What we do have a problem with is an artificial regulatory approach that treats anyone with a routing capability as equal when it patently is not.

In turn, this has led Ofcom to err in its consideration of *where* obligations should sit and we would encourage Ofcom, in light of the practical realities on the ground, to reconsider its position. We believe doing so would have indirect benefits to end-users in areas such as number portability.

Interconnection

There is no doubt that an obligation to interconnect is a key remedy to deal with the market power identified by Ofcom. However, the practical implementation of the remedy is what concerns us.

In economic terms, we understand that Ofcom will have considered certain timeframes when assessing certain facets of the Consultation, such as the time in which substitutions can be brought to bear. This, in our experience, will range from 6-12 months, so it stands to reason that a dominant entity should go from enquiry to live interconnection in no more than that timescale.

Ofcom are also silent on how to identify and progress interconnection. As Ofcom will be aware from our Section 185 dispute against BT, there is often a deficit of experienced people within certain organisations and just knocking on the front door invariably leads to someone trying to sell a managed service with no knowledge or expertise relating to the subject of SMP.

Identifying the right person can be difficult. After several months of asking around the [✂] organisation without success, Simwood sent a recorded letter to the Company Secretary of the [✂] entity with SMP in mobile termination at their registered office. It was delivered on 31st July 2020. At the time of this Consultation response, there had been no reply from [✂].

When one of the largest entities with SMP can ignore such a request, then it is no surprise that there are significant struggles (as we refer to elsewhere herein) dealing with smaller entities. In fact, it goes so far as to hobble the remedy and plays directly into the market power of BT in transit.

We note that Ofcom have intervened by providing strict guidance[5] to communications providers in their dealings with vulnerable consumers, which goes to points such as a training regime and how to identify a customer may have specific needs. It is demonstrably clear to us that CPs require an obligation to be able to identify a request for interconnection where that right is afforded to the requestor statutorily and to have appropriately qualified personnel on hand to progress the request. Simwood's experience with BT between dealing with the right people versus knocking on the front door and being handled by an individual on the graduate sales program were considerably different. We believe that the relevant experience and expertise in BT is at an all time low as a result of that human capital having left - this is a problem that will become increasingly more acute as the need for such personnel increases with the PSTN closure program.

[✂]

To that end we consider it to be sensible for Ofcom to satisfy itself that BT has (or, as appropriate, to require BT procure) the appropriate resources and procedures to manage the planned transition.

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5 *"Treating vulnerable customers fairly: a guide for phone, broadband and pay-TV providers"* published by Ofcom on 25th September 2019 for example.

Overall, our experience this year alone suggests that Ofcom needs to be more intrusive with respect to some form of SLA for an interconnection request – both in number portability and in the market for wholesale call termination. The light touch approach is clearly not working and is limiting the development of efficient networks and competition, certainly at the tier just below the major operators.

While we expect that Ofcom's first instinct would be to suggest that the Office of the Telecommunications Adjudicator ("**OTA**") pick up such a baton, Ofcom may recall Simwood has impugned the effectiveness of that group in the past. It is important that such tasks are effectively delegated, with a clear outcome and timescales specified in the first place for OTA work-streams to have a chance of success. Increasingly, we find that the OTA is left to specify what needs to be done (by interpreting regulation absent the regulator) instead of just being asked to do what it is good at – finding a way to implement a clear policy decision.

Call Scenarios Not Addressed In The Consultation

In the Executive Summary, we discussed the presence of "levers of harm" available to BT. The Consultation is clearly published to grapple with termination to Geographic telephone numbers, however, that is far from the only material scenario that is affected by BT's network upgrade.

We say they are unavoidably in scope of the Consultation for the arguments below, but in any event, if Ofcom consider them out of scope, we also note the findings in *British Oxygen Co Ltd v Minister of Technology* [1970] UKHL 4 and urge Ofcom to lay out a plan of work to address the threats they pose.

Average Porting Conveyance Charges ("**APCCs**")

Ofcom has flirted with the issue of conveyance charges for ported calls in the Consultation, without fully including, or excluding them from the scope. This is a shame, because number portability is an important part of the call termination market; BT, for example, sees 70% of geographic traffic[6] by virtue of its former monopoly, but only has a 38.1% market share[7]. In other words, when subtracting the figures, it appears that 32% of all geographic calls transit BT's network as a result of BT's former customers choosing another provider.

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

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6 Call Data Records on Simwood's network suggest that 70% of UK geographic calls are to telephone numbers where BT are the ORH.

7 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.

> *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 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.*

In the scenario outlined, not only does the *"originating provider has no option but to purchase WCT from the donor provider"* it has no option but to purchase porting conveyance either.

If one side of the coin is considered worthy of regulatory intervention, then so must the other.

We note the guidance on charges in (then) GC18[8] and we note the subsequent enforcement action[9] upheld by jurisprudence[10]. However, that was written at a time when the dominant provider of porting conveyance, had a steady-state network.

BT either sets a default APCC (significantly higher than the FTR) or performs a calculation across ten call scenarios between itself and the RCP to determine an APCC. With the shift to an IP network, especially in April 2025 when all traffic will hit BT's IP edge, the APCC calculation presents a genuine risk of being exploited by BT.

It will revert the industry to the point where the APCC was materially higher than the FTR and all of the negative effects that led for Ofcom to address the issue in 2014.

We consider that there is sufficient evidence of BT's (and indeed, the same logic applies to all range holders for the same reason) dominance in porting conveyance such that an SMP remedy is justified. However, if Ofcom were so minded to update the APCC Guidance to say that from April 2025 the APCC can be no more than the Long Run Incremental Cost ("**LRIC**") of an IP-IP call, we have some succour for the long term. Indeed, this is the same underlying logic as Ofcom's proposal that all BT ranges must have the FTR available on IP at that date.

That would leave just the interim, for which it may be sufficient for Ofcom to secure a voluntary undertaking from BT to "grandfather" all APCCs during its network rearrangements. As Simwood has endured the 'default' APCC since 2014, thus losing money on every call to every number ported from and to BT, our preference would be for a LRIC-cap to take effect as soon as possible!

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8 *"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 by Ofcom on 29th September 2014.

9 *"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

10 British Telecommunications plc v Office of Communications [2016] CAT 22

Transit

We note that transit to major range holders (being classified by volume of minutes received by their numbers, not the volume of numbers or ranges) such as O2 and Vodafone is competitive.

If one defines the market as being conveyance by an intermediary to a third party, then the volume of competitive routes available appears to suggest transit is a competitive market.

It is not.

Notwithstanding that we say BT is acting in breach of its SMP conditions with hosted ranges, BT has significant market power in transit to other smaller operators.

We note above the statistic that 70% of UK traffic we see on our network involves a BT number; which would suggest that a significant amount of the market uses BT numbers, even if the majority don't have BT as a provider.

To enter the market, one needs to be able to access BT numbers via a porting agreement. BT's porting agreement is part and parcel of the SIA, meaning a porting agreement comes with the interconnect. Each number range build in the UK, requires BT's permission. BT has to agree to the price point and commercials and the routing plan.

In fact, the administrative and procedural barrier to entry imposed by BT is such that it looks and feels like the licensing regime the European Union disposed of in 2003 to promote competition.

What this takes us to in reality is, that by virtue of its historical position as the numbering monopolist[11], BT attracts entrants who need its porting agreement to compete and piggy-backs interconnection onto it, meaning it, by default, is in a position to offer transit to new entrants[12].

Coupled with the "double-dipping"[13] that BT enjoys by virtue of 'terminator pays' ranges, it is perilously difficult *not* to spend a significant sum on conveyance with BT, even if you want to limit that, as Simwood does, to the bare minimum.

This is a privileged position, in an unregulated market (being that to minor operators, we accept that routes to major operators are competitive). BT's legacy of being the incumbent monopolist is handing it an advantage to exploit.

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11 Ofcom's own data will show the progression, however, until 1984 BT was the monopolist and while there was a duopoly and oligopoly until the significant market liberalisation circa 2003, BT remained (and indeed we believe remains) the majority range holder for a significant period of time.

12 Some of these new entrants are in the hosted category we also discuss and piggyback on the nexus of agreements of their host – so ranges hosted on Simwood are readily accessible by Vodafone for example. Others have an SIA or use IPX and are in the "minority transit" market.

13 BT charge the Terminating Communications Provider a charge for "Additional Exchange Routing from Origin" or "AERO" for calls it originates. It is the only operator in the UK to do so, however, in these call scenarios, it is also charging the calling party an Access Charge, and is therefore "double dipping" in each non-geographic call services call to a Simwood number made by one of its Subscribers.

What this means, in reality, is easily demonstrated by a mathematical experiment.

If an operator can access 100% FTR 100% of the time, its cost base is 0.0292. If it can only access 85% FTR, and has to consume BT transit, its cost base for a one minute call could be [✂]. Including 15% BT double tandem transit in the mix inflates the cost [✂]-fold. This can be repeated with different percentages and a blend of single tandem, but the effect remains significant in either scenario.

If it was just one terminating provider involved, there would be an economic incentive to build an interconnect to avoid transit. However, there are some 450 ORHs – if we divide the minor routes by the minor operators, that's a lot of physical infrastructure to build. The originator is stuck between a rock and a hard place; death by a thousand cuts on BT transit, or death by a thousand cuts on building interconnects. A situation that has only come about because BT is a natural interconnection target for many new entrants purely because it was the former state incumbent and, by virtue of onward routing, "terminates" calls to materially more numbers than it has customers.

Additionally, there is also another way to view BT's dominance in transit. If the market for transit is truly competitive, then surely BT must consume transit from other operators. Only Ofcom has the ability to verify the following assertion with its statutory information gathering powers, however, we believe that BT does not consume any (or if it does it is immaterial, derived from misrouting) transit from any other operator. Simwood has no choice but to endure a relationship that wouldn't exist if choice played a part simply because it is necessary to participate in this industry.

Which means that, for reasons of history and/or BT strategy, BT remains at the centre of the UK telecoms universe. It is impossible to not deal with BT. Building a number range requires BT's permission – and in some cases, BT has to approve the commercial paradigm (especially in Non-Geographic Call Services ("**NGCS**") Scenarios). The reality is that BT is acting as the holder of the keys to the kingdom. It is tantamount to when Oftel had to grant a licence prior to the Authorisation Directive[14] coming into force.

None of this is the hallmark of a competitive environment. It is all too easy to look at the sheer volume of traffic over numerous operator's routes to Vodafone and O2 and conclude that transit is competitive – but that's a *laissez-faire* approach that risks a serious injustice.

The inability to enter the UK market, without BT's "sign-off" and involvement is, with all due respect, all the evidence that is required to demonstrate BT's dominance.

In terms of defining the product market for "major" and "minor" transit routes, there are a number of ways it can be achieved without difficulty. For example;

- Does the ORH have full national geographic coverage? This can be readily ascertained from the National Telephone Numbering Plan.
- Does the ORH pay Ofcom administration fees? If so, their turnover is in excess of a materiality threshold and they may be considered as a "major" route.

14 Directive 2002/20/EC of the European Parliament and of the Council of 7 March 2002 on the authorisation of electronic communications networks and services (as amended)

- Is the ORH too large to submit abridged accounts to Companies House? (Broadly the same logic as the previous bullet, but around double the financial threshold).
- How many "transit" operators provide a service for originators to terminate to a given ORH? This would necessitate the use of Ofcom's statutory information gathering powers, however, it borrows from the logic used historically in broadband market reviews which looked at how many operators were in an exchange.

We could go on, but it should be evident that splitting the transit product market into two is not impossible; indeed, it can be relatively simple.

Other Call Scenarios

The debate on APCCs and Transit above are two threads in a tangled web of traffic flows that the Consultation only addresses part of.

There is nothing, we can see, in the Consultation that addresses the potential for harm in the other direction – calls originating on BT, terminating on other networks, where the other network has to bear the cost of transport. These are predominately NGCS, of which around 40% are originated on BT's network, with more transiting it.

Presently, these calls are subject to Element Based Charging but we have no insight as to what will happen to the so-called AERO and transit that BT charges in these scenarios during the transition to IP, or from the April 2025 "drop dead" date. Like the APCC, no regulatory intervention (even if it is just in the form of guidance) can give rise to a significant moral hazard, where BT can manipulate the paradigm to disadvantage its competitors and favour itself.

The Reference Offer

Above, we discussed having to seek BT's "permission" to enter the market. This is only part of the issue of BT's one sided bargaining power which is not addressed in the Consultation.

Ofcom appears to be relaxed about how BT contracts for its products and services, such as outlined in the discussion in §7.123-7.131 inclusive in the consultation.

The distinction between "regulated" and "unregulated" products in reference to the scope of a reference offer is unhelpful. While Ofcom may have deregulated parts of BT's portfolio, that does not mean that BT does not have unchecked negotiating power.

As far as Simwood is aware, all of BT's counterparties are required to enter into BT's contractual agreement, for which there are no bespoke terms. Furthermore, contracts unrelated to BT, still require the flow down of BT specific terms such as BT's terms on Artificially Inflated Traffic. We are unaware of any interconnection agreements in the UK between non-BT operators which are not required to have BT drafted terms in them, purely because of BT's bargaining power. What this demonstrates is that a reliance on competition from third parties as a competitive constraint has to be reviewed in light of the influence BT's market power exerts on those (allegedly) independent commercial arrangements.

This is a situation akin to a residential consumer contracting with a major mobile operator; a situation so one-sided Ofcom often intervenes with intrusive regulation and guidance.

Furthermore, a review of some of the operative terms of BT's interconnection agreement exposes this one-sided power. BT is free to impose any and all (limited only by *ex-ante* regulation, as are all other operators) of its own price changes on the counterparty, but the counterparty is required to seek BT's permission, even if it is merely a reciprocal arrangement.

Such clauses rarely exist in non-BT interconnection agreements, where reciprocity is at the heart of the operative conditions between the parties.

Even more evidence can be obtained by a review of how many industry-led initiatives to materially change BT's contracts have been successful. To our knowledge, since 2008[15], there are none that have been included in the contract, certainly without regulatory intervention. Ofcom may wish to say that BT's counterparties have recourse to Ofcom's Communications Act 2003 ("**CA03**") dispute resolution powers; that is only in part true. Ofcom's ability to make reference to its "administrative priorities" in deciding whether to review a case deters the industry from grappling with BT's one-sided bargaining power. Unless the subject matter falls squarely within Section 185(1A) of the CA03, potential recourse to Ofcom may not be as powerful as it may appear.

All that considered, we are unclear how Ofcom can conclude the reference offer is simply "*a commercial matter between industry participants*" given the evidence of such unfettered ability for BT to impose its own terms and the absence of reliable recourse. This becomes

15 It could be longer, this is just how long the collective corporate memory goes back.

especially acute when Ofcom's reliance on the products and services in question being unregulated is proven false with BT's clear monopoly in the conveyance of ported calls, for example.

Security

Ofcom cite the markets in question to represent 200 billion minutes[16]. That's 200 billion minutes of voice calls to and from persons in the United Kingdom; which, on a TDM network, benefit from the intrinsic security properties of such networks.

Industrial scale espionage or other exploitations of a TDM network (especially a closed one such as is implemented for UK fixed networks) for nefarious means are inherently a lot more difficult to perpetrate than on an IP network. Of course, there are many benefits to IP networks for consumers – however, there is nothing in the Consultation that addresses this elephant in the room.

If Huawei is a high-risk vendor, considered to be too close to the Chinese government to guarantee the security and safety of the United Kingdom, then surely the prospect of the entire UK's voice traffic being conveyed over insecure, public internet connections should be beyond the pale.

In theory, the provision of Section 105A(1) CA03 should mean the operators take appropriate precautions. It states;

> *Network providers and service providers must take technical and organisational measures appropriately to manage risks to the security of public electronic communications networks and public electronic communications services.*

However, given the seductive pricing of Huawei, which was implemented by some operators prior to the Government's intervention (which we say merely stated the obvious), we would suggest that a self-regulatory approach to security standards on the industry by the industry is not sufficient – the economics of the quick and dirty public internet interconnection will invariably be too much of a moral hazard for some operators that don't consider security as extensively as they should. More specifically, it is likely to be leveraged by a plethora of small originators trying to gain rate equivalence with those that have made extensive investment in their networks and take security seriously. Equally, larger operators may steer such requests to public internet interconnection for similar economic reasons.

To that end, we consider it necessary to either update the existing guidance on S105A CA03, or to modify the relevant SMP conditions proposed by Ofcom to require interconnection;

- On a private direct interconnect; or
- On an IP interconnect implemented by way of direct IP peering over a UK Internet exchange such as LINX; or

16 Introduction to the Consultation.

- A private VLAN over a UK Internet exchange such as LINX.

We believe the NICC is well placed to expand upon these requirements in more detail and could have a standards document embodied in the relevant conditions, as we note ND1016 has been adopted for CLI issues.

There are times when *ex-post* remedies are sufficient. Ofcom does have appropriate *ex-post* powers to deal with a security issue and can act. However, enforcement on a breach of the scale that could be perpetrated by exploiting *laissez-faire* approaches to security is the very definition of "closing the stable door after the horse has bolted".

While we say that Ofcom has both the jurisdiction and the power to make regulations in this regard, this may well be a matter to dovetail into the work of the Government and the National Cyber Security Centre on the Telecommunications Security Requirements. If so, then the timings must align to make sure that any legislation is brought forward before the PSTN closure and IP migration are too far advanced.

Internationally Originated Calls

The issue of some jurisdictions charging higher for internationally originated calls, the risk of the issue expanding post-Brexit and the strait-jacket UK networks are in as a result of the construction of the current SMP conditions, are a very real issue that we welcome Ofcom grappling with in the Consultation.

The rationale for being able to "retaliate" and have Ofcom's backing to make rates reciprocal is economically sound and is a solid regulatory policy.

In theory.

There are many practical concerns arising we feel Ofcom should consider in the final Statement.

1. Is the rate in question that levied by the terminating network (i.e the foreign range holder), the foreign range holder's chosen hosting provider, or where the in-country former incumbent which probably receives a lot of the internationally originated transit seeks to exploit the situation? Or is it the random commercial rate by a chosen international carrier, like Tata? There are a number of places in the supply chain where there can be an exploitation of the situation and we would welcome guidance on how Ofcom intend to approach that issue - remembering that the vast majority of dominant UK operators have no direct counterparties abroad.
2. The implementation of a "retaliatory rate" will almost certainly require BT's permission, which will be decided subject to both the moral hazard of being made in the context of their own commercial relationships with international carriers and strategy, and the limitations of their own billing systems or their inevitable desire to "productise" the solution for their own commercial gain. While Simwood could unilaterally impose it in other interconnection arrangements, all that will happen is

that BT, should BT deny Simwood permission in this respect, will become the Least Cost Route to Simwood by virtue of offering the lowest transit rate to foreign carriers. In other words, the one-sided bargaining power we outlined above acts to negate Ofcom's intervention with international surcharges and further entrenches BT as the "wannabe puppet-master" for the UK telecoms industry.

3. It is easy to identify the termination rate for UK range holders, because Ofcom publishes it in charge controls and BT (at the time of writing at least) publishes it in the Carrier Price List. This is a significantly more transparent solution than many carriers in many other countries and there will be significant information asymmetry involved. This limits the efficacy of the remedy, especially if the core issue is exploitation by intermediaries in the value chain.

4. The relevant definitions in the legal instruments appear ambiguous with respect to a group structure and we consider there to be a risk of unintended consequences and gaming arising absent some more specificity.

The mere existence of the threat, by reference to the classical theory of "mutually assured destruction" and weapons of mass destruction, may be sufficient to deliver the desired outcome of reciprocal low rates across international borders. However, just like the geopolitical comparator, that does not mean that the deterrent is an idle threat; it may have to be used and has to be able to be deployed effectively.

Energy Efficiency

While we note that the United Kingdom's withdrawal from the European Union adds some uncertainty and complexity around its international obligations with respect to climate change, at the time of the Consultation, the EU's Energy Efficiency Directive[17] for example is in force and binding on the country.

According to its annual report[18], BT consumed, in the UK, 2,375 Gigawatt hours of electricity for the year, or 0.73% of the UK's total electricity[19] production. By any measure, this makes BT a substantial consumer of power, a substantial component of which is likely to be driven by legacy TDM equipment.

We do not wish to labour the point *ad nauseam* but any incentive for BT to retain (and by extension for that incentive to concatenate through the industry given BT's dominance) any significant estate of TDM equipment, has to be reconciled with the UK's obligations and commitments on climate change.

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17 Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency (as amended)

18 BT Group plc Annual Report 2020, page 39

19 BT's usage divided by the total electricity production reported by the Office of National Statistics in Digest of UK Energy Statistics (DUKES): electricity, updated 30th July 2020 (325 Terawatt hours).