

Response to Business Connectivity Market Review May 2015

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Hyperoptic Introduction

Hyperoptic is a Code Power operator founded in 2011 by Dana Tobak and Boris Ivanovic. Hyperoptic is the largest provider of 1 Gb residential broadband in the UK and use a Fibre to the Building infrastructure currently operating across 12 cities with ambition to service significantly more. We have installed or are in the process of installing to over 150,000 residential homes and nearly 2,500 business units.

Previous to Hyperoptic, the co-founders had started and managed Be Broadband in 2005-6 prior to acquisition by O2. Be was the first to launch ADSL 2+ in the UK, offer Annex M for an increased upload speed, and outstanding customer service. Prior to Be, Boris Ivanovic ran Sweden's Bostream from 2000-2004, offering LLU, Wholesale, and FTTB

Hyperoptic was founded to bring the UK's broadband infrastructure to the next level, offering 1 Gb services and raising the level of expectations on the role of connectivity in British households. Customers get the wired speeds they expect and we have over 98% customer satisfaction rating consistently on our quarterly surveys.

As a start-up, Hyperoptic focused on retrofitting existing residential developments; however, since expanding the sales, installation and customer support teams, Hyperoptic now services new developments and business units (leased lines, shared leased lines, and serviced apartments). We are a firm supporter of Digital Inclusion and do not discriminate on the demographics of building residents. In fact, we have strong relationships with over 10 Housing Associations and ensure that their residents have the same opportunity to access superfast broadband as other residential buildings.

Network Infrastructure & Installation Process

Hyperoptic use EAD and EAD/LA circuits to connect buildings and businesses to our core network, utilising where appropriate BT Exchanges as PoPs to allow us to take advantage of the EAD/LA product set. We install our own last mile infrastructure from the basement throughout the buildings using a point to point topology which allows us to truly differentiate our product from competitors who utilised shared infrastructure in the guise of VDSL, DOCSIS or in rare cases GPON.

Despite the current coverage of both Openreach's FTTC network and Virgin's DOCSIS network, the majority of our homes are not able to otherwise receive superfast broadband (>24 Mb) and are generally receiving in the 5-10 Mb range. As Hyperoptic targets Multi Dwelling Units (MDUs) and Multi Business Units (MBUs), our properties are plagued by Exchange Only lines or lack of competitors' in-building network.

Generally, Hyperoptic installs our network at our own cost and risk of capital return. We solicit registrations of interest from residents to ensure that we maximise both our time and capital expenditure. For each site, we produce a 'Site Business Case' that takes into consideration Installation costs (materials and Labour, fibre circuit, CPE, equipment), on-going costs (EAD or EAD/LA annual fee, internet transit, customer service), and expected revenues.

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We continually aim for efficiencies in working practices and cost savings in materials and services in order to further expand our addressable market to be able to offer the fibre services to more buildings and residents.

As Hyperoptic does not insist nor expect exclusivity within a building, there is no opportunity cost to the building of allowing our network to be installed. Residents can take service at their convenience and we maintain competitive pricing along with marketing leading product specifications.

Products and Pricing

Hyperoptic offers three Broadband products available with or without a phone line, on either a monthly or annual contract. Here is the product information for our annual contract taken with a phone service.

Financing

Hyperoptic is privately funded by Manager, Employees, and by investment from George Soros' private investment fund Quantum Strategic Partners. We do not take any BDUK or other public funds other than the Connected Voucher Scheme.

BCMR Relevance

Hyperoptic makes use of OfCom regulated products in a unique way from other operators, as such the opinions and proposals expressed herein are likely to diverge from both larger mainstream operators and other alternative providers.

However, Hyperoptic offers an unmatched product set that offers the consumer true competition. Not only in Brand and customer service, but in product specification and options. With a current vision for 500,000 homes passed (potentially to rise substantially with the availability of passive remedies), Hyperoptic is committed to investing and innovating high speed residential and business across the UK for the maximum benefit of those on the network.

The outcome of the BCMR and subsequent regulatory changes have the potential to fundamentally shape the ability of consumers and SMEs to buy and use 1 Gb broadband in the near future.

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Response Summary

Торіс	Response
CISBO Market	Hyperoptic propose splitting LA products into a separate market as the competitive landscape is demonstratively different from EADs.
SMP	Hyperoptic do not agree that there is a fully competitive market for CISBO services within the CLA. BT continually demonstrate SMP for local circuits both in terms of pricing and availability. The cost of potential 'dig' cannot be underrated in terms of impact to a competitive offer.
Dark Fibre remedy	Hyperoptic is supportive of a Dark Fibre remedy in SMP areas. However, until the VOA publishes appropriate dark fibre tax guidance the effectiveness of such a remedy cannot be fully anticipated nor appreciated.
KPIs	Hyperoptic are proposing an additional measure on 40-80% to ensure focus on the next set of circuits which is where delivery has suffered most.
SLAs/SLGs	Hyperoptic firmly posit that BT's performance on EAD delivery and communication has seriously deteriorated and support the proposals on SLAs and SLGs.
EAD LA to EAD charge control	Hyperoptic do not support an additional charge control on the price differential on EADS AND EAD LAS. With Eol and non-discrimination all CPs can choose which products are more efficient and that they have not chosen EADLAs does not indicate positive discrimination for BT. Merely that many operators achieve efficiency in other ways or are able to make use of BT Wholesale bundled EAD LA services rather than purchase directly.
DC and TANs	Hyperoptic have no issue with the deregulation of DCs and connectivity BT the proposed BT exchanges

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Response Questions

Section 4: Market assessment for Wholesale Contemporary Interface Symmetric Broadband Origination Services

Question 4.1: Do you agree with our approach to wholesale product market definition and our proposed wholesale product market definitions in relation to services provided using contemporary interfaces? In particular, do you agree with our proposal to define a single product market for Contemporary Interface Symmetric Broadband Origination (CISBO) services? If not, what alternative would you propose and why?

Hyperoptic agree with the consolidation of AISBO and MISBO under CISBO and the use of Low, Medium, and High to denote different speed specifications.

However, we propose that Ofcom consider the origination of the circuits as a factor that impacts the homogeneity of competitive conditions, and specifically the opportunity for substitution. EAD/LA circuits and other 'LA' variants, which run from a building to its local serving fibre exchange should be considered separate market from EAD style variants which allow a circuit to run between any two points (within a 25 Km diameter). Even if an alternative provider is found to offer an EAD/LA style circuit the CP must then also purchases BT's Cablelink product adding another £2.5-12k in Capex (when including up to 100m of dig) greater than an the EAD/LA. For a product with a £3k annual fee (at present, expecting to drop over time), this is a significant barrier to purchase.

Despite repeated attempts with multiple operators, Hyperoptic has not received offers to generally provide CISBO services within a local area through either a BT Exchange or that competitors POP for pricing to reasonably compete with EAD/LAs. ¹ Therefore, it is clear that BT maintain SMP with respect to EAD/LA regardless of Geographic consideration.

While in areas of proposed SMP regulation would ensure that BT offers all the usual protections, Hyperoptic propose that consideration of Local Area CISBO variances should remain regulated and subject to all the appropriate remedies as is applied to SMP products.

As OfCom indicates, BT is a greater purchaser of EAD/LA circuits over volume competitors that use CISBO services for 'traditional ' purposes. It is even more important that BT is not allowed to discriminate against competitors that make wish to make use of the same products for innovative uses that would otherwise be in competition to BT's downstream businesses.

Hyperoptic therefore proposes use of the following markets definitions:

- Market for CISBO services which do not originate at the local fibre exchange within the CLA

¹ There is one exception in that we've received a quote only in the London Borough of Hammersmith and Fulham based on a provider with a concession agreement for duct access. However this is limited in scope and geography and is not sufficient to accept that the entirety of either the CLA or the LP is competitive for LA products.

- Market for CISBO services which do originate at the local fibre exchange (Local Access variant) within the CLA or LP
- Market for CISBO services which do not originate at the local fibre exchange within the LP
- Market for CISBO services in the RoUK excluding Hull

Question 4.2: Do you agree with our assessment of competitive conditions for very high CISBO services? If not, what alternative would you propose and why?

Historically 10G circuits have been used for core networks for CP's or linking data centres. The main fibre providers (Vodafone, VM, SSE, Zayo, L3, BT) have dark fibre national networks and the market is competitive. But the market is changing and bandwidth requirements have increased significantly. CP's and business are requiring 10G circuits at the access layer to link into the dark fibre provider national networks. In this market BT dominates with BTOR offering 10G OSA, 10G EBD, 10G BES and more recently 10G EAD circuits and BTW offering 10G bespoke circuits, outside of London and some of the tier 1 cities, the only option is BT for 10G Access circuits.

Hyperoptic supports OfCom's assessment of competitive conditions for very high CISBO services. However, these should be subject to the origination test proposed in the response to Question 4.1.

Question 4.3: Do you agree with our approach to geographic market definition and our proposed geographic market definitions? In particular do you agree with our proposals to define the Central London Area (CLA) and the London Periphery (LP) as separate geographic markets? If not, what alternative would you propose and why?

Hyperoptic does not support Geography as the only 'sub-market' of CISBO services. In our experience, EAD Local Access variants are not available from major competitors across either Geographic market.

Hyperoptic also have a view that the analysis regarding pricing and profits has taken a CISBO provider view only and not a purchaser in particular with respect to ECCs. While ECCs will be less critical for very high CISBO orders as a determinate of competitive offering, for Local Access circuits, dig costs for up to 200a £10k ECC represents 3-5 times the annual operating cost of an EAD LA 1 Gb circuit over the course of the review period. Refer to A18.8 to demonstrate that when digging is required, the cost is prohibitive on a Local Access product and likely for a non Local Access product as prices diminish over time. We refer to A18.14, which states that BT has a clear advantage in any case.

Hyperoptic have two additional issues with the definition of the CLA (and LP although less so given the treatment of that market) as a market based on the analysis used:

- Consideration is given for current definition of 'business' premises only
 - More people work are beginning to work from home and may be considered potential consumers of CISBO services
 - CPs should expect to use CISBO services to serve other premises with connectivity such as residential buildings, advertising kiosks, street furniture, and uses yet to be imagined.
 - Given the ubiquity of BT's ducts and fibre network over that of its rivals it has a clear advantage to supply to CISBO to anywhere that has not been previously connected by its competitors or offering a large enough financial incentive for a competitor to invest in network build.
- While the analysis looked at the current circuits being provided, the underlying commercial decisions used to decide to 'dig' for example are not.
 - It could be that the decision for a network owner to be willing to dig for a number of circuits at a subsidised rate to a CP could be part of a large contract (multiple circuits over multiple years).

- It could be that the circuits provided with a dig then gave entry for the network operator to then
 offer services to other CPs (or the same CP) to serve other businesses located at the same
 location.
- As such when considering other uses of CISBO that are not to business locations nor to large CPs, the interest of an infrastructure provider to offer services cannot be extrapolated.

By deregulating the market in places where BT can provide a circuit more competitively and efficiently than another network operator, it is giving unfair power to BT to allow it to choose winners and losers across CPs (including BT) for direct circuits and other types of business models.

Therefore, Hyperoptic do not accept the logic of A18.20 and that the cost implications of digs to CPs is not taken more into consideration when defining the CLA.

Question 4.4: Do you agree with our approach to SMP assessment? In particular, do you agree with our proposals to find no CP to have SMP in the market for CISBO services in the Central London Area (CLA), and to find BT to have SMP in the markets for CISBO services in the London Periphery (LP) and the Rest of the UK (RoUK). If not, what alternative would you propose and why?

Hyperoptic do agree that BT does have SMP in the LP and RoUK.

However, Hyperoptic do not agree with the approach to SMP assessment in the CLA. The proposal to de-regulate the CLA is short sighted and leaves the market unnecessarily open to abuse by BT. To re-iterate from previous responses reasoning as to why BT does have SMP in the CLA:

- No other network provider offers either capex or opex pricing comparable to EAD/LA in the CLA or any other area. (either to BT Exchanges, or their own). Therefore there is no substitution opportunity for these products.
- No other network provider has the depth of network to non-traditional business premises SME premises, or non business premises as BT, thereby creating a non competitive market with no other substitutable products.
- As 4.145 indicates, BT has a 44% market share in CISBO in the CLA which is above the accepted limit for SMP.
- That some network owners have extended their networks to high bandwidth users such as Financial Services and Media businesses does not therefore demonstrate that BT's network of ducts and infrastructure does not present the most efficient opportunity to provide CISBO services to others.

With full de-regulation BT would be able to discontinue from offering CPs CISBO services at all or price them exorbitantly.

• Hyperoptic's Business Model

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While it is appreciated, that regulation is not a tool to protect business models, we note that in 10.61, the BCMR posits:

"In the absence of regulation, BT could have an incentive to withdraw or to no longer supply these products. CPs have developed their business models around the availability for these products. It would be disruptive to CPs and would reduce competition if they were no longer available."

While referring to a network access generally, the principle remains applicable to the CLA.

In addition to the withdrawal of CISBO services, the de-regulation of the CLA would also de-regulate the accommodation products which support provision of CISBO services (certainly the EADLA products) and this would also mean that Hyperoptic could no longer affordably provide services to current and future residential buildings.

By deregulating the CLA competition in the residential broadband market and business broadband will be decreased allowing BT to completely take advantage of its monopoly in its exchange/duct network in the local area.

Question 4.5: Do you agree with our approach to product and geographic market definition for wholesale CI core conveyance services and do you agree with our proposed market definitions for wholesale CI core? If not, what alternative would you propose and why?

Hyperoptic is supportive of the market definitions for CI core conveyance services.

Question 4.6: Do you consider that our list of candidate competitive exchange and data centre locations is correct?

Hyperoptic is supportive that the BCMR offers appropriate analysis to form their list of candidate competitive exchange and data centre locations but can neither agree nor disagree to the actual list.

Question 4.7: Do you agree with our assessment that connectivity between additional candidate nodes and data centres are competitive?

Hyperoptic agrees that there is a competitive market for connectivity between data centres and key competitive exchanges.

Section 5: Market assessment for legacy wholesale services

Hyperoptic does not use legacy wholesale services and will therefore not respond to this section.

Section 6: Assessment of Wholesale and Retail Markets in the Hull area

Hyperoptic does not provide nor intent to provide services in the Hull area and will therefore not respond to this section.

Section 7: Remedies: Approach and Structure

Question 7.1: Do you agree with our approach to assessing what remedies are appropriate to address the competition problems we have identified in the markets in which we propose to find that BT and KCOM have SMP? If not, please explain why, and what alternative approach you consider we should take.

Hyperoptic support Ofcom's approach to assessing and proposing remedies for SMP, despite disagreeing that BT do not have SMP in the CLA. In particular, the remedy of Dark Fibre allows for CPs to better offer competitive services using the Incumbent's duct network. As such Dark Fibre should be offered also in the CLA.

Question 7.2: Do you agree with our assessment of the benefits that a package of passive and active remedies can offer relative to a package of active remedies only? If not, please explain why, giving your views on our assessment of these benefits, and providing any relevant evidence in support.

Hyperoptic agree with the assessment of the benefits of a package of passive and active remedies. While some providers in some circumstances may continue to use and rely on Active circuits and their remedies, the passive option will create a more competitive environment for both CISBO circuits and downstream products for business and consumers.

Question 7.3: Do you agree with our assessment of the risks associated with imposing passive remedies? If not, please explain why, giving your views on our assessment of these risks, and providing any relevant evidence in support.

Hyperoptic have reviewed the identified risks and have the following views:

 Investment: as the price differential between active and passive circuits is based on the cost differential, there should be no reason for BT to prefer active only. If competitors are able to utilise the passive remedy to produce a new service that they would otherwise require to do their own build, it is certainly more efficient market wise to channel investment into the SMP network as long as there is equal access to the resulting infrastructure for all CPs. Downstream products can then be expected to be priced lower than if additional infrastructure investment was required into a parallel duct network.

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This predicament includes the CLA.

- Allocative efficiency: it is true that there will be some distributional impact to the proposed remedies but there is no reason to believe that there is any prejudice against particular CPs as long as equal access also requires portal based ordering and communications and there are no substantial one time fees.
- Structure of competition in the market: Hyperoptic do not fundamentally believe that a Passive remedy would not be purchasable by smaller CPs UNLESS the FVA of VOA is not addressed given the current calculations on Fibre Tax favour large contiguous networks rather than short point to point segments akin to EAD/LA or EADs. As long as the imbalance in Fibre Tax rate card continues then a passive remedy will not be accessible in which case Distributional Impacts and Structure of Competition could indeed be risks to be considered.

Question 7.4: Do you agree that our proposal of a dark fibre remedy priced and designed in the way we have described in this consultation provides the best balance between the benefits and risks that we have identified? If not, please explain why, providing any relevant evidence in support, referencing specific aspects of our proposed remedy design where appropriate, and taking into account any comments you have made in response to questions 7.2 and 7.3.

Hyperoptic agree that a dark fibre remedy priced considering cost differential from an active remedy is sensible. However, as mentioned in previous responses, the remedy cannot be considered in isolation of the VOA's Fibre tax rate card and methodology. If it is more costly for a CP to use a Dark Fibre circuit than purchasing its corresponding EAD then it will not be used and therefore ineffectual as a remedy.

Question 7.5: Do you agree with our assessment of passive remedies, and our proposal to include dark fibre in the package of remedies we propose to impose on BT? If not, please explain why.

Hyperoptic do agree with OfCom's assessment and reiterate that a Dark Fibre passive remedy in additional to the active remedies are welcome and would allow a near double of addressable market for our market leading 1 Gig residential services.

Section 8: General Remedies for wholesale leased lines markets

Question 8.1: Do you agree with the general remedies that we propose for BT in the wholesale TISBO and CISBO markets? If not, what alternative remedies would you propose and why?

Hyperoptic agree with the general remedies proposed for BT.

Section 9: Specific remedy for the CISBO markets – Dark Fibre Access

Question 9.1: Do you agree with our proposals in relation to the dark fibre remedy? If not, what alternative dark fibre remedy would you propose and why?

Hyperoptic agree with the proposals in relation to the dark fibre remedy with the following caveats:

- BT should be required to offer Dark Fibre in the CLA as well as the RoUK and London Periphery as there is evidence of SMP.
- Along with the results of the BCMR, the VOA need to review the current Fibre Tax Rate Card and mechanism. Without review, there would be little take up of dark fibre by other than the largest CPs and network owners. The current mechanism creates a truly non-competitive market.

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With Dark Fibre provision, operators can upgrade and downgrade their network capacity with a simple switch of terminating equipment without the need to rely on BT – thus better customer service and the ability to meet customer demand.

Question 9.2: Do you agree with our proposals in relation to the pricing of dark fibre? If not, please explain why, and what alternative approach you consider we should take.

Hyperoptic agree with the proposal that dark fibre be priced as an EAD 1G (LA) – cost of savings of going from active to passive deployment. However, if the Fibre Tax due on a dark fibre circuit costs more than the rate that BT would have paid, then there is in essence a transfer of customer funds from BT to the government which would distort pricing and be a hidden tax to both consumers and businesses. An alternative approach would be for BT to continue to pay the Fibre Tax as if it had lit the fibre thus ensuring no change to the effective taxation of Ultrafast broadband products.

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Section 10: Specific remedies for the CISBO markets – active remedies

Question 10.1: Do you agree with the specific active remedies that we propose for BT in the wholesale CISBO markets? If not, what alternative active remedies would you propose and why?

Hyperoptic agree with the requirement to provide disaggregated Ethernet access, short range end-to-end Ethernet services., as well as WDM segments.

EAD LA Charge Control Proposal

Hyperoptic do not agree with an addition charge control between EAD LA and EAD circuits.

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Other 'local' CPs have made use of the price differential to offer competitive Superfast & Ultrafast products to SMEs, other consumers, and other services. For larger ISPs that do not have exchange presence they will get the benefits of the EAD/LA pricing differentiation by purchasing a 'bundled' product from BT Wholesale that will include an EAD/LA and a proportionate backhaul to an interconnect point. Therefore not all the 'Internal circuits' will benefit only BT but also BT Wholesale's customers.

There can be many reasons that external CPs do not use EAD/LAs in the same proportion as BT which would not indicate that the pricing itself is meant to favour BT:

- External CPs may choose not to compete, not to compete as vigorously for business that can be fulfilled solely with EAD/LAs as it is less profitable
- External CPs may focus on connecting two businesses or branches which cannot efficiently make use of EAD LA product set
- External CPs may efficiently choose not to make use of EAD/LA order to take advantage of benefits of using their own Core Network (available option to those with their own network only)
- External CPs which only do LLU need only EADs to connect exchanges

That the take up of the product is non uniform is more of a function of strategy and target market than discrimination. The two products are not completely comparable given that one may lead direct to a customers core network and the other requires backhaul from the exchange as well as space in the exchange. There is no particular reason to assume that their choice of circuits is not efficient, nor that by regulating the price differential would change the efficiency of the resulting competitive marketplace.

However, for CPs without their own national Core network efficient pricing for use of the BT topology best serves competition both for consumer pricing and product development.

As the product is available on an EoI and non-discriminatory basis, Hyperoptic posits that there is no need for further charge controls. The lower the price of an EAD LA the greater the addressable market for a FTTB 1 Gig product.

Project Services

Hyperoptic agree with the proposal to not implement a specific remedy for project services. Given the current pricing of Project Services only those CPs with significant operating margin and/or high value projects can justify the additional cost. It is clear, however, that order information is both lacking and not forthcoming which requires CPs to constantly 'nag' Openreach for information and to progress orders along to the next stage. The requirement to provide information should form part of the usual product specifications, and we have some confidence that the Quality of Service remedies should help order progression.

CISBO Trunk Segment and Aggregation Node definitions

Hyperoptic can accept the enlarged definition of TANs and the addition of BT exchanges and Data Centres.

Section 11: Specific remedy for the TISBO market

Hyperoptic does not use TISBO services and will therefore not respond to this section.

Section 12: Remedies – interconnection and accommodation services

Question 12.1: Do you agree with the interconnection and accommodation remedies that we propose for BT in the wholesale TISBO and CISBO markets? If not, what alternative remedies would you propose and why?

Hyperoptic support the remedies for interconnection and accommodation in the wholesale CISBO markets.

Hyperoptic re-iterates that CLA should also be included as there is no substitution for EAD LA that requires either and both interconnection and accommodation. Therefore, in addition to the proposed remedies, BT should also be required to provide interconnection and accommodation in the CLA.

Should the CLA be de-regulated as proposed, the requirement should be made to ensure continuity of service if a CP is using any BT products that require Accommodation and Interconnection (i.e. 7 year EADLA) to support those products.

Section 13: Remedies – Quality of Service

Question 13.1: Do you agree with our assessment of Openreach's Ethernet provisioning process, how it has been working in practice, the root causes of performance deterioration and process developments? Does our assessment reflect your experiences and understanding of Openreach's wholesale Ethernet provisioning performance? If not, please explain why and provide us with any supporting evidence.

Hyperoptic generally agree with the assessment of Openreach's Ethernet provisioning process. In addition to the root causes presented we proffer the following:

- August 2011 Openreach created a National Design Team and moved the responsibility for planning and design
 from the local survey officer to a National Team. Prior to this change, EAD circuits were surveyed, designed and
 planned at a local level. The benefit of this approach was the inclusion of significant amount local knowledge on
 fibre routes, duct capacity and condition, spare fibres, potential road closures, council noticing, etc, that assisted
 circuits were delivered in a reasonable timeframe. The move to a National Planning removed local knowledge and
 in the absence of accurate records, was part of the catalyst for poor performance.
- Openreach diverted significant fibre planning resources onto Superfast Broadband and BDUK. This created a shortage in resources that could not keep pace with demand.
- Regarding resource levels, there is complete agreement that clearly there are insufficient job controllers to move orders through the most expedient path and communicate to CPs progress and issues. Hyperoptic has now employed a new internal 'fibre team' whose sole responsibility is to follow up every circuit based upon the next steps previously communicated.
 - Example: our notes say that external works were to be completed on date x. our team then call on x+1 to confirm completion (which is often not forthcoming requiring another follow up), and then to insist on the scheduling of fit & test. Through this additional layer we are taking days if not weeks off of the delivery timescales.
 - In addition, when there is a failure of provision due to say a blocked duct, the orders seem to go to the 'end of the planning queue' rather than prioritised as a circuit already missing its CDD.

Question 13.2: Do you agree with our provisional conclusions on Openreach's performance? If not, please explain why, and provide us with any further supporting evidence.

Hyperoptic generally agree with the provisional conclusions on Openreach's performance, but offer one additional comment:

While the data indicates that orders that also have Project Services do not have better lead times than those without, they do have a better customer experience. Our brand is tarnished every time there is an unforeseen delay that is not accompanied both by adequate information on any provisioning issue along with a next step on resolution. Therefore the element of adequate and meaningful information updates need to be considered as an element of performance.

In addition, the focus on mean time to provide is primary, which is understandable, but the full performance picture must also consider the average time to repair and the 'lag' between attempts at completing provision. (i.e. if a circuit returns to planning it should have a lower SLA than a new circuit for time in planning).

Question 13.3: Have we accurately captured the reported impact of poor performance? If not, please explain why and provide us with any further supporting evidence.

Hyperoptic confirm that Openreach's poor performance has both direct costs and indirect costs:

- Direct costs
 - More than doubling our fibre team from 2 to 5
 - Cancellation of customer orders in buildings where provide is delayed, but more importantly, where last minute delays where previously positive information has been forthcoming have encouraged communications to customers that service is due shortly.
 - Loss of revenue from the delay in provide
 - o Increased cost of capital given delay in receiving revenues
- Indirect costs
 - Loss of the permission (Wayleave) to provide services in a building where the stakeholder has had a negative interaction with Hyperoptic with respect to delayed provision.
 - Reputational damage due to lack of updates and reasonable provision expectations.

Question 13.4: Do you agree with our assessment of Openreach's incentives to deliver acceptable Ethernet provisioning quality of service? If not, please explain why and provide us with any further supporting evidence.

Hyperoptic agree that there are inadequate incentives for Openreach to delivery acceptable levels of quality and customer service for Ethernet Provisioning.

We also note with concern 13.100 that demonstrates an intent by BT to deceive both OfCom and customers with manipulated data. Any remedies imposed must allow full access to provisioning data to OfCom and appropriately reported statistics to industry.

Question 13.5: Do you agree that it is appropriate to exclude customer caused delays from the minimum standard performance measures for provision activities? If not, please explain why.

Hyperoptic agree that it is appropriate to exclude customer caused delays from the minimum standard performance measures.

However there are circumstances where Openreach have a responsibility to ensure that the likelihood of customer delays are minimised. In particular:

Deemed Concent Code	BT's Responsibility to Mitigate
DC7A	BT should be clear on the timing of the requirement for site readiness
DC7C	BT need sufficient warning on requirement for access
DC7D, DC7N	Proof of 'agreement' needs to be able to be provided
DC70	This should not be included in the Customer Code Group unless the driving circuit
	also belongs to the same CP
DC7S	BT should work with the CP to mitigate paperwork overload to the end customer.
	Hyperoptic had an example where BT was asking an end customer to sign a PTW.
	When presented with the already signed Wayleave (with Hyperoptic), BT agreed
	that the existing paperwork was sufficient to cover the addition work).

Question 13.6: Do you agree that it is appropriate to include the "non-customer" delays (also including Third Party delay in Openreach data) in the minimum standard performance measures for provision activities? If not, please explain why.

Hyperoptic agree that it is appropriate to include the "non-customer" delays including Third Party delay in the minimum standard performance measure for provision activities.

Question 13.7: Do you agree that it is appropriate to include delays due to events covered by MBORC declarations in the minimum standard performance measures for provision and repair activities? If not, please explain why.

Hyperoptic agree that it is appropriate to include delays due to events covered by MBORC declarations in the minimum standard performance measure for provision activities.

Question 13.8: Do you agree that it is appropriate to apply the minimum standards nationally? If not, please explain why.

Hyperoptic agree that it is appropriate to apply the minimum standards nationally.

Hyperoptic would welcome proactive application of minimum or better than minimum standards to be applied in the top 100 exchange areas prior to any application of the full national regime.

Question 13.9: Do you agree with our proposals regarding the application of minimum standards over the three year period of this review? If not, please set out your reasons and alternative proposals.

Hyperoptic agree that provision to an agreed date is a higher priority in the current circumstances over improving the mean time to provide and are therefore in general agreement to the application of minimum standards over the three-year period.

However, it is perfectly reasonable that BT make a considerable priority of closing out their oldest circuits in a more focused way, therefore that Hyperoptic propose that in addition to the commitment to CDD in Year 1, there is also a regulatory to reduce the backlog of circuits that are x% over the 2014 MTTP.

In addition, to ensure that the timeframes and Years of the review period are relevant, any measures for TTP and commitment to delivery date within a Year should consider all circuits delivered OR ordered that Year, not just those that are ordered and delivered within that year.

- if a circuit is order today (July 2015) but it is only delivered in April 2016 its 'statistics' should also be included in any tracking and reporting for Year 1 of the review. This will ensure that current circuits are prioritised over those ordered from April 2016 onwards and do not fall into a black hole of delivery.
- If a circuit is ordered April 2016 with a CDD within the Year, but it is not delivered in the Year than it should still attribute to the appropriate KPIs.
- It should be considered that a circuit might contribute to the commitment to CDD KPI in the Year of their CDD and to contribute to the TTP KPI in the Year that the circuit is delivered.
- However, OfCom should consider if there is a factor that will be applied to include an assessment of TTP of in process orders to ensure that BT do not manipulate delivery dates to be included or not in a Year's KPI measurements.

Question 13.10: Do you agree that it is appropriate to use a combination of initial CDD and TTP as the basis around which to set the new delivery date certainty minimum standards? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative including reasoning.

Hyperoptic agree that it is appropriate to use a combination of initial CDD and TTP as the basis to set minimum standards.

Question 13.11: Do you agree that it is appropriate to set the metrics for the delivery time certainty minimum standard to the initial value of 80% and final value of 90%? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.

Hyperoptic agrees that it is appropriate to set the metrics for the delivery time certainly minimum standard to the initial value of 80% and a final value of 90%.

Question 13.12: Do you agree that it is appropriate to apply limits to mean TTP and upper (97%) and lower (40%) percentiles as the basis for the lead time minimum standard? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.

Hyperoptic is in agreement that mean TTP, upper and lower percentiles are a good starting basis for the lead time minimum standard. However there are two concerns:

- by using only mean, upper, and lower percentiles there is little incentive to make progress against category 2 circuits (as they are categorised today), and as they make up nearly 50% of the orders should be more of a focus.
- In addition, the number of category 1 circuits will likely increase over time as circuits become reprovides as CPs switch business customers.

Therefore Hyperoptic propose one additional measure to ensure that the next set of orders are also considered and measured in a meaningful way. And one change to the Initial and final metrics.

- According to table 13.13, 19% of orders are delivered with an 83 day lead time or greater. There should be a specific parameter to decrease this percentage by identifying a second percentile that would establish this improvement factor. A parameter for the next x% of circuits to be delivered within 80 days. The value of x, we would expect to be 80%, but would leave to Ofcom to use the same methodology and data to choose what the appropriate percentage should be. This would ensure that the next set of circuits is properly progressed.
- It should be considered whether the 40% for the limit for the lower parameter should increase between Year 1 and Year 2 or at least between Year 2 and Year 3 to say 43% to take into consideration that it would be expected that Category 1 circuits would increase over time.

Question 13.13: Do you agree that it is appropriate to set the upper percentile initial and final values to 159 and 118 working days and the lower percentile initial and final values to 30 and 29 working days for the lead time minimum standard to the values? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.

Hyperoptic are satisfied with the working days targets proposed but would like to see an additional percentile group identified to specifically improve performance of the bulk of – effectively a target for the next 40%. Hyperoptic propose that Ofcom set the appropriate percentile but are hopeful that it is no more than 80% which would then set the targets as:

Parameter	Percentile percentage	Initial metric	Final metric
Lower percentile	40%	30 wd	29 wd
Middle percentile	80%	83 wd	75 wd
Upper percentile	97%	159 wd	118 wd
Mean TTP		46 wd	40wd

Blue text indicates to be set by Ofcom

This extended model will ensure not only that what are now considered Category 1 circuits are expedited but that Category 2-4 are also improved as can be considered reasonable performance.

Question 13.14: Do you agree that it is appropriate to set the repair time minimum standard to 94%? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.

Hyperoptic agree that it is appropriate to set the repair time minimum standard to 94%.

Question 13.15: Do you agree with our proposal to set a new SMP services condition which provides for Ofcom to direct BT to comply with all such quality of service requirements in relation to network access provided by BT pursuant to our proposed general and specific network access requirements? If not, please explain why.

Hyperoptic agrees with the Ofcom Proposal to set a new SMP services condition that provides for Ofcom to direct BT to comply with all such quality of service requirements in relation to network access provided by BT.

Question 13.16: Do you agree that it is appropriate to assess compliance with the proposed minimum standards on an annual basis? If not, please explain why.

Hyperoptic are concerned that an annual basis is too infrequent to have a satisfactory impact on delivery behaviours. Our recommendation is to have interim quarterly measures.

Question 13.17: Do you agree with our proposals to direct BT to comply with minimum performance standards for setting initial contractual delivery dates, delivery against initial contractual delivery dates, fault repair performance and overall mean time to provide? If not, please explain why, and set out your proposed alternative.

Hyperoptic agree with the overall proposals and have offered suggestions to tighten up controls on circuits above the lower percentile. In addition, we propose that Ofcom enforce order progress communications standards in a form (content, timeliness) to be agreed by industry.

Question 13.18: Do you agree with our proposals to direct BT to provide the KPIs we have specified? If not, please explain why, and set out your proposed alternative.

Hyperoptic agree with the proposals to direct BT to provide any KPIs that get specified as a result of the BCMR process. We refer to 13.13 in which Hyperoptic propose additional KPIs to those in the Consultation document.

Question 13.19: Do you agree with our proposals to maintain the existing SLG Direction? If not, please explain why, and set out your proposed alternative. Hyperoptic agree with Ofcoms proposals to maintain the existing SLG Direction.

Question 13.20: Do you agree with our proposals regarding the conduct of, and principles and criteria to be applied from now on, to contractual negotiations concerning SLAs/SLGs for the provision of Ethernet services? If not, please explain why, and set out your proposed alternative.

Hyperoptic agree with the proposals regarding the conduct of and principles and criteria to be applied.

Section 14: Remedies for the Hull area

Hyperoptic does not provide nor intent to provide services in the Hull area and will therefore not respond to this section.