Open Communications
BT Consultation Response

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Non-confidential version

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Contents

1. Executive Summary

We support informing customers to make better purchase decisions and Open Communications can achieve that by including the metrics that matter to customers

1.1. In return for consent to use their data, consumers will expect a step change in engagement, delivering a superior, personalised and bespoke outcome.

1.2. To reach the outcome consumers expect, and to facilitate a truly "smart" solution, the metrics provided through Open Communications must be wide ranging, in-depth and be based on an understanding of the drivers of good purchase decisions. A MaxDiff analysis on Open Communications shows that metrics giving consumers insight into service features and performance, customer service and value add products would be required, as well as existing price, speed and coverage metrics.

1.3. Combined bundled pay-TV services and solus pay-TV services make up a 51% value share of the communications market and, for 30% of consumers, pay-TV is the product that they place the most importance on within a bundle. It is essential, to enable customers to determine value for money, for Open Communications to include a wide range of TV metrics, including customer usage metrics.

1.4. It is highly likely that Communications Providers (CPs) will differ significantly in the data they hold on their customers and their IT systems and databases. Therefore, in order to ensure Open Communications is achievable, proportionate and comparable across providers, it is essential that metrics for inclusion in Open Communications are agreed at an industry level. This also applies to the data standardisation process.

We strongly support Open Communications, but it introduces new risks, comprehensive rules and a new regulatory framework must be in place to mitigate these

1.5. If things go wrong, especially when sensitive personal data is involved, there is a significant risk to both the consumer and the organisation's reputation. Additionally, customers expectation of an effective personalised recommendation creates a risk that customers will fail to scrutinise recommendations that may lead to poor outcomes. If some parties in the Open Communications ecosystem fall under Ofcom's remit, and others don't, this inconsistency risks bad outcomes for consumers without redress.

1.6. To minimise these risks:

- Rigorous rules and controls must be in place around data sharing and usage;
- Standards must be laid out concerning consumer recommendations to ensure Open Communications achieves and increases their personalisation and specificity; and
- Third Party Providers (TPPs) must be subject to regulation by Ofcom through the introduction of new powers, that we believe will require government legislation;

1.7. Given the perception CPs hold final responsibility for consumer outcomes, and the reputational risks to industry that Open Communications poses, it is essential that it is implemented in a way that allows CPs to maintain the customer relationship.

Therefore, we support Ofcom's view that third party switching should not be considered.

1.8. Consumer trust in Open Communications will be driven by a clear, usable and transparent consent framework. It is essential that consent is gained in an uncomplicated and transparent way, with consumer understanding of the data they are sharing, and how it will be used.

The costs to industry of Open Communications will be significant, but are mitigatable with forward planning

1.9. Industry costs can be minimised, without compromising the quality of Open Communications, by:

- Ofcom setting clear requirements to ensure accuracy and efficiency of delivery;
- Allowing a sufficient length of time between setting out requirements and launching Open Communications, which will give industry and TPPs time to build these into their ongoing programme of work;
- A single, rather than iterative, delivery; and
- Excluding SMEs from the Open Communications initiative. Due to the fragmented nature of the market and complexity of SMEs communications needs we do not believe SME inclusion would address the challenges SMEs face in engaging with the market.

1.10. The cost of Open Communications to BT is likely to fall between £40m and £100m. The exact cost will be driven by the planning, lead-time and design of the initiative. Given the size of the investment required it is imperative that steps to reduce the cost burden on industry are prioritised.

2.Introduction

2.1. BT welcomes Ofcom's consultation on 'Open Communications: Enabling people to share data with innovative services' ('the Consultation') published on 4 August 2020.

2.2. Our response follows the layout of the Consultation, with the following additional files:

- Cover sheet – Provided as a word document with the filename "BT_Open_Communications_Consultation_Response_Cover_Sheet.docx"
- Annex 1 – Populus Consumer research – Provided as a PowerPoint file, alongside this document, with the filename "BT_Open_Communications_Consultation_Response_Annex1.pptx"

3. Challenges of navigating the communications market

Question 1

Do you agree with our assessment of the challenges that people and SMEs face when engaging with the market, which Open Communications might help to address? Please explain and provide evidence.

Question 2

Is there additional evidence of problems that people and SMEs face when engaging with the market that you would expect Open Communications to help address? Please explain and provide evidence.

BT agrees with Ofcom's assessment of the challenges people may face when engaging with the communications market

3.1. We recognise some of the issues that Ofcom identifies in the Consultation. However, there is also a broader set of considerations that should inform Ofcom's thinking as it defines the scope and parameters for a meaningful regulatory intervention. These are outlined in paragraph 3.4.

3.2. We believe that with an expanded scope to Open Communications will serve to address the challenges that both Ofcom and BT have identified and will drive improvements for consumers navigating the communications market.

3.3. However, we do not believe Ofcom has provided sufficient evidence to reach a conclusion on difficulties SMEs may or may not face when engaging with the market and so are sceptical whether Open Communications will address any challenges that exist in the SME communications market. We cover this in more detail in paragraphs 4.19 to 4.29.

Challenges that were not identified in the Consultation

3.4. We believe there are several other factors Ofcom did not mention in the Consultation that serve to increase the challenge for consumers engaging with the telecommunications market:

- The current market engagement experience focuses on the price, speed and coverage of services and excludes other important factors relevant when making telecoms purchasing decisions, such as: customer service, quality of service, reliability and inclusion of value-add services[1];
- There is currently a lack of transparency and consumer understanding of the composition of Pay-TV packages/bundles and their associated usage, leading to poor outcomes for consumers; and
- Additional or value-add services that CPs include in their package offerings (such as security products, child protection, device insurance or installation services) are complex

[1] This is evidenced by Populus consumer research laid out in paragraphs 3.15 to 3.27

and currently it is difficult for consumers to assess how these contribute to the value of their overall package

3.5. Customers engage with the communications market through a variety of means, including in stores and over the phone. For mobile packages 37% of new customers and re-contractors made the purchase in store, 34% online and 24% over the phone. For broadband 10% were in store, 59% online and 29% over the phone, and for TV the proportions were 12%, 54% and 32% respectively[2]. We support Ofcom's position that consideration of how Open Communications may address challenges consumers face when engaging with the market through avenues other than online is required.

Open Communications must capture the complete picture

3.6. For the Open Communications initiative to both address the challenges that Ofcom lays out in the Consultation, and ensure the investment from industry is exceeded by the consumer benefit, it needs to capture:

- the nuanced way in which consumers currently use all of their telecoms services (including TV usage); and
- the complete range of contributors to customers purchasing decisions allowing for a better assessment of value for money. This would include metrics that capture the elements of communications services that customers value, such as ancillary benefits/value-add services, customer service and reliability

3.7. In paragraphs 3.15 to 3.27 we provide supporting evidence that consumers see the above areas as key when making communications purchasing decisions.

3.8. Currently the telecoms shopping, particularly the third-party comparison experience focuses on speed, price and coverage. Customers will naturally expect that by sharing their data this analysis will become more personalised, which will include taking account of their individual preferences. Also, over time these factors are likely to become even less important points of differentiation for consumers due to market and infrastructure developments such as:

- network consolidation;
- the shared rural network; and
- unlimited data allowances

3.9. With this likely shift in mind, it is even more important for consumers to be able to consider the packages offered to them holistically in order to maximise the benefit and outcomes for them.

3.10. For Open Communications to meet the two requirements set out in paragraph 3.6 above, Ofcom's initial view of the customer and product data must be expanded to capture the nuances of communications service usage and purchasing, especially in the pay-TV area.

3.11. We expect implementation of Open Communications will cost BT up to £100m. To contextualise this expenditure, this is the cost equivalent of rolling out FTTP to ~130,000 - ~154,000 premises[3]. Much of that cost is attributable to changes and improvements that will be needed to our data/consent systems and projects to improve data accuracy and integrity. We cover these costs further in Section 6. Widening the scope

[2] Gfk – Tech 360, Q1 2020/2021
[3] Based on the provision and build costs laid out in Ofcom's Area 3 consultation, https://www.ofcom.org.uk/__data/assets/pdf_file/0030/199155/consultation-bt-commitment-area-3-fibre-network.pdf

of included metrics is unlikely to add significant additional cost (when considered against the total). We believe that to justify this significant outlay, Open Communications must drive a wholesale shift in the market engagement experience. Additionally, costs must be minimised as far as possible through good planning, clear expectations and requirements and realistic timelines. We give more details on costs in Section 6.

3.12. If, after implementation, customer purchasing decisions on communications services continue to be made based on incomplete information, it will result in poor consumer outcomes. Thus, the expenditure and resource required of CPs and TPPs to implement Open Communications will exceed the consumer benefit.

BT believes a full featured launch of Open Communications is essential

3.13. For the consumer benefit of Open Communications to be realised, all metrics to be included in Open Communications must be available from launch. These metrics may evolve over time, but the objective must be to launch a complete proposition.

3.14. The alternative launch model of an iterative approach should not be taken, as it would:

a) reduce the consumer benefit. The wide range of metrics that consumers require to fulfil their needs and reduce the challenges of navigating the communications market would not be available;
b) in some cases, lead to inefficient consumer purchasing decisions driven by a lack of information that consumers would want to consider before contracting to a new service. For example, if quality of service, customer service or value-add offerings were not captured; and
c) increase costs to both CPs and third-party data users as it would lead to multiple phases of systems and database changes to be carried out, eliminating efficiencies and increasing resource requirements; and

Any Open Communications initiative needs to shift the current market engagement experience to account for the widely differing preferences and needs of consumers

Price, speed and coverage are not the only factors which influence consumers' purchasing decisions, as evidenced by Populus consumer research

3.15. Consumer research carried out by Populus for BT, found that whilst price and speed/coverage are key drivers of residential consumers' telecoms purchasing decisions, there are a wide range of other factors that have a significant and meaningful impact. These include network quality, customer service and extra benefits that come with the service. Data on these factors is not currently easily assessible or visible when customers are engaging with the market through TPPs.

3.16. Figure 1 shows the drivers of customers' purchasing decisions of broadband, broadband and TV, and mobile services. The drivers are ranked based upon a Maximum Difference Scaling (MaxDiff)[4]. Any score over 100 means that criterion is, on

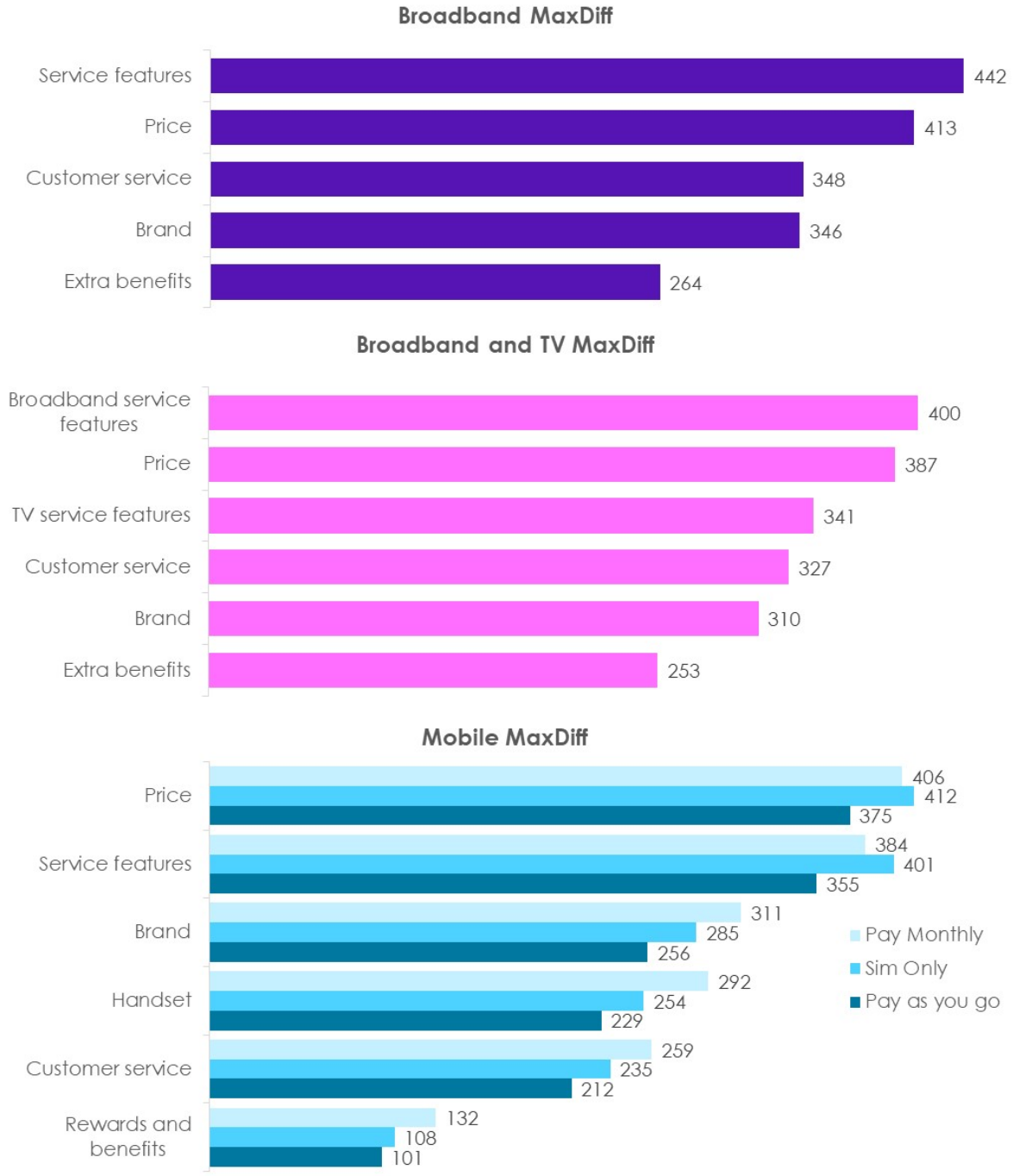
[4] The MaxDiff methodology asks survey respondents to repeatedly choose the most important purchasing criteria to them, out of a choice of two, with alternative choices provided each time. The scores follow a

average, of material impact to a customers' purchasing decision. Any score under 100 is, on average, not of material impact, although for some customers it may still be a purchasing driver.

3.17. The detailed breakdowns of the criteria making up each of the categories (Service features, price, customer services etc) along with their MaxDiff scores is available in Annex 1.

proportionate scale, so if one score is double that of another, then the criteria with the highest score is twice as important to consumers making a purchasing decision than that with the lower score.

Figure 1: Criteria that drive customers' purchasing decisions of broadband, broadband and TV and mobile services, by max difference scaling



Populus consumer research, May 2020, Q. Which aspect is most important and which is least important to you when choosing a new broadband/broadband and TV/mobile service? Base: BB consumers (1523), BB + TV consumers (1511), Mobile consumers (1503)

3.18. As can be seen in Figure 1, whilst the price and service features (including speed and coverage) categories are highly ranked in each MaxDiff, other categories of criteria such as customer service, brand and extra benefits also have high scores, especially given the proportionate nature of the scoring. For example, in the Broadband MaxDiff

we can see that customer service metrics are almost 85% as important as the price metrics.

3.19. Open Communications provides an opportunity to make a step change in the current market engagement experience and serve the complete informational needs of consumers making purchasing decisions by including the data that will allow the MaxDiff categories in Figure 1to factor into the purchasing experience (such as customers' personal usage and preference data).

3.20. If Open Communications does not provide detailed usage across all three key services (Fixed broadband, mobile and TV) it will fail to meet the consumer need (laid out in Figure 1) and address the challenges faced by those engaging with the communications market.

3.21. Additionally, the proportionality of a measure is driven by the extent of change. If the market engagement experience does not see material change across consumer engagement with the fixed, mobile and TV markets then it is unlikely it will be proportionate.

BT would expect Open Communications to address the challenges Consumers face when engaging with the Pay-TV market

A significant proportion of consumers base their communications purchasing decisions on the TV offerings available from CPs

3.22. Consumers currently struggle to access information about their pay-TV usage in order to make well informed purchase decisions.

3.23. Just over half (51%) of the value share of the communications market is made up of bundles including pay-TV and solus pay-TV packages[5]. Thus, it is essential that a wide range of pay-TV metrics are captured in Open Communications in a meaningful way.

3.24. Additionally, for 30% of consumers[6], TV is the main driver of their communications purchasing decisions. This proportion differs by provider.

3.25. For these consumers to engage with an Open Communications platform, TV data and metrics must be included in a meaningful way. This would include package information, usage data and historic contract information.

3.26. Additionally, if pay-TV metrics were not included in Open Communications in a meaningful way, there would be the possibility of CPs using bundled pay-TV services to distort the data supplied purposefully or otherwise.

A lack of TV metrics in Open Communications will lead to a competitive advantage for some CPs

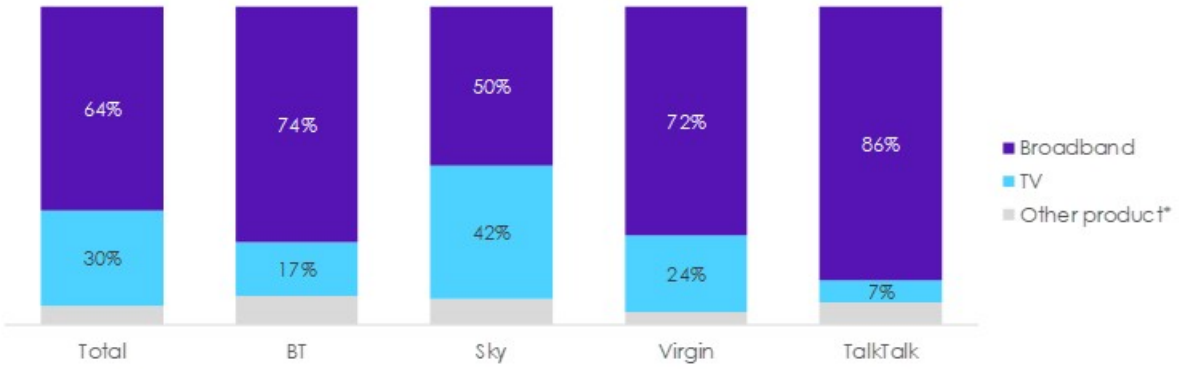
3.27. The importance of TV in purchasing decisions, differs widely between provider (as seen in Figure 2, those rating TV as most important ranges from 42% of Sky customers to 7% of TalkTalk customers). Therefore, any Open Communications solution that does

[5] Gfk, Tech 360, Q1 2020/2021

[6] Consumer research carried out for BT by independent research company Populus showed that, overall, 30% of respondents who purchased broadband and TV from the same CP ranked TV as their most important product.

not include in-depth TV metrics would lead to some CPs gaining a competitive advantage over others and disincentivise a significant proportion of consumers from moving provider.

Figure 2: Proportion of customers that see TV as their most important product, by current provider



*Populus consumer research, May 2020, Q. How important is each product in your bundle? Base: Consumers who have Broadband and TV with the same provider (1386), BT (180), Sky (609), Virgin (481), TalkTalk (102) *Mobile or landline*

4. The potential benefits & use cases of Open Communications

Question 3

Do you agree with our views of the benefits for people and businesses that Open Communications could generate?

Question 4

Do you agree with our assessment of how Open Communications could enable services that benefit people in vulnerable circumstances? Are there other ways it could benefit people in vulnerable circumstances?

Question 5

Are there any risks we have not identified that could reduce the overall benefits of Open Communications? Please provide evidence, where possible.

We agree with the potential benefits that could be facilitated by wide ranging consumer and product information being used to better inform consumers

4.1. Ofcom's view on the potential benefits of Open Communications aligns with BT's and can be achieved by widening the scope of proposed metrics for inclusion in the initiative.

Managing spending requires an understanding of over/underutilised services

4.2. For meaningful comparisons to be made (as shown in Use Case 1 on page 25 of the Consultation) the packages offered must fulfil the needs of the consumer who is switching. This will require usage data across all sectors, to identify the specific consumer needs and to ensure the packages offered to a consumer will provide the right allowances, technical capabilities and TV channels to them. The usage data must also be nuanced and in-depth enough to account for the peaks and troughs of usage, instead of looking at high level figures that will not capture the whole story.

4.3. Solutions that allow consumers, especially those who are vulnerable, to track and manage their spending are one of the main use cases that Ofcom has identified. To enable these solutions to work well, the metrics provided as part of Open Communications must allow for a TPP to gain insight on the entirety of a consumer's communications services, and where they see over/underutilisation in usage compared to their current allowances.

4.4. This is especially true for Pay-TV where there is significant complexity in package offerings and customers currently are unable to tell whether they are making use of

their premium channels. The inclusion of Pay-TV usage data could facilitate significant savings for some financially vulnerable consumers.

4.5. The over/underutilisation of a consumer's mobile data allowance is more nuanced than for Pay-TV as:

1) Mobile data usage significantly increases over time for the average consumer. Between January 2018 and November 2020 we saw an increase of around 70% in monthly data usage for EE customers from ~5.1GB to ~8.7GB[7]. Data usage is also heavily affected by seasonality and increases after a package upgrade.
2) If customers exceed their contracted mobile data allowance, they are likely to pay more in additional charges than they would have if they had purchased a mobile package with a data volume limit that fit their longer term needs.

4.6. Therefore, any Open Comms solution must be sophisticated enough to mitigate the risk of inadvertent consumer harm by educating customers on externalities such as device type and service preferences that can impact data consumption. Additionally, some "headroom" should be given when TPPs are recommending data allowances to mobile consumers, to mitigate the risks of consumer harm. We cover the risks of inadvertent consumer harm in the section beginning at paragraph 5.54 on page 31.

Handset choice is a key input into price comparison services, this choice should be consumer driven

4.7. In Figure 2 in the Consultation, Ofcom's illustration of a digital comparison tool using Open Communications seems to show a TPP making handset recommendations to the customer.

4.8. We would urge that the handset choice decision sits with the consumer, or that they are encouraged to indicate a preference to TPPs. Any recommendation should not be based on historic data provided through Open Communications or TPP recommendations. This is because:

- Some users may want to switch package/supplier and not the device
- Users tend to have a preference for a type of device and often search for a mobile service with a specific handset in mind and some customers have a strong preference for premium or budget handsets
- If this were not the case budget devices could be offered to consumers whose use case requires a more powerful device or one with more capabilities in order to lower the price displayed
- Network quality experience can differ significantly by device, and budget devices typically give a poorer experience than premium devices. If customers are encouraged to buy a contract with a budget handset to increase the number of sales a TPP makes it may impact consumer perception of the network providers. Given network quality of service is an important factor in consumer purchasing decisions of communications services it is important that the consumer can indicate a device preference.

[7] This is calculated monthly, looking at the average of customers' data usage over the previous three months and excluding those who changed package during that three month period.

BT agrees that the nature of, and likely restrictions on, Open Communications data minimises competition concerns

4.9. We believe that consumer benefit from Open Communications will be maximised if CPs are able to make use of data from Open Communications, due to the increased competition and innovation this will enable.

4.10. BT welcomes Ofcom's view that there are no immediate competition concerns rising from Open Communications.

4.11. If data provided through Open Communications was only allowed to be processed and used for the specific purpose that the customer had consented to, then we expect any competition concerns would be minimised.

4.12. We would suggest that there are explicit restrictions preventing TPPs from storing and analysing Open Communications data after it has been processed and used for the purpose it was collected for. It should also be prohibited to aggregate the data to gain market insights or to sell this data or insight onwards.

4.13. It should be explored whether TPPs should be asked to store details of the result of each comparison/interaction, to enable auditing to ensure the TPP is using Open Communications data as per the restrictions, and that services or packages are not being misrepresented. This would need to be done in a way that would not allow the TPP to gather market insight or collect data to be used or sold onwards, even in an aggregated form.

4.14. It would better to minimise the competition risks of Open Communications by creating restrictions on how the data can be used and retained by CPs/TPPs, instead of restrictions on the data that CPs are able to make use of. This would allow for maximum innovation, leading to consumer benefit.

4.15. In paragraphs 5.8 to 5.9 we lay out a model of data release and provision that will prevent information asymmetries in the market and prevent the distortion of competition.

TPPs should not be able to directly switch users

4.16. We agree with Ofcom's view that TPP switching would be complex for the communications sector due to the added complexities of switching CPs compared to energy and banking services.

4.17. Allowing TPPs to directly switch users would introduce a large number of data and process challenges namely:

- The fraud checks we carry out would be impacted if we were not engaging directly with the customer;
- There would be an increased risk of slamming were TPPs able to directly switch consumers;
- The TPPs would have to send CPs payment information for ongoing payments as well as security authentication information which adds complexity and risk;
- The consent landscape around Open Communications data would increase in complexity were a TPP able to directly switch customers; and
- If a TPP carries out the switching process directly then if there is a data error in the process such as old supplier data or a mapping/display error, then the consumer may sign a contract for a service that is not as described on the TPP website. This adds an element of risk for both the TPP and the CP

4.18. The challenges laid out above could result in significant adverse consequences for consumers, and as such should be avoided.

SME inclusion in Open Communications is complex, costly and will not deliver the outcomes Ofcom expects.

There is insufficient evidence to include SMEs in the Open Communications initiative.

4.19. The Consultation fails to fully consider:

4.A.19 That SMEs, even small business customers, buy communication and IT/business services from CPs and their partners such as Google, Amazon and Microsoft; and

4.B.19 The wider factors that impact changing communication requirements from business customers over time. For example:

a) **Elasticity of an organisation's workforce and flexibility of its working practices**
While some businesses have a static base of employees, with traditional working practices, many do not. Increasing prevalence of home working and flexible work schedules drives diversity of connectivity requirements, with the previous service usage of one employee not necessarily reflecting the needs or demands of a future employee.

b) **Sector/industry evolution**
The connectivity requirements of a particular industry will evolve, driving different requirements that may not be represented within Ofcom's connectivity complexity scale (table 2 of the Consultation). For example, we may anticipate increased demand in the future for edge computing in sectors such as manufacturing to support leaner and nimbler business models, whereas today those requirements may be limited to a broadband connection with service level agreements.

c) **Business lifecycles**
The demands of an organisation at the development phase of their business will be far simpler than those at the growth or expansion/diversification stages.

4.20. These are important to note and help illustrate that, unlike consumers, SMEs do not have homogenous or static connectivity requirements that Ofcom currently envisages.

4.21. Additionally, the research Ofcom has provided evidencing the challenges SMEs may face when engaging with the communications market is limited in scope and wholly qualitative in nature.

The sophistication of business customers will drive significant cost and complexity for an Open Communications solution that includes all SMEs.

4.22. For a meaningful comparison, an Open Communications solution for SMEs would need to include:

- all products and services within a CPs portfolio, including communication "add-ons", IT and business services;
- extended scope of the solution to IT service providers as well as CPs;
- hardware and product compatibility/interoperability metrics that extend beyond mobile phones to card readers, alarms and security systems; and
- account for the wider factors described at paragraph 4.B.19 above.

4.23. This significantly expands the scope of an Open Communication solution, naturally leading to greater implementation costs which small CPs will be less able to bear; with the effect of only the largest CPs providing data to fuel TTP comparisons.

4.24. As the four largest fixed broadband providers only serve 62% of the SME market[8] by line volumes[9][10], imposition of the Open Communications solution as currently envisioned is not proportionate and risks highly inefficient outcomes.

We propose Ofcom limit the scope of Open Communications to the smallest businesses until the effectiveness of new regulatory interventions are tested.

4.25. SMEs requiring a single broadband line and/or mobile plan without additional IT or business services have connectivity demands that are more like a consumer residential customer. Businesses with no employees make up 76% of all private sector UK businesses (Office for National Statistics 2019).

4.26. In light of the above, it would be more proportionate to limit the scope of Open Communications to these smallest businesses only as the similarity of the solution design requirements will drive cost implementation efficiencies whilst still benefitting a significant proportion of the SME market.

4.27. Further, given Ofcom's qualitative research (carried out by Jigsaw) suggests that main barriers to market engagement for SMEs include difficulties switching (along with the associated customer concerns regarding loss of service impacting business continuity)and the contractual terms/tariff structures, we suggest Ofcom does not consider a broader Open Communications solution until UK CPs are compliant with the European Electronic Communications Code which will:

- implement a new broadband switching mechanic;
- require small business customers to opt out of business plans lasting longer than 24 months;
- Impose tighter regulation of non-coterminous contracts;
- enhance Annual Best Tariff requirements; and
- improve pre-contract information to ensure customers can better compare offers from across the market.

4.28. Only once the effectiveness of these interventions are understood, is it efficient to consider a more costly intervention to improve engagement at the larger and/or more complex end of the SME customer segment.

4.29. The remainder of our response does not separate out the residential and SME market, and instead applies to residential services taken by both residential consumers and smallest business customers, as we believe that the design requirements and overarching principles across both markets would be closely aligned.

[8] Based on Market insight provided by IDC, Aug 2020 and the BT usage and attitudes tracker
[9] In contrast with residential consumers where 87% of the connections are provided by the largest four providers (https://www.ofcom.org.uk/research-and-data/multi-sector-research/cmr/cmr-2020/interactive, Fixed broadband connections by ISP (%), page 13 of 17)
[10] For other SME products such as IPV hosted voice services this proportion is even lower (33%), (Estimated shares based on Cavell market tracker - proportion of total market share applied to the SME segment)

The inclusion of customers' specific needs in an Open Communications solution could result in significant consumer benefit

4.30. Independent consumer research carried out by Populus on behalf of BT showed that 74% of those with additional needs due to a disability would be willing for information about these needs to be shared with their new service provider when switching services to ensure continued support[11]. This figure was 69% for financially vulnerable, and 66% for online vulnerable consumers. We would support sharing of additional requirements being a feature of Open Communications, with the proviso that a consumer must specifically consent to this being shared.

4.31. Some customers will not wish data on their vulnerability status to be shared as part of Open Communications, neither that they are vulnerable, nor what support they currently have in place. To avoid revealing a customer's vulnerability status if they do not consent to this, care must be taken around how/whether certain products included as part of a communications offering are included in the data communicated to TPPs as part of Open Communications. For example, if the data captured the fact that a customer has provision for a medical alarm pendant this would, by default, reveal information about the customer that they may not want, or consent, to be shared.

4.32. Additionally, BT provides services to VIP and sensitive customers. Sensitive customers in this case are non-VIPs who are either at risk (e.g. under police protection) or are subject to public interest (such as someone named in relation to a news story). We would encourage that there are controls in place to restrict the sharing of data of customers who meet these definitions in Open Communications due to the risks inherent in their inclusion in Open Communications and the sensitivity of personal data relating to these people.

[11] Q. When customers have received extra help from a service provider, the details of this extra help may be stored to ensure continued support in the future. If you were to move service provider, would you want details of any extra help you may have received to be automatically shared with your new service provider? Base: UK consumers with a disability (1103), financial vulnerability (1122), online vulnerability (777)

5. Core principles for the design of Open Communications

Question 6

Do you agree with the core principles that we have identified for the design of Open Communications?

We support the core principles laid out in the Consultation and believe they can be achieved with an expanded scope

5.1. BT agrees with the high-level core principles laid out in the Consultation to guide the design of Open Communications subject to the comments laid out below in Table 1:

Table 1: Comments on proposed principles

	Principle	BT comments
1	Data should be open to all eligible third-party services	We agree with this principle, with the exceptions of: Cases where following Principle 1 would violate Principle 6. We cover this in more detail in paragraphs 5.3 to 5.5 There must be controls and principles in place for how Open Communications data can and should be used, and TPPs must only be eligible to use Open Communications if they meet these requirements. Which TPPs have access to a customer's Open Communications data should be under the direct control of the customer
2	Data should reflect what people need to navigate the market effectively	We support the objective of this principle, and believe it can be achieved with the inclusion of additional metrics on Pay-TV usage and services over and above Ofcom's current proposed metrics
3	Security should be at the forefront of the design	We fully support this principle We would suggest that TPPs are beholden to minimum security standards, and are audited as part of their eligibility check. They could potentially be given a security score which must be displayed prominently. If it were possible to gain a security score that showed the TPP were exceeding the minimum security standards it could result in those TPPs with high scores being differentiated from those who meet the bare minimum requirements.
4	Users should be in control of the data they share	We fully support this principle. However, we would need to understand more about how these controls will be implemented. There should be response times set out in the Open Communications standards for parties to erase the data and there should be no onward sharing or selling of Open Communications data by TPPs, even in aggregate.
5	Open Communications services should follow inclusive design principles and should be accessible to all users	We fully support this principle, but believe more information is required on how Ofcom will drive inclusive design principles with the TPPs who will provide services making use of Open Communications data
6	Open Communications should safeguard competition	In order to meet this principle, we believe that CPs should only be able to access data provided through Open Communications if they also provide data through the Open Communications framework. We cover this in more detail in paragraphs 5.3 to 5.5.

7	The design should only impose proportionate requirements on providers	As we have laid out in paragraphs 3.6 to 3.13, BT believes that Open Communications will only be proportionate if: • It captures the nuanced way consumers use and purchase communications services; and • It captures the complete picture of service offerings of CPs; • It enhances the quality of experience and outcomes for customers, helping them make richer decisions based on what matters to them; • All metrics to be included in Open Communications are included from launch; and • It leads to material change in the market engagement experience of a wide range of consumers • TPPs handling of data will not expose CPs to additional risk/liability Given our estimate of costs for implementation of Open Communications is up to £100m, proportionality could be a significant hurdle to clear. We go into more details on costs in Section 6.

With an increased scope of Pay-TV metrics for inclusion, Principles 2 and 7 can be met

5.2. BT is of the view that expansion in the scope of Pay-TV metrics would be key to meeting principle 2, especially usage data, as our consumer research suggests that this information is essential to meet the needs of a significant proportion of consumers. Ensuring Principle 2 is met will increase the chance of Principle 7: 'The design should only impose proportionate requirements on providers', being met; if the data reflects what people need to navigate the market effectively then the resulting design is more likely to be proportionate as the consumer benefits of Open Communications will be higher.

CPs should only be able to access Open Communications data if they also provide data

5.3. In order to meet Principle 6: 'Open Communications should safeguard competition', it should be mandated that CPs who wish to make use of Open Communications Data should also be required to enable provision of the same level of data on their customers to TPPs through the initiative.

5.4. This will prevent a situation where an asymmetric view of customer data exists between providers, where those who are not mandated to provide information on their customers would have access to their competitors' customer data.

5.5. In order to prevent large barriers to entry to the Open Communications platform we would strongly recommend a symmetrical data release and provision model. This would mean that CPs would only be able to make use of those metrics that they also provided through Open Communications. Smaller CPs who were unable to make available the whole range of metrics that larger CPs will provide would still have access to Open Communications data, but only the metrics for which they were also a provider.

5.6. Even if a smaller CP was unable to make any data available to TPPs through Open Communications, they could continue to supply their product data to TPPs outside of the Open Communications framework as in the current market model, and so would not be excluded from comparisons.

Question 7

On what kinds of communications providers do you consider that any obligation to provide customer and product data should sit?

In principle we support data mobility obligations on larger CPs

But the proportionality test must be met

5.7. If the proportionality test of Open Communications is met, then BT would support data mobility obligations on larger CPs to ensure an even playing field, and to maximise the number of people and businesses that can share data about their services. As we lay out in paragraph 3.12, the proportionality of the Open Communications initiative depends upon its design and implementation.

A symmetrical data provision and release model would provide incentives for smaller providers' involvement in Open Communications

5.8. We believe that following a symmetrical data provision and release model (as defined in paragraph 5.5) would drive the correct incentives for smaller providers and meet Ofcom's defined objectives for determining which retail providers should be required to make data they hold mobile or shared. Namely to:

- Maximise the number of people and businesses that can share data about their services;
- Ensure that customers can get information about products and services from a wide range of providers; and
- Avoid imposing costs on providers likely to be disproportionate to the benefits of Open Communications

5.9. These objectives would be more likely to be met with this approach, as a symmetrical model would likely incentivise smaller CPs to share as many of the metrics as possible in order that they could make use of these metrics from competing providers customers. It would avoid imposing disproportionate costs on smaller providers as it would be an incentivised, as opposed to mandated, approach. This would result in more consumers being able to access comparative data through Open Communications

The proportionality of mandated inclusion should be considered from a brand perspective

5.10. When considering organisations for mandated data provision in Open Communications, inclusion should be considered at brand, not organisational level. This is because different brands that sit under the same parent company often have:

- different IT and data systems;
- distinct metrics and information on customers; and
- distinct challenges and costs in implementing Open Communications

Hence some brands may see disproportionate costs when providing data through Open Communications.

Given their market penetration and impact on consumers' purchasing decisions subscription video on demand (SVoD) providers should be included in Open Communications

5.11. As stated in Ampere Analysis's "The UK VoD market: Current status and future developments" report, produced for Ofcom, Subscription Video on Demand (SVoD) services can be both complementary and substitutive to pay-TV[12].

5.12. Around 3.5 million UK households take Freeview TV services with at least one OTT SVoD service[13]. Additionally, when focus groups were asked to build their own communications bundles the vast majority added Netflix to their package. This indicates the importance of capturing SVoD services within the Open Communications initiative.

5.13. Given the reach of SVoD services in the UK (51% of UK adults in Q2 2020[14]) either as an add-on to a traditional TV service, or as an alternative, we would suggest that these providers should be mandated to provide data in any Open Communications solution.

5.14. Without the inclusion of SVoD services, consumers will be unable to gain a full picture of their costs, habits and usage relating to communications and media consumption, hindering their ability to make informed decisions about their communications services.

Network operators and wholesale providers…

…must see their costs mitigated

5.15. Ofcom notes in paragraph 7.9 in the Consultation that "Open Communications could also require certain network operators and wholesale communications providers to make information available to retail providers, where necessary. For example, they may need to share data about the quality of experience that retail providers' customers experience".

5.16. We understand and support the objective behind this statement, but as a network operator and wholesale provider we would be opposed to incurring disproportionate costs when providing this data to retail providers.

5.17. We would be required to link data from our wholesale /network operator systems with data from numerous providers systems, likely with different technical characteristics and capabilities. Additionally, we would be required to track a retail provider's customers consistently on our network and be able to link this to a specific customer in the retail provider's systems. Both of these requirements would be hugely complex, costly and technically challenging.

5.18. Provision of Open Communications data from a network operator or wholesale provider to retail providers will incur significant costs. Especially in the case of network operators such as Openreach, it seems unlikely that Open Communications will result in any material changes in revenues or market opportunities. It should be considered

[12] https://www.ofcom.org.uk/__data/assets/pdf_file/0026/149075/ampere-analysis-current-status-future-development.pdf, page 5
[13] BT Consumer Research, 2019
[14] https://www.ofcom.org.uk/__data/assets/pdf_file/0010/200503/media-nations-2020-uk-report.pdf, page 22

how the retail operators could reimburse network operators and wholesalers for the costs of providing Open Communications data, or how this cost could be fairly split across industry.

…will see impacts affecting their obligations, including SMP obligations

5.19. Overall, Open Communications is likely to drive more activity by consumers in the retail market space. It can be reasonably expected that this will not only lead to more consumers changing providers more often but in response to this there could be changes in practices from retail CPs designed to try to retain customers.

5.20. As part of assessing the impact of Open Communications, Ofcom needs to carefully consider the resulting direct and indirect effect that this will have on Openreach which is subject to a wide-ranging set of regulatory obligations, such as Quality of Service (QoS) Standards. These QoS Standards require Openreach to meet specific levels of performance in the provision and repair of services that are purchased by CPs, and are based not only on a set of complex forecasting and resourcing models but on particular established processes in the industry. If Ofcom's policy aim is to create a change in the value chain and engagement levels in the communications market, then it is also right to take into account whether there is any impact on and/or changes required to SMP obligations.

5.21. Separately, it may be the case that as a result of changes in working practices in industry which have been driven by Open Communications that contractual arrangements between Openreach and CPs need to have specific elements reviewed and updated. Due to the SMP Conditions under which Openreach must operate, in some cases Openreach cannot make significant changes to particular processes in order to adapt to changes in behaviour from its customers without seeking the agreement of the industry first, which can often be without success. On this basis, it is not right to assume that proactive compensation payments to CPs will be unaffected; it may be the case that the basis on which Service Level Agreements and Guarantees (SLAs/SLGs) are agreed and paid might change. We would expect Ofcom to help facilitate any required updates should it be as a result of Open Communications.

Question 8

Do you agree with our initial views on how to approach key issues for the design and operation of Open Communications? Do you have comments to make on other implementation issues?

Data standardisation should be focused given the cost implications

5.22. We agree that, for some metrics, data should be made available in a standardised form. However, given the cost implications to CPs of providing data in a different form than it is held, there should be restraint shown in the proportion of metrics for which standardisation is mandated. Any standardisation should be agreed with CPs, and the costs and commercial impacts of such standardisation taken into account.

There are a variety of ways standardisation can be achieved

5.23. There are different ways of standardising data, shown in Table 2 below:

Table 2: Standardisation options

Standardisation Option	Example	BT comments
Ensuring that a metric is both captured and provided under a standard definition	Download speeds, recorded over time: Captured data - The standardised metric for CPs to capture and store could be download speed (Mbit/s) measured by the customer's router, on an hourly basis. Provided data - This data could then be provided in the format of an average speed (in Mbit/s) per hour slot over the previous month, along with a metric that showed hours during which the connection was the most active for that particular consumer	This is likely to be the most expensive method of standardisation and should only be used where full metric alignment is essential for a comparison to be meaningful. Additionally, other standardisation options may be more efficient from an implementation timescale perspective.
The data is put on a scale, by relating the raw data to pre-defined ranges	This method could be used to align data to a Red, Amber and Green scale or the like, to ensure the impact of the metric is clear to consumers. This solution could be used for metrics such as complaints data or proportion of time spent on different mobile access technologies.	This method can be used where CPs hold similar or identical data, that may be too technically complex to explain to consumers. Agreement would be required on the thresholds.
The data format provided to TPPs is defined, but there is some flexibility in the underlying definition of the data	A consumer's Pay-TV channel usage is likely to be captured under slightly different underlying definitions between CPs. However, the insight that the data is providing is likely to be similar between operators. If the format the data is provided to the TPPs in is defined and standardised then it is likely that the data will still be of use for comparison or insight purposes, even with a disparity in metric definitions.	This method of standardisation is likely to be of reduced cost in comparison to the above methods, whilst still providing an acceptable level of comparability for some metrics

5.24. Ofcom identifies product data as a key area that would require standardisation. We agree with this in principle, however more detail as to the standards that would be required is needed so that we can assess the cost and resource implications of providing the data in a mandated standardised form.

5.25. A pragmatic and flexible approach to standardisation will reduce the costs of implementation without significantly impacting on the usability or comparability of Open Communications data.

Customer consent and trust is a key enabler of Open Communications

5.26. We agree with Ofcom that providers should only be able to share Open Communications data relating to a specific customer with that customer's consent.

5.27. It should be clear to the customer exactly what data they are consenting to share and how it will be used along with any potential risks. If the customer is to be given the choice over precise metrics they are happy for their existing CP to share with TPPs, it is difficult to see how consent could be given, other than by explicit consent.

5.28. There should be controls in place to ensure a TPP is not able to pass on, or sell, customer data that they are granted access to for the purposes of Open Communications, even in an aggregated form. If controls are not implemented it will create opportunity for abuse/misuse of sensitive commercial and customer data, loss of consumer trust and incentives for bad-actors to enter the market.

5.29. We support Ofcom's comment that users should be able to control the permissions that they have granted to TPPs after their initial consent is given. We would note that if there are cases where the lawful basis for processing customer data is other than on the basis of explicit consent, there may a different approach required as to the ongoing control of data permissions.

5.30. In order to maintain customer trust in Open Communications we would encourage Ofcom to mandate that TPPs wishing to make use of Open Communications data agree to abide by legally binding requirements as to the allowed usage and security requirements of the data.

Provider-led authentication carries fewer security risks than a data trustee model

5.31. Comparing the two models of authentication that Ofcom has raised in the Consultation we believe that a process through which TPPs directly authenticate with CPs would be less complex to implement and carry fewer security risks.

5.32. A data trustee model would give a single point of failure and attack for a nefarious party to focus their efforts on and would increase the security risks to Open Communications. Additionally, this model would likely prevent the TPP "drilling out" to a providers site for authentication purposes and would require a customer to input their credentials with the TPP to be passed onto the data trustee, risking a "man in the middle" attack.

5.33. The provider-led authentication process could be standardised in terms of the process and structure, whilst still allowing flexibility from the provider's side to choose their own security standards such as enforcing a one-time PIN or other method of dynamic two factor authentication (2FA). Standardisation of the provider-led process would minimise costs of implementation for TPPs and give clarity to providers on requirements.

5.34. Switching processes have historically been a target for organised identity theft attacks on our customers. We believe that it is essential that existing levels of customer ID checks are maintained and carried out before releasing any personal customer information. This may on occasion require the data sharing process to be suspended whilst we validate the customer ID through 2FA or other means.

Given the complexity and size of the involved data sets, data issues are unavoidable

5.35. Open Communications will rely on data being merged from multiple systems, potentially across different organisations. Given the number of involved data points it should be expected that there will be a certain level of issues with data integrity and accuracy.

5.36. We would suggest that there is an explicit recognition that this is an unavoidable issue when dealing with data sets of this size, and encourage Ofcom to discuss with CPs what they would consider an "allowable" level of data points that have data integrity or accuracy issues such as "null" returns or inaccurate/out-of-date data.

5.37. It should also be expected that in a small proportion of cases there will be challenges linking a single customer across multiple databases within the same organisation, as the identifying fields are subject to the same unavoidable data issues.

Question 9

Do you agree with our view of the data that Open Communications should make available to TPPs? Is there data about accessibility needs or vulnerable circumstances that people would benefit from being able to share with TPPs?

The availability and provision of a wide range of data to TPPs is key to an effective Open Communications initiative that drives consumer benefit and competition

BT agrees with Ofcom's view on the high-level categories of data that should be included in Open Communications

5.38. The high-level categories of data, set out in the Consultation, which Ofcom believes should be made available through the Open Communications initiative aligns with BT's view.

5.39. The wider the range of metrics provided, the more potential there is for consumer benefit when these data points are used in conjunction. For example, location of retail stores provided as part of the product data set would be of limited use in isolation, but when combined with the customer data address metric it could indicate the distance to each providers' nearest retail store. This would be a useful metric for consumers to be made aware of when purchasing a service. The ease with which the product and customer data sets can be used together should be a consideration when designing the Open Communications initiative to ensure these innovative use cases can be realised.

Product data should not be provided as a bulk data file to TPPs

5.40. We would oppose product data being provided to TPPs in a bulk data file format. Given competing CPs may be acting as TPPs, there would be competition risks when compared to a request-by-request approach. Additionally we consider a bulk download of our product and pricing information would reveal data and information about our commercial strategy that we would consider commercially sensitive.

We believe there are certain key metrics that should be included within the high-level categories to ensure Open Communications meets Ofcom's stated objectives

5.41. To meet Ofcom's stated objectives, the data included in the Open Communications must be wide ranging and sufficiently detailed to enable innovation.

5.42. This must be the case across sectors, especially given the increasingly converged nature of the communications market.

5.43. Some of the metrics that consumers may find useful when comparing communications services may not be collected currently by CPs, or if collected may not be retained by CPs for a length of period as to be useful for purposes of Open Communications. However, if a clear requirement for gathering these metrics is signalled to CPs with a significant lead time it may be possible for the technical capabilities and processes needed to be put in place at minimal cost to CPs.

5.44. An example of the above (paragraph 5.43) would be user specific jitter, latency and packet loss figures. BT has the technical capability to gather these metrics but does not currently do so across all customers, due to the significant load it would put on the network. There are solutions to address the network load issue that can be investigated, and if sufficient lead time is given the cost would not necessarily be disproportionate to the benefit.

5.45. We would also suggest that a working group of CPs could be formed to discuss metric inclusion and standardisation. Any standardisation of existing metrics should be agreed with the working group prior to their inclusion in Open Communications.

5.46. The working group should take a forward look at the metrics being included in Open Communications, as due to the time that it is likely to take to implement this initiative, the required metrics may be different from those that would be chosen based on what would serve consumers at the current time. For example, 5G coverage is likely to become of increasing importance to consumers, whilst coverage of older mobile technologies will naturally become of lesser import as coverage becomes more ubiquitous due to network rollout and the shared rural network.

5.47. Data types provided in red text in Table 3 below, are those for which we have identified we may not currently have the capability to collect on a "per line" or "per customer" basis, but given sufficient notice we may be able to create the capability without incurring disproportionate costs. There may be other metrics in this table for which there would be challenges in providing the data on the scale necessary, due to challenges that have yet to be identified.

Table 3: Key metrics for the success of Open Communications

	TV	Broadband	Mobile	Overall
Customer data				
Who the customer is				- Name - Address - Vulnerability information
How they use their service	- Time spent watching, per channel - Frequency watched, per channel, - Time spent watching free channels vs paid channels - What apps the customer uses on their TV	- Number of devices connected to router - Historic data volumes - Download vs upload volumes - Value added services e.g. Virus protect, child locks, do they make use of these - The router specification (dual	- Voice minutes used - International calls usage - International roaming usage - Messages sent: SMS & MMS - Data usage: in bundle, out of bundle, ability to share your data (gifting of data)	- Historic experience with customer services, for example number of times contacted call centre during contract

	- How often the customer uses these apps - How often a customer watches TV on the go - Customer engagement with catch-up TV - How often a customer uses each TV box they pay for, to capture second box usage	band, intelligent channel shifting etc) - Times that connection is being used - Peak time usage	- The locations where the customer uses their mobile services	
Their contract and how much they are paying	- Any linked contracts, especially those that have a discounting effect	- Any linked contracts, especially those that have a discounting effect	- Any linked contracts, especially those that have a discounting effect	- Length of contract(s) and contract end data - Contract price(s) (including cost per product) - Additional charges - Discounts applied - Service level agreements - Specification of any devices provided as part of the contract (TV box, mobile handset, router, etc) - The channel through which they purchased their service (e.g. in-store, online etc)
The speed and wider performance of their current service	- Current TV box capabilities - Speed of broadband network is relevant to quality of the content that can be delivered on TV (4k requires a faster internet connection for example)	- Historic download and upload speeds - Whole home coverage - Reliability, drops in service and consistency of speeds experienced - Historic peak time speeds - Jitter - Packet loss - Latency	- Average speeds experienced - Speeds where the customer spends their most time (excluding where they live as they will likely use Wi-Fi) - Time in and out of coverage (by technology)	
Product data				
Details about the retail offerings of the provider	- Core elements of tariff and any linked contracts or additional services/offerings attached	- Core elements of tariff and any linked contracts or additional services/offerings attached (e.g. an email service provided by the CP) - Availability of a broadband only service.	- Core elements of tariff and any linked contracts or additional services/offerings attached - Network coverage	- Price of tariff - Length of contract - Availability of additional value-add services such as Home Tech Experts - Services that may be available on some networks but not others, such as visual voicemail on iOS mobile devices or

		- Additional offerings or value added services, such as access to Wi-Fi estates, antivirus protection or child content controls		run-off data (where you are given access to a free throttled data capability once you use your contracted data allowance)
Details about availability, speed and service quality commitments	- TV box capabilities	- Expected speed performance of a tariff, linked to location - Router capabilities	- Expected speed performance of a tariff, linked to location data	- Service level agreements
Details about the service quality that customers have experienced	- Proportion of missed engineer appointments - Average time it takes the provider to deliver service - Complaints data	- Proportion of missed engineer appointments - Average time it takes the provider to deliver service - Complaints data	- Average time it takes the provider to deliver service - Complaints data - Proportion of time a customer on the network typically spends on each technology (3G, 4G, 5G)	- Locations of retail stores, so customer location can be linked to store location and customer can be told distance to nearest store - UK call centres/percentage of calls answered in the UK - Average response times experienced by customers when reaching provider's customer service centre; the abandonment rates of those attempts - The brand's Net Promoter Score or NPS

Complex additional offerings and value-add services must be captured and there must be flexibility for addition or removal

5.48. The complexity of the communications market requires CPs to differentiate themselves to compete, by offering additional services that add value to the customer when they are purchasing, using or seeking support for their packages.

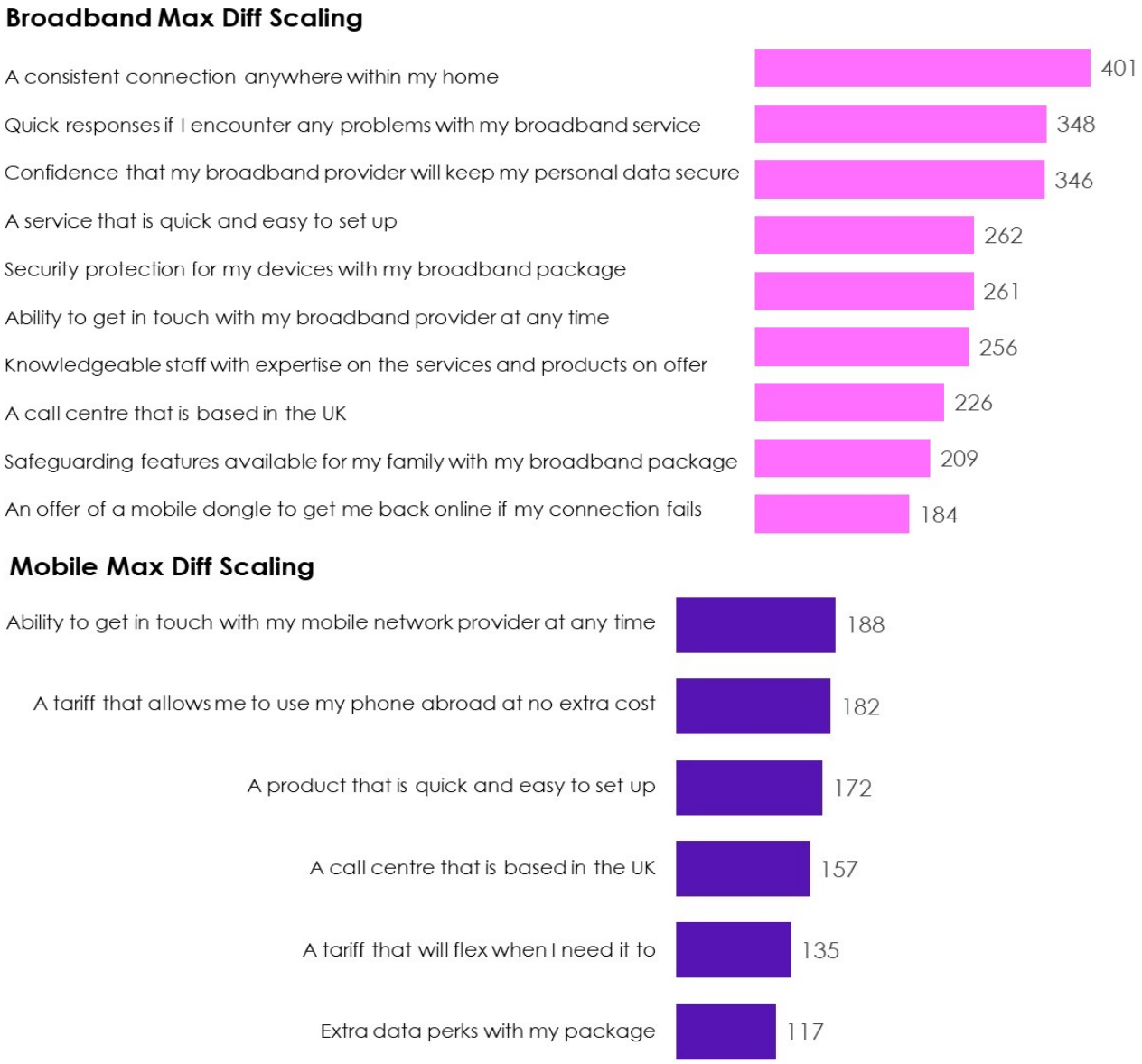
5.49. Some examples of these additional value-add services are:

- Installation/problem solving home visit services;
- An alternative method of internet provision if a customer's fixed broadband connection goes down;
- UK based call centres;
- Inclusive device insurance
- Device trade-in service
- Investment in improving the experiences of vulnerable customers; and
- The ability to share mobile data with others

5.50. These additional services enrich customers' experience of communications service, and for some customers hold significant value. Open Communications must capture the entirety of the offering CPs provide to consumers to enable a fair comparison and allow the consumer to gauge value for money.

5.51. Figure 3 below shows the MaxDiff scaling for mobile and broadband services, with categories of response that relate to value-add service offerings shown. As a reminder, a score of above 100 shows a factor that has an impact on customers purchasing decisions. For example, the statements "A service that is quick and easy to set up" and "Knowledgeable staff with expertise on the services and products on offer" would both be captured in the value-add service offering of Home Tech experts.

Figure 3: Maximum difference scores for value-add services



Populus consumer research, May 2020, Q. Which aspect is most important and which is least important to you when choosing a new mobile service? Q. Which aspect is most important and

which is least important to you when choosing a new broadband service? Base: BB consumers (1523), Base: Mobile consumers (1503)

5.52. The Open Communications platform must both:

- Allow these additional offerings to both be captured; and
- Have enough flexibility that new value add services can be captured in the future as CPs innovate and identify additional services that may benefit customers

5.53. If the requirements in paragraph 5.52 above are not met then there will be significant disincentives for CPs to offer these additional services, and providers will feel additional pressure to compete on service price alone, leading to a poor outcome for consumers.

Inadvertent harm to consumers is a significant risk of Open Communications

5.54. Consumers will assume the outcome from consenting to a TPP accessing their personal data will be fully bespoke and personal and may assume that packages that are being highlighted to them will meet all their communications needs.

5.55. Due to the complexity and interconnectedness of communications packages and the wide variety of value-add services that CPs offer, if Open Communications fails to capture the entirety of a customer's current communications offerings, unanticipated harms could arise from switching.

5.56. The above risk would be exacerbated by the level of "false trust" that consumers may have in TPPs. In cases where TPPs either are unable to identify the needs of a consumer completely (potentially due to exclusion of metrics in Open Communications), or incorrectly identify those needs, a poor recommendation may be made to the consumer. If they make a purchasing decision based on this incorrect assumption it may result in consumer harm and a loss of trust in the Open Communications initiative and wider communications market.

5.57. Some potential examples of this are:

- BT TV is only available over BT broadband. If a customer with both services were to switch their broadband away from BT, then their TV service would cease to work. Depending on the time remaining on their TV contract this may mean that a customer remains contracted to pay monthly costs, or an exit fee, for a service they can no longer use.
- A customer on an iPhone has access to visual voice mail with their current mobile network provider. They update to a new network provider who does not offer visual voicemail functionality and they lose the ability to use the visual voicemail service on their iPhone. As per Apple's support page[15] only two of the four main mobile network providers in the UK support visual voicemail services at this time.

5.58. The difference in enabled functionality between providers can be extreme, an iPhone customer on Talk Mobile would only have access to Advanced Mobile Location and FaceTime over mobile functionality whereas the same customer on EE would have access to these services[16], as well as:

- eSIM;
- Personal Hotspot;
- Visual Voicemail;

[15] https://support.apple.com/en-gb/HT204040#europe
[16] https://support.apple.com/en-gb/HT204040#europe

- VoLTE;
- Wi-Fi Calling; and
- Wi-Fi Calling on supported iCloud-connected devices

5.59. The above examples demonstrate inadvertent consumer harm that may arise from Open Communications if it is not considered how to fully capture the CP offerings in the metrics and data provided to TPPs. These examples are included to serve as illustrations, and we expect there would be many more situations in which consumers could experience loss of services/functionality or be subject to additional charges which should be captured in the Open Communications data.

5.60. Additionally, care must be taken that inadvertent consumer harm does not arise from aligning the product offerings displayed to consumers when purchasing communications packages with their historic usage data. Mobile data usage is a key example for which this would be a significant risk as the volume of data a consumer uses per month increases over time and with a new handset, as well as being highly seasonal (as set out in paragraph 4.5, on page 14)

5.61. There are significant costs resulting from a consumer exceeding their mobile data allowance, which usually far exceed the additional cost of a package with higher (and better suited) data allowances.

A process for evaluating the metrics included in Open Communications is required and there should be flexibility in the addition or removal of metrics

5.62. The pace of technological change means that communications offerings regularly evolve. One such example is the introduction of 5G services, which increases the technical capability of consumer mobile devices, will drive IoT device penetration and enable new and innovative services.

5.63. In order to capture new offerings (and reduce the costs of capturing legacy products that cease to be offered by the market), it is essential that the metrics included in Open Communications are regularly evaluated and refreshed.

5.64. There must be a process by which this evaluation is carried out, that ensures the evolution of Open Communications keeps pace with the technological pace of change while minimising the cost to TPPs and CPs.

5.65. A forward looking plan for inclusion of new metrics and removal of legacy ones will allow TPPs and CPs to plan this into any upcoming system changes and will allow for cost efficiencies.

Question 10

What are your views on the appropriate arrangements for determining liability and redress in disputes between customers, providers and / or TPPs?

We agree with Ofcom that arrangements for determining liability and offering redress are required

TPPs should fall under Ofcom's regulatory powers

5.66. As noted in the Consultation, Government is considering whether TPPs should be in scope of Ofcom's regulatory powers[17].

5.67. BT would support TPPs being in scope of Ofcom's powers, given they will be handling large amounts of sensitive customer information held by CPs. If TPPs fell within Ofcom's remit for regulatory intervention they would be able to ensure and/or determine:

- that TPPs met the requirements for access to the Open Communications initiative, through audit or other means; and
- Liability and redress when things go wrong

5.68. Additionally, as CPs already fall under Ofcom's purview and may act as TPPs in Open Communications, if Ofcom cannot apply its powers across all TPPs there will be a fundamental market imbalance between different categories of organisations acting as TPPs.

5.69. We would support the below proposals set out in the Government's Smart Data Consultation that:

- Ofcom would designate activities that are in scope of the regime and set rules for each activity. TPPs would only be required to follow the requirements that pertain to the activities they perform. This will ensure that requirements are flexible and can adapt to new business models
- If there is a clear need for sector specific requirements they will be permitted, with common rules across markets where there are not sector specific needs

5.70. However, we do not agree with the proposal in the Government Consultation that "TPPs would not need to obtain approval to operate in the energy or communications markets, but they would need to adhere to requirements set by Ofcom and Ofgem"[18]. Some of the customer data that is under discussion for inclusion in Open Communications is of a highly sensitive nature and there is significant potential harm to both consumers and industry from TPPs not adhering to requirements. Due to this, we believe it should be required for TPPs to obtain approval to operate in the communications market.

5.71. This aligns with Ofcom's view laid out in the Consultation that "accreditation for use of Open Communications data would need to be compulsory, to demonstrate to users that all TPPs have met the required security, technical and operational standards". However, we believe that the accreditation scheme needs to capture and minimise the risks of communications sector specific concerns and there is a risk that a cross-sectoral accreditation scheme would not meet this requirement.

5.72. The accreditation scheme should be tied to TPPs obtaining approval to operate in the communications market. A requirement that TPPs gain accreditation before gaining access to Open Communications data should be implemented, and we

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17 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/808272/Smart-Data-Consultation.pdf, page 31

18 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/808272/Smart-Data-Consultation.pdf, page 31

would encourage an auditing process ensuring TPPs have met all requirements for accreditation.

The process for determining liability should be timely and minimise consumer harm and reputational damage to not-at-fault firms

5.73. When things go wrong, especially when sensitive personal data is concerned, there is a significant risk of harm to both the consumer and the reputation of the organisations involved. It is essential that any process for determining liability is timely, to minimise both consumer harm and reputational damage to not at fault organisations who are involved in the process.

5.74. Additionally, whilst liability is being determined, Open Communications data access should be removed from involved TPPs, in order to prevent further consumer harm, especially in the case of significant data breaches or mis-selling.

There must be a process for data providers to claim redress from TPPs in the case of data breaches or mis-selling that lead to reputational or commercial damage

5.75. We believe that consumers should be able to gain redress through the existing ADR schemes, and these should be expanded to allow a consumer to gain compensation from TPPs that have caused them harm.

5.76. It is also key that where a TPP has also caused a data providing CP (or CPs) either commercial or reputational harm there should be a process through which the dispute can be administered and the CP(s) can claim redress. There should also be the ability for CPs to seek the "blacklisting" of TPPs which can be shown to have caused significant consumer, reputational or commercial harm through negligence or maliciousness and whilst this is investigated a decision should be made on whether Open Communications data access should be removed for the duration of the investigation.

6. The costs of implementing and maintaining Open Communications

Question 11

Do you agree that we have identified the main sources of costs for implementing Open Communications for both providers and services that use Open Communications data? Are there any sources of costs that we have missed?

Question 12

What factors will drive the overall scale of costs to in-scope communication providers and to TPPs? How might this level of cost vary depending on whether providers serve residential and / or business customers?

Question 13

If relevant, please estimate and describe, as far as possible, the costs to your organisation of implementing and running Open Communications.

The overall cost of Open Communications to BT is very challenging to estimate without more clarity on requirements and time scales

6.1. It is challenging to estimate the overall cost of a project of this size, even a wide cost range, without more information as to the exact requirements and time period for delivery.

6.2. We understand that Open Banking has cost each in-scope bank tens of millions of pounds to implement and run thus far. This is separate from the funding that the nine largest current account providers have been required to provide to fund the Open Banking Implementation Entity (OBIE). This funding has reportedly cost these nine banks around £80m collectively since the launch of the OBIE.

6.3. We would expect Ofcom to have investigated the costs of Open Banking to the contributing banks and compared the requirements and cost implications with Open Communications. It would be useful to give added clarity if Ofcom could share the outcome of this analysis, or if they have not carried out this analysis to do so and share the results once this has been done.

6.4. We believe the implementation and running costs for the first 3 years of Open Communications would cost BT Group overall between £40 million and £100 million, with the exact cost dependent upon what is in scope, technical requirements and timelines amongst other factors. We are unable to provide a more precise estimate until we have a clear view of the cost dependencies laid out.

6.5. Of our cost range £20 million to £40 million can be attributed to the categories of costs captured by Ofcom in the Consultation and £20 million to £60 million to the additional cost categories we identify in Table 5.

6.6. Ofcom should also consider where these costs may ultimately fall. There is a risk that the Open Communications initiative could lead to increased prices for consumers, especially if the implementation and running costs are high. This should be included in the cost benefit analysis if possible.

A significant factor that will drive the overall scale of costs is the time period over which CPs have a clear view of requirements

6.7. Our initial view on factors that will drive the overall scale of costs, based on Ofcom's categories of costs, is set out in Table 4 below:

Table 4: Factors driving scale of costs

Cross-category factors	Comments
Time period	The time between exact requirements being signalled to CPs and the launch of Open Communications will be one of the most significant drivers of cost across all categories. The longer the period for which a CP is aware of exact requirements before the implementation deadline, the more they will be able to build the required changes into ongoing IT change/upgrade programmes, allowing significant efficiencies to minimise costs. This will result in a much stronger proportionality argument. The inverse is also true. We would suggest that a time period of four to five years as a minimum would begin to lower the overall cost of Open Communications.
Degree to which approach is prescriptive Vs flexible	Allowing CPs the flexibility to take an approach that works for them in areas where this will not affect the end-result will minimise costs. The easiest way to ensure this is by setting out a clear set of requirements for Open Communications, but not prescribing the route taken to achieve these.
Data recency	The more up-to-date the underlying data making up the metrics we provide through Open Communications the higher the implementation and on-going costs. Live data would be significantly more expensive to provide than data updated on a periodic basis (e.g. hourly, daily, weekly or monthly). As an example, it would be much cheaper to provide data on the speed of a customer's broadband connection or the number of devices connected to their router on the basis of historic monthly averages from when they joined their current supplier to the current month, rather than as live data referring to the point at which the request was made.
Approach taken to implementation	A full launch of Open Communications, with all metrics included from the start, is likely to cost far less than an iterative approach as it will mean that fixed costs that are incurred in any development cycle are only incurred once, with an iterative approach these costs we be incurred for every change cycle. Additionally, it would allow CPs to plan the changes required for implementation from start to end.
Generating and sharing Open Communications data	**Factors that will drive scale of costs**
Database consolidation	• The number of databases holding relevant data • Integration points – the more source data systems you need to reach out to the higher the cost • If there are differences across data systems (identity management across BT/EE for example) • Data quality – need to be fixed at source

	• BT is moving from on prem to the cloud, currently carrying out database consolidation. Once on the cloud any processing or storage of data incurs a cost. The cost to egress data is higher than the cost to ingress data
Standardising metrics	• The level of standardisation required • Whether there are requirements for new metrics to be collected • The length of time over which metrics require standardisation • The frequency of metric refresh and implications of data refresh (development release cycles)
API development	• Complexity of API required • Frequency of API transactions and likely volumes • SLA requirements • Different models for data transfer (a data trustee model is likely to be more expensive than a provider-led one)
Authentication	• A provider-led authentication model is likely to reduce cost compared to a data trustee model • The proportion of our existing infrastructure that can be re-used, if we can re-use parts of our existing authentication infrastructure costs will be lower
End-to-end secure data transfer	• Ability to make changes/re-state to the data is required for product data • A provider-led model will likely be cheaper to implement than a data trustee model • The scale of data volumes required will impact on cost, the more data being sent the higher the cost • The type of encryption used
IT maintenance and running costs	• Volumes and frequency • Service points • SLA requirements

BT believes there are additional material sources of costs

6.8. BT would agree that Table 6 in the Consultation "Categories of costs", captures some of the main high-level categories of costs for implementing Open Communications. We would expect that Open Communications would result in BT incurring costs falling under each of the categories laid out in this table. However, we believe there are additional areas that will drive the costs of implementing Open Communications. These additional areas are captured below in Table 5.

Table 5: Additional categories of cost for implementing Open Communications

Category	Explanation
Data development	Our data systems, and underlying datasets are likely to need development to serve the needs of Open Communications. Much of our data is held in legacy systems, and some of it would need substantial development to ensure it is sufficiently robust to be provided to TPPs.
Data quality testing and management	Data is not static and lots of systems feed into data production, before it goes to a TPP data quality need to be ensured. This is especially the case considering there will be data standardisation. In terms of data management, there will be a requirement to make sure there are checks as to the levels of service in place and the status of the data feeds both internally and externally.
Legal and security costs	Open Communications would require a data processing agreement, update to our security policies and security statements and significant investment in security systems and policies. Thus far we have been taking the security approach of making our data/services/general IT as hard for external parties to access as possible, this is a reversal of that approach and will come with high costs.
Productionising the ability to offer services using product and customer data	There is a stage after the development and coding of services and before it goes live where the offering has to be put into production. This takes cost and resource across multiple operational teams and occurs on an ongoing basis as updates and metric/service iterations occur. There may need to be engagement between CPs and TPPs as well as internal engagement.

Ongoing service management and development	The solution is likely to require changes, iterations and fixes, both from a technical and data perspective. These costs will be ongoing, and depending on the magnitude of the alternations could be a significant ongoing cost. This also links to the process for adding or removing metrics, as laid out in paragraphs 5.62 to 5.65.
Service support costs	There will likely be a requirement for support for TPPs using Open Communications data from data providers, especially in the case of service downtime. This would result in knowledge management updates, so agents know how to answer queries, customer service agent training, digital and/or app content to support TPPs and provide information about Open Communications
Reliability requirements	There will be substantial cost differentials dependant upon the required reliability of the data streams and supporting services provided through Open Communications. A service requiring 99.999% uptime will cost a lot more than one requiring 99.9% uptime.

Question 14

If relevant, would your organisation consider using Open Communications data as a TPP to offer new services or enhance existing ones?

6.9. Yes, we will consider using Open Communications data as a TPP in order to offer new services or enhance our existing offerings. This will be dependant upon Open Communications capturing the complete service offerings that CPs make, such as value-add services, pay-TV information and customer service metrics.

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