BT's response to Ofcom's consultation document

"Making switching easier and more reliable for consumers – proposals to reform landline, broadband and pay TV switching between different platforms"

4th November 2016

NON-CONFIDENTIAL VERSION

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1.1 Overview

1. BT is very supportive of Ofcom's proposal to regulate cross-platform switching, in the interests of simplicity, transparency and consistency for consumers. We agree that the current situation creates consumer harm as a result of double-paying, loss of service, customer confusion and competitive distortion. This consumer harm would be alleviated if Ofcom's proposed gaining provider-led (GPL) switching process were to be implemented for all cross-platform switches.

1.2 Key issues

2. Consumers in general are not concerned with the underlying technology used to provide them with their communications services. They are more likely to engage with the market, and to switch to packages which are best-suited to their needs, if they are able to do so easily, with a clear understanding of the implications and with minimum risk of a break in service or of having to pay extra whilst services overlap.
3. Services likely to be purchased in a bundle – i.e. fixed voice, broadband, pay TV and, in the near future, mobile – should follow a consistent switching process. Now that fixed voice and broadband services provided on the Openreach platform are switched using a GPL process, a holistic, future-proof and consistent approach should be adopted, so that the same process applies to all voice, broadband and pay TV services, regardless of the underlying platform over which they are provided,
4. We believe Ofcom has both the legal jurisdiction and the necessary evidence to justify the regulation of cross-platform switching; and that the proposed GPL process (i.e. Option 2) is a proportionate and pragmatic solution.
5. Ofcom's Option 1 – the Enhanced Cease and Re-provide (ECR) process – does not meet the need for consistency, simplicity or transparency and is unlikely to result in any material improvements for consumers. They would still have to go and speak to their losing provider to cancel their existing service(s) and get information about the implications of the switch, albeit through automated means if preferred. This would be likely to create unnecessary confusion as consumers would have to follow different processes for different elements of a bundle. The proposed ECR process would also add unnecessary cost and complexity in terms of implementation. We explore these issues more fully in the main body of our response.
6. Option 2, however, would allow consumers to make a single phone call to their gaining provider (GP) when switching a triple-play bundle, and for the GP to co-ordinate everything on the consumer's behalf. This would lead to a simpler, smoother experience, as well as consistency and transparency of process across all services, whether switched individually or in bundles.
7. In relation to the "back-end" arrangements between CPs, BT's view is that it would be much more efficient for CPs to communicate via a central communications hub, or broker, which would pass messages between gaining and losing providers. Point-to-point communications between each and every CP would be less efficient and more costly to establish and run, for reasons which we discuss further below.
8. We look forward to working with Ofcom and industry to further develop an effective GPL cross-platform switching process, and to work through the optimum implementation methods.

2 BT's general support of Ofcom's proposals

2.1 Introduction

9. BT agrees strongly with Ofcom that switching processes should be made as simple and straightforward as possible, so that once a consumer has made a decision to switch, this can happen quickly and easily. Simple switching processes will encourage providers to compete to provide high quality, innovative and good value services in order to attract and retain customers, and vigorous competition will create benefits for UK consumers in general.

10. An important aspect of this need for simplicity is the need to ensure consistency of processes across all products and services likely to be purchased as a bundle. Since Ofcom decided upon a gaining provider-led (GPL) process for switching voice and broadband services between communications providers (CPs) on the Openreach platform, BT has been pressing for the GPL approach to be extended to cover *all* voice (fixed and mobile), broadband and pay TV switches, regardless of the underlying technology or platform, so that consumers can follow a consistent process and there is a level playing field between all CPs.

11. As noted in our response to Ofcom's consultation on proposals to reform switching of mobile communications services[1], in order to support an assessment of switching reforms BT has developed a set of high level principles, which we believe switching processes and switching-related interventions should meet. These principles broadly reflect the switching principles set out by the department of Business, Innovation and Skills ('BIS') in its Government Response and Action plan, as well as Ofcom's objectives and regulatory principles:

    - Switching should be simple, i.e. quick, easy and effortless, from a customer perspective.
    - The same services, and services sold as a bundle, should be subject to the same switching process, regardless of underlying technology, to avoid competitive distortion.
    - Regulatory switching interventions should focus on those areas where there is a competitive distortion, and/or the consumer harm is greatest.
    - Regulatory intervention should be proportionate to the harm it aims to address.
    - Regulatory intervention must improve, not reduce, the quality of customer experience.
    - Regulatory intervention should take into account likely future market developments.

12. We believe Ofcom's Option 2 – a GPL process – meets all of these principles, as we will explore further below.

13. The communications market is changing. Offers are increasingly converged, and there has been an increase in the prevalence of triple play bundles in recent years. With that in mind, we believe there is a compelling case for Ofcom to adopt a holistic approach to switching, and to design and implement future-proof switching processes capable of handling all services likely to be sold as part of a bundle on a consistent GPL basis. This would give all consumers access to a simple, straightforward process they can rely on to switch all of the core communications services they buy for their households, regardless of the technologies or providers involved.

14. This will stimulate greater competition, by mitigating the distortion due to advantages enjoyed by certain providers, which stem from differences in switching processes for different services in a bundle.

15. We look forward to working with Ofcom and industry to develop the GPL proposal further so that it can be implemented as quickly and efficiently as possible.

2.2 Legal basis for intervention

16. As Ofcom sets out in section 2 of its consultation, the Communications Act 2003 gives Ofcom a number of powers, including powers to set General Conditions (GCs) which must be objectively

[1] See https://www.ofcom.org.uk/__data/assets/pdf_file/0015/63231/bt_group.pdf

justifiable, proportionate, transparent, consistent and, importantly, "not such as to discriminate unduly against particular persons or against a particular description of persons".

17. Currently, voice and broadband switches within the Openreach footprint are regulated (under GC 22) but switches to and from other platforms (such as those involving voice and broadband provided via Virgin Media) are not. This situation does not, in our view, meet the necessary standards of transparency, consistency and non-discrimination. Ofcom's proposal to implement a GPL switching process for cross-platform switching, aligned to that which currently applies under GC22, would correct that situation.

18. Furthermore we agree with Ofcom's position in the consultation that it has the power to impose a general condition in relation to the switching of a pay TV service i.e. that services involving the transmission of signals for pay TV fall within the definition of Electronic Communications Service (ECS) contained in section 32(2) of the Communications Act and Article 2(c) of the Framework Directive respectively.

19. As Ofcom is aware, the regulatory framework for electronic communications distinguishes between the production of content (which falls outside its scope) and the transmission of content. The subject of the current proposals falls clearly within the latter.

20. Recital 5 of the Framework Directive states "The convergence of the telecommunications, media and information technology sectors means all transmission networks and services should be covered by a single regulatory framework." This is reflected in the operative provisions of the Framework Directive, for example Article 8(1), which requires that "Member States shall take the utmost account of the desirability of making regulations technologically neutral." As argued by BT in previous consultation responses, consumers are unconcerned about, or unaware of, the technical means by which voice, broadband and pay TV services they buy are delivered, and retail bundles containing all three services are increasingly popular. It is therefore important, and consistent with the electronic communications framework, that they are subject to a single regulatory regime, including in relation to switching, regardless of the technical means of delivery or the platform used.

21. Endorsement of this approach was provided by the European Court of Justice (ECJ) in the case cited at paragraph 2.28 of the consultation, *UPC v Hilversum (2013).*This case considered whether a service of a basic cable package (the charge for which included transmission costs, payments to broadcasters and royalties to copyright collecting societies in connection with the transmission of programme content) could be considered an ECS for the purposes of the telecoms framework. The ECJ held that it did "*in so far as that service entails primarily the transmission of television content on the cable distribution network to the receiving terminal of the final consumer."*[2] In doing so, it was clear that the fact that customers take out a subscription to gain access to a TV package did not mean that the relevant business of broadcasting radio and TV channels by transmitting them to the network connection point in subscribers' homes should be excluded from the definition of ECS. Ofcom's position is therefore consistent with presiding case law, as its focus is on how consumers switch triple play services, including pay TV, which companies provide at the retail level. Transmission of content into consumers' homes is an integral part of the retailing of pay TV services, and so Ofcom is correct that its proposals in relation to pay TV switching are covered by its statutory powers to regulate ECS provision.

2.3 Evidence of the need for action

2.3.1 Customer research

22. We note that in Ofcom's research, whilst the majority of consumers switching between platforms initially rated the process as either "very" or "fairly" easy, 17% (a sizeable minority) said it was difficult.

[2] In *UPC DTH v Nemzeti Média (2014)*, the ECJ subsequently applied the same principles to services transmitted via satellite.

23. More importantly, we also note that when prompted, over half of consumers questioned (58%) said they had experienced at least one process-related difficulty; and 79% of consumers who had considered switching but had decided against it had been put off by process-related worries (such as being without a particular service during the switch, having to pay two providers at the same time, or difficulty contacting their previous provider/cancelling their service).

24. As regards the switching process, 23% of cross-platform switchers reported receiving unexpected bills/charges from their old provider. This is likely to be experienced primarily by consumers leaving a service(s) on a non-Openreach platform, since if a voice/broadband or triple play customer with BT switches their service(s) away, they will receive a Notification of Transfer letter (as required under GC22) setting out any charges that will apply (including for their pay TV service if appropriate), and when those charges will be billed. Cross-platform switches should be regulated in the same way, so that consumers always know what to expect, and can decide on the best course of action, in the light of full information, before it is too late.

25. BT's own research reflects some of these process-related concerns. We carry out quarterly research[3] which includes a question about the key barriers to switching triple play services (to Sky, Virgin or BT). Whilst the biggest barriers relate to cost/value for money, up to ✂ of consumers stated that they were concerned it would have taken too long to install/activate the services.

26. Our research also looks at broadband switching[4]. Of those triple play customers that hadn't switched broadband provider either at all, or in the last 5 years, over ✂ said they couldn't be bothered to switch – which might imply that they believed the process would cause them difficulties. Up to ✂ said they thought it would be too difficult to change provider. Given that the survey sample represents the views of consumers nationally, this could equate to material numbers of consumers who have been deterred from switching.

2.3.2 Ofcom's monitoring and enforcement programme on cancellation and termination

27. We note that since the consultation was published, on 20 September 2016, Ofcom published its findings from its investigation into whether Sky had complied with its obligations under GC9.3 in relation to termination of contracts for landline and broadband services. Ofcom has provisionally determined there are reasonable grounds for believing Sky has breached GC9.3.

28. Whilst the nature of the potential breach has not been confirmed, we note that the majority of consumers switching their voice and broadband services away from Sky should be able to follow a GPL process and should not need to contact Sky to cease their services. We therefore assume that if Ofcom has found material evidence of a breach, it is likely to be because Sky triple play customers still have to contact Sky to cancel their pay TV service, and that Sky is adopting conditions or procedures for contract termination that act as a disincentive to those customers from switching their voice and broadband services too.

29. If so, this provides further evidence of the need to ensure consistency of process and to allow customers to follow a GPL process for all elements of their triple play services. Otherwise the existing regulated GPL process for switching voice and broadband services within the Openreach platform is undermined.

[3] **Flows research:** Online acquisition and retention survey run by Basis Research for BT on a quarterly basis. The survey is unbranded. Q1 2016 results were obtained during Aug 2016. 2,666 responses (nationally representative) from consumers who have switched providers in the last 3 months.

[4] **Broadband segmentation research:** Online survey run by Basis research for BT in June/July 2015 to understand consumer needs, attitudes and behaviours related to Broadband. 4051 responses (nationally representative).

2.3.3 Evidence of economic impact of asymmetric switching processes on consumers

30. As discussed in detail in BT's response to Ofcom's 2014 Call for Inputs[5], the current position (where voice and broadband switches on the Openreach platform are regulated, but cross-platform switches are not) leads to a competitive asymmetry which is ultimately damaging to consumers.

31. Where a consumer takes both broadband and pay TV from BT or TalkTalk, and then switches to Sky, Sky acquires the consumer under the GPL Notification of Transfer (NoT) process, and there is no need for the consumer to contact the losing provider (LP) because the pay TV service will automatically cease when the broadband is switched (as the TV service is delivered over the broadband line). However where a consumer wishes to switch their broadband and pay TV service *from* Sky *to* BT or TalkTalk, whilst the voice and broadband services can be acquired via the GPL NoT process, the consumer must contact Sky if they want to cease their pay TV service. This gives Sky an opportunity to save their customer, *not just for the TV service but for all three services,* without breaching any of the existing General Conditions on fixed voice and broadband switching (subject to any GC9.3 issues, as noted above).

32. The same concern about asymmetry arises in relation to switching of both dual- and triple-play bundles between Virgin Media and CPs on Openreach's network. As above, if a consumer is switching their fixed voice and broadband services from BT to Virgin Media's cable network, and they wish to port their number (as most consumers do), they will follow a GPL process. Virgin Media will place a Number Port request with Openreach, which triggers a NoT notification to the LP. Once the number is ported away, the BT line and associated BT broadband service will automatically be ceased. There is no save opportunity, unless the consumer chooses to contact BT, because Ofcom has stated it would be a breach of GC1.2 if BT were to use the Number Port request to contact the consumer for marketing purposes. However if the consumer is switching their fixed voice and broadband services *from* Virgin Media *to* BT, the Virgin Media fixed voice service will be ceased when the number is ported, but the consumer is obliged to contact Virgin in order to cease their broadband service, which is not dependent on the fixed voice service. This gives Virgin Media a save opportunity, for both the voice and broadband services. The same applies where the consumer also takes a pay TV service from Virgin Media.

33. From a competitive perspective, this asymmetry gives Sky and Virgin Media significant advantages which stem from being able to exploit their position of providing (some of) their services via different underlying technologies[6] . For example, the high costs associated with acquiring a new pay TV subscriber[7] mean that retaining an existing subscriber, even with a reduced average revenue per user (ARPU), has substantial benefits to pay TV retailers. Sky and Virgin Media are therefore currently afforded a material benefit over their rivals in being able to reactively "save" potential switchers (both pay TV switchers and triple-play switchers for Sky and Virgin Media, and additionally broadband switchers for Virgin Media), including with aggressive consumer retention offers.

34. We note that Ofcom appears to have softened its approach somewhat in the current consultation, when discussing "reactive save". We will discuss this further below. BT has made it clear, in response to Ofcom's previous switching consultations, that we do not agree with Ofcom's concerns about "reactive save" necessarily leading to consumer harm. But the key point is that Ofcom must ensure the rules on save activity apply symmetrically to all CPs and across all products in a bundle. If not, Sky and Virgin Media will retain a crucial advantage in "saving" would-be switchers, and they will be able to use their positions in pay TV (especially

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[5] BT's response to Ofcom's consultation document "Consumer Switching: Next Steps and Call for Inputs", 7 October 2014 - see https://www.ofcom.org.uk/__data/assets/pdf_file/0036/49788/bt.pdf

[6] As noted in paragraph 20 above, the requirement for technological neutrality in the Framework Directive, alongside the regulatory principles of consistency and non-discrimination, support the case for a single switching process applying across services using different technologies, particularly given the increased prevalence of bundling.

[7] Sky last reported its subscriber acquisition cost (SAC) in its 2012 Annual Report, when it stated that overall, the cost to acquire a new TV customer ('SAC') was £397. It is unlikely that SAC has reduced since then.

Sky, which Ofcom said in its 2015 "Review of the pay TV wholesale must-offer obligation" retains a strong market position[8]) to distort competitive outcomes, especially with respect to switching triple-play and other bundled services.

35. In addition to these competition issues, the asymmetry is, itself, likely to be damaging to consumers. BT has commissioned Oxera to carry out a study into the economic impact of asymmetric consumer switching processes. This report is attached at Annex 5. The conclusion, in summary, is that asymmetric switching processes are more likely to lead to consumer harm where larger firms are allowed to engage in save activity but smaller firms are not, because the position of the larger firms is strengthened and the competitive constraint exerted by the smaller firms is weakened, leading to higher average prices in the market as compared to regimes with symmetric, universal GPL switching processes.

[8] See e.g. paragraph 1.17

3 Answers to Ofcom's questions

3.1 Consumer experience of switching between platforms

Q1 Do you agree that current cross-platform switching arrangements lead to consumer issues with loss of service and double paying when switching, and issues with contacting the losing provider / cancelling a previous service?

36. Yes, we agree with Ofcom that current cross-platform switching arrangements lead to the consumer issues described. Please see our comments in Section 2 above.

Q2 Do you agree that consumers would benefit from clearer switching processes and information about switching?

37. Yes, we agree that consumers would benefit from clearer switching processes and information. Please see our comments in Section 2 above.

Q3 Do you have any other comments on the matters raised in Section 3?

38. We have noted in Section 2 above that in addition to the evidence from consumer research, economic analysis carried out by Oxera has demonstrated that having inconsistent, asymmetric switching processes between different providers of triple play services can give rise to consumer harm (i.e. higher average prices than under symmetric regimes). We agree with Ofcom's conclusions in Section 3 of its consultation that the process for switching between platforms does involve unnecessary difficulties for a significant minority of consumers, and deters some from switching where they might otherwise do so. We therefore believe that Ofcom has sufficient evidence and justification for intervention.

39. It is also worth noting, however, that whilst it is essential to ensure that switching processes are simple and consistent, it is also important that consumers become more aware, both of the correct process to follow and, more widely, of the other information they need to help them engage with the market. BT is very supportive of the steps Ofcom is taking to improve transparency more generally.

3.2 Options for reform

Q4 We would welcome views on the proposal for an EC&R process (Option 1), in particular
a) whether it is effective in reducing the consumer difficulties and deterrents identified through our analysis;
b) whether you agree co-ordination by the new provider should be opt-in for the consumer; and
c) if the information on implications of switching provided at the cancellation stage is likely to be as effective as receiving it in durable form during the transfer period?

40. We don't believe that Option 1 will deal effectively or sufficiently with the current difficulties and deterrents described in Ofcom's document. In terms of systems development, Option 1 requires the same development as Option 2 in relation to the sending of messages between the GP and the LP, but it also requires additional development with respect to the required communication options between the LP and the consumer. Hence Option 1 is actually more complex and more costly.

41. The fact that the consumer still has to contact both old and new providers means that confusion is likely to remain, particularly since there would be no consistency with how the existing NoT process works for voice and broadband switches on the Openreach network. In the majority of cases, consumers switching a triple play package are likely to be following the NoT process for their voice and broadband at the same time as the EC&R process for their TV service, and therefore the lack of consistency would be confusing and inconvenient.

42. Similarly, a consumer switching a triple play package from Virgin Media to an Openreach-based CP would follow an NoT-type GPL process for porting their landline number to their new Openreach landline, but with the EC&R proposal, they would still have to contact their old provider (Virgin Media) in order to request the cease of their broadband and pay TV services, which again would create inconsistency and confusion.

43. Even with alternative channels available through which to contact the LP, it is possible that consumers could still suffer difficulties in making this contact. It is an extra potential point of failure in the process, should IVR systems break down, for example, or webchat agents not be available.

44. Notwithstanding these concerns, it is not clear to us why co-ordination by the new provider under this option should be on an opt-in basis. If it is easier for the consumer to have the GP co-ordinate (which is likely to be the case), we think this should be the default position. Otherwise this is a further point for potential confusion. Consumers should only co-ordinate the cease and re-provide themselves if they specifically request to do so. (However the GP should be required to obtain and record the consumer's consent to the switch, as is proposed.)

45. We strongly believe that consumers need to receive clear and comprehensive information on the implications of switching, in a form which enables them to assess and act on that information, confident in the knowledge that they have got the full picture. The consequences of switching, particularly when switching one or more services within a triple play bundle, can be numerous, as there are often a number of dependent products and/or prices which will be affected by the switch, as well as potential early termination charges (ETCs), all of which need to be weighed up against the perceived benefits of switching before the consumer can make a fully-informed decision. It is essential that all relevant information can be conveyed to the consumer clearly, accurately and comprehensively.

46. In the light of this, we have serious concerns about the proposal that the LP would be required to provide the full implications of switching using whatever method the consumer has chosen to contact them to cancel., Providing an automated IVR message, or online notification, in real time, that would inform the consumer on an individual basis of not only any ETCs payable, but also full details of other services and/or prices that would continue or cease after the switch has taken place, would be technically and practically challenging to achieve in a manner which is sufficiently clear, accurate and comprehensive.

47. In the case of triple play switches, it would be misleading and confusing if the only implications/ETCs mentioned were those relating to the service being ceased through the cross-platform process, and not those being switched under the NoT process. The need to include all services adds to the potential complexity of the message and the technical difficulties created. It is likely to take several seconds for the information to be retrieved and, in the case of an IVR message, for the information to be put together and "spoken" to the consumer. The customer experience is unlikely to be ideal. It is quite possible that receiving this information through an automated means, without the immediate ability to clarify it, could even put consumers off from continuing with the switch.

48. The description of the EC&R process states that on contacting the LP, "the consumer would be able to cancel their existing service". It is not clear whether this means the LP is required to raise a full cease with a particular date, or whether a pending cease should be raised, which needs to be placed once the GP "co-ordination notification" has been received.

49. If there is a mis-match between the date the LP originally agrees with the consumer for ceasing service, and the date given by the GP in the "co-ordination notification", is it the LP's responsibility to update the cease date on the order? And it is not clear what happens if the GP notification is not received in a specified period of time after the consumer has requested the cease. The inclusion in the process of both the consumer and the GP contacting the LP adds to the complexity and potential confusion.

50. The significance of the two working days within which the consumer needs to contact the LP to cancel service(s) is not clear. Is this to try and ensure that the switch progresses quickly once the consumer has spoken to the GP? It is stated that during the two working days, the expectation is that the GP would periodically check with the LP whether they had received the cancellation request from the consumer. This does not appear to be a very efficient process,

and such "periodic checking" would add extra cost. It is not clear what would happen if, after two days, the LP has not heard from the consumer.

51. In summary, therefore, we do not believe the EC&R process satisfies the need for consistency, transparency, simplicity or an improved customer experience, and it would entail significant and disproportionate costs to implement.

Q5 We would welcome views on the proposal for the GPL process (Option 2), in particular
a) whether it is effective in reducing the consumer difficulties and deterrents identified throughout our analysis; and
b) if the ten working day transfer period is a sufficient length of time for a consumer to receive, understand, and act upon implications of switching information that is sent to them by the old provider?

52. We agree that Option 2 would be effective in reducing the consumer difficulties and deterrents identified. In particular, it removes the possibility of difficulty suffered by the consumer in having to contact the LP, and it is likely to reduce consumer confusion as it is a simple process, consistent with the existing NoT process already adopted for switching of voice and broadband elements of a triple play bundle on the Openreach network..

53. The Option 2 GPL process also meets the switching principles we identified in our Introduction:

- it would be quick, easy and effortless for consumers;
- it would result in the same services, and services sold as a bundle, to be subject to the same process, regardless of the underlying technology;
- it would address the current sources of consumer harm and competitive distortion;
- it would be a proportionate solution to the harm currently experienced;
- it would improve customer experience of switching; and
- it would take account of future market developments, in that the same process could potentially be used for switching between other platforms and technologies in future.

54. Based on our experience of the existing NoT process, the proposed ten working day transfer period is a sufficient length of time for the LP to receive the request to cease service, and for the consumer to receive the information they need in order to protect them against slamming and to make a fully-informed decision whether to switch or not. However please see our response to question 6 below.

55. The process documentation for Option 2 suggests that the LP has to send back, in real time, the earliest possible cease date. We are not clear why this is the case. It should be that the ten working day transfer period is accepted as the default, unless the GP needs longer in order to install new equipment etc.

Q6 On both process options, we would welcome views on whether old providers are provided with sufficient time during the respective transfer periods to:
a) stop existing services and administer the end of contracts; and
b) if not, can you provide detail of what actions/steps are necessary to undertake such activities, and how long these would take?

56. Ten working days is a sufficient time to enable the LP to take the necessary steps to cease the old service(s) and carry out any administration necessary to end the consumer's contract and close their account if appropriate.

57. However the key dependency here is not how long the LP needs to cease the old service, but how long the GP needs to provide the new service. It may not always be technically possible to complete a switch within ten working days, where new infrastructure is required by the GP to provide service. Lead times for such work will vary.

58. Openreach has minimum lead times for provisions which are published, and a regulated minimum standard for appointment availability which is currently set at 12 working days. This means that CPs/end customers must be offered an appointment date within 12 working days of

the order being placed on EMP by the GP; but the GP does not have to accept this date, and often a later date is chosen. The need to find a suitable appointment, and potential issues with network availability, can both extend lead times to well over 10 working days for some provisions.

59. We cannot comment on how long it generally takes to install a Sky satellite dish or a new Virgin cable line. Installation of new equipment may be dependent on the consumer being at home, so is not necessarily within the GP's control.

60. In summary, whilst CPs should aim to complete cross platform switching within 10 working days, GPs (and their network suppliers) should not be penalised if the provision of new infrastructure on the new platform takes longer. The key point with respect to timing is that GPs should co-ordinate the switch so that the consumer does not lose their old service whilst the new service is being provided.

Q7 Do you agree that the proposals should apply to all cross-platform services, whether provided in a bundle or on a standalone basis?

61. Yes, we believe that a GPL process should apply to all cross-platform switches, whether provided in a bundle or standalone, for the sake of simplicity and consistency. For example, if a consumer is switching away from a Sky triple play package to a dual play voice and broadband package with BT, plus a Virgin TV package, there should be consistency across all services. BT would follow the NoT process to switch the voice and broadband services to us, and similarly Virgin should be able to follow a GPL process to carry out the cross-platform TV switch. This way the consumer has a consistent experience. Similarly, a consumer who has a triple play bundle with BT, and wants to move just their TV service to Sky, should be able to follow a consistent GPL process, so that Sky co-ordinates the switch and tells BT when to cease the BT TV service.

Q8 For both process options, we welcome any views on the estimated 18-month implementation period.

62. In BT's view, Option 2 could be implemented within Ofcom's proposed 18 month timescale. However Option 1 is more complex, due to the need to develop and implement the ability to provide consumers with information on the implications of switching in real time via automated channels. Therefore we estimate that implementation of Option 1 would be likely to require 24 months.

Q9 Do you have any other comments on the matters raised in Section 4?

63. There is a risk, with cross-platform switching, that the LP could choose not to co-operate with the GP and could continue to provide service beyond the cease date notified by the GP. There might be an incentive to do so if the consumer is still in contract and the LP believes they will not be able to recover a fair ETC. If this were to happen, it would of course mean that consumers would continue to suffer from double paying, and GPs would be likely to suffer increased complaints, as consumers would hold them responsible, having expected them to co-ordinate the switch. It would be useful to understand how Ofcom proposes to monitor and regulate this.

3.2.1 Provision of ETCs and other switching implications on bills

64. Ofcom's proposal is that for both Options, the LP would need to provide regular information on the implications of switching in the consumer's monthly bill to enable them to make an informed choice before proceeding with a switch. This would be to help reduce concerns that consumers are not always aware of the implications of their switch.

65. Whilst we are very supportive of consumers being fully informed of the implications of switching, we are not convinced that inclusion in consumers' bills is an effective or proportionate way to achieve this transparency objective, and we would like to propose some alternatives.

66. Many customers today tend to pay their bill through direct debit, and may not even look at their bill regularly, particularly if they are on an unlimited package which means that charges do not tend to vary much.

67. A further concern is that having *potential* charges on the bill alongside *actual* charges could potentially cause confusion amongst consumers, and lead to extra calls into CPs' call centres to clarify what they are actually going to be charged.

68. Given that ETCs change over time, it would need to be determined whether the bill showed the charges correct at time of going to print, or at some other point in time in the future.

69. It is unclear what would happen if the customer chose to re-contract a service post-bill production but before it's received; in this scenario (which is plausible), the information on the bill would be very misleading, resulting in a significant potential increase in billing queries/complaints, with the knock-on impact on inbound call centres this would create.

70. It would also be difficult to allow for circumstances such as customers wishing to leave due to a price change, or due to slow broadband speeds. In these circumstances, they may be entitled to leave without paying ETCs; which again means that the information on the bill could be misleading.

71. The implications of switching include not just ETCs, but other issues such as changes to prices and other terms for any ongoing services, or loss of certain other facilities, and – as discussed in paragraph 45 above – it would not always be practicable to explain all this in a short piece of text.

72. Providing an entirely bespoke notification on a monthly basis for every customer, whether or not they are considering switching, would require a complex and costly systems development. On balance, therefore, and in view of the difficulties we have highlighted, it would be unnecessary and disproportionate to introduce this requirement as part of a cross-platform switching process.

73. An alternative, more proportionate measure might be to include a message on consumers' bills giving the number to ring and/or the website address to go to if they are considering switching and would like to understand the implications. The website address could also explain the correct process to follow if consumers want to proceed with a switch.

74. Another option might be to make it a requirement for consumers to be able to request a notification of potential ETCs at any point in time, to be viewed via their online account, via an app, or via an email or letter.

75. We would be happy to discuss these and other transparency options with Ofcom and industry in due course.

3.2.2 The "back-end" communications channel

76. Ofcom has set out how both Options 1 and 2 would require the LP and GP to share information about the pending switch. The GP would need to be able to tell the LP which customer is involved, and which services are to be ceased; and also the planned date for the cease of these services (and provision of the new ones), with subsequent confirmation. These messages would need to be sent between providers in real time, whilst the consumer is on the phone or placing an online order.

77. Ofcom has not specified a particular approach, but has suggested it should be left to industry to determine the appropriate means to implement such a process. However Ofcom has suggested two possible options, as specified by Cartesian:

    - using the Openreach EMP as the channel for communicating the necessary information
    - establishing a new direct channel for providers to communicate between each other.

78. BT's recommendation is that a central message broker should be used to route messages between CPs, rather than CPs each trying to communicate with each other directly.[9] A central broker would be more efficient, because if direct point-to-point, CP-to-CP contact was required, there would be additional costs created by regular maintenance of systems, with updates required every time a new CP was added. There would be a high risk that systems could be broken if CPs did not align their updates (changes to versions, firewalls etc). It would be more difficult to maintain a standard format for switching messages.

79. From an initial assessment, we do not believe that the Openreach EMP would be suitable as the back-end inter-CP communication channel, or central message broker. Please see Annex 3 for further explanation.

80. We believe a more appropriate alternative to Openreach EMP would be for the central message broker service to be provided by a Third Party Integrator. Whilst we have not explored this idea in any depth at this stage, there is some precedent for this and we believe there are a number of TPIs who might be interested in providing such a service.

81. Please see also our comments in response to question 14 below, regarding the possibility of synergies arising from providing a back-end message broking service for both mobile and cross-platform switches together, which we believe Ofcom should explore with industry.

82. One of the key issues we have highlighted in earlier discussions with Ofcom and Cartesian has been the need to find a way for the GP to identify the LP's customer, and the services concerned, when sending a message to arrange the co-ordination of the service(s) cease and re-provide. It is essential to find an effective method of identification so that there is no risk of erroneous ceases by the LP.

83. The process should not involve the provision of the LP account number, as this raises data protection concerns and the risk of abuse.

84. BT's recommendation is that there should be an industry switching reference number, which would consist of the LP's Reseller ID (RID), plus the LP's unique customer identification/switching number (to be used solely for switching purposes, and made available to customers on their bills). The consumer would give this number to the GP. The RID could be used by the central message broker to pass the message from the GP to the appropriate LP. There would be no need for a centralised industry-wide database of reference numbers – each CP could devise and maintain its own list – because the RID at the start of the reference number would make it unique to the CP concerned.

85. The fields that should be used for customer identification would therefore be

    - industry switching reference
    - telephone number (if applicable)
    - postcode

    and the message from the GP to the LP would need to state which service(s) the consumer wants to switch.

86. There would need to be a robust process for adding new providers, and maintaining an up-to-date list of RIDs, building on the list that Ofcom currently maintains.

87. We believe this proposal should address the difficulties of identification previously discussed, and we would welcome further debate with Ofcom and industry on this in due course.

[9] In principle this would be similar to the Current Account Switching Service which is a central solution in the banking industry, set up (in September 2013) as part of an industry wide programme by the Payments Council and owned and operated by Bacs Payment Schemes Ltd (Bacs). It makes switching current accounts simpler and quicker for customers. Some 40 bank and building society brands participate, accounting for over 99% of the current account market.

3.2.3 Save activity

88. As Ofcom notes in Section 4 of the consultation, General Condition 22.15 expressly prohibits reactive save activity as part of the switching process for consumers switching voice and/or broadband within the Openreach (and in the case of voice, KCOM) platforms.

89. In addition, General Condition 1.2 has been interpreted by the CAT, and applied by Ofcom, as prohibiting CPs from using information obtained as a result of the switching process to conduct save activity.

90. Under the current consultation, Ofcom states at paragraph 4.41 that GC22 is currently under review as part of Ofcom's broader review of General Conditions, and at paragraph 4.44 it is stated that Ofcom "do not plan to make the enforcement of General Condition 1.2 an administrative priority".

91. It is essential to have certainty here, and a clear, unambiguous policy stance from Ofcom so that CPs know whether or not reactive save will be an activity which Ofcom will aim to restrict or not – either through enforcement of GC1.2 or GC22.

92. It is also essential for Ofcom to adopt a consistent policy approach to reactive save across all platforms and services (including mobile services, given the potential emergence of quad-play bundles), in order to create a level competitive playing field for all CPs. As discussed in paragraphs 34 and 35 above, and in the Oxera report at Annex 5, the existence of asymmetric rules on save activity is likely, in itself, to lead to consumer harm in the form of higher prices where larger firms are able to undertake save activity and smaller firms are not (as is currently the case in relation to triple play products), compared to a position where all CPs are subject to the same opportunity or prohibition.

93. As Ofcom has pointed out (in paragraph 4.43 of the consultation), GC1.2 is in any case unlikely to apply where a consumer is switching between platforms, because no network access or interconnection is involved. To ensure a level playing field, it would be necessary for Ofcom to give CPs as much certainty as possible about its intentions not to enforce GC1.2 in relation to save activity during switching, and then for Ofcom to regulate both switches within the Openreach platform and cross-platform switches in the same way (whether allowing or prohibiting save activity during the switching process), through clear, comprehensive and even-handed amendments to GC22.

3.3 Option Assessment

Q10 Do you agree with the assessment of the consumer benefits of the proposals?

94. We agree with the Ofcom recommendation that Option 2 is significantly better for consumers than Option 1, primarily because the switching process would be much simpler and more transparent with a consistent approach across all types of switches and all platforms. Option 2, a full GPL solution, would result in this consistent outcome for consumers.

95. We do not agree that Option 1 would significantly improve consumers' experience of cross-platform switching. The lack of consistency with voice and broadband switching processes within the Openreach platform would mean that customer confusion would remain, and there would still be the potential for difficulty in contacting the LP. The difficulties created by the need to provide real time descriptions of the full implications of switching, through an automated channel, are discussed at paragraph 46 above.

96. As discussed in paragraphs 64 to 75 above, we do not agree that requiring CPs to put all ETCs and implications of switching on all consumers' bills on an ongoing monthly basis is a proportionate or effective remedy to the problem identified. In many cases, this will cause confusion amongst customers and lead to calls into our billing teams and potential complaints/disputes. We would support alternative and more proportionate methods of ensuring transparency, such as those we have suggested above.

Q11 Do you agree with the assessment of the likely costs of the proposals as set out in the Cartesian report? If not, please state how and provide information and evidence relating to the costs.

97. We have looked at the question of costs from both the Openreach perspective and from a retailer's perspective (BT Consumer). We have not assessed costs for EE or Plusnet at this stage.

98. For BT Consumer, the likely cost breakdown is as follows:

Option	Description	VROM Cost Range	Implementation timescales
1	**Enhanced cease and re-provide ('EC&R') process**	✂	**24 Months**
2	**Gaining provider led ('GPL') process**	✂	**18 Months**

99. A detailed technical assessment of the systems and process impacts for BT Consumer, and cost estimates, is at Annex 2.

100. Please note that these are systems development costs only, and do not include up-front or ongoing operational costs such as adviser training, process development etc.

101. This compares to Cartesian's estimate for "front end" costs to BT (and other "large" CPs) of £506k CAPEX and £90k OPEX. We understand this includes both systems development and operational costs, so is likely to be a serious under-estimate.

102. Openreach reviewed the costs assessment carried out by Cartesian of extending the use of EMP to support the forwarding of messages between CPs for cross-platform switching. Openreach does not agree with the assessment of the likely costs as set out in the Cartesian report and notes that the costs shared with Ofcom and Cartesian at a meeting on 16 June 2016 have not been taken into account.

103. Cartesian assessed the cost to Openreach of extending the use of EMP to support the forwarding of messages between CPs at £261,360 split as follows (irrespective of the front end option)[10]:

- £217,800 fixed CAPEX costs based on 436 man-days of effort costed at £500 per day
- £43,560 fixed OPEX costs based on 20% of the CAPEX cost

104. Although the Cartesian cost model provides some information as to the areas the development costs apply to (e.g. asset validation)[11], it does not provide any rationale for the estimated number of man-days of effort used in the model or the 70% percentage reduction applied to account for synergies between the various development areas.

105. It is a theoretical model that does not reflect the architecture and the system components making up EMP, the potential complexity of the requirement and that has grossly underestimated the development costs Openreach would incur.

106. Based on Cartesian's specification and on Openreach understanding of the requirement, Openreach has estimated the system development costs at ✂. These costs include the design, development and end to end testing as well as CP testing of the solution. They exclude any on-going operational costs to manage CP queries related to their messages or the cost of developing a message tracker which, under this model, could very well be required by CPs.

[10] Cartesian Cost Model – GPL-EMP System Workings and eC&R-EMP System Workings worksheets

[11] Cartesian Cost Model – Inputs_Delivery Effort worksheet

These costs also make allowance for subsequent iterations and releases as is very often the case with complex developments (e.g. those for fixed voice and broadband switching on the Openreach platform in June 2015).

Q12 Do you think that a manual communication channel for small providers would be more appropriate compared to an automated communication channel?

107. BT has not considered this question in any detail. However it is likely that a small provider would benefit from the ability to use a central message broker/system to pass messages to LPs, rather than having to establish individual point-to-point connections with each CP, whether manual or automated.

Q13 Do you agree with our preference for Option 2 (GPL)?

108. Yes, BT agrees that Option 2 – a full GPL process – is highly preferable to Option 1 from a consumer perspective, for all the reasons discussed above. In particular, consistency of switching between platforms and switching within the Openreach platform is highly desirable so that consumers switching triple play bundles are not confused and can follow a consistent process for all of their services.

109. In terms of systems and process development, Option 1 requires more development than Option 2, in that it requires the same message exchange functionality between gaining and losing CPs as Option 2, plus further developments in relation to the functionality required to provide consumers with the implications of switching via automated channels.

110. Many other industries, such as banking and utilities, have moved or are moving to a GPL switching process – in line with the government's objectives as stated in the government's action plan following its Call for Evidence on Switching Principles[12]. Consumers are thus increasingly familiar with a GPL approach. For the sake of simplicity and consistency across these industries, Ofcom should adopt a GPL process for cross-platform switching.

111. As discussed above, we believe Option 2 should be combined with a central message broker for the back-end communications channel.

Q14 Could there be synergies across costs between implementing a GPL proposal for triple play services and mobile phone services?

112. BT believes there is scope for significant cost synergies if GPL processes were to be implemented for both triple play and mobile services at the same time. Firstly, with simultaneous implementation there may be an opportunity to develop a single "central message broker" platform (as opposed to two separate platforms), that would support switching across cross-platform triple-play and mobile services, and act as a "back-end" communications channel between CPs. Whilst BT has not assessed the feasibility of such a facility, this would be a future proof option that would better facilitate quad play switching, and we would expect it to be significantly less costly to develop than two individual switching platforms.

113. Secondly BT considers that the simultaneous implementation of any switching reforms could also potentially reduce CPs' costs of educating customers and employees on changes to processes and training customer service teams. The extent of such cost is likely to be dependent on how integrated CPs' mobile and triple play customer services and systems are, and so will vary by CP[13].

[12] See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/525243/bis-16-254-switching-action-plan.pdf

[13] BT has not undertaken its own assessment of the extent of cost savings, and this is likely to vary by CP.

114. In addition to cost synergies, simultaneous implementation of any switching reforms will reduce complexity and confusion for consumers, making switching easier and less costly. It also has the potential to drive greater innovation in quad play offerings, and therefore facilitate competition and increase choice for consumers.

Q15 Do you consider that Option 2 (GPL) could enable consumers to go through the switching process through TPIs/PCWs? Would this be beneficial to consumers?

115. It is likely to be possible for TPIs and PCWs to liaise with GPs on consumers' behalf, thus potentially saving consumers time, as long as they had an obligation to keep a clear record of consent from the customer to switch their service(s). (The same may not be true of Option 1, as it involves contact with both GP and LP, which TPIs and PCWs may be unlikely to be prepared to do.)

Q16 Do you have any other comments on the matters raised in Section 5?

116. Please see Annex 4 for comments on Annex 7 to Ofcom's consultation document, paragraphs A7.10 to A7.18, in which Ofcom discusses the issues potentially causing loss of service when switching within the Openreach platform.

Annex 1 - Some points of clarification on scope of Ofcom's proposals

117. As stated above, BT is very supportive of Ofcom's proposal to extend GPL switching processes to cover pay TV and cross-platform switches of any core services supplied to UK households. We do not believe there are any insurmountable difficulties to resolve, and we look forward to working with Ofcom and industry to reach a fully effective solution. However there are a few points relating to scope which it would be useful to clarify.

118. Ofcom states in paragraph 2.8 of the consultation that it is concerned with the processes that should apply where a consumer is switching one or more of the "triple play" services (landline, fixed broadband and pay TV) between the relevant platforms (the Openreach, Virgin cable and Sky satellite platforms).

119. In its description of how such switches are carried out currently, Ofcom makes no mention of the industry-agreed Number Port process which operates when customers are switching their landline between the Openreach platform and the Virgin cable platform. Whilst this is not a regulated process under the General Conditions, it is a GPL process and, where a customer is switching their broadband and/or TV service at the same time as their landline, it would be sensible for the gaining provider (GP) to co-ordinate the timing of that switch with the porting of the landline number, so that both/all three services are "switched on" at the same time. This needs to be taken into account in the process design. The fact that, for a number port, the consumer only has to speak to the GP adds weight to the argument that Option 2 should be adopted for all elements of a cross-platform switch, in the interests of simplicity and consistency. It would make little sense for a consumer who is leaving Virgin to be able to transfer their landline to the Openreach platform without contacting Virgin, but to have to contact Virgin in order to cease their broadband and/or TV service (as they would have to under Option 1, the EC&R process, and just as they do now).

120. It is not clear whether Ofcom intends the scenario where a consumer is breaking up a bundle to be in scope. For example, a consumer might be with Sky for all three triple play services, but decide to move to BT for voice and broadband, and Virgin Media for pay TV services. In this case, would both GPs be required to co-ordinate the provision of all three services, or would there be two separate arrangements led by the two GPs for which provision dates may or may not coincide? We assume the latter, as the former may lead to unnecessary complexity, but it would be useful to confirm.

121. Conversely, where a consumer is choosing to consolidate suppliers, and to move from two or three separate LPs to a single GP, we assume that the GP would be required to co-ordinate the completion of all provisions and cessations, as this would lead to a better experience for the consumer.

122. We assume that, for elements of a triple play bundle that are being switched between providers on the Openreach platform, the existing NoT process would continue to be followed. However the GP would be required to co-ordinate orders so that the cross-platform switch (eg of pay TV) would be completed on the same day as the voice and/or broadband switch. For example, if a consumer was switching a triple play bundle from Sky to BT, BT would need to co-ordinate orders so that the ten working day NoT transfer period for the voice and broadband services (managed via the Openreach EMP gateway) would be completed on the same day that Sky switched off the satellite TV service and BT TV was provided. It would be useful to confirm that this is what Ofcom envisages.

123. Where a consumer is switching away from a triple play bundle with, say, BT or TalkTalk to Sky or Virgin Media, the pay TV service is automatically ceased when the broadband service is ceased. However, under the proposed new cross-platform switching process, our view is that the GP should be required to send a notification of the TV cease to the LP, in order to keep the process symmetrical, given that a switch in the other direction would require such notification.

124. We note that Ofcom has specifically excluded fibre to the premises (FTTP) from the scope of its proposals, and alternative networks within the UK other than the Openreach, Virgin cable and Sky satellite platforms are excluded from its definition of "relevant platforms". Whilst we don't

disagree with this approach at this stage, it is essential that services provided over these other platforms, and over future all-IP platforms, are capable of being switched following a consistent process to that proposed by this consultation, and thus that any new process design is future-proof.

125. By 2018/19, Single Order GEA is likely to be the core wholesale product supporting the provision of voice and broadband services on the Openreach network. It is possible that some CPs will have chosen to change their propositions to offer broadband-only, without fixed voice service, or broadband plus TV. Quad play bundles including mobile are also likely to become more prevalent. Whilst the processes specified in Ofcom's consultation have been designed with today's services and propositions in mind, again it is important that consideration is given to ensuring they are future-proof and capable of being applied to any combination of services likely to be sold as a bundle, irrespective of the underlying technology.

Annex 2 - Detailed technical assessment of systems impacts for BT Consumer (excluding any Openreach impact)

Option 2: Gaining provider led ('GPL') process

Area	Process Impacts	Systems impacted	VROM Estimates
Gaining Provider Process	1. GP receives Sales enquiry from Customer – 2. GP identifies potential Transfer scenario and is asked to handle coordination by Customer (if no coordination then BAU form that point on) 3. GP interrogates LP to ascertain which Services require coordination (i.e. BB/Voice/TV) 4. GP confirms with customer, which Services they wish to have a coordinated Cease	BT.com, agent.com, MCSO, B2B, XML G/W, ESB	✂
	5. GP submits order to provide new services ○ Includes process flag to denote a 'coordinated order' (SR) and Record of Consent (Activity) ○ GP sends notification to LP (once all order legs committed), to instruct them that their customer is planning to leave and which services are affected, including planned completion date ○ GP sends order confirmation to customer (possibly including new content relating to coordination?) 6. Inflight Fulfilment &Completion ○ For non-committed orders, GP sends confirmation of completion date, once order is committed ○ For order delays or revised completion dates, GP sends notification to LP advising of change in planned completion date ○ Order Cancellation - LP-initiated (i.e. Cancel Other) – Cancel GP Order, Send KCI to customer ○ Order completion, for a coordinated order, GP sends stop notification to LP, instructing them to cease the customer services at their end	BT.com, Agent.com, MCSO, Oneview, OFS, ESB, B2B, KCIM, CMS	✂
	7. Order Management ○ Tracking ▪ it should be apparent to user that an order is a coordinated Transfer ▪ outbound notification events to the LP should be apparent – i.e. order timeline ○ Order Amends & Recovery – send revised notification to LP ○ Order Cancellations - Customer-Initiated - GP sends notification to LP to advise of cancellation of coordination process	Order.com, MCSO, OV, OFS, ESB, B2B, KCIM, CMS	✂
Losing Provider Process	1. LP provides interface to allow GP to ascertain what services they are providing to their customer (i.e. BB/Voice/TV)	XML G/W, ESB, OV	✂

	2. LP receives notification to warn of impending Transfer, including which Services are to be Ceased o Records flag to denote pending cease (SR like an AOT) o Orchestrate with concurrent AOT/NOTs o LP advises their customer of the impact of proposed cease 3. LP receives interim updates, advising of modified pending Cease date 4. LP may receive cancellation notification, advising that pending Cease no longer applies	B2B, ESB, OV, OFS, KCIM, CMS, B&P	✂
	5. Order Management o Tracking i. it should be apparent to users that a pending Cease applies to the customer ii. inbound notification events from the GP should be apparent o Order Cancellation – submit a Cancel Other	order.com, MCSO, OV	✂
	6. On date of GP's order completion, LP receives stop notification from GP, including confirmation which Services to stop. o LP enacts Cease of customer's relevant Services and confirms to their customer o LP applies appropriate charges as previously notified to customer	B2B, ESB, OV, KCIM, CMS	✂
Viewing impact of Ceasing	o Each bill should potentially show current contract info and cost of leaving (i.e. ETCs, Cease Charges) o Visible in paper, online and PDF format views of the bill o Also impacts 'cessation charges header' in Agent.com (also in Oneview)	Agent.com, BPTA, OV, B&P, Amdocs	✂
MIS, CSOC Monitoring and DI	o To be defined but assumed to be similar to AOT/NOT reporting o Provide ops monitoring of any new interfaces	EDW, BPTA, Marbledropper	✂
Sales / Commercial	o Save opportunities - To be defined subject to Ofcom conditions o Should not allow new orders whilst in-flight Transfer in progress o Pending Save – potentially support raising a Pending Save order, which gets committed once Transfer cancellation is received from GP	ecomm, OV, MCSO, KCIM, Order.com, IVM	✂
Integration with external communication channels with other CPs (or Broker)	o Possible integration through KCIM (email), XML G/W, B2B – to be defined o Extra hardware, Firewall, etc.	IIP	✂
Governance, Testing & Rollout	o Test Infrastructure, Trials, Interlock		Assume covered by shared release costs

Option 1: Enhanced cease and re-provide ('EC&R') process

Area	Process Impacts	Systems impacted	VROM Estimates
Gaining Provider Process	1. GP receives Sales enquiry from Customer – 2. GP identifies potential Transfer scenario and is asked to handle coordination by Customer (if no coordination then BAU form that point on) o GP instructs customer to request a Pending Cease with the LP 3. GP interrogates LP to ascertain which Services require coordination (i.e. BB/Voice/TV) 4. GP confirms with customer, which Services they wish to have a coordinated Cease	BT.com, agent.com, MCSO, B2B, XML G/W, ESB	✂
	2. GP submits order to provide new services o Includes process flag to denote a 'coordinated order' (SR) and Record of Consent (Activity) o GP sends notification to LP (once all order legs committed), to instruct them that their customer is planning to leave and which services are affected, including planned completion date o GP sends order confirmation to customer (possibly including new content relating to coordination?) o For Option 1, this is a Pending Provide, which is held until the Pending Cease is placed with the LP and can be verified ▪ GP has to poll until LP indicates the Cease has been placed by the customer 3. Inflight Fulfilment &Completion o For non-committed orders, GP sends confirmation of completion date, once order is committed o For order delays or revised completion dates, GP sends notification to LP advising of change in planned completion date o Order Cancellation - LP-initiated (i.e. Cancel Other) – Cancel GP Order, Send KCI to customer o Order completion, for a coordinated order, GP sends stop notification to LP, instructing them to cease the customer services at their end	BT.com, Agent.com, MCSO, Oneview, OFS, ESB, B2B, KCIM, CMS	✂
	5. Order Management o Tracking ▪ it should be apparent to user that an order is a coordinated Transfer ▪ outbound notification events to the LP should be apparent – i.e. order timeline ▪ show pending provide status, awaiting LP confirmation that customer has contacted them o Order Amends & Recovery – send revised notification to LP o Order Cancellations - Customer-Initiated - GP sends notification to LP to advise of cancellation of coordination process	Order.com, MCSO, OV, OFS, ESB, B2B, KCIM, CMS	✂
Losing Provider Process	1. LP provides interface to allow GP to ascertain what services they are providing to their customer (i.e. BB/Voice/TV)	XML G/W, ESB, OV	✂

	2. Customer contacts LP to submit a Pending Cease order o LP captures pending Cease order and awaits further notification from GP o Provide customer the ability to view their cease charges online o And also provide customer with alternative online ability to place Pending Cease (having been shown their cease charges)	Ecomm, IVR, MCSO, OV, ESB	✂
	3. LP provides interface for GP to confirm that the Pending Cease order has been placed	XML G/W, ESB, OV	✂
	4. LP receives notification to warn of impending Transfer, including which Services are to be Ceased o Records flag to denote pending cease (SR like an AOT) o Orchestrate with concurrent AOT/NOTs o LP advises their customer of the impact of proposed cease 5. LP receives interim updates, advising of modified pending Cease date 6. LP may receive cancellation notification, advising that pending Cease no longer applies	B2B, ESB, OV, OFS, KCIM, CMS, B&P	✂
	7. Order Management o Tracking i. it should be apparent to users that a pending Cease applies to the customer ii. inbound notification events from the GP should be apparent o Order Cancellation – submit a Cancel Other	order.com, MCSO, OV	✂
	8. On date of GP's order completion, LP receives stop notification from GP, including confirmation which Services to stop. o LP enacts Cease of customer's relevant Services and confirms to their customer o LP applies appropriate charges as previously notified to customer	B2B, ESB, OV, KCIM, CMS	✂
Viewing impact of Ceasing	o Each bill should potentially show current contract info and cost of leaving (i.e. ETCs, Cease Charges) o Visible in paper, online and PDF format views of the bill o Also impacts 'cessation charges header' in Agent.com (also in Oneview)	Agent.com, BPTA, OV, B&P, Amdocs	✂
MIS, CSOC Monitoring and DI	o To be defined but assumed to be similar to AOT/NOT reporting o Provide ops monitoring of any new interfaces	EDW, BPTA, Marbledropper	✂
Sales / Commercial	o Save opportunities - To be defined subject to Ofcom conditions o Should not allow new orders whilst in-flight Transfer in progress o Pending Save – potentially support raising a Pending Save order, which gets committed once Transfer cancellation is received from GP	ecomm, OV, MCSO, KCIM, Order.com, IVM	✂
Integration with external communication channels with	o Possible integration through KCIM (email), XML G/W, B2B – to be defined o Extra hardware, Firewall, etc.	IIP	✂

other CPs (or Broker)			
Governance, Testing & Rollout	○ Test Infrastructure, Trials, Interlock		Assume covered by shared release costs

Annex 3 - Assessment of the use of EMP for the back-end communications channel

126. EMP is used today by CPs to raise provision orders or fault reports with Openreach. It has not been designed to convey messages between CPs, as specified by Cartesian, and this capability would need to be designed and developed.

127. Conceptually, we consider that CPs would need to raise a new type of order (e.g. a "message conveyance" order), and provide the message content and the details of the CP to whom the messages would need to be delivered. EMP would need to treat these "message conveyance" orders like any other order and would need to offer CPs the ability to create, amend and cease such orders as well as provide some basic tracking and reporting capabilities.

128. The complexity of the solution would ultimately depend on the CPs' specific requirements for:
- differentiating between asset / customer validation and switching requests
- KCI (Keep the Customer Informed) / acknowledgement messages and
- the solution adopted by CPs to identify the recipients of the messages which would have to be the same for all.

129. It is also likely that CPs would request acknowledgement that Openreach had received the messages, forwarded them to the recipient CPs and possibly that the recipient CPs received them.

130. Openreach considers that using EMP as the back end inter CP communications channel would not be appropriate or add value as an industry solution and it is therefore not supportive of this option. Like Openreach, CPs would incur system development costs as well as consumption costs. Openreach does not have any visibility of what these consumption costs are but understands that, depending on the change involved, they could be quite significant. The method for recovery of these costs is not clear.

131. Under this option, EMP would become a critical system in the successful validation of assets and end customers as well as in the successful delivery of cross-platform switches; and any issues or outages impacting EMP's ability to accept and deliver messages would also affect CPs and end customers. EMP is available to CPs 24/7; however it is subject to regular scheduled outages (which CPs are notified of) for routine maintenance and release deployment purposes. Although these outages are kept to the minimum and scheduled for out of hours or over weekends, they could impact CPs' ability to carry out real time validations. Furthermore, although very reliable, EMP can very occasionally be subject to unplanned outages during which some functionality could become unavailable.

132. Finally, Cartesian's cost model assumes that most CPs have access to EMP either directly or via a wholesale provider. This suggests that there would be no need for resellers to have direct access to EMP. Where resellers are involved, this model would make real time communications between CPs (e.g. validation of assets and customers) cumbersome as the gaining CP (in the case of a switch from a reseller on the Openreach platform to, for example, Virgin Media) would need to identify (using existing dialogue services) the Openreach CP / wholesaler to whom a request would be sent. The Openreach CP / wholesaler would in turn forward the request down the reseller chain to the end customer's reseller who would send the confirmation message back the same way.

133. Were Ofcom to consider that all CPs (including resellers) needed to have direct access to EMP, this would increase the overall cost of implementation. Alternatively, these CPs could consider setting up commercial arrangements with Third Party Integrators (TPIs) which would again increase the overall cost of implementation and would have to be taken into account in the cost analysis.

Annex 4 - Comments on Ofcom's Annex 7 regarding loss of service when switching within the Openreach platform

Consumers cancelling their services first

134. We can confirm that the development planned for delivery in November 2016 will enable new gaining providers to switch a consumer's service when a cease request has already been placed (by the losing providers) as long as the completion date of the switch request is on or before the completion date of the cease request.

135. When the completion date of the switch request is after the completion date of the cease request, the switch request will continue to be rejected as it is today. We suggest that in such circumstances, the gaining provider liaises with the end customer to either get the cease request cancelled or get its completion date pushed forward.

Delays in activation

136. It is not clear from the information provided in which circumstances end customers would lose service as a result of delays in switching their services from one provider to another. From an Openreach point of view, the switch of one service provided by the losing provider to the same or a different service provided by the gaining provider happens on the day the switch takes place and until the switch happens the physical connections (that support the provision of service to the end customers) remain in place.

137. There may be other reasons (e.g. actions on the part of the losing providers), unrelated to the Openreach activities, that result in the end customers losing service.

Staggered provision of landline and broadband services

138. Openreach recognises that in some circumstances, orders for land line and broadband services that are linked together (for delivery on the same day) can become disassociated resulting in the split delivery of the two services and end customers having to wait for their broadband service to become available.

139. Openreach has been working with and continues to work with the OTA and industry to address issues that have been identified. Openreach has also published a Best Practice Guide to "SIM2" (the process that enables CPs to link together separate orders for land line and broadband services) to help CPs ensure their end customers receive the services they have requested.

Annex 5 – Oxera report: “Evidence on the impact of asymmetric switching processes”

See separate attachment.

Evidence on the impact of asymmetric consumer switching processes

Final report

Prepared for
BT Group

4 November 2016

Non-confidential version

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Contents

1 Introduction and summary of findings

Ofcom recently implemented a harmonised Gaining Provider Led (GPL) switching process for all broadband switches within Openreach.[1] This GPL process makes reactive saving by the losing provider significantly harder. That is, Openreach-based operators are not allowed to make 'reactive save' offers to existing customers wishing to switch provider.

This implies a regulatory asymmetry in the market as other platform operators (i.e. Virgin Media and Sky TV) are not subject to a GPL process and thus have an opportunity to 'save'. For example, a Sky triple-play subscriber who wishes to switch to BT has to contact Sky to cease the TV element of its bundle, giving Sky an opportunity to 'save'. Similarly, Virgin dual- and triple-play subscribers need to contact Virgin to cancel their broadband and/or TV service. By contrast, a BT triple-play subscriber wishing to switch its bundle to Sky or Virgin does not have to contact BT to cancel all elements of the bundle, these are automatically ceased by Openreach as part of the GPL process.

Ofcom has consulted on the possibility of extending the GPL process to switches to and from other platforms (other than Openreach) such as mobile, cable and Sky TV.[2] Ofcom's provisional view is that existing cross-platform switching arrangements create a number of process-related difficulties for switchers, and can deter some consumers from switching.[3] It has therefore proposed two options for reform: a cease and re-provide (C&R) regime (Option 1); and a GPL process (Option 2).[4]

In this report, Oxera focuses on assessing the impact of asymmetric switching processes ('the status quo') on the competitive process and on UK consumers. In particular, we examine whether remaining in the status quo would hinder competition in the market and raise prices for consumers relative to a fully harmonised symmetric switching regime, where the latter allows all providers to save or prohibits all providers from saving.

To answer this question, we considered the possibility of adopting an empirical approach to estimate the impact of asymmetric switching processes. However, we found that isolating the effects of changes in switching processes on prices over time is challenging in practice: many factors tend to affect prices simultaneously, while the data required to separate out these factors is not fully available.

We therefore rely on a theoretical approach to analyse the effects. We do this in two steps. First, we identify and set out the mechanisms by which switching processes affect prices by drawing on the economic literature and relevant economic theory. We conclude that a gap in the literature exists in that previous consumer switching studies have not incorporated 'reactive saving'—let alone asymmetric saving activity—into the analysis.

To bridge this gap, we have worked with Professor Natalia Fabra of Universidad Carlos III de Madrid, who has developed a theoretical model that builds on existing consumer switching models in the literature but with the novelty of

[1] Ofcom (2013), 'Consumer switching: A statement and consultation on the processes for switching fixed voice and broadband providers on the Openreach copper network', 8 October.
[2] Ofcom (2016), 'Making switching easier and more reliable for consumers: Proposals to reform landline, broadband and pay TV switching between different firms', 29 July.
[3] Ofcom (2016), op. cit., para. 1.4.
[4] Ofcom (2016), op. cit., para. 1.6.

introducing reactive saving, as well as asymmetries in the ability of firms to 'save' customers.

1.1 Summary of main findings

Professor Fabra's model builds on the existing literature (in particular Cabral, 2016)[5] and incorporates 'reactive saving'. With reactive saving, platforms can price-differentiate between potential switchers and non-switchers and hence no longer face the trade-off between increasing profits from non-switchers, on the one hand, and losing price-sensitive customers, on the other, when increasing prices to existing customers. That is, reactive saving facilitates two effects identified in the economic literature that explain the impact on prices in the context of switching costs: 'harvesting' existing customers by selectively raising prices to customers who are unlikely to switch; and 'investing' in customers who might be potential switchers by selectively lowering prices through save offers.

When this strategic tool is available to the 'stronger' platforms[6] only in an asymmetric switching regime, two sources of consumer harm can arise: a) strong platforms 'harvest' more under a switching process that allows them to 'save', because they face fewer potential switchers at any given point in time (due to their 'strength') and are able to price-discriminate more effectively through the ability to make 'save' offers; and b) weaker platforms that are not able to engage in 'save' activity, will 'invest' less and therefore tend to compete less fiercely and charge higher prices.

These effects reinforce each other and result in a situation where the status quo asymmetric switching regime in the UK market is likely to result in higher prices for consumers compared with a symmetric regime.

Overall, the evidence reviewed in this report indicates that the UK status quo for triple-play services is an asymmetric GPL-C&R regime in which the strong, established players (in particular Sky) are allowed to engage in reactive saving while the weaker players are not. Under these circumstances the model presented in this report predicts that the asymmetric GPL-C&R regime is likely to result in higher average prices than either a symmetric regime where saving is permitted or a symmetric regime where saving is prohibited. Therefore, abandoning the current asymmetric GPL-C&R regime in the UK would be to the benefit of UK consumers.

1.2 Structure of the report

The remainder of the report is structured as follows.

- In section 2, we describe Ofcom's interventions in the market with regard to consumer switching and how the current asymmetry in switching regimes emerged.
- In section 3, we outline the relevant market developments in the UK fixed telecommunications markets that are relevant to our application of the economic model to the UK market.
- In section 4, we summarise the existing economic literature of consumer switching before explaining how Professor Fabra's model builds on these

[5] Cabral, L. (2016), 'Dynamic pricing in customer markets with switching costs', *Review of Economic Dynamics*, **20**, pp. 43–62.
[6] In the context of this report and Professor Fabra's model, strong platforms refer to platforms that are valued highly by consumers, as shown by market shares and other market performance indicators. This applies in particular to Sky and, to a lesser degree, Virgin Media in the provision of triple-play services.

findings by introducing the role of ‘reactive save’ activity. We then apply the key findings of this model to the UK market context and conclude on whether removing the existing regulatory asymmetry would improve outcomes for consumers.

2 Ofcom's interventions in consumer switching have resulted in an asymmetry in switching regimes

In this section we give an overview of Ofcom's recent interventions in the area of consumer switching, and assess their implications for the market.

We find that Ofcom's interventions have led to a market asymmetry in firms' ability to 'save' customers, in particular as regards triple-play services. This asymmetry also manifests itself in the saving activity undertaken by certain UK telecoms providers, as suggested by BT data on broken switches.

2.1 Summary of Ofcom's market interventions

In the last decade, Ofcom has made a series of interventions in the market to facilitate consumer switching among broadband providers. This goes back to the creation of Openreach, when a GPL process was implemented for switches to and from MPF and WLR subscribers.

In 2010, Ofcom launched a strategic review on consumer switching, which led to the opening of a consultation on the switching processes in place at the time.[7] This culminated in Ofcom's 2013 statement, which harmonised the switching processes within the Openreach platform to a GPL process, starting from June 2015.[8]

Importantly, one of the key features of the regulated process that applies to switching within the Openreach platform is that the losing provider can no longer contact the customer to make a 'save' offer and prevent them from switching. More specifically, General Condition 22.15 prohibits reactive save activity as part of the switching process for consumers switching voice and/or broadband within the Openreach platform.

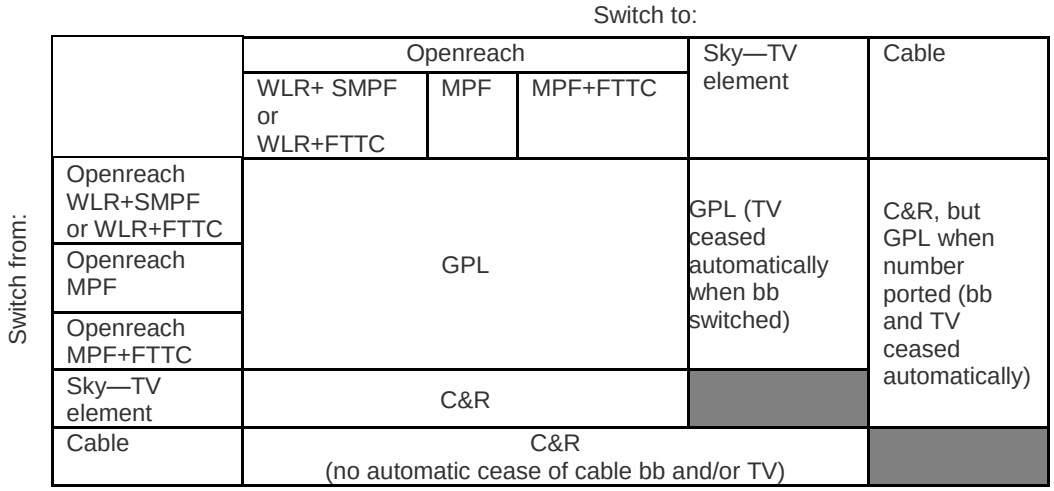
As shown below, the partial implementation of a regulated switching process in the UK broadband market (since the creation of Openreach) has led to a growing asymmetry among broadband and pay-TV providers in terms of their ability to 'save' customers, particularly for switches of triple-play subscribers.

2.2 Switching processes and asymmetric ability to 'save'

Although switching processes within the Openreach platform have been harmonised to a GPL process since June 2015, different switching processes still apply in switches between the Openreach, cable and Sky TV platforms (see Figure 2.1).

[7] Ofcom (2010), 'Strategic review of consumer switching: A consultation on switching processes in the UK communications sector', 10 September.
[8] Ofcom (2013), 'Consumer switching: A statement and consultation on the processes for switching fixed voice and broadband providers on the Openreach copper network', 8 October.

Figure 2.1 Broadband switching processes (post-June 2015)



Source: Oxera.

2.2.1 Switches between Openreach and Sky

Broadband switches from Openreach-based operators (e.g. BT, TalkTalk, EE) to Sky are handled over a GPL process (and thus reactive saving is prohibited in these instances). This is irrespective of whether the service provided is dual- or triple-play. Although a GPL process is not mandated for the TV element of the bundle, the TV service provided over the Openreach platform is technically attached to the broadband service and hence automatically ceases when a subscriber switches their broadband service from BT or TalkTalk to Sky.

The same does not hold for triple-play switches from Sky to Openreach-based providers. In this case, a Sky triple-play customer wishing to switch the service to BT or TalkTalk needs to contact Sky to cease the TV element of the bundle (although the voice and broadband services can be acquired using the GPL process). This is because the TV service provided over the Sky platform is not tied to the provision of broadband and it therefore does not have to be ceased when the broadband service is cancelled. The fact that the triple-play customer needs to contact Sky to cease the TV element of the bundle means that Sky has an opportunity to 'save' the customer not just for the TV service but for all three services. This is an opportunity that BT and TalkTalk do not have.

2.2.2 Switches between Openreach-based providers and Virgin

Broadband switches to or from the cable platform largely follow a C&R process. A broadband customer switching from BT or TalkTalk to Virgin needs to contact their current provider to cease their service. Likewise, a Virgin customer switching to BT needs to contact Virgin to cancel their service.

However, an exception exists when customers port their phone number when switching their broadband service. When this happens, a switch from Openreach to Virgin follows a GPL process. This is because number porting is subject to a GPL process and since the Openreach broadband service is dependent on a working line, the broadband service is automatically ceased by Openreach when the voice service is switched to an alternative network.[9]

[9] However, this was not the case before June 2012, when the industry-agreed Number Port process used to allow the losing provider to contact the customer. In June 2012 the process was changed, following intervention from Ofcom to prohibit this. Ofcom's intervention at this point increased the asymmetry, because

The same does not occur when a Virgin customer switches to an Openreach-based operator and ports its phone number. In this case, the customer still needs to contact Virgin to cease the provision of the broadband and TV elements of the bundle. This is explained by the fact that Virgin supplies the broadband and TV services independently of the voice service.

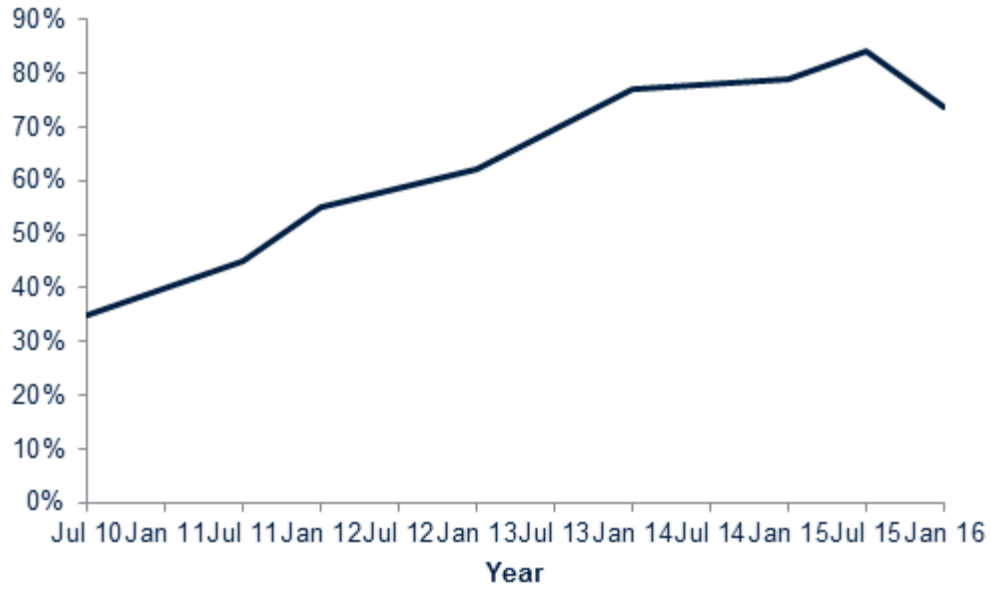
This implies an asymmetry between Openreach providers and Virgin in their ability to 'save' customers. While Virgin can make a 'save' offer to both dual- and triple-play customers wishing to switch supplier, Openreach operators cannot.

2.3 Growing asymmetry in the ability to 'save' customers

The asymmetry described above—i.e. in the ability to 'save' existing customers between Openreach-based providers and Sky and Virgin—was not created by Ofcom's 2013 statement. Instead, this asymmetry has been growing over time and was reinforced by Ofcom's latest intervention.

Prior to June 2015 (when switching processes within the Openreach platform were harmonised to a GPL process), broadband switches to or from MPF subscribers within the Openreach platform were already subject to a GPL process. Therefore, the growing adoption of MPF by Openreach providers over time (see Figure 2.2) has led to a gradual implementation of the GPL process and thus of the inability to make reactive save offers within the Openreach platform.

Figure 2.2 Full unbundled lines as a proportion of new entrants' DSL subscriptions



Note: The value for January 2011 was calculated from data on the availability of wholesale line access, as it was not reported.

Source: EU Broadband Indicators Data (Ofcom).

Despite this, Sky has retained its ability to 'save' triple-play customers over this period, as it supplies TV independently of the broadband service, providing it with an opportunity to 'save' triple-play customers who wish to switch their entire

Openreach-based communication providers no longer had any 'save' opportunity in switches where a number was being ported, whereas Virgin was able to continue making 'save' attempts when customers contacted Virgin to cease their broadband or TV.

bundle. Likewise, Virgin has kept its ability to 'save' dual- and triple-play customers over the years, since its broadband service does not rely on MPF inputs.

This means that while the ability of BT and TalkTalk to 'save' triple-play customers has lessened over time, the ability of Sky and Virgin to save customers has remained largely unchanged, implying a growing asymmetry in the provision of a service that is becoming increasingly popular among UK households (see section 3).

2.4 Saving activity in the UK broadband market is uneven

This asymmetry is reflected in the levels of saving activity undertaken by the different broadband providers as evidenced by BT data on broken switches. This data refers to broadband switches from or to BT that are cancelled after being initiated by the gaining provider or directly by the customer. One reason why this may happen is because of the customer being 'saved' by the losing provider—this data can be informative of the 'saving' activity of UK broadband operators.[10]

Figure 1.3 illustrates how broadband switches from Virgin to BT suffer the highest rate of cancellations (around ✂), followed by switches from Sky/TalkTalk to BT (around ✂). Conversely, switches from BT to other providers show a low cancellation rate (of around ✂). Note that the BT data reports switches from or to other Openreach-based providers together and therefore does not allow distinguishing between Sky and TalkTalk switches.

Figure 2.3 Cancelled broadband switches

✂

✂

✂

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✂

✂

✂

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✂

Notes: The numbers reflect the rate of cancellations of broadband switches from or to BT.

Source: Oxera based on BT data.

This data is consistent with the findings of previous Ofcom research on consumer switching experience. The 2013 report prepared by Jigsaw Research on customer retention and interoperability,[11] and commissioned by Ofcom, found

[10] There are other reasons why a switch might be cancelled (e.g. consumers decide against switching, slamming practices). However, these reasons are likely to affect all providers, and thus differences in the rate of broken switches across providers would be more informative of dissimilar levels of saving activity in the market.

[11] Jigsaw Research (2013), 'Customer Retention and Interoperability Research', 14 June.

that around half of respondents who considered switching provider cited saving activity as the main or major issue that influenced their decision not to switch. The report also points at a high incidence of saving activity, with 55% of switchers and 41% of considerers claiming to recall being subject to some kind of persuasive effort by their previous provider to convince them to stay.[12]

[12] Jigsaw Research (2013), 'Customer Retention and Interoperability Research', 14 June, pp. 68–9.

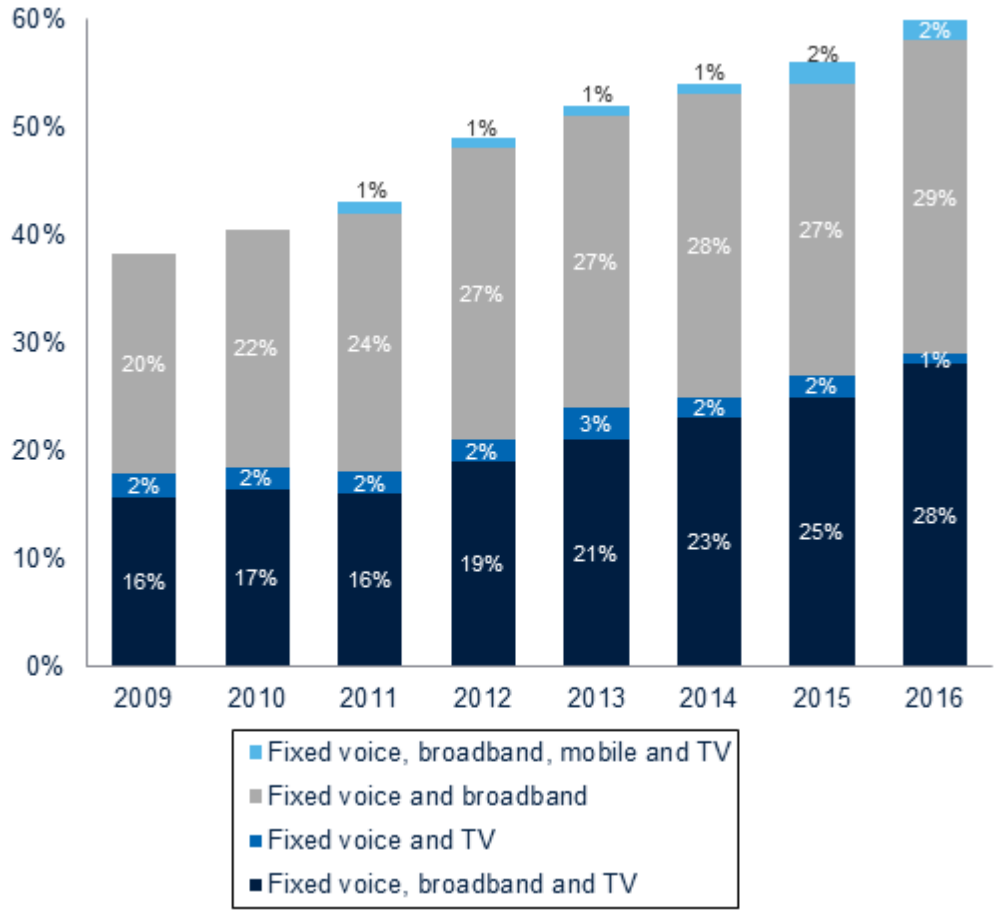
3 Recent developments in the UK fixed telecommunications markets

In this section we analyse market developments in the UK that are relevant to the application of the economic model that will be described in section 4. In particular, we look at trends in the uptake of bundles in the UK, as well as the relative position of different operators in supplying these bundles.

3.1 Growing importance of triple-play and TV bundles

Data on the adoption of telecommunications bundles indicates that triple-play services are becoming increasingly popular among UK consumers. While in 2009, 16% of UK households had taken up these services, 28% had done so by 2016 (see Figure 3.1). This proportion grows when all TV bundles, including dual-play (i.e. fixed voice and TV) and quad-play (i.e. fixed, voice, broadband, mobile and TV) services are considered. In 2016, 31% of UK households had subscribed to a TV bundle, up from 18% in 2009.

Figure 3.1 Bundles uptake in the UK



Source: Ofcom (2016), 'Communications Market Report', August.

3.2 Sky dominates the supply of triple-play and TV bundles

Sky and Virgin are the major players in the provision of triple-play and TV bundles in the UK market.

- In triple-play services, Sky and Virgin serve ✂ of the subscribers in the market, with Sky alone providing services to ✂ of this segment. BT and

TalkTalk also participate in this segment, albeit with smaller shares of ✂ and ✂, respectively (see Figure 3.2).

- In TV bundles, Sky and Virgin have an even stronger market position, as suggested by their combined share of pay-TV subscribers of ✂, which is even higher than their share of triple-play subscribers.[13]

The evidence thus shows that the size of triple-play operators in the UK is uneven. Crucially, the largest providers of these services (Sky and Virgin) are also those for which triple-play bundles (and dual-play bundles in the case of Virgin) are not yet subject to a GPL process, so that the providers are able to make 'save' offers to existing triple-play customers wishing to switch provider. This means that while the largest triple-play operators are able to 'save' customers, smaller triple-play operators (such as BT and TalkTalk) cannot.

Figure 3.2 Share of triple-play subscribers in the UK (June 2016)

✂

✂

✂

✂

✂

✂

✂

✂

✂

✂

Source: Oxera based on Enders Analysis UK Fixed Line Market Data Q2 2016.

[13] This was calculated on the basis of Enders Analysis UK Fixed Line Market Data Q2 2016.

4 Eliminating the asymmetry in switching regimes will improve outcomes of UK consumers

In this section we summarise the existing economic literature of consumer switching before explaining how Professor Fabra's model builds on these findings by introducing the role of 'reactive save' activity. Relying on the key findings of this model we consider whether asymmetric switching processes are impeding the development of effective competition in the market and raising prices for consumers relative to a fully harmonised symmetric switching regime (where the latter allows or prohibits save activity).

4.1 Economic literature on consumer switching

The economic literature on consumer switching has examined the relationship between switching costs and prices in a variety of settings: static and dynamic models, symmetric and asymmetric market shares and/or consumer preferences, and uniform pricing and price discrimination between new and old subscribers.[14]

Studies using static models (that do not consider future revenues from old and new subscribers) have found that the relationship between switching costs and prices is positive.[15] That is, increases in switching costs lead to higher prices. The intuition behind this result is that higher switching costs make consumers less prone to switching and this induces platforms to raise their prices. Put differently, higher switching costs mean that more customers would be locked in with their current provider, making a price hike more profitable to platforms (this is known as the 'harvesting' effect).

However, a growing body of literature using dynamic models has found that the impact of switching costs on prices is rather ambiguous.[16] This is because in a dynamic model, the 'harvesting' effect is offset by the platform's incentive to 'invest' (i.e. reduce prices) and attract new customers who will bring additional profits in the future. This incentive is strengthened with higher switching costs, as a lower propensity to switch means that a new customer will be expected to stay longer with the platform and thus offer greater profits. This is known as the 'investment' effect.

The literature shows that the two effects (the harvesting and investment effects) result in a U-shaped relationship between switching costs and prices (see Figure 4.1). That is, increases in switching costs have the effect of reducing prices at sufficiently low switching costs, while increasing them at sufficiently high switching costs.

The reason is that the harvesting effect is dominant when switching costs are high and there are many non-switchers who can be harvested. Conversely, the investment effect is dominant when switching costs are low and there are many

[14] Farrell, J. and Klemperer, P. (2007), 'Coordination and Lock-In: Competition with Switching costs and Network Effects', in M. Armstrong and R. Porter (eds), *Handbook of Industrial Organization*, Volume 3, Elsevier; Dube, J.P., Hitsh, G.J. and Rossi, P.E. (2009), 'Do Switching Costs Make Markets Less Competitive?', *Journal of Marketing Research*, **46**, pp. 435–45, August; Cabral, L. (2016), 'Dynamic pricing in customer markets with switching costs', *Review of Economic Dynamics*, **20**, pp. 43–62; Arie, G. and Grieco, P.L.E. (2014), 'Who Pays for Switching Costs?', Simon School Working Paper No. FR 12-13, 27 March; Pearcy, J. (2014), 'Bargains Followed by Bargains: When Switching Costs Make Markets More Competitive', Working Paper, 8 May; Fabra, N. and Garcia, A. (2012), 'Dynamic Price Competition with Switching Costs', CEPR Discussion Paper 8849.

[15] Farrell and Klemperer (2007).

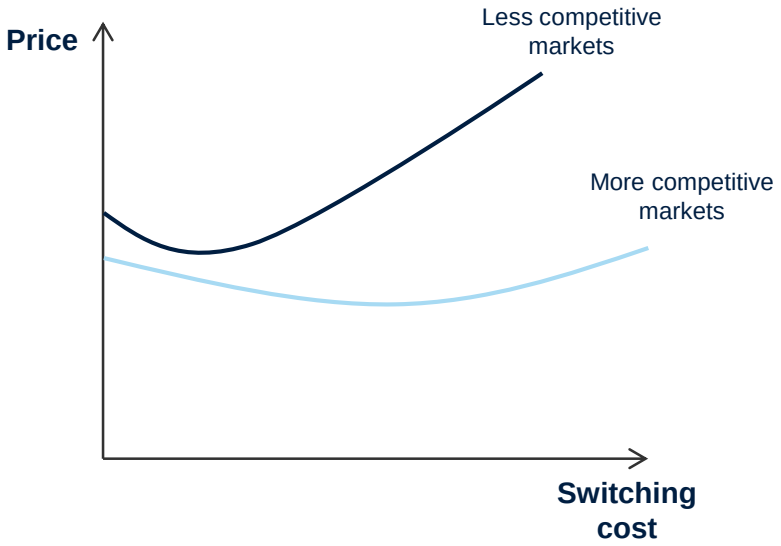
[16] Dube, Hitsh and Rossi (2009), Cabral (2016), Pearcy (2014), Fabra and Garcia (2012).

switchers in the market and thus more for the platform to gain from 'investing' in new subscribers.

Furthermore, the literature has found that the relationship between switching costs and prices is affected by the structure of the market and level of competitiveness.[17] In more concentrated, less competitive, markets (i.e. with asymmetric platforms in terms of size and/or consumer preferences), increases in switching costs lead to higher prices at lower critical switching cost levels (see Figure 4.1). This is because the 'harvesting' effect will be stronger with asymmetric consumer preferences. In this context, asymmetric preferences mean that consumers have a stronger preference for one platform relative to another. Therefore, a larger platform enjoying stronger consumer preference will face a higher proportion of locked-in customers, thus increasing its incentives to raise prices. Larger platforms will in turn have a greater influence on market prices as a result of their size.

Finally, the literature identifies the rate at which platforms value future profits (i.e. the discount factor) as playing an important role in determining the shape of the U-curve relationship.[18] The higher the discount factor, the more value platforms place on future profits and thus the stronger the 'investment' effect. That is, higher discount factors will widen the range of switching costs over which an increment is pro-competitive (i.e. the range of costs where the U-shaped curve is downward-sloping where a switching cost increment results in lower prices). Conversely, a discount factor of zero—i.e. platforms only care about the present—removes the 'investment' effect altogether, implying that increases in switching costs always result in higher prices (this is the result found in static models).

Figure 4.1 Stylised relationship between switching costs and prices in less and more competitive markets



Source: Oxera.

[17] See Cabral (2016).
[18] The discount factor is the weight placed on next period's profits and can be thought of as $1/(1+r)$ where r is the interest rate (or 'discount rate'). Hence, a higher the discount factor implies a lower discount rate, so greater weight is placed on future profits.

4.2 Professor Fabra's model: a consumer switching model with asymmetric 'saving'

Professor Fabra's model builds on the existing literature (in particular Cabral, 2016) and incorporates 'reactive saving'.[19] Thus, unlike other models in the literature, Professor Fabra's model allows for price discrimination between potential switchers (who can be 'saved') and non-switchers (who can be 'harvested').[20] Therefore, there are important interactions between reactive saving on the one hand and the investing and harvesting effects on the other, and Professor Fabra finds that both the 'harvesting' and 'investment' effects identified in the literature are reinforced by reactive saving.

The intuition behind this result is that, with reactive saving, platforms can price-differentiate between potential switchers and non-switchers and hence no longer face the trade-off between increasing profits from non-switchers, on the one hand, and losing out on price-sensitive customers, on the other, when increasing prices to existing customers. That is, reactive saving facilitates platforms both to harvest (by selectively increasing prices to non-switchers) and invest (by selectively lowering prices to potential switchers).

In fact, reactive saving can be seen as a tool by which platforms can 'invest' in customers who otherwise would have switched to competing providers. By making 'save' offers, a platform can retain a customer and secure the stream of revenues it offers. This is analogous to the case of 'investing' in a new subscriber. Thus, the effect is to intensify competition for potential switchers. Platforms in the market will expect these customer types to receive a 'save' offer by their current provider and this induces them to offer even lower prices in order to attract them.

On the other hand, reactive saving has the effect of making price increases less costly to platforms. This is because platforms can retain price-sensitive customers through reactive 'saves', thus mitigating the costs of a price hike strategy on existing customers. This enhances the ability that platforms have to raise prices to consumers who are less prone to switching (non-switchers).

Therefore, while reactive saving intensifies competition for potential switchers, it results in higher prices for non-switchers.

Taking into account the interaction between reactive saving and the 'harvesting' and 'investing' effects, there are two potential sources of harm from asymmetric switching processes where—as in the status quo—'strong' platforms are allowed to engage in saving activity, but 'weak' platforms are not.[21]

- **Strong platforms 'harvest' more under a switching process where saving is allowed**. This switching process affords these platforms the ability to price-discriminate through reactive saving, charging higher prices to customers with a low propensity to switch and lower prices to customers with a high propensity to switch. Hence, when it is the strong platform that is

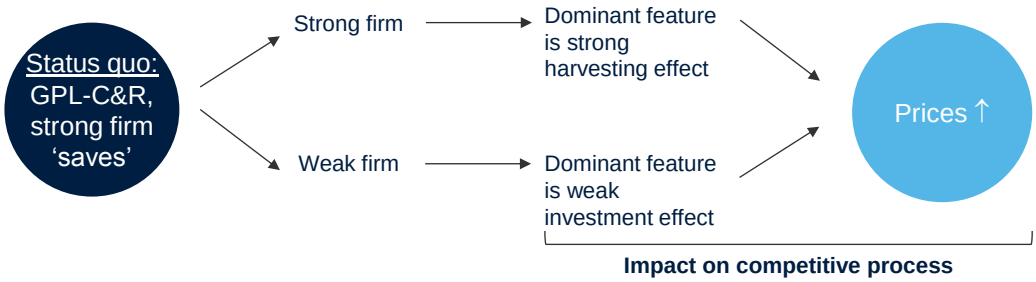
[19] A firm can engage in reactive saving if its customers must inform the firm when they intend to switch to a rival, giving the firm an opportunity to make a 'save' offer in order to persuade such customers, who have signalled their desire to switch, not to go through with their plans.
[20] In addition, the model allows for price discrimination between existing customers and potential customers (i.e. lower prices can be offered to the latter to induce them to switch platform).
[21] In the context of this report and Professor Fabra's model, 'strong' platforms are those suppliers of triple-play services for which there are strong consumer preferences. A strong indicator of the 'strength' of a platform is its supply share, which is a form of revealed consumer preference. Thus, when we refer to 'strong' platforms we mean Sky in particular (and to a lesser extent Virgin Media), which have the largest supply shares in triple-play services.

permitted to save—given that it has more customers with a low propensity to switch and is, therefore, less constrained—average prices will be higher.

- **Weak platforms 'invest' less under a switching process where saving is not permitted**. Under this switching process 'weak' platforms are not able to engage in reactive saving, and are therefore less able to retain their customers. As a result, weak platforms have a lower incentive to 'invest' in attracting new customers through aggressive pricing because they are less likely to benefit from the future profits generated by customers that are won. Thus, weak platforms tend to compete less fiercely for customers and charge higher prices when they are subject to a switching process that prevents save activity.

This is summarised in Figure 4.2 below.

Figure 4.2 Harm from a GPL-C&R regime where strong platforms can 'save'



Source: Oxera.

The effects described above reinforce each other, and the regulatory asymmetry exacerbates the existing asymmetry between operators due to differences in size and/or customer preferences. As further explained below, Professor Fabra's model shows that moving from an asymmetric regime where only the 'strong' platforms are able to save, to a symmetric regime (either where all may save or none may save), will be likely to reduce average prices in the market.

This is a very intuitive finding. Since the ability to 'save' gives a platform a stronger competitive position in the market, if strong platforms are allowed to 'save' and weak platforms are not, then the latter will be less able to retain customers, further increasing the gap between strong and weak platforms. In turn, this increased asymmetry reduces the degree of competition and leads to higher prices.

Crucially, we find that these conditions are likely to be present for triple-play services in the UK, which are becoming increasingly popular among consumers. In particular, triple-play operators in the UK are highly dissimilar—in size, offerings and consumer preferences. As discussed above, Virgin and Sky, which are not subject to a reactive save prohibition, supply around ✂ of the triple-play bundles in the UK, with Sky alone serving ✂ of the subscribers.

Particularly in the case of Sky, we consider that its strong position is reflective of a strong consumer preference, given its historical position as the main pay-TV

provider in the UK as well as its control of key content rights and the exclusive content offered in its triple-play bundles.[22]

It is also worth noting that Sky is the fastest-growing supplier of broadband services.[23] This reflects Sky's strong position in triple-play services and the fact that the share of UK households purchasing triple-play services has grown rapidly in recent years; indeed, triple-play is the fastest-growing communication service bundle in the UK.[24]

4.2.1 'Harvesting' and 'investing' effects when platforms are *symmetric*

To further understand the economic effects present in Professor Fabra's model, it is useful to consider the simplified, stylised case where platforms are symmetric (i.e. we assume consumer preferences for one platform over another are the same).

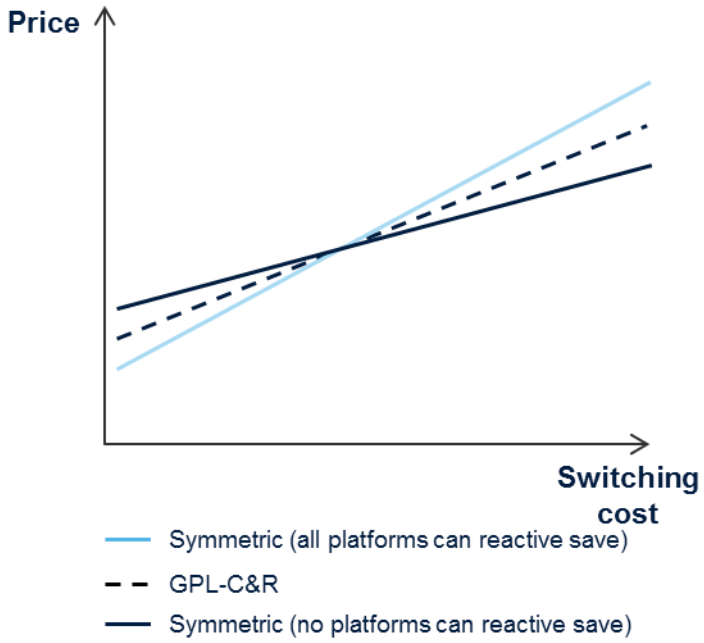
First, it is worth noting that for regimes where more platforms are subject to switching processes that permit saving, prices are more sensitive to the level of switching costs in the sense that, for any given change in switching costs, there is a greater change in prices. The reason for this is that the level of switching costs determines the balance between customers who are likely to switch and who cannot be 'harvested' (of which there are many when switching costs are low) and customers who are unlikely to switch and who can be 'harvested' (of which there are many when switching costs are high).

When many undifferentiated and symmetrical platforms are subject to switching processes that permit saving, and are therefore able to price-discriminate between the two customer types (i.e. those likely to switch and those unlikely to switch), average market prices are more responsive to changes in switching costs. This is because the switching activity at any given level of switching costs acts as less of a constraint on prices in circumstances where price rises can be targeted at non-switchers.

This can be seen in Figure 4.3 below, where a regime that allows all platforms to 'save' has a steeper slope than the GPL-C&R regime (where some but not all platforms can 'save'), which in turn has a steeper slope than the regime where no platforms can 'save'. As a result, of this the curves relating to these regimes cross.

[22] In particular, under the heading 'Sky's strong market position means its content has the potential to impact competition', Ofcom notes that Sky holds 75% of broadcasting rights for live Premier League matches and 'has had a long standing strong position in the supply of retail pay TV services. Even when revenues and supply from the wider triple-play market are taken into account, Sky's share is still around 50%'. '[W]ithout access to this content, competing retailers are likely to struggle to compete for a sizeable and valuable segment of the retail pay TV sector, and therefore would be less able to contest Sky's strong market position in pay TV'. See paras. 1.16–1.19 of Ofcom (2015), 'Review of the pay TV wholesale must-offer obligation'.
[23] In the period 2010–15, Sky's retail fixed broadband share rose by eight percentage points and hence by twice as much as BT's share, which rose by four percentage points. See p. 151 of Ofcom (2016), 'The communications market report', 4 August.
[24] In the period 2010–15, the share of households purchasing triple-play services grew by eight percentage points from 17% to 25%. In the year 2016, this share grew a further three percentage points and is now at 28%. See p. 13 of Ofcom (2016), 'The communications market report', 4 August.

Figure 4.3 Comparison of symmetric and asymmetric regimes in a market with symmetric platforms



Note: The figure above is a stylised diagram for a low discount factor.

Source: Oxera based on Professor Fabra's model.

Moreover, for higher levels of the discount factor there is a stronger investment effect for all regimes, which gives rise to the U-shaped relationship between switching costs and prices that we discussed in the context of the existing literature. This stronger investment effect leads to lower prices for all regimes, but especially for regimes that allow all to save, where platforms are better able to retain existing customers, creating stronger incentives for platforms to invest in the hope of earning future profits.

4.2.2 Results of the model when platforms are *asymmetric*

In order to evaluate the asymmetric GPL-C&R regime relative to the symmetric regimes, we now turn to the more realistic application of the model where platforms are asymmetric.

In particular, things can change substantially once we drop the assumption that platforms are symmetric and assume, in line with market realities, that some platforms have a stronger position than other platforms.

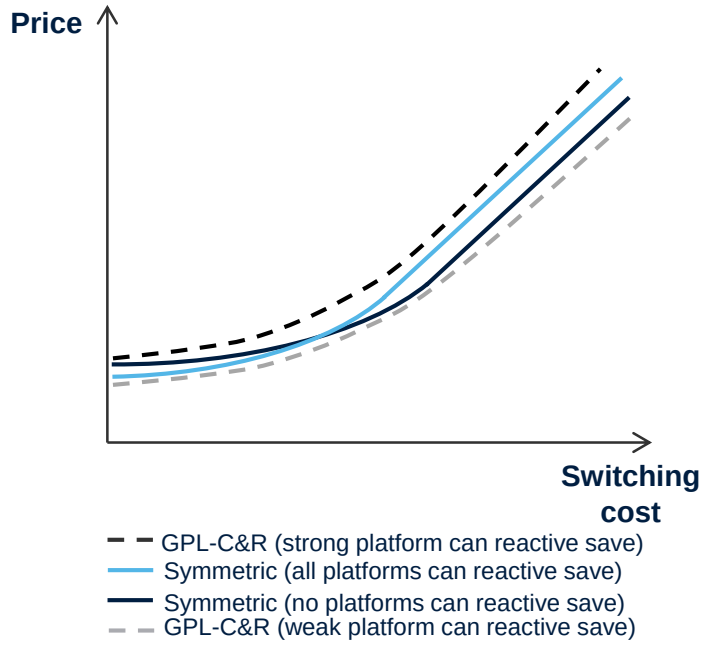
As discussed above, where the asymmetry is such that it is the strong suppliers of triple-play services (in particular Sky and, to a lesser extent, Virgin Media) that are allowed to 'save', consumer harm can arise for two reasons: a) strong platforms 'harvest' more, because they face fewer potential switchers at any given point in time and are able to price-discriminate more effectively through the ability make save offers; and b) weaker platforms 'invest' less because they are not able to engage in 'save' activity, and therefore tend to compete less fiercely and charge higher prices.

As a consequence, competition between triple-play providers is distorted, resulting in higher average prices. On the one hand, the asymmetric regime leads to higher prices than a symmetric regime in which no platforms are allowed to 'save' because in the symmetric case the strong platform cannot

'save' and is therefore less able to 'harvest' its customers. On the other hand, the asymmetric regime leads to higher prices than a symmetric regime in which all platforms are allowed to 'save' because in the symmetric case the weak platform can 'save' and therefore better retain its customers, giving it an incentive to 'invest' and compete more fiercely with the strong platform. This 'investment' effect is particularly strong for high levels of the discount factor.

The impact of these effects is shown in Figure 4.4, where the current asymmetric regime results in the highest average market prices, and moving to a symmetric regime (where either all can save or none can save) will reduce average prices in the market.

Figure 4.4 Comparison of symmetric and asymmetric regimes in a market with asymmetric platforms



Note: The figure above is a stylised diagram that shows a case where asymmetry between platforms is sufficient for prices under the symmetric regimes to be contained between the prices under the asymmetric regimes. As the asymmetry between platforms decreases, the dashed lines converge until they lie entirely between the solid lines in the case of complete symmetry between platforms. The above is based on a low discount factor.

Source: Oxera based on Professor Fabra's model.

4.2.3 Conclusion: symmetric switching regimes are likely to be welfare-enhancing for UK consumers relative to the status quo

Based on the analysis presented above, applying the findings from Professor Fabra's model to the current situation in the UK, we conclude that the status quo for triple-play services in the UK is indeed one in which moving to a symmetric regime is likely to benefit consumers.

In terms of the competitiveness of the market, triple-play operators in the UK are highly dissimilar—in size, offerings and consumer preferences. Virgin and Sky, which are not subject to a regulated switching regime, supply around ✂ of the triple-play bundles in the UK, with Sky alone serving ✂ of the subscribers. This 'strong' position reflects the fact that Sky benefits from a long-standing position as the main pay-TV provider in the UK as a result of its control of key content rights.

Overall, the evidence reviewed in this report indicates that the UK status quo for triple-play services is an asymmetric GPL-C&R regime, in which the strong, established players are allowed to engage in reactive saving while the weaker players are not. Under these circumstances, the model presented in this report predicts that the asymmetric GPL-C&R regime is likely to result in higher average prices than either of the symmetric regimes (where either all can save or none can save). Therefore, abandoning the current asymmetric GPL-C&R regime in the UK would be to the benefit of UK consumers.

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